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TARDAEWETHER Kellen * ODOE

From: Katrina Ward <Katrina.Ward@umatillaelectric.com>
Sent: Thursday, August 15, 2019 12:09 PM
To: B2H DPOComments * ODOE
Cc: Robert Echenrode; Steve Meyers
Subject: [Fortimail Spam Detected] UEC Letter
Attachments: 2019.08.15 B2H public comment letter.pdf

Hello. Please find attached a letter from Umatilla Electric Cooperative regarding the B2H transmission line.

Thank you.

Katrina Ward

Executive Assistant to the CEO



750 W. Elm
PO Box 1148
Hermiston, OR 97838
(541) 564-4388 office
(541) 567-8142 fax
katrina.ward@umatillaelectric.com

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August 15, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy (ODOE)
550 Capitol St N.E.
Salem, OR 97301
Fax: 503-378-6457
B2H.DPOComments@Oregon.gov

Dear Kellen,

Umatilla Electric Cooperative has been an active stakeholder in the planning of the Boardman to Hemingway (B2H) transmission line for several years, and we appreciate the opportunity to comment.

As a power provider in Northeast Oregon, we believe B2H would be an important addition to the Northwest's electrical transmission network. Among its many benefits, it would give Idaho Power more access to our hydropower and other generation to help balance its summer peaking loads with the Northwest's winter peaking loads. It would give wind and solar projects in the intermountain West a connection to the Northwest and California markets.

As an electric utility with a developing economic base, UEC understands the need to provide critical public infrastructure. We appreciate the challenge of finding a route that represents the least impact upon our communities and our environment. In the siting of B2H, Idaho Power has worked with UEC in a responsible and collaborate process to minimize impact to landowners, agencies and high value farmland.

In the public interest, we have engaged with landowners and local, state and federal agencies in "green energy corridor" discussions to find a transmission route through northern Morrow County that would serve our communities for decades to come. Idaho Power has been a key participant in those productive discussions.

As a cooperative of 10,300 individual members, we understand and respect the concerns expressed among some of our members regarding this project. We urge the Energy Facility Siting Council, ODOE and Idaho Power to address those comments with care and diligence.

Thank you, members of EFSC and staff of ODOE, for your ongoing efforts to oversee facilities that help ensure Oregon has an adequate energy supply while protecting public safety and the environment.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Echenrode', is written over a white background.

Robert Echenrode
General Manager and CEO
Umatilla Electric Cooperative

Eric W. Valentine
1712 Alder St
La Grande, OR 97850
evalenti@eoni.com
541-786-3843

August 16, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR 97301

Re: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project, 9/28/2018; Draft Proposed Order

Dear Members of the Council,

You hold the heart of La Grande and Union County in your hands, At the end of the day, your committee and the Idaho Power Company officials go home to places far from La Grande. Yet for decades and decades ahead, your siting decision will continue to reverberate in this community. With that in mind, I raise the following objections to the plan as submitted by Idaho Power.

I. The requirements of OAR 345-022-0080 have not been met. This project, whether it goes above the Grande Ronde Hospital, or through the Morgan Lake area, WILL have a significant impact.

The height and width of these towers cannot be mitigated. If located on the hillside above the Grande Ronde Hospital, the lines will be visible not only from La Grande but throughout the Grande Ronde Valley. They are many times as high as any buildings and foliage in the area, altering the view irreparably for this community.

If the Morgan Lake route is chosen, the proposal erroneously states the transmission lines will be hidden by the pine trees there. First, the pine

From: Eric Valentine <evalenti@eoni.com>
Sent: Monday, August 19, 2019 7:58 PM
To: B2H DPOComments * ODOE
Subject: Re: Geological Hazards and Soil Stability; Exhibit H / Drill site 95/3 and 95/4 on unstable and steep slopes in an active seismic zone

August 19, 2019

**Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301**

Via [EMAIL: B2H.DPOComments@Oregon.gov](mailto:B2H.DPOComments@Oregon.gov)

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Members of the Council:

Re: Geological Hazards and Soil Stability; Exhibit H.

Re: Geologic Hazard Protection - Drill site 95/3 and 95/4 on unstable and steep slopes in an active seismic zone

My comment addresses the danger that construction and operation of an additional transmission line in an active seismic zone presents to the public, both local area residents and travelers on the nearby Interstate 84.

The relevant standard is the 345-022-0020 Structural Standard:

“(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;”

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Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

The construction process is described in detail in 3.9 Mitigation of the Exhibit H of IPC's ASC. Specifically, the area at or near Drill site 95/3 and 95/4 is shown and described on the following tables and maps:

Exhibit H – Attachment H-1 Appendix B Soils Data Tables and Maps by Shannon & Wilson, Inc.: Map page 18 of 44:

Table B3: Soil Descriptions, described as:

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5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. Sheet 3 of 4 Exhibit H – Appendix C: Summary of Proposed Boring Locations:

Map Sheet 36 - Drill site 95/3 and 95/4

Exhibit H – Table C1: Summary of Proposed Borings – Sheet 2 of 8

95/3 – cited for Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 – cited for Angle change along alignment; Road and railroad crossing Exhibit H - Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5,6

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The applicant has not fully described the risks of heavy construction in this area. What mitigation methods would be required to place earthquake resistant towers on unstable slopes, in an active seismic zone, if the area suffered an earthquake of the intensity that formed these slopes.

Special Paper 6, included on the DOGAMI website, describes an extensive study done in 1979 by the Geoscience Research Consultants in Moscow, Idaho and State of Oregon Department of Geology and Mineral Industries on the seismic history of the Blue Mountains and the La Grande area. The introduction of this paper is closes as follows: “In summary, consistencies of structural trends, compatibility of the Blue Mountain folding to backslope faulting in the La Grande area and systematic

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Further in the same paper “The Graves Creek-Rock Creek-Coyote Creek area has the greatest density of faults within the study area. At least six major and several minor northwest-trending faults of the Rock Creek fault system occur in the area (Plate 1). The Graves creek fault can be traced from the eastern edge of Sec. 7, T35S, R37E to the southern boundary of the Hilgard 7 1/2 - minute quadrangle, a distance of about 6 mi (10 km). The Graves Creek fault probably extends farther southeastward beyond the map area. Offset across this fault is 265 ft (80 km) in Sec. 34, T 35S, R37E.”

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DOGAMI recommendations for protection of the Portland’s infrastructure HUB in the secondary flood zone of a possible Cascadia Subduction Fault earthquake/tsunami have been largely unimplemented for lack of funding, as is the ShakeAlert system which, unless funded will not be available in Oregon until 2021 at the earliest. ShakeAlert is an early warning system being developed by USGS.

Oregon made national news when “Governor Brown signed HB 3309, which amended the previous law to no longer prohibit the construction of building such as hospitals and schools and other emergency-preparedness centers in tsunami inundation zones along the coast. The bill had bipartisan support and bucked standards held for twenty-five years keeping those facilities out of harm’s way should a massive tsunami hit.” Wisely, some cities along the coast continue following original DOGAMI assessments and recommendations concerning new infrastructure built away from the inundation zone. How this will impact funding assistance to move the existing schools, hospitals, city halls and emergency services?

Clearly Oregon legislative priorities have moved away from seismic hazard emergency preparedness, but this potential hazard to the area brings with it considerable risks, despite the proposed construction “mitigation” methods. It is within the EFSC’s judgment to decide against adding an additional hazard to the natural and infrastructure hazards the citizens of this area already live with. There are dangers both to human safety and the environment with an additional transmission line in a possibly quite seismic area, so close to the heavily traveled I84 transportation/utility corridor, the Hilgard Junction State Recreation Area and the Grande Ronde river. Further study and subsequent intrusive construction will not reduce the risks to the safety of the travelers through this canyon or the residents of the valley nearby. The application does not comply with the relevant standard.

Remedies:

Additional study of the probable seismic hazards; including ground failure, landslide, cyclic softening of clays and silts, etc. as required by OAR 345-022-0020, Rev. subsection 12. “The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule seismic hazard includes ground shaking, ground failure, landslide, liquefaction, triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction.

Disqualify this route as an unreasonable risk for a site for an additional high voltage power facility and too close in proximity to Hilgard State Recreational Area, and the I84 transportation/utility corridor.

Additional letter of credit dedicated solely for financial restitution necessary to restore potential damage caused by any of the above in an amount sufficient to restore the surrounding environment and infrastructure, both publicly and privately owned.

Thank you for your consideration,

Sincerely,

Eric Valentine
1712 Alder
La Grande, OR 97850

References

Barrash, Warren, John G Bond, John D. Kauffman, and Ramesh Venkatakrisnan, 1980, Geology of the La Grande Area, Oregon: Oregon Department of Geology and Mineral Industries Special Paper 6.

Brown, Jordyn The Register-Guard; July 12, 2019 Oregon's Lawmakers put earthquake, hazard preparation on back burner.

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Ferns, Mark L. McConnell, V. S., Madin, I.P., and Johnson, J.A., 2010 Geology of the Upper Grande Ronde Basin, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 2003-11, 85.0, scale 1:125,000.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy, Energy Facility Siting Council, OAR Amend: 345-022-0020; Structural Standard EFSC 2-2017 Chap. 345, Division 22; General Standards for Siting Facilities. Effective date: 10/18/2017.

Idaho Power Corporation, 2017, Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018, Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Loew, Tracy, Salem Statesman Journal ; June 24, 2019 Oregon Legislature Repeals Tsunami Zone Building Law.

Personius, S. F. Compiler, 202c, Fault number 802a West Grande Ronde Valley fault zone, Mount Emily section, in Quaternary fault and fold database of the United States: U. S. Geological Survey website <http://earthquakes.usgs.gov/hazards/qfault>, accessed 11/16/2016 06:23 PM

Schlicker, H. G. and Deacon R. J. 1971 Engineering Geology of the La Grande Area, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open File Report O-1971-03, 16 p., 1 plate, scale 1;24,000.

forest is not dense enough to hide the lines. Second, the towers will be approximately twice as high as the trees

Morgan Lake is a city park close to La Grande. It receives numerous visitors daily in the spring, summer, and early fall. Campers, fishermen, hikers, birders love the quiet beauty of this park. See attached Ex. A

Idaho Power mis-states that there is only one lake here. There are two, within a quarter mile of each other. The second one is important bird breeding habitat.

This area is more than "pretty." It is pristine and primitive, served only by a narrow, rutted, gravel/dirt road. There is no way that Idaho Power can mitigate the damage its power lines will create to this area. Its scenic values will be totally destroyed. I doubt that Idaho Power executives and shareholders would invest in second, recreational homes whose view was despoiled by power lines in the fashion that Morgan Lake will be damaged.

Cutting down timber, constructing roads across this area, will permanently damage this area. The soil is rocky and dry. The scarring will be long term, not a mere ten years as Idaho Power states.

II. OAR 345-022-0110 requirements cannot be mitigated by Idaho Power. Regardless of the power line route, the project WILL have a SIGNIFICANT adverse effect on the La Grande Public's traffic safety, police and fire protection, health care, and schools.

IPC, under its traffic safety assessment (3.5.5.1) continually uses the word "could" impact. That is totally false. It WILL IMPACT. Sunset drive is not merely the major arterial to the Grande Ronde Hospital and Clinics, it is the ONLY way to get there. Sunset is a narrow street, which only accommodates three normal car widths. This project WILL, not could, "disrupt local traffic due to over sized, skew moving vehicles on smaller roadways and increased vehicular traffic from construction personnel."

The Facilities Siting Council MUST look at the life and death hazards that delayed ambulance and helicopter services due to IPC construction traffic will create. Similar hazards exist to delays to police and fire services to this area.

The La Grande High School, Central Elementary School, and La Grande Middle School are all within less than half a mile of Sunset drive. It will be impossible for Idaho Power to provide any mitigation to student traffic in the area, student bus routes, students walking to and from school.

The noise from the project, whether traffic or construction is impossible to minimize to hospital patients and staff, and to classroom students.

The two routes proposed by Idaho Power are really an exercise in the theater of the absurd. Far west of the city of La Grande and Morgan Lake lie federal land and private grazing land with roads closed to the public.

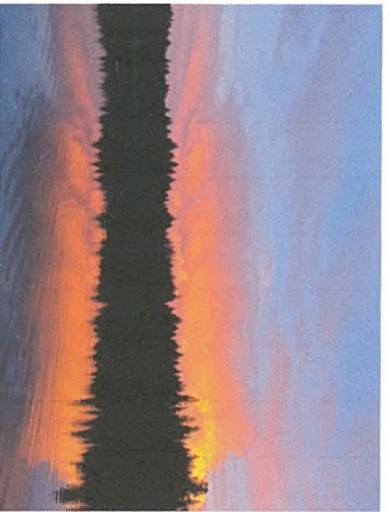
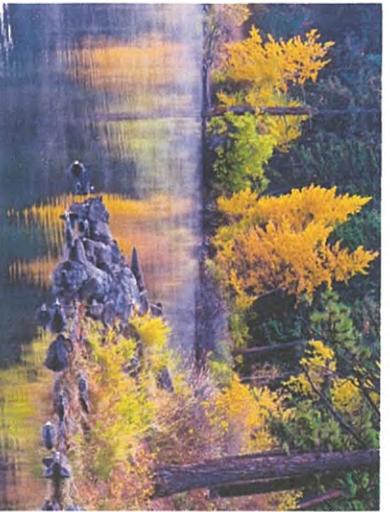
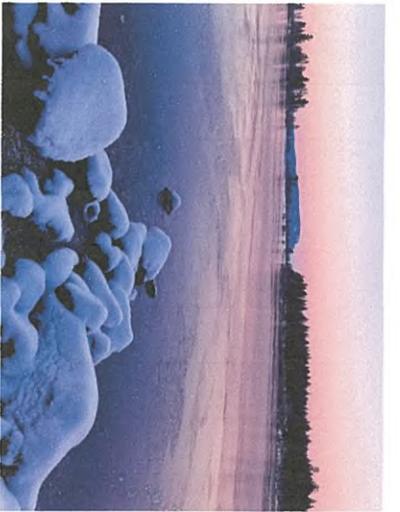
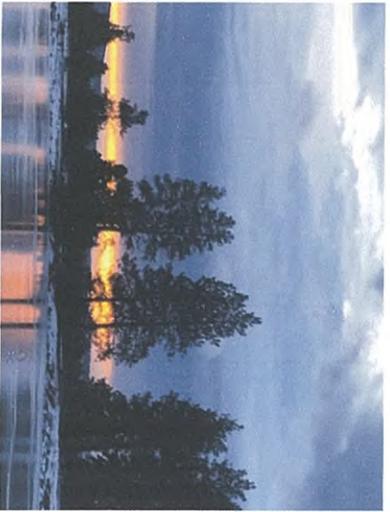
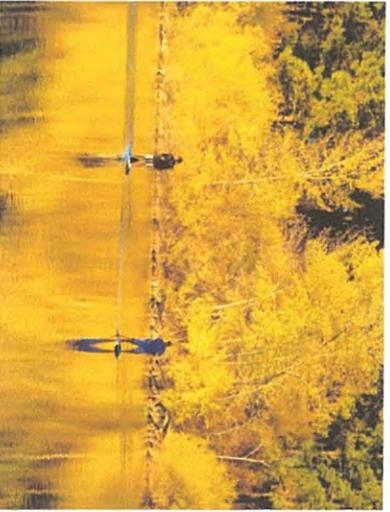
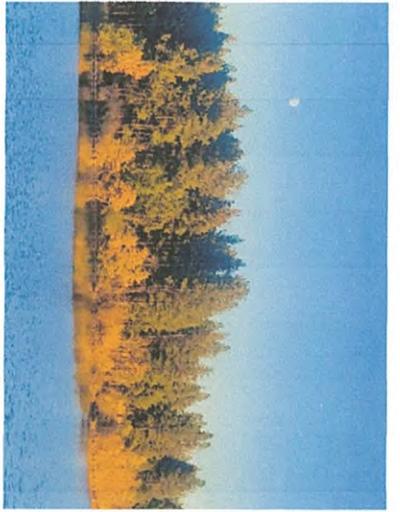
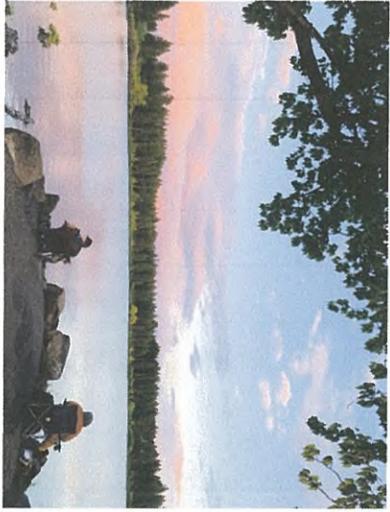
You, as members of the Siting Council, have an obligation to use courageous common sense and deny BOTH these proposed routes. The routes are unconscionable. Should you allow either of these routes, your own conscience will live with the decision that you have destroyed a beautiful community when there was an available, viable alternative.

Please have the courage to do the right thing.

Sincerely,



Eric W. Valentine



TARDAEWETHER Kellen * ODOE

From: Eric Valentine <evalenti@eoni.com>
Sent: Monday, August 19, 2019 7:58 PM
To: B2H DPOComments * ODOE
Subject: Re: Geological Hazards and Soil Stability; Exhibit H / Drill site 95/3 and 95/4 on unstable and steep slopes in an active seismic zone

August 19, 2019

**Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301**

Via [EMAIL: B2H.DPOComments@Oregon.gov](mailto:B2H.DPOComments@Oregon.gov)

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Map Sheet 36 - Drill site 95/3 and 95/4

Exhibit H – Table C1: Summary of Proposed Borings – Sheet 2 of 8

95/3 – cited for Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

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“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data.

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“The West Grande Ronde Valley fault zone may be active. Subtle topographic features indicate that there may have been earthquakes that broke through the ground surface as recently as the last 10,000 years. Previous studies indicate that the West Grande Ronde Valley fault is capable of generating a magnitude 7 earthquake.” From Summary of the La Grande Quadrangle Geology” also on DOGAMI website.

DOGAMI recommendations for protection of the Portland’s infrastructure HUB in the secondary flood zone of a possible Cascadia Subduction Fault earthquake/tsunami have been largely unimplemented for lack of funding, as is the ShakeAlert system which, unless funded will not be available in Oregon until 2021 at the earliest. ShakeAlert is an early warning system being developed by USGS.

Oregon made national news when “Governor Brown signed HB 3309, which amended the previous law to no longer prohibit the construction of building such as hospitals and schools and other emergency-preparedness centers in tsunami inundation zones along the coast. The bill had bipartisan support and bucked standards held for twenty-five years keeping those facilities out of harm’s way should a massive tsunami hit.” Wisely, some cities along the coast continue following original DOGAMI assessments and recommendations concerning new infrastructure built away from the inundation zone. How this will impact funding assistance to move the existing schools, hospitals, city halls and emergency services?

Clearly Oregon legislative priorities have moved away from seismic hazard emergency preparedness, but this potential hazard to the area brings with it considerable risks, despite the proposed construction “mitigation” methods. It is within the EFSC’s judgment to decide against adding an additional hazard to the natural and infrastructure hazards the citizens of this area already live with. There are dangers both to human safety and the environment with an additional transmission line in a possibly quite seismic area, so close to the heavily traveled I84 transportation/utility corridor, the Hilgard Junction State Recreation Area and the Grande Ronde river. Further study and subsequent intrusive construction will not reduce the risks to the safety of the travelers through this canyon or the residents of the valley nearby. The application does not comply with the relevant standard.

Remedies:

Additional study of the probable seismic hazards; including ground failure, landslide, cyclic softening of clays and silts, etc. as required by OAR 345-022-0020, Rev. subsection 12. “The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule seismic hazard includes ground shaking, ground failure, landslide, liquefaction, triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction.

Disqualify this route as an unreasonable risk for a site for an additional high voltage power facility and too close in proximity to Hilgard State Recreational Area, and the I84 transportation/utility corridor.

Additional letter of credit dedicated solely for financial restitution necessary to restore potential damage caused by any of the above in an amount sufficient to restore the surrounding environment and infrastructure, both publicly and privately owned.

Thank you for your consideration,

Sincerely,

Eric Valentine
1712 Alder
La Grande, OR 97850

References

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Brown, Jordyn The Register-Guard; July 12, 2019 Oregon's Lawmakers put earthquake, hazard preparation on back burner.

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Ferns, Mark L. McConnell, V. S., Madin, I.P., and Johnson, J.A., 2010 Geology of the Upper Grande Ronde Basin, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 2003-11, 85.0, scale 1:125,000.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy, Energy Facility Siting Council, OAR Amend: 345-022-0020; Structural Standard EFSC 2-2017 Chap. 345, Division 22; General Standards for Siting Facilities. Effective date: 10/18/2017.

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Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018, Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

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Personius, S. F. Compiler, 202c, Fault number 802a West Grande Ronde Valley fault zone, Mount Emily section, in Quaternary fault and fold database of the United States: U. S. Geological Survey website <http://earthquakes.usgs.gov/hazards/qfault>, accessed 11/16/2016 06:23 PM

Schlicker, H. G. and Deacon R. J. 1971 Engineering Geology of the La Grande Area, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open File Report O-1971-03, 16 p., 1 plate, scale 1;24,000.

ESTERSON Sarah * ODOE

From: Gretchen Valido <gbvalido@yahoo.com>
Sent: Thursday, August 22, 2019 4:37 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: B2H.DPOComment 8-22-2019.docx

August 22, 2019

Energy Facilities Siting Council
Attn: Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR 97301

Via Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

Dear Chair Beyeler and Members of the Council:

I am writing in opposition to Idaho Power's proposed 305-mile Boardman to Hemingway (B2H) 500kv Transmission line across Eastern Oregon. I urge you to reject Idaho Power's application for a Site Certificate for this unnecessary, outdated, risky transmission line.

Arguments against the line include negative impacts to the historic and beloved Oregon Trail, to agricultural lands, to forests and threatened wildlife habitat, recreation, tourism and open spaces, social infrastructure, and the environment. Oregonians value these resources and recognize their importance to our quality of life. Another factor is long-term financial impacts to ratepayers who will bear the burden of higher consumer electric rates to pay for this unneeded, expensive project.

I cite a specific concern about transmission line and utility equipment failure causing wildfires. The Western wildfires of 2017-2018 were horribly destructive to public infrastructure as well as personal property. With Climate Change we will see increasingly hotter summers, more powerful storms, and drier forests over the lifetime of this B2H into 2070 and beyond. How can we best plan now for what lies ahead? We must not underestimate the intensifying danger that the Climate Crisis portends over fifty years into the future. As we lose swaths of forests and wildlife habitat to fire in Eastern Oregon, all of Oregon hurts.

Transmission lines have already sparked massive fires in California and other western states, causing cascading losses and legal battles. It is probable wildfires will occur—how many times?—over the lifetime of B2H. A responsible B2H transmission line proposal would factor in the cost of damages from wildfires as part of the projected cost of providing electricity—damage to transmission line infrastructure and private property, loss of lives, loss of business revenue, loss of forests and wildlife, and loss of landscape carbon sequestration. Who will bear the costs of wildfire if the cause is due to the B2H transmission line or related utility equipment failure? How many times will the transmission line need to be repaired or rebuilt, at what cost? Who will

replant lost forests? Insurance rates will inevitably rise or be unavailable at all as risks of wildfire rise due to impacts of the Climate Emergency, and such escalating costs must be factored into a B2H project proposal. Has Idaho Power made externalized costs transparent in their B2H financial model?

In addition to the above-referenced objections, like the vast majority of Oregonians, what is occupying my thoughts these days is the Climate Emergency and how Oregon must be part of the solution. The public is increasingly alarmed about Global Warming. They understand we must have a massive, swift and fleet shift to a carbon-free, high-renewables electric future, in which the marginal cost of energy will no doubt approach zero, and homes become power plants. Wholesale markets are rapidly opening up to battery storage. Utilities must anticipate they will need to alter rate design. So we already know the future will look very different, and old models like the dangerous, risky, liability-laden B2H transmission line must be scrapped before an expensive mistake is made with so many negative impacts on many constituencies.

“Who knows what the world will be like in 20 years?” ~ Ahmed Farugui, Principal, Brattle Group

Constructing a 500kV transmission line based on a financial model going out 50 years+ is unrealistic and irresponsible, considering how fast the electricity market is innovating, with utilities barely wrapping their heads yet around developments in renewables, long duration energy storage, smart grids, micro-grids, DR, DER, home energy management technology, and efficiency opportunities.

“People do not get excited about rates, they get excited about what rates enable them to do, whether it is lowering their bills or protecting the Climate.” ~ Andre Ramirez, Senior Adviser for Pricing Design and Research, Southern California Edison

One can predict that next generation, disruptive technology along with savvy customer engagement would likely leave B2H a stranded asset, with ratepayers stuck on the hook while investors demand their return on investment—which is highly unfair, unnecessary, and outmoded, last century thinking. Idaho Power must get on board with future thinking/planning. A rejection of their Site Certificate application will push them in a better, smarter direction while being more responsible to ratepayers and the planet.

We know this: utilities today have an exciting, dynamic future and customers will increasingly demand smart innovation that meets their concerns. B2H would have a limited, dangerous future and just must not be built.

Considering the points above, Idaho Power cannot comply with state standards, nor with what the future demands. Therefore EFSC must deny the Site Certificate.

Sincerely,

Gretchen Valido
19681 Ridgewood Drive
Bend, OR 97703

August 22, 2019

Energy Facilities Siting Council
Attn: Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR 97301

Via Email: B2H.DPOComments@Oregon.gov

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Considering the points above, Idaho Power cannot comply with state standards, nor with what the future demands. Therefore EFSC must deny the Site Certificate.

Sincerely,

Gretchen Valido
19681 Ridgewood Drive
Bend, OR 97703

ESTERSON Sarah * ODOE

From: Christy Varner <cdv@bakercitylaw.com>
Sent: Thursday, August 22, 2019 4:17 PM
To: B2H DPOComments * ODOE
Cc: 'Andrew Martin'
Subject: Boardman to Hemingway Transmission Line - Ernst and Georgeann Dorn /Dorn Enterprises, Inc
Attachments: 190822.Ltr to ODOE-1.pdf
Importance: High

August 18, 2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301
B2H.DPOComments@Oregon.gov

RE: Boardman to Hemingway Transmission Line
Ernst and Georgeann Dorn /Dorn Enterprises, Inc
Malheur County, Detail Map #125

ATTACHED please find a copy of the letter from Ernst & Georgeann Dorn for your attention. If you have any questions or concerns please call.

Thank you.
Christy

Ernst & Georgeann Dorn
453 Palos Verdes Dr. W
Palos Verdes Estates, CA 90274

Christy Varner
Legal Secretary

Intermountain Law, PC
3370 10th Street, Suite H
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Ernst & Georgeann Dorn
453 Palos Verdes Dr. W
Palos Verdes Estates, CA 90274

August 18, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301
B2H.DPOComments@Oregon.gov

RE: Boardman to Hemingway Transmission Line
Ernst and Georgeann Dorn /Dorn Enterprises, Inc
Malheur County, Detail Map #125

B2H EFSC PROPOSED ORDER MISINTERPRETS MALHEUR COUNTY CODE 6-3A-2(A)(14) AND APPLICANT FAILED TO INCLUDE ALL EFU LANDS FOR PURPOSES OF 215.275 ANALYSIS

Idaho Power failed to properly analyze and consider the impact of the proposed facilities on parcels of land that include both high value farm land and range land. In addition the clear language of Malheur County Code 6-3A-2(A)(14) states that commercial facilities for generating electrical power or transmission towers over 200' ft are NOT permitted on Exclusive Farm Use (EFU) lands outright contrary to the finding on page 184.

ORS 215.275 and Malheur County Code Goal 3 require that transmission lines avoid adverse impacts on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmlands. Of particular concern is that the applicant has sited the facilities on private land/parcels having high value farm land and affecting farming practices while avoiding BLM property where the facility would have absolutely no impact on farming and ranching activities.

The failure to include all required land in the analysis results in a lack of compliance with the requirements of OAR 345-021-0010(l)(k) and OAR 345-022-0030. Due to this omission, the council cannot find the developer in compliance with ORS 469.504 or ORS 197.646 or OAR 345-022-0030.

The applicant states, "Several of the agricultural areas in the project area are zoned a combination of rangeland and farm use. Based on discussions with DLCD, IPC did not consider such hybrid zoned lands to be EFU lands for purposes of the ORS 215.278 analysis." This statement is not DOCUMENTATION as required for the application to be complete. There is no indication of who spoke with whom on what date, and nothing to document that the action actually occurred. Following is documentation taken directly from the LCDC rules that the combination zones are EFU and are required to be included in the ORS 215.278 analysis as well as the dictionary, IRS and FDA definitions of farm use which are consistent with the LCDC definition.

LCDC defines Exclusive Farm Use Zone in ORS 215.203(2)(a) as “farm use” means **the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof.----**”

Oxford Dictionary defines “farming” as “The activity or business of growing crops and raising livestock”

The Internal Revenue Service defines “farm” as “includes stock, dairy, poultry, fruit, furbearing animal, and truck farms, plantations, ranches, nurseries, ranges, greenhouses or other similar structures used primarily for the raising of agricultural or horticultural commodities, and orchards and woodlands.”

The FDA defines “farm” as “an establishment under one ownership in one general physical location devoted to the growing and harvesting of crops, the raising of animals (or seafood), or both”
A failure to include all farm land in completing the requirements of ORS 215.275 means the applicant is not in compliance with OAR 345-022-0030 which is required in order to issue a site certificate or determine whether or not the application meets the standards. This understatement of farm lands is especially problematic due to the decision *Friends of Parrett Mountain v. Northwest Natural Gas Co.*, 336. iOr. 93, 108 (2003) requiring the determination to be “reasonable” meaning fair proper, just, moderate or suitable under the circumstances”. This transmission line is being sited on a far greater percentage of agricultural private land in counties where the public land includes a much greater percent of the total lands in the counties. The omission of most agricultural lands from the 215.275 analysis also means that the stated percentage of total farm lands being taken from the counties is significantly understated.

EFSC LACKS AUTHORITY TO APPROVE CONSTRUCTION OR MODIFICATION OF ROADS OR OTHER DEVELOPMENT OUTSIDE THE SITE BOUNDARY FOR THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE.

The Oregon Department of Energy and Energy Facility Siting Council span of control for approving development is limited to the area within the site boundary. In order to be covered under the site certificate, roads or other construction must be included in the site boundary. The decision regarding whether or not to include these areas in the site was made by the developer. They chose to limit the area of the site to exclude some of the roads they planned to modify or build. Due to this decision, these areas must be approved through the local county or city planning process. They do not fall under the rules contained in OAR 345-022-0030.

Prior decisions and a contested case decision by the Energy Facility Siting Council support the above, for example: The Oregon Department of Energy and Energy Facility Siting Council allowed Wheatridge Wind Development to not include the gen-tie transmission line in the site certificate.

That decision gave control of the gen-tie line, roads and other actions related to building the transmission line to the contractor and the developer and removed the Oregon Department of Energy and Energy Facility Siting Council from involvement.

Definitions contained in the Oregon Statutes and EFSC Rules clearly define the area which is controlled by the site certificate.

1. A site certificate by definition contained in ORS 469.300(26), ORS 469.401(4) and ORS 369.503(3) means “the binding agreement between the State of Oregon and the applicant, authorizing the applicant to *construct and operate a facility on an approved site*, incorporating all conditions imposed by the council on the applicant.”
2. The “site” is defined in ORS 469.300 as “any proposed location of an energy facility and related or supporting facilities.”
3. ORS 469.300 also defines “Related or supporting facilities” as “means any structure, proposed by the applicant, to *be constructed or substantially modified* in connection with the construction of an energy facility, including associated transmission lines, reservoirs, storage facilities, intake structures, road and rail access.-----”
4. ORS 469.401(4) and ORS 369.503(3) state that the council does not have jurisdiction over matters that are not *included in and governed by the site certificate* or amended site certificate.

In construing a statute, you may not “insert what has been omitted, or ***omit what has been inserted.” ORS 174.010.

The area of EFSC control of modifications to existing roads or development of new roads is also contained in counsel standards contained in OAR 345-001-0010 including:

5. (54) “Site” as defined in ORS 469.300. “Energy facility site” means all land upon which an energy facility is located or proposed to be located. “Related or supporting facilities site” means all land upon which related or supporting facilities for an energy facility are located or proposed to be located.
6. (55) “Site boundary” means the perimeter of the site of a proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant.”
7. (56) “Site certificate” as defined in ORS 469.300.” “means the binding agreement between the State of Oregon and the applicant, authorizing the applicant to *construct and operate* an energy facility *on an approved site*, incorporating all conditions imposed by the state on the applicant.”

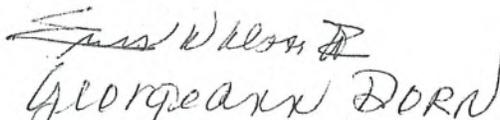
The above definitions, particularly the definition of “site certificate” in the statute clearly limit the extent of the Oregon Department of Energy and Energy Facility Siting Council evaluation and control to activities occurring on the “site” as defined in the above rules and statutes and impacts those development activities occurring on the site have on the surrounding area. Any modifications to road segments or new roads which are not included in the site boundary are outside the jurisdiction of the Energy Facility Siting Council. The site certificate cannot authorize exceptions to local or state land use goals or plans in order to approve development outside the site.

The applicant claims on Page K-216 of their application that the access roads and other such facilities outside the site boundary are related and supporting facilities. Since the applicant chose not to include these facilities in the site certificate, they are not related or supporting facilities. The Energy Facility Siting Council and the Department of Energy made this very clear in the contested case decision regarding the developer's choice not to include the gen-tie line in the site for the Wheatridge Wind Facility. That decision was incorporated into the Final Order for Wheatridge Wind Facility issued April 2017. For example: Page 1, Line 10 states "A site certificate is a binding agreement between the State of Oregon and the applicant, authorizing the applicant to design, construct, operate, and retire a facility on an approved site, incorporating all conditions imposed by the Council on the applicant" In the footnotes on that page there is additional comment relating to this issue, "On the record of the public hearing, Ms. Gilbert/FGRV requested that the Council impose a condition restricting construction and construction impacts to the area within the site boundary. In response, on the record of the June 6, 2016 public hearing, the applicant stated that a specific condition limiting impacts to within the site boundary should not be required as this limitation is self-implementing through approval of the site boundary and site certificate. The department generally agreed with the applicant's statement. Construction activities must be restricted to areas within the site boundary, which as defined at OAR 345-001-0010 means the perimeter of the site of the proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors. Once issued, the site certificate becomes a binding, contractual agreement between the certificate holder and the State of Oregon, which authorizes the certificate holder to design, construct, operate and retire a facility only on an approved site, incorporating all conditions imposed by the council."

The applicant's reference to OAR 660-006-0025(4)(q) applies only to transmission lines. The applicant's reference to 215.283(1) talks to dwellings related to farm use. These arguments are moot since decisions regarding the roads or any other construction activities outside the site boundary are not included in the site certificate.

Please contact me if you have any questions.

Sincerely,


Georgeann DORN
Ernst & Georgeann Dorn

TARDAEWETHER Kellen * ODOE

From: deb vencill (via Google Drive) <vencilldeb@gmail.com>
Sent: Monday, August 19, 2019 3:21 PM
To: B2H DPOComments * ODOE
Subject: [Fortimail Spam Detected] slope-fire-La grande-CD.docx
Attachments: slope-fire-La grande-CD.docx

vencilldeb@gmail.com has attached the following document:



slope-fire-La grande-CD.docx



Due to the risks of significant harm to our neighborhood and community with the Idaho Power proposal, We urge you to deny certification. Sincerely, Al and Deb Vencill

Google Drive: Have all your files within reach from any device.

Google LLC, 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA



August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

Name:

Address:

La Grande, OR. 97850

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

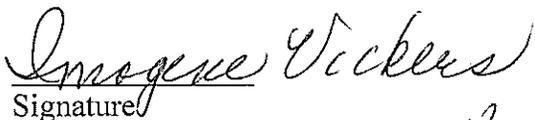
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**



Signature

Printed name: Imogene Vickers

Mailing address:

1304 Oak St.
La Grande, OR 97850

Email address:

phone number: (optional)

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

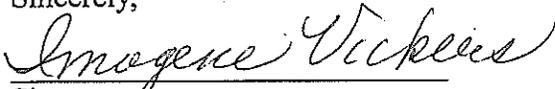
Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name:

Mailing Address:

Imogene Vickers
1204 Oak St
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

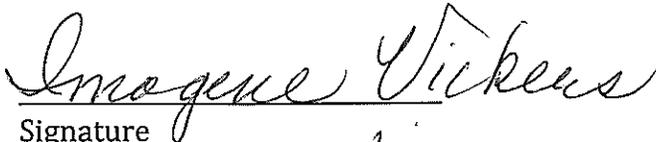
IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means “the perimeter of the site of a proposed energy facility, it’s related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant” (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, “Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.” The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,



Signature

Imogene Vickers

Printed Name:

Mailing Address:

1204 Oak St.
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Josh Votaw <votaw99@gmail.com>
Sent: Thursday, August 22, 2019 12:52 PM
To: B2H DPOComments * ODOE
Subject: Energy Facilities Siting Council
Attachments: Letter.pdf

Please find attached my letter of opposition to the Boardman to Hemingway Transmission Project!!

Thank you and if you have any questions please let me know.

Regards,

Josh

August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. I have a family home on Morgan Lake Drive and regularly visit there with my family. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

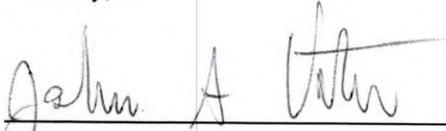
Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Joshua Votaw

Address: 60202 Morgan Lake Drive, La Grande, OR 97850

PLEASE RETURN THIS FORM TO THE COUNCIL ASSISTANT

*See reverse for tips on giving testimony

ENERGY FACILITY SITING COUNCIL (EFSC)

Date: 6/20/19 Location: La Grande
REGISTRATION FOR PUBLIC COMMENT

Name: Robert P. Wadlinger

Address: PO Box 1376, La Grande, Or. 97850

I represent (if applicable) _____
Print your name OR your organization/business name.

Send me future notifications about Council meetings via email.

My email address is: _____

I wish to address the Energy Facility Siting Council and/or

I wish to submit the following written comment:

Worked 34 years in construction. So with much
experience, I find it is very unwise to construct lines.
Land is very unstable, reminds me of the Minam Grade
where the highway allways have to be reconstructed.
Towers will need much construction for the footings.
There will be rocks rolling down the hill. Will also
need rock protection. Many homes will be destroyed.
The blasting will be dangerous.

PLEASE NOTE: If there are a large number of speakers, it may be necessary to limit the amount of time each speaker is allowed.

This is a safety Issue!!!!



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Robert P. Wadliayec

Mailing Address (mandatory) 1402 - 1376
La Grande, Or. 97856

Phone Number (optional) (541) 963-3289 Email Address (optional) _____

Today's Date: June 20

Do you wish to make oral public testimony at this Hearing: Yes _____ No

Written comments can also be submitted today. Totally against

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

The land is unstable
Totally against it

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

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well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

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Sincerely,

Ground is unsafe for construction



Signature

Printed Name: *Robert P. Wadlinger*

Mailing Address:

PO Box 1376

La Grande, Or. 97850

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

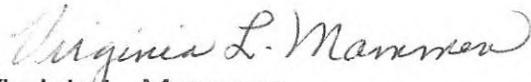
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁵	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

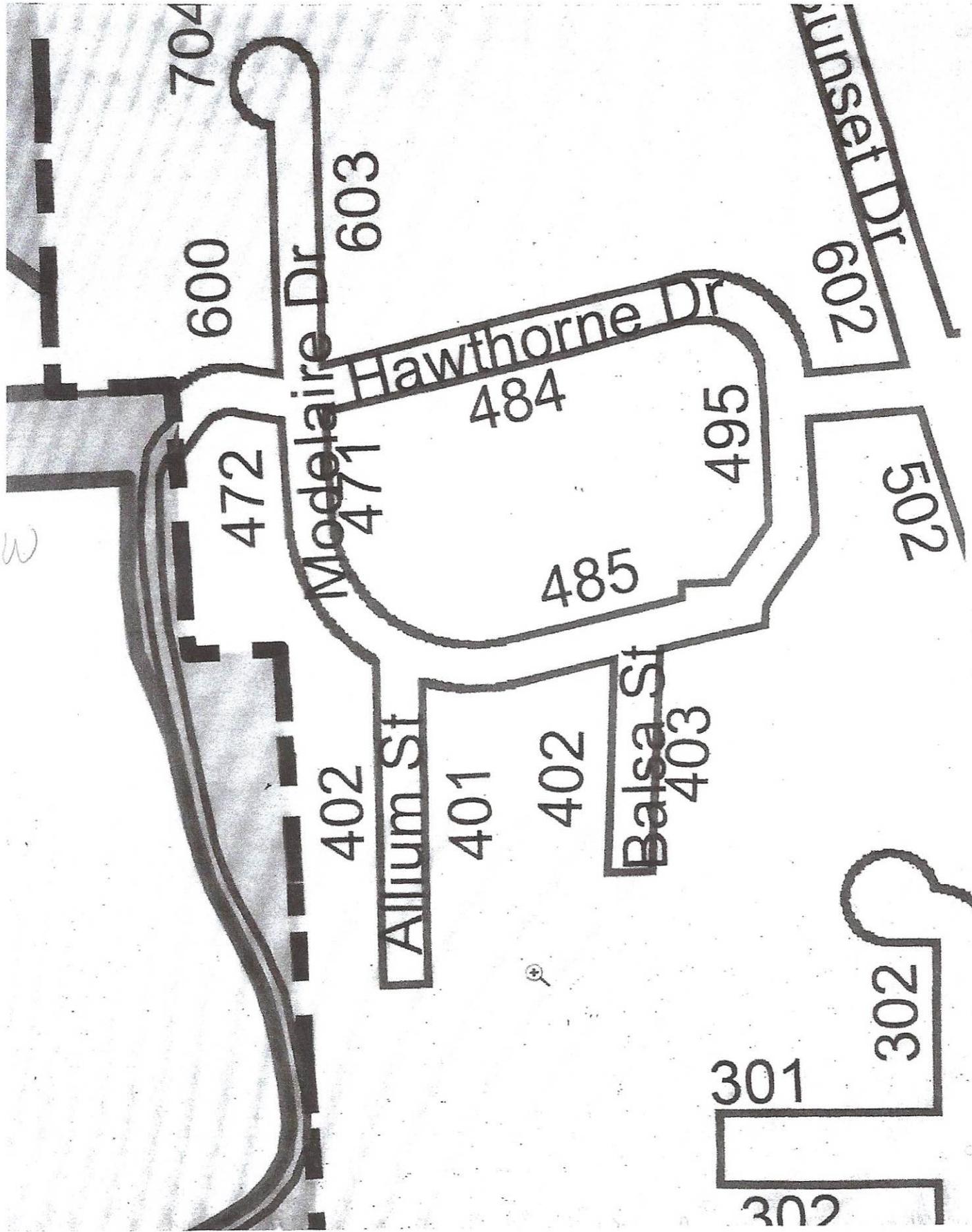
The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

N



W

E

S

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
from the City of La Grande
Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	<p>proposed helipad is a necessary supporting facility.</p> <p>The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some</p> <p>To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K:</p> <p><i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i></p> <p><i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASG Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i></p> <p><i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i></p> <p><i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i></p> <p><i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i></p>
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103 **IV. CONCLUSIONS**

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106
107 **V. ORDER AND CONDITIONS OF APPROVAL**

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118
119 **VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS**

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132
133 **VI. OTHER PERMITS AND RESTRICTIONS**

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE
Public Works Director
City of La Grande
Public Works
 Ph: (541) 962-1325
 Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K





attachment U2

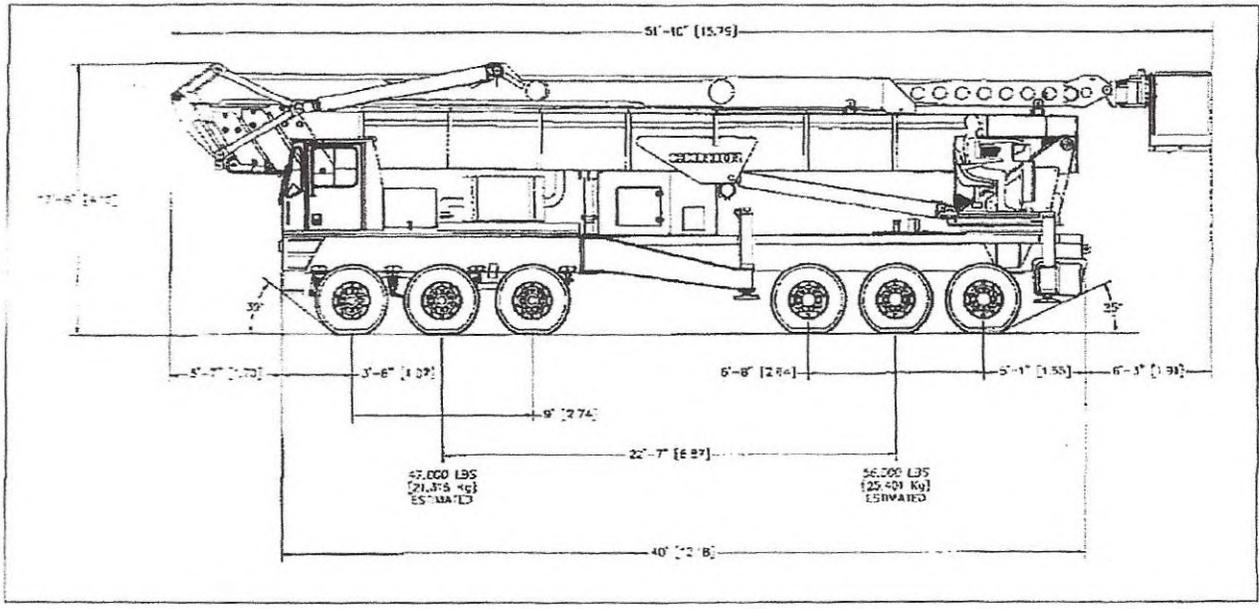


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

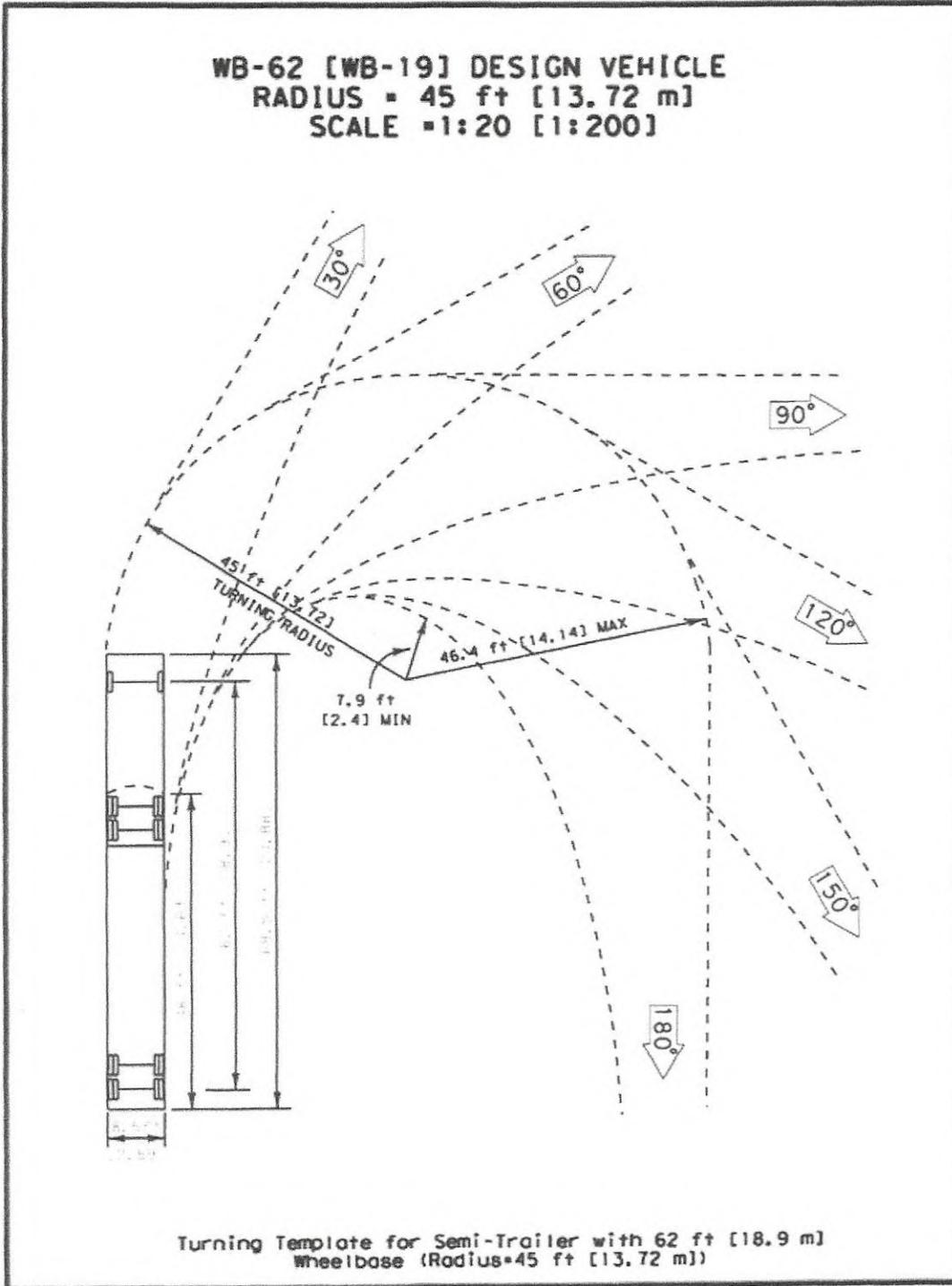


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

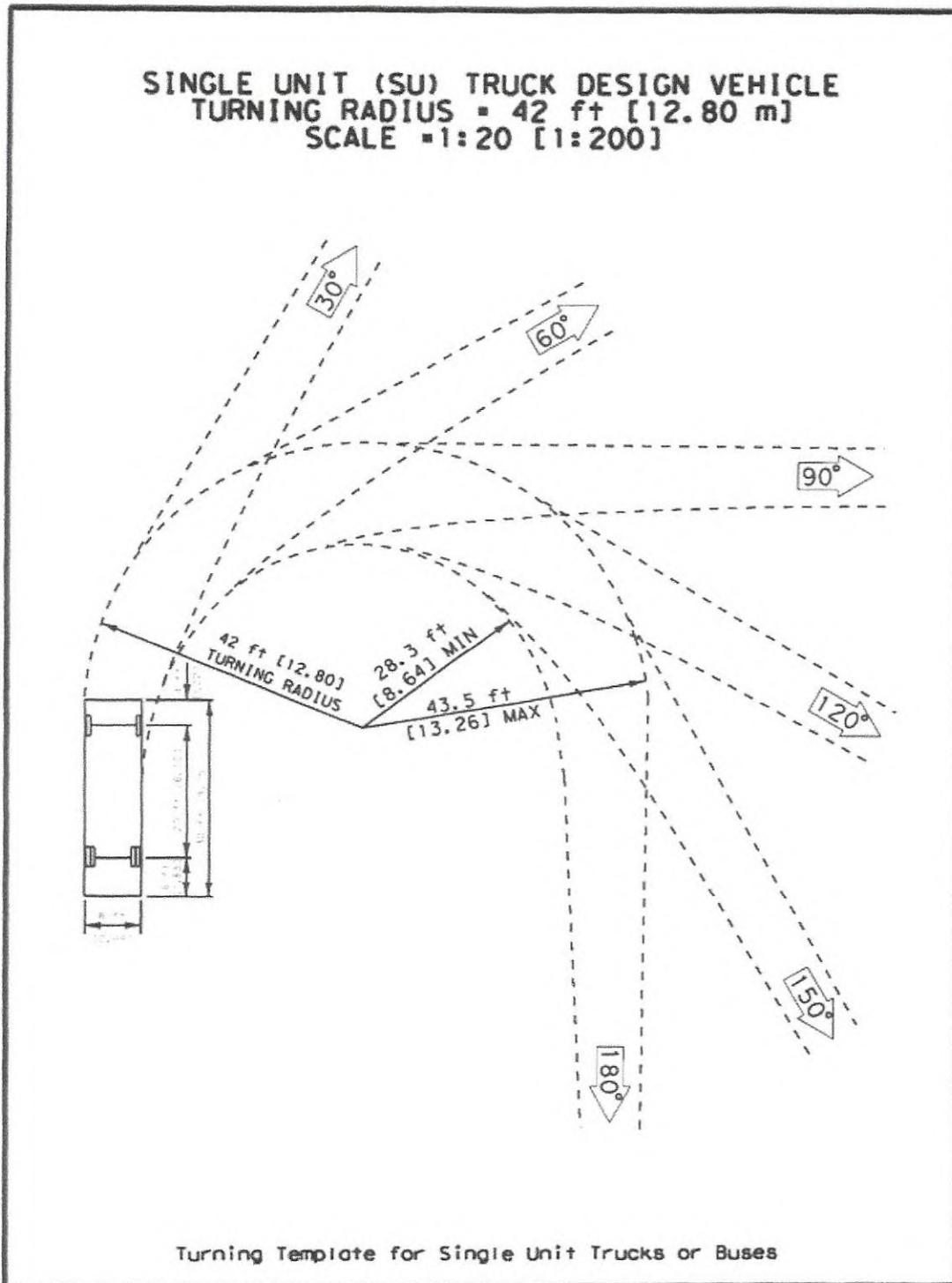


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

Section 17. TRUCK ROUTES

- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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Marie Skinner

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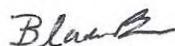
marieskinner@hotmail.com

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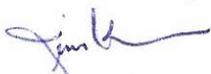
Blake Bars

1101 G Ave La Grande

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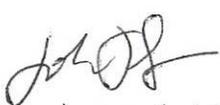
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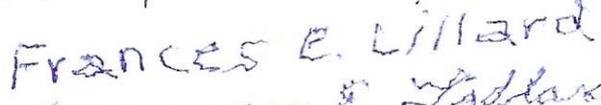
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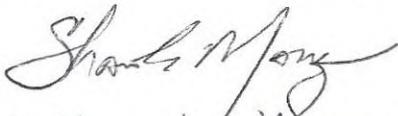
SIGNATURE 
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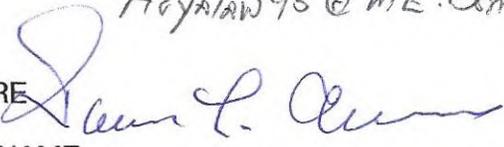
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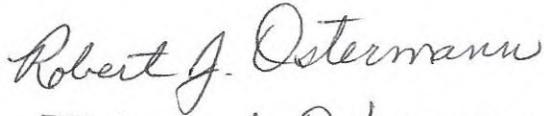
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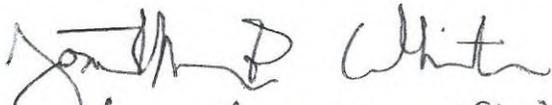
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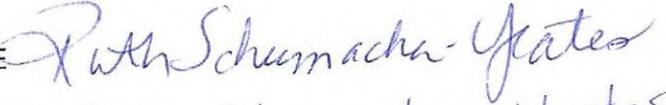
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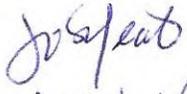
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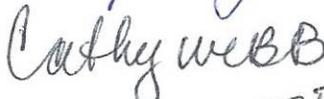
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

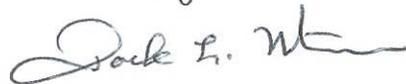
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
PRINTED NAME LOIS BARRY
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EMAIL loisbarry31@gmail.com

SIGNATURE 
PRINTED NAME CATHY WEBB
ADDRESS 1708 CEDAR ST. LAGRANDE, OR 97850
EMAIL thunkski@gmail.com

SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

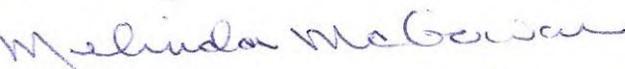
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 GILCREST DRIVE LA GRANDE, Ore 97850
EMAIL 

SIGNATURE 
PRINTED NAME Jean RAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jraph19@gmail.com

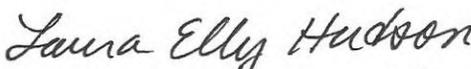
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SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL Sexton.damon@gmail.com

SIGNATURE 
PRINTED NAME Coy Sexton
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SIGNATURE 
PRINTED NAME Melinda McGowan
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SIGNATURE 
PRINTED NAME Keith D. Hudson
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EMAIL Keithdhudson@gmail.com

SIGNATURE 
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL rlwd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
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SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
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EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

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SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
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SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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SIGNATURE *Bert R. Frewing*
PRINTED NAME Bert R. Frewing
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EMAIL jeanfrewing@gmail.com

SIGNATURE *Lindsey McCullough*
PRINTED NAME Lindsey McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 209 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL merlecomfort@gmail.com

SIGNATURE *Robin I. Maille*
PRINTED NAME Robin Maille
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EMAIL rmaille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Bekeler Ln - La Grande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 Nth St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande, OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

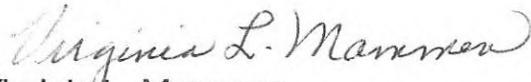
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁵	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

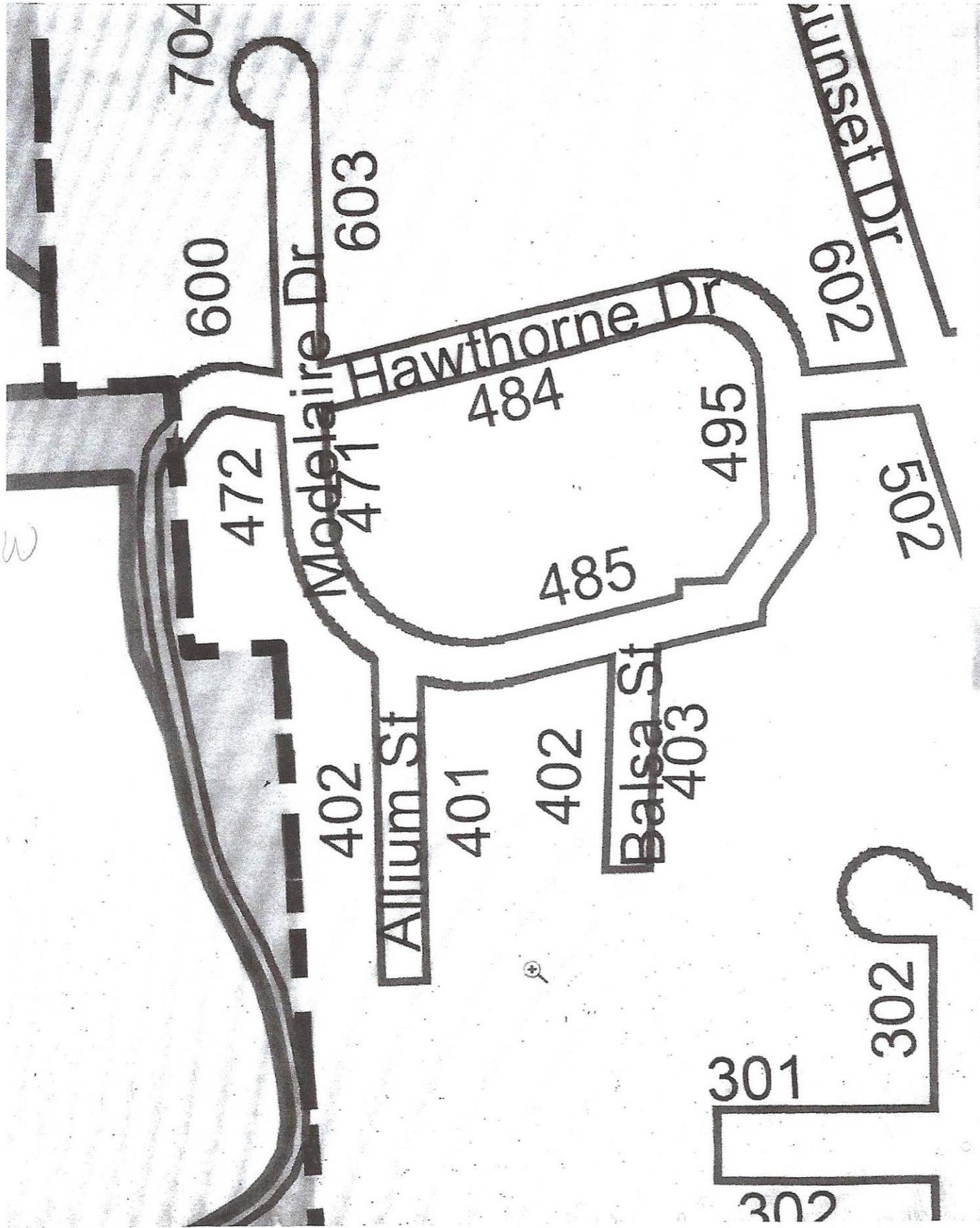
The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

N



W

E

S

Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	proposed helipad is a necessary supporting facility.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekele Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <u>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</u> a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASG Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department; b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic. <u>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</u>
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103 **IV. CONCLUSIONS**

104 Based on the Findings of Fact above, the Planning Commission concludes that the application meets the
105 requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

106
107 **V. ORDER AND CONDITIONS OF APPROVAL**

108 Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as
109 requested, subject to the following Conditions of Approval:

- 110 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is
111 developed to a residential standards and is not designed to support commercial traffic.
- 112 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for
113 residential purposes, shall be removed and replaced with City standard improvements that exists
114 adjacent to such areas.
- 115 3. There is a storm sewer line extending through the project area that shall to be protected. Any
116 improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works
117 Director.

118
119 **VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS**

- 120 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid
121 Conditional Use Permit requested by the deed holder shall be considered in accordance with the
122 procedures of the Land Development Code as though a new Conditional Use Permit were being applied
123 for.
- 124 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-
125 of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any
126 work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the
127 most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for
128 Construction Manual."
- 129 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process
130 and in advance of development to coordinate and obtain required building, plumbing, electrical and/or
131 mechanical permits. All required permits shall be acquired in advance of construction.

132
133 **VI. OTHER PERMITS AND RESTRICTIONS**

134 The applicant and property owner is herein advised that the use of the property involved in this application
135 may require additional permits from the City of La Grande or other local, State or Federal Agencies.

136 The City of La Grande land use review, approval process and any decision issued does not take the place of,
137 or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or
138 conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants
139 or restrictions imposed on this property by deed or other instrument.

140 The land use approvals granted by this decision shall be effective only when the rights granted herein have
141 been exercised and commenced within one (1) year of the effective date of the decision. In case such right
142 has not been exercised and commenced or an extension obtained, the approvals granted by this decision
143 shall become null and void. A written request for an extension of time shall be filed with the Planning
144 Department at least thirty (30) days prior to the expiration date of the approval.



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

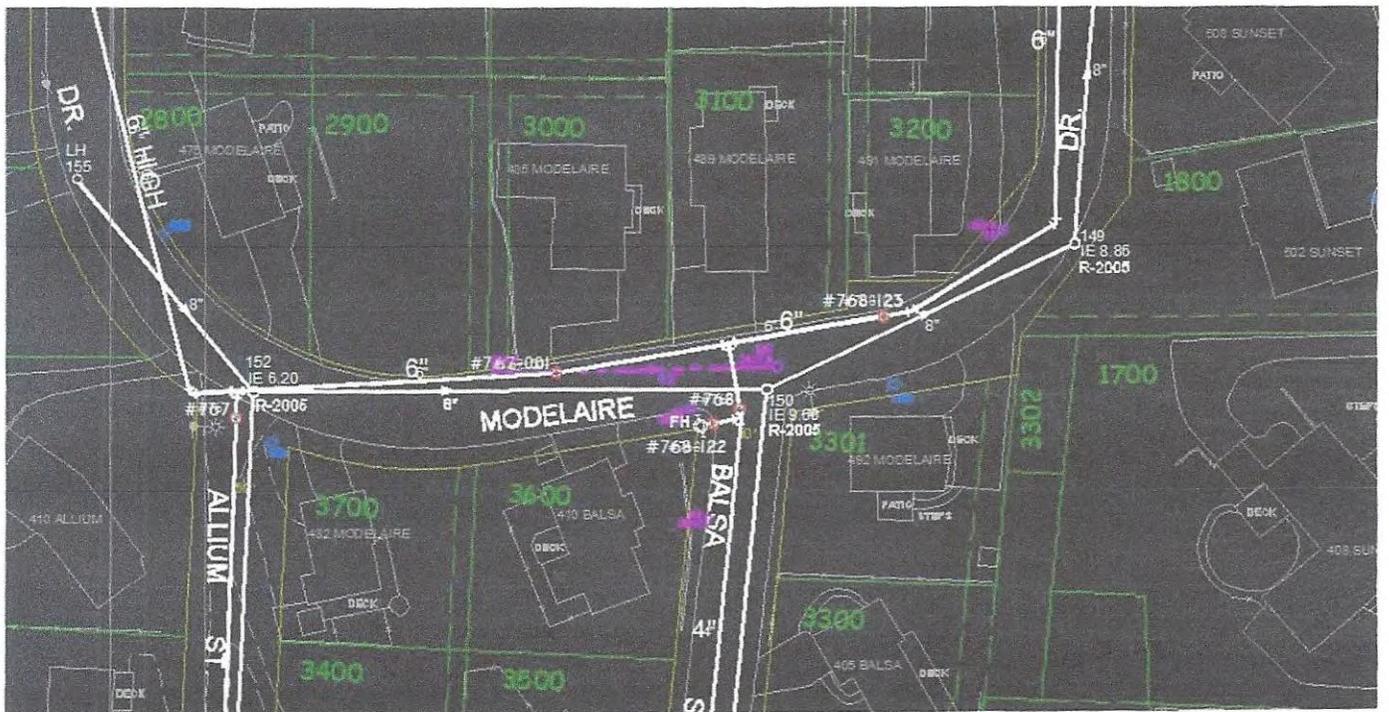
Kyle Carpenter, PE
Public Works Director
City of La Grande
Public Works
 Ph: (541) 962-1325
 Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K





attachment U2

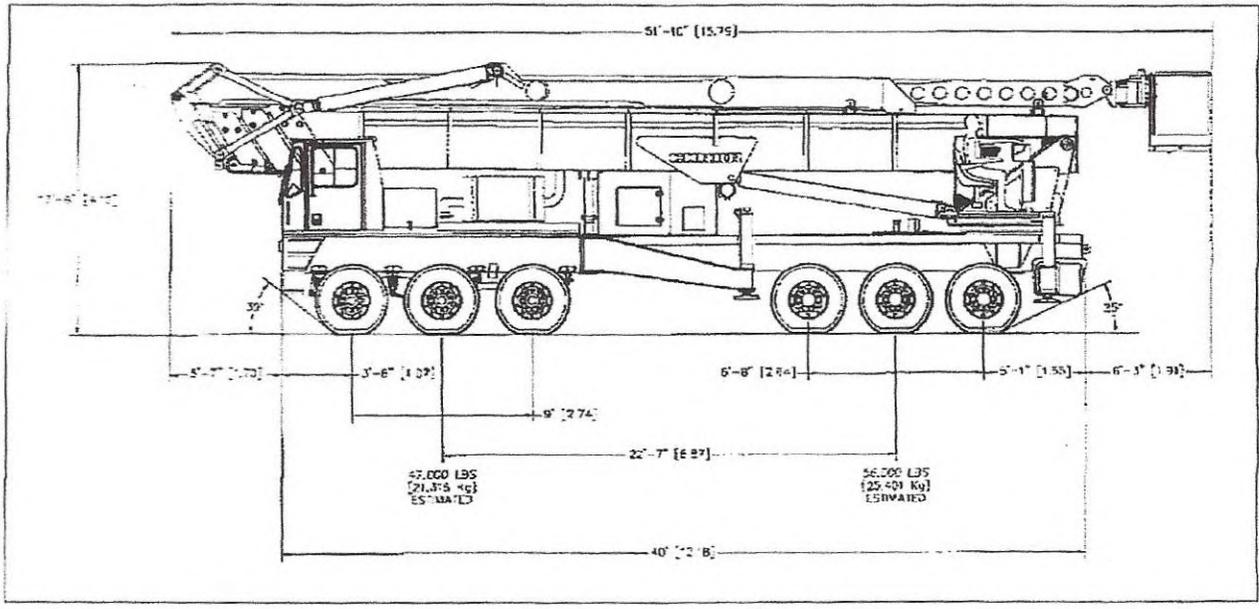


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck trips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

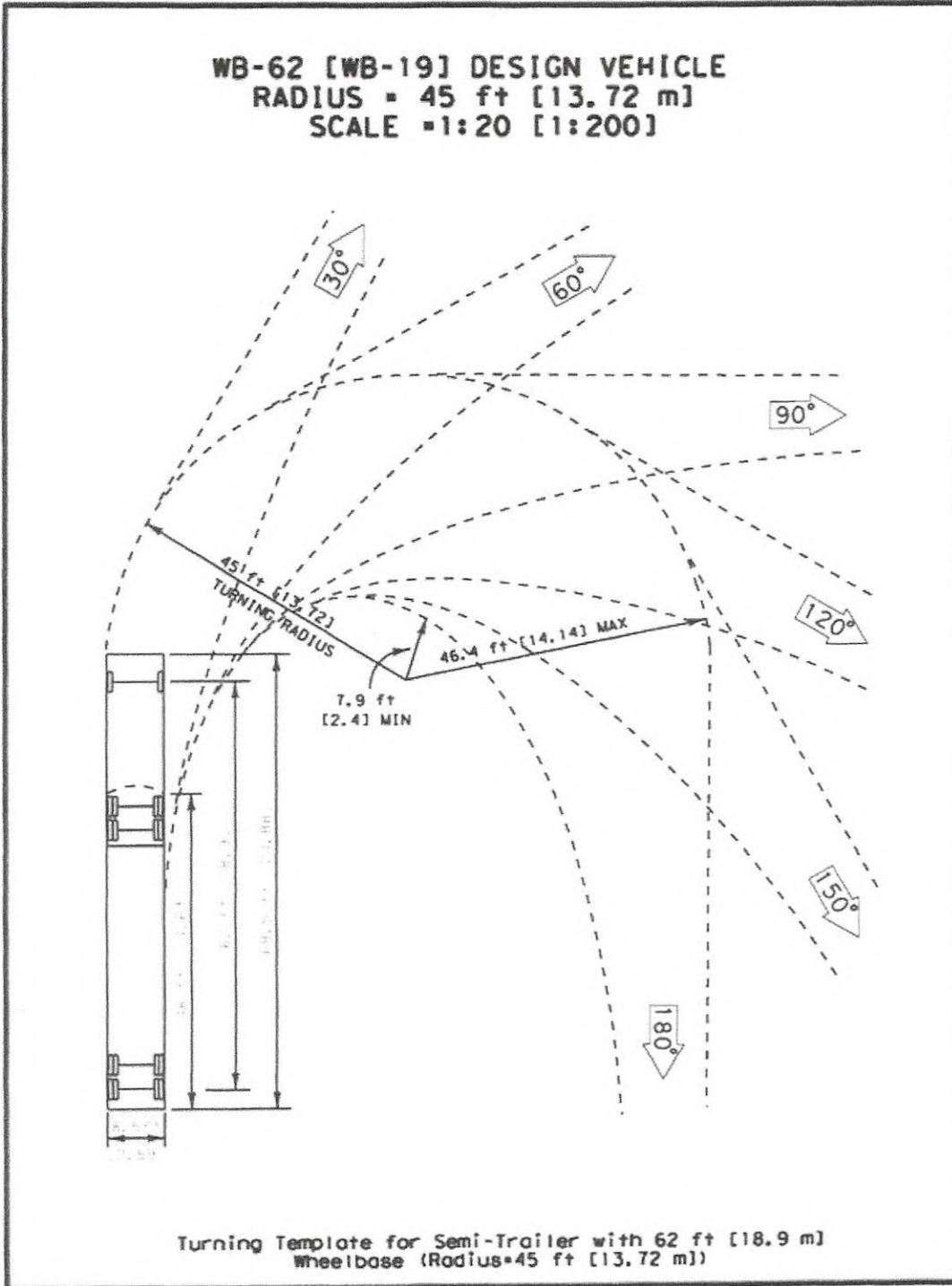


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

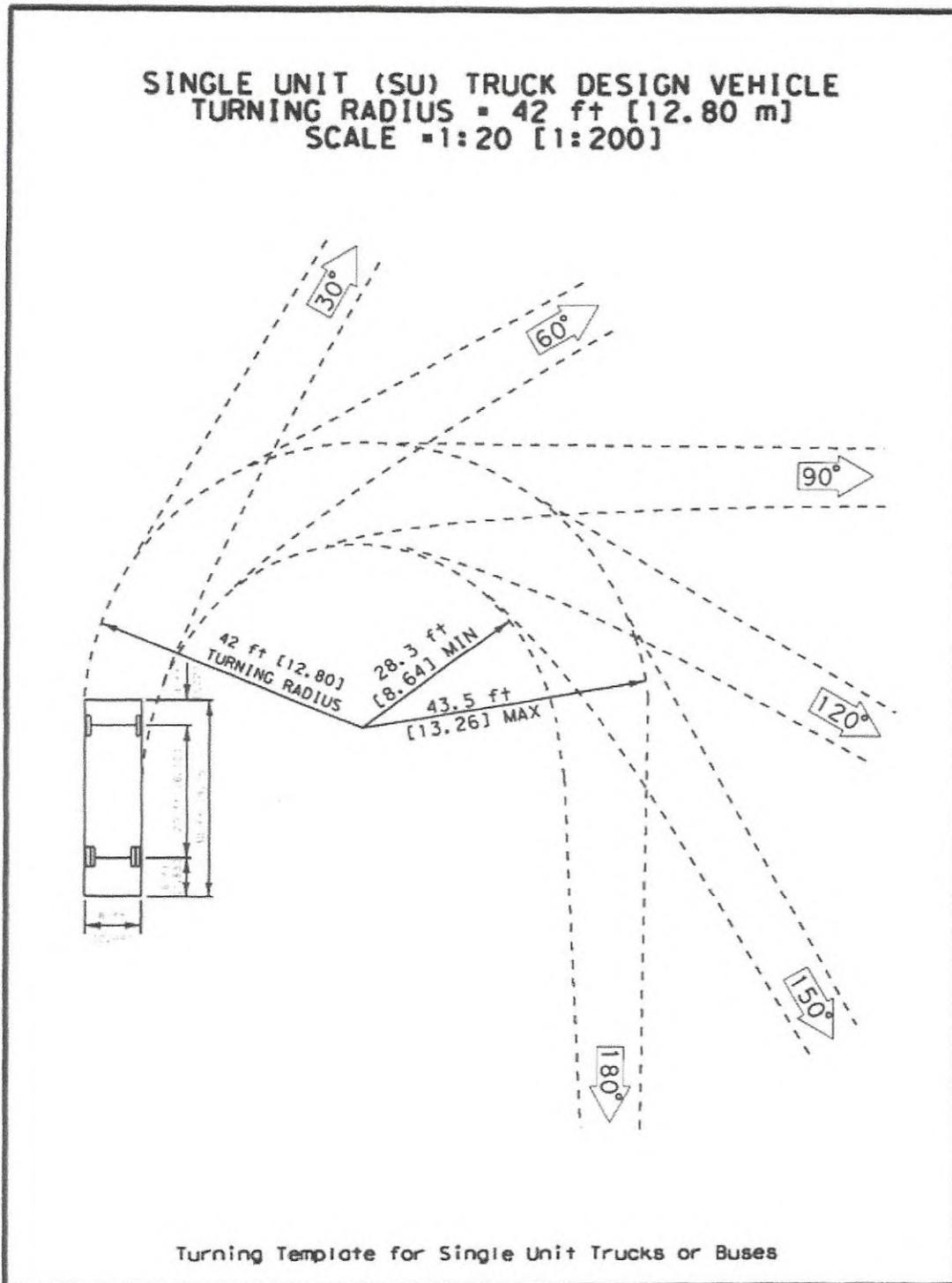


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

Section 17. TRUCK ROUTES

- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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PRINTED NAME

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d.janehowell@gmail.com

SIGNATURE



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Lisa Waldrop

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475 Modelaire Dr.

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ldjw62@gmail.com

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PRINTED NAME

BRIAN D. WALDROP

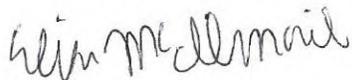
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mcilmail@kattmail.com

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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL



Jessie Huxell

472 Modelaire Dr. LaGrande OR 97850

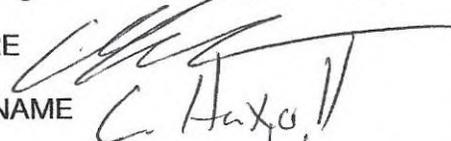
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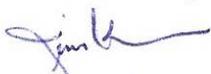
Blake Bars

1101 G Ave La Grande

blakebars@gmail.com

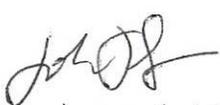
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SIGNATURE 
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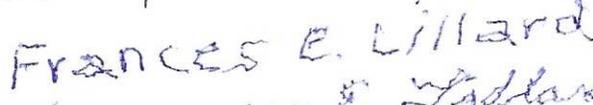
SIGNATURE 
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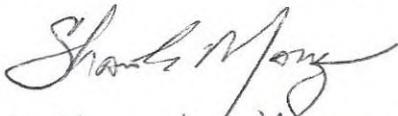
SIGNATURE 
PRINTED NAME Frances E. Lillard
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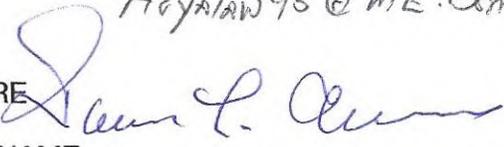
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PRINTED NAME M. Jeannette Smith
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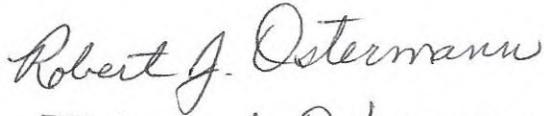
SIGNATURE 
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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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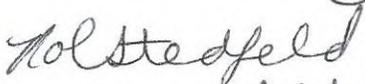
SIGNATURE 
PRINTED NAME Linda M. SNYDER
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PRINTED NAME Robert J. Ostermann
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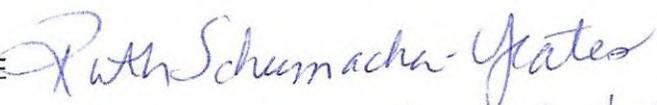
SIGNATURE 
PRINTED NAME Robin J. Ostermann
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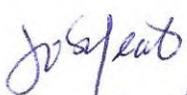
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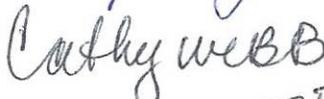
SIGNATURE 
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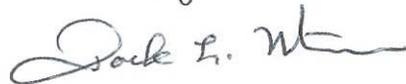
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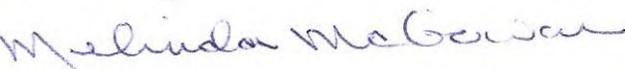
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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
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SIGNATURE *Lynn Wheeler Duncan*
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EMAIL asherer@frontier.com

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SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
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SIGNATURE *Carol S. Summers*
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
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EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande, OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: sophy@tjfanghua.com
Sent: Friday, June 14, 2019 1:15 AM
To: B2H DPOComments * ODOE
Subject: communication tower/transmission tower/lighting pole tower/bionic tree tower you need and good price

Dear manager

Have a good day!

Glad to get your information in the internet.

We are manufacturer of communication tower,transmission tower,bionic tree tower,light tower,integrated base station and solar energy support.

And We have long been cooperating with ZTE and exporting to many countries.

We would like to take this opportunity to introduce our company and product,with the hope that we may work together in future!

If you to see more items,Pls visit our website.

Should any of these items be of interest to you, please let us know. We will be happy to give you a quotation upon receipt of your detailed requirements.

Look forward to hearing from you soon.

Tanks&B.regards

Ms.Sophy Wang

Sales Manager

2019-06-14

sophy@tjfanghua.com

Marketing Manager



Tianjin Fanghua Communication Engineering Co.,Ltd

ADD:Fengze Four Road 8,Balitai Town, Jinnan District, Tianjin ,China300350

Tel :+86-022-28676887 | Fax +86-022-28676888 | Mobile :+86 13820107591

Email: sophy@tjfanghua.com

Website : www.tjfanghua.com

Our Alibaba Store : <https://tjfanghua.en.alibaba.com/>

ISO:9001:2008 ,20 Years Manufacturing Experience,Supplying ZTE , CHINA TOWER COMPANY , STATE GRID

PLEASE RETURN THIS FORM TO THE COUNCIL ASSISTANT
*See reverse for tips on giving testimony

ENERGY FACILITY SITING COUNCIL (EFSC)
Date: 6/20/19 Location: La Grande
REGISTRATION FOR PUBLIC COMMENT

Name: Jeri Watson

Address: 1906 Foley St, La Grande, OR

I represent (if applicable) _____
Print your name OR your organization/business name.

Send me future notifications about Council meetings via email.

My email address is: cookwefase@com.com

I wish to address the Energy Facility Siting Council and/or

I wish to submit the following written comment:

PLEASE NOTE: If there are a large number of speakers, it may be necessary to limit the amount of time each speaker is allowed.

Page 142

1 But historically, like I said, the Oregon
 2 Trail, we have to consider it. We have got the
 3 procurement of land, and apparently no letters were
 4 offered for the initial route before anybody had a
 5 chance to respond. And now this new thing comes in and
 6 we all get a surprise.
 7 I think a lot of people have a lot more to say
 8 about this than me; so I'm just going to yield back my
 9 time.
 10 HEARING OFFICER WEBSTER: Thank you.
 11 Following Irwin Smutz, we have Jeri Watson,
 12 and then I don't know if Idaho Power wants to -- okay.
 13 So then we will hear from Idaho Power after that.
 14 MR. IRWIN SMUTZ: My name is Irwin Smutz, and
 15 I live at 59074 Foothill Road. My ranch borders the
 16 game refuge. I have got two oil lines, two gas lines,
 17 and two fiberoptic lines, and the power line that, I
 18 think your alternative route, I think the preferred
 19 route is going to be just above that power line.
 20 I have two concerns: One of them is the fire
 21 danger. That present power line set a fire a few years
 22 ago close to Ladd Canyon. The people that ran the power
 23 line, a long distance line, failed to keep the brush cut
 24 underneath the line, and the tree grew up and that line
 25 arced and started a fire.

Page 143

1 Also, in the site, the area where they are
 2 going to put the proposed power lines through that you
 3 are talking about is in an unstable area. My dad went
 4 up and checked the cows when I was a boy, and he got up
 5 to this real steep unstable area, and the ground had
 6 shifted because of another line that came through, an
 7 oil line, it shifted, and this pipe came out, out of the
 8 ground 5 or 6 feet in the air and made a bend.
 9 Fortunately, it did not break, or oil or gas or whatever
 10 they put through that, would have ran down the hill.
 11 Well, this proposed power line is going
 12 through that area where that shift was. They cut
 13 through shale type ground, and they kind of loosened the
 14 thing up. So that's a thing that really kind of
 15 concerns me. Of course, we have a lot of game of all
 16 kinds, we border the game refuge.
 17 But I would just like to share that this is
 18 one problem that you would have. The building site
 19 where all my buildings are on the ranch there are down,
 20 of course, at the bottom of the hill, and I guess the
 21 building site where my buildings are slid off the top of
 22 the mountain some time in prehistoric history. And the
 23 geologist out there told Dad, I guess the rest of it
 24 will stay up there. But that line is going to be going
 25 right across that unstable land.

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1 And also it was kind of hinted at by another
 2 speaker, where the hospital is, that is really unstable,
 3 too. They had to put in a huge amount of cement to try
 4 to keep that thing from shifting, the new building that
 5 they put there at the hospital.
 6 The site that my house is on is also shifting.
 7 I have a board fence and they have all pulled away from,
 8 in places they have pulled away from the posts because
 9 the building site is going down the hill. Well, that is
 10 a thing that you are dealing with on the power line
 11 going through that area.
 12 So I just really appreciate you listening to
 13 me, but I am concerned. These people have serious
 14 concerns, it makes a really big difference. You can put
 15 these things through and they'll pay so much a foot to
 16 go through and then you put up with it for the rest of
 17 your life.
 18 Just an example, I went to put some fence
 19 across all those pipe lines, and somebody came out and
 20 told me I was not allowed to put any steel posts in the
 21 fence going across that because some of the, I guess the
 22 fiber optic lines or something were only underneath the
 23 line about 4 inches they said.
 24 So I really appreciate you folks listening.
 25 And I just wanted to share that with you. I have had

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1 quite a bit of experience on things coming through my
 2 land, and it does have everlasting consequences once
 3 these things go through.
 4 Thank you very much.
 5 HEARING OFFICER WEBSTER: All right. Jeri
 6 Watson.
 7 MS. JERI WATSON: Hello. Long day. I really
 8 appreciate you all being here. And I'm Jeri Watson,
 9 J-e-r-i, W-a-t-s-o-n, and I live at 1906 Foley Street in
 10 La Grande.
 11 I've been here for about 40-some years. And I
 12 moved here, I came from a city in California called
 13 Torrance, and I moved here to teach school, knowing that
 14 I wouldn't make the kind of salary here that I would
 15 make in places that I was capable of going. I'm not
 16 trying to be modest, but I'll just give you an idea of
 17 my qualifications. I could teach, I'm certified in
 18 special ed, high school, elementary school, I speak
 19 three languages; one being Spanish. The others are
 20 Japanese and obviously English. I was at the top of my
 21 class at University of Southern California, and I really
 22 could have gone anywhere if money was important to me.
 23 Enough money to get by is important.
 24 But my folks didn't want me to come here.
 25 They said, You can't eat the scenery. But I live every

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1 day. I have seen things like, I saw a newborn elk
 2 nursing off its mom on the hillside outside of my house.
 3 I could live my whole life someplace in a city and not
 4 have those experiences.
 5 So I really want to see this power line not
 6 come through here because, one, I think it will partly
 7 ruin things most certainly. I care more about kids than
 8 anything, and it will certainly make our major outdoor
 9 park that's wild inaccessible to them during the summer
 10 when they are able to go there. And I don't know how
 11 many summers that road to Morgan Lake will be really
 12 difficult to use. It is a difficult road. If you
 13 haven't experienced it, you should.
 14 One of the teachers I taught with one time was
 15 coming down in the summer, and his wheel caught, it gets
 16 really muddy even this far from the edge. And his wheel
 17 caught in that mud and got stuck and he rolled down into
 18 that valley down there. And he moved his house, he
 19 moved his family, he had kids, and he decided that road
 20 was too dangerous for his family to be up there in the
 21 wintertime. So it's not a good road, and I'm concerned
 22 about the damage that will be done to it.
 23 The other thing is that I am one of those that
 24 believes that the technology is such that there are
 25 other ways to meet this demand that is proposed,

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1 perceived in Idaho. And I do believe that Idaho Power
 2 is doing the best job that they can do, as being
 3 financially responsible for their ratepayers and their
 4 shareholders. They are looking for the cheapest way to
 5 do this.
 6 But there is all kinds of wealth, and one of
 7 the kinds of wealth we have is a world that is viable.
 8 A world that's not too hot and not too cold. And the
 9 alternative energy, things we have, like solar and
 10 water, are so perfect for the area that they want to
 11 serve, but it does cost more. So in order for it to not
 12 cost more, they are going this route.
 13 But I would like all of us to look a little
 14 larger. I have all the kids I taught who are now having
 15 children of their own. The kids I first taught, when I
 16 first came here, some of them are grandparents now. I
 17 came here because I care about connections. I care
 18 about people and I care about animals and I care about
 19 connections, and I want the human race to go on for a
 20 while.
 21 And I think that doing everything we can to
 22 make that happen is incumbent upon all of us, even
 23 though we have different ideas of what that might be.
 24 I am hoping that as a government agency -- you
 25 know, world edification under Franklin Roosevelt's

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1 program where it was federally instituted, brought us
 2 great wealth. And I believe that we can keep some of
 3 that wealth. But we can't keep going to provide
 4 electricity in the ways that we have, because -- I mean,
 5 the water is renewable from the dams. But the coal
 6 production and so forth, no, we have got to have other
 7 ways, or my grandchildren and your grandchildren, they
 8 are not going to have the kind of world we have.
 9 And you people are government employees, and
 10 because people have so many different ideas about who
 11 should cut what and this is what I can do so that you
 12 can do -- oh, you're traveling around the world. Well,
 13 that's a lot of carbon footprints. So we all have these
 14 different things.
 15 So it's time for government, for you guys to
 16 stand up and say, Is this really a good idea? Not just
 17 for this community, but is it really necessary to do
 18 this kind of power, to cause this kind of fire danger?
 19 I know I'm kind of rambling here, and I didn't
 20 have much time to prepare anything. But I was down in
 21 Santa Rosa after the fire, I think it was 2015, I was
 22 down there in January, and I saw -- my friend lived very
 23 close to the devastated area in the town of Santa Rosa.
 24 And I camped in Napa Valley and came over through Rincon
 25 Valley, which was burned up.

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1 I used to think when I looked on the news and
 2 I saw that one house there and everything else that was
 3 burned around it, and I looked at that one house and
 4 thought, boy, were those people lucky. But when I got
 5 to Sonoma County, and I saw that, and I saw the one
 6 house remaining, and there is just charred foundations
 7 everywhere, and chimneys, that's all that was there, and
 8 I saw that one house that was standing, and I realized
 9 they are not lucky. Everybody they were connected to is
 10 gone. Most of their neighbors have a sign up to try to
 11 sell their property. But who wants to buy it?
 12 So we have to take care of the future. We
 13 have to mitigate fire danger. And this place here is
 14 too dry to take on any more risk. Please help us out
 15 here.
 16 Thank you.
 17 HEARING OFFICER WEBSTER: Thank you.
 18 Mr. Stokes.
 19 MR. MARK STOKES: Good evening, everybody.
 20 It's getting late. Chair Beyeler, Vice Chair Jenkins,
 21 City Council member, staff, good evening. My name is
 22 Mark Stokes. I'm an engineering project leader for
 23 Idaho Power Company. My address is 1221 West Idaho
 24 Street, Boise, Idaho 83702.
 25 MR. DAVE STANISH: I'm Dave Stanish, also with

Sunday, August 4, 2019

Jeri Watson
1906 Foley St
La Grande, OR
97850

Energy Facilities Siting Council
c / o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project

Dear Chair Beyler and Members of the Council

I am writing to the Council to point out the failure of the applicant to adequately address the seismic, geologic, and soil hazards of the site as required by OAR 345-022-0020 (1) (a). The Structural Standard 345-022-0020 requires a certain level of analysis for the site as a whole. The standard requires, as well, a more discreet survey for the site of each individual tower. The applicant has failed to meet the required standard for the tower sites located between mile posts 105 and 113

The proposed route crosses an active earthquake fault within a mile of the regional medical center (see Application Exhibit H pg. H12). From this point at mile post 105 through milepost 113 the line follows the active West Grande Ronde fault zone. This route traverses well documented existing slide areas (Schlicker and Deacon (1971))

The application references work by Geotechnical Engineers | Environmental Scientists Shannon and Wilson (Exhibit H Attachment H-1 Appendix E) Shannon and Wilson state "the Cascadia Subduction Zone (CSZ) interplate events have the potential to produce the largest magnitude earthquake, up to 9.0 magnitude. However, this earthquake source is located at a distance of 280 miles or more from the proposed site boundary." They conclude by saying "Seismic shaking from a CSZ interplate event would attenuate over this distance and would therefore not represent the most significant earthquake hazard for the proposed facility. Crustal faults, which typically produce earthquakes of a maximum magnitude of 7.0, are located in much closer proximity to the proposed alignment and therefore represent the most significant seismic hazard to the proposed facility." (B2H-Draft Proposed Order pg. 69) I believe Shannon and

Wilson underestimate the impact of CSZ on this project. By looking at the Department of Geology and Mineral Industries (DOGAMI) Geo Hazards vuer at <https://gis.dogami.oregon.gov/maps/hazvu/> and limiting to the Cascade Earthquake Hazard the impact of the CSZ on the West Grande Ronde Fault can be more clearly seen. Shannon and Wilson made no reference to this information and are silent on the effect of shaking of this magnitude on a crustal fault lying under the Boardman to Hemingway transmission line in a high landslide hazard ares.

The combination of hazards found between mile posts 105 and 113 as documented by Schlicker and Deacon and the DOGAMI SLIDO website <https://gis.dogami.oregon.gov/maps/slido/> where the hazard is between "High - Landsliding likely" and "Very High existing landslide" make the current location unstable and not meeting the OAR Standard. The applicant has noted the problems but has failed to adequately indicate how they would mitigate the convergence of issues cited above.

The above discussion has not included the problems from development that Schlicker and Deacon anticipate in the conclusion to their 1971 report. They state on page 16 Areas of geologic hazard are outlined on the geologic map (pg. 17) and described in some detail in the report, colluvium and old landslides along the margins of

the valley that either are now moving slowly and intermittently or can fail in the future under development. Development of these areas is exactly what the applicant is asking for and should be denied.

Schlicker, H. J., and Deacon, R. J., 1971, Engineering geology of the La Grande area, Union County, 16 p, 1 map, scale 1:24,000.

Sincerely

A handwritten signature in cursive script that reads "Jero Kathleen Watson". The signature is written in dark ink and is positioned below the word "Sincerely".

Sunday, August 4, 2019

Energy Facilities Siting Council
c / o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97850

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project

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Schlicker, H. J., and Deacon, R. J., 1971, Engineering geology of the La Grande area, Union County, 16 p, 1 map, scale 1:24,000.

Sincerely



Ken Watson

1906 Foley St.

La Grande, OR. 97850

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:45 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

FAILURE TO PROVIDE SITE CONDITIONS TO MINIMIZE THE RISK TO GOLDEN EAGLES RESULTING FROM THE PROPOSED TRANSMISSION LINE ROAD DEVELOPMENT

This project will go through the area surveyed for the Antelope Ridge Wind Development. Due to the lack of meaningful information being provided by IP in their application, it is necessary to go to the 2010 formal letter information summary regarding projected habitat impacts from that development in the area to be crossed by the B2H transmission line. ODFW comments regarding the surveys completed identified 4 active golden eagle nests and recommended no new roads be constructed within 1 mile (1/2 mile line of site) of the nests. Construction and maintenance activities should not occur within 1 mile line of sight (1/2 mile non line of site) of nest between January 1 and July 15.

In the event that ODFW no longer believes these recommended restrictions are valid, they need to explain how a reduced period and distance will continue to provide protection for golden eagles from roads being built at the site in order to comply with OAR 345-022-0060 and their rules.

Sincerely,

Sarah Watson

PO Box, 922, Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:49 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

email: B2H.DPOComments@Oregon.gov

SETBACKS FROM RAPTOR NEST SITES

A 0.5 mile setback area around all sensitive raptor nests which includes all permanent and temporary disturbances associated with the proposed project is necessary to meet the requirement that the project not result in adverse population-level impacts to these species.

The Applicant identifies Category 1 Habitat for nest sites of golden eagle, Swainson's Hawk, goshawk, and burrowing owl. However, the applicant considers these point habitats with no associated range. While this approach is convenient, it is inconsistent with historical regulatory measures (e.g. forestry practices) regarding sensitive and threatened and endangered wildlife species in Oregon. In the Columbia Basin, Category 1 habitat associated with Washington ground squirrel colonies were defined as being occupied area AND its associated use area. The area around a natal site is integral to the continued use of the site. Wildlife need more than a specific point to be successful. ODFW has previously recommended a ½ mile setback (no impact) around all sensitive raptor nest sites. This buffer needs to include all permanent and temporary disturbances associated with the proposed project. The applicant has provided no population data for the potentially affected raptor species—especially the low density raptors (e.g. burrowing owls, goshawk and golden eagle) to show that the impacts to these species are sustainable to local populations of these species.

The current application fails to provide information necessary to determine habitat Category. Absent information that will identify the location of Category 1 habitat, it is not possible to issue a site certificate that provides that no Category 1 habitat will be impacted

directly or indirectly by the development. This precludes a determination that the developer is able to site the transmission line in compliance with OARs 345-022-0060.

According to USFWS 501 FW 2, Appendix 2, the following information is necessary in order to determine habitat category determinations.

(2) “Identify those special biological features or the area(s) in question that are considered pertinent to the resource category determination (i.e. species, species life stages, species life requisites, species groups and species diversity considerations). Also identify any special vegetative and physical site conditions that enter into consideration.”

(3)“In quantitative or qualitative terms, discuss the importance ascribed to the special features and conditions in number 2 above.”

(4)“As appropriate, discuss considerations for scarcity, abundance, irreplaceability, and/or uniqueness. Also discuss the geographic area of consideration associated with these characteristics.”

Reference: 501 FW 2, Appendix 2 Checklist-Resource Category Documentation

Sincerely,

Sarah Watson

PO Box 922, Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:33 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

21 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.

Sincerely,

Sarah Watson

PO Box 922, Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 4:02 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order

August 21, 2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

email: B2H.DPOComments@Oregon.gov

ISSUE STATEMENT:

1. The developer did not do current surveys for wildlife to provide the necessary evidence to show he was compliant with OAR 345-022- 0060, but also did not use easily accessible studies completed by and for ODFW during the compilation of information for issuing a site certificate. The nest surveys completed for the Antelope Ridge Wind development in Union County, which was planned to be sited adjacent to this proposed transmission line found 75 different bird species nesting in the forested areas. The numbers of nesting birds was so high that the US Fish and Wildlife Service recommended no development in the forested areas. The Baseline Noise Surveys describe the route of the transmission line to be adjacent to the 230 KV line which is adjacent to the Elkhorn Wind Development. For this reason, the wildlife information and studies completed as a result of the Elkhorn and Antelope Ridge Wind Developments are relevant to and should be analyzed in terms of providing some baseline information to compare with current surveys. Recommendations and concerns documented in comments regarding these two developments are directly related to the area of impact of this transmission line.
2. The creation of a corridor through the middle of forest land is stated as a benefit to wildlife. There are multiple studies showing the negative impacts of creating corridors such as this as it provides opportunities for raptors and other predators to access prey. This should be widely known by the developers given the concerns they are required to address to attempt to minimize the use of transmission structures by raptors and other birds.

3. The entire section on Forested Land Analysis needs to be rewritten to accurately reflect the true impacts of this development including negative impacts to adjacent land and adjacent landowners such as impacts from the use of chemicals to control vegetation, erosion from development of the transmission line and roads, transmission lines are identified in multiple studies as a primary source of invasive weeds and it appears from this section that the developer plans to only spray for weeds once a year. That will assure that there will be multiple problems with invasive weeds as a result of this transmission line.

4. I am also concerned regarding the number of nests that will be destroyed by this transmission line as well as the lack of completed work indicating a commitment to identifying, addressing and mitigating for the wildlife impacts this development will have. The area mentioned above, in Union County, is known to serve as an important location for federally protected migratory birds. While the Oregon Department of Energy can legally refuse to address federally protected species under the threatened and endangered species rules, they are required to address them in the habitat mitigation rules. The developer has made literally no effort to identify and protect federally protected species under OAR 345-022-0060 or 0070. This is not an optional activity according to the opinion received from the Oregon Legislative Council.

Please do not allow a site certificate until all surveys are completed or reviewed and updated.

Sincerely,

Sarah Watson

PO Box 922, Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:38 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Energy Facilities Siting Council

c/o Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St, N.E.

Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

I respectfully request that this letter protesting issuance of a Site Certificate for the proposed Boardman to Hemingway Transmission Project be entered on the record.

Specifically, the applicant has failed to acknowledge the presence of a Federal and State-listed, Threatened species, and has failed to identify Category-1, Critical Habitat.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation. The applicant has failed to comply with these requirements!

The Grande Ronde river watershed contains a well-documented population of Bull Trout. By statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is under federal protection. The Grande Ronde river watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and

EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat!

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited, the magnitude of impact becomes irrelevant.

The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, as noted above.

In view of the fact that sufficient recovery of the Bull Trout population to remove its Threatened status is reliably estimated to be a matter of decades, issuance of a **Site Certificate should be denied, with prejudice!**

Sincerely,

Sarah Watson

PO Box, 922, Union, OR

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:26 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,

Sarah Watson

PO BOX 922, Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:55 PM
To: [B2H DPOComments * ODOE](#)
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

Aug. 21, 2019

SETBACKS FROM RAPTOR NEST SITES

A 0.5 mile setback area around all sensitive raptor nests which includes all permanent and temporary disturbances associated with the proposed project is necessary to meet the requirement that the project not result in adverse population-level impacts to these species.

The Applicant identifies Category 1 Habitat for nest sites of golden eagle, Swainson's Hawk, goshawk, and burrowing owl. However, the applicant considers these point habitats with no associated range. While this approach is convenient, it is inconsistent with historical regulatory measures (e.g. forestry practices) regarding sensitive and threatened and endangered wildlife species in Oregon. In the Columbia Basin, Category 1 habitat associated with Washington ground squirrel colonies were defined as being occupied area AND its associated use area. The area around a natal site is integral to the continued use of the site. Wildlife need more than a specific point to be successful. ODFW has previously recommended a ½ mile setback (no impact) around all sensitive raptor nest sites. This buffer needs to include all permanent and temporary disturbances associated with the proposed project. The applicant has provided no population data for the potentially affected raptor species—especially the low density raptors (e.g. burrowing owls, goshawk and golden eagle) to show that the impacts to these species are sustainable to local populations of these species.

The current application fails to provide information necessary to determine habitat Category. Absent information that will identify the location of Category 1 habitat, it is not

possible to issue a site certificate that provides that no Category 1 habitat will be impacted directly or indirectly by the development. This precludes a determination that the developer is able to site the transmission line in compliance with OARs 345-022-0060.

According to USFWS 501 FW 2, Appendix 2, the following information is necessary in order to determine habitat category determinations.

(2) “Identify those special biological features or the area(s) in question that are considered pertinent to the resource category determination (i.e. species, species life stages, species life requisites, species groups and species diversity considerations). Also identify any special vegetative and physical site conditions that enter into consideration.”

(3)“In quantitative or qualitative terms, discuss the importance ascribed to the special features and conditions in number 2 above.”

(4)“As appropriate, discuss considerations for scarcity, abundance, irreplaceability, and/or uniqueness. Also discuss the geographic area of consideration associated with these characteristics.”

Reference: 501 FW 2, Appendix 2 Checklist-Resource Category Documentation

Sincerely,

Sarah Watson

PO Box 922, Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:22 PM
To: [B2H DPOComments * ODOE](#)
Subject: Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated “severe.” Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

Sarah Watson

PO Box 922

Union, Or. 97883

From: [sarah watson](#)
Sent: Wednesday, August 21, 2019 3:14 PM
To: [B2H DPOComments * ODOE](#)
Subject: Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR.

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**

Sarah Watson

PO Box 922, Union, Or. 97883

Email address: sandj0704@gmail.com

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

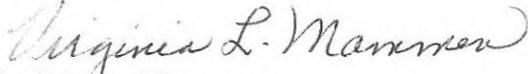
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,


Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁵	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.

Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.

Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.

Local Streets: Two (2) travel lanes, parking on one (1) side of street.

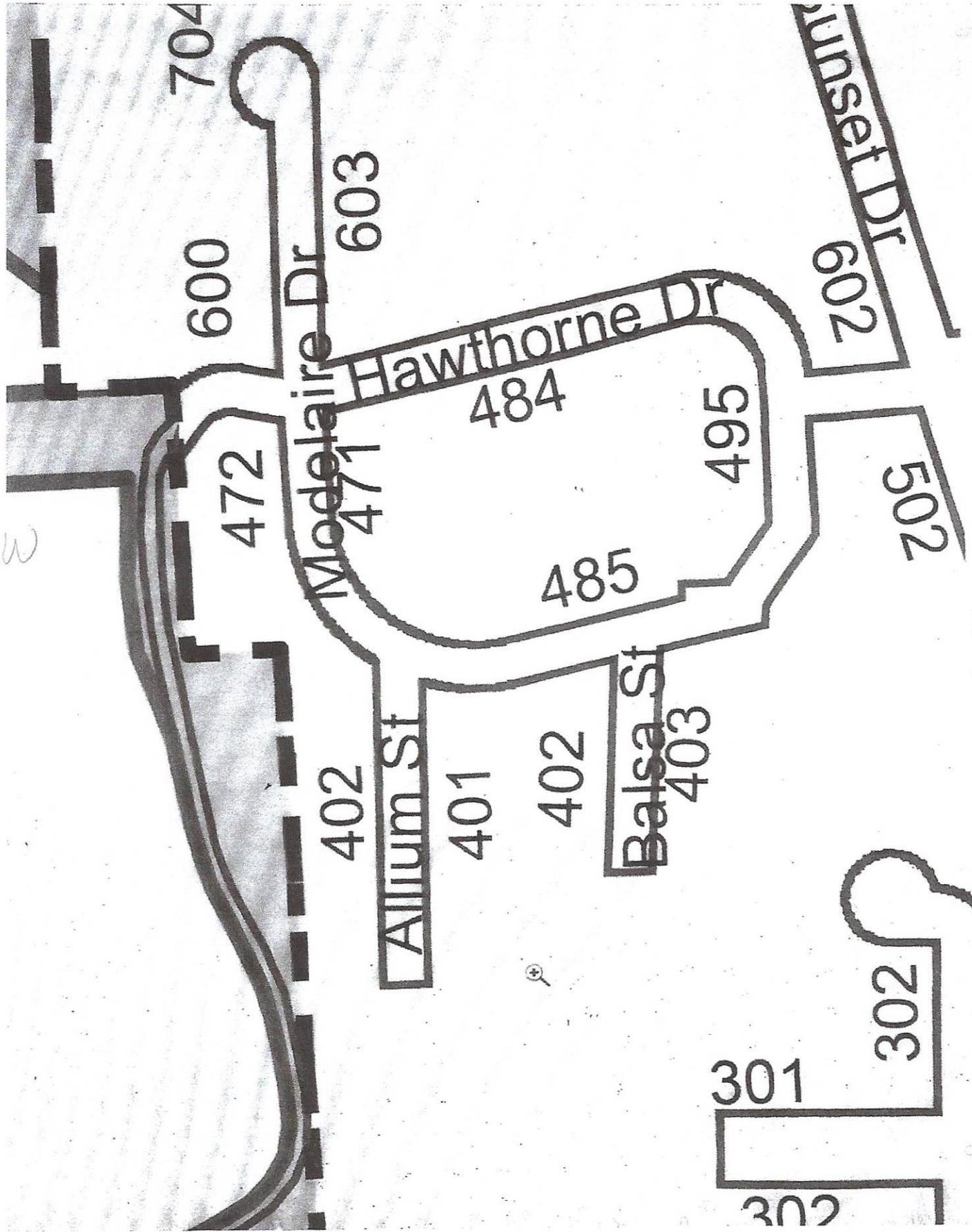
The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

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Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	proposed helipad is a necessary supporting facility.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekele Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <u>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</u> a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASG Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department; b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic. <u>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</u>
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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

- 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
- 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
- 3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
- 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
- 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE
Public Works Director
City of La Grande
Public Works
 Ph: (541) 962-1325
 Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K



attachment U2

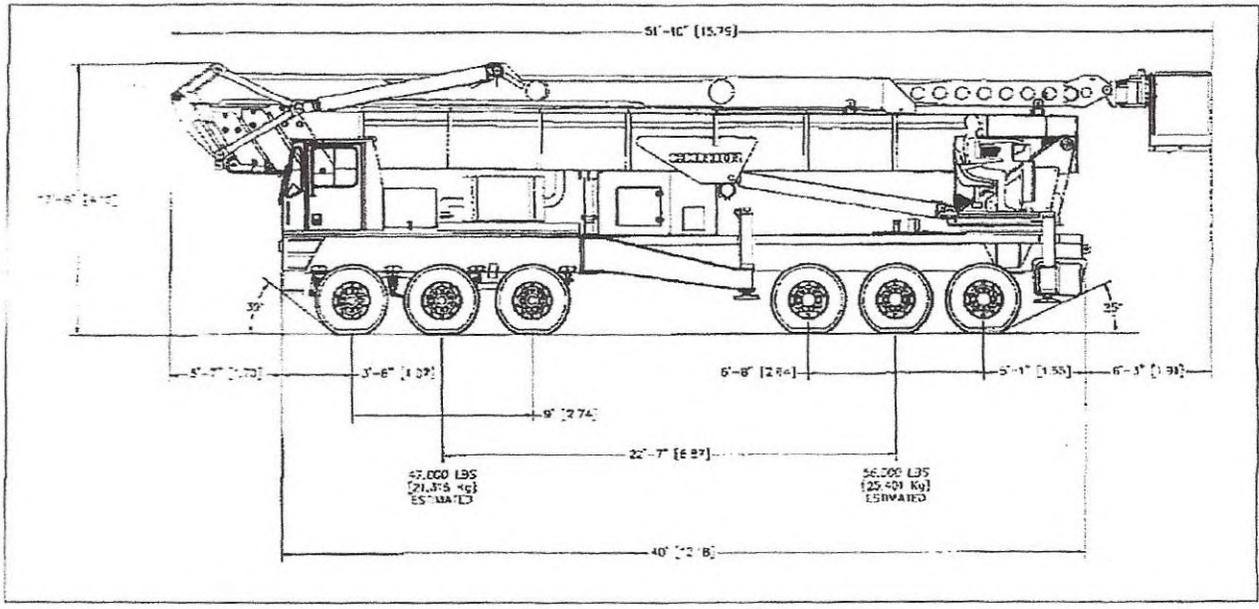


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

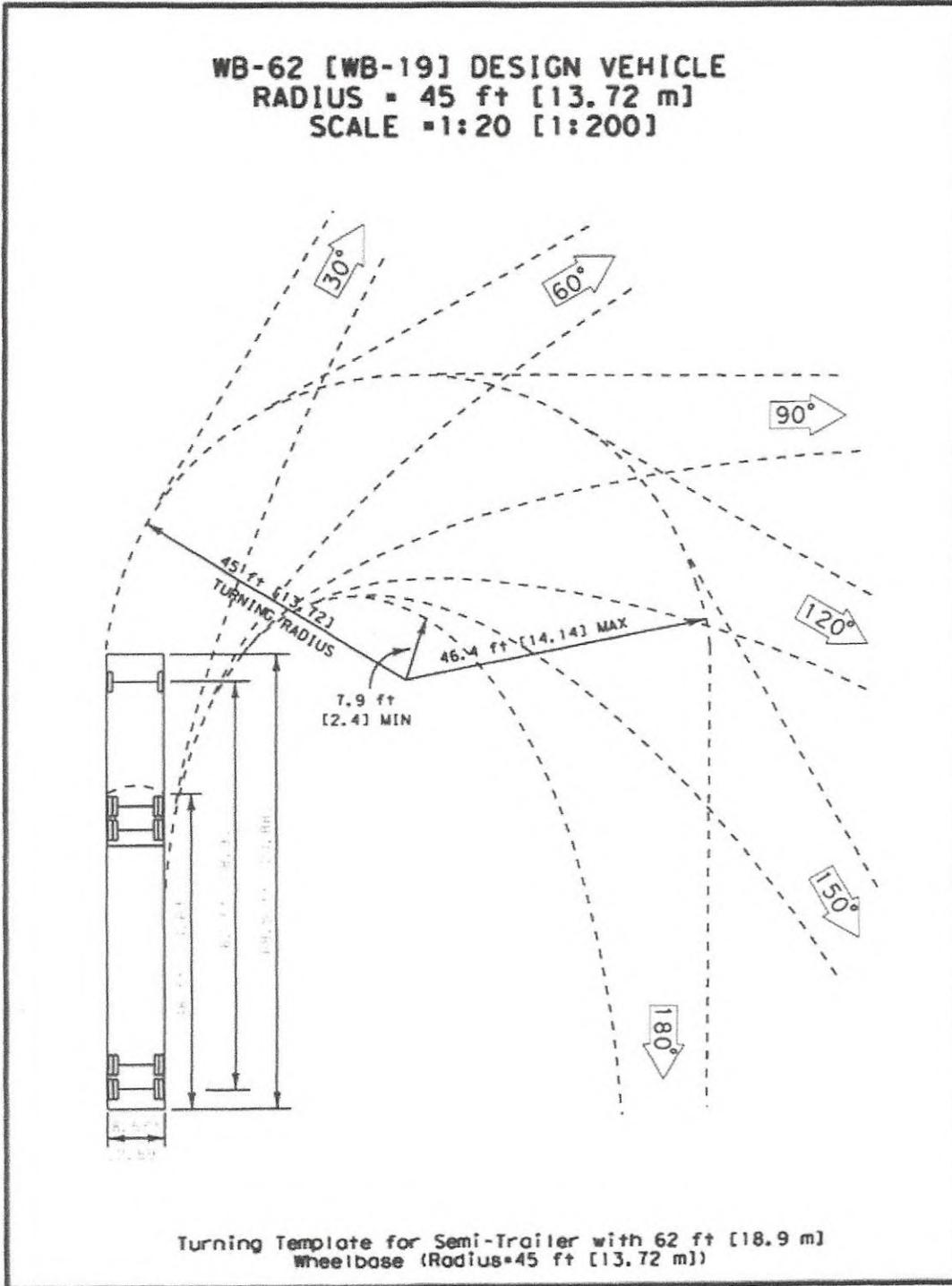


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

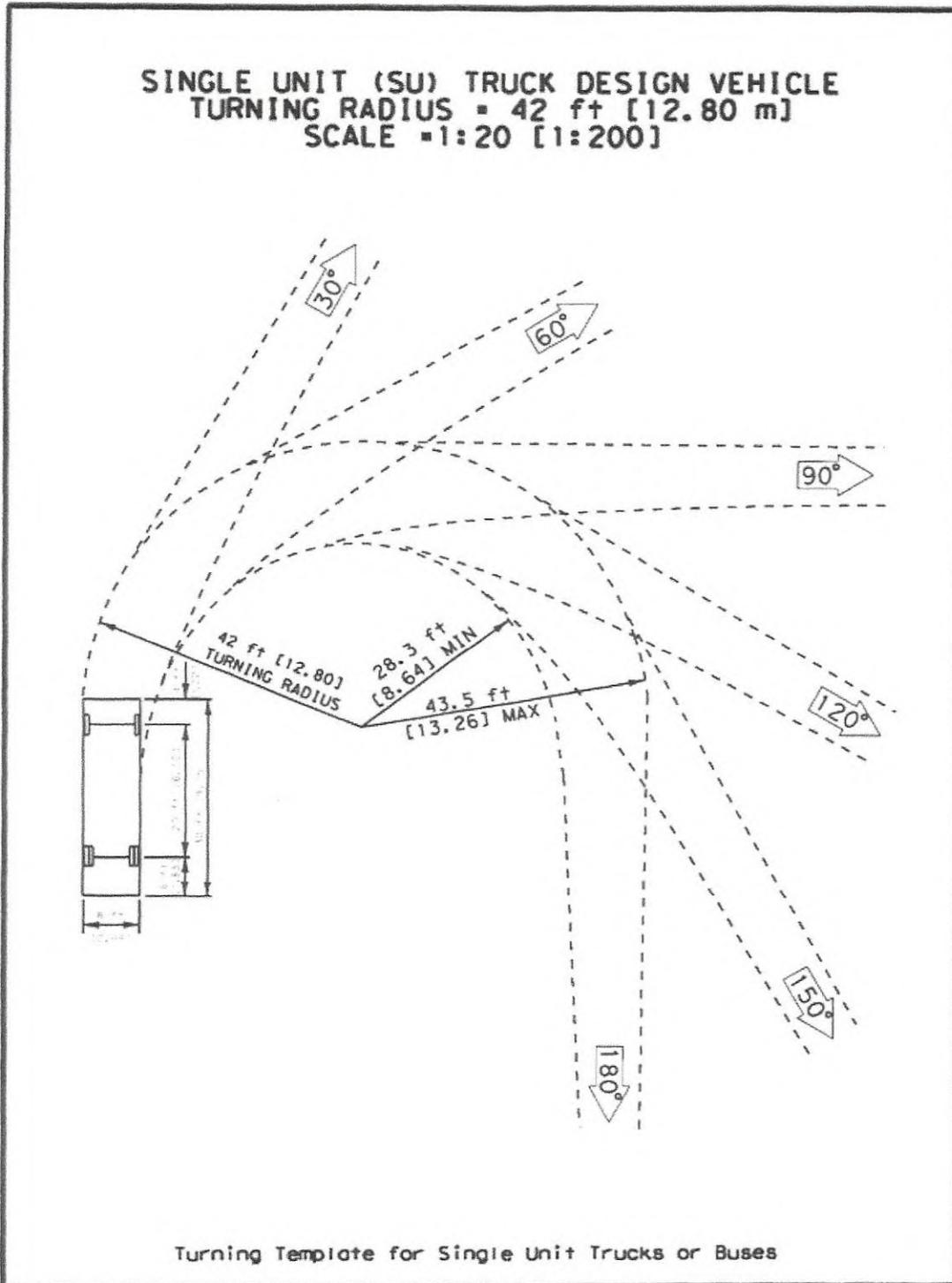


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

Section 17. TRUCK ROUTES

- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

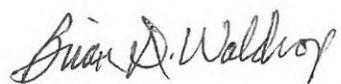
- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

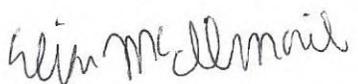
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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

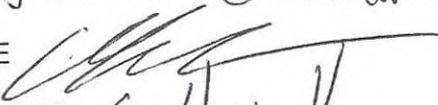

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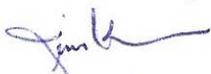
ADDRESS

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Blake Bars
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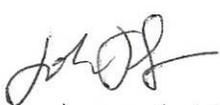
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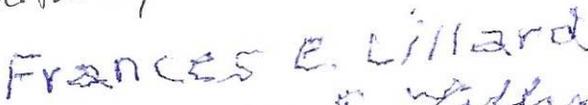
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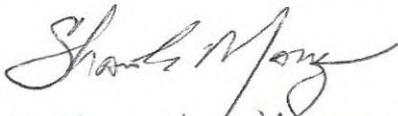
SIGNATURE 
PRINTED NAME Frances E. Lillard
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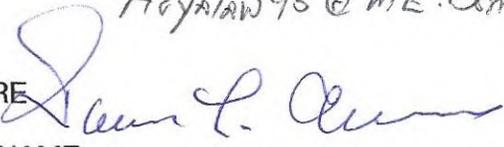
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SIGNATURE 
PRINTED NAME M. Jeannette Smith
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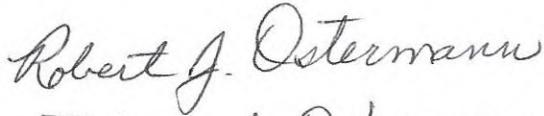
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SIGNATURE: 
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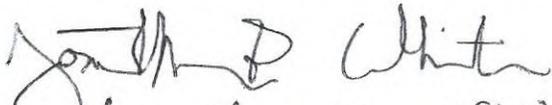
SIGNATURE 
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PRINTED NAME Robert J. Ostermann
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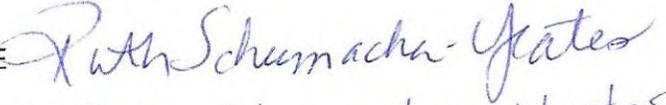
SIGNATURE 
PRINTED NAME Robin J. Ostermann
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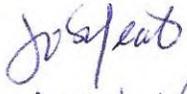
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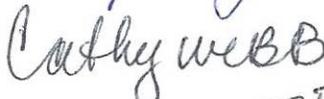
SIGNATURE 
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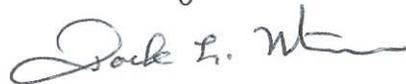
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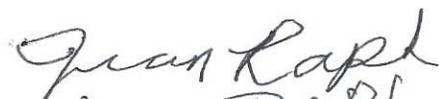
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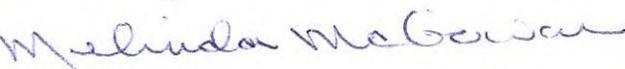
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SIGNATURE 
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SIGNATURE *Gary D. Pierson*
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SIGNATURE *Lynn Wheeler Duncan*
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SIGNATURE *Robert J. Sherer*
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PRINTED NAME Lindsey McCullough
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EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Robin I. Maille*
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SIGNATURE *Bruce C Kevan*
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SIGNATURE *Carol S. Summers*
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SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
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EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande, OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

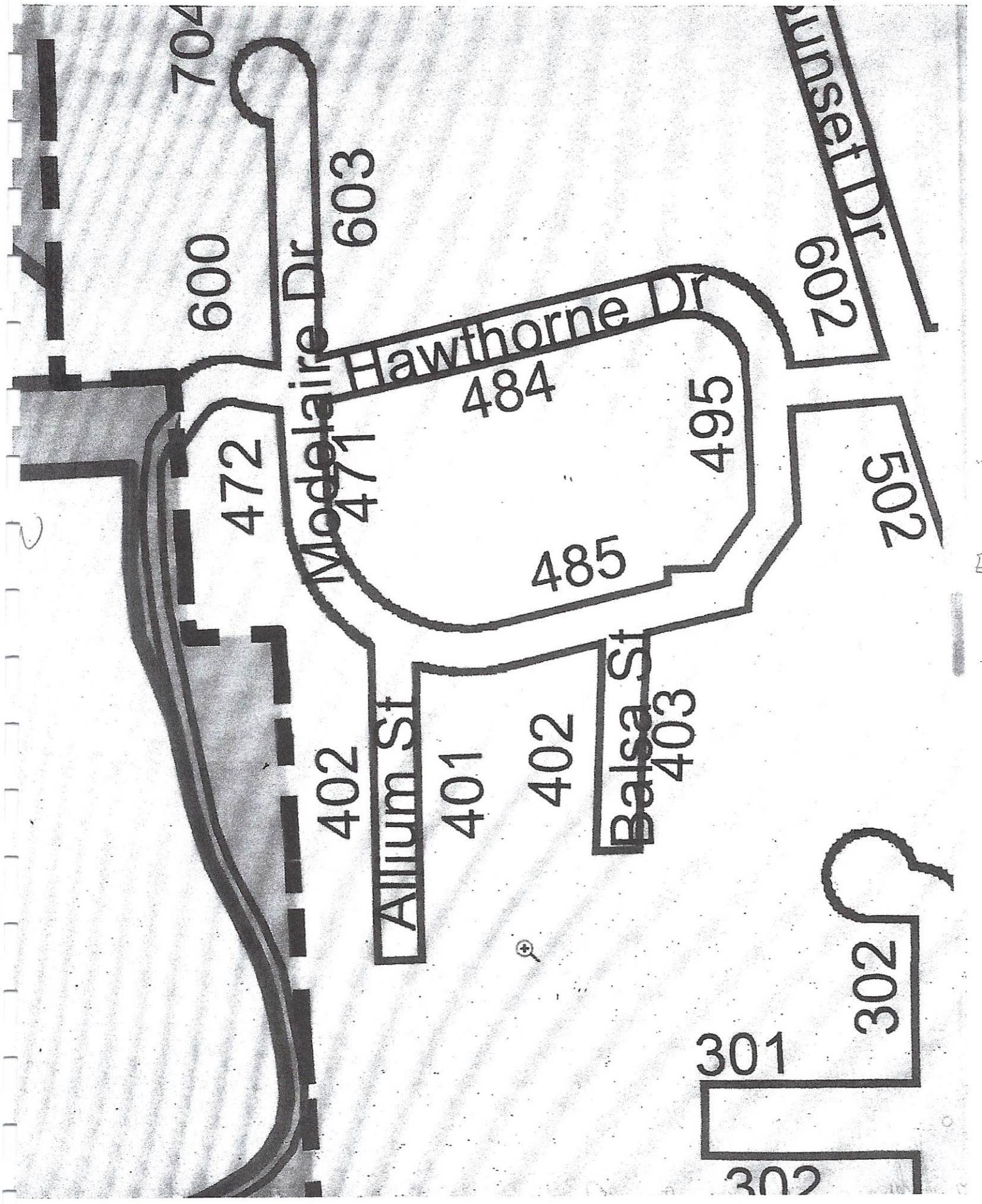
Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

N



3.3 Predicted Noise Levels

1 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
2 of the proposed facility.
3

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

4 Project construction will occur sequentially, moving along the length of the Project route, or in
5 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
6 maintenance areas. Overhead transmission line construction is typically completed in the
7 following stages, but various construction activities may overlap, with multiple construction
8 crews operating simultaneously:
9

- 10 • Site access and preparation
- 11 • Installation of structure foundations
- 12 • Erecting of support structures
- 13 • Stringing of conductors, shield wire, and fiber-optic ground wire

14 The following subsections discuss certain construction activities that will periodically generate
15 audible noise, including blasting and rock breaking, implosive devices used during conductor
16 stringing, helicopter operations, and vehicle traffic.
17

Blasting and Rock Breaking

18 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
19 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
20 Modern blasting techniques include the electronically controlled ignition of multiple small-
21 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
22 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
23 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.
24

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

Implosive Devices

34 An implosive conductor splice consists of a split-second detonation with sound and flash.
35 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
36 developed by an individual certified and licensed to perform the work. The plan will
37 communicate all safety and technical requirements including, but not limited to, delineation of
38 the controlled access zone and distance away from residences.
39

Public Services

— OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

— OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

— OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

— OAR 345-024-0010 and 345-024-0015

— This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
— Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

— OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

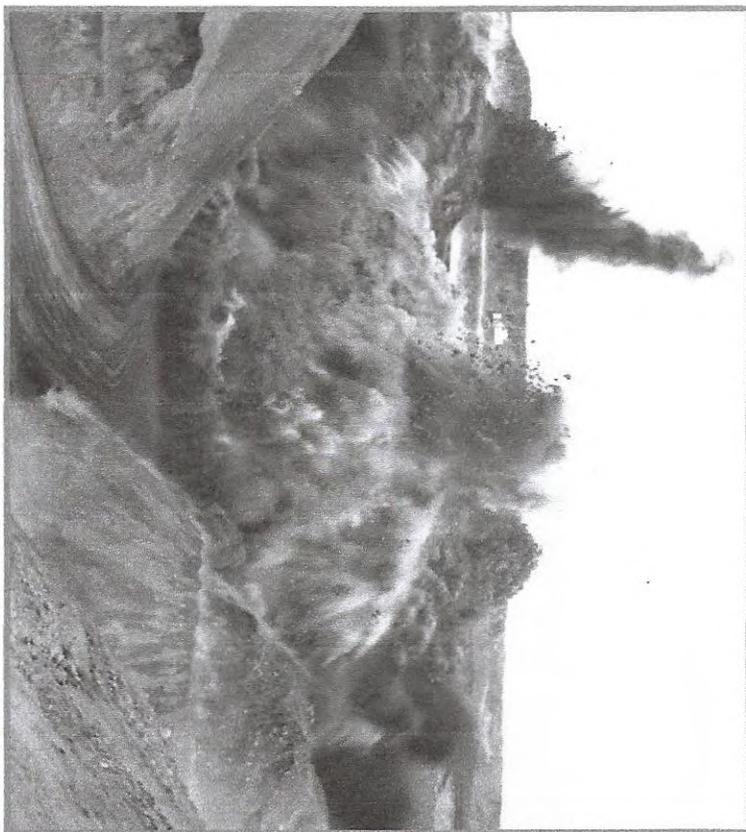
(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

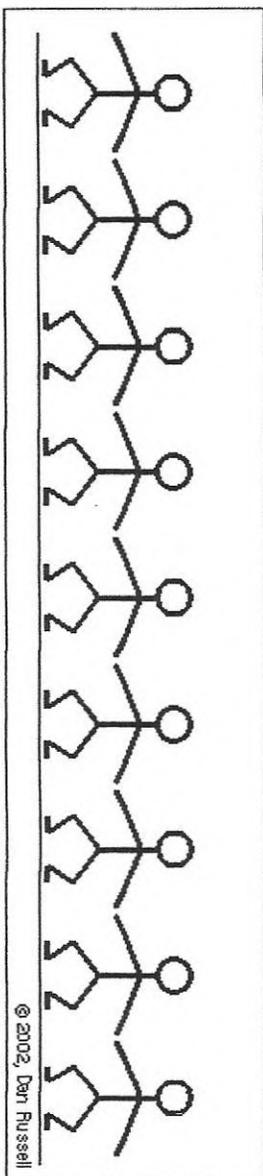
- vibrations,
- airblast, and
- flyrock.

Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.



Part I: Ground Vibrations, Airblast, and Flyrock

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate **airblast or air vibrations**. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of **ground vibrations**.



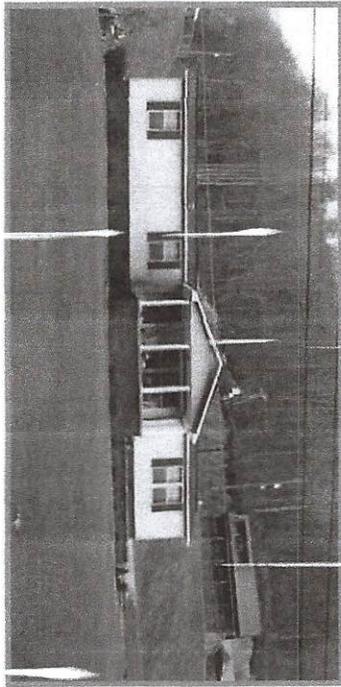
Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

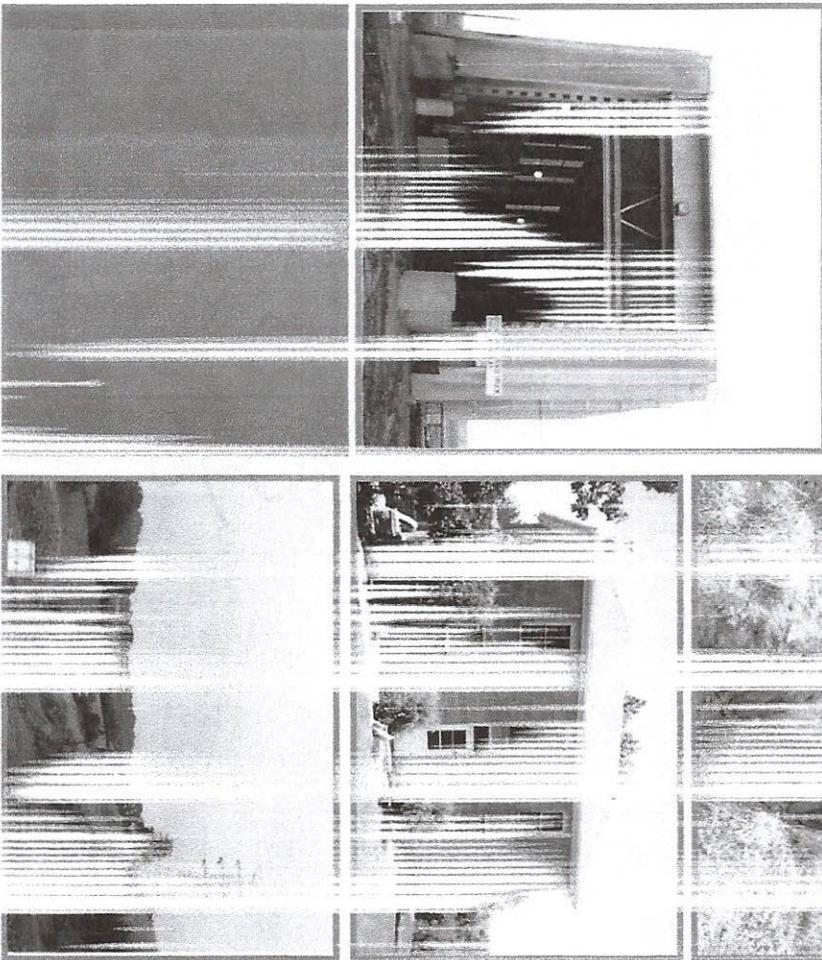
Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



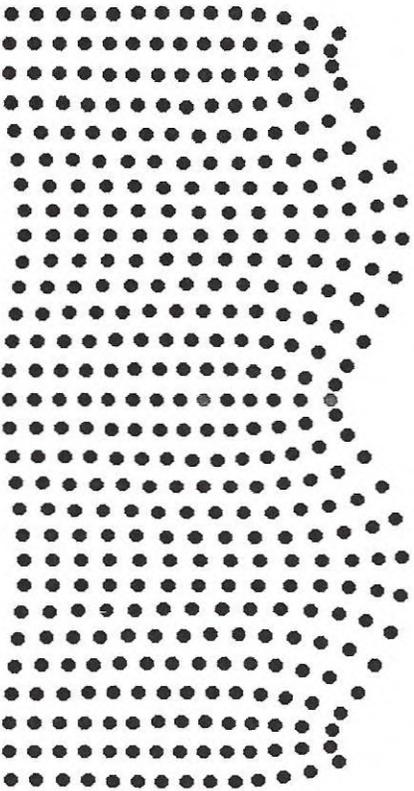
It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects



Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

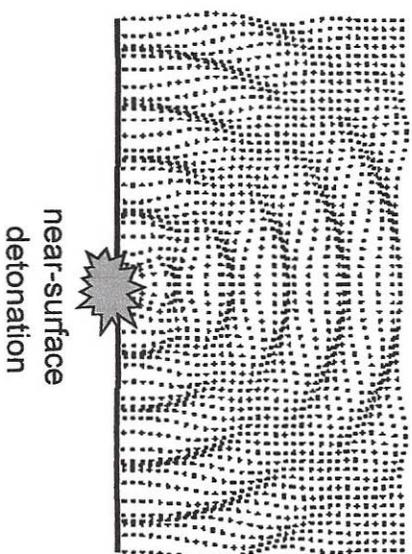
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

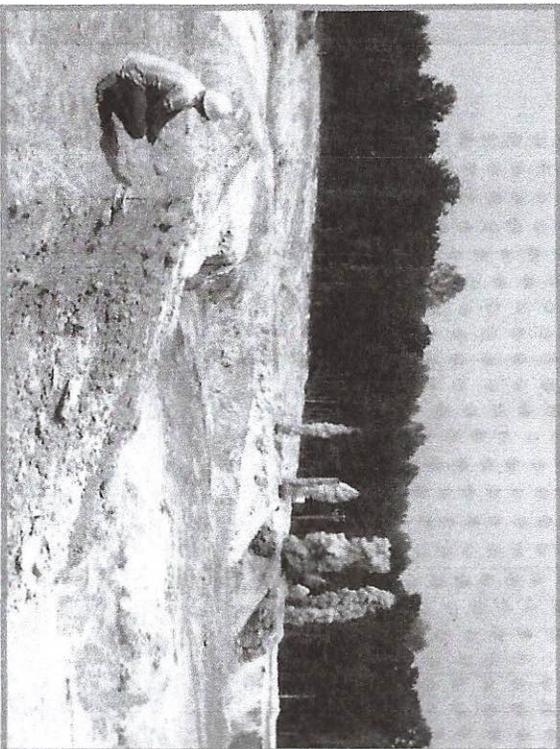
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or inaudible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

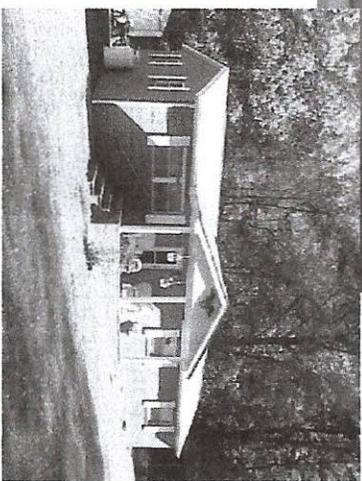
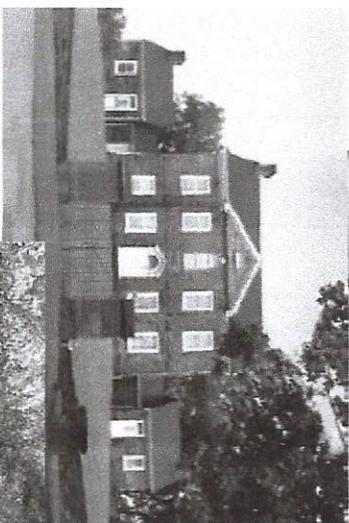
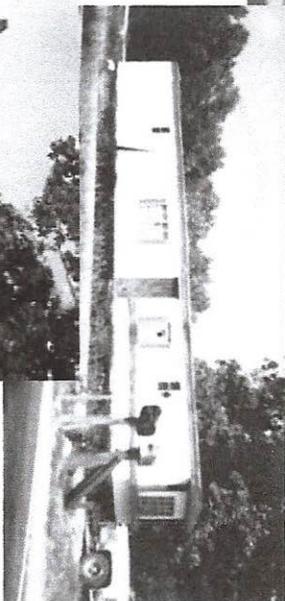
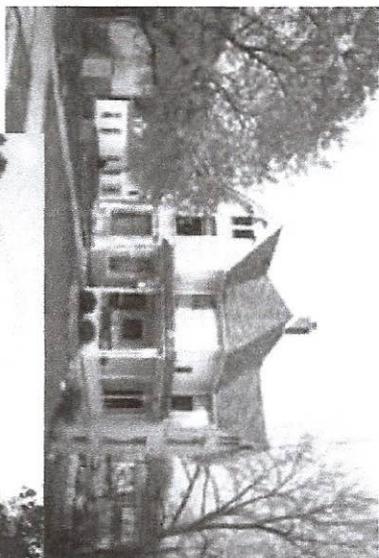
As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

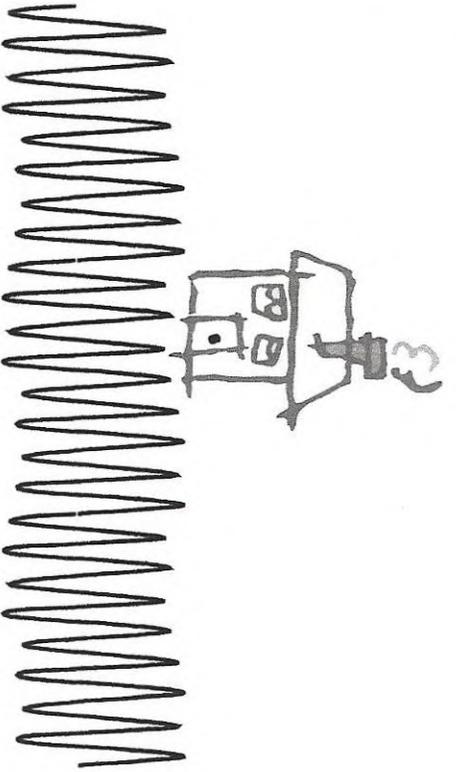
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

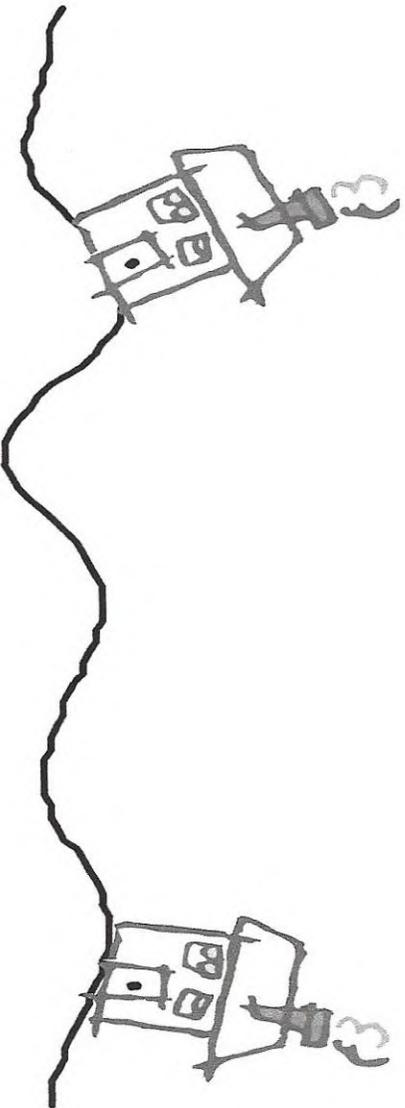


Ground Vibration Structure Response

Exhibit 59



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

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Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019



Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with “clinically significant sleep loss among hospitalized patients,” perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB – nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with “a mean maximum sound level of 69.7 dB” (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: “Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients” (Garcia, 2012). “Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects,” they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO’s 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants “are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise” (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Around the country, “quiet campaigns” have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as “one of the nation's largest hospital construction projects,” Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed “to encourage quietness,” according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including “Quiet Hospital” badges on staff and posters at the entrance of every unit, a “Quiet at Night” campaign (9 p.m. – 6 a.m.), and a “Quiet Champions” program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, research indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60 Shares

Additional Resources & Tools

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OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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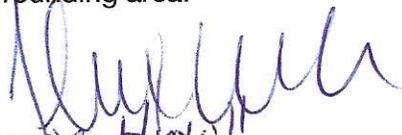
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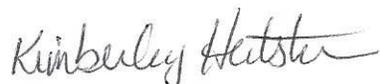
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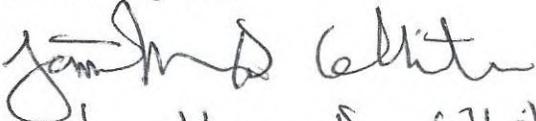
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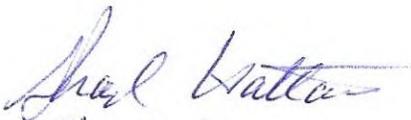
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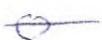
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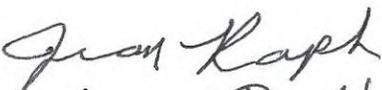
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August 5, 2019

Energy Facilities Siting Council
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Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely, *Catherine S. Webb*

Name: *CATHERINE S. WEBB*

Address: *1708 Cedar St.*
La Grande, OR. 97850

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I respectfully request that this letter protesting issuance of a Site Certificate for the proposed Boardman to Hemingway Transmission Project be entered on the record.

Specifically, the applicant has failed to acknowledge the presence of a Federal and State-listed, Threatened species, and has failed to identify Category-1, Critical Habitat.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation. The applicant has failed to comply with these requirements!

The Grande Ronde river watershed contains a well-documented population of Bull Trout. By statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is under federal protection. The Grande Ronde river watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat!

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited, the magnitude of impact becomes irrelevant.

The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, as noted above.

In view of the fact that sufficient recovery of the Bull Trout population to remove its Threatened status is reliably estimated to be a matter of decades, issuance of a **Site Certificate should be denied, with prejudice!**

Sincerely,



Printed Name:

CATHERINE S. WEBB

Address:

1708 Cedar St.

Ut Grande, OR 97850

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power’s ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it’s disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by individuals whose remote properties and summer cabins would have been impacted by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASC and DPO which will be addressed in a separate comment.

Catherine S Webb

Signature

CATHERINE S. WEBB

Name:

1708 Cedar St.

Address:

LAGRANDE, OR 97850

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

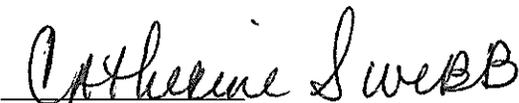
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**



Signature

Printed name: CATHERINE S. WEBB

Mailing address: 1708 CEDAR ST.
LA GRANDE, OR 97850

Email address:

phone number: (optional)

August 16, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

I am a resident of LaGrande. I relocated here because of the rural environment and numerous outdoor opportunities present. I regularly go up to Morgan Lake for birdwatching, wildflower searches, and solitude. I have walked the east side trail at Morgan Lake. I know the park well, and I especially cherish the absolute silence of this secluded natural area.

I have studied DPO Attachment X-4, pp. 3-5. I notice that every location in Union County which would be crossed by the B2H Morgan Lake Alternate Route was monitored with the same noise sensitive receptor (NSR) at milepost 11. This single NSR would provide exactly -- and unrealistically -- the same reading for the Husky Truck Stop, where heavy freight trucks from adjacent I-84 stop for gas and park for the night with diesel engines rumbling, and Morgan Lake Park, several miles to the west at the top of a relatively isolated two lane county road.

At Morgan Lake Park, the camp host closes the gate each night at 10:00 to ensure quiet. Visitors often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, no generators or shooting is allowed, and no motorized craft are permitted on the lake. Even when the campground is full, it's possible to picnic, fish, hike or camp while enjoying the absolute silence of the surroundings. The Morgan Lake Park Recreational and Development Plan even cautions against loud voices that might disturb park visitors:

2. Breaching the public Peace. No person in Morgan Lake Park shall engage in abusive, insulting ... language or engage in any disorderly conduct or behavior tending to breach the public peace. Park visitors shall conduct themselves in a quiet and peaceful manner consistent with the natural atmosphere in which the park is set. (25/33)

I am profoundly concerned that the applicant has failed to include noise monitoring at Morgan Lake Park campground, a noise sensitive property within ½ mile of the development as required by OAR-340-035-0015(38). Noise Sensitive Property is "*property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries.*"

Morgan Lake Park, an overnight campground, is unquestionably a place where people expect to sleep, and furthermore, to sleep undisturbed. Eight towers supporting buzzing,

popping, snapping transmission lines will circle the campground; the closest being .32 and .38 miles; the furthest one mile. I see no opportunity for mitigation in this case.

Division 22

GENERAL STANDARDS FOR SITING FACILITIES

Energy Facility Siting Council - Chapter 345

345-022-0100

Recreation

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities in the analysis area as described in the project order. The Council shall consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location:

See the Morgan Lake Recreational Use and Development Plan (above), and ASC p. 145 (T-4-46): Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users...

(b) The degree of demand:

From the City of La Grande's current web site: *Morgan Lake: Atop a mountain just a few minutes' driving time from the heart of the city, Morgan Lake offers a quiet, motor-free respite from daily cares, with camping, fishing and hiking opportunities. ... Morgan Lake is located just a few miles outside of La Grande and provides the citizens of Union County an inexpensive, easily accessible area for a broad range of outdoor recreational activities, including fishing, camping and nature hikes.*

City records show that in summer, an average of 200 vehicles use the Morgan Lake Road daily. Camping has become so popular that new campsites were added in 2017 (now total of 12) and the overnight limit decreased from 7 nights to 3 nights. Campers are often turned away.

(c) Outstanding or unusual qualities:

c) A free 204 acre park with two natural lakes, located at the top of the hills within a 10-15 minute drive of 13,000 city residents is definitely unusual. Because it is often 10 degrees cooler than the town below, it is a welcome respite from summer heat.

(d) Availability or rareness:

See (c) above, and "Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities" per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13).

(e) Irreplaceability or irretrievability of the opportunity.

Applicant rates Morgan Lake Park as “*somewhat irreplaceable*,” a curious designation. “Irreplaceable” is an absolute: synonyms are “unique, unrepeatable, incomparable, unparalleled, priceless, invaluable.” Irreplaceability, like pregnancy, is either/or, not “somewhat.” There is no question that Morgan Lake Park is irreplaceable.

Despite all of the information listed above which clearly indicates that Morgan Lake Park is an “important recreational opportunity,” applicant’s conclusion is that the “impact on recreation” of multiple towers supporting buzzing, popping, snapping transmission lines, some within .3 miles of Morgan Lake Park’s overnight camping area, will be “less than significant.” Commission should not allow applicant to leap to spurious self-serving conclusions when the preponderance of evidence indicates the contrary.

When organized La Grande opposition made applicant’s proposed Mill Creek Route seem untenable, applicant offered the city of La Grande \$100,000 mitigation if they would support the Morgan Lake Alternate Route. At a La Grande City Council meeting, the Park Department Director, Stu Spence, was asked what he could use that money for. He could only suggest “perhaps an additional restroom or more porta potties.” Clearly this is a park that does not need mitigation for development, quite the contrary. It should be protected from intrusions. Development, as the park plan indicates, should be minimal.

Mitigation for an industrial intrusion into the silence of a natural park setting is not possible. To preserve this rare and beautiful natural recreational opportunity, it is essential that EFSC deny approval of B2H construction on the Morgan Lake Alternate Route. This alternate route was proposed in case the Mill Creek Route, which poses many serious potential problems as well – including geologic and fire hazards, unacceptable impacts on local residences, the Oregon Trail, and natural resources among many others – was not approved.

The Commission should not be constrained by the false choice of applicant’s chosen routes. In the unlikely event that the B2H is needed, the BLM Environmentally Preferred Route would avoid virtually all of the impacts of the Mill Creek and Morgan Lake routes.

I urge the Commission to deny both of applicant’s routes until, at a minimum, there is a Supplementary Environmental Impact Study (SEIS) of applicant’s proposed routes.


Signature

Name: Cathy Webb

Mailing address: 1708 Cedar St., LaGrande, OR 97850

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
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Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

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DEPARTMENT OF ENERGY

SETBACKS FROM RAPTOR NEST SITES

A 0.5 mile setback area around all sensitive raptor nests which includes all permanent and temporary disturbances associated with the proposed project is necessary to meet the requirement that the project not result in adverse population-level impacts to these species.

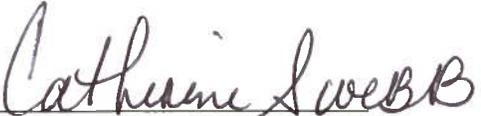
The Applicant identifies Category 1 Habitat for nest sites of golden eagle, Swainson's Hawk, goshawk, and burrowing owl. However, the applicant considers these point habitats with no associated range. While this approach is convenient, it is inconsistent with historical regulatory measures (e.g. forestry practices) regarding sensitive and threatened and endangered wildlife species in Oregon. In the Columbia Basin, Category 1 habitat associated with Washington ground squirrel colonies were defined as being occupied area AND its associated use area. The area around a natal site is integral to the continued use of the site. Wildlife need more than a specific point to be successful. ODFW has previously recommended a ½ mile setback (no impact) around all sensitive raptor nest sites. This buffer needs to include all permanent and temporary disturbances associated with the proposed project. The applicant has provided no population data for the potentially affected raptor species—especially the low density raptors (e.g. burrowing owls, goshawk and golden eagle) to show that the impacts to these species are sustainable to local populations of these species.

The current application fails to provide information necessary to determine habitat Category. Absent information that will identify the location of Category 1 habitat, it is not possible to issue a site certificate that provides that no Category 1 habitat will be impacted directly or indirectly by the development. This precludes a determination that the developer is able to site the transmission line in compliance with OARs 345-022-0060.

According to USFWS 501 FW 2, Appendix 2, the following information is necessary in order to determine habitat category determinations.

- (2) "Identify those special biological features or the area(s) in question that are considered pertinent to the resource category determination (i.e. species, species life stages, species life requisites, species groups and species diversity considerations). Also identify any special vegetative and physical site conditions that enter into consideration."
- (3) "In quantitative or qualitative terms, discuss the importance ascribed to the special features and conditions in number 2 above."
- (4) "As appropriate, discuss considerations for scarcity, abundance, irreplaceability, and/or uniqueness. Also discuss the geographic area of consideration associated with these characteristics."

Reference: 501 FW 2, Appendix 2 Checklist-Resource Category Documentation



Signature

Printed Name: CATHERINE S. WEBB

Address: 1708 CEDAR ST. LA GRANDE, OR 97850

Kellen Tardaewether
Senior Siting Analyst
Energy Facility Siting Council
Oregon Department of Energy
550 Capitol St. NE 1st Floor
Salem, Oregon 97301

Dear Ms. Tardaewether:

NOXIOUS WEED COMMENTS

The draft Noxious Weed Management Plan Section B2 of Application does not meet the requirements of the following Administrative Rules which must be addressed prior to the issuance of a Site Certificate for the Boardman to Hemingway Transmission line. The plan must comply with OAR 345-022-0060, Habitat Standard, requiring that the plan not result in infestations of noxious weeds and resulting damage to wildlife habitat; OAR 345-22-0070, Threatened and Endangered Species, requiring the protection of Threatened and Endangered species including the potential for habitat degradation resulting in species reduction, OAR 345-22-0110, Public Services due to the impact of local weed control services being required to address unmanaged infestations of noxious weeds, OAR 345-22-0030, Land Use due to impacts of invasive weeds on all private lands including those designated as farm and/or forest use which would significantly impact farm income and adjacent farm and forest property.

Union County submitted 31 notes and changes required of the Noxious Weed Plan on August 22, 2017. It was as a result of a meeting between the Morrow, Umatilla and Union County weed supervisors and incorporated previous concern of Malheur and Baker county weed supervisors. These comments are submitted due to the need to address each of the changes required to the Noxious Weed Plan.

Following are issues taken from the draft Weed Management Plan which need to be corrected to comply with Oregon state law and/or EFSC rules:

Page B2-2

Idaho Power claims to be only responsible for weeds within Right of Way and up to 50 feet from right of way in Malheur County. IPC claims no responsibility for weeds outside the ROW or those present before the project. Absent 100% assurance that no noxious weeds at the site of the development will be allowed to go to seed, the weeds at the site will disperse to areas outside the ROW.

Idaho Power Management Plan: (B2-13) Problematic statements which are not consistent with the statutes and rules requiring control of noxious weeds.

- Pre construction weed surveys only planned for areas to be disturbed during construction. (Weed surveys also need to occur for areas adjacent to the development as well as control sites to determine if more weed infestations are occurring at locations impacted by the development.)
- Surveys will be completed by the Construction Contractors. (Surveys need to be completed by a third party not impacted by the results.)
- Will document existing infestation of noxious weeds adjacent to the project and adjacent uses that could contribute to proliferation of noxious weeds. (B2-14). (Plan to use this information to avoid responsibility for addressing infestations of these noxious weeds within the ROW in spite of the fact that disrupting habitat will increase the likelihood of infestations which may otherwise not occur. The information needs to be used to determine current conditions

and establish whether or not the development has resulted in increased numbers or types of noxious weeds present.)

- IPC claims they are only responsible for controlling new noxious weed populations that are demonstrated to be the result of project construction, operation or maintenance. (i.e. new infestation in an area disturbed by project activities that cannot be attributed to adjacent existing infestations or introduction by a source outside the control of IPC) (Ignores the fact that disruption of the habitat is a major factor in new infestations).
- IPC will not be responsible for control of pre-existing noxious weed populations outside the Project ROW. IPC will not be responsible for noxious weeds introduced by activities other than Project Construction and O&M (eg. Recreational use, grazing, other construction projects, etc) or natural occurrences (eg. Fire, or noxious weeds outside the ROW or any existing access roads not improved by the Project).

(Development, improvement of, and use of roads for access to the area will promote the introduction of and increased occurrence of noxious weed infestations. The development will damage native habitat and will result in ongoing equipment use of the area in the ROW will result in increased weed infestations and the transport of weed varieties from other areas. Habitat impacts for the life of the project will result in opportunities for invasive weed infestations. The developer is responsible for these impacts unless they can document that the impacts of the development were not the cause or a contributing cause of the infestation.

- (B2-15) The developer plans to have vehicle movement outside the right-of-way in predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings to streams approved by applicable land-management agency or landowner. (The developer is responsible for noxious weed control in any areas where new roads are developed, existing roads are modified by the developer, overland travel routes, including streams crossed. There appears to be a presumption that overland travel outside designated corridors does not contribute to noxious weed spread. This is categorically incorrect.)

* (B2-20) Noxious weed control efforts will be conducted for 3 to 5 years following construction. Would extend beyond 3-5 years if: disturbed areas are not meeting preconstruction conditions and adjacent land uses are not deemed to be the primary cause of the introduction and/or persistence of noxious weed species within areas disturbed by the Project and/or maintenance activities have caused or contributed to the spread or establishment of noxious weeds.

(Disturbed habitat is a primary causal factor of invasive weed infestations. Adjacent land uses will not be a primary causal factor. No matter what the results of the initial years of noxious weed control efforts, the control efforts need to continue for the life of the project. Ongoing maintenance of the transmission line, the use of vehicles in the ROW, access to the area provided by the ROW, etc. will mean that the development will increase the likelihood of invasive weed infestations for the life of the project.)

- (B2-21) IPC will conduct ongoing monitoring and focused control of noxious weed infestations inside of the ROW, as needed, for the life of the BLM ROW and the USFS special-use authorization. (Planning to do this monitoring and control for the life of the project only for areas on BLM or USFS lands)

SOME OF THE PROBLEMS

1. Ongoing monitoring for the life of the project only is done on BLM and USFS

land, not private land or state land.

B2-21

2. The construction contractor will develop the final weed management plan and do the surveys. The draft plan included in the application documents that the developer does not intend to comply with state law or administrative rules as noted in the detailed comments received from me and others concerned with this issue. The plan should be developed by a third party contractor not directly impacted by it's requirements.
3. Monitoring of private property does not continue for the life of the project.
4. IPC not taking responsibility for infestations occurring from adjacent lands even though they have disturbed the habitat increasing the opportunities for infestations.
5. IPC not taking responsibility for any infestations which result from increased access to area due to ROW allowing recreational vehicles to access area.
6. IPC not planning monitoring and treatment timeframes that will preclude the dispersal of seeds from the area.
7. IPC is not taking responsibility for weeds dispersed from the transmission line to the adjoining property.
8. IPC providing no control plots to determine if the existence of the transmission line ROW results in more noxious weeds in adjacent private property.

State Statutes and rules:

ORS 569.390 requires the owner or occupant of land containing noxious weeds is responsible for assuring that no noxious weed are permitted to produce seed.

ORS 569.390 states that no machinery shall be moved over any public road without first thoroughly cleaning it.

OAR 345-025-0016 states "In the site certificate, the Council shall include conditions that address monitoring and mitigation to assure compliance with the standards contained in OAR Chapter 35, Division 22 and Division 24.

EFSC does not have the authority to overrule state statutes relating to noxious weed management.

Federal Issues:

Executive Order 13112 (1999) requires Prevent introduction of such species, detect and control such species, monitor population of such species, not authorize, fund, or carry out actions likely to cause the introduction or spread of invasive species in the United States or elsewhere unless the benefits of the action clearly outweigh the harm and the agencies take steps to minimize the harm.

US Department of Agriculture, Forest Service

Invasive species management activities on National Forest System lands shall be conducted according to the following objectives: prevention, early detection and rapid response, control and management, restoration.

BLM Manual 9015 (BLM 1992) BLM must manage noxious weeds and undesirable plants on BLM lands by preventing establishment and spread of new infestations, reducing existing population levels and managing and controlling existing stands.

The above information provides adequate documentation of the problems with increased noxious weed impacts to wildlife habitat, adjacent farm and forest lands, etc. The applicant has not provided a management plan that provides adequate monitoring, management and treatment of the area of impacts of noxious weeds due to the development.

DEPARTMENT OF ENERGY
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The attached article from the Iowa City Noxious Weed Commissioner provides the cost of failure to address this issue in dollars, loss of biological diversity and land lost to weeds.

Please require the developer to correct the Weed Management Plan to incorporate my concerns as well as those identified by the Counties. These changes are necessary to comply with requirements of Oregon Statutes as well as the Administrative Rules of EFSC and other state agencies who are charged with addressing Noxious Weeds.

Sincerely,

Catherine Webb

CATHERINE S. WEBB

1708 Cedar St.

LA GRANDE, OR 97850

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AUG 22 2013

DEPARTMENT OF ENERGY

TARDAEWETHER Kellen * ODOE

From: Cynthia Weber <cweber19572@gmail.com>
Sent: Tuesday, August 20, 2019 8:56 AM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

We are very concerned about the Boardman to Hemingway Transmission Project as it is proposed. Our concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability,

Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the

landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8 th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed

route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should **DENY** the request for a site certificate.

Sincerely,
Bob and Cindy Weber
60993 Wood Road (Morgan Lake Area)
La Grande, OR 97850

FF



Stacy Webster
65212 Webster Rd.
LA Grande, OR 97850

PORTLAND OR 972
17 AUG 2019 PM 4 L



Energy Facilities Siting Council
66 Kellen Tardagueweather
Oregon Dept of Energy
580 Capitol St. NE
Salem, OR 97301

Date: August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

RECEIVED
AUG 20 2019
Department of Energy

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My name is Stacia Webster. I'm a resident of La Grande, and I represent the 5th generation of seven generations that have owned, maintained, and/or utilized the Webster property, which looking west from La Grande, is on the horizon behind what is referred to as Table Mountain. I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project.

As a child I loved to camp, and "help" my Grandfather, Lawson Webster and Father, Gary Webster work cattle on this land. As an adult I have come to appreciate this property as not only pristine pasture land, but also for the historical value it holds; not only family history, but as land through which the Oregon Trail passes. In fact, visible ruts and rock cairns are scattered throughout this property

I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in Exhibit S and the Historic Properties Management Plan and Programmatic Agreement. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director. The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA feels it is important that the public know where the Trails are

located, and I couldn't agree more! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails.

Like most land owners, my family has always been proud to have the trail run through their property. The Oregon Trail is not only a historical site for Union County, but is a State historical site, and should be protected as a part of our heritage. My father guided many groups interested in history through our land, and after obtaining permission, allowed Boy Scout, Public School, and Historical Society Groups, to walk and hike on the trail. Amazingly, Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day. In fact, one representation of the proposed power line actually shows a tower sitting directly on the trail.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. EFSC Must Deny the Site Certificate!

The Oregon National Historic Trail will be significantly affected by the B2H Transmission Line. The Draft Proposed Order identifies significant impacts to the Oregon Trail in several Exhibits, including Exhibit C:

Property Location and Maps; Exhibit L: Protected Areas; Exhibit R: Scenic Aesthetic Values; Exhibit S: Cultural Resources; Exhibit T: Recreational Facilities; and Exhibit X: Noise.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, except at the Oregon Trail Interpretive Center at Flagstaff Hill. The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose Not to participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.

2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and Oregon Trail Interpretive Center. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic vales. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail. No analysis found the pristine, Class 1 swales of the Oregon Trail within the ACEC located at: Lat 44.813762 Long -117.750194 or 44° 48' 48.26"N 117° 75' 57.97"W. IPC proposes to build a new constructed road over the Oregon Trail in the area identified in the location above.
5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism
 - b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the Edison Electric Institute, January 2013 publication "Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines." This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate. The Oregon Trail along the route of the B2H has the most damaging affects to its critical historic elements.

Once the ruts of the Oregon Trail are destroyed they cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site. Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

I am also very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development before issuance of the site certificate and commencement of construction." On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the

Applicant will provide alternate sources of water and/or alternate sources of forage where water is available." The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells. Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Four generations ago, this land was purchased by my Great-Great Grandfather for use as summer pasture, and is still used as such today. Though we no longer run our own livestock in this pasture, the rent my 85 year-old mother collects from other ranchers (who now use this for summer pasture), supplements her limited income. If in the process of blasting and construction, the natural springs that run through this pasture are reduced or destroyed, this land will be rendered useless for summer grazing, and that income stream will cease to exist for my mother. In point of fact, the land would become worthless.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is not only inadequate, but ridiculous!

As we saw in the multiple fires that raged through California last year, forest fires can spread rapidly, (particularly when driven by dry, hot winds), destroying thousands of acres and homes, and costing billions of dollars. In 1973 a wildfire began in the forested mountains west of La Grande. It was fueled by dry grasses and timber, and pushed by strong winds, and spread rapidly through our Deal Canyon pasture, threatening the western edge of La Grande. Homes stretching along the entire southwestern edge of La Grande were evacuated, along with the Grande Ronde Hospital, in fear that the fire would spread to La Grande proper. Homes along Morgan Lake road were set ablaze so fast that some residents literally ran out the front door as the back door was burning. The fire spread so fast that my

Grandfather and Father did not have time to move cattle out of the pasture, but in a desperate attempt to save their animals, could only cut the fence line and hope for the best. Our increasingly warmer climate has made our forests a tinderbox during the summer months. Our local fire fighters abilities would not be adequate, and additional fire fighting support would be slow in reaching our remote location, were a similar wildfire to be sparked at blast sites.

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

In this letter I have sited historical, economic, and environmental reasons why the Boardman to Hemingway Transmission Project should NOT be allowed to proceed now, or in the future. There are many other reasons I could site at this time, but I have confidence that others will be addressing these issues. I implore you to consider each letter and testimonial carefully. Yes, many contain sentimental, emotional, and personal stories, but our feelings about this land SHOULD BE considered. No amount of mitigation can compensate for, or replace the dreams of John Van Blockland, my Great-Great Grandfather, when he arrived (via the Oregon Trail) in the Grande Ronde Valley and planted roots here. Nothing can compensate for, or replace the dreams the weary travelers had as they camped on our (future) land, overlooking the valley, and left us a heritage we dare not forget, or shall we say, blast out of existence.

Thank you for your careful consideration in this most significant matter,

Respectfully,



Stacia Jo Webster

65212 Webster Rd.

La Grande, OR 97850

staciajwebster@gmail.com

541-963-6834

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:17 PM
To: B2H DPOComments * ODOE
Subject: Stop B2H!!

August 10, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Morgan Lake Park, analyzed as part of the Morgan Lake Alternative - (Attachment T-3, Table T-2, p. T-3-2; Table T-3-1, p. T-13) and Summary of Impacts, pp. T-27-28, 43, (T-4-51-56), inaccurately describes features of the park itself and severely underestimates the permanent impact of development on this unique city park.

See OAR 345-021-0010 (1) (T) (A) (B) (D) & OAR 345-022-0100

Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13)

Page 62 (T-57) refers to “extensive work in the siting study of the Morgan Lake Alternative.” That is doubtful because it is completely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. In their application, Idaho Power omits any references to Twin Lake.

Page 156, (T-4-6) purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

2) b. A specific example of unsupported conclusion:

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..."

Page 146 (T-4-47) "The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape."

Page 49 (T-44) "Vegetation will block views of the towers from most locations in the park." In reality, one tower would dominate the entrance to the park, all 130' in plain view. Within the Park, the trees bordering the lake are no more than 80' high. 130' transmission towers will rise more than 50' above those trees, dominating the current landscape.

Idaho Power does not provide a graphic representation of Morgan Lake Park, with the accurate height of existing trees, and elevation of towers above the trees. It simply concludes that the inescapable sight of 500 kV transmission lines and towers around a natural lake setting will have "no significant impact" on Morgan Lake Park.

This is the park whose baseline "should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users" [because 50 years ago, no one ever imagined anything larger than a human being, might ever intrude]..."

I urge the Commission to deny this application for a site certificate until each comment submitted and sent to the Commission by August 22 has been thoroughly analyzed, and Idaho Power has provided credible evidence to support each of its conclusions of "no significant impact."

Name: Sarah Ann Wehrle

Mailing Address:
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:23 PM
To: B2H DPOComments * ODOE
Subject: STOP B2H!!

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I respectfully request that this letter protesting issuance of a Site Certificate for the proposed Boardman to Hemingway Transmission Project be entered on the record.

Specifically, the applicant has failed to acknowledge the presence of a Federal and State-listed, Threatened species, and has failed to identify Category-1, Critical Habitat.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species, also listed as Threatened by USFWS. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation. The applicant has failed to comply with these requirements!

The Grande Ronde river watershed contains a well-documented population of Bull Trout. By statute, wherever a portion of a watershed contains a Threatened or Endangered species, the entire watershed is under federal protection. The Grande Ronde river watershed encompasses the entirety of Union county, and the majority of Wallowa county. As evaluated in the DPO, ASC Exhibit P, suitable habitat used by state-listed Threatened and Endangered species is designated pursuant to ODFW's Habitat Mitigation Policy, and EFSC's Fish and Wildlife Habitat standards, as Category-1 Habitat, where any impact, direct or indirect is prohibited. There is NO mitigation for Category-1 Habitat!

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited, the magnitude of impact becomes irrelevant.

The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, as noted above.

In view of the fact that sufficient recovery of the Bull Trout population to remove its Threatened status is reliably estimated to be a matter of decades, issuance of a Site Certificate should be denied, with prejudice!

Sincerely,

Sarah Wehrle, DPT

1603 L Ave
La Grande, OR 97850

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:31 PM
To: B2H DPOComments * ODOE
Subject: STOP B2H!!!!

August 22, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

To: Chairmen Beyeler and Members of the Council

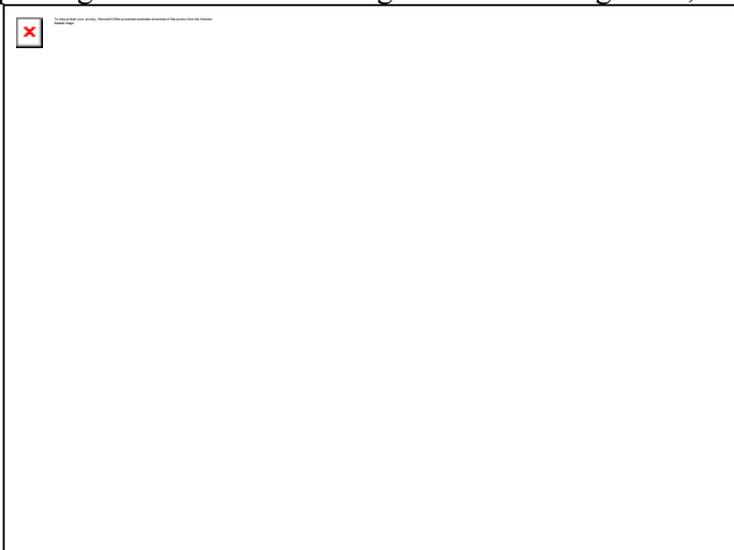
Thank you for the opportunity to comment and object.
In eastern Oregon there are no 500-kV transmission lines. B2H is very large, sometimes three time the size of current lines in the area.

Exhibit W Retirement, 3.1 Estimated Useful Life:

Idaho Power claims that the transmission line will remain in service for perpetuity. There are no references or hard data to support this optimistic estimate. In fact, 500-kV long distance transmission lines were first built in the 1960s. This same argument is being used for the “Sams Valley Reinforcement Projects” by PacifiCorp. Over the last 50 years, wind power, solar power, local distributed energy, including new battery storage will certainly affect long distance transmission lines. Cancellation of 500-kV projects such as Cascade Crossing and Colusa-Sutter in California, are specific illustrations of changes being made by forward thinking executives.

Exhibit W Retirement, 3.2 Site Restoration Activities:

On page W-3, IPC is required to “remove foundations for each support structure to a depth of one (1) foot below grade, depending on ground slope.” There will be over 4400 cement foundations, most at four feet diameter, but some up to eight feet in diameter. Regrowth of native grasses, shrubs and trees will require more



than one foot of soil.

The requirement of one foot has been used on other energy facilities, but B2H is much larger than any other facilities constructed to date in eastern Oregon. IPC does not say how they will remove the reinforced

concrete, but mechanical equipment will certainly leave cement chunks in the ground to be covered with some top soil. Weather erosion will soon show the remaining rebars and foundation.

ADDED CONDITION #1: Foundations will be removed to depth of three feet below grade.

Exhibit W Retirement and Financial Assurance Condition 1: This formula of required bonding will leave the public exposed to risk of returning the lands to preconstruction condition. Most damage will be done in the early stages of construction, such as ground disturbance for roads and right-of-way and foundation preparation. In (d.) bond or letter of credit amendments should be based upon qualified appraisal.

ADDED CONDITION #2: IPC will contract with a qualified construction appraiser to determine amount of construction completed at each six (6) month period. This amount will be used for bond or letter of credit adjustment if the amount is equal or more than \$250,000 from straight line formula.

Exhibit W Retirement and Financial Assurance Condition 2: A bond or letter of credit purpose, is to protect the public from the RISK of not having the site restored to a useful non-hazardous condition. EFSC is recommending that the Council approve the assumption that the risk to the public is ZERO (0) for 50 years, then remain under-insured for the next 50 years. If EFSC and IPC feel that the risk is zero, then the cost of the bond should be low. The risk should be moved to the bank, not forced upon the public. The fact that it may have an operating life of 100 years does not remove the risk that it is there and would need removal and ROW recondition.

ADDED CONDITION #3: On the date that the facility is placed in service, the bond or letter of credit will be set at the final appraised amount of restoration. This amount will be adjusted, by qualified appraisal, at least every 5 years.

Sincerely,

Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:34 PM
To: B2H DPOComments * ODOE
Subject: STOP B2H!!!

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

COMMENT REGARDING THE FAILURE TO PROVIDE HABITAT MITIGATION FOR IMPACTS TO MIGRATORY BIRDS

The Oregon Department of Energy and Energy Facility Siting Council have failed to honor federal laws regarding protected species. This does not eliminate the requirement that site certificates provide mitigation for habitat loss due to ODOE and EFSC authorized energy developments.

In their letter to Don Gonzales, BLM, dated Mar. 19, 2015, (contained in the EIS material), the US Fish and Wildlife Service identified necessary mitigation requirements for habitat impacts to federally protected Migratory Birds resulting from the”(e.g. permanent removal of more than 800 acres of forested habitat, plus additional danger trees removed outside of right-of-way over the life of the project)”

In addition, when the Oregon Department of Fish and Wildlife made comments regarding the Proposed Antelope Ridge Wind Development, they indicated that no permanent structures should be placed in the forested areas that the transmission line is planning to cross and cut because of the numbers of migratory birds nesting in the forested areas. This is unique habitat due to the elevation, proximity to Ladd Marsh Wildlife area, and is critical to maintaining the value of the marsh habitat to these birds as it provides one component of the habitat necessary for the functioning of this ecosystem.

Due to the permanent nature of the habitat impacts, the mitigation for impacts must include the entire right-of-way, not just the bases of the transmission towers and other permanent structures. Related rules are OAR 345-022-0070 and OAR 635-415-0025.

The draft Proposed Order fails to provide adequate mitigation for impacts to habitat protected by federal law for migratory birds.

Sincerely,
Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:40 PM
To: B2H DPOComments * ODOE
Subject: STOP B2H!!!

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

B2H EFSC LACK OF DOCUMENTATION FOR GREAT GRAY OWL AND FLAMMULATED OWL

The surveys provided for these two species are too old to be a reliable indicator of the presence or impacts to these bird species. They were done in 2011 and 2012, seven years ago. On Page P1-9, Table P1-1 the applicant proposes doing updated surveys only on areas not previously surveyed and submitting them to only ODOE. This type of secretive procedure where the public is completely removed from any opportunity to comment or review the decisions being made by ODOE is the basis for a great deal of public dissatisfaction with the process currently being supported by ODOE and EFSC.

There is no current information in the application to base any decision regarding what the impacts will be to these birds as a result of the Boardman to Hemingway Transmission Line. A site certificate cannot be issued determining compliance with OAR 345-022-0060 without knowing what the use of the area is by wildlife. In addition, since habitat category must include the use of the habitat by species, the habitat categories cannot be determined until the developer provides the necessary current information. Given that the area of the Ladd Marsh Wildlife area is not only protected, but also contains both federal and state mitigation areas, it is not possible to determine whether or not the development will have unacceptable impacts to these mitigation sites absent information regarding the use of the adjacent habitat by wildlife utilizing the mitigation sites and whether or not the habitat will be compromised making it unsuitable for use of the species due to impacts of the development. Considering the lack of information near Ladd Marsh Wildlife area, one must question why.

Ladd Marsh is an important Migratory Bird Flyway according to the Oregon Department of Fish and Wildlife (ODFW 2008.) The Audubon Society lists it as an Important Bird Area. The number of bird species using this area has expanded in the last several years, however, in 2008 over 230 species of birds had been recorded on LMWA and over 120 species nest in the area and yet the developer appears to be ignoring the importance of not only the wildlife area, but also the habitat surrounding the wildlife area which is critical to the survival of birds moving in and out of the mitigation sites.

Sincerely,
Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:42 PM
To: B2H DPOComments * ODOE
Subject: STOP B2H!!!

August 22, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

1. Idaho Power failed to provide noise estimates for the lay down areas and incorrectly determined they were not required to do so.
2. Idaho Power failed to include all sources of noise as required by OAR 340-035-0035 in noise modeling done on all sites which were not previously used.

References:
OAR 340-035-0035

The exception to requiring noise impacts from sources listed in subsections (5)(b) - (f), (j), and (k) does not apply to developments on sites not previously used. When a lay down area, or other development is located on a site not previously used, the rule states "Sources exempt from the requirements of section (ii) of this rule which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The applicant must provide noise monitoring results for all lay down areas or other areas where these types of noise will occur in areas not previously used.

Site Condition needed:

The applicant will complete noise modeling which includes the noise sources identified in OAR 340-035-0035 for all areas where development will occur on sites not previously used. The uses are contained in OAR 345-035-0035(5)(b) - (f), (j), and (k).

For any site exceeding the noise standards, the developer will obtain a waiver from the property owner prior to the start of construction, or establish through all available means of mitigation that the location will not exceed the noise standard.

When applying another agency's rules, the Oregon Department of Energy and Energy Facility Siting Council do not have the authority to make unique interpretations of common terms like

“infrequent”. The Oregon DEQ as the agency responsible for the rules must provide any interpretation if indeed one is needed beyond the dictionary and common use of the term.

Noise surveys have not been completed, and it has not been established that the project will be able to meet the requirements of the standard, therefore, the site certificate must be denied.

Sincerely,

Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:45 PM
To: TARDAEWETHER Kellen * ODOE; B2H DPOComments * ODOE
Subject: STOP B2H!!!!

August 22, 2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE
Salem, Oregon 97301

APPLICANT FAILED TO INCLUDE A SERIOUS ANALYSIS OF NON EFU ROUTES REQUIRED BY ORS 215.

Exhibit K, 4.1.1.4 Non-EFU Alternatives.

The applicant states that “The proposed EFU avoidance route provides substantially the most direct route between the Project endpoints while avoiding EFU lands where possible. They also claim that the evaluation they did met the standard of being reasonable by virtue of being fair, proper, just, moderate and suitable under the circumstances. If their statements were actually accurate, the preferred route and alternate route proposed in the application for a site certificate would meet the requirements of ORS 215.275 AND OAR 345-022-0030.

Unfortunately, the application does not support Idaho Power's stated results for the following reasons:

- The applicant failed to do a robust evaluation of the alternative routes and provided practically no analysis of the “No Action” alternative.
- The applicant failed to identify all land meeting the definition of “farm” land.
- The proposed route does not meet a test of being a “reasonable” route as defined by *Friends of Parrett Mountain v Northwest Natural Gas Co.* 336 Or. 93, 108 (2003) due to the fact that it lacks “fairness”, is not “just, moderate, or suitable under the circumstances”. The proposed route fails to utilize available public lands and instead places the burden of impacts of the transmission line on unwilling private landowners.

Morrow and Malheur Counties are the only ones where the transmission line use of public land as opposed to private land is roughly equivalent to the percentages of each type in the county.

Baker County contains fifty one percent public land and 49% private land. The Boardman to Hemingway transmission line would be built using 83% private land and only 17% public land.

Union County contains 50% public and 50% private land. Idaho Power plans to build the transmission line on 19% public and 81% private land in this county.

Umatilla County contains 75% private land, however, the B2H transmission line would be built on 100% private land.

Due to the above, the applicant fails to comply with OAR 345-021-0010 and cannot be found to comply with OAR 345-022-0030 requiring a serious effort to identify a route which minimizes or avoids the impacts on EFU lands.

Sincerely,
Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:48 PM
To: B2H DPOComments * ODOE
Subject: STOP B2H!!!

August 22, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre.

They value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the figures they claim apply or the basis for the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicants claims that the land in the right of way will have a further reduced due to the opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive. It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock

Fencing Costs for the Small-Farm Owner” by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.) of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on either lands to be directly impacted by the Project or on surrounding lands.

Removing trees from land currently being used to grow them will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line, it will increase time and costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require the use of routes of access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission lines, will decrease the harvest along the transmission line due to loss of trees in forest land adjacent to the corridor due to wind and weather conditions causing the loss of additional trees due to weakened root infrastructure once the transmission corridor is cleared.

The economic, social and environmental impacts of running this transmission line through private forest lands in Union and Umatilla Counties are understated, lack convincing documentation, and the conclusions stated by the applicant in Section 8.0 are absolutely false. Farm and forest lands in Eastern Oregon form the basis of our economic and social well being. This developer shows a complete lack of understanding of the significance this transmission line destruction of forested lands will have on the well being of the citizens.

In addition, the applicant has failed to provide documentation to support their comments. The only reference the applicant cites that in any way relates to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; They have failed to document that they comply with OAR 345-022-0030; and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

There is no justification for determining that the proposed plan to destroy forested lands meets the requirements under OAR 345-022-0000(l)(a) which states "The facility complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to 469.570 and 469.590 to 469.619 and the standards adopted by the Council pursuant to 469.501 or the overall public benefits of the facility outweigh any adverse effects on a resource or interest protected by the applicable standards the facility does not meet as described in section (2)."

While it will be addressed in other comments, the cumulative adverse effects of the destruction of forest lands will have significant impacts on not only the economic and social well being of the citizens of Union and Umatilla Counties, but it will also adversely affect Critical Wildlife habitat, Threatened and Endangered Species, increase the potential for wildfire, stress local services, as well as multiple additional resource and interests of concern to the citizens.

Sincerely,

Sarah Wehrle
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:52 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway

August 22, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the B2H Draft Proposed Order. The Oregon National Historic Trail will be significantly affected by the B2H Transmission Line.

The Draft Proposed Order identifies significant impacts to the Oregon Trail in several Exhibits, including Exhibit C: Property Location and Maps; Exhibit L: Protected Areas; Exhibit R: Scenic Aesthetic Values; Exhibit S: Cultural Resources; Exhibit T: Recreational Facilities; and Exhibit X: Noise.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and Oregon Trail Interpretive Center. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic values. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail. No analysis found the pristine, Class 1 swales of the Oregon Trail within the ACEC located at: Lat 44.813762 Long -117.750194 or 44° 48' 48.26"N 117° 75' 57.97"W. IPC proposes to build a new constructed road over the Oregon Trail in the area identified in the location above.
5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism
 - b. It is the single most visited tourist facility in Baker County

- c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the *Edison Electric Institute*, January 2013 publication “Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines.” This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate.

The Oregon Trail along the route of the B2H has the most damaging effects to its critical historic elements. Once the Trail is gone it cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site.

Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Thank you,

Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:37 PM
To: TARDAEWETHER Kellen * ODOE
Subject: STOP B2H!!!

August 22, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301
Kellen.Tardaewether@oregon.gov

**Subject: Idaho Power Amended Application for the Boardman to Hemingway Transmission Project dated 9/28/2018;
Draft Proposed Order dated 5/23/2019**

Dear Chair Beyeler and Members of the Council;

Thank you for the opportunity to comment on the Draft Proposed Order for Idaho Power's B2H project.

IPC's "Noxious Weed Plan" fails to take responsibility for spreading noxious weeds in several alarming ways. Here is an excerpt from their Plan (Monitoring 6.1):

As stated above, noxious weed monitoring and control will occur during the first 5-year period.

When it is determined that an area of the Project has successfully controlled noxious weeds at any point during the first 5 years of control and monitoring, IPC will request concurrence from ODOE. If ODOE concurs, IPC will conclude that it has no further obligation to monitor and control noxious weeds in that area of the Project. If control of noxious weeds is deemed unsuccessful after 5 years of monitoring and noxious weed control actions, IPC will coordinate with ODOE regarding appropriate steps forward. At this point, IPC may suggest additional noxious weed control techniques or strategies, or may request a waiver from further noxious weed obligations at these sites.

To start with, the landowner or occupant of land in this case, is required by law to control weeds in perpetuity—not just for 5 years! TO say that IPC "has no further obligation" and can "request a waiver" is in blatant disregard to the law.

From Chapter 569 of Oregon law (https://www.oregonlegislature.gov/bills_laws/ors/ors569.html):

569.180 Noxious weeds as public nuisance; policy. *In recognition of the imminent and continuous threat to natural resources, watershed health, livestock, wildlife, land and agricultural products of this state, and in recognition of the widespread infestations and potential infestations of noxious weeds throughout this state, noxious weeds are declared to be a public nuisance and shall be detected, controlled and, where feasible, eradicated on all lands in this state. It is declared to be the policy of this state that priority shall be given first to the prevention of new infestations of noxious weeds and then to the control and, where feasible, eradication of noxious weeds in infested areas. [Formerly 452.615]*

569.390 Owner or occupant to eradicate weeds. *Each person, firm or corporation owning or occupying land within the district shall destroy or prevent the seeding on such land of any noxious weed within the meaning of ORS 569.360 to 569.495 in accordance with the declaration of the county court and by the use of the best means at hand and within a time declared reasonable and set by the court, except that no weed declared noxious shall be permitted to produce seed.*

Secondly, IPC flagrantly flaunts Oregon law by proposing to treat only Class "A" and "T" (a rotating list of weeds for focused treatments in a given year) weeds- ignoring the majority of weed species. Class A weeds are mainly agricultural weeds and weeds which an entity (County or State) believes they have the best chance of controlling i.e. known patches

are few in that area. Class B and C weeds are generally the worst weeds, spreading most aggressively and to more areas, thus threatening and ultimately devastating the most native habitat. Why should Idaho Power be exempt from responsibility for the FULL list of weeds? This is absolutely awful proposition, but especially awful for Union County, where 81% of the land that would be wrecked by the B2H project is private land. Putting the route through federal lands, IPC at least gives a nod to Agency (BLM or USFS) rules for weeds. On private lands in Union County, several of the landowners in on "Proposed" or "Morgan Lake Alternative" routes have labored for years, even decades, to control weeds and maintain native habitats. Case in point are Joel Rice and the City of La Grande (Morgan Lake Park). Now Idaho Power comes along to trash these natural areas. The B2H project is set to become a conduit for the worst noxious weed species to be injected into some of the best native habitat in our County.

"B2H Noxious Weed Plan Comments" is a document collated by weed supervisor Brian Clapp of Union County after a meeting of Morrow, Umatilla, and Union counties, Oregon Dept. of Ag and Tri-County CWMA on August 22, 2017 to go over the B2H Attachment P1-5 Noxious Weed Plan. These comments reflect some of my concerns about weeds. I find it nearly unbelievable the Comments by weed managers are NOT acknowledged in IPC's Plan, published over a year later!

To top the travesty of IPC's "Noxious Weed Plan" the Plan states they are not responsible for "areas outside of the ROW". The weed sites immediately outside areas of potential disturbance are definitely going to spread to disturbed areas --but would not even be recorded! Noxious weeds would explode near the ROW, ruining native habitat, trashing decades of work by landowners, and with no accountability by IPC. IPC is proposing a huge area of disturbance; their responsibility should not be limited to the ROW.

I urge you to strongly deny IPC's B2H Application. IPC's "Noxious Weed Plan" does not comply with Oregon law. They deny responsibility for control of most weed species, deny responsibility for weed control after 5 years, control weeds only once a year, and give themselves a waiver when control fails. EFSC should reject the Weed Plan and Application.

Sincerely,

Sarah Wehrle, DPT

1603 L Ave

La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Sarah Wehrle <wehrle.sarah@gmail.com>
Sent: Thursday, August 22, 2019 4:45 PM
To: TARDAEWETHER Kellen * ODOE; B2H DPOComments * ODOE
Subject: STOP B2H!!!!

August 22, 2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE
Salem, Oregon 97301

APPLICANT FAILED TO INCLUDE A SERIOUS ANALYSIS OF NON EFU ROUTES REQUIRED BY ORS 215.

Exhibit K, 4.1.1.4 Non-EFU Alternatives.

The applicant states that “The proposed EFU avoidance route provides substantially the most direct route between the Project endpoints while avoiding EFU lands where possible. They also claim that the evaluation they did met the standard of being reasonable by virtue of being fair, proper, just, moderate and suitable under the circumstances. If their statements were actually accurate, the preferred route and alternate route proposed in the application for a site certificate would meet the requirements of ORS 215.275 AND OAR 345-022-0030.

Unfortunately, the application does not support Idaho Power's stated results for the following reasons:

- The applicant failed to do a robust evaluation of the alternative routes and provided practically no analysis of the “No Action” alternative.
- The applicant failed to identify all land meeting the definition of “farm” land.
- The proposed route does not meet a test of being a “reasonable” route as defined by *Friends of Parrett Mountain v Northwest Natural Gas Co.* 336 Or. 93, 108 (2003) due to the fact that it lacks “fairness”, is not “just, moderate, or suitable under the circumstances”. The proposed route fails to utilize available public lands and instead places the burden of impacts of the transmission line on unwilling private landowners.

Morrow and Malheur Counties are the only ones where the transmission line use of public land as opposed to private land is roughly equivalent to the percentages of each type in the county.

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Union County contains 50% public and 50% private land. Idaho Power plans to build the transmission line on 19% public and 81% private land in this county.

Umatilla County contains 75% private land, however, the B2H transmission line would be built on 100% private land.

Due to the above, the applicant fails to comply with OAR 345-021-0010 and cannot be found to comply with OAR 345-022-0030 requiring a serious effort to identify a route which minimizes or avoids the impacts on EFU lands.

Sincerely,
Sarah Wehrle, DPT
1603 L Ave
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Kevin Weitemier <kweitemier@gmail.com>
Sent: Thursday, August 22, 2019 1:01 PM
To: B2H DPOComments * ODOE
Subject: B2H Public Comment

August 22, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301
Kellen.Tardaewether@oregon.gov

**Subject: Idaho Power Amended Application for the Boardman to Hemingway Transmission Project dated 9/28/2018;
Draft Proposed Order dated 5/23/2019**

Dear Chair Beyeler and Members of the Council;

Thank you for the opportunity to comment on the Draft Proposed Order for Idaho Power's B2H project.

IPC's "Noxious Weed Plan" fails to take responsibility for spreading noxious weeds in several alarming ways. Here is an excerpt from their Plan (Monitoring 6.1):

As stated above, noxious weed monitoring and control will occur during the first 5-year period. When it is determined that an area of the Project has successfully controlled noxious weeds at any point during the first 5 years of control and monitoring, IPC will request concurrence from ODOE. If ODOE concurs, IPC will conclude that it has no further obligation to monitor and control noxious weeds in that area of the Project. If control of noxious weeds is deemed unsuccessful after 5 years of monitoring and noxious weed control actions, IPC will coordinate with ODOE regarding appropriate steps forward. At this point, IPC may suggest additional noxious weed control techniques or strategies, or may request a waiver from further noxious weed obligations at these sites.

IPC should be required to control weeds in perpetuity—not just for 5 years. To say that IPC "has no further obligation" and can "request a waiver" is in blatant disregard to the law. This also goes against the declared policy of the state that "priority shall be given first to the prevention of new infestations of noxious weeds."

From Chapter 569 of Oregon law (https://www.oregonlegislature.gov/bills_laws/ors/ors569.html):

569.180 Noxious weeds as public nuisance; policy. *In recognition of the imminent and continuous threat to natural resources, watershed health, livestock, wildlife, land and agricultural products of this state, and in recognition of the widespread infestations and potential infestations of noxious weeds throughout this state, noxious weeds are declared to be a public nuisance and shall be detected, controlled and, where feasible, eradicated on all lands in this state. It is declared to be the policy of this state that priority shall be given first to the prevention of new infestations of noxious weeds and then to the control and, where feasible, eradication of noxious weeds in infested areas. [Formerly 452.615]*

569.390 Owner or occupant to eradicate weeds. *Each person, firm or corporation owning or occupying land within the district shall destroy or prevent the seeding on such land of any noxious weed within the meaning of ORS 569.360 to 569.495 in accordance with the declaration of the county court and by the use of the best means at hand and within a time declared reasonable and set by the court, except that no weed declared noxious shall be permitted to produce seed.*

Secondly, IPC should be responsible for the FULL list of weeds. Currently, IPC flaunts Oregon law by proposing to treat only Class A and T-Designated weeds (a rotating list of weeds for focused treatments in a given year), ignoring the majority of weed species. Class A weeds are mainly agricultural weeds and weeds which an entity (County or State) believes they have the best chance of controlling i.e. known patches are few in that area. Class B weeds, however, are generally the worst weeds, spreading most aggressively and to more areas, thus threatening and ultimately devastating the most native habitat. Some Class B weeds that are not also T-designated and therefore excluded from the IPC proposal, include yellow starthistle (*Centaurea solstitialis*), Armenian (Himalayan) blackberry (*Rubus armeniacus*), multiple knapweeds (*Centaurea* sp., *Acroptilon repens*), and yellow toadflax (*Linaria vulgaris*).

Excluding IPC from the full weeds list is an awful proposition, especially for Union County, where 81% of the land that would be wrecked by the B2H project is private land. Putting the route through federal lands, IPC at least gives a nod to Agency (BLM or USFS) rules for weeds. On private lands in Union County, several of the landowners in on “Proposed” or “Morgan Lake Alternative” routes have labored for years, even decades, to control weeds and maintain native habitats. Case in point are Joel Rice and the City of La Grande (Morgan Lake Park). The B2H project is set to become a conduit for the worst noxious weed species to be injected into some of the best native habitat in our County.

Furthermore, IPC’s “Noxious Weed Plan” states they are not responsible for “areas outside of the ROW”. The weed sites immediately outside areas of potential disturbance are definitely going to spread to disturbed areas, but would not even be recorded! Noxious weeds would explode near the ROW, ruining native habitat, trashing decades of work by landowners, and with no accountability by IPC. IPC is proposing a huge area of disturbance; their responsibility should not be limited to the ROW.

I strongly urge you to deny IPC’s B2H Application. IPC’s “Noxious Weed Plan” does not comply with Oregon law. They deny responsibility for control of most weed species, deny responsibility for weed control after 5 years, control weeds only once a year, and give themselves a waiver when control fails. EFSC should reject the Weed Plan and Application.

Sincerely,

**Kevin Weitemier, Ph.D.
6146 SW 18th Dr., Apt 68
Portland, OR 97239**

August 10, 2019

Energy Facilities Siting Council

c/o Kellen Tardaewether, Siting Senior Analyst

Oregon Department of Energy

550 Capitol St. N.E.

Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

Re: Soil Protection - **Drill site 103/3; 103/4 and vicinity on unstable and steep slopes**

My comment addresses the known hazards and adverse effects of construction of the B2H transmission line on unstable ground.

The applicable standard is: OAR 345-022-0022. (c) *...The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Drill sites 103/3; 103/4 and vicinity are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 20 of 44:

Table B3: Soil Descriptions, described as:

18E, erosion hazard; severe; 61E; erosion hazard; severe, percent of slope Low; 5: High; 40.
(sheet 1 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 39

103/3 – Slope Stability/ Geo-Seismic Hazard

E.2 Landslide Descriptions

SLIDO-3.4 FernML2010_129

Northing: 5019127 Easting: 407892 Sheet 9

'SLIDO 129 is referenced at a scale of 1:100,000 (Ferns et al., 2010) and its mapped extents intersect the IPC Proposed Route, between 103/3 and 103/4. This slide appears to be contained within a drainage spanned by the two towers and it therefore unlikely to affect the proposed work areas. A field reconnaissance of this area should be performed as part of the geotechnical exploration program."

Idaho Power Corporation, in Exhibit H 2.2.4 states *"The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard."*

Idaho Power Corporation admits in ASC page B-12 that *"The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes presenting design and construction challenges."*

IPCs stated original intention to the EFSC was the following: *"Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line."*

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the Winter storms and the Spring melt can be precipitous and unpredictable.

The area surrounding **Drill sites 103/3; 103/4** adds a hazard of unknown proportions to a populated area with a delicate earth crust. **The steep and unstable slopes will require many intrusive modifications to meet the standard of safety and could very easily "aggravate" the stability of the slopes. The application does not comply with the relevant standard.**

Conclusion and Requested Relief:

Drill site Drill sites 103/3; 103/4, and its vicinity, represent a significant risk of several possible adverse effects. This area characterized by steep slopes and hazardous snow melts should be removed for consideration as a site for a transmission "facility". Idaho Power Corporation in *Exhibit H 3.9 Mitigation* describes methods, trucks, and towers designed to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Name: Judith D. Welch



Address: 62121 Fruitdale Ln,
La Grande OR 97850

References:

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Ferns, Mark L. McConnell, V. S., Madin, I.P., and Johnson, J.A., 2010 Geology of the Upper Grande Ronde Basin, Union County, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 2003-11, 85.0, scale 1:125,000.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; *Soil Protection* Effective date: 10/18/2017.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Union County, Oregon, Union County Emergency Operations Plan – Hazard Analysis. Updated – 6/30/2016.

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

✓) The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,


Signature

Printed Name: Jane Wentzel
Mailing Address:

50251 Bennett Ln., Baker City OR 97814
(Pondosa, Union County)

There is no need for
this project !!

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within 1/4 mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,

D. Wentzel

Name: Jane Wentzel

Address: 50251 Bennett Ln., Baker City OR 97814
(Pondosa, Union County)

There is no need for this project !! No great increase in population and solar panels are available !!

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the “Local Streets” ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the “loop”, of La Grande to access the site entrance. This residential “loop” was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) “The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools.” ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This “loop” is the only access to/from thirty-six houses to the rest of the city. The area to the north of the “loop” is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that “No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic.” ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

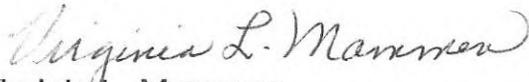
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁵	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

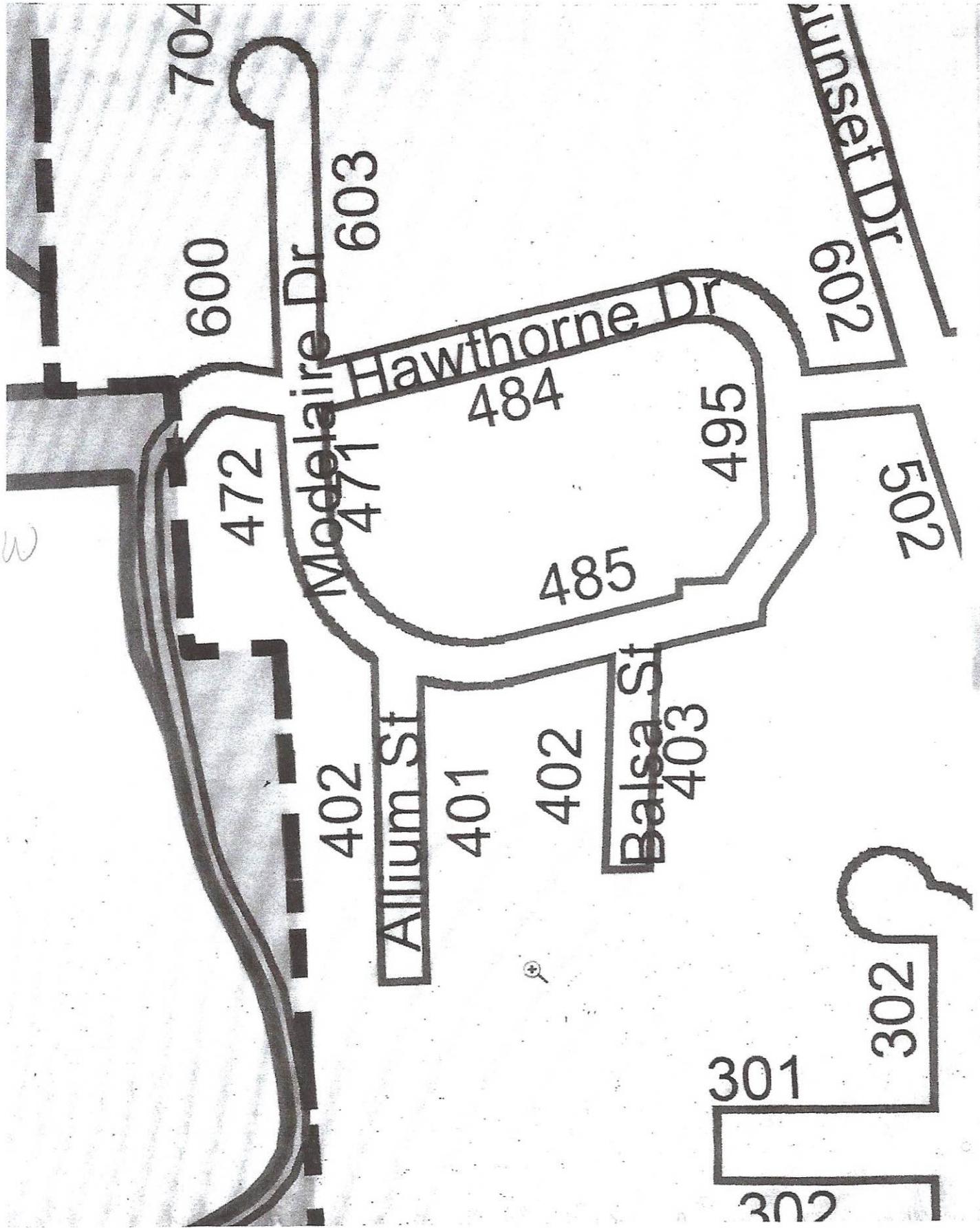
The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

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Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	proposed helipad is a necessary supporting facility.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <u>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</u> a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASG Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department; b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic. <u>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</u>
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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

- 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
- 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
- 3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
- 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
- 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE
Public Works Director
City of La Grande
Public Works
 Ph: (541) 962-1325
 Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K





attachment U2

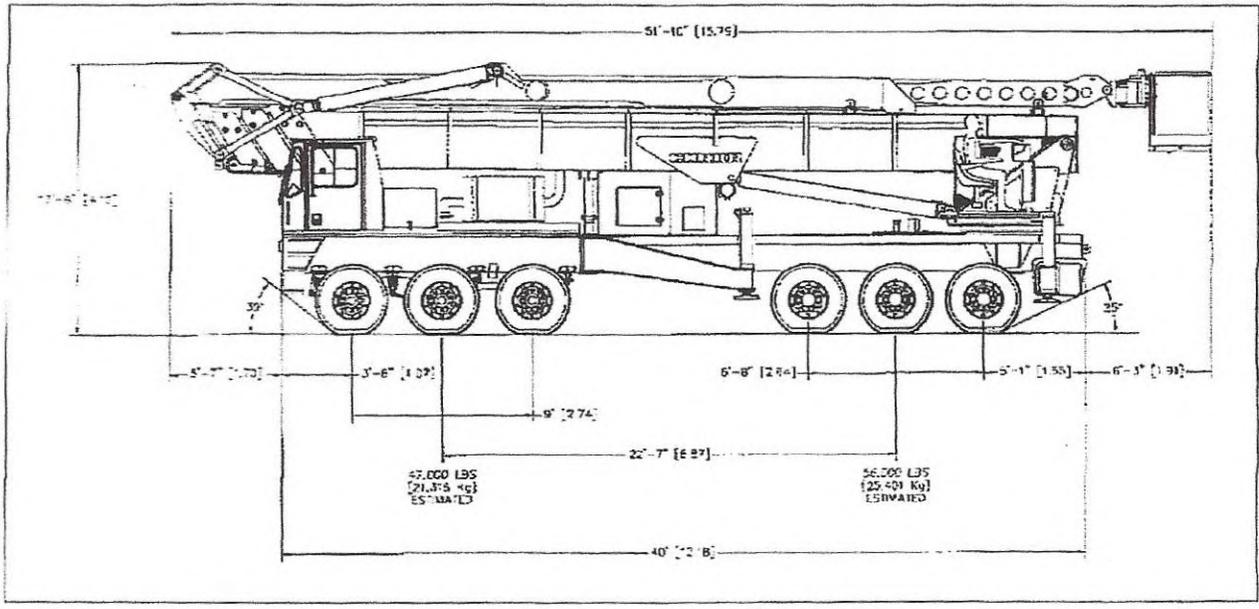


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck trips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

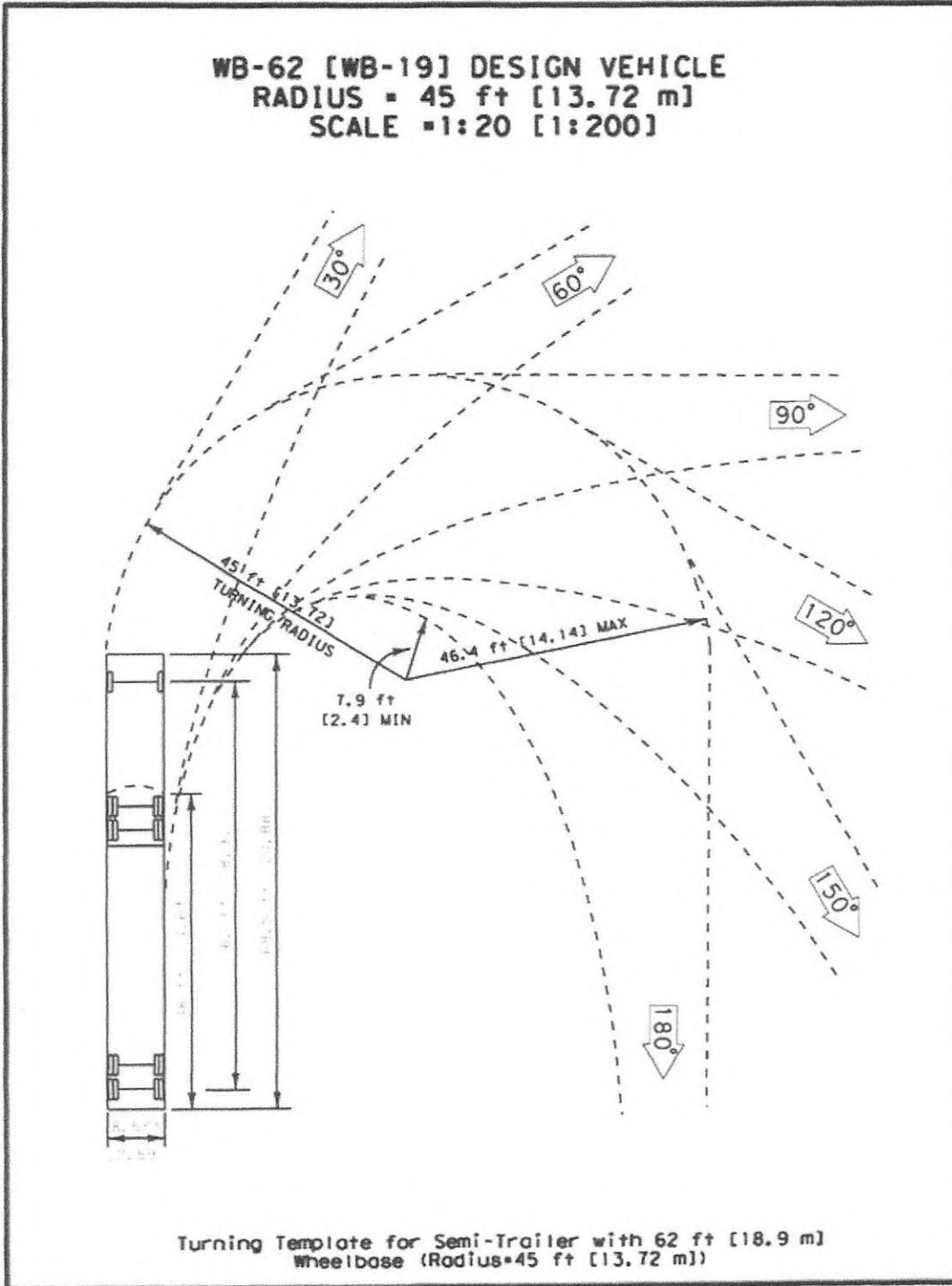


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

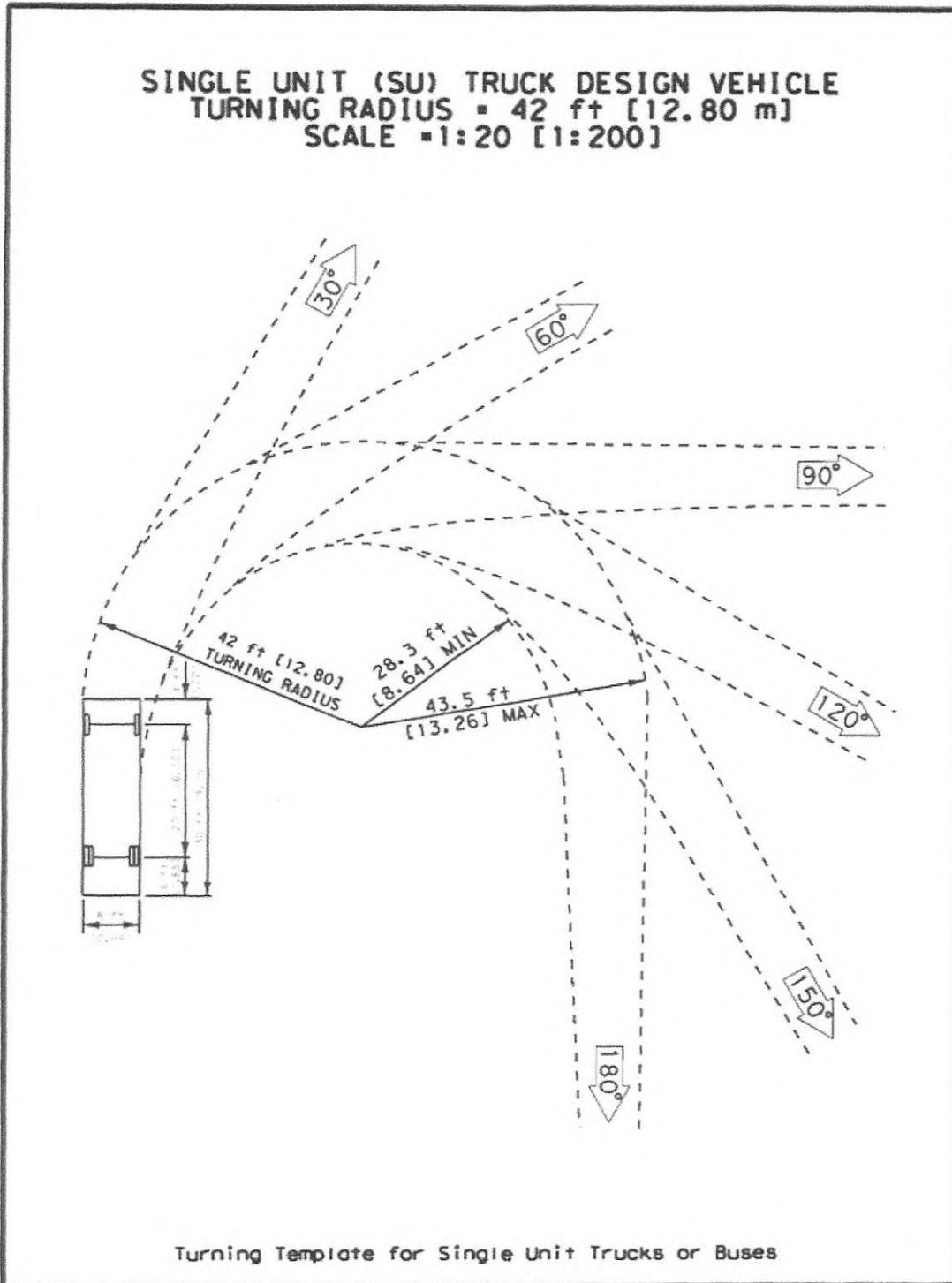


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

Section 17. TRUCK ROUTES

- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE

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BRIAN D. WALDROP

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ELISE McILMAIL

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mcilmail@comcast.net

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

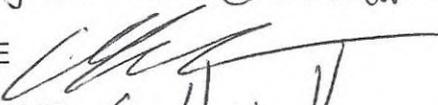

Jessie Huxell
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C. Huxell
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CHRIS Huxell @ EMAIL.COM

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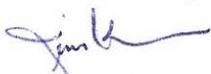
ADDRESS

EMAIL

Blake Bars
Blake Bars
1101 G Ave La Grande
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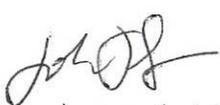
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SIGNATURE 
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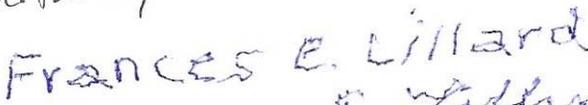
SIGNATURE 
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SIGNATURE 
PRINTED NAME Pasco Arritola
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SIGNATURE 
PRINTED NAME JOHN BARLITZ
ADDRESS 484 HAWTHORNE LG, OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE 
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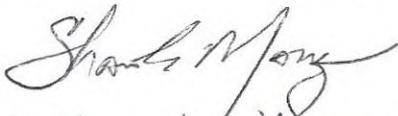
SIGNATURE 
PRINTED NAME Frances E. Lillard
ADDRESS 471 Modelaire Dr. L.G.
EMAIL

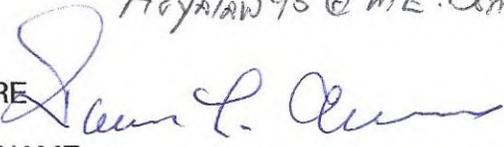
SIGNATURE 
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SIGNATURE 
PRINTED NAME M. Jeannette Smith
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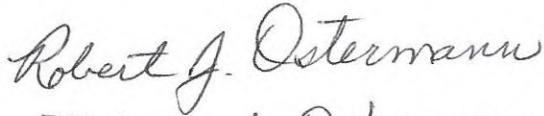
SIGNATURE 
PRINTED NAME KIMBERLEY HEITSTUMAN
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I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE: 
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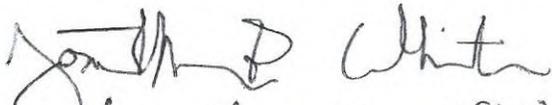
SIGNATURE 
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EMAIL N/A

SIGNATURE 
PRINTED NAME Linda M. Snyder
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SIGNATURE 
PRINTED NAME Robert J. Ostermann
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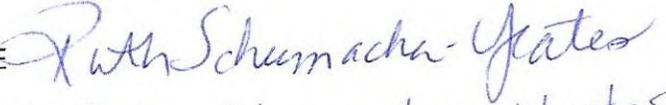
SIGNATURE 
PRINTED NAME Robin J. Ostermann
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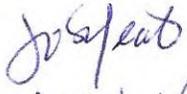
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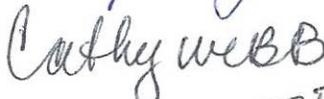
SIGNATURE 
PRINTED NAME Rita Allen
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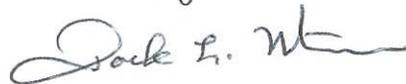
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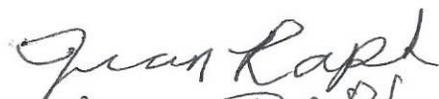
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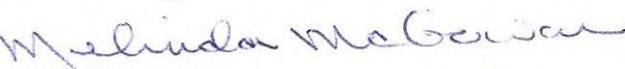
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SIGNATURE *Gary D. Pierson*
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EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
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SIGNATURE *Anne G. Cavinato*
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PRINTED NAME ANGELA Sherer
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EMAIL asherer@frontier.com

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SIGNATURE *Robert J. Sherer*
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SIGNATURE *Lindsey McCullough*
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EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
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SIGNATURE *Robin I. Maille*
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SIGNATURE *Bruce C Kevan*
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SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
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EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
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EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande, OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

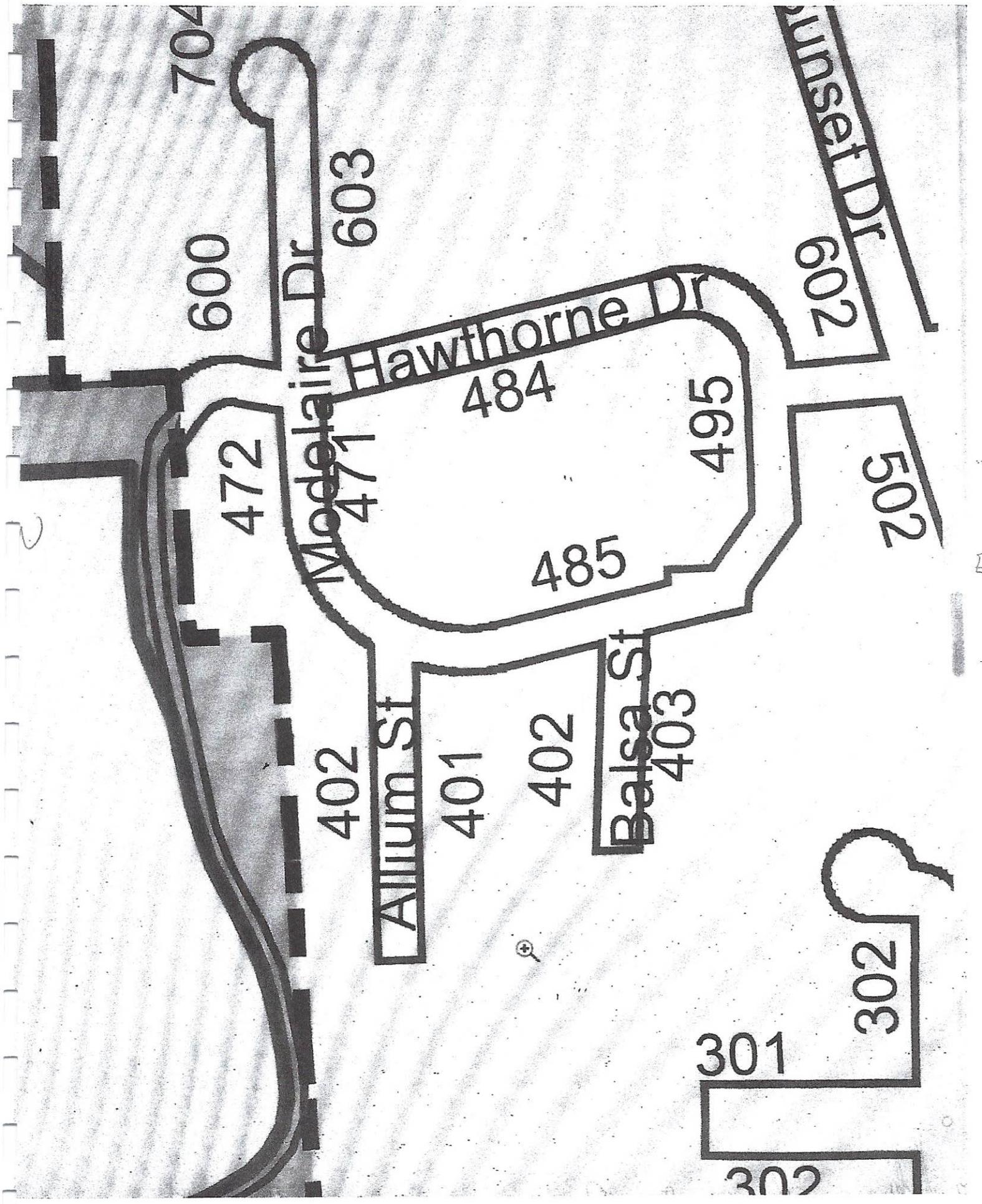
Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

N



3.3 Predicted Noise Levels

1 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
2 of the proposed facility.
3

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

4 Project construction will occur sequentially, moving along the length of the Project route, or in
5 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
6 maintenance areas. Overhead transmission line construction is typically completed in the
7 following stages, but various construction activities may overlap, with multiple construction
8 crews operating simultaneously:
9

- 10 • Site access and preparation
- 11 • Installation of structure foundations
- 12 • Erecting of support structures
- 13 • Stringing of conductors, shield wire, and fiber-optic ground wire

14 The following subsections discuss certain construction activities that will periodically generate
15 audible noise, including blasting and rock breaking, implosive devices used during conductor
16 stringing, helicopter operations, and vehicle traffic.
17

Blasting and Rock Breaking

18 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
19 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
20 Modern blasting techniques include the electronically controlled ignition of multiple small-
21 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
22 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
23 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.
24

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

Implosive Devices

34 An implosive conductor splice consists of a split-second detonation with sound and flash.
35 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
36 developed by an individual certified and licensed to perform the work. The plan will
37 communicate all safety and technical requirements including, but not limited to, delineation of
38 the controlled access zone and distance away from residences.
39

Public Services

— OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

— OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

— OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

— OAR 345-024-0010 and 345-024-0015

— This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
— Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

— OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

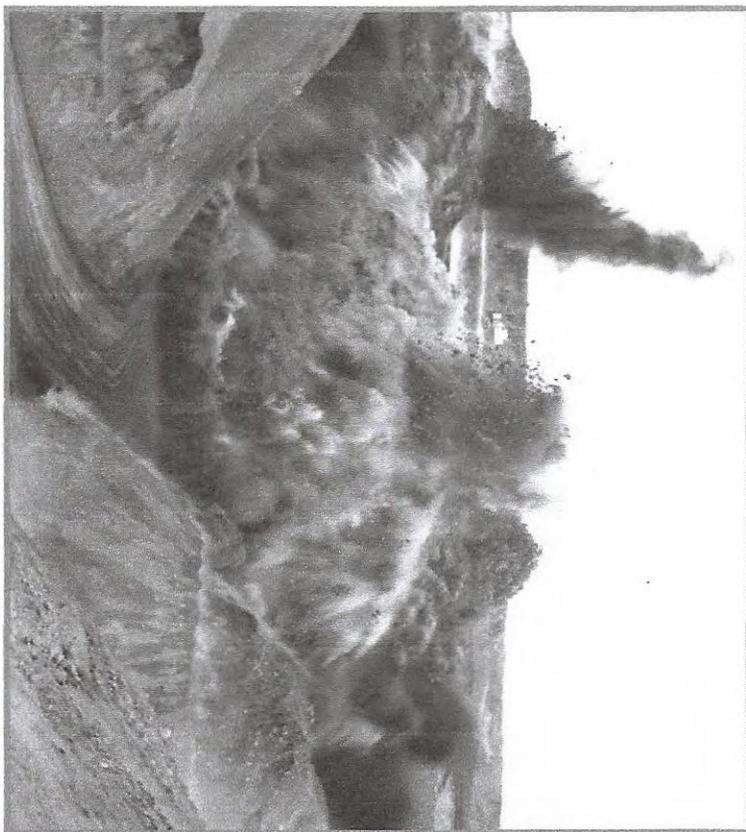
(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

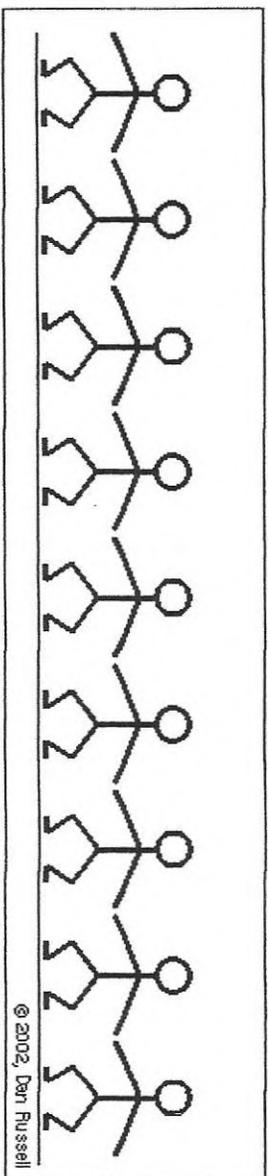
Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.



Part I: Ground Vibrations, Airblast, and Flyrock

Exhibit 5b

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate **airblast or air vibrations**. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of **ground vibrations**.



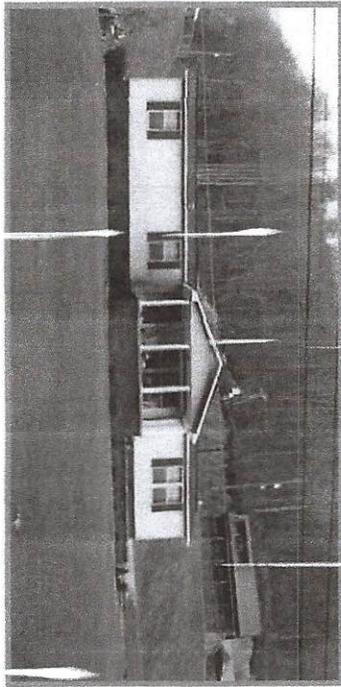
Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

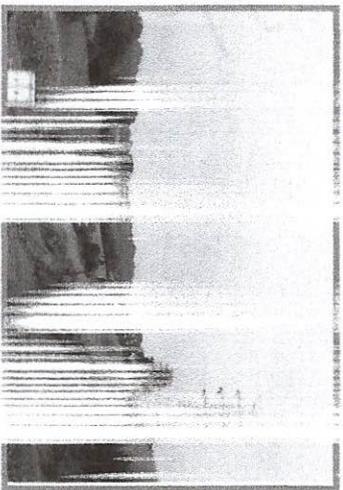
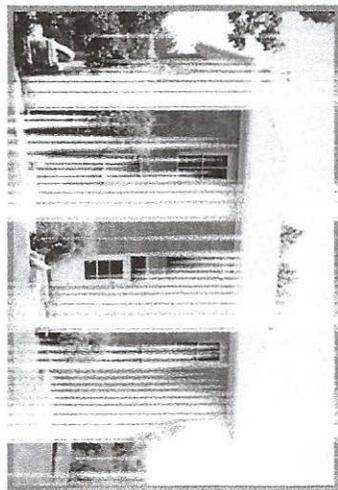
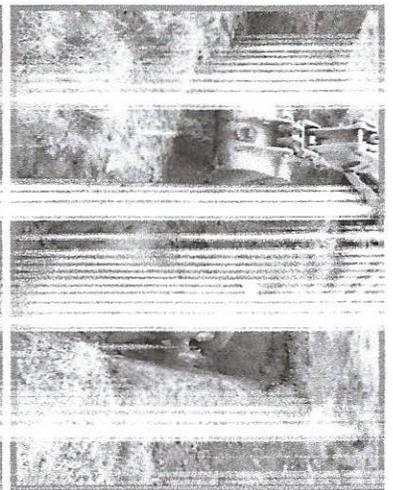
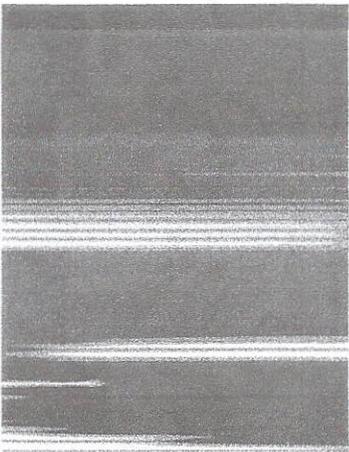
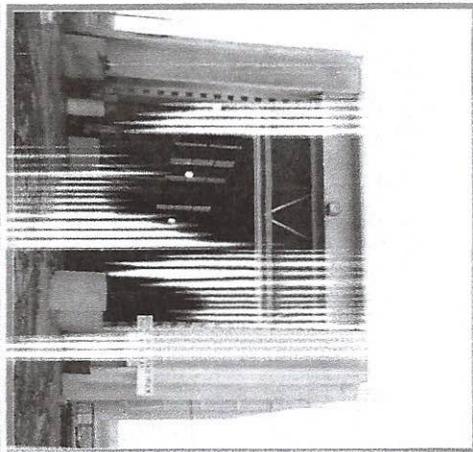
Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



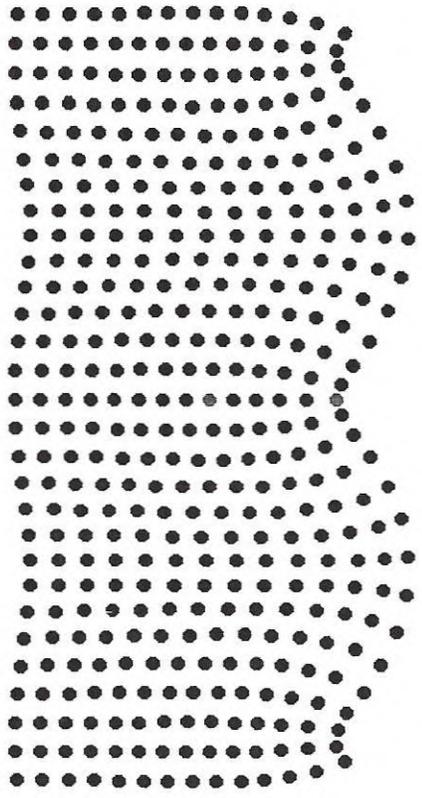
It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects



Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



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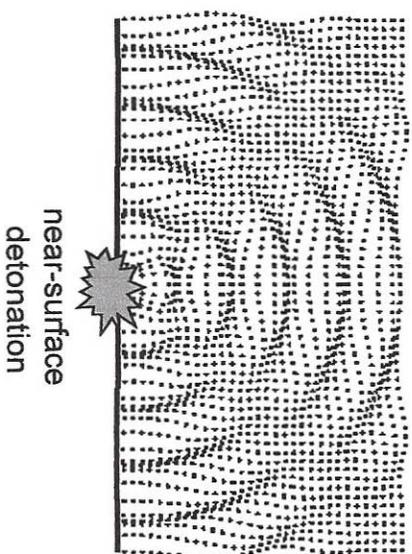
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

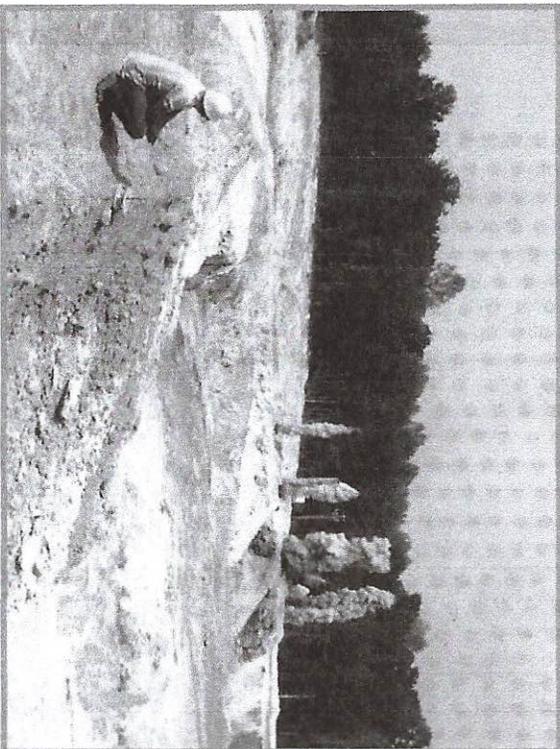
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or inaudible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

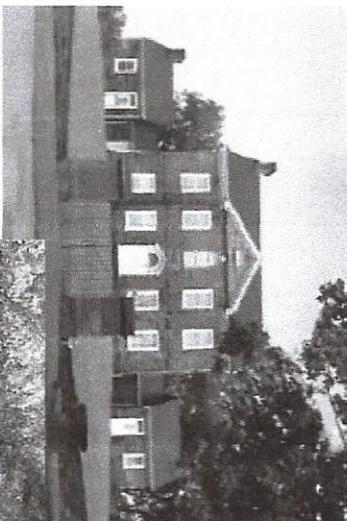
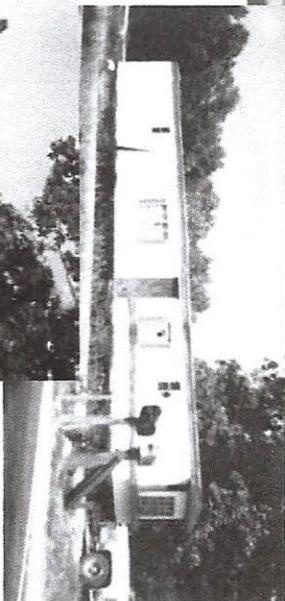
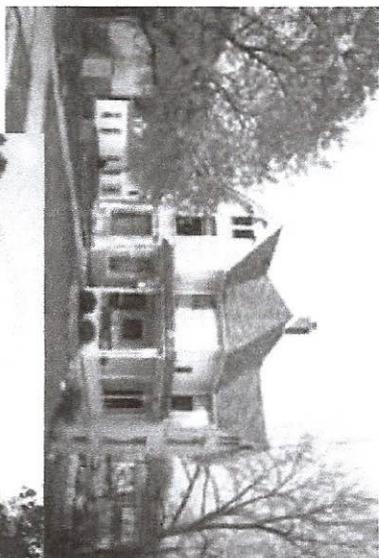
As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

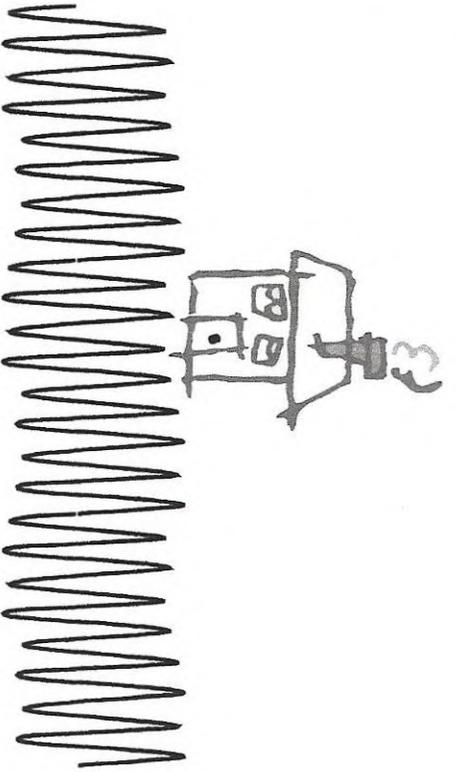
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

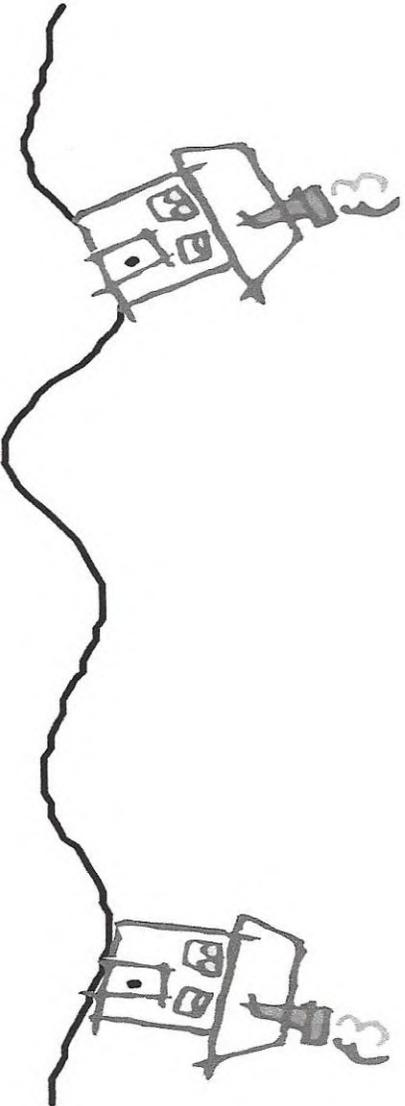


Ground Vibration Structure Response

Exhibit 59



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019

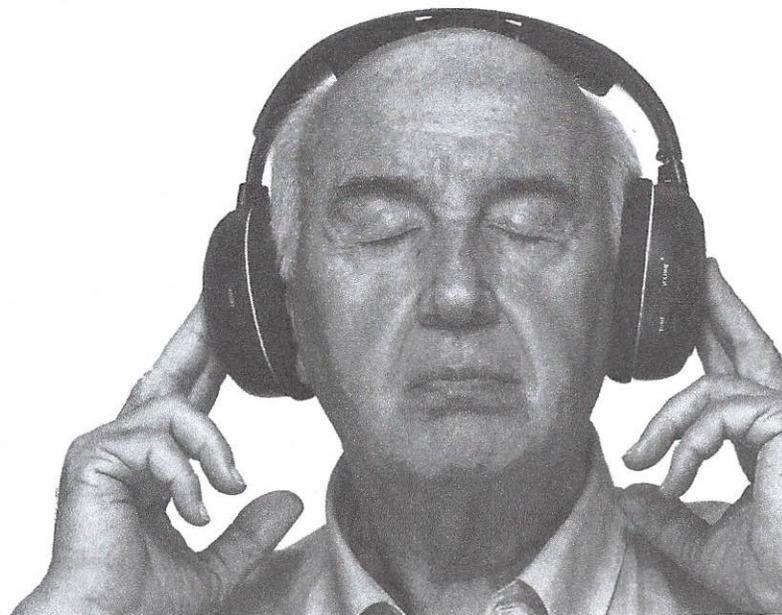


Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with “clinically significant sleep loss among hospitalized patients,” perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB – nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with “a mean maximum sound level of 69.7 dB” (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: “Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients” (Garcia, 2012). “Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects,” they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO’s 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants “are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise” (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Around the country, “quiet campaigns” have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as “one of the nation's largest hospital construction projects,” Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed “to encourage quietness,” according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including “Quiet Hospital” badges on staff and posters at the entrance of every unit, a “Quiet at Night” campaign (9 p.m. – 6 a.m.), and a “Quiet Champions” program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, [2007](#); Szalma and Hancock, [2011](#)), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, [2000](#); Wightman and Kistler, [2005](#); Talarico et al., [2007](#); Neuman et al., [2010](#)). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., [1989](#); Fallon et al., [2000](#); Werner, [2007](#)). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., [2001](#); Hall et al., [2005](#); Leibold and Neff, [2007](#)) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, [2005](#)), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., [2003](#); Hall et al., [2005](#)). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, [2000](#)), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, [1996](#); Metsala, [1997](#); Mayo et al., [2003](#)). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, [1979](#)). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, [2005](#)). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, [1973](#); Pearson and Lane, [1991](#); Coch et al., [2005](#); Wightman et al., [2010](#); Gomes et al., [2012](#)).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., [1996](#); Ziegler et al., [2005](#), [2009](#)). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds.

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, [research](#) indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

60
Shares

Additional Resources & Tools

EXPERT
OPINION

[Help for Child with Autism & Recurring Behavioral Crises: Part 2](#)

EXPERT
OPINION

[Parents Seek Help for Son with Autism and Recurring Behavioral Crises](#)



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[Parents Seek Help: Child with Severe Autism Eats Only Sweets](#)

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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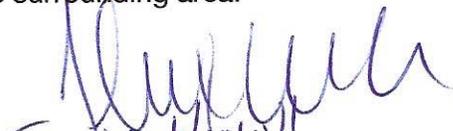
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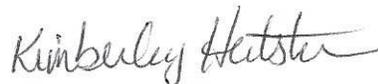
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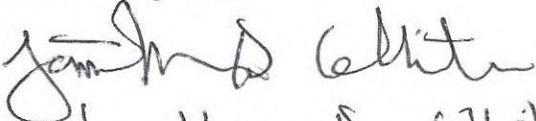


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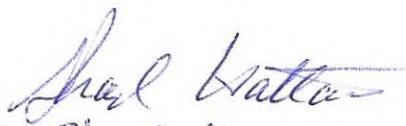
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Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) William Whitaker

Mailing Address (mandatory) 1100 G Ave
La Grande, OR 97850

Phone Number (optional) (541) 805-5681 Email Address (optional) bill@oregontribune.com

Today's Date: 6/20/19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony
(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

I will provide written testimony later.

Page 98

1 this line.
 2 I've also worked for the Happy Camp Ranger
 3 District in the Klamath National Forest and worked on
 4 active forest fires. I have flown with pilots over the
 5 fires and seen the devastation caused to the habitat and
 6 to the animals. The animals can't be forgotten.
 7 I have many relatives that dedicated their
 8 careers to protecting the towns and forests from
 9 wildland fires. These fires put the lives of
 10 firefighters, volunteers, residents, habitat, and
 11 wildlife in jeopardy.
 12 Living in Happy Camp at one time, I've been
 13 totally surrounded by a forest fire. All of our crew
 14 had to work on this fire. There were many dangers, we
 15 lost some of our vehicles, and the fire and long-lasting
 16 smoke caused severe health issues in many residents,
 17 including my father-in-law who passed away a couple of
 18 years later. He was a fire officer for the Forest
 19 Service for about 25 years.
 20 I'd like to talk about a fire that affected
 21 many people that I knew. In November of 2018, near
 22 Paradise, California, a fire started on the 56-mile
 23 Caribou-Palermo Electric transmission line. This fire
 24 started at 6:33 a.m. near a tower in Pulga -- I may be
 25 saying that wrong -- in Paradise. That day utility

Page 99

1 workers discovered that a part had separated from an arm
 2 on the tower, and that is what started that portion of
 3 the fire.
 4 The Camp Fire in Paradise killed 85 people,
 5 destroyed 18,804 structures, and burned 153,336 acres.
 6 That is a huge devastation.
 7 Cal Fire also identified a second ignition
 8 site. The second fire was determined to be vegetation
 9 that got into an electrical distribution line, owned and
 10 operated also by PG&E. Not many people know that there
 11 was a second cause to that fire. Those fires both
 12 emerged.
 13 Many family and friends that I know live in
 14 Paradise. They lost their homes, their pets, their
 15 livelihood. How can that ever be recovered?
 16 If you drive through northern California on
 17 Interstate 5 from the Oregon border, you just have to
 18 look around. You could probably go 20 miles and notice
 19 there was another wildfire and the total devastation
 20 that it caused.
 21 Fires have increased each year that goes by
 22 and become larger and more devastation caused; animals,
 23 plants, people, homes. I mean, what can I say.
 24 As a tourist and visitor from a state
 25 devastated by wildfire each and every year, I can only

Page 100

1 say this area holds a serene and untouched beauty. The
 2 landscape and wildlife are stunning; the elk, the deer,
 3 everything that you see every single day.
 4 I spent the past two days on a parcel of land
 5 right across from Morgan Lake. We hiked for many hours
 6 and saw all the wildlife, the beauty, the untouched
 7 beauty of this area.
 8 I think that the building of this power line
 9 will devastate this beauty, and I feel that this should
 10 not go on. That is all I have to say.
 11 Thank you.
 12 HEARING OFFICER WEBSTER: Thank you.
 13 After Mr. Whitaker is Thomas Thompson.
 14 MR. WILLIAM WHITAKER: Good evening. My name
 15 is Bill Whitaker. I live here in La Grande at 1108 G
 16 Avenue, about a mile away from Morgan Lake Road.
 17 I'm vice chair of the Board of Oregon Rural
 18 Action. ORA is a member organization of the Stop B2H
 19 Coalition. ORA believes that local residents, ordinary
 20 people, should be the people who are able to decide the
 21 impact of issues that dramatically affect their lives,
 22 our lives, not corporate interests making those
 23 decisions.
 24 We have many concerns about the necessity for
 25 the cost of and the impact of the B2H transmission line.

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1 I will be submitting a detailed report, but in light of
 2 the fact that many of the things that you have heard
 3 already tonight, I won't repeat. I want to just speak a
 4 bit from my heart.
 5 Idaho Power stated that it intended to
 6 construct its proposed power line on a route that had
 7 the most support from the community, that had the least
 8 impact on the community. The route chosen clearly lacks
 9 support from citizens of La Grande and Union County. It
 10 simply is not something that we want to have here
 11 affecting our community in many ways.
 12 We are asking you to consider some of the
 13 impacts of this line on our community. We want you to
 14 consider, to think about the impact of construction
 15 traffic on our residential neighborhoods and the
 16 deterioration that it will cause to our streets and
 17 roads, and the danger that it would present to
 18 pedestrians walking in these neighborhoods, many of
 19 which don't even have sidewalks.
 20 We want you, please, to consider the negative
 21 impact of the project on our unique Morgan Lake Park.
 22 You have heard vivid testimony about what the impact of
 23 power transmission towers towering 40 feet above the
 24 forest canopy in Morgan Lake would cause to the
 25 viewshed, the solitude, the beauty of that area.

Page 102

1 We want you to consider the negative impact of
 2 the project on the beautiful viewshed of the entire
 3 La Grande valley and the entire route of this proposed
 4 line throughout eastern Oregon. We want you to consider
 5 the likely loss of property values that the viewshed
 6 would bring with its massive towers that terribly impact
 7 our enjoyment, our livelihood, our ability to bring in
 8 tourists that provide very substantial amounts of money
 9 to our community.

10 And we would like you to consider the impact
 11 of B2H on Ladd Marsh, its watershed, its refuge for
 12 waterfowl, and wildlife, and its water quality.

13 So we in Oregon Rural Action believe, and we
 14 hope that you will come to agree with us, that Idaho
 15 Power should abandon the B2H project and should instead
 16 utilize the alternative sources of power that are
 17 available to it.

18 Thank you.

19 HEARING OFFICER WEBSTER: Following
 20 Mr. Thompson, we will hear from Norm Cimon.

21 MR. THOMAS THOMPSON: Good evening. My name
 22 is Thomas Thompson. My address is 2202 Gekeler Lane,
 23 La Grande, Oregon. I'm a landowner in the Ladd Canyon
 24 area along the existing 240-line that is the proposed
 25 action of the current plan.

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1 I'm not naive enough to know, I think, that
 2 both proposals will be approved, and I'm unclear on the
 3 decision on either/or how that decision which route to
 4 take. If the line is to be built, I support the Morgan
 5 Lake alternative for the following reasons:

6 My estimate is that it's shorter in its route,
 7 and thus, by logic, less impact. It's located mostly
 8 in, not all, but more in the proposed activity in a
 9 mixed conifer forest where the moisture regimes are
 10 higher. There is ability for lower seral vegetation to
 11 re-establish, have to cut trees on. Hopefully most of
 12 those will be native.

13 My concern on the proposed, along the existing
 14 240, is the noxious weeds. I've heard testimony on the
 15 threat of wildfire, but noxious weed invasion is just as
 16 threatening as wildfire to landowners, especially if
 17 they raise cows. When that conversion from a native
 18 bunch grass to an introduced annual grass, everybody
 19 knows what cheatgrass and medusa are. There is a new
 20 invader on the scene called Ventenata dubia. I don't
 21 see that addressed in the boilerplate vegetation
 22 management plan. We have been fighting it on the
 23 existing 240 with the poles that were replaced from wood
 24 and steel.

25 So my fear is -- I'm retired from range and

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1 conifer forest. I managed grazing programs in the West,
 2 the noxious weed programs in the West. If you don't
 3 catch it right at the year or 2 years of knowing it's
 4 coming with the right chemicals, the right seeded
 5 grasses and follow-up, you are in trouble. And we are
 6 in trouble on our land from those construction projects.

7 What was different on the construction of the
 8 existing line was, in the 1960s, was they used smaller
 9 machines. They crawled over the land, they dug those
 10 with pneumatic drills, much like the drills they used on
 11 the dams, in rock bedrock, and a lot of those holes were
 12 handset by pretty tough guys. When we replaced our
 13 existing poles, by worker safety standards, they added
 14 those lines into every replaced pole site to get their
 15 poles in, set, and with bucket trucks to prepare the
 16 H-braces and stuff like that.

17 When I left, I left them with a terribly big
 18 problem to deal with, and I'm losing with Ventenata
 19 dubia. Please write that down, that grass.

20 In talking to Land Services, the contractor
 21 for Idaho Power, it was not on the radar. They didn't
 22 hear that. The guy I talked to, I think they were
 23 inobservant. They do have a noxious weed manager in the
 24 city of Boise, but my gut feeling is their hands are
 25 filled with -- their time is dominated with southern

Page 105

1 Idaho issues.

2 The reason I support the Morgan Lake
 3 alternative over the existing 240 is it avoids Ladd
 4 Marsh. It avoids more designated elk winterage, the
 5 county map. It avoids the viewshed of La Grande I think
 6 more. For the portions that are in the county, from La
 7 Grande or from the southern valley, from the viewpoints
 8 of Ladd Marsh, and for those reasons -- what really
 9 worries me, these last 2 minutes, is I know the problems
 10 of noxious weeds, and I'm working with Idaho Power to
 11 get it done.

12 But the mitigation plans, it's the landowner's
 13 responsibility to determine that problem, design the
 14 appropriate method to control it, monitor it to see if
 15 it's working, and provide follow-up measures. They are
 16 pretty much asking what do you need, if you can't do it,
 17 get a contractor.

18 Once the decision is made, when, if, how, what
 19 does a landowner have other than legal recourse, if they
 20 are not following the plan set or they are not providing
 21 the expertise and the information, or the contractors
 22 they sent out to help you don't know what they are
 23 doing?

24 So another issue I think with the landowners
 25 is, once the power poles are in, right-of-ways are

1112 1/2 Adams Ave
La Grande, OR 97850

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Energy Facility Siting Counsel
Attn: V. Tardeweth
Oregon Dept. of Energy
550 Capitol St., NE
Salem OR 97301-374299

RECEIVED
AUG 19 2019
DEPARTMENT OF ENERGY

97301-374299

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

William H. Whitaker

Name: William Whitaker

Address: 1108 G Avenue

La Grande, OR. 97850

TARDAEWETHER Kellen * ODOE

From: Dan White <danno@bighdesign.biz>
Sent: Tuesday, August 20, 2019 10:04 AM
To: B2H DPOComments * ODOE
Subject: Comments against Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
Attachments: B2H EFSC comment.docx

By the attached letter, please register my opposition to granting approval for the B2H project.

Dan White, La Grande Oregon

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

I am writing to oppose granting a site certificate to Idaho Power for the Boardman to Hemingway Transmission Project on the grounds of unacceptable impact to the scenic resources in the Grande Ronde valley of Oregon. This is the community I chose to live, in part due to the outstanding scenery. I do not want to see its scenery degraded by a string of massive towers that will overpower the natural, rural beauty that make this valley a desirable place to live.

Specifically, OAR 345-022-0080, in describing Scenic Resources, states “the Council must find that the design, construction and operation of the facility, taking into account mitigation, are **not likely** to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans....”

The “not likely” probability of adverse impact is laughable. OF COURSE IT WILL NEGATIVELY IMPACT OUR SCENERY in the Grande Ronde valley. How could it not with such a visible string of huge towers? Our Union County Land Use Plan (1979) in the Plan Policies > Resources section, page 33, outlines goals for resources:

V. Resources

A. State Planning Goal: To conserve open space and protect natural, cultural, historical and **scenic resources**.

B2. That the following concerns will be taken into account in protecting area **visual attractiveness**:

- a. Maintaining vegetative cover wherever practical.
- b. Using vegetation or other site obscuring methods of screening unsightly uses.
- c. Minimizing number and size of signs.
- d. Siting developments to be compatible with surrounding area uses, and to recognize the natural characteristics of the location.

B6. That development will maintain or enhance attractiveness of the area and not degrade resources.

As you can see, Idaho Power’s request to string huge towers along the visible edge of the Grande Ronde Valley violates sections V.A, V.B.2 and V.B.6 of our County’s Land Use Plan.

Considering the points above, Idaho Power cannot comply with the state standards. Therefore **EFSC Must Deny the Site Certificate!**

Dan White
505 M Avenue
La Grande, OR 97850
danno@bighdesign.biz

Alma White
95 2nd St. Apt A
La Grange, OR 97850

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE
CERTIFIED MAIL



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Kellen Jandavetter, Senior Acting Auditor
Oregon Department of Energy
550 Capital St. NE
Tallah, OR 97301

RECEIVED

AUG 22 2019

Department of Energy

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

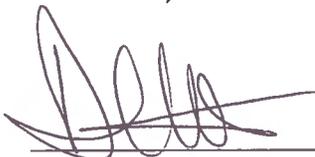
Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.



Signature

Debra G White

Printed Name

Mailing Address: 95 2nd St. Apt A
La Grande, OR. 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

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As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

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The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Debeva G White

Address: 95 2nd St Apt A
La Grande, OR. 97850

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; “This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction.”

On page 7, at 3.4, Design Feature 32 states; “Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available.”

The stated purpose of blasting is to “crack” rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine “predisturbed” water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



Name: Debeva G White

Address: 95 2nd st Apt. A
La Grande, OR. 97850

August 8, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project; Draft Proposed Order May 23, 2019

Dear Chair Beyeler and Members of the Council:

THE APPLICANT IS IN VIOLATION OF ORDANCECES OAR 345-001-0010(55) DECEPTIVE MAPPING OF THE B2H PROJECT IN LA GRANDE

Exhibit C Page 4 2. 2 Second Amended Project Order Provisions

OAR 345-001-0010(55) "Maps shall provide enough information for property owners potentially affected by the facility to determine whether their property is within or adjacent to the site boundary. Major roads shall be named. IPC shall include maps drawn to a scale of 1 inch = 2,000 feet or smaller when necessary to show detail."

"Maps shall clearly show the boundaries of the proposed corridor within which the transmission line would be constructed, and shall include familiar landmarks such as roads and existing power lines that reviewing agencies and affected landowners may use to identify the proposed route. Aerial photographs with all roads identified are helpful for public interpretation and review. The site boundaries of all proposed related or supporting facilities, including but not limited to access roads, temporary lay down areas, switching stations/substations, must also be identified. Maps showing access roads included as related or supporting facilities shall clearly depict where existing roads or road segments are proposed to be in the site boundary."

Idaho Power states that attachment C-2 contains a map-set organized by county that includes a series of detailed maps that are at a scale of 1 inch equals 1,000 feet. Project features shown include the Site Boundary, access roads, stations, communication station sites, and communication distribution lines within the Idaho Power Company (IPC) service area. Temporary project features are also shown, including structure work areas, multi-use areas, pulling and tensioning sites, and light-duty fly yards. (See attachment 1: Copy of pages C4&5)

Unfortunately near La Grande the maps showing access roads as related or supporting facilities do not clearly depict existing roads or road segments. The B2H application maps lack the detail that is required because the maps do not show the names of the streets. Without detailed maps property owners cannot

tell how they will be affected by this project. La Grande maps lack the details required by the state of Oregon to meet the ordinance. (See attachment 2: Copy of maps from attachment C-2 and Google maps)

Furthermore, the application states that "Surface streets within the city of La Grande may need to be used during construction to access portions of the project" (U2 P8). Nowhere in the application are the streets listed that may be used in La Grande. The roads listed for Union County in Table 7, Preliminary Routes (U2 P18) lists Foothill Road and city of La Grande surface Streets. The application omits that from Foothill you would need to travel on Gekeler, Sunset, Modelaire, and Hawthorne to get to their proposed access road in La Grande. The application also forgot to mention that you cannot get to Modelaire without traveling on Sunset Drive which houses the Grande Ronde Hospital, La Grande High School, Central Elementary and Community Sports Complex .The Modelaire access road is also next to Grande Ronde Hospital's Heliport. None of this information can be deducted from the maps or the verbiage that Idaho Power has supplied in their application.

Idaho Power states that "Project traffic generated during construction is not anticipated to cause notable congestion or otherwise impact local communities" (U2 P20). Given that the application states that "Construction of the new transmission line is anticipated to last at least 36 months, with multiple construction crews working simultaneously (U2 3.1.1.1) and that construction will generally occur between 7 a.m. and 7 p.m., Monday through Saturday (U2 page 16) it is impossible to believe that there will not be "notable congestion" within the city of La Grande.

The application also states that "impacts from temporary road closures and construction activities are not anticipated to affect local communities because Project activities involving short-term road closures will occur in remote areas, away from housing and other developments"(U3.1.5 P25). This statement is not true for La Grande and the Google Maps that have been provided clearly shows that the proposed B2H construction will be happening in La Grande neighborhoods!

Idaho Power's application for the Boardman to Hemingway power transmission line has obvious inaccuracies. Idaho Power did not provide aerial photographs with all roads identified to help the public interpret and review their application. Nor did they provide maps showing access roads that clearly depict existing roads so that the general public could determine how this project would affect them. The application has also omitted the names of the roads that will be used in La Grande.

Therefore the Oregon Department of Energy Siting Council needs to deny Idaho Power's application for the B2H transmission project due to the fact that the application violates OAR 345-001-0010(55).

Sincerely,



Signature

Debera G white

Printed Name

95 2nd St #A

Address

La Grande, OR
97631

deberaw3@gmail.com

Email

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,



Signature

Printed Name: Debeva G white
Mailing Address: 95 2nd St Apt A
La Grande, OR, 97850



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) Jonathan White

Mailing Address (mandatory) 485 Modulaire Dr
La Grande, OR

Phone Number (optional) () _____ Email Address (optional) jonwhite418@gmail.com

Today's Date: 6/20/19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 50

1 primitive campsites and a fishing dock. Morgan Lake
 2 Park actually contains two lakes. Morgan Lake covers
 3 70 acres.
 4 The other, Twin Lake, is in plain site within
 5 300 feet of Morgan Lake, it covers 27 acres. Twin Lake
 6 is undeveloped, a wildlife and bird sanctuary, home to
 7 nesting bald eagles. It is designated as protected
 8 wetlands. In their application Idaho Power conveniently
 9 omits any references to Twin Lake.
 10 Page 156 purports to be a map of Morgan Lake
 11 Park. According to the map legend the purple crosshatch
 12 amoeba-shaped area is Morgan Lake Park. That is wrong.
 13 The purple crosshatch is Morgan Lake. The actual
 14 boundaries of the 204-acre park are not indicated. And
 15 obviously it's difficult to believe "extensive work on
 16 this siting study" ever occurred.
 17 A specific example of unsupported conclusions:
 18 Page 145, Baseline condition, quote: "A goal of minimal
 19 development of Morgan Lake Park should be maintained to
 20 preserve the maximum natural setting and to encourage
 21 solitude, isolation, and limited visibility of users..."
 22 Page 146, quote: "The landscape character is
 23 natural appearing. Scenic integrity is high as the
 24 human developments are harmonious with the landscape."
 25 Page 149: "Vegetation will block views of the

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1 towers from most locations in the park," unquote.
 2 In reality, one tower would dominate the
 3 entrance to the park, all 130 feet of it in plain view.
 4 Within the park, trees bordering the lake are no more
 5 than 80 feet high. 130-foot transmission towers will
 6 rise more than 50 feet above those trees, dominating the
 7 current landscape.
 8 Idaho Power simply concludes that the
 9 inescapable sight of 500-kV transmission lines and
 10 towers around a natural lake setting will have, quote,
 11 "no significant impact," on Morgan Lake Park. In
 12 research writing this qualifies as wishful thinking.
 13 This is the park whose baseline, quote,
 14 "should be maintained to preserve the maximum natural
 15 setting and to encourage solitude, isolation, and
 16 limited visibility of users," unquote, because 50 years
 17 ago, no one ever imagined anything larger than a human
 18 being might ever intrude.
 19 If this application were an airplane, it would
 20 have crashed long ago. I urge the Commission to deny
 21 this application for a site certificate until each
 22 comment submitted at these public meetings and sent to
 23 the Commission by July 23rd has been thoroughly analyzed
 24 and Idaho Power has provided credible evidence to
 25 support each of its conclusions of, quote, "no

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1 significant impact."
 2 Thank you.
 3 HEARING OFFICER WEBSTER: Following
 4 Mr. Anderson, we will hear from Jonathan White.
 5 MR. JOHN ANDERSON: Thank you. Many of the
 6 things I have to say have already been covered.
 7 HEARING OFFICER WEBSTER: If you could give
 8 your name and your address.
 9 MR. JOHN ANDERSON: I'm sorry. John C.
 10 Anderson, 409 Sunset Drive, La Grande.
 11 Many of the things that I have to say have
 12 already been covered quite eloquently, but being short,
 13 I will say them anyway.
 14 There are many good reasons to abandon Idaho
 15 Power's planned B2H power line. Today you may hear
 16 testimony regarding economics, geology, eminent domain,
 17 view scapes, and many others.
 18 I would like to talk about the danger of fire.
 19 We know about the Camp Fire and the tragic consequences
 20 for Paradise, California. This and other major fires
 21 were caused by power lines owned by PG&E.
 22 B2H will cross the Blue Mountains west of
 23 La Grande through areas of extreme risk of wildfire.
 24 This is reckless behavior.
 25 In 1973, the Rooster Peak Fire started 6 miles

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1 west of La Grande. When it was discovered it was
 2 limited to 1 acre. Days later it had consumed 6,000
 3 acres and had burned right up to the hospital's grounds.
 4 It could happen again.
 5 PG&E and other utilities are shutting down
 6 some of their lines during times of high risk. If Idaho
 7 Power wisely followed their lead, they would lose the
 8 power they say they need during a time of peak demand.
 9 Siting a high-voltage line through fire-prone
 10 areas is an unacceptable risk to take when this line is
 11 not needed. I don't think that Idaho Power has
 12 presented plans to mitigate this dangerous situation nor
 13 the unforeseen consequences of construction during peak
 14 fire season.
 15 Please consider the safety of La Grande and
 16 its surroundings before you make any decisions.
 17 Thank you. My written remarks will follow at
 18 a later time.
 19 HEARING OFFICER WEBSTER: Thank you.
 20 Following Mr. White, we will hear from Susan
 21 Badger.
 22 MR. JONATHAN WHITE: Jon White, 485 Modelaire
 23 Drive, La Grande.
 24 My comment is about the blasting that would
 25 likely be required during the construction phase of the

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1 B2H line near milepost 106 through 108 of the
 2 IPC-preferred Mill Creek route, and that is where the
 3 line would come closest to La Grande. Although the
 4 application does not specify where blasting will occur,
 5 the applicant's blasting plans state, quote: "Blasting
 6 may be needed in certain areas with rocky terrain to
 7 excavate tower footings, prepare station pads, and to
 8 construct access roads."
 9 The relevant Structural Standard states, in
 10 part: The applicant, through appropriate site-specific
 11 study, has adequately characterized the potential
 12 geological and soils hazards of the site and its
 13 vicinity that could be aggravated by the construction of
 14 the proposed facility.
 15 My impression from reviewing the application
 16 is that the applicant has not fully considered the
 17 impacts of blasting on the nearby unstable slope in a
 18 populated area of La Grande, Oregon. There is map in
 19 the application that shows the B2H line at milepost 106
 20 through 108. That map depicts where the line is about
 21 2,500 feet from a populated "Unconsolidated Sediments"
 22 zone, and then crosses a, quote, "Landslide Deposits"
 23 zone near milepost 108.
 24 The application also mentions in text, slope
 25 instability in a small part. Quote: "One of the

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1 landslides intersects the IPC proposed routed between
 2 towers 160/3 and 106/4. Based on review of the
 3 topography and aerial photographs, this mapped landslide
 4 may impact the proposed work areas around tower 160/4.
 5 A field reconnaissance of this area should be performed
 6 as part of the geotechnical exploration program,"
 7 unquote.
 8 My concern is more about the construction
 9 process than about the integrity of the towers after
 10 construction. The application identifies the problem in
 11 general but provides no detail about the blasting or the
 12 potential effects on nearby houses in an area that the
 13 City of La Grande designates as a, quote, "Geologic
 14 Hazard Zone," unquote. We know that each tower footing
 15 will require a hole 30 to 50 feet deep, and that the
 16 bedrock underneath the line on milepost 106 to 108 will
 17 almost certainly require blasting for efficient
 18 excavation.
 19 The application does not address this concern,
 20 and the proposed construction is simply too close to a
 21 populated area to mitigate the risk of damage to homes.
 22 The application does not comply with the relevant
 23 standard.
 24 I will include detailed references in my
 25 written comments. Thank you for your consideration.

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1 HEARING OFFICER WEBSTER: Thank you.
 2 MS. SUSAN BADGER-JONES: Thank you. Susan
 3 Badger-Jones, 412 H Avenue, PO Box 1341, La Grande.
 4 While I agree with most of the objections
 5 you'll hear this evening about elements of the
 6 application for site certification, I want to
 7 specifically address portions of the Morgan Lake
 8 Alternative, Exhibit T, page 44.
 9 La Grande has been my home for more than
 10 30 years, and in that time, visiting Morgan Lake Park
 11 has been a weekly, but more likely daily pleasure,
 12 enjoying the wildflowers as they emerge, walk or bird,
 13 exercise my dog, meet friends, gather at a picnic table.
 14 Which brings me to the tower at the park. The
 15 City of La Grande has many well-manicured parks with
 16 playing structures, sports fields, hard scape,
 17 buildings, and professional landscaping. Morgan Lake,
 18 however, has been reserved to experience the natural
 19 world; birds, waterfowl, fishing, camping under the
 20 stars. It's one of the few places around here you can
 21 go to see the sunset. Nesting osprey, cormorants, and
 22 other waterfowl. It's a quiet place; no motors are
 23 allowed on the lake.
 24 Due to the popularity of the park, over the
 25 last few years the City has made improvements to

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1 hosting, maintenance, and campground designation,
 2 supporting that natural experience. A tower is very
 3 much at odds with this.
 4 The application says vegetation will block
 5 views of the proposed tower. It's just not true. Trees
 6 at the proposed site are 70, maybe 80 feet tall, but the
 7 tower 130 feet and basically ugly. The tower will be
 8 highly visible coming and going and from many locations
 9 in the park.
 10 While people may still be able to walk and
 11 boat and camp, the quality of that natural experience
 12 will be very much compromised. "Less than significant
 13 impact" is what the application says. Give me a break.
 14 That brings me to fire. Fire is a constant
 15 danger in a park area, and the proposed tower heightens
 16 that threat. The area is already well familiar with
 17 wildfire and subsequent loss of timber and homes, yet
 18 that risk isn't even addressed.
 19 And then there is the road. The only access
 20 to the staging area and future maintenance is the
 21 county's Morgan Lake Road. It's the only access to town
 22 and emergency services for more than 30 families. You
 23 do the math; 30 homes, 2 drivers each, 2, 4 trips a day,
 24 6 to 7 days a week to work, to school, church, kids,
 25 medical services, and then there are people coming up

June 19, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the B2H Transmission Project 9/28/2018; DPO

Dear Chair Beyeler and Members of the Council:

My comment is about the blasting that would likely be required during the construction phase of the B2H line near MP 106—108 of the IPC-preferred Mill Creek route. Although the application does not specify where blasting will occur, *Attachment G-5 Framework Blasting Plan* states: “Blasting may be needed in certain areas with rocky terrain to excavate tower footings, prepare station pads, and to construct access roads.”

The relevant standard is the 345-022-0020 Structural Standard:

“(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;”

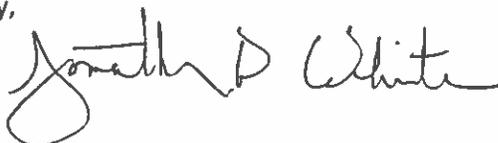
My impression from reviewing the application is that the applicant has not fully considered the impacts of blasting on the nearby unstable slope in a populated area of La Grande, Oregon. The map on page 169 of *Exhibit H Geological Hazards and Soil Stability*, shows the B2H line at MP 106—108, where it is within about 2500’ of a populated “Unconsolidated Sediments” zone (labeled Qf) and then crosses a “Landslide Deposits” zone (labeled Qls) near MP 108.

The application also mentions the slope instability in a small part of this area, on page 112 of *Exhibit H – Attachment H-1 Appendix B Soils Data Tables and Maps*:

“One of the landslides mapped by Schlicker and Deacon (1971), not included in SLIDO, intersects the IPC Proposed Route between towers 106/3 and 106/4. Based on review of topography and aerial photographs, this mapped landslide may impact the proposed work areas around tower 106/4. A field reconnaissance of this area should be performed as part of the geotechnical exploration program.”

My concern is more about the construction process than about the integrity of the towers after construction. The application identifies the problem in general but provides no detail about the blasting or about the potential effects on nearby houses in an area that the City of La Grande designates as a “Geologic Hazard Zone.” We know that each tower footing will require a hole 30—50’ deep, and that the bedrock underneath the line at MP 106—108 will almost certainly require blasting for efficient excavation. The application does not address this concern, and the proposed construction is simply too close to a populated area to mitigate the risk of damage to homes. The application does not comply with the relevant standard.

Sincerely,



Jonathan D White
485 Modelaire Dr
La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

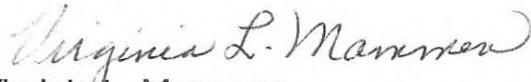
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁵	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

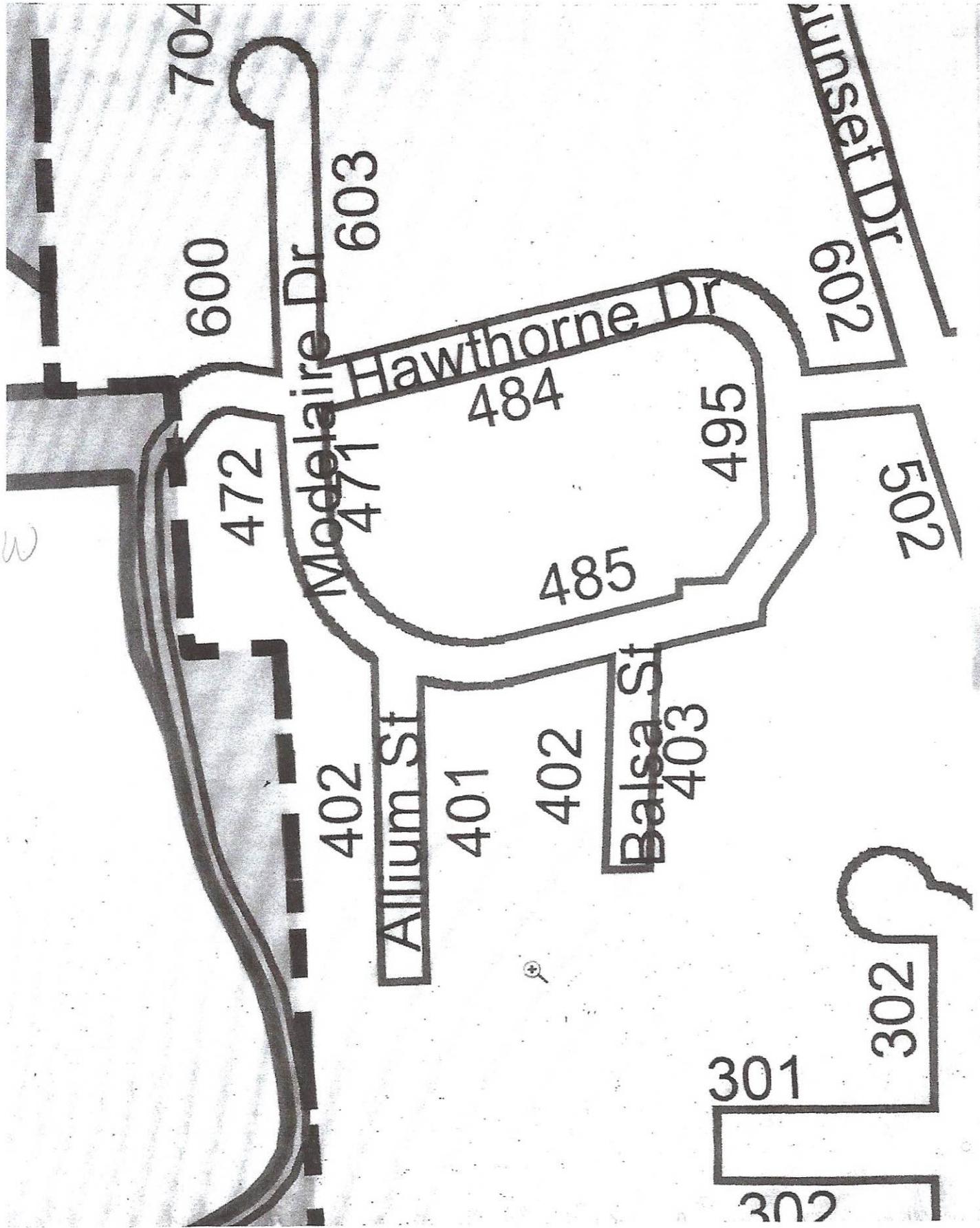
The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

N



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Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
from the City of La Grande
Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	<p>proposed helipad is a necessary supporting facility.</p> <p>The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some</p> <p>To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K:</p> <p><i>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</i></p> <p><i>a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASG Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department;</i></p> <p><i>b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and</i></p> <p><i>c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic.</i></p> <p><i>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</i></p>
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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

- 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
- 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
- 3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
- 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
- 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

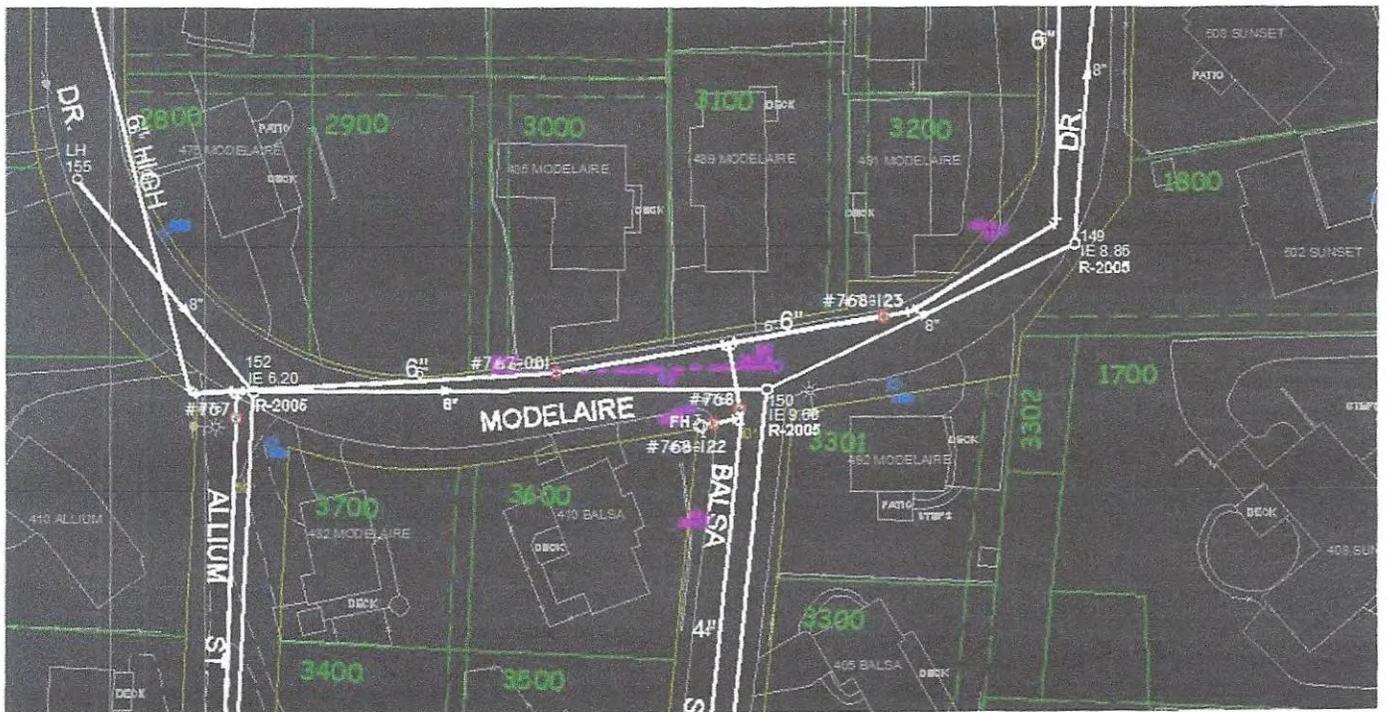
Kyle Carpenter, PE
Public Works Director
City of La Grande
Public Works
 Ph: (541) 962-1325
 Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K





attachment U2

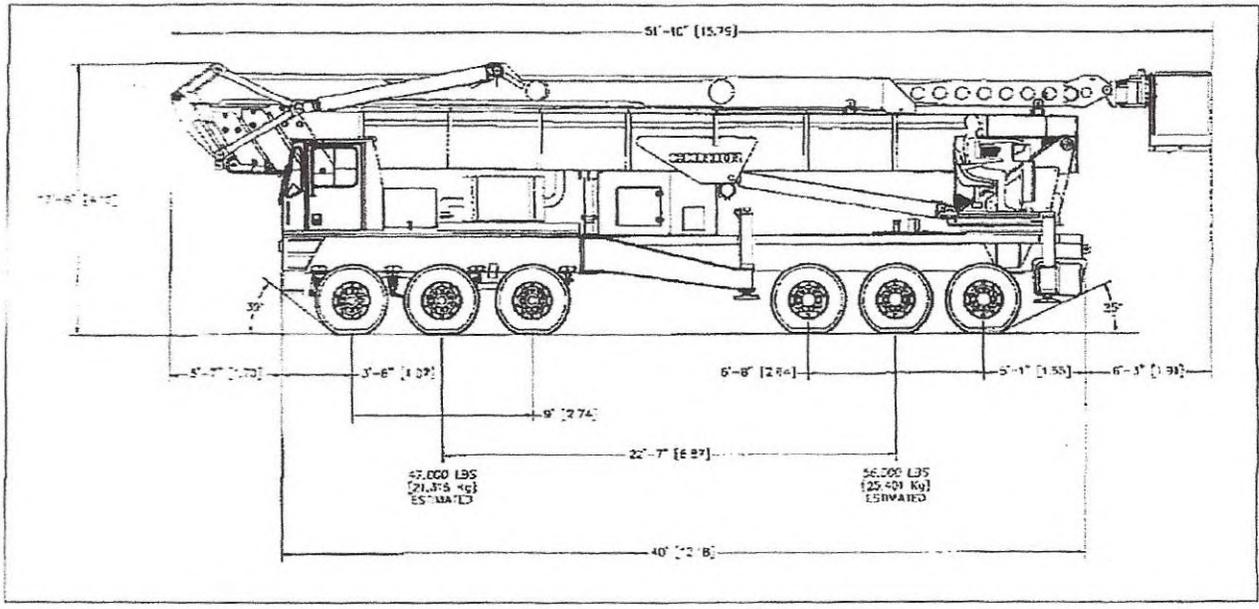


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

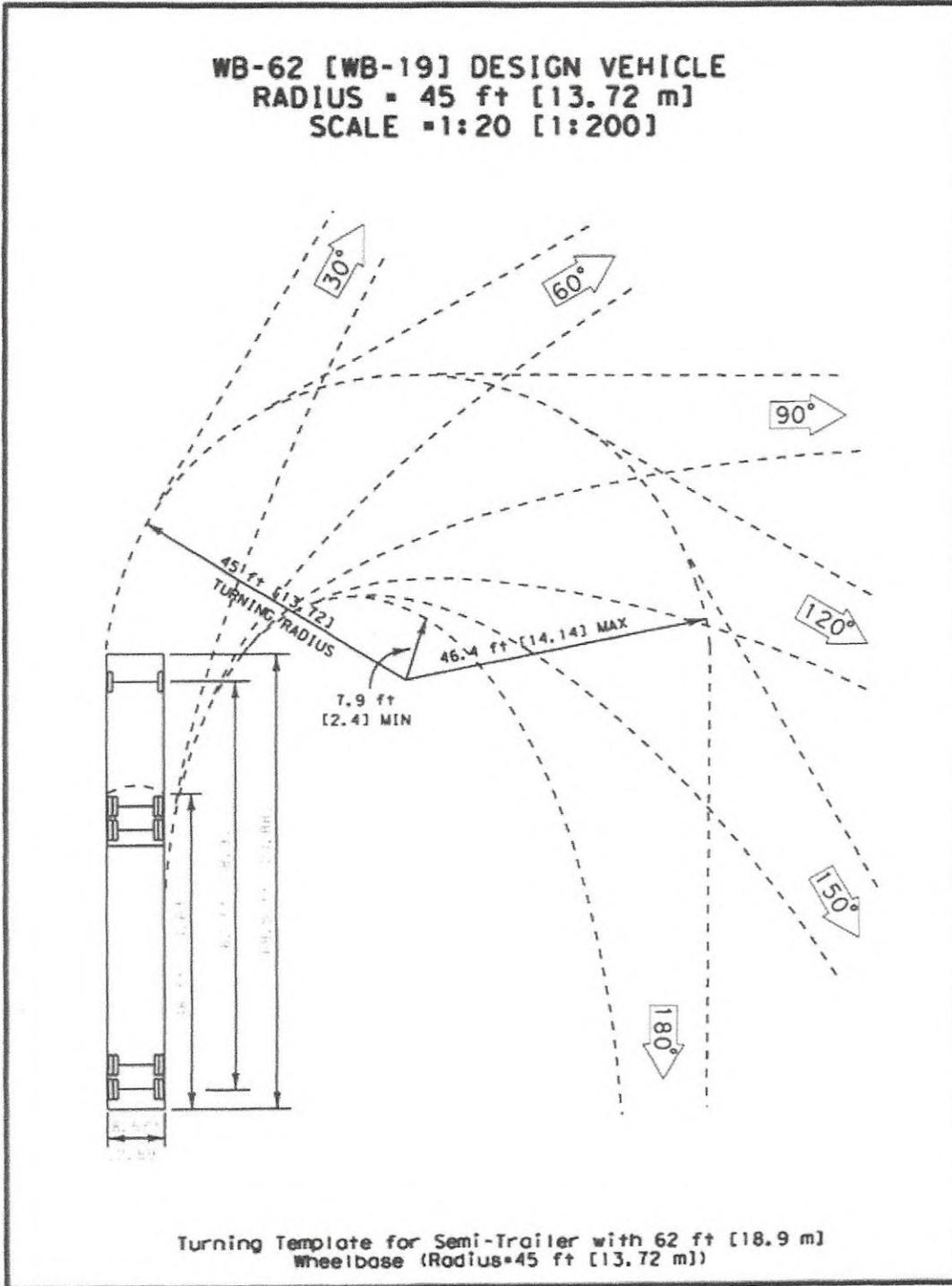


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

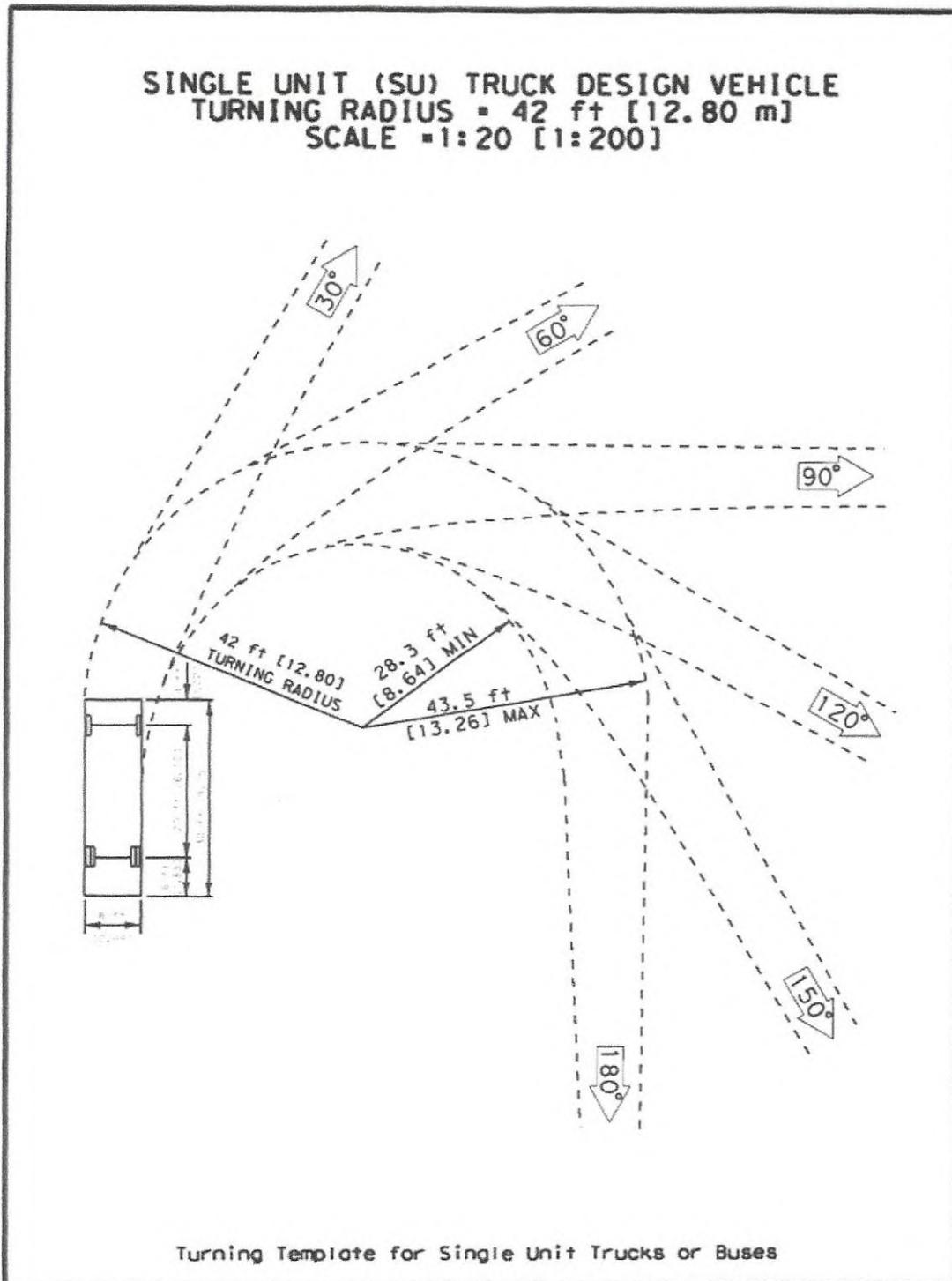


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

Section 17. TRUCK ROUTES

- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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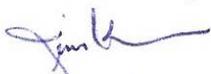
1101 G Ave La Grande

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blakebars@gmail.com

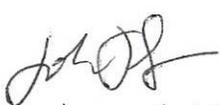
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SIGNATURE 
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EMAIL

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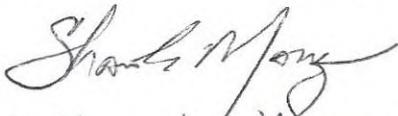
SIGNATURE 
PRINTED NAME Frances E. Lillard
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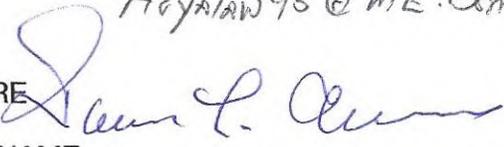
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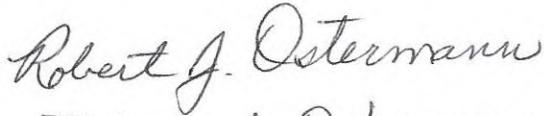
SIGNATURE 
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SIGNATURE: 
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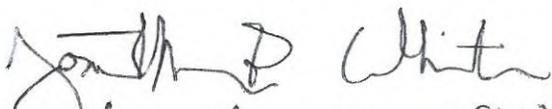
SIGNATURE 
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410 Balsa Street LaGrande, Oregon 97858
EMAIL N/A

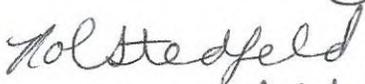
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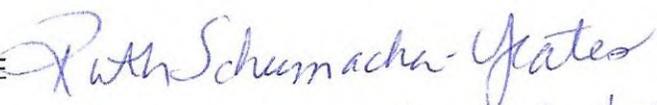
SIGNATURE 
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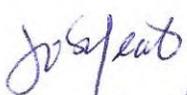
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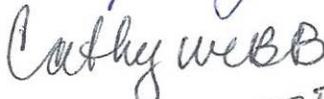
SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. La Grande Or.
EMAIL

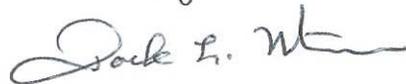
SIGNATURE 
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Drive La Grande, OR 97850
EMAIL ruthschumacheryeates@gmail.com

SIGNATURE 
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DR. LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

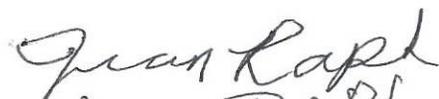
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SIGNATURE 
PRINTED NAME LOIS BARRY
ADDRESS P.O. Box 566, La Grande, OR 97850
EMAIL loisbarry31@gmail.com

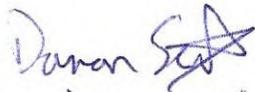
SIGNATURE 
PRINTED NAME CATHY WEBB
ADDRESS 1708 CEDAR ST. LAGRANDE, OR 97850
EMAIL thunkski@gmail.com

SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gilcrest Dr. LaGrande
EMAIL Buff Martin 27 @GMail .com

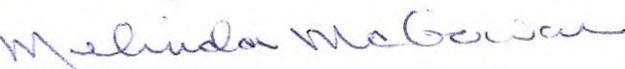
SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 GILCREST DRIVE LA GRANDE, Ore 97850
EMAIL 

SIGNATURE 
PRINTED NAME Jean RAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL Jraph19@gmail.com

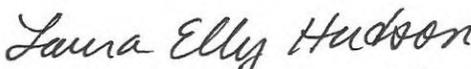
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SIGNATURE 
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL Sexton.damon@gmail.com

SIGNATURE 
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street La Grande OR 97850
EMAIL Coytris@gmail.com

SIGNATURE 
PRINTED NAME Melinda McGowan
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SIGNATURE 
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL Keithdhudson@gmail.com

SIGNATURE 
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

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SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL rlwd1910@gmail.com

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande, OR 97850
EMAIL acavinat@eou.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR.
EMAIL joehorst@eoni.com

SIGNATURE *Angela Sherer*
PRINTED NAME ANGELA Sherer
ADDRESS 91 - W. Hawthorne Dr. LaGrande, OR 97850
EMAIL asherer@frontier.com

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 97 W Hawthorne Dr, La Grande, Or. 97850
EMAIL asherer@pontier.com

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
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EMAIL hnull@comi.com

SIGNATURE *Bert R. Freewing*
PRINTED NAME Bert R. Freewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfreewing@gmail.com

SIGNATURE *Lindsey McCullough*
PRINTED NAME Lindsey McCullough
ADDRESS 406 Balsa St., La Grande, OR 97850
EMAIL lindz_mm91@hotmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

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SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 209 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL merlecomfort@gmail.com

SIGNATURE *Robin I. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL rmaille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Bekeler Ln - La Grande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 Nth St. LaGrande - OR 97850
EMAIL

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SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande, OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

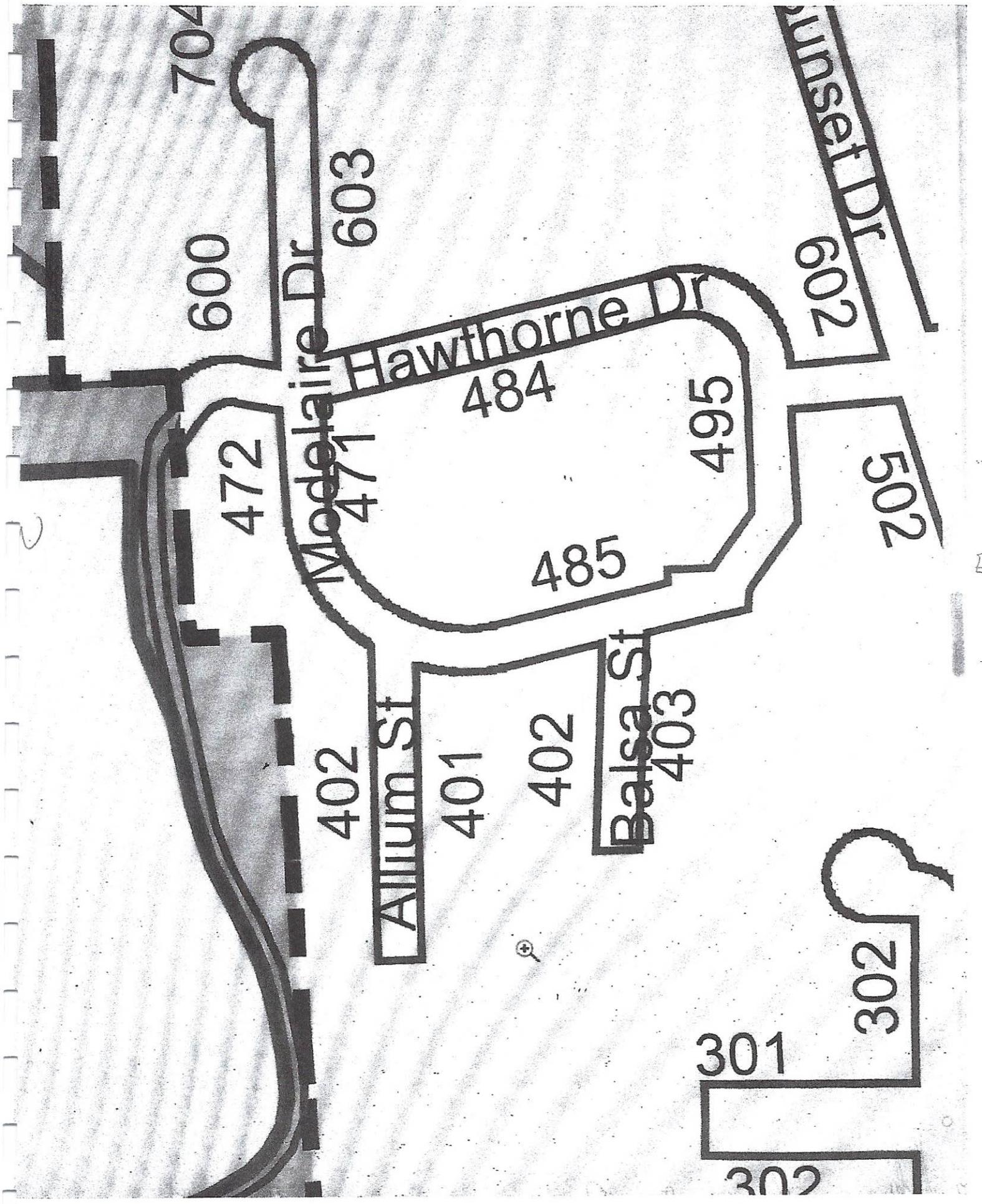
Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

N



3.3 Predicted Noise Levels

1 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
2 of the proposed facility.
3

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

4 Project construction will occur sequentially, moving along the length of the Project route, or in
5 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
6 maintenance areas. Overhead transmission line construction is typically completed in the
7 following stages, but various construction activities may overlap, with multiple construction
8 crews operating simultaneously:
9

- 10 • Site access and preparation
- 11 • Installation of structure foundations
- 12 • Erecting of support structures
- 13 • Stringing of conductors, shield wire, and fiber-optic ground wire

14 The following subsections discuss certain construction activities that will periodically generate
15 audible noise, including blasting and rock breaking, implosive devices used during conductor
16 stringing, helicopter operations, and vehicle traffic.
17

Blasting and Rock Breaking

18 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
19 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
20 Modern blasting techniques include the electronically controlled ignition of multiple small-
21 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
22 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
23 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.
24

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

Implosive Devices

34 An implosive conductor splice consists of a split-second detonation with sound and flash.
35 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
36 developed by an individual certified and licensed to perform the work. The plan will
37 communicate all safety and technical requirements including, but not limited to, delineation of
38 the controlled access zone and distance away from residences.
39

Public Services

— OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

— OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

— OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

— OAR 345-024-0010 and 345-024-0015

— This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
— Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

— OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Department of Environmental Quality

Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) **Existing Noise Sources.** No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) **New Sources Located on Previously Used Sites.** No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

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(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

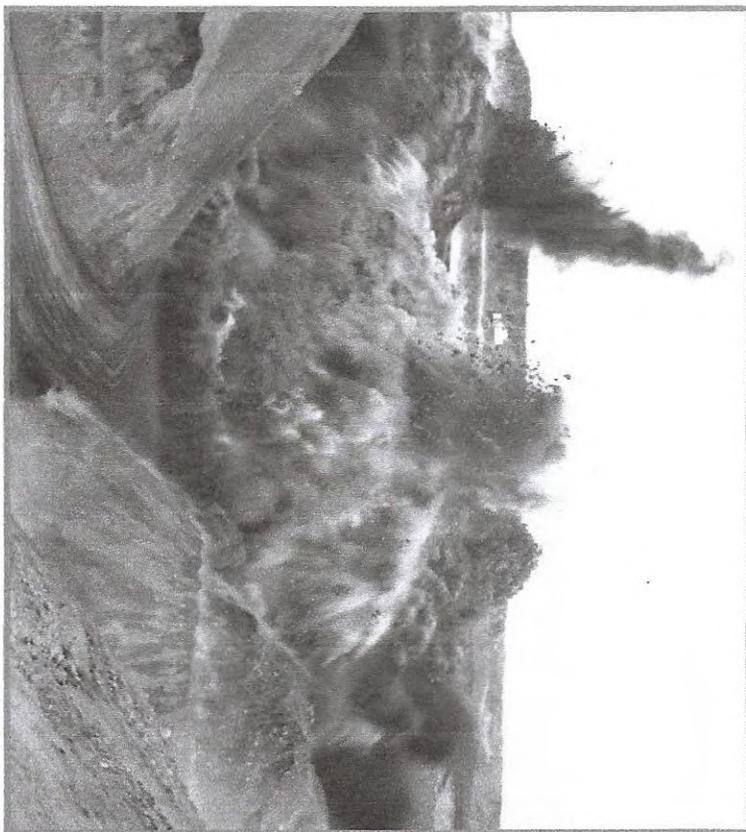
(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

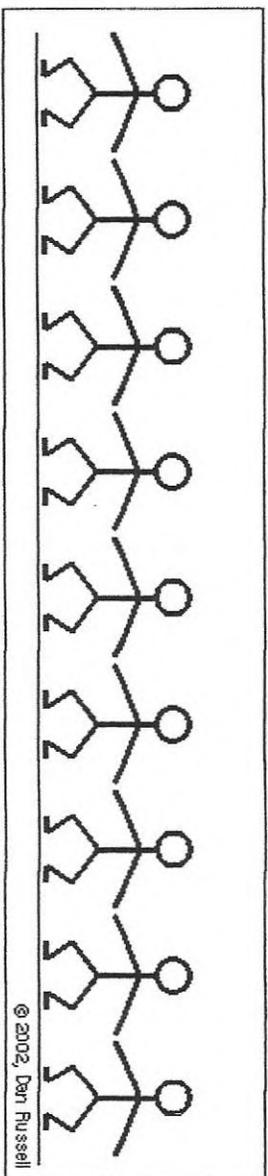
Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.



Part I: Ground Vibrations, Airblast, and Flyrock

Exhibit 5b

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate **airblast or air vibrations**. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of **ground vibrations**.



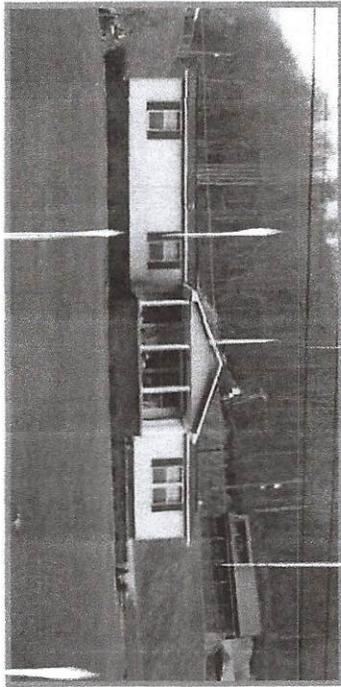
Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

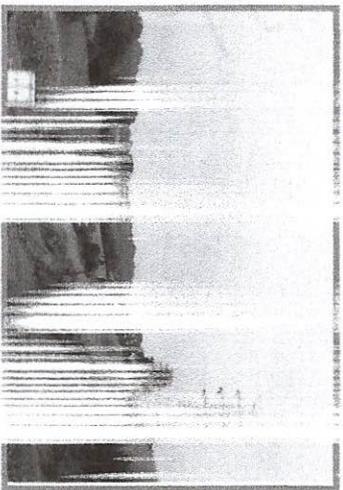
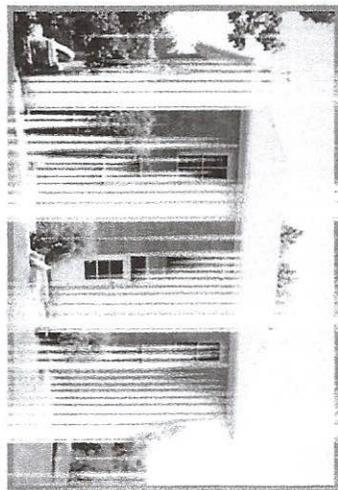
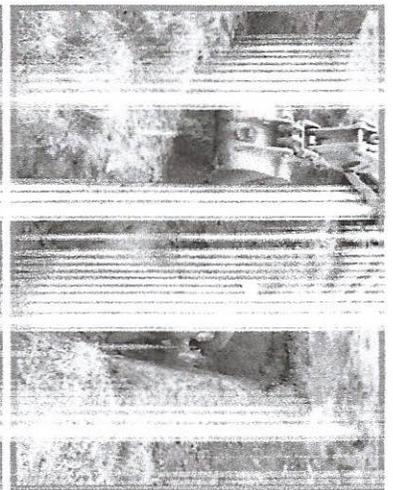
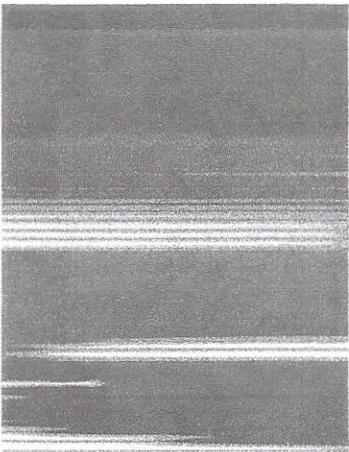
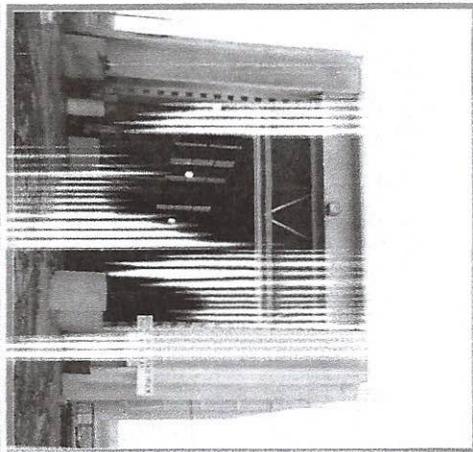
Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



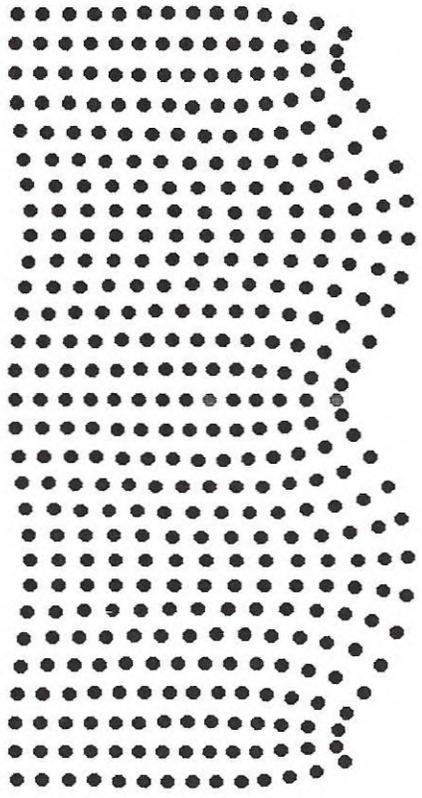
It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects



Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



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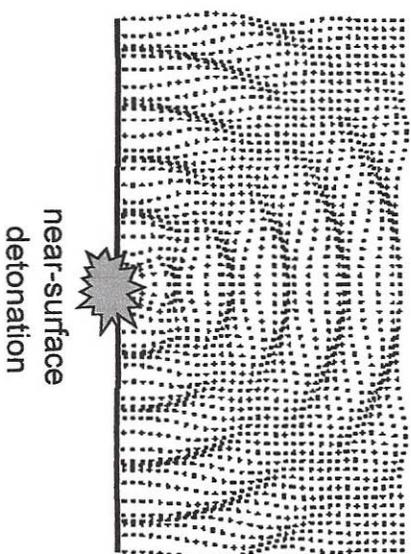
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or inaudible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.

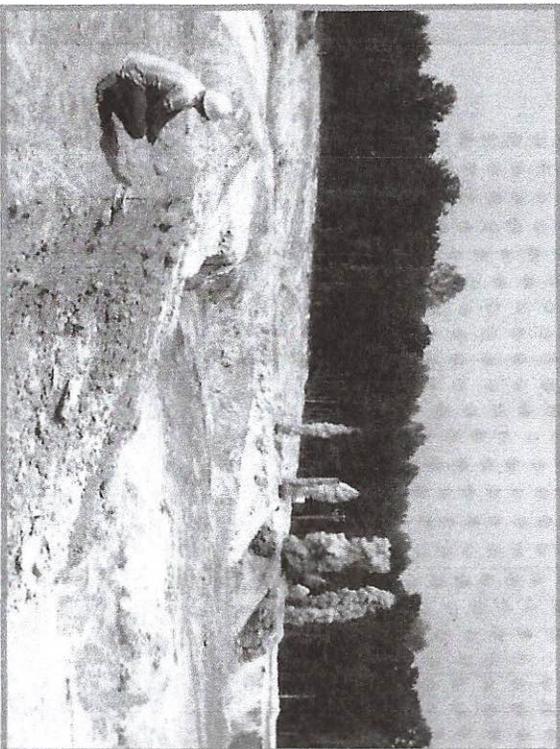


Exhibit 5

Structure Response

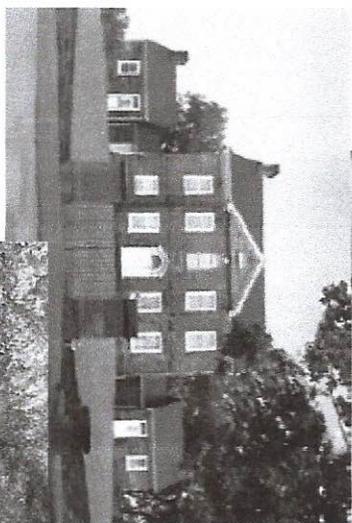
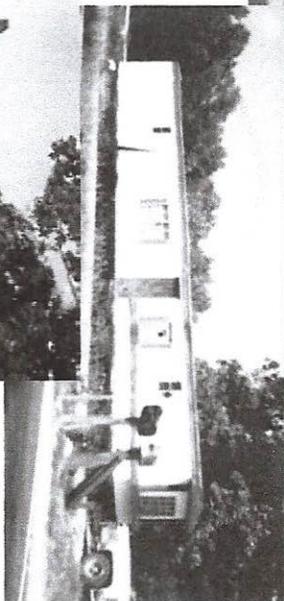
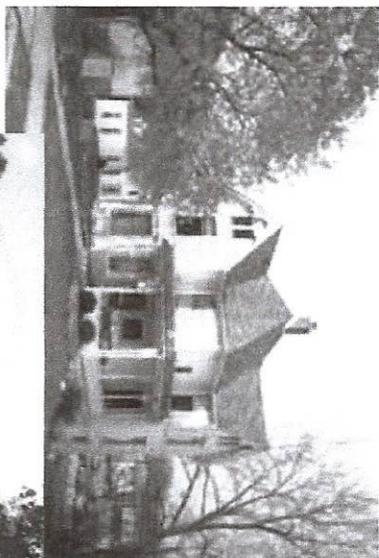
As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

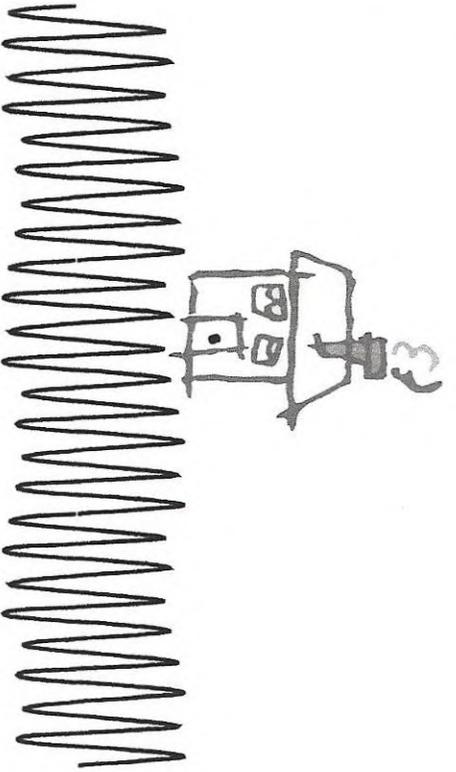
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

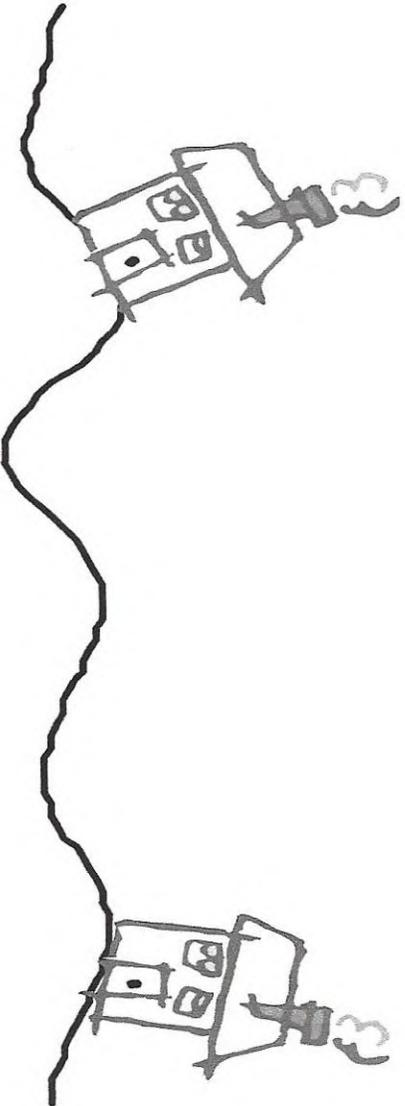


Ground Vibration Structure Response

Exhibit 59



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.



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A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019

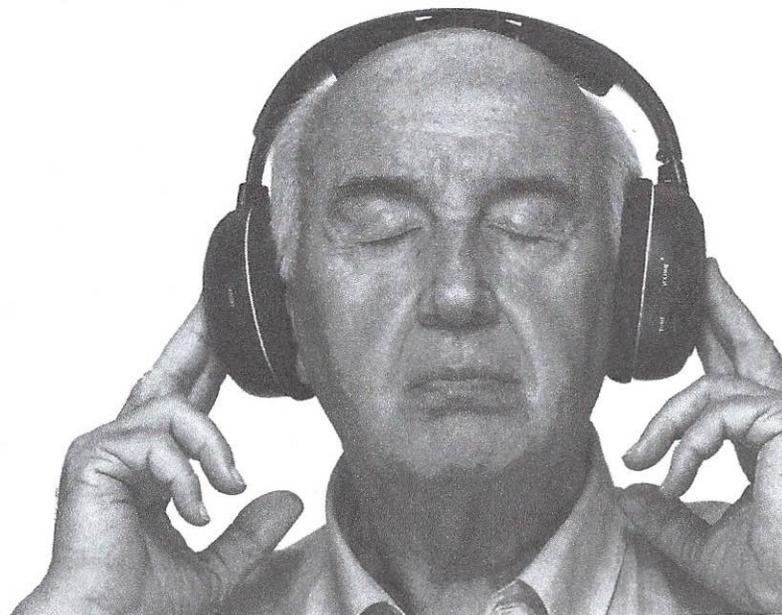


Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with “clinically significant sleep loss among hospitalized patients,” perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB – nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with “a mean maximum sound level of 69.7 dB” (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: “Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients” (Garcia, 2012). “Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects,” they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO’s 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants “are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise” (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Around the country, “quiet campaigns” have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as “one of the nation's largest hospital construction projects,” Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed “to encourage quietness,” according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including “Quiet Hospital” badges on staff and posters at the entrance of every unit, a “Quiet at Night” campaign (9 p.m. – 6 a.m.), and a “Quiet Champions” program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, [2007](#); Szalma and Hancock, [2011](#)), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, [2000](#); Wightman and Kistler, [2005](#); Talarico et al., [2007](#); Neuman et al., [2010](#)). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., [1989](#); Fallon et al., [2000](#); Werner, [2007](#)). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., [2001](#); Hall et al., [2005](#); Leibold and Neff, [2007](#)) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, [2005](#)), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., [2003](#); Hall et al., [2005](#)). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, [2000](#)), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, [1996](#); Metsala, [1997](#); Mayo et al., [2003](#)). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, [1979](#)). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, [2005](#)). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, [1973](#); Pearson and Lane, [1991](#); Coch et al., [2005](#); Wightman et al., [2010](#); Gomes et al., [2012](#)).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., [1996](#); Ziegler et al., [2005](#), [2009](#)). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds.

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, [research](#) indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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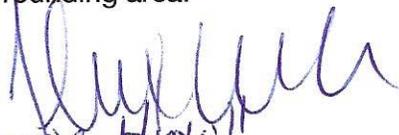
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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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PRINTED NAME

M. Jeannette Smith

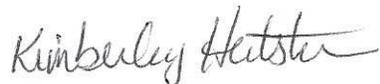
ADDRESS

410 Allium Street

EMAIL

jeannettercupfor@gmail.com

SIGNATURE



PRINTED NAME

KIMBERLEY HETSTUMAN

ADDRESS

2409 CENTURY LP, LA GRANDE, OR 97850

EMAIL

kimheitstuman@hotmail.com

SIGNATURE



PRINTED NAME

Shawn K. Mangum

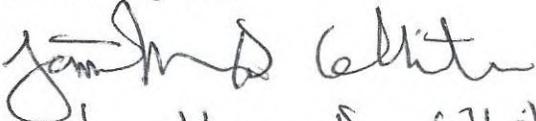
ADDRESS

2909 E. M. Ave.

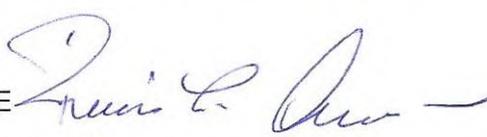
EMAIL

Hoya/kw95@me.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
PRINTED NAME Jonathan D. White
ADDRESS 485 Madelaine Dr
EMAIL jondwhite418@gmail.com

SIGNATURE 
PRINTED NAME Robin Stedfeld
ADDRESS 485 Madelaine Dr. LaGrande
EMAIL rstedfeld@yahoo.com

SIGNATURE 
PRINTED NAME RONNIE L. ALLEN 541-963-7720
ADDRESS 410 Balsa Street LA GRANDE, OREGON 97850
EMAIL NA NONE:

SIGNATURE 
PRINTED NAME Rita Allen
ADDRESS 410 Balsa St. LaGrande Or.
EMAIL

SIGNATURE 
PRINTED NAME LINDA M. SNYDER
ADDRESS 491 1770 DEHAIR
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robin J. Ostermann*
PRINTED NAME Robin J. Ostermann
ADDRESS 495 Modelaire Dr La Grande, OR 97850
EMAIL

SIGNATURE *Robert J. Ostermann*
PRINTED NAME Robert J. Ostermann
ADDRESS 495 Modelaire Dr. La Grande, OR 97850
EMAIL

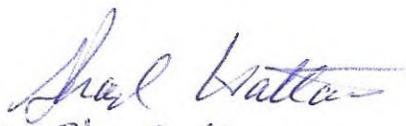
SIGNATURE *John Yeates*
PRINTED NAME JOHN YEATES
ADDRESS 408 SUNSET DRIVE LA GRANDE, OR 97850
EMAIL jyeates52@gmail.com

SIGNATURE *Ruth Schumacher Yeates*
PRINTED NAME Ruth Schumacher Yeates
ADDRESS 408 Sunset Dr, La Grande
EMAIL ruthschumacheryeates@gmail.com

SIGNATURE *D. Dale Mammen*
PRINTED NAME D. Dale Mammen
ADDRESS 405 Balsa. La Grande, Or
EMAIL dmammen@comi.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE 
PRINTED NAME Denise Hattan
ADDRESS 507 Sunset Dr. La Grande, OR
EMAIL

SIGNATURE 
PRINTED NAME Shad Hattan
ADDRESS 507 Sunset Dr
EMAIL hattansl88@gmail.com

SIGNATURE 
PRINTED NAME Jack L. Martin
ADDRESS 1412 Gildcrest Dr.
EMAIL

SIGNATURE 
PRINTED NAME GERALDINE BRASETH-PALMER
ADDRESS 1602 Gildcrest Drive - LaGrande, Or; 97850
EMAIL 

SIGNATURE 
PRINTED NAME Jean RAPH
ADDRESS 1509 MADISON AVE LaGrande, OR 97850
EMAIL jraph19@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Damon Sexton*
PRINTED NAME Damon Sexton
ADDRESS 401 Balsa St La Grande, OR 97850
EMAIL sexton.damon@gmail.com

SIGNATURE *Coy Sexton*
PRINTED NAME Coy Sexton
ADDRESS 401 Balsa Street, La Grande, OR 97850
EMAIL coytris@gmail.com

SIGNATURE *Melinda McGowan*
PRINTED NAME Melinda McGowan
ADDRESS 602 Sunset Dr.
EMAIL melindamegowan@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lois Barry*
PRINTED NAME LOIS BARRY
ADDRESS P.O. BOX 566, LA GRANDE, OR 97850
EMAIL loisbarry31@gmail.com

SIGNATURE *Cathy Webb*
PRINTED NAME CATHY WEBB
ADDRESS 1700 Cedar St. LA GRANDE, OR 97850
EMAIL thinkski@gmail.com

SIGNATURE *JoAnn Marlette*
PRINTED NAME JOANN MARLETTE
ADDRESS 2031 Court St. #8, Baker City, OR 97814
EMAIL joannmarlette@yahoo.com

SIGNATURE *Keith D. Hudson*
PRINTED NAME Keith D. Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL Keithdhudson@gmail.com

SIGNATURE *Laura Elly Hudson*
PRINTED NAME Laura Elly Hudson
ADDRESS 605 F Ave, La Grande OR 97850
EMAIL ellyhudson@gmail.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Lynn Wheeler Duncan*
PRINTED NAME LYNN WHEELER DUNCAN
ADDRESS 489 Modelaire Drive, LaGrande OR 97850
EMAIL rlwd1910@gmail.com

SIGNATURE *Gary D. Pierson*
PRINTED NAME Gary D. Pierson
ADDRESS 489 Modelaire Drive, La Grande OR 97850
EMAIL -

SIGNATURE *Anne G. Cavinato*
PRINTED NAME Anne G. Cavinato
ADDRESS 86 Hawthorne Dr. La Grande OR 97850
EMAIL acavinat@ecu.edu

SIGNATURE *Joe Horst*
PRINTED NAME JOE HORST
ADDRESS 86 HAWTHORNE DR. LA GRANDE OR. 97850
EMAIL joehorst@con.com

SIGNATURE *Angela Sherrer*
PRINTED NAME Angela Sherrer
ADDRESS 91 W. Hawthorne Dr La Grande, OR 97850
EMAIL asherrer@frontier.com

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE

Merle E Comfort

PRINTED NAME

MERLE E COMFORT

ADDRESS

209 SCORPIO LA GRANDE OR 97850

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merlecomfort@gmail.com

SIGNATURE

Robin L. Maille

PRINTED NAME

Robin Maille

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rmaille@icloud.com

SIGNATURE

Carol S. Summers

PRINTED NAME

CAROL S. SUMMERS

ADDRESS

2811 Beketen Lane La Grande, OR.

EMAIL

carolsummers1938@gmail.com

SIGNATURE

Caroline Kaye Juniper

PRINTED NAME

Caroline Kaye Juniper

ADDRESS

406 4th Street - LaGrande - OR 97850

EMAIL

SIGNATURE

Gerald D. Juniper

PRINTED NAME

Gerald Darwin Juniper

ADDRESS

406 4th St. LaGrande, OR. 97850

EMAIL

I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

SIGNATURE *Robert J. Sherer*
PRINTED NAME Robert J. Sherer
ADDRESS 970 Hawthorne Dr, La Grande, OR 97850
EMAIL asherer@frontier.com.

SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 Madelaine Dr. La Grande, OR 97850
EMAIL hnull@conic.com

SIGNATURE *Bert R. Freewing*
PRINTED NAME Bert R. Freewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfreewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

ESTERSON Sarah * ODOE

From: Jon W <jondwhite418@gmail.com>
Sent: Tuesday, August 20, 2019 10:26 PM
To: B2H DPOComments * ODOE
Cc: Jon White
Subject: Idaho Power Application for a Site Certificate for the B2H Transmission Project
9/28/2018; DPO
Attachments: EFSC_comment_radon.pdf

Dear Chair Beyeler and Members of the Council:

I am writing to express concern about radon emissions due to the seismic activity during the construction phase of the B2H line near La Grande. Please see the attached document.

Jonathan D White

August 20, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the B2H Transmission Project 9/28/2018; DPO

Dear Chair Beyeler and Members of the Council:

I am writing to express concern about radon emissions due to the seismic activity during the construction phase of the B2H line near La Grande (specifically MP 106—108 of the IPC-preferred Mill Creek route). Although the application does not specify where blasting will occur, *Attachment G-5 Framework Blasting Plan* states: “Blasting may be needed in certain areas with rocky terrain to excavate tower footings, prepare station pads, and to construct access roads.”

The relevant standard is the 345-022-0020 Structural Standard:

“(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility;”

Data from the State of Oregon indicates that La Grande has a “high” risk of elevated radon:

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/HEALTHYNEIGHBORHOODS/RADONGAS/Documents/Oregon%20Radon%20Risk%20Level%20SummaryTable.pdf>

Couple that with the known unstable slope in the southwest part of La Grande: the map on page 169 of *Exhibit H Geological Hazards and Soil Stability*, shows the B2H line at MP 106—108, where it is within about 2500’ of a populated “Unconsolidated Sediments” zone (labeled Qf) and then crosses a “Landslide Deposits” zone (labeled Qls) near MP 108.

And couple that with studies that correlate fracking with high indoor radon levels: “A new study at The University of Toledo connects the proximity of fracking to higher household concentrations of radon gas, the second leading cause of lung cancer in the U.S.”

<https://www.sciencedaily.com/releases/2019/06/190618083347.htm>

Although the application identifies that the proposed B2H line will be constructed close to a populated area built on unstable ground, the application fails to even mention the possibility that blasting could cause an increase in radon emissions. Each tower footing will require a hole 30—50’ deep, and that the bedrock underneath the line at MP 106—108 will almost certainly require blasting for efficient excavation.

The application does not address this concern, and the proposed construction is simply too close to a populated area to mitigate the risk of increased radon emission. The application simply does not comply with the relevant standard.

Sincerely,

S/N Jonathan D White

Jonathan D White
485 Modelaire Dr
La Grande, OR 97850

ESTERSON Sarah * ODOE

From: Christian Wiemer <cawiemer922@gmail.com>
Sent: Wednesday, August 21, 2019 12:59 PM
To: B2H DPOComments * ODOE
Subject: Stop Construction of Power Lines
Attachments: Fish for friends_family.docx

Please consider the land of this beautiful valley and what it means to the people that live and visit there. It's beauty holds deep significance to everyone who bears witness to it and it should be left unsullied. Let's all be stewards of the land together.

With sincerest regards,

Christian Wiemer

August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St, N.E.
Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Anadromous Fish in Ladd Creek, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. Specifically, I am protesting as a concerned citizen regarding the B2H Draft Proposed Order, the Final Environmental Impact Statement, and the project's plan regarding wild and threatened fish.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's Mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (page 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but **that status has changed** due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction has resulted in costs over 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and ([PPT] Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species (ESA). The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

The B2H Draft Proposed Order contains the following outdated information:

1. In *Table 1. Road-Stream Crossing Ownership, Risk Summaries, Proposed Crossing Types, and Fish Passage Information* Idaho Power names 5 waters in the Ladd Creek area (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*) with stream crossings. The report states that the only fish in these waters are resident fish. This information is now incorrect.
2. The B2H Draft Proposed Order states that for all of Ladd Creek and its tributary streams that “No new ODFW fish plan anticipated.” (page 9-11 of Attachment BB-2). It cannot be overemphasized that this information is now incorrect.
3. The alternative route Idaho Power has chosen will necessitate a 3a/3b (page 11 BB-2) design change for a bridge crossing on Ladd Creek if this route is chosen, this will trigger an ODFW fish passage plan to be implemented (OAR 17 412-0035) based on Oregon Administrative Rules (OAR) 635-412-0020. Again, the B2H Draft Proposed Order information is now incorrect.

Because of the change of status of the fish population in Ladd Creek, the B2H Draft Proposed Order is out of compliance with several Federal and State laws including:

1. ORS 509.580 through 509.910: *Fish Passage; Fishways; Screening Devices; Hatcheries Near Dams*
2. OAR 635-41-0005 through 635-412-0040: *Fish Passage*
3. *Oregon Forest Practice Administrative Rules and Forest Practices Act, OAR Chapter 629 (ODF 2014)*
4. *Forest Practices Technical Note Number 4, Fish Passage Guidelines for New and Replacement Structures (ODF 2002)*
5. *Fish and Wildlife Mitigation Policy (OAR 635-415-0000), which states that :*

- (a) The mitigation goal if impacts are unavoidable, is no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.

- (b) The Department shall act to achieve the mitigation goal for Category 2 habitat by recommending or requiring:
- (A) Avoidance of impacts through alternatives to the proposed development action; or
 - (B) Mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be provided. Progress towards achieving the mitigation goals and standards shall be reported on a schedule agreed to in the mitigation plan performance measures. The fish and wildlife mitigation measures shall be implemented and completed either prior to or concurrent with the development action.
- (c) If neither 635-415-0025(2)(b)(A) or (B) can be achieved, the Department shall recommend against or shall not authorize the proposed development action.

In conclusion, the B2H Draft Proposed Order contains an improper evaluation of the potential short and long term negative impacts to the fish habitat in the Ladd Creek drainage, including surrounding creeks, given the fact that species listed as threatened under the Endangered Species Act are now returning to Ladd Creek, with their numbers expected to increase in upcoming months and years.

Sincerely,

Christian Wiemer
20229 134th Ave NE
Woodinville, WA 98072
cawiemer922@gmail.com
(980) 214-7533

Wilkinson
10200 W. 3rd Street
Island City OR, 97850

RECEIVED

AUG 21 2019

Department of Energy

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem OR, 97301

PORTLAND OR 972

20 AUG 2019 PM 5 L



97301-974299





August 18, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem OR, 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway
Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

Dear Chair Beyeler and Members of the Council:

You face a decision. On the one hand, the Energy Facilities Siting Council (Council) will carefully consider Idaho Power's Application against Oregon statutes and rules and public comments. This is the charge. On the other hand, no generation has confronted climate change. The Boardman to Hemingway Transmission Project (B2H) is a small inflection point where decisions have ramifications.

Given the Council's narrow regulatory framework, let me focus on my key interest. B2H is a generational commitment of financial and environmental resources. What is the need? Idaho Power failed to support their need to the Council for the B2H site certificate, just as they did in an earlier submittal with the Oregon Public Utilities Commission (PUC).

But first, the Council has many authorities, including Oregon Administrative Rule (OAR) 345-023-0030, System Reliability Rule for Electric Transmission Lines. It requires,

The Council shall find that the applicant has demonstrated need for an electric transmission line that is an energy facility under the definition in ORS 469.300 if the Council finds that:

- (1) The facility is needed to enable the transmission system of which it is to be a part to meet firm capacity demands for electricity or firm annual electricity sales that are reasonably expected to occur within five years of the facility's proposed in-service date based on weather conditions that have at least a 5 percent chance of occurrence in any year in the area to be served by the facility;
- (2) The facility is consistent with the applicable mandatory and enforceable North American Electric Reliability Corporation (NERC) Reliability Standards in effect as of September 18, 2015 as they apply either internally or externally to a utility system; and

Wilkinson Comments to EFSC

- (3) Construction and operation of the facility is an economically reasonable method of meeting the requirements of sections (1) and (2) compared to the alternatives evaluated in the application for a site certificate.

On March 13, 2018, I submitted comments to the PUC on Idaho Power's Integrated Resource Plan (IRP). Only one transmission resource was analyzed: B2H! The questions I raised for the PUC, and remain unanswered for the Council, relate directly to OAR 345-023-0030. I'll repeat them here to aid review:

- I read reports challenging Idaho Power Company's forecasts for future electric demand. Since the B2H transmission line is a multi-generational contract, these forecasts must be based a realistic and verified assumptions and data.
- Grid security and reliability are fundamental to our well-being and growth. How does the 2017 IRP provide measurable steps towards ensuring grid security and reliability? Have they accurately represented their grid status, their ability to monitor and manage fluctuations, and their flexibility as new technologies and markets emerge?
- Local, distributed generation provides for community resiliency, especially given the potentials for large-scale, catastrophic events. Does the 2017 IRP support this goal?
- Battery technology is evolving as is energy efficiency and conservation. We should be leading the deployment of storage technologies, energy efficiency, and conservation for the time period 2017-2036.
- How did Idaho Power balance cost, risk, and environmental concerns in the 2017 IRP given climate change? What is their overall contribution? What commitments are they making on our behalf?
- Who pays for B2H? Is this a financial burden we want our children to inherit? An immediate B2H decision locks future generations into a questionable commitment.
- Fundamentally, is the B2H transmission line needed? Is it "lowest-cost" when considering a 2017-2036 timeframe and the above questions?

My review of Idaho Power's submittals for the site certificate revealed no significant change. Based on Idaho Power's failure to clarify their needs under OAR 345-023-0030, the Council should deny the site certificate application. There are many other reasons that *also* support the denial. I incorporate by reference comments submitted by Stop-B2H.

I live in Island City and enjoy Union County for its beauty and outdoor resources. I believe B2H changes the landscape. More importantly, it commits future generations to its scar.

Sincerely,



James R. (JR) Wilkinson
10200 W. 3rd Street, Island City OR, 97850
Phone: 503.269.4253; Email: 503jrw@gmail.com

Attached comments to Oregon Public Utilities Commission

c.c. Stop-B2H

Wilkinson Comments to EFSC

Attachment: Wilkinson Comments to PUC on Idaho Power 2017 IRP



March 13, 2018

Public Utility Commission of Oregon
PO Box 1088
Salem, OR 97308-1088

Submitted via email:

puc.commission@state.or.us

Lisa.Hardie@state.or.us

Stephen.Bloom@state.or.us

Mezan.Decker@state.or.us

RE: Docket LC 68, Idaho Power Company 2017 Integrated Resource Plan (IRP)

Dear Commissioners Hardie, Bloom, and Decker:

I humbly request my comments regarding Docket LC 68 be considered by members of the Oregon Public Utility Commission (OPUC). Your leadership is crucial. Idaho Power Company offers its 2017 Integrated Resource Plan (IRP) as a vision for 2017-2036. Therefore, future generations will bear its costs and risks. Let's be prudent.

There is dissonance in the record regarding the 2017 IRP and the Boardman to Hemingway (B2H) transmission line. A decision-making body, and me as a member of the public, should expect transparency in Idaho Power's decision processes, completeness in its data sets and assumptions on which decisions rest, and thoroughness in their information.

On September 26, 2017, Idaho Power briefed the 2017 IRP to the OPUC. They claimed their 2017 IRP will for the 2017-2036 planning period:

- Identify sufficient resources to reliably serve the growing demand for energy within Idaho Power's service area throughout the 20-year planning period.
- Ensure the selected resource portfolio balances cost, risk, and environmental concerns.
- Give equal and balanced treatment to supply-side resources, demand-side resources, and transmission resources.
- Involve the public in the planning process in a meaningful way.

However, their only transmission resource option for 2017-2036 was the B2H route! Idaho Power assumed increased demand when that appears not true. Such contradictions serve to repeat past mistakes, stifle innovation, and impair our commitment and investment to reduce climate change contributions. With rapidly evolving technology and changing consumer demands, locking future ratepayers into a \$1-1.2 billion transmission line should be avoided.

Page 1 of 2

Assumed increased demand by Idaho Power is one example of unresolved dissonance. I put forth the following for consideration:

- I read reports challenging Idaho Power Company's forecasts for future electric demand. Since the B2H transmission line is a multi-generational contract, these forecasts must be based on realistic and verified assumptions and data.
- Grid security and reliability are fundamental to our well-being and growth. How does the 2017 IRP provide measurable steps towards ensuring grid security and reliability? Have they accurately represented their grid status, their ability to monitor and manage fluctuations, and their flexibility as new technologies and markets emerge?
- Local, distributed generation provides for community resiliency, especially given the potentials for large-scale, catastrophic events. Does the 2017 IRP support this goal?
- Battery technology is evolving as is energy efficiency and conservation. We should be leading the deployment of storage technologies, energy efficiency, and conservation for the time period 2017-2036.
- How did Idaho Power balance cost, risk, and environmental concerns in the 2017 IRP given climate change? What is their overall contribution? What commitments are they making on our behalf?
- Who pays for B2H? Is this a financial burden we want our children to inherit? An immediate B2H decision locks future generations into a questionable commitment.
- Fundamentally, is the B2H transmission line needed? Is it "lowest-cost" when considering a 2017-2036 timeframe and the above questions?

To conclude, Idaho Power failed to demonstrate the need to proceed with the B2H transmission line. Please expect transparency in their decision processes, completeness in their data sets and assumptions, and thoroughness in their information. We should ensure future generations can sustainably manage what resources we were given.

I encourage OPUC commissioners to "Not Acknowledge" Action Item #6:
Conduct preliminary construction activities, acquire long-lead materials, and construct the B2H project.

I see no need to rush to a decision given the considerable, unresolved dissonance in the record. Thank-you for your service and for staff's efforts.

Sincerely,

/s/ JRW

James R. (JR) Wilkinson
10200 W. 3rd Street
La Grande OR, 97850

c.c.
nadine.hansen@state.or.us
ruchi.sadhir@oregon.gov
stopb2h@gmail.com



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) John Williams

Mailing Address (mandatory) Bx 1384
La Grande OR 97850

Phone Number (optional) (541) 962-4521 Email Address (optional) _____

Today's Date: 6/20/19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 78

1 fairly large area.
 2 And what's ended up happening is they've had
 3 to ask the Oregon Department of Energy and the Energy
 4 Facility Siting Council to give them an exception to the
 5 Goal 5 land use rules. And what the developers have
 6 asked is they have asked the Oregon Department of Energy
 7 to give them the exception to this for putting roads
 8 through forest lands that are not on part of the site.
 9 Now, this is kind of interesting, because I
 10 had a contested case before the Siting Council because
 11 of the developer who was not including a transmission
 12 line in their order. What happened is I lost that
 13 contested case because the Department of Energy decided
 14 that if the developer didn't include it in their
 15 application, then it wasn't considered part of the site.
 16 I was not real happy about losing that
 17 contested case until now, because now Idaho Power wants
 18 you to approve this exception to the forest damages that
 19 they are going to create. And unfortunately for them,
 20 it's clear in the state statutes, the agency rules,
 21 contested case results I referred to, that for site
 22 certificates the Council can only approve construction
 23 within the site.
 24 So Idaho Power now has four options for these
 25 roads outside of the area of their site, as I see it.

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1 They can go through each individual county and go
 2 through their processes to get approval for every one of
 3 these roads they are going to put on people's property
 4 who have received no notice and have no clue what is
 5 going on. That will allow people to participate in
 6 another process like this.
 7 They can amend the site certificate and start
 8 over with the Energy Facility Siting Council. They can
 9 try to win a court case by arguing that they should be
 10 able to have an exception for property where people have
 11 no idea that this thing is coming through and get the
 12 Energy Facility Siting Council to say, Yes, you can
 13 build roads anywhere you want outside the site.
 14 And the fourth option, which I recommend, is
 15 to recognize that this transmission line is not needed
 16 and build local energy developments in Idaho to meet
 17 their perceived need, assuming they actually do occur.
 18 I've said it before and I'll say it again:
 19 The Travel Management Plan is not the only government
 20 action eastern Oregon citizens can stop if the people
 21 are active in participating and resisting.
 22 And I am really glad to see, I want to thank
 23 everyone who showed up, because we can stop and we will
 24 stop the Boardman to Hemingway transmission line.
 25 HEARING OFFICER WEBSTER: Following

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1 Mr. Williams, we will hear from Peter Barry.
 2 MR. JOHN WILLIAMS: Appreciate the opportunity
 3 to talk here. John Williams, I live at Box 1384,
 4 La Grande. I own property northwest and west of Morgan
 5 Lake, and both power lines are going to cross my
 6 property.
 7 I would like to start off and go back to
 8 something from 2009, which is the Sixth Power Plan
 9 Overview from Northwest Power Conservation Council. And
 10 this is the memo that apparently the folks didn't get.
 11 The first full paragraph says, this is a
 12 summary: "The Pacific Northwest power system is faced
 13 with significant uncertainties about the direction and
 14 form of climate change policy, future fuel prices,
 15 salmon recovery actions, economic growth, and
 16 integrating rapidly growing amounts of variable wind
 17 generation. And yet the focus of the Council's power
 18 plan is clear, especially with regard to the important
 19 near-term actions.
 20 "The Council's power plan addresses the risks
 21 these uncertainties pose for the region's electricity
 22 future and seeks an electrical resource strategy that
 23 minimizes the expected cost of, and risks to, the
 24 regional power system over the next 20 years. Across
 25 multiple scenarios considered in the development of the

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1 plan, one conclusion was constant: the most
 2 cost-effective and least risky resource for the region
 3 is improved efficiency of electrical use.
 4 "In each of its power plans, the Council has
 5 found substantial amounts of conservation to be cheaper
 6 and more sustainable than most other types of
 7 generation. In this Sixth Power Plan, because of the
 8 higher costs of alternative generation sources, rapidly
 9 developing technology, and heightened concerns about
 10 global climate change, conservation holds an even larger
 11 potential for the region.
 12 "The plan finds enough conservation to be
 13 available and cost effective to meet 85 percent of the
 14 region's load growth for the next 20 years. If
 15 developed aggressively, this conservation, combined with
 16 the region's past successful development of energy
 17 efficiency could constitute a resource comparable in
 18 size to the Northwest federal hydroelectric system.
 19 This efficiency resource will complement and protect the
 20 Northwest's heritage of clean and affordable power."
 21 The list goes on to address --
 22 HEARING OFFICER WEBSTER: If you could just
 23 slow down because we are trying to listen and she's
 24 trying to get it all down.
 25 MR. JOHN WILLIAMS: It goes on to address the

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1 reasons stated for this project in the first place,
 2 which is enervation of variable power sources, such as
 3 wind and solar into the grid and it will increase the
 4 capacity that the transmission lines would have to
 5 provide. You can read that, and I'll skip over to what
 6 is going on with particular storage in the past
 7 10 years.
 8 I would like to start with 2008 or '09 when
 9 Nissan Leaf came out with all-electric cars that weighed
 10 2,000 pounds and went 100 miles. And then Tesla comes
 11 along with a 4200-pound car that runs like a rocket and
 12 did 300 miles. Then Tesla further, in the aftermath of
 13 Maria in Puerto Rico, they supplied the hospital down
 14 there with power until the juice got turned back on to
 15 them.
 16 Kodiak Island is an independent grid that was
 17 run by diesel and now is being powered by renewables.
 18 The John Day Dam on the Washington side had a project
 19 permitted for a wind farm, and that wind farm would take
 20 water from below the John Day Dam and back up above it,
 21 therefore, making the John Day Dam a more efficient
 22 battery. And then in Turkey, General Electric developed
 23 an integrated project of solar, wind, and a gas turbine
 24 to produce electricity.
 25 It seems like this technology has moved rather

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1 rapidly. I think we are in the crossroads of whether we
 2 need increased transmission or see if storage technology
 3 is going to make that obsolete. There is going to be a
 4 few more cards dealt in this. I've always thought at
 5 this point in time this project just needs to be kicked
 6 down the road and see what happens.
 7 That's it.
 8 HEARING OFFICER WEBSTER: Thank you.
 9 Following Mr. Barry, we will hear from Steven
 10 Clements.
 11 MR. PETER BARRY: Yeah, I've got my 7 minutes
 12 here. I'd really appreciate it if you guys would all
 13 listen to me. Hanley, all you guys, I wish you would
 14 all listen to me. Maybe you are all listening intently
 15 but you are not making eye contact with these good
 16 people who have come far and worked hard all day long,
 17 and they deserve to be heard. And maybe some of their
 18 comments are not germane and they are not perfectly
 19 denoted by page and appendix and which tower that Idaho
 20 Power dreamt up, but none of us want this line.
 21 Who wants this line? Anybody?
 22 UNIDENTIFIED SPEAKERS: Not me.
 23 MR. PETER BARRY: Stand up and --
 24 HEARING OFFICER WEBSTER: Mr. Barry.
 25 MR. PETER BARRY: These people need to be

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1 heard.
 2 HEARING OFFICER WEBSTER: And they need the
 3 opportunity to do so.
 4 MR. PETER BARRY: I'm just using some of my 7
 5 minutes. I'll burn a minute or two for that one.
 6 But I'm passionate about this. You have seen
 7 this beautiful valley. Hanley used to live here.
 8 Unfortunately, he was a community planner, he didn't
 9 protect the viewshed. But we're NIMBYs; right? Oh, we
 10 don't want you going up our road, we don't want you
 11 going on our land.
 12 But 300 miles, 300 miles of Oregon and you
 13 guys have a chance to derail this stupid idea. You can
 14 slow it down, derail it, you know you can. You have all
 15 of these different ways. You can allow contested case
 16 hearings. You can look at all of the stuff Stop B2H is
 17 going to submit. You can look at every one and go, Huh,
 18 that's a pretty good point. Can Idaho Power really
 19 prove that verifiably? Can they really prove it?
 20 Ten years ago, more than 10 years ago they said, We want
 21 to build this line. A for-profit corporation.
 22 I used to think utilities were like a public
 23 service agency. They brought you water and electricity.
 24 We all love electricity. It turns out Idaho Power is a
 25 terrible juggernaut. They wanted to plug up Hells

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1 Canyon, the last free-flowing stretch of the Snake
 2 River, the last stretch. They lobbied hard. They spent
 3 millions of their ratepayers' dollars trying to plug up
 4 the last wide beautiful stretch of the Snake River.
 5 Took it all the way to the Supreme Court of our land,
 6 and fortunately, they had the wisdom to slam them back.
 7 They wanted to build a coal-fired plant right
 8 by Boise that has horrific air quality. Fortunately,
 9 that was slammed down, too.
 10 This is your chance to stop this stupid idea.
 11 We are talking about should it be built here or there.
 12 Oh, we love our view, we love our backyard. We love it
 13 here. Maybe you don't, maybe you want to live
 14 somewhere, that's fine, but we love this place. And 300
 15 miles, and it's not federal land; it's public land, we
 16 own it. We all own the federal land; right? It's ours,
 17 it's yours.
 18 And you guys have a chance, you have a little
 19 slice of voice; we don't. We get our 7 minutes, that's
 20 it. We can try to comprehend 20,000 pages of gibberish
 21 while trying to raise a family and hold down two jobs or
 22 raise four kids. That's what we can do. We can try to
 23 discern this crap.
 24 It's difficult. Have you guys, have any of
 25 you read all 20,000 pages? Any of you? No one can do

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

RECEIVED

AUG 22 2019

DEPARTMENT OF ENERGY

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

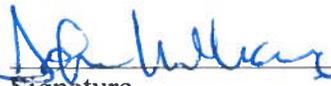
Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power’s ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it’s disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

RECEIVED
If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

YEP
Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASCand DPO which will be addressed in a separate comment.

✓
✗


Signature

Name: John Williams

Box 1384

Address: La Grande OR 97850

AUG 22 2019

Aug 21, 2019

Energy Facilities Siting Council DEPARTMENT OF ENERGY
c/o Kellen Tardawether, Senior Siting Analyst
Oregon Dept of Energy
550 Capital St NE
Salem, OR 9730

Subject: Idaho Bwer Application for a Site Certificate for the B2H Transmission Project & potential damage to Cultural & Historic Sites.

I am John Williams. I own land in Union Co. Oregon west of La Grande (parcel 03537601300). The Proposed & Morgan Lake Alternative Routes both cross it.

In the summer of 2016, Tetra Tech on behalf of IPC conducted several surveys on the property, one of which was for Cultural & Historic Resources. Attached is their summary & figure 14 which depicts the results for archeological resources.

Two resources are of concern - 6B2H-RP-08, & 6B2H-MC-10. According to figure 14, both are within the ROW of the access road to B2H. (Page 5, line 26 of the Programmatic Agreement Regarding Compliance with the National Historic Preservation Act, regarding stipulations of Area of Potential Effects, A.P.E. "The direct effects APE for new or improved access roads will be 100 feet either side of the center line (200 feet total)."

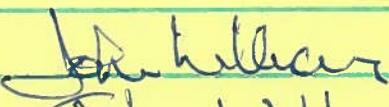
Both resources should appear in the Draft Proposed Order on page 431, table 4CA-5 (Potentially Impacted Resources under OAR 345-022-0010 (1)(a), but only 6B2H-RP-08 is listed. It's Generalized Resource Description/Resource

type is stated as "Cairn(s) / Precontact Archaeological Site; NRHP Recommendation stated as Unevaluated Project Component stated as "Direct Analysis Area (Construction Foot print); Applicable FSC Standard stated as "a) Potential Historic Property; b) Archaeological site on private land"; Project Impacts and Management Comments stated as "Potential direct/indirect impact. Avoid direct until eligibility determined. Consultation Needed."

These standards should apply to Resource # 6B2H-NC-10 as well.

Page 380, lines 6-9 of section VI.K. Historic, Cultural, and Archaeological Resources; OAR 345-022-000 of the Boardman to Hemingway Transmission Line Application for Site Certificate Draft Proposed Order states "A resource designation of unevaluated indicates that the resource may have been uninvestigated however, additional investigations or evaluations are recommended so the resource is assumed to be likely eligible for listing on the NRHP."

I contend that without further evaluation on these resources for eligibility, the Application is incomplete. Thank you for your time


John Williams
BX 1384
La Grande OR 97858



To: John C. Williams

From: Tetra Tech

On Behalf of: Idaho Power Company

Date: September 23, 2017

Subject: Parcel Number: 03S37E01300
 Owner: John C. William
 Boardman to Hemingway Transmission Line Project Survey Results

Introduction

In September 2017, Idaho Power Company (IPC) requested that Tetra Tech, Inc. (Tetra Tech) provide a summary of the surveys that were completed for the Boardman to Hemingway Transmission Line Project (B2H) on Parcel No. 03S37E01300, owned by Mr. John C. Williams.

Parcel Information

Table 1 shows information of the parcel for which survey results were requested.

Table 1. Parcel Information

Parcel Number(s):	03S37E01300
GIS ID(s):	7612
County:	Union
State:	Oregon
Property Owner:	John Collier Williams
Contact Name/Address:	PO Box 1384, La Grande, OR, 97850

Survey Timing

Mr. Williams denied right of entry to IPC contractors in 2011 and 2012. Mr. Williams granted right of entry in 2016. Table 2 shows the surveys performed on the parcel by year.

Table 2. Surveys by Year in Parcel 03S37E01300

Survey Type	Year Performed
Terrestrial Visual Encounter Survey (Habitat Types, Noxious Weeds, and Special Status Animals)	2016
Special Status Plants	2016
Aerial Raptor Nest	2011 and 2016
Northern Goshawk and American Three-toed Woodpecker	Right of Entry Denied; 2011 and 2012
Great Gray Owl and Flammulated Owl	Right of Entry Denied; 2011 and 2012
Wetlands	2016
Cultural and Historical Resources	2016

Summary of Findings

Biological surveys were performed according to the methods discussed in the Biological Surveys Summary Report 2010-2016 (Attachment P1-7A of the Amended Preliminary Application for Site Certificate, June 2017) and the Wetlands Report. Cultural resources surveys were performed according to the methods discussed in the Archaeological Survey Plan (Attachment S-1 of the Amended Preliminary Application for Site Certificate, June 2017) and the Cultural Resources Technical Report (Attachment S-6 of the Amended Preliminary Application for Site Certificate, June 2017). Survey findings for the following resources are summarized below:

- Habitat type characterizations;
- Noxious weed occurrences;
- Wildlife observations;
- Raptor observations;
- Wetland characterizations; and
- Archaeological resources.

Additionally, Appendix A to this document includes figures showing the location of the resource characterizations and observations.

Biological Resources**Table 3. Habitat Types in Parcel 03S37E01300**

Habitat Type	Route
Emergent Wetland	Morgan Lake Alternative
Forested Wetland	Morgan Lake Alternative
Mixed Grand Fir / Douglas Fir	Morgan Lake Alternative
Native Grasslands	Morgan Lake Alternative, Proposed Route
Ponderosa Pine	Morgan Lake Alternative, Proposed Route

Table 4. Noxious Weeds in the Morgan Lake Alternative Site Boundary in Parcel 03S37E01300

Common Name
Bull Thistle
Canada Thistle
Common Mullein
Diffuse Knapweed
Field Bindweed
Houndstongue
Medusahead
Puncturevine
Scotch Thistle
Sulfur Cinquefoil

Table 5. Wildlife Observations in the Morgan Lake Alternative Site Boundary in Parcel 03S37E01300

Common Name	Observation ID(s) ¹
American kestrel	2465, 2556
American robin	2224, 2447, 2455, 2462, 2479, 2484, 2522, 2523, 2527, 2536, 2545
Bald eagle-Nest	2506
Black-billed magpie	2464, 2509, 2531
Black-capped chickadee	2226, 2541
Black-headed grosbeak	2473

Brewer's blackbird	2466, 2489, 2526, 2542
Brown-headed cowbird	2490
Cassin's vireo	2227, 2471,
Chipping sparrow	2223, 2451, 2459, 2475, 2510, 2514, 2519, 2520, 2528
Common garter snake	2538
Common raven	2456
Dark-eyed junco	2450, 2467, 2472, 2491, 2513, 2517, 2533, 2537, 2540
Dusky flycatcher	2222
Elk	2453, 2507, 2535, 2555
Greater sandhill crane	2552
House wren	2452, 2482, 2486, 2493, 2518, 2525, 2543
Least chipmunk	2225
Mountain chickadee	2454, 2485, 2487
Mourning dove	2530
Northern flicker	2446, 2458, 2463, 2477, 2511, 2521, 2524
Orange-crowned warbler	2480
Red-breasted nuthatch	2515
Red-tailed hawk	2483
Red-winged blackbird	2488, 2551
Song sparrow	2553
Spotted towhee	2492, 2544
Steller's jay	2449, 2460, 2468, 2474, 2508
Vesper sparrow	2532
Warbling vireo	2478
Western meadowlark	2219, 2448, 2494, 2546, 2554, 2557
Western tanager	2457, 2469, 2470, 2476, 2534
Western wood-pewee	2220, 2461, 2481, 2516, 2539
White-tailed deer	2445, 2512
Yellow-rumped warbler	2221

Bold indicates special status animal

¹Observation IDs correspond to the labels on Figures 7 - 9

Table 6. Raptor Observations in the Morgan Lake Alternative Site Boundary in Parcel 03S37E01300

Common Name	Observation ID ¹	Year
Red-tailed hawk	304	2011
	2186	2016
Bald eagle	2326	2016 (active nest)
	2328	2016 (inactive or alternate nest)

¹Observation IDs correspond to the labels on Figure 11

Wetlands

During the 2016 wetland surveys, wetlands and other waters were identified and their boundaries were delineated in the Proposed Route and in the Morgan Lake Alternative. A total of 13 wetland or other waters were identified during the survey effort (Table 7 and Figure 13).

Table 7. Wetlands and Streams in Parcel 03S37E01300

Wetland ID ¹	Feature Type	Route
UN_MC_W_018	Wetland	Proposed
UN_MC_W_019	Wetland	Proposed
UN_ML_W_004	Wetland	Morgan Lake
UN_ML_W_005	Wetland	Morgan Lake
UN_ML_W_006	Wetland	Morgan Lake
UN_ML_W_008	Wetland	Morgan Lake
UN_ML_W_015	Wetland	Morgan Lake
UN_ML_W_016	Wetland	Morgan Lake
UN_ML_W_017	Wetland	Morgan Lake
UN_ML_STRM_013	Stream	Morgan Lake
UN_ML_STRM_014	Stream	Morgan Lake
UN_ML_STRM_015	Stream	Morgan Lake
UN_ML_STRM_016	Stream	Morgan Lake

¹Wetland ID corresponds to the labels on Figure 13

Archaeological Resources

Archaeological resource surveys were conducted on the Proposed Route and in the Morgan Lake Alternative on the Williams parcel in the summer of 2016. These surveys included cultural resource surveys and a desk top analysis of historic resources. Three resources were previously recorded and were on the Oregon State Historic Preservation Office database (Table 8 and Figures 14 and 15). One resource was identified on historic maps of the area (Table 9 and Figure 14). During surveys, three new archaeological resources were discovered on the Williams parcel (Table 10 and Figures 14 and 15).

Table 8. Previously Recorded Archaeological Resources in Parcel 03S37E01300

Resource #	Site Type	Description	NRHP Status	Route
35UN 00096	Pre-contact	Lithic Scatter	Unevaluated	Parcel Only
35UN 00540	Multicomponent	Lithic Scatter & Homestead	Unevaluated	Parcel Only
Oregon National Historic Trail	Historic	Oregon National Historic Trail	Listed	Parcel Only

Table 9. Potential Archaeological Resources Identified from Historic Maps of Parcel 03S37E01300

Potential Resource Description	Route
Immigrant Roads	Morgan Lake Alternative & Parcel Only

Table 10. Newly Recorded Archaeological Resources in Parcel 03S37E01300

Temporary Resource #	Site Type	Description	NRHP Recommendation	Route
6B2H-MC-09	Historic	Road	Not eligible	Morgan Lake Alternative
6B2H-MC-10	Pre-contact	Hunting Blind	Unevaluated	Parcel Only
6B2H-RP-08	Pre-contact	Cairn(s)	Unevaluated	Morgan Lake Alternative

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name: SALLIE WILLIAMS

Address 62460 HALLEY RD.
LA GRANDE, OR 97850

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project (B2H) 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

This letter is a public comment for the above referenced project. Specifically, this letter will discuss Idaho Power's compliance with Standard 345-022-0110 - Public Services, in Exhibit U (3.5.6.2 and 3.5.6.5) of the EFSC application for B2H to ODOE. The letter will discuss the impact potential wildfires caused by the B2H transmission line will have on the ability of public and private providers within the analysis area to provide fire protection.

The effect of transmission lines on wildfire impact in western states has been well documented. In California, PG&E lines have caused 5 of the 10 most destructive fires since 2015, producing a liability of over 30 billion for PG&E. When considering the impact of B2H's operation, residents of Union County find the similarities between La Grande and Paradise California, where the infamous Camp Fire struck in 2018, deeply concerning. La Grande and Paradise share similar elevations and populations, however, La Grande has several characteristics that make it significantly more vulnerable to the ravages of wildfire than Paradise. For instance, La Grande averages 18 inches of rain yearly while Paradise enjoys 55 inches. Additionally, the proposed line runs adjacent to La Grande, while the line causing the Camp Fire was 7 miles from Paradise. *Oregon's 2006 Communities at Risk Assessment* by the Oregon Department of Forestry cites a startling fact: **The fire risk of the wildland urban interface (WUI) in La Grande has been rated the #1 WUI fire risk in Oregon!**

There is no doubt that construction of the proposed B2H transmission line would significantly increase the risk of wildfire in our area. From Idaho Power's own Draft Protection Order (Exhibit U-3.5.6.2, p. U-24): "Most activities will occur during summer when the weather is hot and dry. Much of the proposed construction will occur in grassland and shrub-dominated landscapes where the potential for naturally occurring fire is high. Project construction-related activities, including the use of vehicles, chainsaws, and other motorized equipment, will likely increase this potential risk in some areas within the Site Boundary. Fire hazards can also be related to workers smoking, refueling, and operating vehicles and other equipment off roadways. Welding on broken construction equipment could also potentially result in the combustion of native materials near the welding site." Idaho Power recognizes this hazard but makes no consideration of it in its application.

There are several specifics to examine in an analysis of the proposed B2H line's effects on Union County's ability to provide fire protection services. Firstly, firefighting crews in our region are

limited and volunteer. In their application, Idaho Power avers, "Most of the fire districts within the analysis area comprise volunteers, and in some cases, it takes considerable time to collect and mobilize an entire fire crew." As well, JB Brock, Union County emergency Manager states in Idaho Power's application "volunteer fire departments (rural fire protection districts) have a hard time finding volunteers due to budget constraints, similarly to budget constraints at the state and federal level. The wildland fires are getting bigger and cost more to fight" (U-1C-6). Fire crews in Union County are not equipped to handle potential wildfires generated by the proposed B2H transmission line.

The fact that fire crews are unstable, small and volunteer affects many aspects of their ability to respond to wildfires. Delayed response times, as noted in the quote from the previous paragraph, is one effect. Estimates of response time in the EFSC application are best-case scenarios. The estimate of 4 to 8 minutes as the response time in Union County (Table U-10) is far from even a best-case scenario (p. U-17). Residents that live on Morgan Lake Road concur that driving time is at least 10-15 minutes to the most accessible areas of the line from the base of Morgan Lake Road. Add to this estimate travel time from the La Grande Fire Station (approximately 7 minutes) and the time needed for individual fire fighters to travel to the Fire Station for a more realistic best-case scenario response time. The Paradise Camp Fire burned at a rate of over 1 acre per second!

Another factor in transmission line fires particularly impactful for small volunteer fire departments is the complications to firefighting introduced by the transmission lines themselves. According to Marvin Vetter, ODOF's Rangeland Coordinator, "local crews have no training in this scenario and will wait for the lines to be de-energized." JB Brock, Union County Emergency Manager, states, "The project (transmission line) could limit the ability on initial attack if fire fighters have to wait for power lines to be de-energized." (U-1C-6) These delays allow fires to grow even more.

How can communities struggling to maintain volunteer fire crews hope to address the overwhelming additional challenges and risks imposed by a project such as the B2H transmission line? Where is this addressed in Idaho Power's application and how can Idaho Power conclude that the proposed B2H transmission line is "not expected to have significant adverse impacts on fire protections services" (Exhibit U 3.5.6.2)? Considering the current capacities of fire protection services in Union County and the additional risks of wildfire imposed by the B2H transmission line, I urge you to act in accordance with state statute OAR 345-022-0110 and reject Idaho Power's application to construct the Boardman to Hemingway transmission line.

Sincerely,

Sallie Williams

Name *SALLIE WILLIAMS*
Address *62460 HALLEY RD.*
LA GRANDE, OR 97850

ESTERSON Sarah * ODOE

From: Jeanne Williamson <jeanne@evermine.com>
Sent: Thursday, August 22, 2019 8:07 AM
To: B2H DPOComments * ODOE
Subject: [Fortimail Spam Detected] NO B2H

Energy Facilities Siting Council
c/o Kellen Tardaewether

Hi Kellen and team,

This is a letter recommending to NOT INSTALL a transmission line from Boardman to Hemingway.

Thank you for allowing me to express my opinion as you consider the practicality of this transmission line.

I am STRONGLY AGAINST this transmission line. Two reasons as follows.

Reason 1.

The Oregon Trail. I am a big fan; call me a Rut Nut. Your transmission line, as it goes through the Blue Mountains, will directly cross - many times - this pristine section of the Oregon Trail; one of the few that remains. In addition to crossing the Trail, your transmission line will also be within a few yards or a few hundred yards of it for many miles. The powerline will be visible and audible, and will change the flora and fauna of the area. No visitor of the Trail can imagine themselves 175 years ago crossing this country, as they stand under the shadow of your transmission line. The Oregon Trail is a route that tens of thousands of emigrants followed, and which took many lives – of men, women, children, and babies. Most emigrants were out of food by the time they got to these mountains, and had lost most of their possessions as a result of the deaths of their animals along the way. In honoring their efforts, I believe in preserving this pristine portion, as an example to all those of us who go after, and to allow people an opportunity to experience in a small way what they went through to set up a new life for themselves.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted maps and do not acknowledge visual intrusion of the line for 10 miles per standards. Trail protections have been put into documents only upon ODOE's RAE's. This has been consistent from the BLM process to current day. Considering this, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources.

Reason 2. This is not the way of the future. Better technology is available now, and would be a better use of resources than doing things the old way.

USE SOLAR.

USE WIND.

USE LOCAL ENERGY.

DON'T MOVE ENERGY FROM ONE PLACE TO ANOTHER.

USE RESOURCES WISELY.

USE YOUR IMAGINATION.

DON'T KEEP ON GOING DOWN THE OLD ROAD JUST BECAUSE.

DON'T BE STUPID.

GO THE SMART ROUTE!!
REMEMBER YOUR GRANDCHILDREN!!

Thank you for the opportunity to express my opinion. I trust that your board will carefully consider all options and will in the end choose an environmentally sound method to bring power to your area.

Jeanne Williamson
5 Pine Crest Drive
La Grande Oregon 97850

TARDAEWETHER Kellen * ODOE

From: John & Susan Winner <swinner@dataentree.com>
Sent: Monday, October 21, 2019 10:18 AM
To: TARDAEWETHER Kellen * ODOE
Subject: [Fortimail Spam Detected] FW: B2H Draft Project Order
Attachments: B2H JAW.docx

Kellen,

Here is the July 26th. email that I sent regarding the B2H comments.

John Winner

From: John & Susan Winner
Sent: Friday, July 26, 2019 4:39 PM
To: B2H.DPOComments@oregon.gov
Subject: B2H Draft Project Order

Attn. Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR 97301

Please find attached comments regarding the B2H Draft Project Order.

John Winner, National Preservation Officer
Oregon-California Trails Association

OREGON-CALIFORNIA TRAILS ASSOCIATION

July 26, 2019

To: Members of the Energy Facility Siting Council

Thank you for the opportunity to provide comments. My comments are regarding the proposed B2H Draft Order.

I am the National Preservation Officer for the Oregon-California Trails Association (OCTA). I've also served previously as the President of OCTA.

OCTA is a national, nonprofit organization headquartered in Independence MO. with 11 chapters throughout the western United States. OCTA is seen as the nation's pre-eminent guardian and promoter of the 19th century westward migration, The largest peacetime movement in the history of the United States.

OCTA's mission is to protect the Historic Emigrant Trail legacy through preservation, research, education and public awareness of the trails. OCTA's number one goal is to preserve the Historic Emigrant Trails.

The B2H Project would devastate the Oregon National Historic Trail:

The Historic Emigrant Trails are the pathway created by the many thousands of pioneers who traveled across the Great Plains and the Northwest in the historic westward migration in the 19th century. As these travelers made their way west, largely in covered wagons drawn by oxen, they left behind telltale marks of their passage some of which remained clearly visible today. In some places pristine stretches of the historic emigrant trails are so well preserved and so undisturbed by modern development that they offer an opportunity to share this part of history of the United States by seeing the land as The Pioneers would have 170 years ago.

OCTA works to identify and preserve the Oregon National Historic Trail in partnership with private landowners and governments including local government, states and the federal government. OCTA ranks stretches of the Oregon National Historic Trail using 5 classes. Class 1 trail segments are pristine unaltered segments of a trail that look as they did 170 years ago. Trail segments ranked Class 2 through 5 are areas where the trail is still identifiable but where modern development has impacted the historic nature of the area to varying degrees.

Segments of the Oregon National Historic Trail that would be impacted by the B2H project are some of the finest most pristine segments of any historic emigrant trail in the entire nation. OCTA ranks several segments as Class 1 due to their pristine historic character largely unmarked by modern development and it has been designated by Congress as a National Historic Trail that is managed by the National

Park Service. In short, trail segments of the Oregon National Historic Trail impacted by the B2H Project are irreplaceable and an unparalleled historical resource.

The proposed B2H Transmission Line and associated wind energy development will devastate segments of the Oregon National Historic Trail. To begin with, construction of the B2H Transmission Lines including access roads for maintenance, risk causing direct physical damage to the trail. As designed, the B2H Transmission Line crosses the Oregon National Historic Trail 8 times. Although the trail has withstood the passage of time, the Direct Effects by severe impacts of heavy construction equipment is a different matter altogether. The intrusion of massive transmission towers power lines will fundamentally change this area and the historic character setting and feeling that is currently experienced. These modern developments will dominate the landscape setting and it will no longer be possible to experience the immerse sense of history that the Oregon National Historic Trail currently provides. The Indirect Effects of the visual setting is prevalent throughout the proposed project including but not limited to, the National Historic Oregon Trail Interpretive Center at Baker City, Oregon. The Center located on Flagstaff Hill provides visitors a visual opportunity to experience a sense of the emigrant's experience from long ago.

In summary, The B2H project will irreparably injure the unique and irreplaceable historic resources for future generations of Americans by physically destroying or fundamentally degrading the historic character of the Oregon National Historic Trail.

John Winner, National Preservation Officer
Oregon-California Trails Association
3541 Sundance Trail
Placerville, California 95667



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) John Winters ^{Winters}

Mailing Address (mandatory) 60214 Morgan Lake Rd

Phone Number (optional) () _____ Email Address (optional) wintersnd@gmail.com

Today's Date: Jun 20, 19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today.

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly - Use the back for additional space if needed. Additional written comments may be attached to this card.)

Page 134

1 MR. JOHN WINTERS: I'll be brief. Thank you
 2 very much for being here tonight. It's a long day for
 3 you guys, I'm sure. And I hope you get to enjoy our
 4 beautiful valley a little bit while you are here.
 5 John Winters, W-i-n-t-e-r-s, I live at 60214
 6 Morgan Lake Road, La Grande.
 7 And being at Morgan Lake, I go up and down the
 8 hill a lot, and there are some summers where you are
 9 afraid to walk through the grass it gets so dry. I'm
 10 just afraid some time it's going to blow up in fire. So
 11 I am just going to speak to the possibility of any
 12 increase in fire risk is something that doesn't make a
 13 lot of sense to me.
 14 Especially in light of California's
 15 experience, it just occurred to me that the fire risk is
 16 a little underappreciated. Five of the ten most
 17 destructive fires since 2015, as you may well know, are
 18 linked to the PG&E network. PG&E is now bankrupt. They
 19 have 50 lawsuits and \$30 billion in liabilities. And I
 20 kind of wonder if Idaho Power wants to go that route.
 21 Californians are served by PG&E. Idaho Power
 22 does not serve any Oregonians. So it's not as if we are
 23 getting anything out of the deal.
 24 Paradise, interestingly, is somewhat similar
 25 to La Grande. Its elevation is 1,800 feet; we are about

Page 135

1 1,200 feet. They are about twice the population of
 2 La Grande. And they get three times as much rain as we
 3 do. So we are a far more arid region than they are, and
 4 we do get winds coming through here and drying patterns.
 5 I talked to John Panches, OSU Extension
 6 forester here, and he demurred on the B2H question, but
 7 he did say that they are tracking weather and there is
 8 more hotter days -- the days are hotter and there is
 9 more of them. He says it only takes a couple of extra
 10 hot days for a tree to turn the corner and to stress a
 11 tree and it will die usually by the next year. He is
 12 seeing a pattern, as we've probably all heard, that
 13 things are going in that direction. So to me it makes
 14 no sense to invite an additional risk when we have got
 15 plenty of existing risks as it is.
 16 The proposal states in Exhibit U, 3.5.6.2,
 17 Exhibit U, it says: The project is not expected to have
 18 significant adverse impacts on fire protection as
 19 they've talked to all the various volunteer units along
 20 the way.
 21 I wonder what California would say. Cal Fire,
 22 again, I talked to them; they wouldn't comment. But the
 23 Santa Rosa Fire Chief has been quoted as saying, they
 24 have 17 states that -- I believe it was the Woolsey
 25 Fire, they had firefighters from 17 states. They had

Page 136

1 firefighters from Australia, they had almost 300
 2 engines, 4,300 law enforcement and 2,300 National Guard.
 3 I just don't get the impression that Idaho
 4 Power takes very seriously the even small increase in
 5 risk that they may present with their power line, and
 6 it's us that is going to have to be paying the price.
 7 So that is all I have to say. Thank you very
 8 much for your time.
 9 HEARING OFFICER WEBSTER: Thank you.
 10 On deck is Rod Muilenburg. But first we have
 11 Mr. DeLashmutt.
 12 MR. BILL DeLASHMUTT: My name is Bill
 13 DeLashmutt, and I'm here representing myself. Thank you
 14 for the opportunity to present my thoughts about the
 15 B2H.
 16 I am speaking in support of the B2H, and
 17 invite you to consider some of the reasons for
 18 supporting the line and the effect on our lives.
 19 I understand the concerns of the opposition,
 20 particularly those of you on the route or near the
 21 route; that has to be hard. So I have a question to
 22 start things with, and nobody has to answer it, but did
 23 you apply the brakes on your car and increase energy
 24 consumption as you drove to the meeting? When you have
 25 the heat on in your house, do you open the windows and

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1 heat the outside air? Of course the answer is no. That
 2 wouldn't be smart. We should not ask Idaho Power,
 3 PacifiCorp, and Bonneville Power Administration to waste
 4 energy either.
 5 I want to discuss power line losses and a few
 6 causes. We are all concerned about energy efficiency.
 7 So are Idaho Power Company, PacifiCorp, and Bonneville
 8 Power Administration. B2H will lower line losses. I
 9 can help you visualize that. Power line temperature
 10 rises when you add load to the line. The larger the
 11 load, the hotter the line becomes. This is a problem
 12 with the existing system. And we are wasting energy.
 13 B2H will lower the line losses on the existing system.
 14 If you force Idaho Power Company, PacifiCorp,
 15 and Bonneville Power Administration to operate without
 16 B2H, you are doing the same thing as driving your car
 17 with the brake applied and turning up the heat in your
 18 house while you open the windows.
 19 Idaho Power Company is demonstrating good
 20 corporate practices by providing low-cost power that is
 21 in the bottom 10 percent of the nation. Idaho Power
 22 Company provides you power at 25 percent less cost than
 23 the national average. That is good corporate practice.
 24 Wind farm activity increases losses. We all
 25 talk about microgrids that locate power generation close

ESTERSON Sarah * ODOE

From: JOHN WINTERS <wintersnd@gmail.com>
Sent: Wednesday, August 21, 2019 11:29 AM
To: B2H DPOComments * ODOE
Attachments: B2H Fire Risk letter, August 21, 2019.doc

Thank you for your time ! John Winters ND

August 21, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street. N.E.
Salem, Oregon 97301

SUBJECT: Idaho Power Application for a Site Certificate for the Boardman-to-Hemingway
Transmission Project 9-28-18; Draft Proposed Order 5-23-19

Dear Chair Beyeler and Members of the Council:

This letter focuses on increased wildfire risk.

While there are many reasons not to proceed with B2H, increased risk of wildfire is the most compelling. Concerns of environmental degradation, view sheds and even the need for this obsolete project are well founded, but pale in comparison to the possibility of wildfire. Paradise, California is incinerated, gone.

September 21, 2018 Gov. Jerry Brown signed into law a measure allowing utilities to bill their customers to pay for legal settlements stemming from 2017 wildfires. Weeks later the disastrous Camp Fire struck. Now PG&E faces over 30 billion in liability from over 50 lawsuits. The company is bankrupt. Do IP stock holders and customers really need this risky project?

Exhibit U, Section U-1C "Contact with Fire Departments"---Burnt River RFD chief Burt Siddoway estimates a 45 minute response time to a fire in the B2H right of way (ROW). Lookout-Glasgow RFD chief Kirk Jacobs guesses a 30-60 minute response time, which seems reasonable. The La Grande RFD chief claims a 4-8 minute response time! I know from decades of living on Morgan Lake Road that this is impossible. Driving time alone is at least 10-15 minutes to the most accessible locations. A much longer response time is likely. This is important because this area is rated the #1 fire risk WUI (wildland urban interface) in Oregon. B2H also passes through #5 rated Perry-Hilgard and #10 rated Kamela. La Grande, home to 13,000 people is adjacent to the Morgan Lake area. Any fire in this high risk area would be in town within minutes.

The Camp Fire started 7 miles from the town of Paradise and arrived one hour later, burning over 1 acre PER SECOND. La Grande is similar to Paradise, only a lot drier. La Grande has 13k people, at 2200 feet elevation, and averages 18 inches rain yearly. Paradise HAD 26k people, at 1800 feet elevation, and averages 55 inches rain yearly. La Grande is more vulnerable than Paradise! Putting power lines through this area and right next to town is too risky.

The DPO claims the project is: "Not expected to have significant adverse impacts on fire protection services" (Exhibit U 3.5.6.2) This type of claim is often made throughout the DPO, but is based on best- case scenarios. Established trends in forest health and climate indicate increased fire risk in the future. Union County OSU Extension Forester John Panches has observed increasing tree mortality. He says there are more hot days each year and that even one or two additional really hot days is enough to stress a tree and cause death. More dead trees contribute to increased fire risk. And, talk about "no significant adverse impacts..." ask Santa Rosa Fire Chief who had to call in firefighters from 17 states, Australia, and needed 266 engines, 79 crews, 4300 law enforcement officers, and 2300 National Guard for a power line caused fire!

Electrical transmission lines have a poor record of causing wildfires. In California, PG&E lines have caused 5 of the 10 most destructive fires since 2015. Research shows new equipment, proper maintenance and diligence help, but people or even birds can start a fire anyway.

Transmission lines complicate the way you fight a fire, according to Marvin Vetter ODOF's Range land Coordinator. Local crews have no training in this scenario and will wait for the lines to be de-energized. (a complicated issue in itself) This delay allows the fire to grow even more.

IPC states construction will progress at about 1 ½ miles weekly (U-1C-D) That exposes any

nearby town to 30 weeks of increased traffic and risks.

The Oregon PUC Wildfire Response Council said in January 2019 that “California wildfires and the resulting devastation are linked to the electrical system...” “Increased wildfire risk is only the beginning and will continue for decades to come.” Why should we risk SO much, when we don’t need to?

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

email: B2H.DPOComments@Oregon.gov

June 27, 2018
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AUG 22 2018

DEPARTMENT OF ENERGY

EFSC LACKS AUTHORITY TO APPROVE CONSTRUCTION OR MODIFICATION OF ROADS OR OTHER DEVELOPMENT OUTSIDE THE SITE BOUNDARY FOR THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE.

The Oregon Department of Energy and Energy Facility Siting Council span of control for approving development is limited to the area within the site boundary. In order to be covered under the site certificate, roads or other construction must be included in the site boundary. The decision regarding whether or not to include these areas in the site was made by the developer. They chose to limit the area of the site to exclude some of the roads they planned to modify or build. Due to this decision, these areas must be approved through the local county or city planning process. They do not fall under the rules contained in OAR 345-022-0030.

Prior decisions and a contested case decision by the Energy Facility Siting Council support the above, for example: The Oregon Department of Energy and Energy Facility Siting Council allowed Wheatridge Wind Development to not include the gen-tie transmission line in the site certificate. That decision gave control of the gen-tie line, roads and other actions related to building the transmission line to the contractor and the developer and removed the Oregon Department of Energy and Energy Facility Siting Council from involvement.

Definitions contained in the Oregon Statutes and EFSC Rules clearly define the area which is controlled by the site certificate.

1. A site certificate by definition contained in ORS 469.300(26), ORS 469.401`4) and ORS 369.503(3) means “the binding agreement between the State of Oregon and the applicant, authorizing the applicant to *construct and operate a facility on an approved site*, incorporating all conditions imposed by the council on the applicant.”
2. The “site” is defined in ORS 469.300 as “any proposed location of an energy facility and related or supporting facilities.”
3. ORS 469.300 also defines “Related or supporting facilities” as “means any structure, proposed by the applicant, to *be constructed or substantially*

modified in connection with the construction of an energy facility, including associated transmission lines, reservoirs, storage facilities, intake structures, road and rail access.-----"

4. ORS 469.401(4) and ORS 369.503(3) state that the council does not have jurisdiction over matters that are not *included in and governed by the site certificate* or amended site certificate.

In construing a statute, you may not "insert what has been omitted, or ***omit what has been inserted." ORS 174.010.

The area of EFSC control of modifications to existing roads or development of new roads is also contained in counsel standards contained in OAR 345-001-0010 including:

5. (54) ""Site" as defined in ORS 469.300. "Energy facility site" means all land upon which an energy facility is located or proposed to be located. "Related or supporting facilities site" means all land upon which related or supporting facilities for an energy facility are located or proposed to be located.

6. (55) ""Site boundary" means the perimeter of the site of a proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant."

7. (56) ""Site certificate" as defined in ORS 469.300." "means the binding agreement between the State of Oregon and the applicant, authorizing the applicant to *construct and operate* an energy facility *on an approved site*, incorporating all conditions imposed by the state on the applicant."

The above definitions, particularly the definition of "site certificate" in the statute clearly limit the extent of the Oregon Department of Energy and Energy Facility Siting Council evaluation and control to activities occurring on the "site" as defined in the above rules and statutes and impacts those development activities occurring on the site have on the surrounding area. Any modifications to road segments or new roads which are not included in the site boundary are outside the jurisdiction of the Energy Facility Siting Council. The site certificate cannot authorize exceptions to local or state land use goals or plans in order to approve development outside the site.

The applicant claims on Page K-216 of their application that the access roads and other such facilities outside the site boundary are related and supporting facilities.

Since the applicant chose not to include these facilities in the site certificate, they are not related or supporting facilities. The Energy Facility Siting Council and the Department of Energy made this very clear in the contested case decision regarding the developer's choice not to include the gen-tie line in the site for the Wheatridge Wind Facility. That decision was incorporated into the Final Order for Wheatridge Wind Facility issued April 2017. For example: Page 1, Line 10 states "A site certificate is a binding agreement between the State of Oregon and the applicant, authorizing the applicant to design, construct, operate, and retire a facility on an approved site, incorporating all conditions imposed by the Council on the applicant" In the footnotes on that page there is additional comment relating to this issue, "On the record of the public hearing, Ms. Gilbert/FGRV requested that the Council impose a condition restricting construction and construction impacts to the area within the site boundary. In response, on the record of the June 6, 2016 public hearing, the applicant stated that a specific condition limiting impacts to within the site boundary should not be required as this limitation is self-implementing through approval of the site boundary and site certificate. The department generally agreed with the applicant's statement. Construction activities must be restricted to areas within the site boundary, which as defined at OAR 345-001-0010 means the perimeter of the site of the proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors. Once issued, the site certificate becomes a binding, contractual agreement between the certificate holder and the State of Oregon, which authorizes the certificate holder to design, construct, operate and retire a facility only on an approved site, incorporating all conditions imposed by the council."

The applicant's reference to OAR 660-006-0025(4)(q) applies only to transmission lines. The applicant's reference to 215.283(1) talks to dwellings related to farm use. These arguments are moot since decisions regarding the roads or any other construction activities outside the site boundary are not included in the site certificate.


John Williams
Bx 1384
La Grande OR 97050

RECEIVED

AUG 22 2019

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

DEPARTMENT OF ENERGY

Dear Chair Beyeler and Members of the Council:

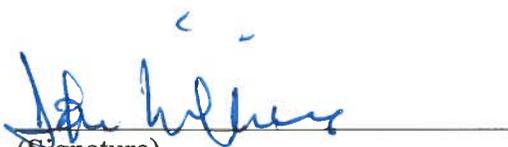
As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name: John Williams

Address Bx 1384
La Grande OR 97850

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

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AUG 22 2019

DEPARTMENT OF ENERGY

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**


Signature

Printed name: John Williams

Mailing address: Bx 1384
Le Grande OR 97850

Email address:
phone number: (optional)

RECEIVED

AUG 29 2019

Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St. NE

Salem, Oregon 97301

email: B2H.DPOComments@Oregon.gov

DEPARTMENT OF ENERGY

The introduction of the Boardman to Hemingway Transmission line creates an unacceptable increased risk of catastrophic fire. Of the six counties in Oregon which the transmission line would cross, five of them are rated as having a high risk of wildfire.

Morgan Lake area is rated #1 risk in Oregon

Idaho Power has indicated that they do not plan to provide their own fire protection, but plan instead to rely upon local fire fighting resources to deal with fires caused by the transmission line. They have rejected the suggestion from Baker County that they develop a specialized fire fighting resource to fight wild fires in the unpopulated areas the transmission line would cross and provide them with the specialized equipment that local fire departments in the area are lacking. They also have not responded to comments from Union County Fire Departments indicating a need for them to provide specialized equipment to address wildfires.

The issue is further problematic due to the fact that at least in Union County, the developer has stated their intent to rely upon local firefighting resources. In Union County there are only four fire departments that are not Rural Fire Protection Districts, RFPD's. These RFPD's are trained to fight structural fires, not wildfires. Further, the definition of a RFPD limits them to "providing structural fire protection to its constituents." Idaho Power must establish their own methods of fighting wildfires along the transmission line. They cannot rely upon the local resources identified to address structural fires to provide protection from wildland fires. *BAR 345-022-0110*

John Winters III 60214 Morgan Lk. Rd, LG, OR 97858

Last year - the Woolsey Fire necessitated crews come from 17 states & Australia! Thousands of fighters, law enforcement & National Guard were needed. Laborer gets about a third the rain as does Paradise. Building B2H right adjacent to Laborer or in and Eastern Oregon is a bad idea - for Oregonians, even Idaho Power investors & customers.

RECEIVED

AUG 22 2019

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

DEPARTMENT OF ENERGY

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within 1/2 mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

True! - This area is quiet - birds, wind - You can hear the roar of I-84 and LaGrande miles away

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

proposed to pass near Grande Ronde Hospital

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

Also, many residents in the area,

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.

Thank you!

John Winters
(Signature)

Name: *John Winters ND*

Address: *60214 Morgan Lake Road
LaGrande, OR 97850*

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

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AUG 23 2019

DEPARTMENT OF ENERGY

Email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project (B2H) 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

This letter is a public comment for the above referenced project. Specifically, this letter will discuss Idaho Power's compliance with Standard 345-022-0110 - Public Services, in Exhibit U (3.5.6.2 and 3.5.6.5) of the EFSC application for B2H to ODOE. The letter will discuss the impact potential wildfires caused by the B2H transmission line will have on the ability of public and private providers within the analysis area to provide fire protection.

The effect of transmission lines on wildfire impact in western states has been well documented. In California, PG&E lines have caused 5 of the 10 most destructive fires since 2015, producing a liability of over 30 billion for PG&E. When considering the impact of B2H's operation, residents of Union County find the similarities between La Grande and Paradise California, where the infamous Camp Fire struck in 2018, deeply concerning. La Grande and Paradise share similar elevations and populations, however, La Grande has several characteristics that make it significantly more vulnerable to the ravages of wildfire than Paradise. For instance, La Grande averages 18 inches of rain yearly while Paradise enjoys 55 inches. Additionally, the proposed line runs adjacent to La Grande, while the line causing the Camp Fire was 7 miles from Paradise. Oregon's 2006 Communities at Risk Assessment by the Oregon Department of Forestry cites a startling fact: **The fire risk of the wildland urban interface (WUI) in La Grande has been rated the #1 WUI fire risk in Oregon!**

There is no doubt that construction of the proposed B2H transmission line would significantly increase the risk of wildfire in our area. From Idaho Power's own Draft Protection Order (Exhibit U-3.5.6.2, p. U-24): "Most activities will occur during summer when the weather is hot and dry. Much of the proposed construction will occur in grassland and shrub-dominated landscapes where the potential for naturally occurring fire is high. Project construction-related activities, including the use of vehicles, chainsaws, and other motorized equipment, will likely increase this potential risk in some areas within the Site Boundary. Fire hazards can also be related to workers smoking, refueling, and operating vehicles and other equipment off roadways. Welding on broken construction equipment could also potentially result in the combustion of native materials near the welding site." Idaho Power recognizes this hazard but makes no consideration of it in its application.

There are several specifics to examine in an analysis of the proposed B2H line's effects on Union County's ability to provide fire protection services. Firstly, firefighting crews in our region are

just outside city limits

Even with careful planning things happen

ar. 40 min. drive
The fire was in Paradise
1 hour after ignition!
Burning 1 acre/sec

limited and volunteer. In their application, Idaho Power avers, "Most of the fire districts within the analysis area comprise volunteers, and in some cases, it takes considerable time to collect and mobilize an entire fire crew." As well, JB Brock, Union County emergency Manager states in Idaho Power's application "volunteer fire departments (rural fire protection districts) have a hard time finding volunteers due to budget constraints, similarly to budget constraints at the state and federal level. The wildland fires are getting bigger and cost more to fight" (U-1C-6). Fire crews in Union County are not equipped to handle potential wildfires generated by the proposed B2H transmission line.

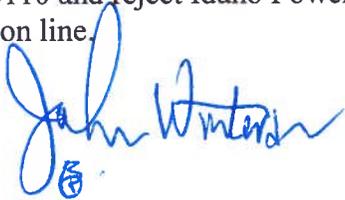
The fact that fire crews are unstable, small and volunteer affects many aspects of their ability to respond to wildfires. Delayed response times, as noted in the quote from the previous paragraph, is one effect. Estimates of response time in the EFSC application are best-case scenarios. The estimate of 4 to 8 minutes as the response time in Union County (Table U-10) is far from even a best-case scenario (p. U-17). Residents that live on Morgan Lake Road concur that driving time is at least 10-15 minutes to the most accessible areas of the line from the base of Morgan Lake Road. Add to this estimate travel time from the La Grande Fire Station (approximately 7 minutes) and the time needed for individual fire fighters to travel to the Fire Station for a more realistic best-case scenario response time. The Paradise Camp Fire burned at a rate of over 1 acre per second!

Another factor in transmission line fires particularly impactful for small volunteer fire departments is the complications to firefighting introduced by the transmission lines themselves. According to Marvin Vetter, ODOF's Rangeland Coordinator, "local crews have no training in this scenario and will wait for the lines to be de-energized." JB Brock, Union County Emergency Manager, states, "The project (transmission line) could limit the ability on initial attack if fire fighters have to wait for power lines to be de-energized." (U-1C-6) These delays allow fires to grow even more.

*consider
Idaho Power would have to turn off
power to Boise hospitals & residents*

How can communities struggling to maintain volunteer fire crews hope to address the overwhelming additional challenges and risks imposed by a project such as the B2H transmission line? Where is this addressed in Idaho Power's application and how can Idaho Power conclude that the proposed B2H transmission line is "not expected to have significant adverse impacts on fire protections services" (Exhibit U 3.5.6.2)? Considering the current capacities of fire protection services in Union County and the additional risks of wildfire imposed by the B2H transmission line, I urge you to act in accordance with state statute OAR 345-022-0110 and reject Idaho Power's application to construct the Boardman to Hemingway transmission line.

Sincerely,



Name
Address

*John Winters MD
60214 Morgan Lake Road
La Grande, OR. 97850*

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

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DEPARTMENT OF ENERGY

REGARDING; CONCERNS DUE TO THE INCREASED RISK AND LACK OF RESPONSE CAPABILITIES IN THE EVENT OF A FIRE ALONG THE TRANSMISSION LINE

5 to 10 major California fires since 2015 were caused by power lines

The increased potential for wildfire has been established as a given along any transmission line. Not only is there an undetermined and potentially significant amount of time that will elapse prior to the identification of the fire, but then there may be a response time of up to 40 minutes after a fire is located in some areas according to Union County fire fighting resources. There will be ample opportunity for the fire to grow significantly. Given the potential lack of speed in getting to the location, the difficulty traversing the terrain, and the lack of specialized equipment available to fight forest fires, local resources are not adequate to protect the public from wildfires occurring due to the construction and ongoing operation and maintenance of this transmission line. Responding to fires that do occur will limit local resources available to provide service to their local areas of responsibility and the developer is planning to rely upon those local resources to deal with fires along the transmission corridor. Concern over the increased risk of fire as a result of this transmission line including multiple comments voiced by the citizens of the counties as well as special advisory groups prompted both Union and Baker counties to request funding for an analysis and recommendation to identify and mitigate the increased risk created by the construction and operation of the transmission line. Funding for that activity is not being supported by the developer. This development will have a significant impact on the local service providers to provide protection and respond to fires. There would be construction occurring during the hot, dry summer, that they will be establishing Right of Ways with abundant low lying, heavy brush and grass which burns fast and hot. There are long distances along the entire length of the transmission line with no designated fire response unit, the employees building and maintaining the transmission line are not going to be qualified to fight fires they create, there is a lack of specialized equipment needed to fight transmission line caused fires, response times will be excessive, there is a lack of paid personnel available to deal with these remote fires, some fire stations have old equipment, and they will be creating hundreds of miles of new and improved roads to allow and increase access for human caused fires. According to the Forest Service, between 88% and 90% of wildfires are human caused. There will be a significant increase in access for both people and vehicles along the entire right of way for the life of the transmission line.

Also - crews have no training in with power lines.

For example, Union County identified the following needs if the developer is going to rely upon local fire protection resources:

- Each volunteer firefighter needs to be provided with a phone and GPS system utilizing current technology able to provide service in remote areas along the transmission line
- There is a need for two heavy duty all terrain water trucks and any additional equipment needs identified by the Fire Chief.

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- An additional full time position with the County fire department during any construction occurring in Union County.
 - A permanent ½ time position to provide monitoring, training and firefighting during the life of the development.
 - The county needs to participate in the development of a fire plan prior to it being accepted
 - There is a need to provide resources to assure a response time of 14 minutes or less 90% of the time as required by NFPA.

A matter that adds significantly to the risk is the fact that the developer is stating they will rely upon Rural Fire Protection Services to respond and fight fires along the transmission line. These fire departments are only authorized to fight structural fires.

I hope you take these comments seriously, as the risk of catastrophic fires in the areas being impacted by the Boardman to Hemingway Transmission line are high. No acceptance of *this* Condition Number 6 should be given until the developer has shown that they are dealing with the increased fire potential they are creating through this development. *AR 345-022-0110*

Sincerely

Jahn Winters
00214 Morgan Road
LeBarron, AR 72858

Also - fire risk is likely to increase. Alaska's power line caused wildfire (McKinley Sunday Aug 8, 19) is more evidence of generally hotter/drier conditions. We need to ~~be~~ be more careful.

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DEPARTMENT OF ENERGY

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to "extensive work in the siting study of the Morgan Lake Alternative." I doubt it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300' of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

I saw them last week

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That's wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it's difficult to believe "extensive work on this siting study" ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power's ASC. If the IPC surveying and engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it's disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

access with prevailing winds from the WEST - any fire started on the B2H line would likely blow into La Grande within minutes.

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If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by a individuals whose remote properties and summer cabins would have been impact by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASCand DPO which will be addressed in a separate comment.


Signature

Name: John Winters ND

Address: 60214 Morgan Lake Rd.
La Grande, OR. 97850

I am a 20 yr. resident on this steep hill above LaGrande, & enjoy the Morgan Lake ~~area~~ park 4-5 times/wk. There are many good reasons not to allow B2H, Views, environmental damage, noise & ~~on~~ Increased risk of wildfire incinerating the region is truly scary. We are drier than Paradise, Morgan Lake is rated Oregon's #1 WUI fire risk - Idaho Power hasn't done their homework - and LaGrande shouldn't suffer for it.

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
Email: B2H.DPOComments@Oregon.gov

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AUG 22 2019

DEPARTMENT OF ENERGY

Magnetic Fields from 500 kV line create a public health risk

The Draft Site Certificate allows up to 9mA of exposure. While this is the standard that is being used, it has had no formal review by the statutorily required review committee for at least 15 years or longer. ORS 469.480(4) states, "The council by rule shall form an Electric and Magnetic Field Committee which shall meet at the call of the council chair. The committee shall include representatives of the public, utilities, manufacturers and state agencies. The committee shall monitor information being developed on electric and magnetic fields and report the committee's findings to the council. The council shall report the findings of the Electric and Magnetic Field Committee to the Legislative Assembly." This requirement is repeated in OAR 345-022-0000.

In spite of the clear legislative and rule requirement, the Oregon Department of Energy and Energy Facility Siting Council have refused to establish this committee in spite of a specific request that they do so. The standard has not been reviewed for over a decade, in spite of the fact that it is one of the highest in the nation and the world for residences. The last time there was any consideration, it was not as a result of a multi-expertise group, but was conducted by a single person, Dr. Kara Warner. She clearly recommended that the committee should be meeting on an ongoing basis in her report.(EFSC 2009).

The Oregon Department of Energy and EFSC continue to make unilateral decisions in spite of the fact that they do not have the expertise represented by the stakeholders required by the legislature to be reviewing this issue and in spite of the mounting evidence indicating this standard is too high. For example, the National Electric Safety Code limits workplace exposure to 5 mA and the National Radiation Laboratory states workplace limits should not be used for the public. The limits need to be lower due to potential prolonged exposure, and different ages, health, etc. They indicate induced current should not exceed 2 mA for public exposure.

Due to the mounting evidence that a health and safety issue exists due to the large amount of exposure being allowed and the fact that the council has not met the requirements of the statute specifically requiring them to do so, the site certificate cannot be issued. In order to issue a site certificate, the required committee must be brought together, a review of the appropriate amount of exposure needs to occur, and this issue needs to be reviewed based upon credible, current research and standards being used by other agencies and groups.

Name, Address and e-mail *John Watas ND
60214 Morgan Ln. Rd.
LG, OR 97850*

Signature *John Watas*

the electric field is inversely proportional to the distance from the conductors; the electric field strength declines as the distance from the conductor increases. The strength of the electric field is measured in units of kilovolts (kV) per meter (m) or kV/m. Electric fields are readily weakened or blocked by conductive objects such as trees or buildings. The direction of force within the electric field alternates at a frequency of 60 Hz, in direct relation to the charge on each conductor. However, the overall transmission line voltage, and therefore the overall strength and reach of the electric field, remains practically steady and is not affected by the common daily and seasonal fluctuations in usage of electricity by customers.

Magnetic fields around transmission lines are produced by the movement of electrical charge, measured in terms of amperage, through the conductors. Like the electric field, the magnetic field alternates at a frequency of 60 Hz. Magnetic field strength is expressed in units of milligauss (mG).³ The magnetic field strength is directly proportional to the amperage; that is, increased current flow produces a stronger magnetic field. As with electric fields, the magnetic field is inversely proportional to the distance from the conductors, declining in strength as the distance from the conductor increases. Magnetic fields are not blocked or shielded by most materials. Unlike voltage, the amperage and the resulting magnetic field around a transmission line fluctuate daily and seasonally as the usage of electricity varies and the amount of current flow varies.

Each AC three-phase circuit carries power over three conductors. One phase of the circuit is carried by each of the three conductors. The AC voltage and current in each phase conductor is out of sync with the other two phases by 120 degrees, or one-third of the 360 degree cycle. The fields from these conductors tend to cancel out because of this phase difference. However, when a person stands under a transmission line, one conductor is significantly closer and will contribute a net uncanceled field at the person's location.

3.2.2 EMF Standards

No federal regulations or guidelines apply directly to the EMF levels for the Project's proposed lines in Oregon. The National Institute of Environmental Health Sciences (NIEHS) performed an extensive review of field-related issues in the 1990s that resulted in the decision that regulatory actions are unwarranted (NIEHS 1999).

Although there are no federal regulations on power-frequency EMF in the United States, international recommendations and guidelines exist. Table AA-1 lists power-frequency EMF guidelines recommended by the European Union (EU 1999), the International Committee on Electromagnetic Safety (ICES), and the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which is an affiliate of the World Health Organization (ICES 2002; ICNIRP 2010).

³ Magnetic field strength may also be measured in terms of the Tesla, an International System unit of measurement. 1 Gauss = .0001 Tesla, or 1 Tesla = 10,000 Gauss; 1 Gauss = 1,000 mG.

Table AA-1. International Guidelines for Alternating Current Power-frequency EMF Levels

Agency	Exposure	Electric Field (kV/m)	Magnetic Field (mG)
European Union	General public	4.2	833
ICES ¹	Occupational	20	27,100
	General public	5	9,040
	General public within ROW	10	NA
ICNIRP	Occupational	8.3	10,000
	General public	4.2	2,000

¹ ICES recommendations have been adopted as standards by the Institute of Electrical and Electronics Engineers (IEEE); see Standard C95.6 -2002 (R2007).

Magnetic fields are measured in gauss (G) and milligauss. 1 G = 1,000 mG

NA = Not Applicable (no requirements)

Transmission line projects in Oregon must comply with the electric field standard found in OAR 345-024-0090, which requires that the applicant design, construct, and operate the proposed transmission line so that AC electric fields do not exceed 9 kV/m at 1 meter above the ground surface in areas accessible to the public. There is no similar Oregon design standard for magnetic fields.

Six other states have adopted limits for electric field strength either at the edge or within the ROW of the transmission line corridor. Only Florida and New York currently limit magnetic field levels from transmission lines. The magnetic field levels set in those two states only apply at the edge of the ROW and were developed to prevent magnetic fields from increasing beyond levels currently experienced by the public. Table AA-2 shows the AC electric field and magnetic field standards that have been adopted by states in the U.S.

Table AA-2. Other State Alternating Current Power-frequency EMF Standards

State	Location	Electric Field (kV/m)	Magnetic Field (mG)
Florida	230- to 500-kV lines	10	NA
	Edge of ROW	2	200 ¹
230 kV or less	Within ROW	8	NA
	Edge of ROW	2	150
Minnesota	Within ROW	8	NA
Montana	Within ROW—road crossing	7	NA
	Edge of ROW	1 ²	NA
New Jersey	Within ROW	NA	NA
	Edge of ROW	3	NA
New York	Within ROW—open	11.8	NA
	Within ROW—public road	7	NA
	Within ROW—private road	11	NA
	Edge of ROW	1.6	200
North Dakota	Within ROW	9	NA
	Edge of ROW	NA	NA

State	Location	Electric Field (kV/m)	Magnetic Field (mG)
Oregon	Within ROW Edge of ROW	9 NA	NA NA

¹ Magnetic field strength is limited to 250 mG for new double-circuit 500-kV lines constructed on a previously existing right-of-way.

² Can be waived by landowner.

NA = Not Applicable (no requirements)

In the fall of 2009, the Energy Facility Siting Council (EFSC or Council) commissioned a review of existing information to prepare for the review of several transmission lines under discussion at that time. That review was conducted by Dr. Kara Warner and presented to the Council on November 20, 2009, during a regular Council meeting. The prevailing conclusions were that there is a need to continue to monitor the science on EMF; that low-cost, prudent avoidance measures of public EMF exposure are appropriate; and that health-based limits are not appropriate given the scientific data available (EFSC 2009).

3.3 Distance Between Transmission Line Center Lines and Right-of-Way Edge

OAR 345-021-0010(1)(aa)(A)(i): The distance in feet from the proposed center line of each proposed transmission line to the edge of the right-of-way.

The transmission line will be located approximately in the middle of the ROW. The ROW width will typically be 150 feet, but in a few areas for very short distances may extend to 250 feet; accordingly, the distance from the center line to the ROW edge will be 75 to 125 feet. While crossing the Naval Weapons System Training Facility Boardman, the ROW will be 90 feet. The ROW width for the single-circuit 230-kV rebuilding portion of the Project will be up to 125 feet. The ROW width for the 1.1 miles of 138-kV rebuilding will be 100 feet. The required ROW width will be determined during final design.

3.4 Occupied Structures Within 200 Feet of Transmission Lines

OAR 345-021-0010(1)(aa)(A): . . . (ii) The type of each occupied structure, including but not limited to residences, commercial establishments, industrial facilities, schools, daycare centers and hospitals, within 200 feet on each side of the proposed center line of each proposed transmission line. (iii) The approximate distance in feet from the proposed center line to each structure identified in (A). . . .

3.4.1 Methods for Identifying Occupied Structures Within 200 Feet

Geographic information system and aerial photographs were used to identify and classify potential structures near the transmission line and rebuild segments that could be affected by Project EMF. A field reconnaissance was then undertaken to determine occupancy. Occupied structures included in this analysis are defined by OAR 345-021-0010 as including but not limited to residences, commercial establishments, industrial facilities, schools, daycare centers, hospitals, and rest areas. Receptors that were not included as occupied structures consisted of silos, tanks, gravel pits, mines, quarries, and water features.

3.4.2 Occupied Structures Identified Within 200 Feet

Based on review of aerial photography from 2012-2016, IPC identified six possible structures within 200 feet of the transmission line. IPC investigated the nature of those structures further, finding that

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AUG 23 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

DEPARTMENT OF ENERGY

Regarding: THERE WILL BE AN INCREASED RISK OF WILD FIRES AND THERE IS A LACK OF LOCAL RESOURCES TO RESPOND IN A TIMELY AND EFFECTIVE MANNER.

The Boardman to Hemingway transmission line will increase the potential and severity of wildfires due to opening up additional access for people, lightning strikes, remoteness of much of the line, the fact that high voltage transmission lines increase the height and heat of fires along the transmission lines, and limitations on local human and equipment resources to fight wildfires in remote locations.

Both Union County and Baker County have submitted comments regarding the fact that they do not have the manpower or specialized equipment necessary to fight fires in the new remote areas which will have an increased risk of catastrophic fires. Part of the area which will be crossed by the transmission line has no designated fire protection other than the Oregon Forest service.

Also - no training with power lines.

Given the timeframes for contacting and assembling volunteers, and the long travel times to respond to multiple areas along the transmission line, fires will have an opportunity to grow significantly prior to any fire response being able to access the area. Reports from volunteers called on to fight a fire which occurred during the construction of the Elkhorn Wind development stated they had difficulty accessing the area, the terrain was steep and there were multiple rattlesnakes in the area which made the job of fighting the fire very difficult.

Both Union and Baker Counties have submitted written comments to the Oregon Department of Energy stating they would need additional manpower and equipment if they are to be in a position of being able to effectively protect the citizens and resources from potential wildfires resulting from the development of the transmission line.

This is a serious issue due to the fact that the developer has indicated their intent to rely upon local resources in the event a fire occurs along the transmission line.

Sincerely,

John Winters M - I am a 20 yr. resident of Mangan Lake Road - 1 mile from the lake. It takes >15 min under ideal conditions to access the area - if your crews are already sitting in the trucks. The road is steep/crummy/rough and kills people that are careless & unlucky. This area is #1 Wild fire danger in Oregon! We are driven thru Paradise. Volunteering INCREASING our fire risk is insanity - sorry. Paradise is incinerated. Lets do better! John Winters M

60214 Mangan Lake Road, LG, OR
wintersm14@gmail.com

TARDAEWETHER Kellen * ODOE

From: katie fite <katie@wildlandsdefense.org>
Sent: Monday, August 19, 2019 6:44 PM
To: B2H DPOComments * ODOE
Subject: B2H Comments

Energy Facilities Siting Council

c/o Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St N.E.

Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

WildLands Defense is greatly concerned about the myriad adverse direct, indirect and cumulative effects of the B2H high voltage transmission line,

It will degraded, destroy and fragment vital wildlife habitats that are necessary to sustain viable wildlife populations in the region. It will outright destroy significant habitats including forested and sagebrush areas, It will cause new habitat fragmentation and disrupt wildlife use of seasonal ranges. It will cause wildlife like sage-grouse and big game to avoid use of the areas surrounding it, due to the visual flashing effect that animals perceive,

It will elevate dangerous wildfire risk - from raptor electrocutions as well as malfunction of the line.

The disturbance from the project will cause irreversible flammable weed expansion, which will result in the subsequent use of many kinds of toxic herbicides that will drift and foreseeably pollute water and kill non-target vegetation.

It will cause increased sedimentation and water pollution of aquatic species habitats as new roads are punched in for the project, as shallow-rooted weeds infest watersheds and soil erosion risk escalates, and as the result of future disturbance linked to it.

It will disturb wildlife and people with noise.

It will be visually very harmful and will mar public use of public lands for many kinds of recreational purposes, as well as, historic trails and other nationally significant areas.

It will carve a path for future development in its surroundings, with unassessed impacts.

It is not needed, as smart grid and other changes will soon render it obsolete - and the public will have a very expensive dinosaur on its hands - whose costs will be reflected in rate increases.

It will kill innumerable migratory birds and other avian species that collide with the lines, WLD has raised this issue time and time again yet Idaho Power refused to seriously study and mitigate these impacts.

All of these adverse environmental effects will be made worse by climate change stress the environment.

WLD asks that you deny authorization of the out-moded B2H project, as it is very harmful to the environment and is not in the public interest.

Thank you,

Katie Fite
Public Lands Director
WildLands Defense
PO Box 125
Boise, ID 83701
208-871-5738

ESTERSON Sarah * ODOE

From: Roni Wood <wood.roni@gmail.com>
Sent: Thursday, August 22, 2019 8:16 AM
To: B2H DPOComments * ODOE
Subject: Stop B2H
Attachments: Wood_Letter.pdf

Attached please find my letter in opposition to B2H.

Veronica Wood
807 Spring Ave
La Grande, OR 97850

August 10, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Email: B2H.DPOComments@Oregon.gov

Dear Chair Beyeler and Members of the Council:

Morgan Lake Park, analyzed as part of the Morgan Lake Alternative - (Attachment T-3, Table T-2, p. T-3-2; Table T-3-1, p. T-13) and Summary of Impacts, pp. T-27-28, 43, (T-4-51-56), inaccurately describes features of the park itself and severely underestimates the permanent impact of development on this unique city park.
See OAR 345-021-0010 (1) (T) (A) (B) (D) & OAR 345-022-0100

Morgan Lake Park is an important opportunity primarily because of its unique designation status as a city park, rareness, and special qualities per OAR 345-021-0010(1)(t)(A) Attachment T-3, Table T-3-1 (p. T-13)

Page 62 (T-57) refers to “extensive work in the siting study of the Morgan Lake Alternative.” That is doubtful because it is completely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. In their application, Idaho Power omits any references to Twin Lake.

Page 156, (T-4-6) purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

2) b. A specific example of unsupported conclusion:

Page 145 (T-4-46) Baseline condition: “... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users...”

Page 146 (T-4-47) “The landscape character is natural appearing. Scenic integrity is high as the human developments are harmonious with the landscape.”

Page 49 (T-44) “Vegetation will block views of the towers from most locations in the park.” In reality, one tower would dominate the entrance to the park, all 130’ in plain view. Within the Park, the trees bordering the lake are no more than 80’ high. 130’ transmission towers will rise more than 50’ above those trees, dominating the current landscape.

Idaho Power does not provide a graphic representation of Morgan Lake Park, with the accurate height of existing trees, and elevation of towers above the trees. It simply concludes that the inescapable sight of 500 kV transmission lines and towers around a natural lake setting will have “no significant impact” on Morgan Lake Park.

This is the park whose baseline “should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users” [because 50 years ago, no one ever imagined anything larger than a human being, might ever intrude]....

I urge the Commission to deny this application for a site certificate until each comment submitted and sent to the Commission by August 22 has been thoroughly analyzed, and Idaho Power has provided credible evidence to support each of its conclusions of “no significant impact.”

Veronica Wood

Signature

Name: *Veronica Wood*

Mailing Address: *807 Spring Ave
LaGrande OR 97850*

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I do not believe it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power’s ASC. If the IPC surveying engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it’s disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by individuals whose remote properties and summer cabins would have been impacted by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASC and DPO which will be addressed in a separate comment.



Signature

Name: Erin Wunz

Address: 1704 Cedar St
La Grande, OR 97850

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

**THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS
AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE**

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.



Erin Wunz

Signature

Printed Name

Mailing Address:

1704 Cedar St
La Grande, OR 97850

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,

A handwritten signature in black ink, appearing to read "Erin Wunz", is written over a horizontal line.

Name: Erin Wunz

Address: 1707 Cedar St
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,



Name: Erin Wunz

Address: 1704 Cedar St
La Grande, OR. 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,



Signature

Printed Name: *Erin Wunz*

Mailing Address:

*1704 Cedar St
La Grande, OR 97850*

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means "the perimeter of the site of a proposed energy facility, it's related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant" (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, "Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement." The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,



Signature

Printed Name: *Erin Wunz*

Mailing Address: *1704 Cedar St
La Grande, OR 97850*

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...*The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...*

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges." IPCs stated original intention to the EFSC was the following: "Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

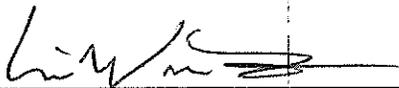
The area surrounding the drill site 95/3 and 95/4 is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,



Erin Wunz

Signature

Printed Name:

Mailing Address: 1707 Cedar St
La Grande, OR 97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035, page 28 and elsewhere.

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

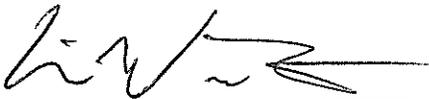
As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.



(Signature)

Name: *Erin Wunz*

Address *1704 Cedar St, La Grande, OR 97850*

July 27, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Siting Senior Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018;
Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

I am an Eastern Oregonian and have traveled and recreated in the vicinity of Hilgard State Park for many years. I have concerns about the steep slopes, soils hazards, landslide risks, and erosion impacts that the construction of the Boardman to Hemingway Transmission line will pose in an already dangerous canyon.

Re: Soil Protection - **Drill site 95/3 and 95/4 on unstable and steep slopes**
345-022-0020

(c) ...The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soil hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility...

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council;
effective date 10/18/2017; agency approved date 09/22/2017.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500 kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, Lake Oswego, Oregon. 97035.

Drill sites 95/3 and 95/4 are shown on the following tables and maps and analysis by Shannon & Wilson, Inc.:

Soils; Map page 18 of 44:

Table B3: Soil Descriptions, described as:

5776CN; erosion hazard; severe, percent of slope Low; 30: High; 60. (sheet 3 of 4)

Table C1: Summary of Proposed Borings; Map Sheet 36

95/3 – Angle change along alignment; Slope stability/landslide; Geo-Seismic Hazard; Road and railroad crossing

95/4 - Angle change along alignment; Road and railroad crossing

Appendix E: Landslide Inventory, E.2.3; PLS-002 Sheet 5, 6

“PLS-002 is an approximately 460-acre potential landslide that was identified in available LiDAR data. PLS-002 has not been verified in the field and should not be considered a landslide based solely on interpretation of LiDAR data. The IPC Proposed Route passes above this potential landslide between towers 93/5 and 95/3, potentially affecting the stability of these proposed towers and associated work areas. A field reconnaissance along this portion of the alignment should be performed as part of the geotechnical exploration program.”

Idaho Power Corporation, in Exhibit H 2.2.4 states “*The soils (in Union County) vary from a few inches to a few feet thick over weathered bedrock, are generally well-drained, and are typically characterized as having a severe erosion hazard.*” Idaho Power Corporation admits in ASC page B-12 that “*The mountainous area such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes*”

presenting design and construction challenges." IPCs stated original intention to the EFSC was the following: "Using topographic maps the corridors were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for construction and operation of a transmission line.

Hazard Analysis Union County Emergency Operations Plan Updated 6/30/16 lists Winter weather as the highest weighted risk item before Seismic, Fire, Hazmat-Transportation, and Drought. Most of the area receives a large percentage of the annual moisture as snowfall and both the winter storms and the spring melt can be precipitous and unpredictable.

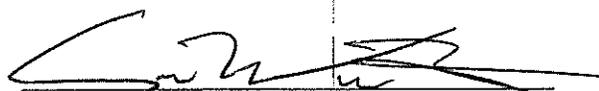
The area surrounding the drill site **95/3 and 95/4** is within a mile of the Hilgard Junction State Park and Recreation area and the heavily traveled I84 transportation/utility corridor.

Conclusion and Requested Relief:

Drill site 95/3 and 95/4, and its vicinity, represent a significant risk of several possible adverse effects. This area encompassed by the lands shown in PLS-002 should be removed for consideration as a site for a transmission "facility." While Idaho Power Corporation attempts to mitigate problems of unstable soil with structure and footing modifications, this should not be considered an acceptable risk when the entire area is unstable.

I appreciate your consideration and your attention to this matter.

Sincerely,

 Chris Wunz
Signature Printed Name:

Mailing Address: 1704 Cedar St
La Grande, OR 97850

References

Burns, W. J., Mickelson, K. A., Saint-Pierre, E. C., 2011 SLIDO-2, Statewide Landslide Information Database for Oregon, Release 2; Oregon Department of Geology and Mineral Industries.

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035.

Permanent Administrative Order EFSC 2-2017 Chapter 345 Department of Energy; Energy Facility Siting Council; effective date 10/18/2017; agency approved date 09/22/2017.

Oregon Department of Energy; Energy Facility Siting Council – Chapter 345, Division 22 General Standards for Siting Facilities; OAR Amend: 345-022-0022; Soil Protection

Idaho Power Corporation, 2017, *Exhibit H of the Application for the Boardman to Hemingway Transmission Line Project*: Report Prepared by Idaho Power Corporation, Boise, Idaho.

Geological Hazards and Soil Stability; Exhibit H. Attachment H-1, Engineering Geology and Seismic Hazards Supplement to Exhibit H Boardman to Hemingway 500kV Transmission Line Project Boardman, Oregon to Hemingway, Idaho January 25, 2018; Shannon & Wilson, Inc. 3990 Collins Way, Suite 100, lake Oswego, Oregon. 97035, page 28 and elsewhere.

Kellen Tardaaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

August 5, 2019

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

To: Chairman Beyeler and Members of the Council

I am very concerned about the risks to our communities during construction of the proposed transmission line. I take particular exception to the Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN. The document states; "This plan framework serves as baseline document to guide development of the complete Blasting Plan developed with the Plan of Development **before** issuance of the site certificate and commencement of construction."

On page 7, at 3.4, Design Feature 32 states; "Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available."

The stated purpose of blasting is to "crack" rocks to facilitate geotechnical drilling. Introducing new or expanded fissures/cracks into rock may alter the flow direction or amount of water to existing natural springs or wells.

Since there is no indication that Idaho Power will determine "predisturbed" water flow from wells or springs, how will the landowner prove that flow has been reduced? Without an agreed upon baseline, negotiation or legal action will be required. In the case of private landowners, that will mean legal expenses that may not be available.

Prior to the issuance of a Site Certificate, EFSC should require the additional condition:

ADDED CONDITION TO BLASTING PLAN, DESIGN FEATURES:

Idaho Power will determine baseline flow of natural springs or wells within ¼ mile of blasting site.

Exhibit G Materials Analysis, Attachment G-5 FRAMEWORK BLASTING PLAN on page 5 at 3.3 Safety Procedures, 3.3.3 Fire Safety: Posting fire suppression personnel at the blast site during high-fire danger periods and prohibiting blasting during extreme fire danger periods is not sufficient to minimize fire risk.

Idaho Power has written terminology, "high-fire danger periods" and "extreme fire danger periods" without definition or concurrence with Oregon Department of Forestry. Fire Suppression Personnel have been previously identified in the Fire Suppression and Prevention Plan as a "watchman." This is inadequate!

ADDED CONDITION TO BLASTING PLAN, FIRE SAFETY:

During blasting Idaho Power will provide a water tender staffed by a crew of at least two personnel.

Sincerely,



Name: Chris Wunz

Address: 1704 Cedar St
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order May 23, 2019.

Chair Beyeler and Members of the Council:

I am very concerned about the Boardman to Hemingway Transmission Project as it is proposed. My concerns are for the safety of myself and all of the citizens of La Grande if this line is permitted. My primary concerns are slope instability and wildfire hazard.

The proposed route sited to the west of La Grande is placed on a ridge noted to have instability and high risk for slides. The geologic study provided by Idaho Power references several studies (below).

Table H-2. USGS Quaternary Faults within 5 Miles of Project by County on page H-12 clearly shows that the project is placed right on an active fault in the West Grande Ronde Valley Fault Zone. In addition, in exhibit H, Geological Hazards and Soil Stability, Table B3: Soils Descriptions, Union County, much of the erosion hazard is rated "severe." Below is part of the report:

5.2 La Grande Area Slope Instability

As part of our study, we reviewed DOGAMI's open file report: Engineering Geology of the La Grande Area, Union County, Oregon, by Schlicker and Deacon (1971). The study identified several landslides in the areas west and south of La Grande. The majority of the landslide features mapped by Schlicker and Deacon (1971) were similarly mapped as landslides or alluvial fans in Ferns and others (2010). The current SLIDO database uses the feature locations mapped in Ferns and others (2010). While the two map sets generally agree, there are differences in the mapped limits of some landslide and alluvial fan areas, and there is one landslide area in Schlicker and Deacon (1971), near towers 106/3 and 106/4, which is not included in SLIDO or Ferns and others (2010). The Landslide Inventory in Appendix E includes mapped landslide and alluvial fan limits from both SLIDO and Schlicker and Deacon (1971).

This slope instability is not inconsequential to a project like this. Recall in 2014, Oso, Washington, was the site of a catastrophic mudslide as the result of logging disturbance of the soil upslope from the town combined with significant rainfall. This resulted in 43 fatalities. We must learn from previous mistakes in not heeding the geologists' warnings. The area down slope from the proposed B2H line lies the Grande Ronde Hospital and Clinics, which employs hundreds of people and is the critical access hospital for this region. La Grande High School and Central Elementary School are also positioned down slope from the proposed towers. At least 100 homes are positioned down slope of the proposed towers. According to "Engineering Geology of the La Grande Area, Union County, Oregon" maps published by Schlicker, and Deacon (1971), the ENTIRE area of the hillside is deemed a "landslide area" in the La Grande SE quadrangle. This is not a safe place for a transmission line.

The next significant hazard to our community is wildfire. Oregon is ranked 8th Most Wildfire Prone state in the United States according to Verisk Wildfire Risk analysis. La Grande is ranked in the top 50 communities in Oregon with the greatest cumulative housing-unit exposure to wildfire as referenced in "Exposure of human communities to wildfire in the Pacific Northwest," by Joe H. Scott, Julie Gilbertson-Day and Richard D. Stratton (available at http://pyrologix.com/ftp/Public/Reports/RiskToCommunities_OR-WA_BriefingPaper.pdf). Finally the proposed route is in the vicinity of Morgan lake, the highest risk area (#1) in Union County in terms of wildland-urban interface, according to the County's Community Wildfire Protection Plan, August 10, 2005.

Cal Fire cites Pacific Gas and Electric equipment and power lines as the cause of numerous wildfires in the state in the last 2 years. This includes the Camp Fire in Butte County (2018), Tubbs Fire in Napa/Sonoma Counties (2017), Witch Fire in San Diego (2007), Valley Fire in Lake/Napa/Sonoma Counties (2015), Nuns Fire in Sonoma County (2017), which were all attributed to transmission.

The Boardman To Hemingway Transmission Line Project proposal places lines about 2000 feet or less than half a mile from the La Grande city limits, including medium density housing within the city as well as Grande Ronde Hospital. If a line from this proposed route were to spark a fire, La Grande residents would have little time to react. According to National Geographic, wildfires can move as fast as 6.7 mph in forests and 14 mph in grasslands. A fast-moving fire starting at the B2H lines could move to residential areas of La Grande and HOSPITAL in 10 minutes. This is frightening and an unacceptable risk for our citizens.

The current proposal for a Boardman to Hemingway transmission line does not adequately address the issue of landslides, basically by stating it will be mitigated somehow when the time comes to build. The proposal offers no analysis of wildfire risk, which is an unacceptable omission. All of the routes proposed are unsafe and create an unacceptable risk to the citizens of La Grande.

The Council should DENY the request for a site certificate.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Wunz", written over a horizontal line.

Name: Chris Wunz

Address: 1704 Cedar St
La Grande, OR. 97850

August 12, 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

Page 62 (T-57) ASC refers to “extensive work in the siting study of the Morgan Lake Alternative.” I do not believe it was extensive because it is entirely inaccurate:

Page 145 (T-4-46) Morgan Lake Park is described as 204 acres, containing one lake, which is developed with primitive campsites and fishing docks.

Morgan Lake Park actually contains two lakes. Morgan Lake covers 70 acres; the other, Twin Lake, [also known as Little Morgan Lake] is in plain sight, within 300’ of Morgan Lake; it covers 27 acres.

Twin Lake is undeveloped, a wild life and bird sanctuary, home to nesting bald eagles. It is designated as a protected wetlands. In their application, Idaho Power conveniently omits any references to Twin Lake.

Page 156, (T-4-6) ASC purports to be a map of Morgan Lake Park. According to the map legend, the purple cross hatch amoeba-shaped area is Morgan Lake Park. That’s wrong. The purple cross hatch is Morgan Lake. The actual boundaries of the 204 acre park are not indicated. Obviously, it’s difficult to believe “extensive work on this siting study” ever occurred.

The applicant also used aerial photography to identify and avoid, where practical, irrigation pivots, houses, barns, private runways, other structures (e.g., wind turbines), and land use features. The corridors were adjusted using topographic maps to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. The corridors were again checked against the constraint and opportunity geographic information system (GIS) database to avoid, where possible, exclusion areas and areas of high permitting difficulty such as potential Oregon Department of Wildlife (ODFW) Category 1 habitats. The applicant then grouped the alternative corridors into 14 regions and evaluated on the basis of permitting difficulty, construction difficulty and mitigation costs. Using the constraint database, which incorporated the eight siting factors, the applicant reviewed the alternatives to determine the most reasonable corridor within each region. (DPO p. 11)

It is distressing to think that this is only one of many errors in Idaho Power’s ASC. If the IPC surveying engineering staffs are unable to detect a 27 acre lake within a 204 acre park, it’s disquieting to imagine the difficulties in identifying and analyzing less obvious and life-threatening situations like fault zones, slide areas and other potential dangers to public safety

If this slipshod effort is typical of IPC's careful attention to engineering a route, it may also explain IPC's egregious error in choosing to site the B2H on their preferred Mill Creek or alternative Morgan Lake route rather than on the carefully studied and analyzed BLM Environmentally Preferred route.

Following the DEIS, Idaho Power made a hasty and ill-advised effort to avoid litigation threatened by individuals whose remote properties and summer cabins would have been impacted by the line. If Idaho Power had chosen to follow the BLM Environmentally Preferred route, miles to the west of La Grande, rather than in the immediate view of 13,000 La Grande residents, there might have been ten people at the public meetings in La Grande, rather than the hundreds who have consistently appeared to protest various serious problems associated with the routes proposed for the B2H. The haste of this effort is evident in the abundant errors of omission and misinformation typical of the B2H ASC and DPO which will be addressed in a separate comment.



Signature

Name: Chris Wunz

Address: 1704 Cedar St
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

COMMENT REGARDING THE BOARDMAN TO HEMINGWAY TRANSMISSION LINE DRAFT PROPOSED ORDER

The application is incomplete as Section X must include information regarding all receptors within ½ mile of site and include all noise sources required to be included in establishing the noise level generated directly or indirectly by the development. Idaho Power has not provided information adequate to determine if they are able to meet the noise standard, even with site certificate conditions.

IDAHO POWER FAILED TO COMPLY WITH OAR 345-021-0010(1)(x) which states that Exhibit X must include information about noise generated by construction and operation of the Project within ½ mile of the site boundary. The site boundary means “the perimeter of the site of a proposed energy facility, it’s related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant” (OAR 345-001-0010(55)).

1. The applicant lists the areas which are included in the site boundary in Exhibit F, Page F-2, however, they failed to include noise modeling or include all the receptors within the ½ mile area beyond the entire site perimeter.
2. The applicant failed to do noise modeling for all noise sensitive property as they did not include churches, schools, libraries, or hospitals as is required by the definition in OAR 340-035-0015(38).
3. The applicant also failed to include the noise identified in OAR 340-035-0035(1)(b)(B)(ii) as not being exempt from the ambient statistical noise level indirectly caused by or attributable to that source including all its related activities. This section states, “Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.” The application is not complete prior to the applicant finishing Exhibit X to include all sources required by this rule as

well as all receptors within ½ mile of the entire site boundary. No decisions can be made absent an accurate accounting of the predicted noise impacts which has not occurred.

No Proposed Order can be issued until the developer has shown that they meet the requirements at the time a site certificate is issued. OAR 345-015-0190(5) allows the Department to find the application is complete when the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. While not all information required by OAR 345-021-0000 and 0010 must be submitted, there must be information adequate to show they meet the requirements or will meet them by implementing the conditions contained in the site certificate. The draft site certificate does not assure that the noise standard will not be exceeded, and the developer has not provided noise modeling or included modeling for all required sources of noise to establish the ambient statistical noise level of the development for all NSR's. Missing information includes: 1. Identification of all noise sensitive receptors within ½ mile of the entire site boundary; 2. Identification and notice to the owners of all noise sensitive properties; and 3. Modeling which includes Items (5)(b) - (f), (j), and (k) which cannot be excluded from the ambient noise measurement.

Sincerely,



Signature

Printed Name: Chris Wunz

Mailing Address: 1707 Cedar St
La Grande, OR 97850

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.



(Signature)

Name: Chris Wunz

Address 1704 Cedar St
La Grande, OR 97850

August 5, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

APPLICANT FAILED TO INCLUDE ALL REQUIRED SOURCES OF NOISE IN THEIR MODELING OF NOISE IMPACTS OF DEVELOPMENT

Idaho Power did not include any of the items listed in OAR 340-035-0035(l)(b)(B)(ii), which are only exempt from the noise measurement when the development occurs on a previously used site. When establishing ambient noise level for a new development on a site not previously used, it states: "Sources exempt from the requirements of section (l) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement."

The applicant's noise modeling only includes the noise generated from the transmission line itself. Noise modeling must be corrected to include (b) Warning Devices, (c) sounds created by road vehicles, (d) Sounds from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576 ; (e) bells, chimes, or carillons; (f) aircraft subject to pre-emptive federal regulations and (k) sounds created by the operation of road vehicle auxiliary equipment.

The application is incomplete. Without having the information regarding these additional noise sources, the department and the siting council lack the information regarding how many noise sensitive properties are impacted and by how much.

A proposed order cannot be issued until the developer submits all the information regarding the noise impacts of this development. This information must be available to decide if the standard is met or if it can be met with additional site conditions.

Sincerely,



Signature

Printed Name: Chris Wunz
Mailing Address: 1704 Cedar St
La Grande, OR 97850

August 2, 2019

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

THE APPLICANT SIGNIFICANTLY UNDERSTATES THE IMPACTS TO EMPLOYMENT AND FOREST LANDS AS A RESULT OF THE PROPOSED B2H TRANSMISSION LINE

Exhibit K, Attachment K-2, Pages 19 and 20, Section 7.0

The applicant claims that removal of forestland by clearing of trees for a period of over 50 years will have little economic impact to forest sector jobs in Umatilla and Union County. They value the loss of 245.6 acres of forestland in Umatilla County at \$488.60 per acre. However, they value the removal of 530.1 acres lost to the transmission line in Union County at \$182.98 per acre. The applicant provides no justification or documentation to support the difference in value per acre between Umatilla and Union Counties.

Some forest facts related to this section:

According to US Forest Service Tech. Rept. PNW-GTR-578 Rev. 2004 entitled "Forests of Eastern Oregon: an Overview", Eastern Oregon Forests produce an average of 20 cubic feet per acre of timber each year. That would mean that an acre of land would produce approximately 240 board feet of lumber per year per acre during the life of the transmission line. According to Scott Hartell, Planning Director, Union County, forest land in Union County is classified as either 20 cubic feet per acre per year, or 50 cubic feet per acre per year, so the value amounts could be significantly higher. The "Forest Facts Oregon's Forests: Some Facts and Figures" published in 2009 by the Oregon Department of Forestry states that economists estimate that for every billion board feet that is harvested in Oregon 11 forest sector jobs are created or retained.

Idaho Power's stated timber values are unrealistically low according to individuals owning forest land in both counties. No one would be using land for trees which precludes other uses if the economic benefits were as the developer is stating.

The applicant's identification of the acres of forest land impacted is incorrect due not only to the failure to use soil types to identify forest lands, but also, the fact that they are requesting a 300 foot right of way and they need to include the value of any additional trees they will be removing in the 100 foot area on each side of the right of way.

The applicant claims that the value of the land in the right of way will not be significantly reduced due to the owner's opportunity to use the land for agricultural or range land after the transmission line is constructed. This is completely unfounded. The lineal nature of a transmission line precludes any productive use of land taken for the transmission line. The right of way is too narrow to make it available for production of crops, and the costs associated with purchasing equipment for agricultural operations would be prohibitive.

It would be unusual for a forest operator to already own equipment for a crop operation. In order to use the right of way as grazing land, it would have to be fenced. According to "Estimated Livestock Fencing Costs for the Small-Farm Owner" by Derek L. Barber, the average cost of materials for ¼ mile (1,320 ft.)

of field fence is \$1,108.53 plus the cost of building it. The Iowa State University Extension identified 2011 costs for constructing ¼ mile of fencing to be \$1,947.75 installed. Enclosing a square acre requires 820 feet of fence. In other words, the cost of fencing an acre of lost forest land would exceed the value the applicant claims the land would add to the local economy per acre for the 50 years the transmission line is predicted to be in place.

The applicant also claims that the transmission line right of way through forest lands will not cause a substantial change in accepted forest practices or cause a significant increase in the cost of accepted forest practices on lands to be directly impacted by the Project or on surrounding lands. Removing trees from land currently being used to grow them certainly will create a substantial change in accepted forest practices. It also will substantially increase the costs of growing and harvesting trees on the surrounding lands. Soil compacted by heavy equipment used to access the line will discourage regrowth.

The transmission line will make it impossible to use aerial equipment to harvest trees on steep hillsides adjacent to the line; it will increase costs of harvest due to the need to avoid equipment contact with the transmission lines, avoid trees falling on the transmission lines, require new access and egress from the forested lands that avoid having log trucks and equipment moving below the transmission line, It will decrease the harvest along the transmission line due to tree loss along the corridor from wind and weather conditions impacting weakened root infrastructure once the transmission corridor is cleared.

Removing forested land along the transmission line will result in nearly a total loss of the economic value of the land removed from production of trees, and will impact the landowners and county economy not only by the loss of the production of trees and taxes, fees, employment and other benefits coming from that activity, but there will be related losses to the productivity of adjacent land, increased costs of harvesting along the transmission line, introduction of noxious weeds, increased risk of wildfire, potential increase in the number of trespassers, interference with wildlife activities including displacement of wildlife to what may be less desirable habitat, opening the area up to increased predation on the multiple non-raptor species utilizing the forested areas, decreased value of land if it is sold, long-term reduction in assessed value of the land, etc. The conclusions stated by the applicant in section 8.0 are false, absolutely without merit.

In addition, the applicant has failed to provide documentation to support their conclusions. The only reference the applicant cites that relates at all to this issue is the publication from the Oregon Forest Resources Institute.

In summary:

The applicant has failed to document that they will comply with Land Use Goal 4 OAR 660-006-000 through OAR 660-006-0010; There is no documentation provided that would indicate they are in compliance with OAR 345-022-0030 and they have not documented, nor are they able to meet the requirement contained in OAR 345-022-0030(4) to allow an exception.

Therefore, the Council should DENY the application for site certificate.



Signature



Printed Name

Mailing Address: 1704 Cedar St
La Grande, OR 97850

TARDAEWETHER Kellen * ODOE

From: chrysalis <chrysalis@eoni.com>
Sent: Sunday, August 18, 2019 9:44 AM
To: B2H DPOComments * ODOE
Cc: info@stopb2h.org
Subject: FW: comments Idaho Powers B2H project
Attachments: B2H commentMAW.docx

Please see attached

Ann Wyatt
1090 Lund Lane
Baker City, OR 97814
Aw5809@charter.net

August 17, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

As avid fisherwoman in my younger days I are very concerned about the lack of acknowledgement of the presence of a Federal and State-listed, Threatened species.

The application has failed to identify and address the effects of the proposed action on, not only the listed species, but the Category-1, and Federal designated Critical Habitat. The Federal Columbia River Power System (FCRPS) Biological Opinion, requires BPA, a partner in this application, to promote conservation and recovery of Federally-listed, under the Endangered Species Act, salmon and steelhead in the interior Columbia Basin.

The Draft Proposed Order (DPO), p. 304, lines 20-26, fails to list Bull Trout, a listed State-Sensitive Threatened Species. Similarly, the DPO only gives brief identification of federally listed Mid-Columbia River and Snake River steelhead, and Snake River spring/summer and fall Chinook salmon. OAR-345-021-0010 (1)(p) requires identification of all fish and wildlife at the proposed location, and identification of habitat classification categories, as set forth in OAR-635-415-0025, in order to comply with OAR-345-022-0060, requiring identification of habitat categories and required mitigation.

Compliance with the federal Endangered Species Act (ESA) requires identification and address of the effects of the proposed action through ESA section 7(a) (2) consultation with the NMFS (anadromous fish species) or USFWS (resident fish species). The ESA consultation process requires that the action agency (in this case BLM with USFS input for their lands), identify and speak to the effects of the action, both on the 'animal' AND on the designated critical habitat. The DPO does none of this, hence fails this requirement.

The DPO, p. 304, line 32, through p. 307, line 21, acknowledges that there will be impact, but is unable to quantify it. Since any impact is prohibited for Cat-1 Habitats, the impact is not lawful! Hence, the applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080, and the Idaho Power's B2H proposed action's permit, being not in in compliance with state nor federal protected species laws, **should be denied, with prejudice!**

Margaret Ann Wyatt

1090 Lund Lane, Baker city, Or 97814
aw5809@charter.net

TARDAEWETHER Kellen * ODOE

From: chrysalis <chrysalis@eoni.com>
Sent: Saturday, August 17, 2019 11:03 AM
To: B2H DPOComments * ODOE
Subject: comments Idaho Powers B2H project
Attachments: B2H comment.docx

Please see attached

Jill Wyatt
905 Park St
Baker City, OR
97814
chrysalis@eoni.com

August 17, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301

Via EMAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council:

I request that my letter protesting issuance of an Oregon Site Certificate for the currently proposed Boardman-to-Hemingway Transmission Project (B2H Project) be entered into the permanent written record. I also request response to, and resolution of, the issues I raise.

I am a volunteer at the Oregon Trail Interpretive Center (OTIC) and enjoy hiking the trails at least twice a week. I am very concerned about the lack of consideration of the affects this transmission line will have on OTIC.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at OTIC.**

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to OTIC and its hiking trails, noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and OTIC. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic values. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail.
5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism
 - b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.

Once the Trail is gone it cannot be reconstructed or mitigated back to life. The only easily accessible public facility in Oregon is OTIC near Baker City. The B2H must be buried to preserve this important site.

Considering the reasons above and the unacceptable damage to this our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Jill Wyatt

Jill Wyatt 905 Park St, Baker City OR 97814; chrysalis@eoni.com

Utility seeks bankruptcy protection over California fires

By Janie Har and Cathy Bussewitz
The Associated Press

SAN FRANCISCO — The nation's largest utility said Monday it is filing for Chapter 11 bankruptcy because it faces at least \$30 billion in potential damages from lawsuits over the catastrophic wildfires in California in 2017 and 2018 that killed scores of people and destroyed thousands of homes.

The move by Pacific Gas & Electric Corp., expected by the end of the month, would be the biggest bankruptcy by a utility in U.S. history, legal experts said.

It would allow PG&E to hold off creditors and continue providing electricity and natural gas without interruption to its 16 million customers in Northern and central California while it tries to put its finances in order.

The filing would not make the lawsuits disappear, but would result in all wildfire claims being consolidated into a single proceeding before a bankruptcy judge, not a jury. That could

shield the company from excessive jury verdicts and buy time by putting a hold on the claims.

Chapter 11 reorganization represents "the only viable option to address the company's responsibilities to its stakeholders," Richard Kelly, chairman of PG&E's board of directors, said in a statement.

"The Chapter 11 process allows us to work with these many constituents in one court-supervised forum to comprehensively address our potential liabilities and to implement appropriate changes."

State officials are investigating whether the utility's equipment sparked the deadliest, most destructive wildfire in California history, a November Northern California blaze that killed at least 86 people and burned down 15,000 homes.

State investigators have also blamed PG&E power lines for some fires in October 2017. Authorities are also looking into the cause of a blaze that destroyed thousands of homes and killed 22 people in Santa Rosa last year.

California law requires utilities to pay damages for wildfires if their equipment caused the blazes — even if the utilities weren't negligent through, say, inadequate maintenance.

PG&E, which is the nation's largest utility by revenue and is based in San Francisco, said it is giving the required 15 days' notice it plans to file for bankruptcy protection.

It said it will continue working with regulators and stakeholders to consider how it can safely provide energy "in an environment that continues to be challenged by climate change."

The announcement follows the resignation of chief executive Geisha Williams a day earlier. She leaves with a \$2.5 million severance payout, a spokesman told the Mercury News of San Jose.

In a Monday filing with the Securities and Exchange Commission, the company said the liabilities it faces from 2017 and 2018 wildfires could exceed \$30 billion, not including punitive

damages, fines and penalties.

The largest bankruptcy filing on record by a utility was Energy Future Holdings Corp. in 2014, which had \$49.7 billion in liabilities in today's dollars, according to an analysis by Kevin Kelly, director of publications at S&P Global.

Veteran New York bankruptcy lawyer H. Jeffrey Schwartz said PG&E's bankruptcy should prove to be the biggest yet, since it had about \$50 billion in liabilities at the end of 2017. That does not include claims from 2018 wildfires.

He said the utility has no other way of getting out from under the mountain of legal claims.

"The liability is too great. It's too many claims, the aggregate amount is too great, and it looks at first blush to be indefensible because PG&E knew of this risk and didn't clear the line areas as it should have," Schwartz said.

He said he expects shareholders to bear the brunt of the restructuring. Bankruptcy court has no say over the rates utility

See PG&E / Page 2B

PG&E

Continued from Page 1B
customers pay; those are decided by state regulators and politicians.

As for the lawsuits, PG&E will negotiate with the plaintiffs and its other creditors a reorganization plan based on how much the utility is able to pay, said Hugh Wynne of Sovereign Research, an investment research firm.

"You avoid a situation where some jury in California thinks PG&E is responsible for this fire, so we should hit them up for all these damages and let them sort out how they pay for it," Wynne said.

A bankruptcy also would allow PG&E to raise cash by selling assets — such as its gas business and hydropower plants — more easily, he said.

PG&E spent millions in an 11th-hour lobbying effort

legislative session in August in a failed attempt to change the law to reduce its liability in wildfires.

Before last year's disastrous fire in Northern California's Butte County, PG&E's stock stood at \$47.80. But in early Monday trading it tumbled \$8.48 to \$9.11, its lowest level in more than 16 years. Wall Street last week slashed PG&E's credit rating to junk status.

PG&E also filed for Chapter 11 in 2001 amid rising electricity prices during California's energy crisis.

California's new governor, Democrat Gavin Newsom, told reporters that "safety, reliability and affordability" are his top concerns, alongside protecting wildfire victims and ratepayers, in confronting the potential bankruptcy. He sought to assure the public that this potential bankruptcy won't result in

He said addressing the pending bankruptcy and potentially avoiding it is a top priority for his new administration, but he hasn't settled on what actions to take. He said the state has "no choice" but to work collaboratively with the utility even though it has not been a "trusted player" in the past.

The Natural Resources Defense Council warned that bankruptcy could threaten billions in funding for PG&E's clean energy initiatives, which are key to California's environmental goals. PG&E is the state's largest investor in energy efficiency and electric vehicle infrastructure, said the NRDC's Ralph Cavanagh.

"California needs healthy utilities with access to capital to be able to meet its environmental goals and policies. It's essential," said Travis Miller, a strategist at Morningstar

5/24/2019

STATE BRIEFING

Governor signs bill requiring annual report on wildfire protection efforts

SALEM — Gov. Kate Brown on Wednesday signed a bill to require an annual report to the Legislature on efforts to protect communities near forest lands from wildfires.

House Bill 2222 orders the Oregon Department of Forestry to tell lawmakers about implementation and enforcement of property notifications and certifications required under the Oregon Forestland-Urban Interface Fire Protection Act.

The bill was inspired, in part, by the wildfire last year in Paradise, Calif. that killed 85 people and destroyed thousands of buildings. Bend was one of the communities mentioned in testimony on HB 2222 that could be susceptible to similar fires.

The bill's co-sponsors included Rep. Jack Zika, R-Redmond, Rep. Cheri Helt, R-Bend, and Rep. Daniel Bonham, R-The Dalles.

— *WesCom News Service*

Dairy owners, others object to proposed power transmission line near Tillamook

SALEM — A proposed electrical transmission line in northwestern Oregon has run into opposition from landowners in its path.

The Tillamook Public Utility District says the 8.6-mile line between Tillamook and Oceanside will improve the reliability of the electrical grid. Currently, a single distribution line serves about 3,000 properties in the Oceanside area, which is three times more prone to outages than other areas on the grid, said Todd Simmons, the district's general manager.

"When that line goes out, everybody's out of power until we make that repair," Simmons told the Capital Press newspaper. "We're vulnerable with that one line."

The Oregon Farm Bureau and Oregon Dairy Farmers Association are among those concerned about the line that would cross farmland and forestland.

Dairy farmer Kurt Mizee said the line is problematic for several reasons, including "stray voltage," which occurs when electricity essentially leaks into the ground. The phenomenon is known to reduce milk production among dairy cows.

The transmission line would also prevent aerial pesticide spraying over certain fields and its construction would disrupt grazing and silage harvesting, Mizee said.

"They've offered us almost nothing as far as compensation for a pretty big impact," he said.

Landowners are also worried that exposure to electromagnetic emissions could sicken themselves and their livestock, said Cameron La Follette, executive director of the Oregon Coast Alliance conservation group.

The sides are expected to clash throughout 2018 as the utility district tries to obtain key permits: a conditional-use permit from Tillamook County, a fill-removal permit from the Department of State Lands and eminent domain authority from the Oregon Public Utility Commission.

La Follette and other opponents argue the proposed line isn't justified by electricity demand, and might be intended as a connection to future offshore energy projects.

A decade ago, the district agreed to find possible connection points for a wind-energy project to deliver electricity to its grid. That agreement has since expired and the utility district said it has no current plans to connect to such offshore projects.

— Compiled from The Associated Press

Groups sue over sage grouse

By Keith Ridler
Associated Press

BOISE — Four conservation groups have asked a judge to block a Trump administration plan allowing drilling, mining and other activities in seven Western states they say will harm sage grouse.

Western Watersheds Project and other groups asked for the injunction in U.S. District Court in Idaho late last week for Idaho, Wyoming, Utah, Colorado, Nevada, California and Oregon.

The groups in March sued Interior Secretary David Bernhardt, the U.S. Bureau of Land Management and the U.S. Forest Service over changes to land-management plans involving sage grouse.

The March action supplemented a 2016 lawsuit that said a 2015 federal plan put forward by the President Barack Obama inadequately protected sage grouse. The groups say the plan put forward by President Donald Trump weakens protections further.

"Defendants falsely assert that the 2019 BLM plan amendments build upon the 2015 plans, but in truth they rescind or weaken numerous 2015 plan measures," the request for the injunction states.

The U.S. Department of Justice, which defends federal agencies in lawsuits, acknowledged on Monday receiving an emailed inquiry from The Associated Press about the injunction request but didn't respond further.

Millions of sage grouse, a chicken-sized bird that relies on sagebrush, once roamed the West, but development, livestock grazing and wildfires have reduced the bird's population to fewer than 500,000. Most of the bird's habitat — sagebrush steppe — is on land administered by the BLM.

4/24/19

Bolecity Herald
-1/3/2018

By Jerry Painter
(Idaho Falls, Idaho) Post-Register

IDAHO FALLS, Idaho — Some-thing catastrophically wrong happened in 2018 to monarch butterflies.

Idaho wildlife biologist Ross Winton spent years working with monarch butterflies. With the help of volunteers, he would carefully put a tiny tag the size of a paper hole punch on about 30 to 50 of the iconic insects each summer in the Magic Valley. Then during the summer of 2018 he could only find two to tag.

"I saw two monarchs all season," Winton said of 2018. "Most of the folks I've talked to in the Boise area were seeing very similar results. ... It was a little disconcerting to be seeing that kind of a decline in one year."

Last week the Xerces Society for Invertebrates Conservation issued a report finding that the population of monarch butterflies overwintering in California had fallen to the lowest level ever recorded.

The Western Monarch Thawing Count found only 26,420 butterflies, an 86 percent fall from the previous year and a 98.4 percent decline from numbers counted in the 1980s. Overwintering butterflies in central and Southern California numbered about 4.5 million in the 1980s. The monarch population in the eastern United States, which the

Society says.

"To picture what this means for monarchs, imagine that the population of Los Angeles had shrunk to that of the town of Monterey," said

tion expert with the Xerces Society (Monterey, California, has about 29,000 residents, while Los Angeles has about 4 million.)

Monarch butterfly experts say much of the blame for the species' demise can be aimed at habitat destruction, particularly in overwintering areas of California. Each year, the butterflies head south to winter mostly in either California or central Mexico. While most end up in Mexico, particularly those that spend their summers east of the Rocky Mountains, many also overwinter in habitat near Santa Cruz, California.

"Our best guess is that most of our Idaho monarchs are going to central and Southern California," Winton said. "The connections we've had that we've documented for sure most of them have been from central California. ... They like to winter in a lot of the tall trees along the coast of California."

But what's happening in California, as far as monarchs are concerned, is alarming.

"A lot of the concern is focusing in on California," said Beth Waterbury, retired wildlife biologist for Idaho Fish and Game in Salmon. Waterbury helped head up a monarch study in Idaho, collecting, tagging and documenting the species especially in eastern Idaho.

Waterbury said other contributing factors include wildfires, pesticides and hot weather. "Monarchs don't do well, or recover, when it gets up to 90 degrees or hotter," she said.

While the population vanishing, the Xerces Society has issued a call to arms in hopes of saving the species.

"It's easy to give up when faced with news like this," Pelton said. "But doing nothing is not an option."

The Xerces Society for Invertebrate Conservation is calling on Californians to plant early blooming



The two dark spots at the base of the monarch butterfly's wings indicate that this one is a male.

apparently is lacking. That is looking to be the real break in the migratory chain this past year."

Waterbury said one thing working against the cause is a name.

"This is my name for milkweed, it should be called 'monarch manna' because it's so important," she said. "There are these public attitudes because of the name having the name weed in it. So many people do not know that it is the only plant that monarchs will lay their eggs on."

Some might wonder what all the fuss is over an insect?

"We want to conserve all of our biodiversity just on its own sake," Waterbury said. "There is a role that monarchs play that is very important to humans and that is as a polli-

inator and if we don't have pollinators on our landscape to pollinate our crops, to pollinate native plants, we're going to lose about three-quarters of the plant species on this planet and a lot of our food resources.

"Monarchs are kind of a canary in a coal mine for a lot of other insect species, especially bees which are

Ranchers asked to help monarchs

PORTLAND — Oregon agricultural producers can voluntarily help the monarch butterfly on their farms and ranches through a variety of conservation practices offered by the U.S. Department of Agriculture (USDA). The assistance comes at a critical time as recent reports show the western population of the monarch butterfly is at an all-time low.

Planting or protecting and increasing the size of native milkweed stands is critically important to rebuild the western monarch population.

Federal officials also report that Oregon producers establish plants that bloom in late summer and early fall, as monarchs leave the region to return to overwintering sites along the California coast.

These fall-blooming species include rabbitbrush, goldenrod, asters, and sunflowers.

The U.S. Natural Resources Conservation Service (NRCS) helps producers cover part of the costs for adopting these practices through the Environmental Quality Incentives

Program and other Farm Bill-funded programs. NRCS accepts applications for conservation programs on a continuous basis. Producers interested in assistance are encouraged to contact their local USDA service center.



Electric and Magnetic Fields (EMF) Affect Milk Production and Behavior of Cows; Results Using Shielded Neutral Isolation Transformer



By Donald Hillman, Ph.D., Charles L. Goeke, M.S., and Richard Moser, EE

12th International Conference on Production Diseases in Farm Animals, Michigan State University

Published by: Shocking News, 750 Berkshire Lane, East Lansing, MI 48823 – donag1@aol.com

July 2004

SUMMARY

In 2002 we reported that behavior, health, and milk production of cows were impaired by transients and by the 3rd, 5th, 7th, and triplen harmonic electrical currents from utility power lines. Kaune et al., concurred in that 180 Hz currents and the 3rd, 5th, and 7th harmonics in the living areas of homes were associated with cancer deaths of former residents in Denver, CO. Subsequently, our investigations revealed that a cellular telephone signal generator located at the base of an antenna tower, was charging the neutral-ground with 10+ V and the 3rd, 5th, 7th and other harmonics were on the neutral conductors and water lines of homes, schools, and workplaces in the area, causing harmonic distortion of the power supply. Primary neutral voltage and 3rd, 5th, 7th and other harmonics on dairy farms were reduced to near zero when a shielded neutral isolation transformer was installed between the utility and the dairy. Animal behavior improved immediately, and milk production which had been depressed for 3 years, gradually returned to normal within 18 months after installation of the shielded transformer. Shielding prevents transients and harmonics on the utility primary from induction onto the user neutral and likewise prevents user harmonics and transients from getting onto the utility electrical line. Changes in concentrations of several blood and cerebrospinal fluid components, energy and fat metabolism, and reduced milk have been reported for cows exposed to EMF from overhead powerlines in Canada. Consequences are related to the time and intensity of exposure to EMF.

INTRODUCTION

Farm investigations revealed that transient and harmonic voltages and currents were related to animal behavior, health, and milk production of dairy cows on 12 farms. Details of methods and materials were reported previously (Hillman 2003) and results are in the DVD presentation that accompanies this article.

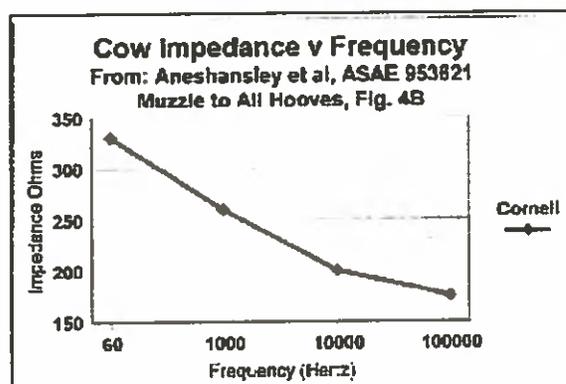
Briefly, the farm studies revealed that:

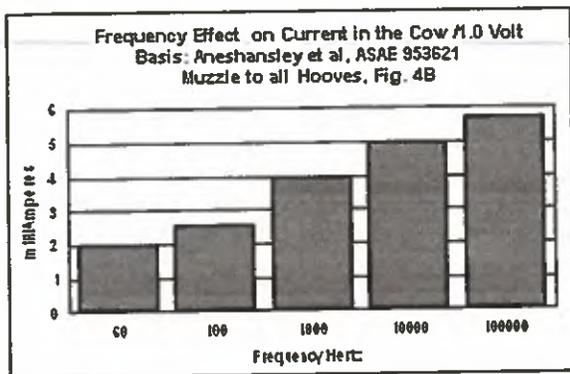
- # Transients and harmonics were prevalent on rural electric power lines and were commonly called “noise” or “dirty” electricity in the electrical industry.
- # Neutral-to-ground distorted non-sinusoidal transients averaged 280 ± 60.2 V on 3 farms for 165 days, and 79.9 V on five farms for 385 of 515 days as recorded by Fluke[®] EventRecorder VR-101.
- # The concentration of transients and harmonic impulses varied greatly from farm to farm, day to day, and time of day.
- # Milk per cow/d decreased as the number of transient events, hot-to-neutral and neutral-to-ground, transients (oscillations, spikes on the power supply) increased daily.
- # Milk was negatively correlated with phase-shift degree angle

of transients.

- # Step-potential oscilloscope voltage readings from the floor of milking stalls averaged 0.0628 V ($62.8 \text{ mV} \pm 39.8 \text{ mV}$) and ranged from 0 to 0.1516 V (151.6 mV) on five farms for 515 days.
- # Cow movement (steps/min) increased as the voltage differential (minimum - maximum) increased from 0.9 to 6.0 millivolts during the same minute and as the voltage standard deviation increased..
- # Milk per cow/d decreased as the number of 3rd, 5th, 7th, 21st, 28th, and 42nd, harmonics increased/d. Harmonics were correlated with the number of transients per day.
- # Milk decreased as the sum of triplen harmonics (3rd, 9th, 15th, 21st, 33rd, and 39th) increased/d ($P < 0.003$).
- # Cow impedance decreased as frequency increased.
- # Current in the cow increased as frequency increased.
- # Public Utility Commission (PUC, PSC) standards and use of 500-ohm resistors in test circuits adopted in Wisconsin and some other states underestimate effects on cow behavior, health, and milk production of non-sinusoidal, inferior-quality power on rural power lines.
- # IEEE 519, 1992 recommended 5% Total Harmonic Distortion (THD%) on the utility side of the meter, and 5% Total Distortion Demand (TDD%) on the end-user side of the meter, limits that were set for protection of electrical and electronic equipment must be applied for protection of livestock and humans as well.
- # The Grounded-Y distribution/transmission system uses the earth as a return conductor for neutral current resulting in earth currents that could be avoided by hard-wiring the neutral back to the substation.

Relationships between frequency of voltages and current passing through the cow were reported by Aneshansley et al. (1990, 1995) and are illustrated below. Voltage at harmonic frequencies increases amperage two to three times compared to sinusoidal 60 Hz voltage because of the reduced impedance of the cow at higher frequencies.





Sources of Inferior Quality Electrical Power

Wiring Faults: Causes of uncontrolled electrical voltage and current, commonly called "stray voltage" often include improper grounding, loose or corroded connections, poor condition of insulation on wires, wiring faults on motors and equipment, unbalanced loads on primary or secondary circuits, and tree branches brushing electrical lines. These faults may occur on-farm, on a neighbor's farm, or on utility lines. Experts claim that faulty wiring accounts for some 80% of stray voltage problems on farms. However, if the electrical system in a building is sound, i.e., no faults and meets code, the only source of AC current for producing uncontrolled voltage is the neutral (grounded) conductor via the bonding with the grounds. Bonding allows current to flow to metal water pipes, lightning protection, and branch circuit equipment ground wires according to Ludington et al. (1987). The cow is almost always in the current path in series and in parallel with other resistances as the current seeks a return path to the substation of a grounded -Y, or to the transformer of a Delta system.

Power Quality Problems: The other 20% of electrical problems on dairy farms have not been described publicly, although a large volume of information concerning "dirty" electricity vs "clean" appears in scientific journals, and the standards for hospitals and electronics manufacturers are higher than for other users. "Power quality problems" are simply pollution of the power supply as surely as contaminated milk is considered polluted milk, but milk producers are shut-off from the market by law. No such regulation has been applied to utilities.

USDA-ARS Publication 696, (1991) Effects of Voltage or Current on Farm Animals: How to Detect and Remedy Problems, contains no information about the presence or effects of power quality on dairy cows, nor other species.

Barry Kennedy in his book, *Power Quality Primer* (2000), gives vivid descriptions of the effects of modern electrical and electronic control devices on the quality of electricity on power lines, and effects of power quality on operating equipment. A paucity of published reliable research has prevented valid conclusions regarding cause:effect relationships of electricity and animal performance from appearing in the agricultural literature. Secondly, facts and the testimony of knowledgeable witnesses in court testimony, when settled without completion of a trial is sealed (sequestered) by the Court, thus denying the public of knowing the cause or outcome of such decisions. Nevertheless, very few court decisions have been favorable to utilities.

Reasonable standards of power quality and responsibilities of both parties should help to provide efficient justice for both parties, and reduce the burden on the overloaded court system.

Power quality is defined by electrical engineers in terms of compliance of the power supply with nominal voltage and current. Deregulation has not improved the quality of electric power.

A transient voltage (transient or spike) is a temporary, unwanted voltage in an electric circuit. Transient voltages may range from a few volts to several thousand volts and last from a few microseconds to a few milliseconds. Oscillatory transient voltages are commonly caused by switching OFF high inductive loads and by switching large utility power factor correction capacitors for balancing loads on a power line. Impulse transients are commonly caused by lightning strikes and are distinguishable from oscillatory transients by the shape of the waveform distortion and by the number of oscillations unless allowed to resonate in the circuit by capacitors. Lightning arresters mounted on top of poles and substations are used by utilities to dampen impulse transients. Transients averaged 10 oscillations per transient event recorded by Fluke Event Recorder VR101 in these studies.

Harmonics are the major source of sine waveform distortion. The increased use of nonlinear equipment have caused harmonics to be more common. EPRI, Electric Power Research Institute, financed by utilities estimated that one-half of all electricity used in the United States would pass through electronic equipment by the year 2000. Because of the increased adverse effects of harmonics, the IEEE (Institute of Electrical and Electronic Engineers) adopted a standard for harmonics in 1992. The standard is referred to as IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems (IEEE 519-1992 ©1993) according to Kennedy (2000).

The IEEE standards were devised to prevent harmonic damage to transformers, motors, and electronic circuits. Cows, other livestock, and humans ought to be added to the damage list.

Harmonic currents are usually caused by nonlinear loads like adjustable speed drives, solid-state heating controls, electronic ballasts for fluorescent lighting, switched-mode power supplies in computers, printers, static UPS (uninterruptible power supply) systems, electronic and medical test equipment (Magnetic Radiation Imaging), rectifiers, filters, and electronic office machines. Nonlinear loads cause harmonic currents to change from a sinusoidal current to a non-sinusoidal current by drawing short bursts of current each cycle or interrupting the cycle. This causes the sinusoidal current waveform to become distorted. The total distorted wave shape is cumulative. The resulting non-sinusoidal wave shape is a combination of the fundamental 60-Hz sine wave and the various harmonics.

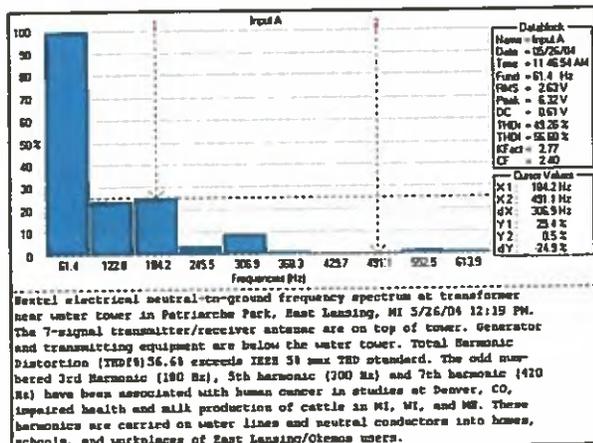
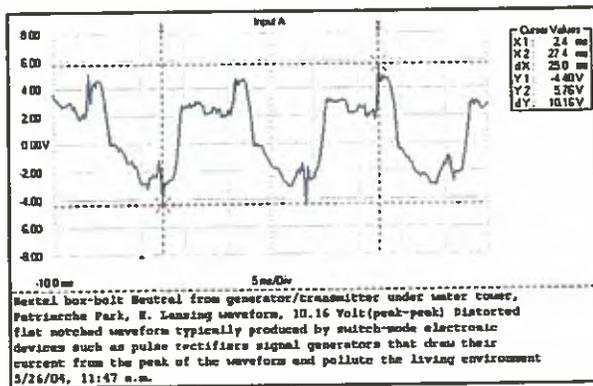
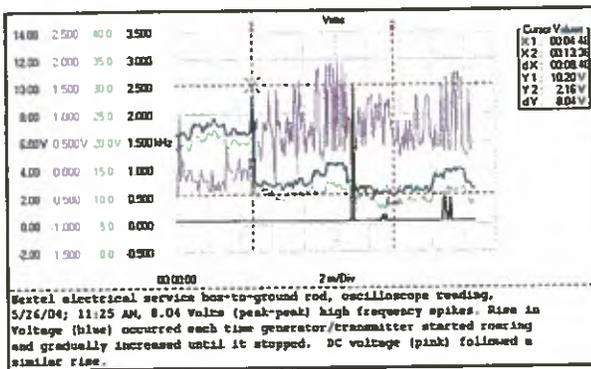
The switched-mode process results in a pulsed square wave which distorts the sine wave and produces harmonics (Kennedy 2000).

Further, single-phase nonlinear loads that draw current only during the peak of the voltage waveform, combine in a 3-phase circuit and produce triplen harmonics (multiples of the third order harmonics, like 3rd, 9th, 15th, etc). Triplen harmonics do not cancel but are additive and return exclusively on the

neutral conductor. The resulting magnitude of the neutral current may increase to 173 percent of the rms phase current. Thus the neutral current may exceed the capacity of the neutral conductor. Triplen cause overheating of the primary neutral conductor and may cause fires since there is no fuse or circuit breaker in the neutral circuit. Harmonics also cause the WATT meter to turn faster, thus inflating the electric bill.

A Source of Environmental Pollution was identified in East Lansing, MI. Flukeview prints of oscilloscope readings, waveform and harmonics are presented below.

A service-box neutral-ground of a cellular telephone generator/base-station with six antennae on the tower registered 10.16 V ac on the oscilloscope as in the Flukeview print-out. Nextel had taken a big bite out of the peak of the waveform and the frequency spectrum had 56% Total Harmonic Distortion with 2nd, 3rd, 5th, and 7th harmonics. They were also carried into electrical outlets and waterlines in homes and schools in the area.



Cows on a dairy farm in mid-Michigan were dancing (stepping, lifting feet, shifting body, and tail-switching) to avoid the pain of electrical shock. Oscilloscope Flukeview prints showed 8 to 12 V and harmonic distortion with 3rd, 5th, 7th, and 9th harmonics on the utility PN-to-ground. The secondary neutral carried 1.43 V tested by utility meters. The floor registered 300 to 400 mV, and leads from divider pipes to the floor of the operators' pit in the milking parlor carried 480 mV. The farmer observed that cows were not disturbed when the primary neutral-to-ground wire had been disconnected.

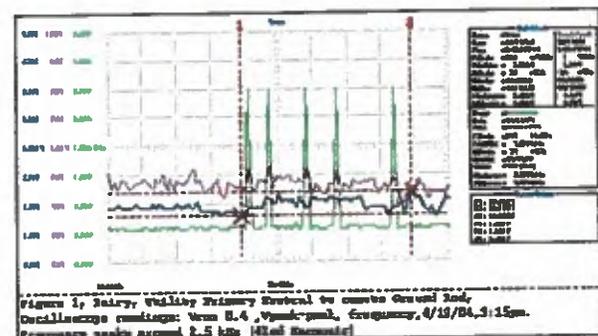
A neighbor had experienced the problem of cows dancing, stepping, tail-switching, and kicking off milkers (see the video), resulting in incomplete milking, declining milk production, and impaired health performance when 12 Vs were on the primary neutral and 1 V at cow contact. Utility experts claimed the voltage was too low to be "problematic." The neighbor had the power company move their service pole with transformer and down-ground about 200 feet from the milking parlor to the edge of the property. The dairy was served by 480-V single-phase service to the dairy, and an isolation transformer was installed by the dairyman. Cow behavior and milk production improved immediately and progressed to 29,200 lbs. per cow/year by 2004. However, when they tried to install a variable speed drive milk pump, the problem returned and the pump was removed. The transformer was not shielded to prevent harmonics and high frequency transients from passing from the primary to the secondary winding of the transformer.

A Virginia dairyman had the problem of cows dancing and milk production had decreased to nearly one-half over a three-year period. The utility measured voltage for 6 days and reported about 2/3 of the PN-G reading were between 2.4 and 3.0 V, while the remainder ranged from 3.6 to 4.8 V. Experts could find no cause for the poor performance of the herd. The primary neutral was bonded to cow contact metal pipes and reinforcements in the floor of the milking parlor to form an equal-potential environment in the dairy. An electrical engineer found the primary-neutral averaged 0.96 V and 1.0 V, (maximum 2.08 V) equivalent to 2 to 5 mA, assuming 500 ohms cow resistance, for periods of 16 days and 19 days.

Oscilloscope Flukeview readings at the Virginia Dairy Farm revealed 2.5 kHz spikes (green) accompanied by a 400 mV rise (blue line), and about 5.5 V (peak to peak) (red lines).

The peak of the waveform is chewed off and resembles the Nextel waveform.

The Frequency spectrum shows the neutral is loaded with 3rd, 5th, and 7th harmonics, indicating inferior quality power, and the herd was a victim of power supply pollution.



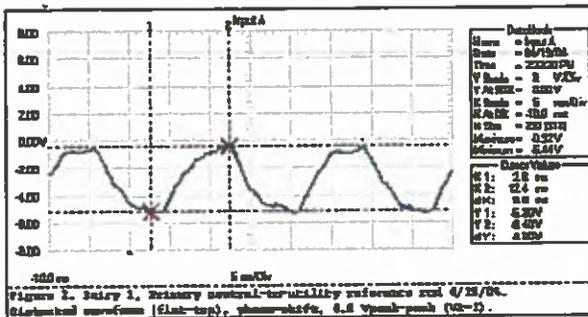


Figure 2. Dairy #1, Primary neutral-to-utility reference grid 4/19/04.

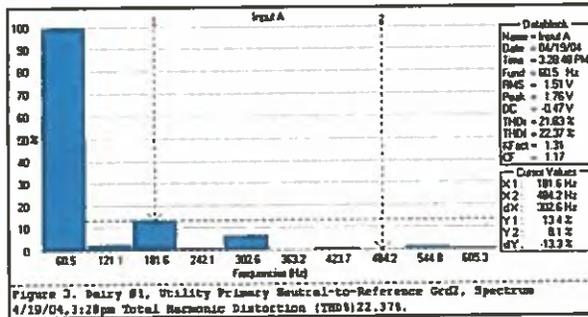


Figure 3. Dairy #1, Utility Primary Neutral-to-Reference Grid, Spectrum 4/19/04, 3:28pm Total Harmonic Distortion (THD) 22.37%.

Transformer Electric Company, Roanoke, VA, built a shielded neutral isolation transformer (SNIT) and connected it between the utility and the dairy, with the center tap serving as the ground for the dairy.

After installing the SNIT: Voltage was reduced to 0.002 V (0.004 mA). Cows stopped dancing, and milk production gradually recovered to its highest previous level after about 18-months. In the interim, many good cows and replacements had been lost from the operation.



New Discoveries from on-farm research include:

- # Farm electricity is not always clean--Powerlines are polluted with transients and harmonics.
- # Cow resistance goes down as frequency goes up.
- # EMF < 1 Volt at cow contact may damage cows.
- # Cow behavior is affected at frequencies < 1000 Hz.
- # Cows need not be touching metal for harmonics.
- # Milk decreases as transients and harmonics increase.
- # Shielded neutral isolation transformer reduces harmonic voltage and current through the cow.
- # Behavior, health, and milk production improved when the primary neutral was isolated in problem herds.

Related University EMF Research

Burchard et al. at McGill University, Montreal, Quebec, Canada, have been studying effects of EMF on dairy cows for several years. Cows were exposed to 10 kV/m electric fields and 30 μ Tesla magnetic fields, for 28-day periods in reversal trials. Intensities are equivalent to standing under a 735 kV electrical transmission line. They reported in *Bioelectromagnetics* (2003).

- # Milk production decreased 5% from exposed cows compared

- to controls
- # Fat-corrected milk decreased 14% compared to controls
- # Milk fat decreased 16% compared to controls
- # Dry matter intake increased 5% compared to controls.

Physiological effects from Burchard et al. include:

- # Melatonin, a hormone produced in the Pineal gland in the brain, decreased in cows exposed to EMF.
- # Melatonin has strong oncostatic immunological, and antioxidant properties in the blood. It normally follows the pattern of light:dark nocturnal exposure.
- # Progesterone increased in lactating pregnant cows.
- # Length of estrus cycle increased 3 days.
- # Insulin-like growth factor (IGF-1) increased in blood.
- # Growth hormone was modified during part of the nocturnal cycle.
- # Macro and trace element changes in blood – Calcium, magnesium, iron, and copper were affected by EMF exposure.
- # Cerebrospinal fluid (CSF) changes in concentrations of Ca, P, Mg, Mn and Na occurred.
- # Quinolinic acid increased in CSF, tryptophan tended to increase in CSF.
- # CSF changes were consistent with weakening of blood-brain barrier.

References:

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Resource Management Plan Protest

Critical Item Checklist

The following items *must* be included to constitute a valid protest whether using this optional format, or a narrative letter.

(43 CFR 1610.5-2)

Before including your address, phone number, e-mail address, or other personal identifying information in your protest, be advised that your entire protest—including your personal identifying information—may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations and businesses, will be available for public inspection in their entirety.

Resource Management Plan (RMP) or Amendment (RMPA) being protested:

B2H BLM EIS

Name: David and Karen Yeakley
Address: 42687 Hudson Rd., Baker City, OR 97814
Phone Number: (541) 523-6900

Your interest in filing this protest (how will you be adversely affected by the approval or amendment of this plan?): As former Mayor and Baker Co. Chamber of Commerce Manager, the line would harm view shed of BLM managed OR. Trail Interpretive Center. This center is educational, historic and tourism development.

Issue or issues being protested: Appendix K - 1274 a-f, page K9-500-501 mitigation or money will not replace land and wildlife. Once it's gone, it's gone. Sage Grouse wasn't listed by US Fish and Wildlife due to state of Oregon + Baker Co. exercising measures to protect the Sage Grouse.

Statement of the part or parts of the plan being protested:

Chapter: 3

Section:

Page: 3-235-240

(or) Map:

Oregon has designated utility corridor thru central OR. Not being considered there is new + improved transmission of HVA/C High Voltage lines not being pursued. This would be underground + energy efficient.

Attach copies of all documents addressing the issue(s) that were submitted during the planning process by the protesting party, OR an indication of the date the issue(s) were discussed for the record.

Date(s): Feb 25, 2015 Attached Comments

A concise statement explaining why the State Director's decisions is believed to be wrong: This line is not needed and harms Oregon land, viewsheds, wildlife and pollinators (Bees, Butterflies). We are destroying history for future generations (OR. Trail). I am very concerned for our health and that of cattle and ag crops grown near this line.

Signed: Dec. 19, 2016

Karen Yeakley
David Yeakley

Feb. 25, 2015

B2H Project
P O Box 655
Vale, Or. 97918

Re: Additional comments on the DEIS

We have participated in the public meetings, written public comment and participated in Idaho Power's CAP process.

We agree with NEPA Coordinator Todd Whitesides of the BLM as it relates to the DEIS. BLM is not accurately disclosing the impacts of the B2H Project. The data used is not current nor does it represent 365 day, 24 hour, 7 days input from residents along the proposed routes.

The Sage Grouse we believe will be listed as endangered by the USFWS if we proceed with the development of the B2H line. Prior to the new ODOT maintenance shed off Exit 302 and Hwy 86, there used to be Sage Grouse along with other wildlife I have already referenced. This does not include migrating birds, like the Trumpeter Swans I saw on Monday, Feb. 23, 2015. Sage Grouse move short distances to lower elevations for winter and are permanent residents. They forage on the ground. They mainly eat sagebrush, but also insects and other plants. Residential building and energy development have caused the Greater Sage Grouse population to decline from 16 million 100 years ago to between 200,000 and 500,000 today. This species is in decline due to loss of habitat.

New data would be for the Monarch butterfly. What would the electric line do to this butterfly becoming extinct? Their range expands and contracts dependent upon the season. The range differs between breeding areas, migration routes and winter roosts. While breeding, its habitat can be found in agricultural fields, pasture land, gardens, trees, and roadsides.

As we have wetlands in the area of the airport, we have numerous birds that live here and migrate through this area. We are very concerned about what the development of this line would do to water flow, irrigation, and lagoons.

We watch airplanes and helicopters daily and are concerned about flight patterns and approaches to our airport with this line. I have viewed the spray plane flying under the transmission lines as presented on the video but still seems highly dangerous to the pilot, plane, and any area involved in a crash site.

We are very concerned about health issues that the line could cause. What about folks with pacemakers; implants and possible side effects? Can we be guaranteed that this line will not cause cancer to us or wildlife?

We believe BLM should place great value on the natural beauty and historical significance of the lands it is charged with protecting and maintaining. The Oregon Trail Interpretive Center, it's surrounding area and view shed are prime examples of these things. The thought of tall towers and transmission lines stretching across the land below the Interpretive Center, across the actual wagon ruts made by the brave families that settled Oregon is distressing to say the least. It is possible the lines may cross the Oregon Trail in many places as it traverses the high desert between the Idaho border and Baker Valley. These are points that deserve the utmost consideration by BLM.

Does the profit realized by Idaho Power and the handful of landowners that sell right away land for the project out weigh the damage done to the farmland, wildlife habitat, the beauty of the land or the economic health of the communities through which the transmission line will pass through or near? Has this project been well thought out and been given the time for study and consideration for alternative plans? We feel much more study and public input needs to be done before any plan is finalized.

Concerned citizens,

David Yeakley

Karen Yeakley
42687 Hudson Road
Baker City, Or. 97814



Oregon Department of Energy and the Energy Facility Siting Council

Public Hearing on the Draft Proposed Order
for the Boardman to Hemingway Transmission Line
June 18-20 and June 26-27, 2019, 4:30-8 p.m.
Public Written or Oral Testimony Registration

Name (mandatory) KAREN YEAKLEY

Mailing Address (mandatory) 42627 HUDSON RD
BAKER CITY, OR. 97814

Phone Number (optional) (541) 523-6900 Email Address (optional) _____

Today's Date: 6/19/19

Do you wish to make oral public testimony at this Hearing: Yes No

Written comments can also be submitted today. Yes

All written comments must be received by the deadline, July 23, 2019, 5 p.m. PDT to:

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301
Fax: 503-378-6457
Email: B2H.DPOComments@oregon.gov

Note: by submitting written or oral testimony, you will receive a notice from the Oregon Department of Energy at a future date of the opportunity to request party status in a contested case hearing on the proposed facility.

Written Testimony

(Please print legibly – Use the back for additional space if needed. Additional written comments may be attached to this card.)

Handouts at meeting today

Energy Siting Council and Idaho Power - June 19, 2019

My name is Karen Yeakley. I am a former Mayor of Baker City and former Baker County Chamber of Commerce Manager, and Past President of the Chamber.

Idaho Power is a profit making business. The Board of Directors have a responsibility and fiduciary duty to protect their investment and provide share holders with a return. This has been 12 years, and if I was on Idaho Power Board, I would be asking if this was the best investment. There is new technology, and the data used is not current nor represents residents input along the proposed route. I have a different focus. I want the best for Baker County and the State of Oregon and I want to leave here better than before I got here.

In your siting standards of protecting against adverse environmental impacts, this project due to construction will have significant adverse impacts. Construction decreases farm land that affects our food source, the wildlife, pollinators, and cattle grazing.

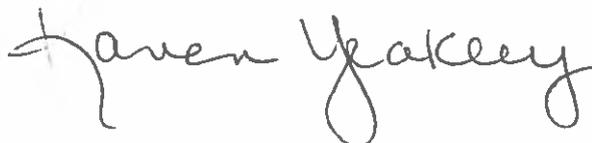
Oregon Administrative rules and council standards have numerous references to mitigation. Mitigation will not help dead eagles, owls, blue heron, ducks, geese, hawks, dead trumpeter swans, and dead sage grouse. It will not protect the Oregon Trail ruts at the Interpretive Center. I watch bus loads of students in May headed up to the center to learn of our history from across the state. Use of compensatory mitigation is not okay.

We should learn from the California fires that killed 85 people and destroyed thousands of buildings. PG & E utility company seeks bankruptcy protection over California fires. Governor Kate Brown signed house bill 2222 requiring annual report on wildfire protection efforts, The bill was inspired in part by the wildfire last year in Paradise, California.

I have enclosed an article on electric and magnetic fields affecting milk production and behavior of cows. If the transmission lines can cause that affect on cows, then what is the long term affect. Why would we want to risk public health with side affects of the transmission lines.

I have included several news clippings, and our testimony during the NEPA process for your review.

Thank you for your time.

A handwritten signature in cursive script that reads "Karen Yeakley". The signature is written in black ink and is positioned at the bottom of the page.

Feb. 25, 2015

B2H Project
P O Box 655
Vale, Or. 97918

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Concerned citizens,

David Yeakley

Karen Yeakley
42687 Hudson Road
Baker City, Or. 97814

Nov. 4, 2008 Boardman to Hemingway Transmission Line Project

I acknowledge that Idaho Power Company has been a good neighbor and appreciate this opportunity for public discussion. I question the need that this proposed project would do to the detriment of the residents and land that it would compromise.

I am a Baker county native and former Mayor. My grandmother was born in Durkee, Oregon. Always I was taught to respect the land that grew our food and that we help one another and give back more than we take.

Baker county industries have been agriculture, mining and timber. With the decline of timber, several community leaders decided to create a new industry. Tourism was born for Baker county and the birth of the Oregon Trail Interpretive Center. Many Bakerites have given land, time, money and countless hours in preserving our quality of life and supporting the uniqueness of the county.

Our theme has been to be the Northwest Premier Rural Living experience.

Farmland is a critical resource base for our major industry which generates over \$5.5 billion in annual sales and employs more than 100,000 Oregonians. Exclusive farm use zoning relies on basic zoning principles to preserve farmland for agricultural use and to keep uses incompatible with commercial farming out of agricultural areas.

I do not want to have the invasion of wildlife breeding and nesting areas and destruction of our wetlands. I live in the proposed corridor between I-84 and the Oregon Trail Interpretive center. I have hawks that come back year after year and raise their young. We have loons (blue heron), eagles, killdeer, owls, ducks, geese, sparrows, finches, quail, red fox, raccoon, skunk, deer, and I am sure other wildlife I have not noticed. Domestic animals are raised in the proposed corridors. Cattle, horses, goats and hogs to name a few. Field crops such as hay are necessary for these animals not to mention the grazing areas in Baker county. *I have heard "to place the corridor out by Keating", or out at Virtue Flat.* Do we believe that any development would not compromise the land, sage brush, and wildlife that live there?

Baker county is rich in historic and archeological findings. Mining in the area of the proposed corridors needs to be researched prior to any development. Baker City was incorporated in 1874 so it stands to reason that historical findings exist.

I do not want to have our view shed ruined. We also have the airport close by and don't need the worry of collisions.

I have heard of no benefit to Baker county and other counties that this proposal would pass through. The current economic climate of Wall Street shows what can happen when we want more instead of living within our means. Does our electric co-op receive any rate discounts from Idaho Power for this proposed project? If not, why not? Why should Baker County give up land and our quality of life for this project? \$100,000 to \$200,000

does not even compensate for what not only we would sacrifice but that of future generations. I continue to remain in wonderment of who will grow our food. Where will the farming and land needed be? Grocery stores do not produce milk.

Please, please, research and discuss this further before just going through the hoops. I do offer any help or discussion I can give.

Thank you.

Karen Yeakley,
42687 Hudson Rd.
Baker City, Or. 97814

2/18/2017

Utility seeks bankruptcy protection over California fires

By Janie Har and Cathy Bussewitz
The Associated Press

SAN FRANCISCO — The nation's largest utility said Monday it is filing for Chapter 11 bankruptcy because it faces at least \$30 billion in potential damages from lawsuits over the catastrophic wildfires in California in 2017 and 2018 that killed scores of people and destroyed thousands of homes.

The move by Pacific Gas & Electric Corp., expected by the end of the month, would be the biggest bankruptcy by a utility in U.S. history, legal experts said.

It would allow PG&E to hold off creditors and continue providing electricity and natural gas without interruption to its 16 million customers in Northern and central California while it tries to put its finances in order.

The filing would not make the lawsuits disappear, but would result in all wildfire claims being consolidated into a single proceeding before a bankruptcy judge, not a jury. That could

shield the company from excessive jury verdicts and buy time by putting a hold on the claims.

Chapter 11 reorganization represents "the only viable option to address the company's responsibilities to its stakeholders," Richard Kelly, chairman of PG&E's board of directors, said in a statement.

"The Chapter 11 process allows us to work with these many constituents in one court-supervised forum to comprehensively address our potential liabilities and to implement appropriate changes."

State officials are investigating whether the utility's equipment sparked the deadliest, most destructive wildfire in California history, a November Northern California blaze that killed at least 86 people and burned down 15,000 homes.

State investigators have also blamed PG&E power lines for some fires in October 2017. Authorities are also looking into the cause of a blaze that destroyed thousands of homes and killed 22 people in Santa Rosa last year.

California law requires utilities to pay damages for wildfires if their equipment caused the blazes — even if the utilities weren't negligent through, say, inadequate maintenance.

PG&E, which is the nation's largest utility by revenue and is based in San Francisco, said it is giving the required 15 days' notice it plans to file for bankruptcy protection.

It said it will continue working with regulators and stakeholders to consider how it can safely provide energy "in an environment that continues to be challenged by climate change."

The announcement follows the resignation of chief executive Geisha Williams a day earlier. She leaves with a \$2.5 million severance payout, a spokesman told the Mercury News of San Jose.

In a Monday filing with the Securities and Exchange Commission, the company said the liabilities it faces from 2017 and 2018 wildfires could exceed \$30 billion, not including punitive

damages, fines and penalties. The largest bankruptcy filing on record by a utility was Energy Future Holdings Corp. in 2014, which had \$49.7 billion in liabilities in today's dollars, according to an analysis by Kevin Kelly, director of publications at S&P Global.

Veteran New York bankruptcy lawyer H. Jeffrey Schwartz said PG&E's bankruptcy should prove to be the biggest yet, since it had about \$50 billion in liabilities at the end of 2017. That does not include claims from 2018 wildfires.

He said the utility has no other way of getting out from under the mountain of legal claims.

"The liability is too great. It's too many claims, the aggregate amount is too great, and it looks at first blush to be indefensible because PG&E knew of this risk and didn't clear the line areas as it should have," Schwartz said.

He said he expects shareholders to bear the brunt of the restructuring. Bankruptcy court has no say over the rates utility

See PG&E / Page 2B

PG&E

Continued from Page 1B
customers pay; those are decided by state regulators and politicians.

As for the lawsuits, PG&E will negotiate with the plaintiffs and its other creditors a reorganization plan based on how much the utility is able to pay, said Hugh Wynne of Sovereign Research, an investment research firm.

"You avoid a situation where some jury in California thinks PG&E is responsible for this fire, so we should hit them up for all these damages and let them sort out how they pay for it," Wynne said.

A bankruptcy also would allow PG&E to raise cash by selling assets — such as its gas business and hydropower plants — more easily, he said.

PG&E spent millions in an 11th-hour lobbying effort

legislative session in August in a failed attempt to change the law to reduce its liability in wildfires.

Before last year's disastrous fire in Northern California's Butte County, PG&E's stock stood at \$47.80. But in early Monday trading it tumbled \$8.48 to \$9.11, its lowest level in more than 6 years. Wall Street last week slashed PG&E's credit rating to junk status.

PG&E also filed for Chapter 11 in 2001 amid rising electricity prices during California's energy crisis.

California's new governor, Democrat Gavin Newsom, told reporters that "safety, reliability and affordability" are his top concerns, alongside protecting wildfire victims and ratepayers, in confronting the potential bankruptcy. He sought to assure the public that this potential bankruptcy won't result in

He said addressing the pending bankruptcy, and potentially avoiding it, is a top priority for his new administration, but he hasn't settled on what actions to take. He said the state has "no choice" but to work collaboratively with the utility even though it has not been a "trusted player" in the past.

The Natural Resources Defense Council warned that bankruptcy could threaten billions in funding for PG&E's clean energy initiatives, which are key to California's environmental goals. PG&E is the state's largest investor in energy efficiency and electric vehicle infrastructure, said the NRDC's Ralph Cavanagh.

"California needs healthy utilities with access to capital to be able to meet its environmental goals and policies. It's essential," said Travis Miller, a strategist at Morningstar

5/24/2019

STATE BRIEFING

Governor signs bill requiring annual report on wildfire protection efforts

SALEM — Gov. Kate Brown on Wednesday signed a bill to require an annual report to the Legislature on efforts to protect communities near forest lands from wildfires.

House Bill 2222 orders the Oregon Department of Forestry to tell lawmakers about implementation and enforcement of property notifications and certifications required under the Oregon Forestland-Urban Interface Fire Protection Act.

The bill was inspired, in part, by the wildfire last year in Paradise, Calif. that killed 85 people and destroyed thousands of buildings. Bend was one of the communities mentioned in testimony on HB 2222 that could be susceptible to similar fires.

The bill's co-sponsors included Rep. Jack Zika, R-Redmond, Rep. Cheri Helt, R-Bend, and Rep. Daniel Bonham, R-The Dalles.

— *WesCom News Service*

Dairy owners, others object to proposed power transmission line near Tillamook

SALEM — A proposed electrical transmission line in northwestern Oregon has run into opposition from landowners in its path.

The Tillamook Public Utility District says the 8.6-mile line between Tillamook and Oceanside will improve the reliability of the electrical grid. Currently, a single distribution line serves about 3,000 properties in the Oceanside area, which is three times more prone to outages than other areas on the grid, said Todd Simmons, the district's general manager.

"When that line goes out, everybody's out of power until we make that repair," Simmons told the Capital Press newspaper. "We're vulnerable with that one line."

The Oregon Farm Bureau and Oregon Dairy Farmers Association are among those concerned about the line that would cross farmland and forestland.

Dairy farmer Kurt Mizee said the line is problematic for several reasons, including "stray voltage," which occurs when electricity essentially leaks into the ground. The phenomenon is known to reduce milk production among dairy cows.

The transmission line would also prevent aerial pesticide spraying over certain fields and its construction would disrupt grazing and silage harvesting, Mizee said.

"They've offered us almost nothing as far as compensation for a pretty big impact," he said.

Landowners are also worried that exposure to electromagnetic emissions could sicken themselves and their livestock, said Cameron La Follette, executive director of the Oregon Coast Alliance conservation group.

The sides are expected to clash throughout 2018 as the utility district tries to obtain key permits: a conditional-use permit from Tillamook County, a fill-removal permit from the Department of State Lands and eminent domain authority from the Oregon Public Utility Commission.

La Follette and other opponents argue the proposed line isn't justified by electricity demand, and might be intended as a connection to future offshore energy projects.

A decade ago, the district agreed to find possible connection points for a wind-energy project to deliver electricity to its grid. That agreement has since expired and the utility district said it has no current plans to connect to such offshore projects.

— Compiled from The Associated Press

Bolac City Herald

1/3/2018

Groups sue over sage grouse

By Keith Ridler
Associated Press

BOISE — Four conservation groups have asked a judge to block a Trump administration plan allowing drilling, mining and other activities in seven Western states they say will harm sage grouse.

Western Watersheds Project and other groups asked for the injunction in U.S. District Court in Idaho late last week for Idaho, Wyoming, Utah, Colorado, Nevada, California and Oregon.

The groups in March sued Interior Secretary David Bernhardt, the U.S. Bureau of Land Management and the U.S. Forest Service over changes to land-management plans involving sage grouse.

The March action supplemented a 2016 lawsuit that said a 2015 federal plan put forward by the President Barack Obama inadequately protected sage grouse. The groups say the plan put forward by President Donald Trump weakens protections further.

"Defendants falsely assert that the 2019 BLM plan amendments build upon the 2015 plans, but in truth they rescind or weaken numerous 2015 plan measures," the request for the injunction states.

The U.S. Department of Justice, which defends federal agencies in lawsuits, acknowledged on Monday receiving an emailed inquiry from The Associated Press about the injunction request but didn't respond further.

Millions of sage grouse, a chicken-sized bird that relies on sagebrush, once roamed the West, but development, livestock grazing and wildfires have reduced the bird's population to fewer than 500,000. Most of the bird's habitat — sagebrush steppe — is on land administered by the BLM.

4/24/19

By Jerry Painter
Idaho Falls, Idaho Post Register

IDAHO FALLS, Idaho—Something catastrophically wrong happened in 2018 to monarch butterflies.

Idaho wildlife biologist Ross Winton spent years working with monarch butterflies. With the help of volunteers, he would carefully put a tiny tag the size of a paper hole punch on about 80 to 50 of the iconic insects each summer in the Magic Valley. Then during the summer of 2018 he could only find two to tag.

"I saw two monarchs all season," Winton said of 2018. "Most of the folks I've talked to in the Boise area were seeing very similar results. ... It was a little disconcerting to be seeing that kind of a decline in one year."

Last week the Xerces Society for Invertebrate Conservation issued a report finding that the population of monarch butterflies overwintering in California had fallen to the lowest level ever recorded.

The Western Monarch Thinning Group Count found only 28,429 butterflies, an 89 percent fall from the previous year and a 89.4 percent decline from numbers counted in the 1980s. Overwintering butterflies in central and Southern California numbered about 4.5 million in the 1980s. The monarch population in the central United States, which

migrates to Mexico, has declined by more than 80 percent in the last 20 years, but has not suffered the same fall in numbers this year, the Xerces Society says.

"To picture what this means for monarchs, imagine that the population of Los Angeles had shrunk to that of the town of Montebello," said

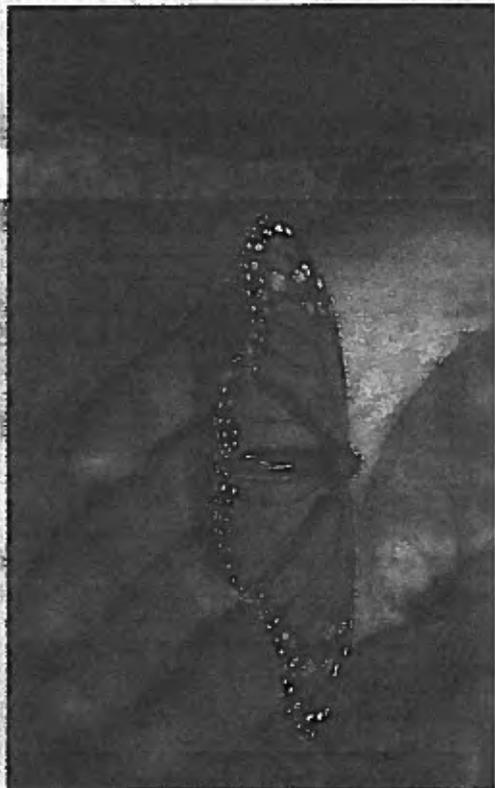
tion expert with the Xerces Society (Montebello, California, has about 29,000 residents, while Los Angeles has about 4 million.)

Monarch butterfly experts say much of the blame for the species' demise can be aimed at habitat destruction, particularly in overwintering areas of California. Each year the butterflies head south to winter mostly in either California or central Mexico. While most end up in Mexico, particularly those that spend their summers east of the Rocky Mountains, many also overwinter in habitat near Santa Cruz, California.

"Our best guess is that most of our Idaho monarchs are going to central and Southern California," Winton said. "The connections we've had that we've documented for sure most of them have been from central California. ... They like to winter in a lot of the tall trees along the coast of California."

But what's happening in California as far as monarchs are concerned is alarming. "A lot of the concern is focusing in on California," said Beth Waterbury, related wildlife biologist for Idaho Fish and Game in Salmon. Waterbury helped head up a monarch study in Idaho, collecting, tagging and documenting the species especially in eastern Idaho.

"Litter loss of habitat or degradation of habitat on those overwinter sites (is key)," she said. "When those butterflies start dispersing in early spring they're looking for milkweed and nectar resources not too distant from those overwinter sites. The focus right now is looking at availability of habitat in the California central valley or in the coastal foot-



Trent Cobby / iStockphoto.com

The two dark spots at the base of the monarch butterfly's wings indicate that this one is a male.

apparently is lacking. That is looking to be the real break in the migratory chain this past year."

Winton agrees. "In California and Mexico a lot of habitat has been lost where they tend to overwinter," he said. "A lot of those big trees are either getting too old and not getting replaced and blowing over or they are getting removed, with city expansions, things like that. It really comes down to habitat."

Waterbury said other contributing factors include wildfires, pesticides and herbicides. "Monarchs don't do well on pesticides when it gets up to 80 degrees or hotter," she said.

Winton's population vanishing, the Xerces Society has issued a call to arms in hopes of saving the species.

"It's easy to give up when faced with news like this," Pelton said. "But doing nothing is not an option." The Xerces Society for Invertebrate Conservation is calling on Californians to plant early blooming monarchs on their paths to other states.

Waterbury said one thing working against the cause is a name. "This is my name for milkweed, it should be called 'monarch manna' because it's so important," she said. "There are these public attitudes because of the name having the name weed in it. So many people do not know that it is the only plant that monarchs will lay their eggs on."

Some might wonder what all the fuss is over an insect?

"We want to conserve all of our biodiversity just on its own sake," Waterbury said. "There is a role that monarchs play that is very important to humans and that is as a pollinator and if we don't have pollinators on our landscape to pollinate our crops, to pollinate native plants, we're going to lose about three-quarters of the plant species on this planet and a lot of our food resources."

"Monarchs are kind of a canary in a coal mine for a lot of other insect species, especially bees which are

Ranchers asked to help monarchs

PORTLAND—Oregon agricultural producers can voluntarily help the monarch butterfly on their farms and ranches through a variety of conservation practices offered by the U.S. Department of Agriculture (USDA). The assistance comes at a critical time as

recent reports show the western population of the monarch butterfly is at an all-time low. Planting or protecting and mowing the size of native milkweed stands is critically important to rebuild the western monarch population.

Federal officials also recommend Oregon producers establish plants that bloom in late summer and early fall. As monarchs leave the region to return to overwintering sites along the California coast, these fall-blooming species include rabbit brush, goldenrod, asters, and sunflowers.

The U.S. Natural Resources Conservation Service (NRCS) helps producers cover part of the costs for adopting these practices through the Environmental Quality Incentives Program and other Farm Bill-funded programs. NRCS accepts applications for conservation programs on a grant basis. Producers interested in assistance are encouraged to contact their local USDA service center.



Electric and Magnetic Fields (EMF) Affect Milk Production and Behavior of Cows; Results Using Shielded Neutral Isolation Transformer



By Donald Hillman, Ph.D., Charles L. Goeke, M.S., and Richard Moser, EE

12th International Conference on Production Diseases in Farm Animals, Michigan State University

Published by: Shocking News, 750 Berkshire Lane, East Lansing, MI 48823 – donag1@aol.com

July 2004

SUMMARY

In 2002 we reported that behavior, health, and milk production of cows were impaired by transients and by the 3rd, 5th, 7th, and triplen harmonic electrical currents from utility power lines. Kaune et al., concurred in that 180 Hz currents and the 3rd, 5th, and 7th harmonics in the living areas of homes were associated with cancer deaths of former residents in Denver, CO. Subsequently, our investigations revealed that a cellular telephone signal generator located at the base of an antenna tower, was charging the neutral-ground with 10+ V and the 3rd, 5th, 7th and other harmonics were on the neutral conductors and water lines of homes, schools, and workplaces in the area, causing harmonic distortion of the power supply. Primary neutral voltage and 3rd, 5th, 7th and other harmonics on dairy farms were reduced to near zero when a shielded neutral isolation transformer was installed between the utility and the dairy. Animal behavior improved immediately, and milk production which had been depressed for 3 years, gradually returned to normal within 18 months after installation of the shielded transformer. Shielding prevents transients and harmonics on the utility primary from induction onto the user neutral and likewise prevents user harmonics and transients from getting onto the utility electrical line. Changes in concentrations of several blood and cerebrospinal fluid components, energy and fat metabolism, and reduced milk have been reported for cows exposed to EMF from overhead powerlines in Canada. Consequences are related to the time and intensity of exposure to EMF.

INTRODUCTION

Farm investigations revealed that transient and harmonic voltages and currents were related to animal behavior, health, and milk production of dairy cows on 12 farms. Details of methods and materials were reported previously (Hillman 2003) and results are in the DVD presentation that accompanies this article.

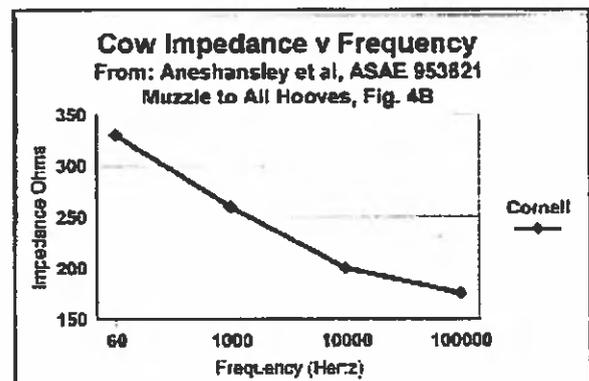
Briefly, the farm studies revealed that:

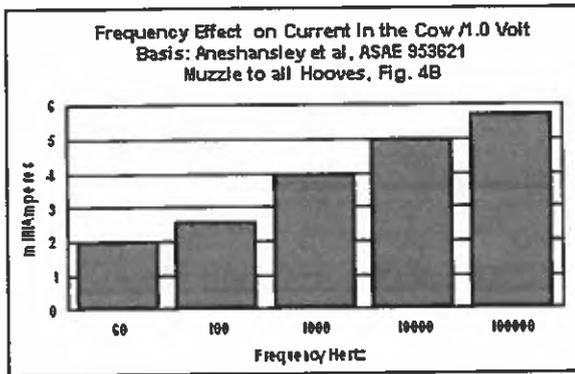
- # Transients and harmonics were prevalent on rural electric power lines and were commonly called “noise” or “dirty” electricity in the electrical industry.
- # Neutral-to-ground distorted non-sinusoidal transients averaged 280 ± 60.2 V on 3 farms for 165 days, and 79.9 V on five farms for 385 of 515 days as recorded by Fluke[®] EventRecorder VR-101.
- # The concentration of transients and harmonic impulses varied greatly from farm to farm, day to day, and time of day.
- # Milk per cow/d decreased as the number of transient events, hot-to-neutral and neutral-to-ground, transients (oscillations, spikes on the power supply) increased daily.
- # Milk was negatively correlated with phase-shift degree angle

of transients.

- # Step-potential oscilloscope voltage readings from the floor of milking stalls averaged 0.0628 V ($62.8 \text{ mV} \pm 39.8 \text{ mV}$) and ranged from 0 to 0.1516 V (151.6 mV) on five farms for 515 days.
- # Cow movement (steps/min) increased as the voltage differential (minimum - maximum) increased from 0.9 to 6.0 millivolts during the same minute and as the voltage standard deviation increased..
- # Milk per cow/d decreased as the number of 3rd, 5th, 7th, 21st, 28th, and 42nd, harmonics increased/d. Harmonics were correlated with the number of transients per day.
- # Milk decreased as the sum of triplen harmonics (3rd, 9th, 15th, 21st, 33rd, and 39th) increased/d ($P < 0.003$).
- # Cow impedance decreased as frequency increased.
- # Current in the cow increased as frequency increased.
- # Public Utility Commission (PUC, PSC) standards and use of 500-ohm resistors in test circuits adopted in Wisconsin and some other states underestimate effects on cow behavior, health, and milk production of non-sinusoidal, inferior-quality power on rural power lines.
- # IEEE 519, 1992 recommended 5% Total Harmonic Distortion (THD%) on the utility side of the meter, and 5% Total Distortion Demand (TDD%) on the end-user side of the meter, limits that were set for protection of electrical and electronic equipment must be applied for protection of livestock and humans as well.
- # The Grounded-Y distribution/transmission system uses the earth as a return conductor for neutral current resulting in earth currents that could be avoided by hard-wiring the neutral back to the substation.

Relationships between frequency of voltages and current passing through the cow were reported by Aneshansley et al. (1990, 1995) and are illustrated below. Voltage at harmonic frequencies increases amperage two to three times compared to sinusoidal 60 Hz voltage because of the reduced impedance of the cow at higher frequencies.





Sources of Inferior Quality Electrical Power

Wiring Faults: Causes of uncontrolled electrical voltage and current, commonly called “stray voltage” often include improper grounding, loose or corroded connections, poor condition of insulation on wires, wiring faults on motors and equipment, unbalanced loads on primary or secondary circuits, and tree branches brushing electrical lines. These faults may occur on-farm, on a neighbor’s farm, or on utility lines. Experts claim that faulty wiring accounts for some 80% of stray voltage problems on farms. However, if the electrical system in a building is sound, i.e., no faults and meets code, the only source of AC current for producing uncontrolled voltage is the neutral (grounded) conductor via the bonding with the grounds. Bonding allows current to flow to metal water pipes, lightning protection, and branch circuit equipment ground wires according to Ludington et al. (1987). The cow is almost always in the current path in series and in parallel with other resistances as the current seeks a return path to the substation of a grounded -Y, or to the transformer of a Delta system.

Power Quality Problems: The other 20% of electrical problems on dairy farms have not been described publicly, although a large volume of information concerning “dirty” electricity vs “clean” appears in scientific journals, and the standards for hospitals and electronics manufacturers are higher than for other users. “Power quality problems” are simply pollution of the power supply as surely as contaminated milk is considered polluted milk, but milk producers are shut-off from the market by law. No such regulation has been applied to utilities.

USDA-ARS Publication 696, (1991) *Effects of Voltage or Current on Farm Animals: How to Detect and Remedy Problems*, contains no information about the presence or effects of power quality on dairy cows, nor other species.

Barry Kennedy in his book, *Power Quality Primer* (2000), gives vivid descriptions of the effects of modern electrical and electronic control devices on the quality of electricity on power lines, and effects of power quality on operating equipment. A paucity of published reliable research has prevented valid conclusions regarding cause:effect relationships of electricity and animal performance from appearing in the agricultural literature. Secondly, facts and the testimony of knowledgeable witnesses in court testimony, when settled without completion of a trial is sealed (sequestered) by the Court, thus denying the public of knowing the cause or outcome of such decisions. Nevertheless, very few court decisions have been favorable to utilities.

Reasonable standards of power quality and responsibilities of both parties should help to provide efficient justice for both parties, and reduce the burden on the overloaded court system.

Power quality is defined by electrical engineers in terms of compliance of the power supply with nominal voltage and current. Deregulation has not improved the quality of electric power.

A transient voltage (transient or spike) is a temporary, unwanted voltage in an electric circuit. Transient voltages may range from a few volts to several thousand volts and last from a few microseconds to a few milliseconds. Oscillatory transient voltages are commonly caused by switching OFF high inductive loads and by switching large utility power factor correction capacitors for balancing loads on a power line. Impulse transients are commonly caused by lightning strikes and are distinguishable from oscillatory transients by the shape of the waveform distortion and by the number of oscillations unless allowed to resonate in the circuit by capacitors. Lightning arresters mounted on top of poles and substations are used by utilities to dampen impulse transients. Transients averaged 10 oscillations per transient event recorded by Fluke Event Recorder VR101 in these studies.

Harmonics are the major source of sine waveform distortion. The increased use of nonlinear equipment have caused harmonics to be more common. EPRI, Electric Power Research Institute, financed by utilities estimated that one-half of all electricity used in the United States would pass through electronic equipment by the year 2000. Because of the increased adverse effects of harmonics, the IEEE (Institute of Electrical and Electronic Engineers) adopted a standard for harmonics in 1992. The standard is referred to as IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems (IEEE 519-1992 ©1993) according to Kennedy (2000).

The IEEE standards were devised to prevent harmonic damage to transformers, motors, and electronic circuits. Cows, other livestock, and humans ought to be added to the damage list.

Harmonic currents are usually caused by nonlinear loads like adjustable speed drives, solid-state heating controls, electronic ballasts for fluorescent lighting, switched-mode power supplies in computers, printers, static UPS (uninterruptible power supply) systems, electronic and medical test equipment (Magnetic Radiation Imaging), rectifiers, filters, and electronic office machines. Nonlinear loads cause harmonic currents to change from a sinusoidal current to a non-sinusoidal current by drawing short bursts of current each cycle or interrupting the cycle. This causes the sinusoidal current waveform to become distorted. The total distorted wave shape is cumulative. The resulting non-sinusoidal wave shape is a combination of the fundamental 60-Hz sine wave and the various harmonics.

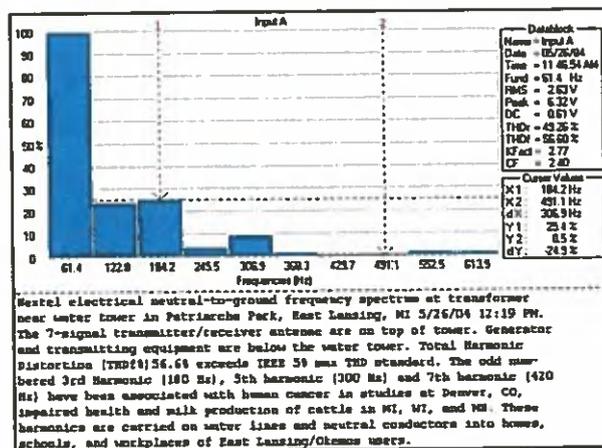
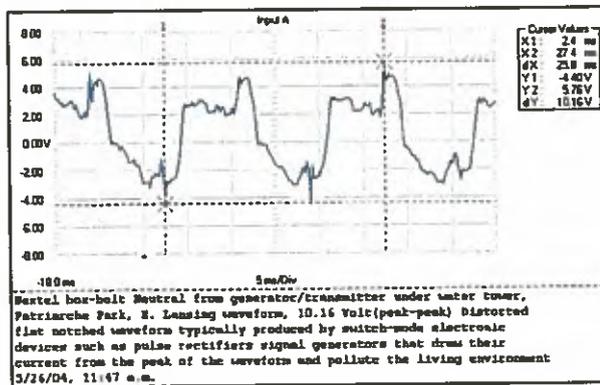
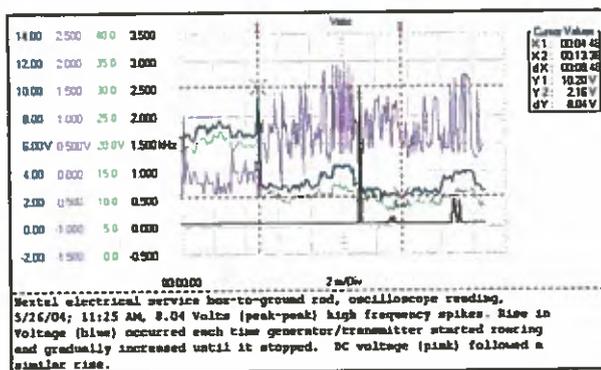
The switched-mode process results in a pulsed square wave which distorts the sine wave and produces harmonics (Kennedy 2000).

Further, single-phase nonlinear loads that draw current only during the peak of the voltage waveform, combine in a 3-phase circuit and produce triplen harmonics (multiples of the third order harmonics, like 3rd, 9th, 15th, etc). Triplen harmonics do not cancel but are additive and return exclusively on the

neutral conductor. The resulting magnitude of the neutral current may increase to 173 percent of the rms phase current. Thus the neutral current may exceed the capacity of the neutral conductor. Triplens cause overheating of the primary neutral conductor and may cause fires since there is no fuse or circuit breaker in the neutral circuit. Harmonics also cause the WATT meter to turn faster, thus inflating the electric bill.

A Source of Environmental Pollution was identified in East Lansing, MI. Flukeview prints of oscilloscope readings, waveform and harmonics are presented below.

A service-box neutral-ground of a cellular telephone generator/base-station with six antennae on the tower registered 10.16 V ac on the oscilloscope as in the Flukeview print-out. Nextel had taken a big bite out of the peak of the waveform and the frequency spectrum had 56% Total Harmonic Distortion with 2nd, 3rd, 5th, and 7th harmonics. They were also carried into electrical outlets and waterlines in homes and schools in the area.



Cows on a dairy farm in mid-Michigan were dancing (stepping, lifting feet, shifting body, and tail-switching) to avoid the pain of electrical shock. Oscilloscope Flukeview prints showed 8 to 12 V and harmonic distortion with 3rd, 5th, 7th, and 9th harmonics on the utility PN-to-ground. The secondary neutral carried 1.43 V tested by utility meters. The floor registered 300 to 400 mV, and leads from divider pipes to the floor of the operators' pit in the milking parlor carried 480 mV. The farmer observed that cows were not disturbed when the primary neutral-to-ground wire had been disconnected.

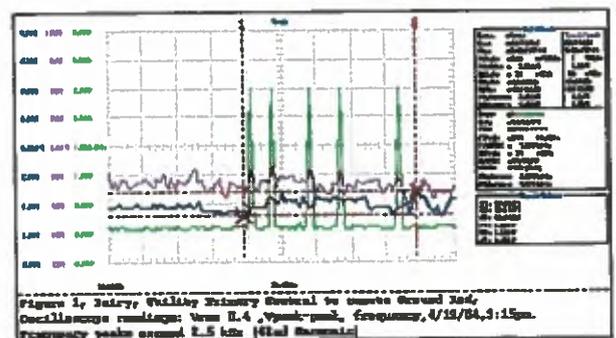
A neighbor had experienced the problem of cows dancing, stepping, tail-switching, and kicking off milkers (see the video), resulting in incomplete milking, declining milk production, and impaired health performance when 12 Vs were on the primary neutral and 1 V at cow contact. Utility experts claimed the voltage was too low to be "problematic." The neighbor had the power company move their service pole with transformer and down-ground about 200 feet from the milking parlor to the edge of the property. The dairy was served by 480-V single-phase service to the dairy, and an isolation transformer was installed by the dairyman. Cow behavior and milk production improved immediately and progressed to 29,200 lbs. per cow/year by 2004. However, when they tried to install a variable speed drive milk pump, the problem returned and the pump was removed. The transformer was not shielded to prevent harmonics and high frequency transients from passing from the primary to the secondary winding of the transformer.

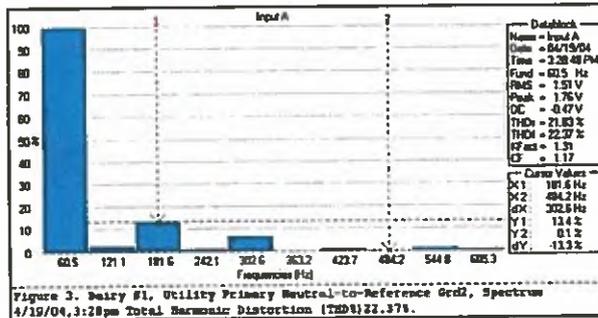
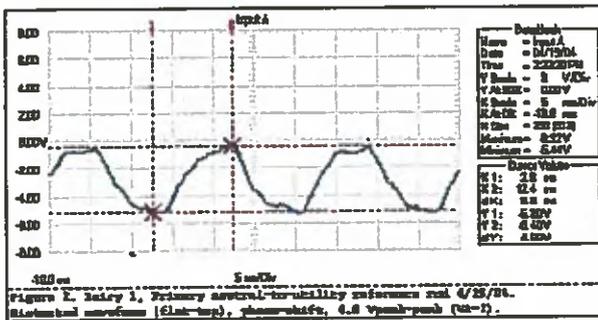
A Virginia dairyman had the problem of cows dancing and milk production had decreased to nearly one-half over a three-year period. The utility measured voltage for 6 days and reported about 2/3 of the PN-G reading were between 2.4 and 3.0 V, while the remainder ranged from 3.6 to 4.8 V. Experts could find no cause for the poor performance of the herd. The primary neutral was bonded to cow contact metal pipes and reinforcements in the floor of the milking parlor to form an equal-potential environment in the dairy. An electrical engineer found the primary-neutral averaged 0.96 V and 1.0 V, (maximum 2.08 V) equivalent to 2 to 5 mA, assuming 500 ohms cow resistance, for periods of 16 days and 19 days.

Oscilloscope Flukeview readings at the Virginia Dairy Farm revealed 2.5 kHz spikes (green) accompanied by a 400 mV rise (blue line), and about 5.5 V (peak to peak) (red lines).

The peak of the waveform is chewed off and resembles the Nextel waveform.

The Frequency spectrum shows the neutral is loaded with 3rd, 5th, and 7th harmonics, indicating inferior quality power, and the herd was a victim of power supply pollution.





Transformer Electric Company, Roanoke, VA, built a shielded neutral isolation transformer (SNIT) and connected it between the utility and the dairy, with the center tap serving as the ground for the dairy.

After installing the SNIT: Voltage was reduced to 0.002 V (0.004 mA). Cows stopped dancing, and milk production gradually recovered to its highest previous level after about 18-months. In the interim, many good cows and replacements had been lost from the operation.



New Discoveries from on-farm research include:

- # Farm electricity is not always clean--Powerlines are polluted with transients and harmonics.
- # Cow resistance goes down as frequency goes up.
- # EMF < 1 Volt at cow contact may damage cows.
- # Cow behavior is affected at frequencies < 1000 Hz.
- # Cows need not be touching metal for harmonics.
- # Milk decreases as transients and harmonics increase.
- # Shielded neutral isolation transformer reduces harmonic voltage and current through the cow.
- # Behavior, health, and milk production improved when the primary neutral was isolated in problem herds.

Related University EMF Research

Burchard et al. at McGill University, Montreal, Quebec, Canada, have been studying effects of EMF on dairy cows for several years. Cows were exposed to 10 kV/m electric fields and 30 μ Tesla magnetic fields, for 28-day periods in reversal trials. Intensities are equivalent to standing under a 735 kV electrical transmission line. They reported in *Bioelectromagnetics* (2003).

- # Milk production decreased 5% from exposed cows compared

to controls

- # Fat-corrected milk decreased 14% compared to controls
- # Milk fat decreased 16% compared to controls
- # Dry matter intake increased 5% compared to controls.

Physiological effects from Burchard et al. include:

- # Melatonin, a hormone produced in the Pineal gland in the brain, decreased in cows exposed to EMF.
- # Melatonin has strong oncostatic immunological, and antioxidant properties in the blood. It normally follows the pattern of light:dark nocturnal exposure.
- # Progesterone increased in lactating pregnant cows.
- # Length of estrus cycle increased 3 days.
- # Insulin-like growth factor (IGF-1) increased in blood.
- # Growth hormone was modified during part of the nocturnal cycle.
- # Macro and trace element changes in blood – Calcium, magnesium, iron, and copper were affected by EMF exposure.
- # Cerebrospinal fluid (CSF) changes in concentrations of Ca, P, Mg, Mn and Na occurred.
- # Quinolinic acid increased in CSF, tryptophan tended to increase in CSF.
- # CSF changes were consistent with weakening of blood-brain barrier.

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Resource Management Plan Protest Critical Item Checklist

The following items *must* be included to constitute a valid protest whether using this optional format, or a narrative letter.

(43 CFR 1610.5-2)

Before including your address, phone number, e-mail address, or other personal identifying information in your protest, be advised that your entire protest—including your personal identifying information—may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations and businesses, will be available for public inspection in their entirety.

Resource Management Plan (RMP) or Amendment (RMPA) being protested:

B2H BLM EIS

Name: DAVID and KAREN YEAKLEY
Address: 42687 Hudson Rd., Baker City, OR 97814
Phone Number: (541) 523-6900

Your interest in filing this protest (how will you be adversely affected by the approval or amendment of this plan?): AS Former Mayor and Baker Co. Chamber of Commerce Manager, the line would harm view shed of BLM managed OR. Trail Interpretive Center. This center is educational, historic and tourism development.

Issue or issues being protested: Appendix K - 1274 a-f, page K9-500-501 mitigation or money will not replace land and wildlife. Once it's gone, it's gone. Sage Grouse wasn't listed by US Fish and Wildlife due to state of Oregon + Baker Co. exercising measures to protect the Sage Grouse.

Statement of the part or parts of the plan being protested:

Chapter: 3

Section:

Page: 3-235-240

(or) Map:

Oregon has designated utility corridor thru central OR. Not being considered. There is new + improved transmission of HVA/C High Voltage lines not being pursued. This would be underground + energy efficient.

Attach copies of all documents addressing the issue(s) that were submitted during the planning process by the protesting party, OR an indication of the date the issue(s) were discussed for the record.

Date(s): Feb 25, 2015 Attached Comments

A concise statement explaining why the State Director's decisions is believed to be wrong: This line is not needed and harms Oregon land, viewsheds, wildlife and pollinators (Bees, Butterflies). We are destroying history for future generations (OR. Trail). I am very concerned for our health and that of cattle and ag crops grown near this line.

Signed: Dec. 19, 2016

Karen Yeakley
K. Yeakley

Page 34

1 (a) Idaho Power is a large, powerful
 2 corporation bullying its way through a small rural
 3 community just because it can. Regard their contractual
 4 agreement to provide fish ladders on the dams they built
 5 on the Snake, but then reneged on their obligation once
 6 the dams were up and running. They cannot be trusted.
 7 There are no repercussions in place if they won't and
 8 don't follow up on their promises and again, we, the
 9 local citizens, have to live with the damages.

10 (b) Morals and decency have been thrown out
 11 the window. Money and greed are trying to replace them.
 12 If approved, Idaho Power is guaranteed an \$80 million
 13 profit for itself and their partners' shareholders.
 14 What does Baker get?

15 (c) This process needs to ask bigger
 16 questions. B2H is the subject to a vetting system that
 17 can't and never has said no to other similar projects, a
 18 vetting system that is allowing this boondoggle to get
 19 its rubber stamp. This process needs a non-partial
 20 forum for fairness, a council made up of people not
 21 picked or reinstated by a governor who was backed by
 22 PacifiCorp, Idaho Power's silent partner in B2H.

23 (d) While these hearings are supposed to bring
 24 out the flaws in the proposed plan, they also help Idaho
 25 Power plug their leaking dike. These are problems Idaho

Page 35

1 Power should have already foreseen if they had planned
 2 better.

3 (e) I have fought this B2H proposal since near
 4 the beginning. It was a bad idea then and it's an even
 5 worse idea now.

6 (f) All we, the public, would like in this
 7 process is impartiality and that we have not been given.
 8 Thank you.

9 HEARING OFFICER WEBSTER: Thank you.
 10 After we hear from Ms. Yeakley, we'll hear
 11 from Irene Gilbert.

12 MS. KAREN YEAKLEY: I made copies for the
 13 Council and the Department of Energy.

14 HEARING OFFICER WEBSTER: Start with your name
 15 and address.

16 MS. KAREN YEAKLEY: Yes.

17 HEARING OFFICER WEBSTER: Thank you.

18 MS. KAREN YEAKLEY: For the record, my name is
 19 Karen Yeakley. I'm a former mayor of Baker City and the
 20 former manager of the Baker County Chamber of Commerce,
 21 and former president of the Chamber.

22 Let's be clear, Idaho Power is a profit-making
 23 business. They are in business to make money. The
 24 board of directors have a fiduciary responsibility to
 25 protect the investment and provide shareholders with a

Page 36

1 return on their investment. This has been 12 years, and
 2 if I was on the Idaho Power board, I would be asking if
 3 this was the best investment. I'd be jumping up and
 4 down wondering, why can't we get this done? If it was
 5 that necessary 12 years ago, it should be even more
 6 necessary today. There is new technology, and the data
 7 used is not current nor represents residents' input
 8 along the proposed route.

9 I'm old school, I was raised differently. I
 10 was taught to give more here while I was here before I
 11 leave. I've never seen too many people leave with their
 12 wagon full of their goodies off to heaven. So that's
 13 why I volunteer and do things. And I appreciate your
 14 time in volunteering, too. It's not an easy job.
 15 Believe me, I understand that.

16 In your siting standards of protecting against
 17 adverse environmental impacts, this project, due to
 18 construction, will have significant adverse impacts.
 19 Construction decreases farmland that affects our food
 20 source, the wildlife, pollinators like bees and
 21 butterflies, and cattle grazing.

22 Oregon Administrative Rules and Council
 23 standards have numerous references to mitigation.
 24 Mitigation will not help dead eagles, dead owls, dead
 25 blue heron, dead ducks, dead geese, dead hawks, dead

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1 trumpeter swans, and dead sage-grouse that we've so hard
 2 and diligently tried to protect.

3 It will not protect the Oregon Trail ruts at
 4 the Interpretive Center. I watch from my house busloads
 5 of students in May headed up to the center to learn of
 6 our history from across the state. Use of compensatory
 7 mitigation is not okay; dead is dead. It will not come
 8 back. The land will not come back. You cannot mitigate
 9 that, and you cannot buy off property and values and the
 10 way of life in Baker County.

11 We should learn from the California fires that
 12 killed 85 people and destroyed thousands of buildings.
 13 PG&E utility company seeks bankruptcy protection over
 14 California fires. Governor Kate signed House Bill 2222
 15 requiring annual report on wildfire protection efforts.
 16 The bill was inspired in part by the wildfire last year
 17 in Paradise, California. Frankly, I would hate to have
 18 been on that board knowing that my transmission lines
 19 caused that fire and all the damage it did to places in
 20 California.

21 I've enclosed an article on electric and
 22 magnetic fields affecting milk production and behavior
 23 of cows. If the transmission lines can cause that
 24 effect on cows, then what is the long-term effect? Why
 25 would we want to risk public health with the side

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1 effects of the transmission lines? We don't want the
 2 transmission lines here any more than we need the oil
 3 drilling on the Oregon Coast.
 4 I have included several news clippings and our
 5 testimony during the NEPA process for your review.
 6 I thank you for your time.
 7 Do you have any questions of me? Thank you.
 8 HEARING OFFICER WEBSTER: Thank you.
 9 Following Ms. Gilbert, we'll hear from JoAnn
 10 Marlette.
 11 MS. IRENE GILBERT: Hi. Irene Gilbert, here
 12 representing myself, Friends of the Grande Ronde Valley,
 13 and I'm a member of the Stop B2H group. So thank you
 14 for allowing me to speak again. I spoke yesterday on
 15 noise. And actually, if anyone in the audience wants
 16 copies of my comments, I have them with me.
 17 Today I kind of wanted to introduce with a few
 18 sort of responses to Commissioner Bennett's comment, and
 19 he talked about the need for mitigation. I would be
 20 concerned, or I am concerned in this county with the
 21 fact that this line is taking some of the very limited
 22 allotment of basically damage to sage-grouse habitat.
 23 And when you talk about mitigation, I start thinking,
 24 what could they use with that land? Could they build a
 25 manufacturing site? Would they build homes and utilize

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1 it? In this county, they can't build a garage once they
 2 run out of that allotment of sage-grouse habitat that
 3 they can damage.
 4 So I'm really concerned about, No. 1, the lack
 5 of mitigation; No. 2, the way mitigation is dealt with.
 6 I know with habitat impacts there is no mitigation
 7 provided whatsoever for all the farm damage. So of
 8 course, developers like to place their developments on
 9 high-value farmland. When they do provide mitigation,
 10 it's only for the basis of structures. So when you're
 11 talking about a transmission line, what they consider
 12 permanent is a basis of those big metal structures, and
 13 they make the folks reseed what they have torn up as far
 14 as the habitat around there.
 15 I don't think that was ever the intent of the
 16 rules, but that's the way it's being interpreted. You
 17 end up with thousands and thousands of acres of damage
 18 in a 60-acre mitigation site. I'm making that up but it
 19 really is that radical. It's unbelievable.
 20 Anyway, I want to talk about mitigation. I
 21 was reading the developer's material and they said, Oh,
 22 we're going to mitigate for these damages, and we'll
 23 provide land that's going to be protected permanently.
 24 Well, that marsh is a federal mitigation site for the
 25 Bonneville Power dam for the damages, and that's

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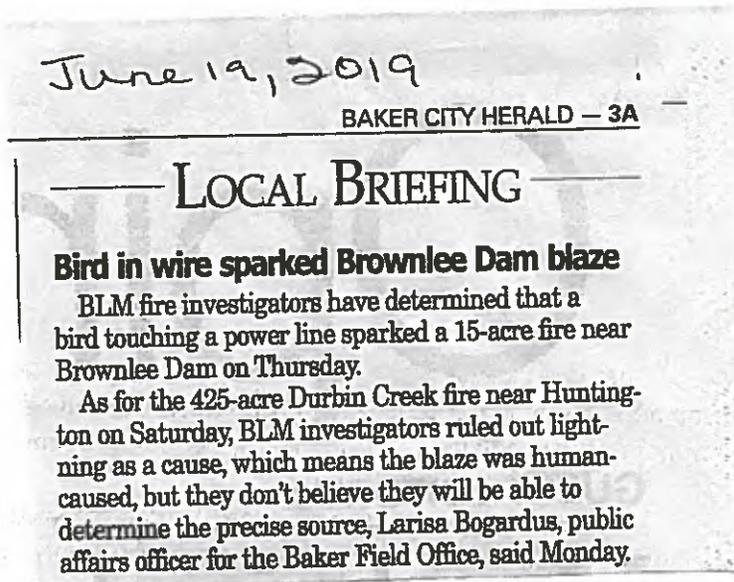
1 supposed to be protected forever. There is supposed to
 2 be absolutely no damage to that federal site. Or the
 3 F&W gets paid every year to make sure there's absolutely
 4 no impacts to that site.
 5 Well, this is going to impact that site. It's
 6 going to impact the animals that go back and forth
 7 daily. And so I'm not sure that when they say permanent
 8 protection that Idaho Power really means permanent
 9 protection.
 10 I'm concerned because moving this line, I know
 11 Idaho Power has worked with people and said, Oh, they're
 12 so mad about this, we'll see if we can do a little
 13 micrositing. Well, first off, their area that they can
 14 microsite is 500 feet across. So without an amendment
 15 there's not going to be a lot of micrositing going on.
 16 And I'm concerned that if it's not in the site
 17 certificate, it isn't a guarantee and they can back out
 18 on anything they say and it will be after the period of
 19 time has lapsed when anyone can ask for a contested
 20 case.
 21 I'm also concerned because when you move the
 22 line, you're just changing the damage to somebody else.
 23 You're changing the damage to making it apply to other
 24 animals, other people. The answer is, this is not a
 25 line that's needed, and it shouldn't be placed, and it's

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1 causing a whole lot of damage in this state without
 2 benefits to us.
 3 So anyway, now I'll get on to what I mainly
 4 was going to talk about, which was weeds. And I've been
 5 kind of taking these sections one at a time, which is
 6 challenging because when you talk about weeds, you have
 7 to check about, well, eight or nine different areas in
 8 the application. I don't think that ODOE did a real
 9 good job of trying to put things in a capsule form where
 10 people can find information.
 11 But the invasive weeds, there's a state law
 12 that says that the owner or the user of property has to
 13 assure that no invasive -- that invasive weeds do not go
 14 to seed. Now, Idaho Power has suggested that they will
 15 do annual monitoring for the first 5 years unless Oregon
 16 Department of Energy tells them they can get out of this
 17 earlier. But it's once a year. And I went through some
 18 of the invasive species of weeds that are along this
 19 transmission line, and they come to -- they bloom and go
 20 to seed at different times. So I can absolutely assure
 21 you there's nowhere on this line where a once-a-year
 22 approach to dealing with invasive weeds is going to keep
 23 them from going to seed.
 24 Idaho Power thinks that they should only be
 25 responsible for their right of way. Well, if they're

July 12, 2019 Additional Comments for B2H Project for the Energy Facility Siting Council

I testified at the Baker June 19, 2019 hearing of the Energy Facility Siting Council and no more than got home and found in our newspaper (included): 15 acre fire near Brownlee Dam caused by bird touching a power line. Again, it is not if but when will the B2H Transmission line cause a fire like in California. Banks are mandated to have contingency and reserve funds. Why not Idaho Power. Oregon should not have to pay for fire, homes, and wildlife damage. Let us not put our fire fighters in danger. Council Standard 345-022-0050 on retirement and financial assistance should apply and enough to cover the damages and restoration of homes, and land.



Council Standard 345-022-0000 general standards cannot support overall public benefit vs adverse affects. Public testimony opposes the B2H project and gives testimony as to why.

Council Standard 345-022-0022 Soil Protection. B2H will impact agriculture land, ruts of the Oregon Trail, and mitigation will not change land features.

Council Standard 345-022-0030 Land Use. Baker County commission and now Union County have gone on record declining this project. In Baker county, the land affected is agriculture based (EFU zones) and Sage Grouse protected.

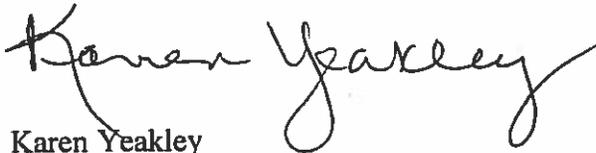
Council Standard 345-022-0040 Protected areas. There are other alternative routes or sites to be studied that may not be unsuitable. Former Gov. Tom McCall created utility corridor thru middle of Oregon. New technology exists that would help in protecting protected areas (Siemens Company online site).

Council Standard 345-022-0060 Fish and wildlife habitat. This project will affect the sage grouse. Birds do fly and do not just stay in one designated area. The routes identified are still too close to sage grouse habitat.

Council Standard 345-022-0070 Threatened and Endangered species. This project threatens sage grouse, eagles, blue herons, owls, and monarch butterflies.

Council Standard 345-022-0080 Scenic resources. The transmission lines block clear views of the Oregon Trail Interpretive Center and covered wagon look as well as the mountains behind the Center.

Thank you for your time.

A handwritten signature in cursive script that reads "Karen Yeakley". The signature is fluid and connected, with a long, sweeping tail on the final letter.

Karen Yeakley
42687 Hudson Rd.
Baker City, Oregon 97814

Note: hard copy with newspaper clipping coming in the mail.

TARDAEWETHER Kellen * ODOE

From: dyeakley@charter.net
Sent: Friday, July 12, 2019 11:01 AM
To: B2H DPOComments * ODOE
Subject: Additional Comments on B2H for Energy Siting Council
Attachments: More B2H comments July 11, 2019.doc

I will send hard copy in the mail with newspaper clipping.

Thank you.

Karen Yeakley
Baker City, Or

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Thank you for your time.

Karen Yeakley
42687 Hudson Rd.
Baker City, Oregon 97814

Note: hard copy with newspaper clipping coming in the mail.

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:53 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019
Attachments: Scan 2019-8-15 17.38.19.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter signed by me and 54 other residents of La Grande expressing our concerns regarding the B2H Project and we request that EFSC deny the Site Certificate.

I have also sent a bound copy of this material by the US Postal Service.

Sincerely,

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the usage of the "Local Streets" ¹ specifically the Modelaire-Hawthorne Loop) ², hereafter referred to as the "loop", of La Grande to access the site entrance. This residential "loop" was constructed without sidewalks for a new development around the early 1960s.

According to OAR 345-022-0110, Public Services (pg. 5. April 2017) "The applicant...must address all permanent and temporary impacts of the facility on housing, traffic, safety, police and fire protection, health care and schools." ³

My impression from reviewing the application Page 17 ⁴ is that the applicant has not fully examined the final portion of the intended route nor does it fully recognize or address the need for traffic mitigation. This "loop" is the only access to/from thirty-six houses to the rest of the city. The area to the north of the "loop" is occupied by the Grande Ronde Hospital and Medical Clinic. Two blocks to the east is located the local high school and a grade school. ²

In June of 2016, the Grande Ronde Hospital petitioned the City to have a conditional use for a parking lot expansion project next to Hawthorne. The Conditional Use Permit was approved subject to the Condition of Approval that "No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to residential standards and is not designed to support commercial traffic." ⁵

The La Grande Director of Public Works, Kyle Carpenter, provided information regarding the widths for the streets in question. The two streets range from 33 feet to 37 feet in width with no sidewalks. I personally measured the area where the unpaved stem of Hawthorne leaves the "loop" to go up the hill. At the junction it measures 32 feet curb cut to curb cut and narrows to 18-21 feet in width as it goes around the corner up the hill. 6 The Public Works Director also provided pictures of the mapping system showing the existing utilities located in the "loop". 7-8. It should also be noted that from the entrance to the "loop" at Sunset Drive to the entrance of the site the road has a 16% grade.

Attachment U2 9 from the application shows an "Aerial Lift Crane to be Used During Construction" and the Transportation and Traffic Plan on page 19 10 lists a number of other vehicles anticipated to be used. Article 6.6 — Public Street Standards for the City of La Grande Section 6.6.002 states that "Collector Streets are designed to withstand normal trucks of an HS20 loading. Larger trucks are to utilize Arterial Streets where at all possible." 11 The majority of vehicles listed on page 19 exceed that limit and would be using a Local Street in addition to Arterial and Collector Streets. According to the Public Works Director the two streets in the "loop" were designed as Local Streets for residential use, able to accept the pressures of HS20 for the purpose of an occasional need such as a weekly garbage truck or an emergency vehicle but for no more than 5% of the time. The paving construction of these over 50 year old streets in the "loop" was not designed for repetitive use by vehicles heavier than a normal car. These streets in the "loop" have not been repaved, only patched when necessary, since they were first constructed.

The application does not address the "loop" specifically, but 3.1.2 (pg. 19) 10 and Table 6 (pg.17) 12 of the Transportation and Traffic Plan indicate there would be numerous vehicles using this route. Not knowing exactly just which vehicles would be on the "loop" daily but making a conservative estimate of 50 round trips (100 single) it would be a constant parade with one truck every 7.2 minutes. This is unacceptable for numerous reasons including constant excessive noise.

Not only would weight of the vehicles be a problem but the narrowness of the "loop" streets and the ninety degree blind curves that would have to be executed would be either impossible or extremely dangerous considering the turning radius for many of these large vehicles. The

already dangerous situation for a number of driveways that exit onto these "loop" streets at blind curves would be exacerbated. 13-14

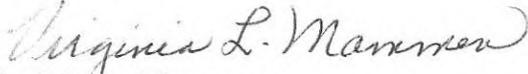
When considering only the traffic and safety issues listed above, the use of the "loop" as a part of the route for Idaho Power seems to be not only dangerous for the residents but unconscionable and irresponsible for Idaho Power to use such streets that are currently primarily for the neighborhood for walking (children to school, all ages for physical training), driving, or biking. I fear there are standards that are either not being considered or they are intentionally being ignored. There should be some common sense, courtesy and respect for the impact this project would impose on any neighborhood.

Finally, La Grande Ordinance Number 3077, which adopted Oregon State Traffic Laws by reference, states in Section 17 page 8 "It shall be unlawful for any person, firm or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes." Neither Modelaire/Hawthorne Loop nor Sunset Drive are posted as truck routes. 15-16

A site review and traffic plan must be completed prior to the cite certificate being issued and not 90 days prior to construction as stated.

For the above reasons I oppose the usage of the proposed route for the construction of the B2H transmission line.

Sincerely,


Virginia L. Mammen
405 Balsa
La Grande, Oregon. 97850

gmammen@eoni.com

**TABLE 1
 STREET STANDARDS**

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking
Downtown Arterial	10,000	20	2-3	11'	11'			both sides
Arterial	10,000	40-55	2-5	12'	4-14'	optional ⁴	5'	none
Major Collector	2,000 - 10,000	25-45	2-3	11'	12'	required	5'	one or both sides
Minor Collector	1,000 - 2,000	25-35	2	11'	none	Optional ⁵	5'	one or both sides
Local Street	0 - 1,000	15-25	2	10'	none	none	none	one or both sides

Functional Classification	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Downtown Arterial	required	12'	3'6" ⁵	49'	80'	200'
Arterial	required	5'	8'	36'-72'	80'-102'	200' - 400'
Major Collector	required	5'	8'	52'-60'	62'-90'	150' - 300'
Minor Collector	required	5'	8'	30'-48'	60'-78'	75' - 150'
Local Street	required	5'	8'	28'-36'	40'-66'	Each Lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

- Arterials: Two (2) travel lanes, four foot (4') median divider, no center turn lane, no bike lanes.
- Major Collectors: Two (2) travel lanes, two (2) bike lanes, no center turn lane, parking on one (1) side.
- Minor Collectors: Two (2) travel lanes, parking on one (1) side of street, no bike lanes.
- Local Streets: Two (2) travel lanes, parking on one (1) side of street.

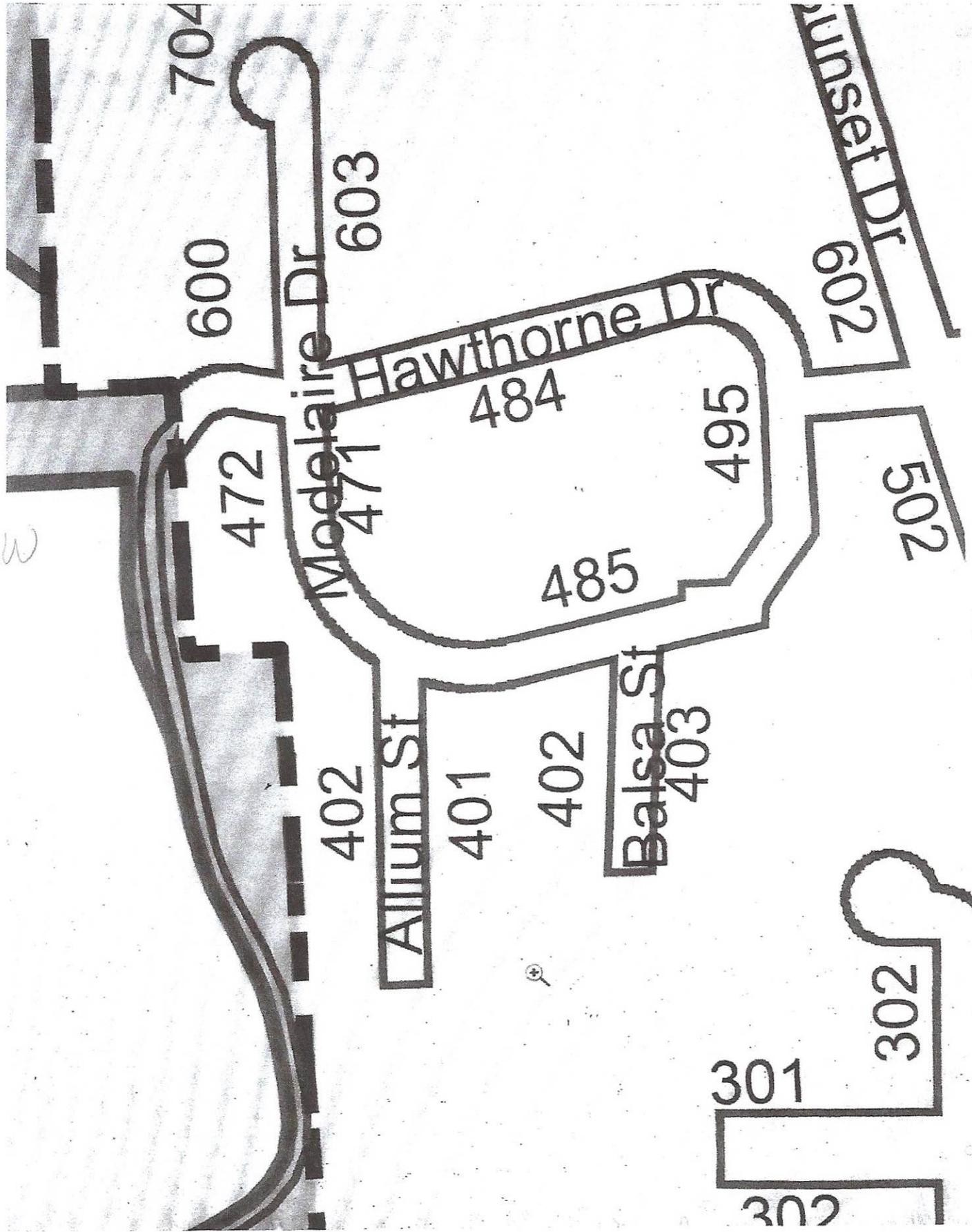
The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities. Minimum paved widths for each street are as required in Section 6.2.005 of this Code.

³These right-of-way width ranges are for new streets.

⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵ Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14' on important bike routes.

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Public Services

OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

OAR 345-024-0010 and 345-024-0015

This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety. Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



Idaho Power Responses to Comments and Requests for Additional Information on the B2H APASC
 from the City of La Grande
 Compiled by ODOE. RAI's from the City of La Grande and Responses from IPC

U	U-Public Services include utilities such as road systems, water, sanitation services, power, and other amenities necessary for the construction.	Ordinance #2912, Series 1997 gives the City jurisdiction and control on all City street rights-of-way and Ordinance #3077, Series 2009, establishes the process and requirements for permits and licenses for uses of the streets that are not normal uses and may result in damages.	proposed helipad is a necessary supporting facility.	The project construction has two major road systems through La Grande that are proposed for this project – Morgan Lake Road via Gekeler Lane, 'C' Avenue, Walnut Street, and on up Morgan Lake Road. Roads along these routes are used by the ambulance service for accessing the hospital, the public transit system on its normal daily route, citizens to access locations within and outside this area and also for the school busing system for transporting kids to the La Grande Middle School, La Grande High School and Central Elementary School. In addition to the vehicular modes of travel, those routes are heavily used by bicyclists and pedestrians. The other route that would be utilized is the same route with the exception of turning onto Sunset Drive and up Hawthorne Street to a private gravel road that heads up the area above Deal Canyon. Two other routes that are not addressed but that would be obvious access routes for construction would be South 12th Street and South 20th Street. As a general rule, City streets are built with ninety degree angles, which may restrict some	To address the City's concerns regarding traffic and road use within the city's limits, Idaho Power has added the following proposed conditions to Exhibit K: <u>Land Use Condition 9: Prior to construction in Union County, the site certificate holder shall complete the following to address traffic impacts in the county:</u> a. The site certificate holder shall finalize, and submit to the department for its approval, a final county-specific transportation and traffic plan. The protective measures described in the draft Transportation and Traffic Plan in ASG Exhibit U, Attachment U-2, shall be included and implemented as part of the final county-specific plan, unless otherwise approved by the department; b. The site certificate holder shall work with the Union County Road Department and the City of La Grande Public Works Department to identify concerns related to Project construction traffic; and c. The site certificate holder shall develop traffic control measures to mitigate the effects of Project construction traffic. <u>Land Use Condition 26: During construction in Union County, the site certificate holder shall conduct all work in compliance with the Union County-specific</u>
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IV. CONCLUSIONS

Based on the Findings of Fact above, the Planning Commission concludes that the application meets the requirements established in LDC Articles 8.5 and other applicable codes and Ordinances.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the conclusions above, the Planning Commission approves the Conditional Use Permit as requested, subject to the following Conditions of Approval:

- 1. No driveway access to GRH parking lot areas shall be permitted onto Hawthorn Drive as such street is developed to a residential standards and is not designed to support commercial traffic.
- 2. Any existing driveway curb cuts along Hawthorn Drive bordering GRH's property, that are not used for residential purposes, shall be removed and replaced with City standard improvements that exists adjacent to such areas.
- 3. There is a storm sewer line extending through the project area that shall to be protected. Any improvements that may affect the storm sewer line shall be reviewed and approved by the Public Works Director.

VI. STANDARD CONDITIONS OF APPROVAL FOR LAND USE APPLICATIONS

- 1. **Revisions to a Valid Conditional Use Permit:** Any variations, alterations, or changes in a valid Conditional Use Permit requested by the deed holder shall be considered in accordance with the procedures of the Land Development Code as though a new Conditional Use Permit were being applied for.
- 2. **Public Works Standards:** Where a development involves work within the public right-of-way, a Right-of-Way Permit shall be obtained from the Public Works Department in advance of commencing with any work in the right-of-way. All improvements within the public right-of-way shall be in conformance with the most recent adopted City of La Grande "Engineering Standard Drawings and Specifications for Construction Manual."
- 3. **Building Permits:** The City of La Grande Building Department shall be contacted early in the process and in advance of development to coordinate and obtain required building, plumbing, electrical and/or mechanical permits. All required permits shall be acquired in advance of construction.

VI. OTHER PERMITS AND RESTRICTIONS

The applicant and property owner is herein advised that the use of the property involved in this application may require additional permits from the City of La Grande or other local, State or Federal Agencies.

The City of La Grande land use review, approval process and any decision issued does not take the place of, or relieve the applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions thereon. The land use decision herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

The land use approvals granted by this decision shall be effective only when the rights granted herein have been exercised and commenced within one (1) year of the effective date of the decision. In case such right has not been exercised and commenced or an extension obtained, the approvals granted by this decision shall become null and void. A written request for an extension of time shall be filed with the Planning Department at least thirty (30) days prior to the expiration date of the approval.



Virginia Mammen <4gmammen@gmail.com>

Modelaire Roadway Specifications

3 messages

Kyle Carpenter <KCarpenter@cityoflagrande.org>
To: "gmammen@eoni.com" <gmammen@eoni.com>

Fri, Jul 12, 2019 at 1:51 PM

I have attached a couple pictures of our mapping system that will give you a sense of where existing utilities are in Modelaire and Hawthorne. As for the widths of the roadways, I took measurements in multiple places, and found the following:

- Modelaire Drive (F Avenue) between Sunset Blvd and Hawthorne Drive is approximately 33 feet wide with a grade of about 5 Percent.
- Hawthorne Drive is approximately 32 feet wide at the bottom near the intersection of Modelaire/F Avenue and widens to about 34 feet where it intersects Modelaire at the top of the hill. The grade heading up hill is approximately 15.5 Percent.
- Modelaire Drive is generally 36 feet wide with some minor variability generally less than a foot (35' to 37'). On the southernmost segment of the roadway where the majority of the elevation gain is observed the grade is approximately 16 Percent.

Let me know if there are any other specifications of these roadways that you are interested in that I have missed. Have a great weekend and thanks for the treats, the guys were very appreciative.

Kyle Carpenter, PE
Public Works Director
City of La Grande
Public Works
 Ph: (541) 962-1325
 Fax: (541) 963-4844

2 attachments



Hawthorne.jpg
150K

Modelaire.jpg
120K





attachment U2

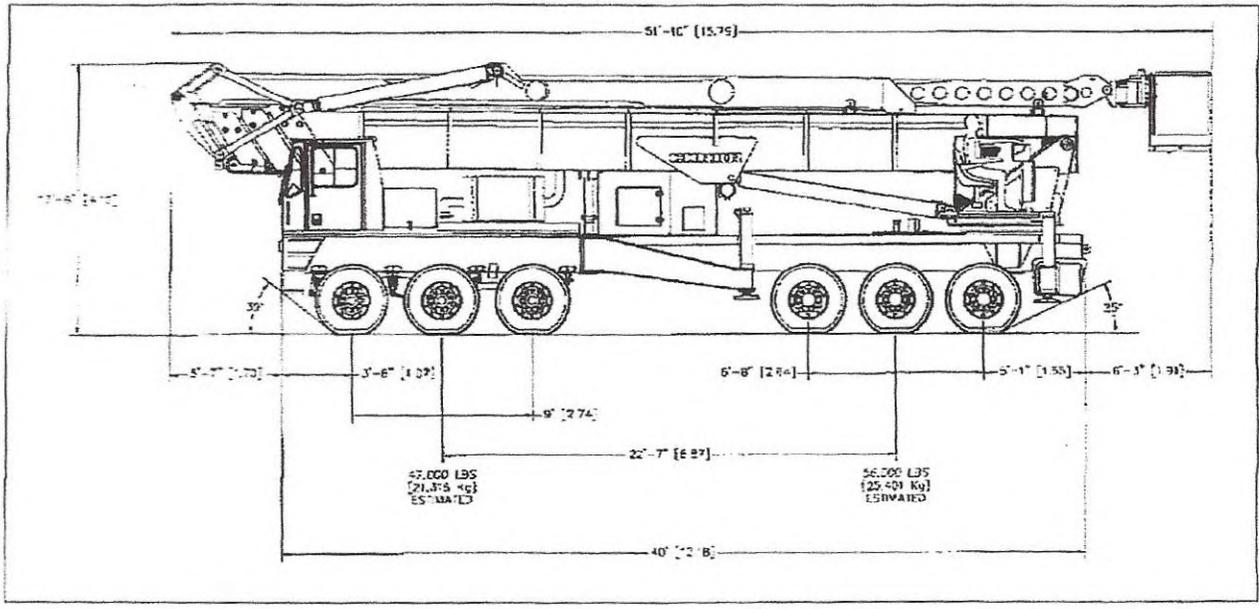


Figure 2. Example Aerial Lift Crane to be Used During Construction (Roadable Length 52 Feet; Width 8 Feet 6 Inches)

The following is a summary of anticipated equipment to be used for each transmission-line construction activity.

- Survey work: pickup trucks or ATVs.
- Timber removal: pickup trucks, feller bunchers, dump trucks, wood chippers.
- Road construction: pickup trucks, bulldozers, motor graders, and water trucks.
- Hole digging, installation of directly embedded structures, or foundation installation: pickup trucks, 2-ton trucks, digger derrick trucks, hole diggers, bulldozers, concrete trucks, water trucks, cranes, hydro cranes, wagon rock drills, dump trucks, and front-end loaders.
- Hauling lattice steel members, tubular poles, braces, and hardware to the structure sites: steel haul trucks, carry alls, cranes, and forklifts.
- Assembly and erection of structures: pickup trucks, 2-ton trucks, carry alls, cranes, and a heavy lift helicopter.
- Wire installation: pickups, wire reel trailers, diesel tractors, cranes, 5-ton boom trucks, splicing trucks, three drum pullers, single drum pullers, tensioner, sagging dozers, carry-alls, static wire reel trailers, bucket trucks, and a light duty helicopter.
- Final cleanup, reclamation, and restoration: pickup trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, hydro-seed truck, and water trucks.

The highest level of traffic will be when the wire stringing operations begin while several other operations are occurring at the same time, which will likely include ROW clearing, installing foundations, hauling steel, and assembling and erecting structures. For the station work, the highest level of traffic will be during site grading and foundation installation. For the communication station sites, the highest level of traffic will be during grading and site preparation.

Detailed estimates of trips generated by transporting Project construction equipment will be provided by the construction contractor prior to construction.

3.1.3 Traffic Related to Timber Removal

In forested areas, the Project will require removal of timber from the Project ROW and for construction and improvement of access roads. Specific timber harvest plans have not been finalized. Logs from timber clearing may be transported to nearby sawmills. Decisions regarding transportation routes for harvested timber will be made following completion of a timber harvest plan, and the number of log truck tips will be estimated when the timber harvest plan has been finalized. Logging slash will remain onsite if possible. For additional discussion regarding removal of timber in forested areas, see Exhibit K, Attachment K-2, ROW Clearing Assessment.

3.1.4 Impacts to V/C Ratios

Based on the estimated trip generation numbers in Tables 4 and 6, a maximum of approximately 1,294 daily one-way vehicle trips are expected within any one construction spread. To facilitate traffic and other analyses, the two construction spreads are divided into smaller sections based on similar construction windows and seasonal weather restrictions. Not all construction sections will have the same number of concurrent construction activities, depending on how the construction contractor sequences and executes the Project. Some sections will have fewer daily vehicle trips. For the purposes of the traffic analysis, the spreads are divided into five sections with multi-use areas that could have additive traffic impacts. The sections are assumed to have approximately equal levels of activity. The 1,294 daily one-way trips per spread divided over five sections of more concentrated traffic results in 259 daily one-

ARTICLE 6.6 – PUBLIC STREET STANDARDS

SECTION 6.6.001 - PURPOSE

Upon the request of the La Grande City Council, a variety of street design standards have been reviewed and are now incorporated in the Land Development Code.

SECTION 6.6.002 - CLASS I IMPROVEMENT STANDARDS

This classification will cover those streets that are designed to meet the standards for an expected life of twenty (20) years or more. The attached drawings shall be the minimum standard for those streets in this classification. All streets designated as Federal Aid Urban Streets (F.A.U.) shall be constructed under these design standards. Streets in this designation shall be constructed with sidewalks when at all possible in an effort to increase pedestrian safety. Collector streets are designed to withstand normal trucks of an HS 20 loading. Larger trucks are to utilize Arterial streets where at all possible. This level of development shall be the ultimate goal for all streets within the City of La Grande.

Possible means of financing available for this Class shall be methods A, B, C, D, E, F, G, and H in Section 6.6.006.

A. Advantages

1. The construction life is extended to a period above other City standards.
2. The visible aesthetics in relationship to having curbs and a blacktop surface with landscaping or concrete driveways and a sidewalk is generally appealing to the public.
3. Easy maintenance for the Public Works Department for cleaning and minor repair.
4. Storm sewer drainage is confined within the bounds of the curbs during minor flooding periods.
5. Parking is restricted to a solid barrier, that being the curb; this restricts parking in the area on the back side of the curb and confines travel to the street surface.
6. Defined areas for possible cross walks, signs, power poles, and other utilities that are restricted to the outside areas behind the curbs.
7. It allows for a wide range of financing methods and is to City standards for a ten (10) year Bancroft bonding.
8. Provides a dust free surface.

B. Disadvantages

1. The extreme high level of cost that is incurred with this type of development.

SECTION 6.6.003 - CLASS II IMPROVEMENT LEVEL

Streets constructed in this classification shall be constructed to the same standards as Class I Streets with the exception of the form of drainage system. These streets shall meet the standards as shown on the attached drawing. This level of construction shall be only utilized in substitution for Class I Streets when it is determined by the City Council at the recommendation of the City Engineer or Engineering Superintendent, that an adequate drainage system cannot be installed for a Class I Street.

Table 6. Construction Vehicle Trips per Day per Construction Spread

Construction Crew Type	Construction Vehicles					
	Light Construction Vehicles			Heavy Construction Vehicles		
	Number of Pickups/ Mechanic Trucks (per day)	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)	Number of Other Vehicles	Number of One-way Trips on Public Roads (per day)	Total One-way Trips (per day)
Substation Construction	20	2	40	5	2	10
ROW Clearing	9	4	36	5	4	20
Roads/ Pad Grading	9	4	36	9	2	18
Foundations	9	2	18	5	8	40
Tower Lacing (assembly)	27	2	54	0	0	0
Tower Setting (erection)	20	2	40	0	0	0
Wire Stringing	9	4	36	9	4	36
Restoration	3	2	6	0	0	0
Blasting	5	4	20	0	0	0
Material Delivery	20	8	160	12	2	24
Mechanic and Equipment Mgmt.	5	6	30	0	0	0
Refueling	0	0	0	5	4	20
Dust Control	0	0	0	5	4	20
Construction Inspection	5	8	40	0	0	0
Concrete Testing	5	4	20	0	0	0
Environmental Compliance	9	6	54	0	0	0
Surveyors	5	3	30	0	0	0
Totals	—	—	620	—	—	188

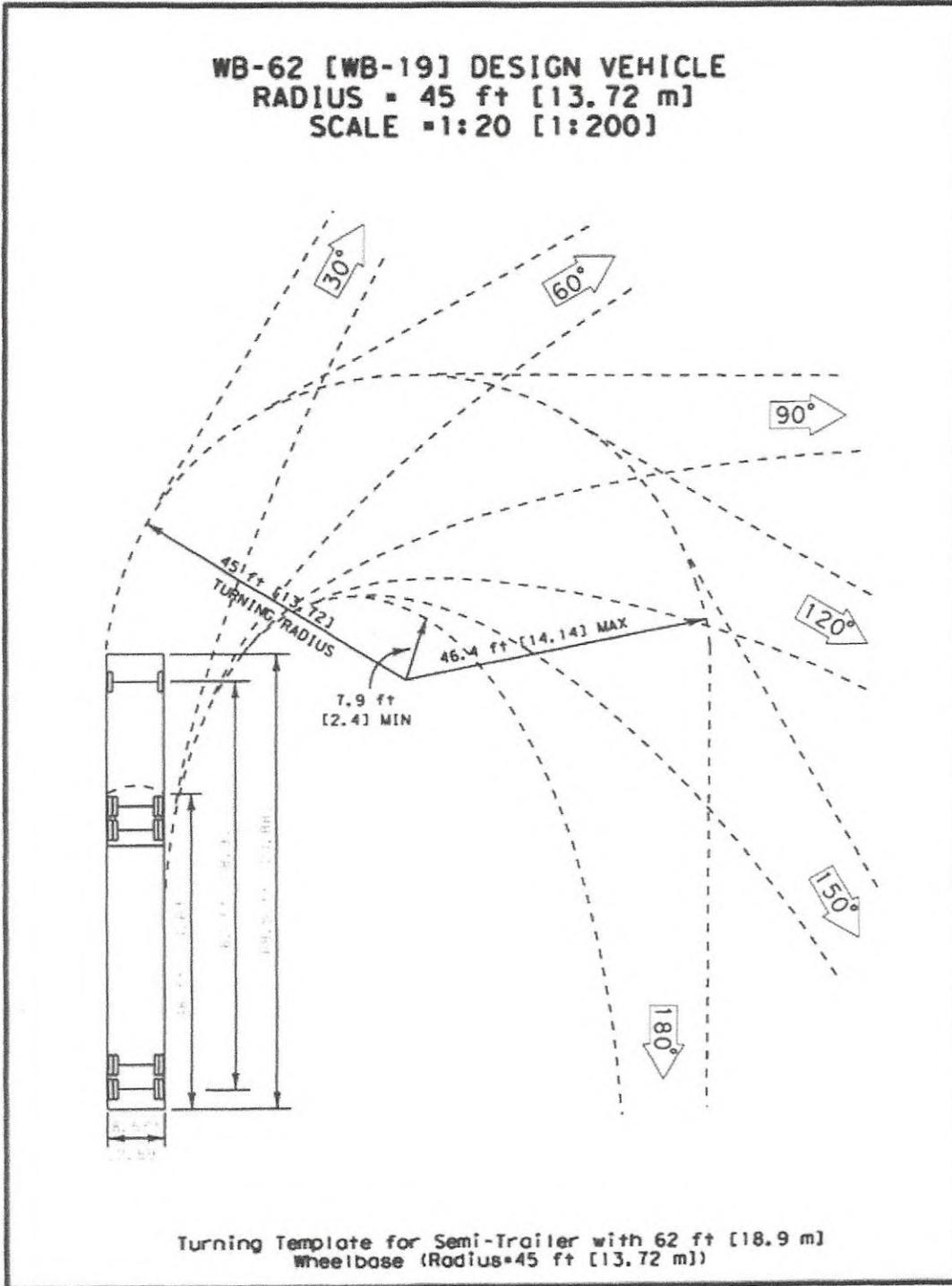


Figure 7-4. Turning Template for Semi-Trailer with 62 ft [18.9 m] Wheelbase, (not to scale). Click [here](#) to see a PDF of the image.

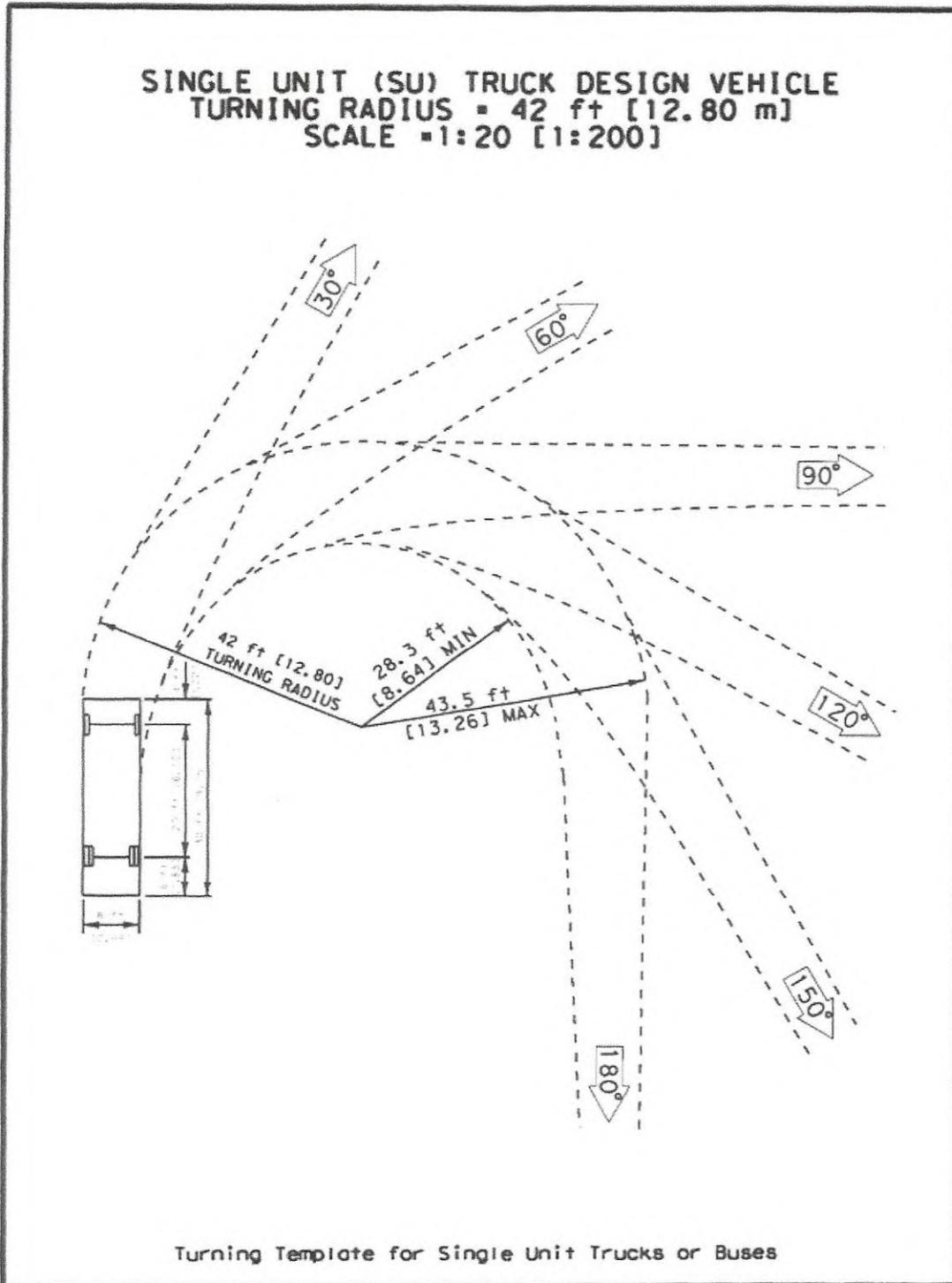


Exhibit 15

**CITY OF LA GRANDE
ORDINANCE NUMBER 3077
SERIES 2009**

**AN ORDINANCE CONTROLLING VEHICULAR AND PEDESTRIAN TRAFFIC, PARADES
AND PROCESSIONS AND ISSUANCE OF PERMITS; PROVIDING PENALTIES; AND
REPEALING ORDINANCE NUMBER 2845, SERIES 1993; ALL AMENDING ORDINANCES
AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH;
AND DECLARING AN EFFECTIVE DATE**

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

Section 1. This Ordinance may be cited as the City of La Grande Uniform Traffic Ordinance.

Section 2. APPLICABILITY OF STATE TRAFFIC LAWS.

Oregon Revised Statutes, Chapter 153, and the Oregon Vehicle Code, ORS Chapter 801 and 822, as now constituted, are adopted by reference. Violation of an adopted provision of those chapters is an offense against the City.

Section 3. DEFINITIONS

In addition to those definitions contained in the Oregon state Motor Vehicle Code, the following words or phrases, except where the context clearly indicates a different meaning, shall mean:

a. Alley

A street or highway primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular traffic.

b. Bicycle

A bicycle is a vehicle that:

1. Is designed to be operated on the ground on wheels;
2. has a seat or saddle for use of the rider;
3. is designed to travel with not more than three (3) wheels in contact with the ground;
4. is propelled exclusively by human power; and,
5. has every wheel more than fourteen inches (14") in diameter or two (2) tandem wheels, either of which is more than fourteen inches (14") in diameter.

c. Bicycle Lane

That part of the highway, adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

d. Bicycle Path

A public way, not part of a highway, which is designated by official signs or markings for use by persons riding bicycles, except as otherwise specifically provided by law.

e. Block

The part of one side of a street lying between the two (2) nearest cross streets.

f. Central Business District

a. City Regulation of Special Movement of Oversized Load

The applicant shall submit an application to the City Manager or designee, showing the terminal points of the purported movement; the proposed route; the nature of the movement requested, including the weight and dimensions of the vehicle, load, machine, building, or structure to be moved; the time, date and duration of the proposed movement.

b. Special Movement Permit

A permit shall be required to move any vehicle, structure, or load on, or to access a street when, after preparation for movement, the vehicle, structure or load exceeds fourteen feet (14') in height, requires the use of guy wires, or could result in the blockage of a street. An approved application may serve as a permit, and a copy of the approved application shall be provided to the applicant.

Section 17. TRUCK ROUTES

- a. It shall be unlawful for any person, firm, or corporation to use, drive or operate any vehicle or combination of vehicles with a gross weight of 26,000, pounds or more upon any street of the City of La Grande, Oregon, except upon posted truck routes.
- b. Any vehicle with a gross weight over 26,000, pounds specifically picking up deliveries or making deliveries to any business or residence located on a street that is not a truck route will be exempted if the vehicle is driven from the truck route to the destination in the shortest, most direct, and safest route.
- c. The use of Jacob brakes shall not be allowed within the city limits of La Grande, Oregon.
- d. Truck routes will be posted as follows:
 1. Walnut street north from the city limits to C Avenue;
 2. C Avenue east from Walnut Street to Gekeler Avenue;
 3. Gekeler Avenue east to the city limits;
 4. 12th street south from Gekeler Avenue to the city limits;
 5. 2nd Street south from the city limits to Adams Avenue;
 6. Monroe Avenue east from Spruce Street to Highway 82;
 7. Jackson Avenue east from Spruce Street, and
 8. Spruce Street south from the city limits to Monroe.

Section 18. IMPOUNDMENT AND DETENTION OF VEHICLES

- a. Whenever a vehicle is placed in a manner or location that constitutes an obstruction to traffic or a hazard to public safety, a police officer or enforcement officer shall order the owner or operator of the vehicle to remove said vehicle. If the vehicle is unattended, the officer or enforcement officer may cause the vehicle to be towed and stored at the owner's expense. The owner shall be liable for the costs of towing and storing, notwithstanding that the vehicle was parked by another or that the vehicle was initially parked in a safe manner but subsequently became an obstruction or hazard.

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

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SIGNATURE

PRINTED NAME

ADDRESS

EMAIL

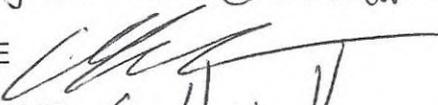

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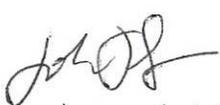
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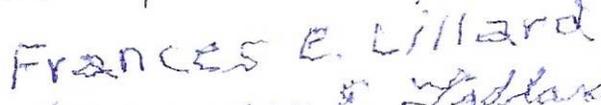
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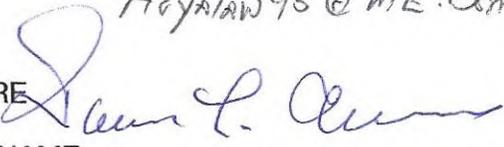
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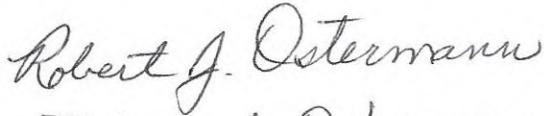
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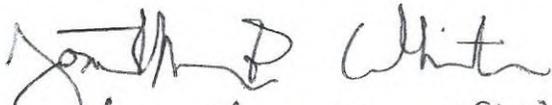
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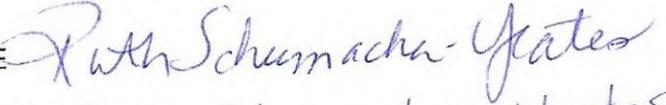
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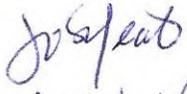
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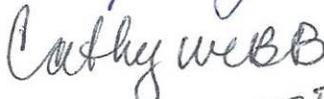
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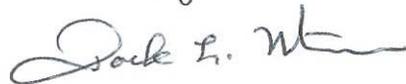
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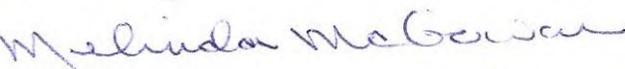
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SIGNATURE *Gary D. Pierson*
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ADDRESS
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Merle E. Comfort*
PRINTED NAME MERLE E. COMFORT
ADDRESS 209 SCORPIO DRIVE LA GRANDE OR 97850
EMAIL MERLECOMFORT@GMAIL.COM

SIGNATURE *Robin I. Maille*
PRINTED NAME Robin Maille
ADDRESS 401 Cedar St., La Grande
EMAIL rmaille@icloud.com

SIGNATURE *Bruce C Kevan*
PRINTED NAME *Bruce C Kevan*
ADDRESS 1511 W Ave LG
EMAIL bruce.kevan@lagrandesd.org

SIGNATURE *Carol S. Summers*
PRINTED NAME CAROL S. SUMMERS
ADDRESS 2811 Bekeler Ln - La Grande, OR
EMAIL carolsummers1935@gmail.com

SIGNATURE *Caroline Kaye Juniper*
PRINTED NAME Caroline Kaye Juniper
ADDRESS 406 NTH St. LaGrande - OR 97850
EMAIL

I have read the attached letter regarding the use of the Modelaire/Hawthorne Loop and it expresses my concerns and my request to abandon the plan to use this residential loop for the project. As one of the undersigned I strongly oppose our community being used as a primary access point to build this transmission line. Furthermore, I oppose the current proposed preferred route close to the city limits of La Grande because it impacts in various other ways the daily lives of many residents of our community.

SIGNATURE *Gerald D. Juniper*
PRINTED NAME *Gerald Darwin Juniper*
ADDRESS *406 4th St. LaGrande, OR. 97850*
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

TARDAEWETHER Kellen * ODOE

From: Dale Mammen <dmammen@eoni.com>
Sent: Thursday, August 15, 2019 5:28 PM
To: B2H DPOComments * ODOE
Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposal Order 5/23/2019
Attachments: Scan 2019-8-15 17.14.06.pdf

To: Chairman Beyeler and Members of the Council

Find attached a letter sign by me and 46 other residents of La Grande expressing our concerns regarding the B2H Project and requesting that EFSC Deny the Site Certificate.

I have also sent a bound copy of this material by US Postal Service.

Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

August 10, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, Oregon. 97301

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018:Draft Proposed Order.

Dear Chair Beyeler and Members of the Council:

My comment is about the predicted noise levels resulting from construction and operation of the proposed Boardman to Hemingway Transmission Line Project. I would like to address the noise coming from the blasting and rock breaking specifically above the area at the top of Modelaire Drive 1 both to the north and the south of that area and also the construction traffic noise that that will impact the west hills and the area below.

In Exhibit X page X-9 3.3.1.1 2 blasting and rock breaking is mentioned saying that "Modern blasting techniques include the electronically controlled ignition of multiple small explosive charges in an area of rock that are delayed fractions of second, resulting in a total event that is generally less than a second. Impulse (instantaneous) noise from blasts could reach up to 140dBA at the blast location or over 90 dBA within 500 feet." This sounds oh so "don't worry about it, it will be OK just over in a split second." Living in this area off Modelaire Drive, I don't find this at all comforting. And the fact that this will be overseen by properly licensed personnel and all of the necessary authorizations doesn't help anything either.

The area in question, which for such inordinate construction is extremely close to many residents, has been my home for over 50 years and during

related medical problems and exhibit various reactions to loud noises.¹⁰
These children also live in the neighborhoods to be affected by the noise so they would be impacted coming and going to school, at home and also while at school. To impose the constant possibility of loud noises is cruel, disrespectful and totally unacceptable. ¹¹

For a project like this involving blasting and heavy machinery noise so close to homes, schools, and medical facilities impacting hundreds of peoples' daily lives, the day to day agitation, wondering what is coming next, fear and being on constant alert are not just addressed by some type of mitigation but must be addressed by a route that is much less impactful to peoples' safety, sanity, and health.

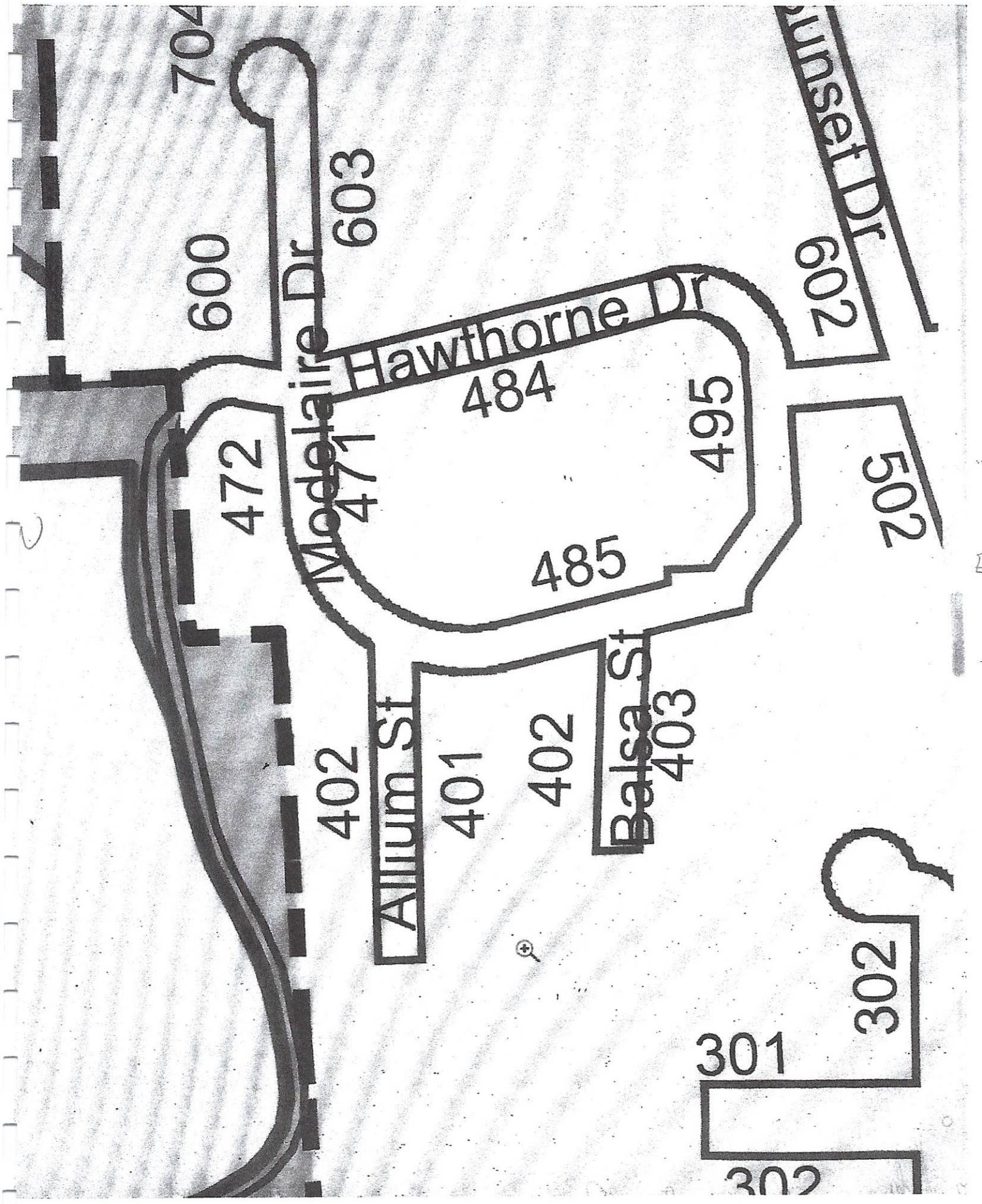
Sincerely,



Virginia L. Mammen
405 Balsa
La Grande, Oregon 97850

gmammen@eoni.com

N



3.3 Predicted Noise Levels

1 OAR 345-021-0010(1)(x)(A): Predicted noise levels resulting from construction and operation
2 of the proposed facility.
3

3.3.1 Construction Noise

3.3.1.1 Predicted Construction Noise Levels

4 Project construction will occur sequentially, moving along the length of the Project route, or in
5 other areas such as near access roads, structure sites, conductor pulling sites, and staging and
6 maintenance areas. Overhead transmission line construction is typically completed in the
7 following stages, but various construction activities may overlap, with multiple construction
8 crews operating simultaneously:
9

- 10 • Site access and preparation
- 11 • Installation of structure foundations
- 12 • Erecting of support structures
- 13 • Stringing of conductors, shield wire, and fiber-optic ground wire

14 The following subsections discuss certain construction activities that will periodically generate
15 audible noise, including blasting and rock breaking, implosive devices used during conductor
16 stringing, helicopter operations, and vehicle traffic.
17

Blasting and Rock Breaking

18 Blasting is a short-duration event as compared to rock removal methods, such as using track rig
19 drills, rock breakers, jackhammers, rotary percussion drills, core barrels, or rotary rock drills.
20 Modern blasting techniques include the electronically controlled ignition of multiple small-
21 explosive charges in an area of rock that are delayed fractions of second, resulting in a total
22 event duration that is generally less than a second. Impulse (instantaneous) noise from blasts
23 could reach up to 140 dBA at the blast location or over 90 dBA within 500 feet.
24

25 Lattice tower foundations for the Project typically will be installed using drilled shafts or piers;
26 however, if hard rock is encountered within the planned drilling depth, blasting may be required
27 to loosen or fracture the rock to reach the required depth to install the structure foundations.
28 Final blasting locations will not be identified until an investigative geotechnical survey of the
29 analysis area is conducted during the detailed design.

30 The contracted blasting specialist will prepare a blasting plan that demonstrate compliance with
31 applicable state and local blasting regulations, including the use of properly licensed personnel
32 and the acquisition of necessary authorizations. The Framework Blasting Plan is set forth in
33 Exhibit G, Attachment G-5.

Implosive Devices

34 An implosive conductor splice consists of a split-second detonation with sound and flash.
35 Implosive splicing activities are anticipated to be limited to daytime hours. A blasting plan will be
36 developed by an individual certified and licensed to perform the work. The plan will
37 communicate all safety and technical requirements including, but not limited to, delineation of
38 the controlled access zone and distance away from residences.
39

Public Services

— OAR 345-022-0110

This standard ensures that the proposed facility will not affect the ability of service providers in local communities to provide public services, such as fire protection or education. The applicant must assess the proposed facility's need for water and for disposal of wastewater, storm water and solid waste. The applicant must also evaluate the expected population increases in local communities resulting from construction and operation of the facility; and must address all permanent and temporary impacts of the facility on housing, traffic safety, police and fire protection, health care and schools. The Council must determine whether the applicant has identified potential adverse impacts to service providers and proposed adequate mitigation to ensure that there will be no significant adverse effect on the ability of a service provider to provide services. In considering the impacts, the Council solicits comments from affected local governments, fire or police departments, school districts and health care agencies.

Waste Minimization

— OAR 345-022-0120

This standard requires the Council to evaluate the applicant's proposal to minimize solid waste and wastewater generated by construction and operation of the proposed facility. The standard requires recycling of wastes, if feasible, or proper waste disposal if recycling is not feasible.

The applicant must evaluate the types of waste products that would be produced during construction and operation of the proposed facility and estimate the amounts or volume of waste products. The applicant must propose appropriate methods to handle the waste through collection, storage and disposal. Compliance with the standard assures that the applicant will reduce the amount of waste generated and dispose of waste in a responsible manner.

Need for a Facility

— OAR 345-023-0005

This standard requires the applicant for non-generating energy facilities (such as electric transmission lines) to demonstrate the need for the proposed facility. The Council's rules allow an applicant to demonstrate need for a non-generating facility through one of several methods, including the "Least-Cost Plan Rule" (OAR 345-023-0020) or the "System Reliability Rule for Electric Transmission Lines" (OAR 345-023-0030). Under the Least-Cost Plan Rule, the applicant meets this standard if the proposed transmission line was included in an Integrated Resource Plan that has been acknowledged by the Oregon Public Utilities Commission (OPUC). More information about the OPUC and the Integrated Resource Plan acknowledgement process can be found at www.puc.state.or.us.

Specific Standards for Wind Facilities

— OAR 345-024-0010 and 345-024-0015

— This standard requires the Council to evaluate applications for wind energy facilities to ensure that applicants can design, construct and operate the facility so that that the public is not endangered by moving turbine blades or electrical equipment, and that the applicant can design, construct and operate wind turbines to prevent structural failure that could endanger public safety.
— Siting standards for wind facilities also require the applicant to reduce cumulative adverse environmental effects in the vicinity by using existing roads, if possible, placing collection lines underground, designing the facility to avoid impacts to vulnerable wildlife in the area (especially birds and bats), and designing the facility to minimize adverse visual features, including using the minimum amount of lighting necessary to meet the requirements of the Federal Aviation Administration for protecting aircraft.

Specific Standards for Transmission Lines

— OAR 345-024-0090

This standard requires that the Council evaluate transmission lines under Council jurisdiction to ensure they are designed, constructed and operated to limit the strength of electromagnetic fields in areas where those lines are accessible to the public.



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Chapter 340

Division 35

NOISE CONTROL REGULATIONS

340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules. [Table not included. See ED. NOTE.]

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies. [Table not included. See ED. NOTE.]

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

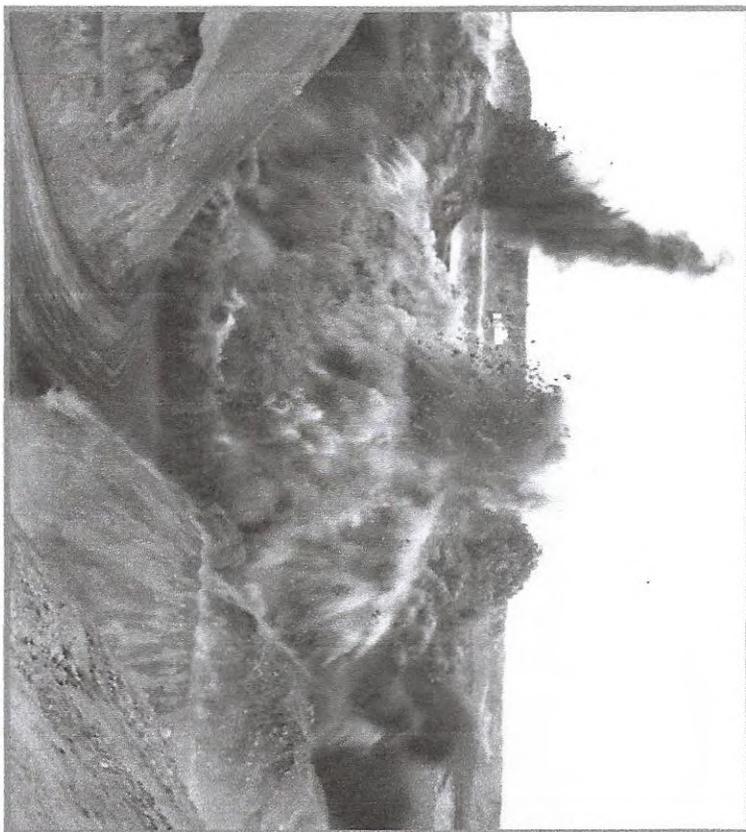
(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

Controlling the Adverse Effects of Blasting

This module addresses the control of offsite impacts that result from blasting, namely:

- vibrations,
- airblast, and
- flyrock.

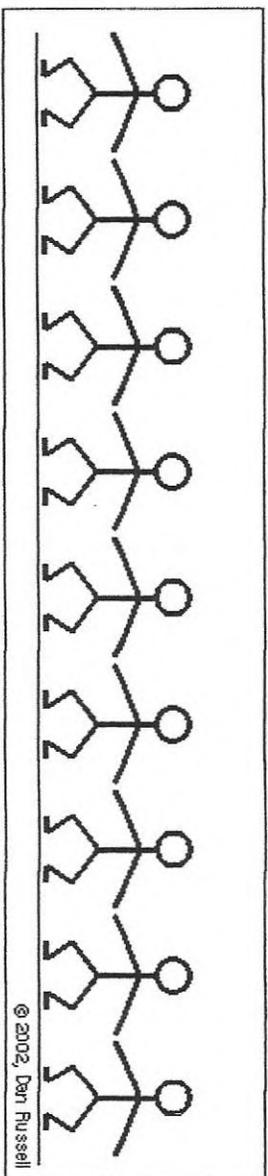
Much of the information in the module is derived from the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The performance standards apply to all surface coal mines. Similar standards have been adopted on some State and local levels and applied to non-coal blasting operations such as quarrying and construction.



Part I: Ground Vibrations, Airblast, and Flyrock

Exhibit 5b

Explosive energy is used to break rock. However, the use of this energy is not 100-percent efficient. Some of the energy escapes into the atmosphere to generate **airblast or air vibrations**. Some of the energy also leaves the blast site through the surface soil and bedrock in the form of **ground vibrations**.



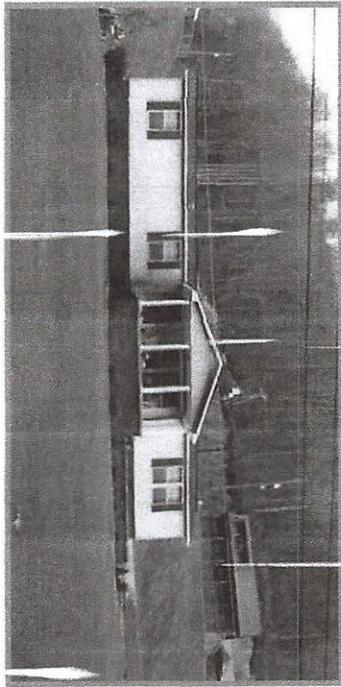
Both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake. Ground vibrations enter the house through the basement and airblast enters the house through the walls and roof.

Airblast may be audible (noise) or in-audible (concussion). When outside a house the blast may be heard because of the noise, however noise has little impact on the structure. The concussion wave causes the structure to shake and rattles objects hanging on walls or sitting on shelves. This "interior noise" will alarm and startle people living in the house.

Flyrock is debris ejected from the blast site that is traveling through the air or along the ground. Flyrock the single most dangerous adverse effect that can cause property damage and personal injury or death.

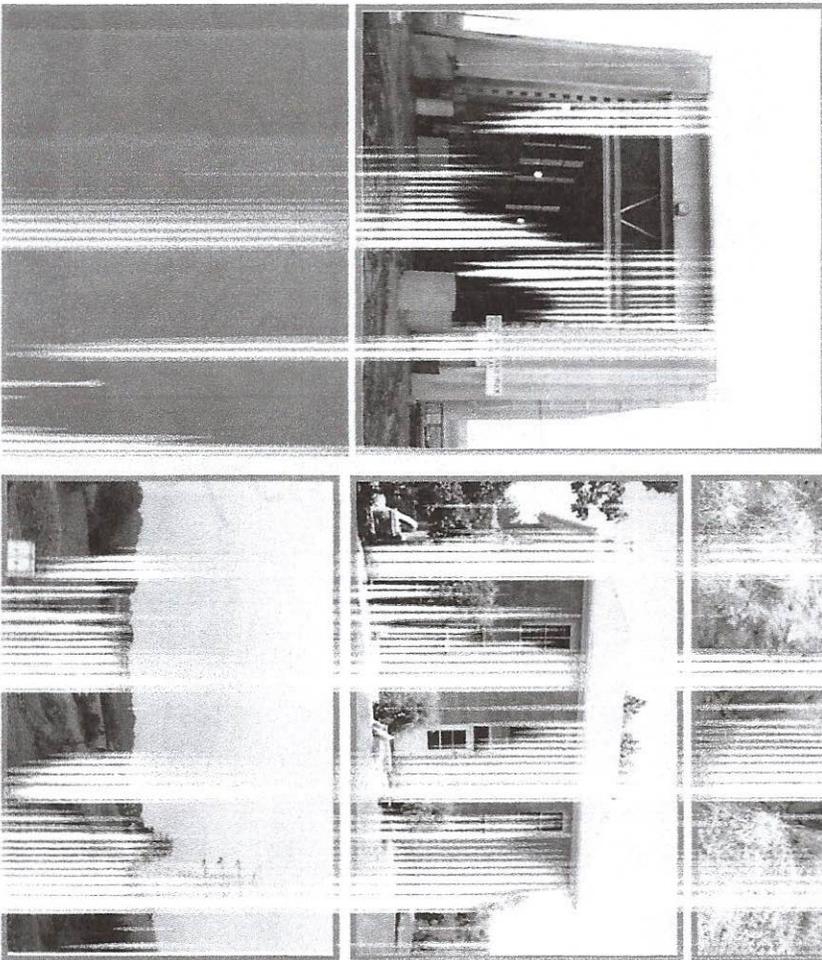
Blasting Impacts on Structures

Both above-ground and below-ground structures are susceptible to vibration impacts. Structures can include onsite mine offices and buildings, as well as offsite residences, schools, churches, power-transmission lines, and buried pipelines. Some of these structures may include historic or cultural features sensitive to even low levels of vibrations.



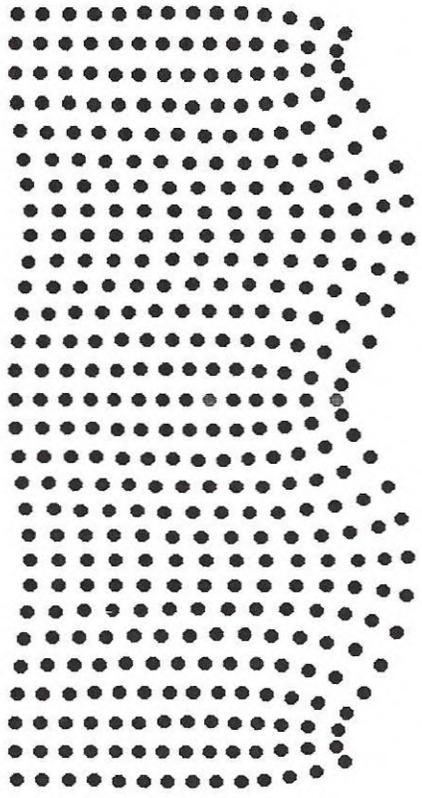
It is important to understand:

1. the causes of ground vibrations and airblast, and
2. what practices can be followed to control and minimize the adverse effects



Ground Vibrations

Ground vibrations propagate away from a blast site as Rayleigh (or surface) waves. These waves form a disturbance in the ground that displaces particles of soil or rock as they pass by. Particle motions are quite complicated. At the ground surface (free boundary), measured particle motions have the greatest displacements, and displacements decrease with depth (see the illustration below). At a depth of between 20 to 50 feet below ground surface, particle displacements are barely detectable. Structures that are well coupled to the ground tend to move with this motion; structures buried in the ground are less affected by surface motions.



©1999, Daniel A. Russell

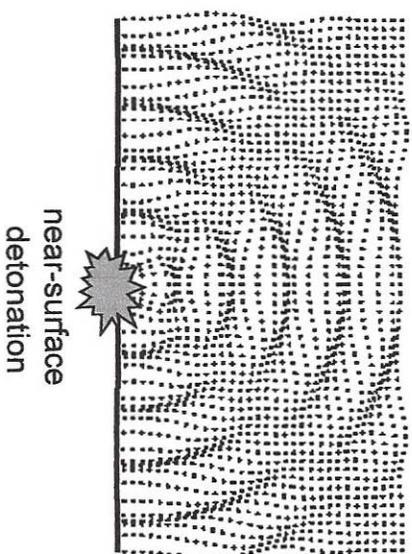
Ground vibrations are measured in terms of **particle velocity** and are reported in inches per second (ips) or the speed at which a particle of soil or rock moves.

At typical blasting distances from residential structures, the ground only moves with displacements equal to the thickness of a piece of writing paper. In terms of displacement, this equates to hundredths of an inch; visually, such movement cannot be detected.

Airblast

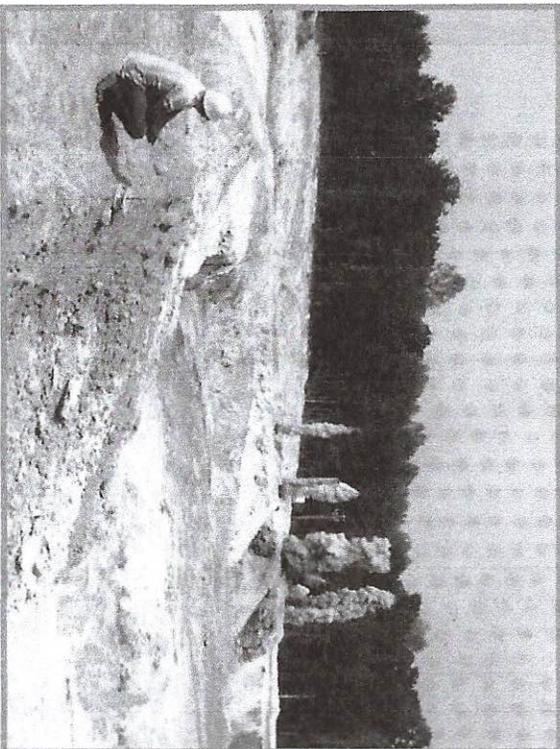
Airblast is measured as a pressure in pounds per square inch (psi) and is often reported in terms of **decibels (dB)**.

Airblast is a pressure wave that that may be audible or inaudible. Elevated airblast levels are generated when explosive energy in the form gases escape from the detonating blast holes. Energy escapes either through the top stemming or through fractures in the rock along the face or at the ground surface.



Airblast radiates outward from the blast site in all directions and can travel long distances. Sound waves travel much slower (1,100 ft/s) than ground vibrations (about 5,000 – 20,000 ft/s). Hence, airblast arrives at offsite structures later than do ground vibrations.

Both ground vibrations and airblast cause structures to shake structures. Occupants in structures that are located far from a blast may experience shaking from vibration and airblast as two separate, closely spaced events. This can be particularly bothersome, as it prolongs the duration of structure shaking and leads the property owner to think that two separate blasts occurred.



Structure Response

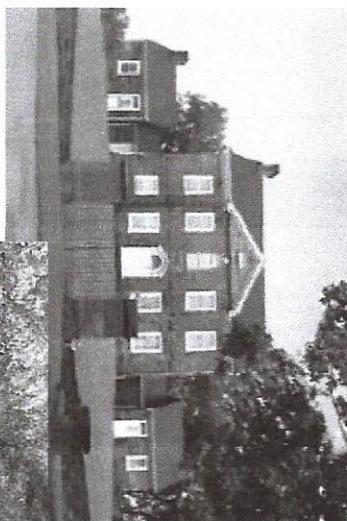
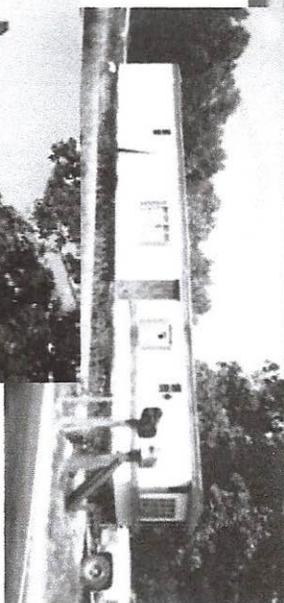
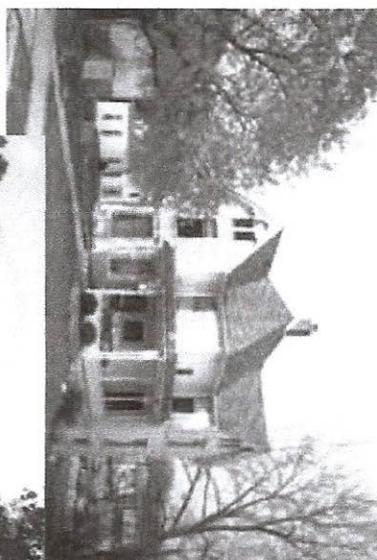
As ground and air vibrations reach a structure, each will cause it to shake. Structure response is dependant on the vibration characteristics (frequency and amplitude) and structure type.

Ground Vibrations enter the house through the basement. This is like shaking the bottom of a flag pole. Movement at the top of the pole depends on how (frequency) and how hard (amplitude) the bottom of the pole is shaken. If shaken at just the right pace, or at the pole's natural frequency, the top will move significantly compared to the bottom. Motion at the top is amplified from the bottom motion.

All blast damage studies have measured incoming ground vibrations at the ground surface. The observed structure amplifications were typically between 1 to 4 times the ground vibration. Structure response below ground level is the same or less than the incoming vibrations

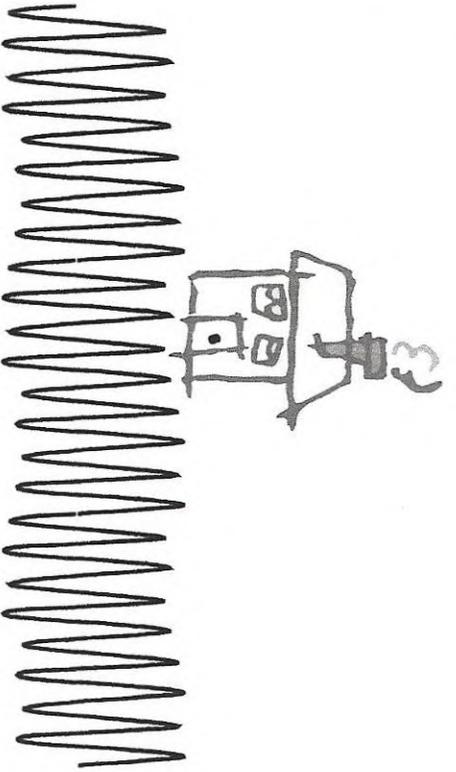
Airblast enters the house through the roof and walls. Like ground vibrations, the frequency and amplitude of the vibrations affect structure response. However the low frequency events (concussion) that most strongly affect structures is normally only a one or two cycle event.

Due to the different arrival times of ground and air vibrations, occupants may feel two distinct impacts on the house.

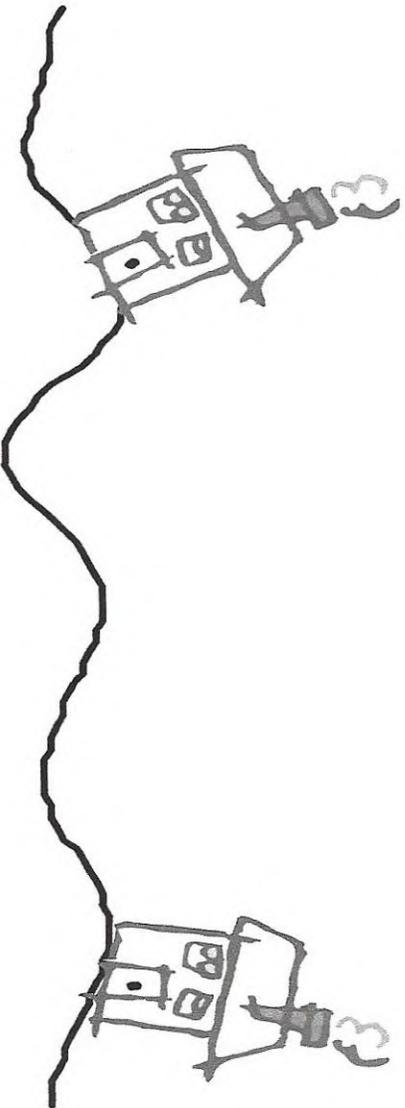


Ground Vibration Structure Response

Exhibit 59



On the other hand, low-frequency wave cycles are long as compared with the dimensions of structures. Accordingly, low frequencies tend to efficiently couple energy into structures and to promote higher-amplitude, long-duration shaking.



High frequencies do not promote structure shaking. The length of a single high-frequency wave cycle is short as compared with the dimension of a structure. A structure does not significantly respond to high frequencies.

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Harvard Men's Health Watch

A noisy problem

People often become more sensitive to noise as they age, which can affect their mental and physical health.

Published: March, 2019

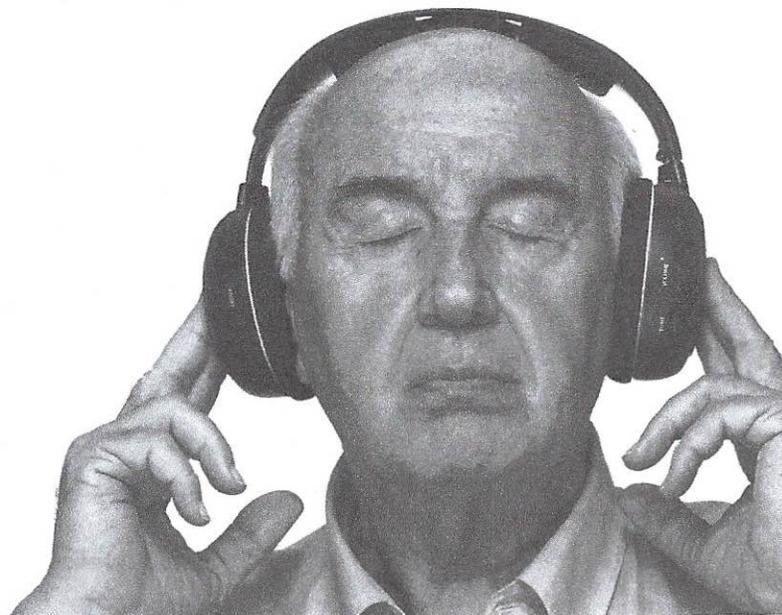


Image: © Juanmonino/Getty Images

Are you more sensitive to noises than you used to be? Do certain sounds now feel too loud and jarring? Don't worry; it's actually quite normal.

Age-related hearing loss is common among older adults and affects about two-thirds of men in their 70s and 85% of men ages 80 and older. Although it's not clear why, this can also make people hypersensitive to sounds that they used to tolerate easily, which in turn can affect their well-being.

"Exposure to noises from crowds, traffic, and other everyday sounds can become harder to tolerate and increase stress levels, leading to anxiety and a reduction in overall quality of life," says Dr. Stephanie Tompkins, an audiologist with Harvard-affiliated Massachusetts Eye and Ear. "As your sensitivity to noises increases, this can lead to greater isolation, too, as you may try to avoid potentially noisy places and situations."

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Quiet in the Hospital: How Noise...

Quiet in the Hospital: How Noise Reduction Helps Patients Heal

on June 7, 2018 (<https://medcenterblog.uvmhealth.org/innovations/hospital-noise-reduction/>) in Innovation (<https://medcenterblog.uvmhealth.org/category/innovations/>) by UVM Medical Center (<https://medcenterblog.uvmhealth.org/author/uvmmedcenter/>)

Noise. It is present in almost every aspect of our lives. From the traffic in the streets, to the fan that provides us white noise in the background to sleep, noise exists. Unfortunately, like stress, too much of it can have a negative impact on a person's health and rest. Some sounds we do like to hear, such as birds chirping, signaling spring in Vermont, but what about sounds in a hospital?

Many of us get admitted to hospitals when we are too sick to take care of ourselves at home. We expect exceptional care from physicians and nurses and, of course, to rest in order to help our bodies heal. We understand that some noises in a hospital are necessary for care; however, others simply aren't.

The Sounds of a Hospital

Many organizations, including the UVM Medical Center, have high tech equipment, which greatly assists in the delivery of care to our patients, but can also be noisy. Sometimes, healthcare providers are the source of the noise as we interact and communicate with our patients and other health team members.

Another factor is visits from families and friends during visiting hours. It is difficult when one's roommate is trying to rest in the opposite bed. Yet, we need to be cognizant of noise in patient care areas as sounds can be magnified and misinterpreted, increasing agitation and even confusion for some patients.

We become accustomed to the noise; our patients are not.

The Research on Noise, Quiet, and Healing

Research has shown that noise plays a negative role in healing and that decreasing noise in patient care areas aids in healing processes and helps facilitate speedier recoveries for patients. Patients are able to heal, sleep better and recover more quickly when able to rest. A quieter environment can also help decrease burnout for hospital staff.

Studies show that patients are more likely to develop negative side effects from a noisy hospital, such as sleep disturbances, elevated blood pressure and heart rate, and increased use of pain medications.

Noise can also increase annoyance levels for staff. One study indicated noise, such as talking inside and outside patient rooms, is the most common source of noise as well as visitors' voices, TVs, and behaviors of other patients.

Research concluded that best practices to eliminate noise from talking included staff education about noise reduction, public indicators such as sound monitors, a quiet time protocol, and lower cost environmental fixes, such as fixing noisy doors and squeaky wheels. Lastly, by introducing scripting with routine monitoring, patients' perception of quietness increased and the perception of noise decreased.

How We Address Noise at the UVM Medical Center

We introduced the "Culture of Quiet" Organizational initiative. The Nursing Professional Governance Patient and Family Experience Global council continued this work. After convening a small task force of nurses and assessing current quiet strategies, we introduced the following tactics:

- Many hospital units have designated 'quiet hours' with automatically dimming of lights at quiet hour intervals.
- Signage is visible in most patient care areas to help keep patients, family, and visitors aware. Throughout the hospital, you will see signs with a relaxing pair of Adirondack chairs and the sun setting with details on when a unit has quiet hours.
- Many semi-private rooms have windows in doors, so doors can be closed allowing for patient rest.
- We offer headphones for TVs and earplugs to help minimize sounds.
- In-patient kits contain a sleeping mask and other comfort items that can be provided at time of admission. Each kit contains a card and explains, 'the best healing occurs in a quiet environment.'
- New education material is available for staff, patients and visitors-just ask to review the next time visiting.
- Some units offer white noise machines, others have this built in.
- Noisy equipment such as wheels and doors can be tagged and replaced.
- Our facility and distribution staff have changed their cleaning and supply delivery schedules to accommodate patient care.
- Healthcare teams within the hospital are focusing efforts to cluster patient care to minimize interruptions to provide restful moments.

How you can help us.

We ask patients and visitors to hold us accountable when sounds are too loud. We want our community to alert us when noise levels are high and we will do what we can to minimize sound. In turn, we ask that all members of the healthcare team, patients, family, and friends be aware to keep voices soft, cell phones on vibrate, and hold each other accountable for these are the times of the day when our patients take pause to rest and positively impact their healing.

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Dangerous Decibels: Hospital Noise More Than a Nuisance

By Diane Sparacino, Staff Writer

Imagine a world where hospitals have become so noisy that the annoyance has topped hospital complaints, even more than for the tasteless, Jell-O-laden hospital food (Deardorff, 2011). If you're a nurse, you know that we're already there – with noise levels reaching nearly that of a chainsaw (Garcia, 2012). In fact, for more than five decades, hospital noise has seen a steady rise (ScienceDaily, 2005).

But it wasn't always that way. At one time, hospitals were virtually noise-free like libraries – respected spaces, preserved as quiet zones. The culture was such that a loud visitor might be silenced by a nurse's purposeful glare or sharply delivered "Shhh!" As early as 1859, the importance of maintaining a quiet environment for patients was a topic for discussion. In Florence Nightingale's book, "Notes on Nursing," she described needless noise as "the most cruel absence of care" (Deardorff, 2011).

Fast forward to 1995, when the World Health Organization (WHO) outlined its hospital noise guidelines, suggesting that patient room sound levels not exceed 35 decibels (dB). Yet since 1960, the average daytime hospital noise levels around the world have steadily risen to more than double the



acceptable level (from 57 to 72 dB), with nighttime levels increasing from 42 to 60 dB. WHO found that the issue was not only pervasive, but high noise levels remained fairly consistent across the board, despite the type of hospital (ScienceDaily, 2005).

Researchers at Johns Hopkins University began to look into the noise problem in 2003. They maintained that excessive noise not only hindered the ability for patients to rest, but raised the risk for medical errors. Other studies blamed hospital noise for a possible increase in healing time and a contributing factor in stress-related burnout among healthcare workers (ScienceDaily, 2005).

Technology is, of course, partly to blame. State-of-the-art machines, banks of useful alarms, respirators, generators, powerful ventilation systems and intercoms all add up to a lot of unwanted racket. When human voices are added to the mix, (i.e., staff members being forced to speak loudly over the steady din of medical equipment), it's anything but a restful environment. For the recovering patient in need of sleep, that can be a real issue (Deardorff, 2011).

Contributing to the problem, experts say, are the materials used in hospitals. Because they must be easily sanitized, surfaces cannot be porous where they could harbor disease-causing organisms. Rather than using noise-muffling materials like carpet, acoustic tiles and other soft surfaces, hospitals have traditionally been outfitted using smooth, hard surfaces – especially in patient rooms. Good for cleanliness – not so great for dampening sounds, which tend to bounce around the typical hospital (Deardorff, 2011).

Which brings us to the most recent research, published January 2012 in the *Archives of Internal Medicine*. In the report, Jordan Yoder, BSE, from the Pritzker School of Medicine, University of Chicago, and his colleagues associated elevated noise levels with “clinically significant sleep loss among hospitalized patients,” perhaps causing a delay in their recovery time (Garcia, 2012). During the 155-day study period, researchers examined hospital sound levels. The numbers far exceeded (WHO) recommendations for average hospital-room noise levels, with the peak noise at an average 80.3 dB – nearly as loud as a chainsaw or electric sander (85 dB), and well over the recommended maximum of 40 dB. And while nights tended to be quieter, they were still noisier than recommended allowances, with “a mean maximum sound level of 69.7 dB” (Garcia, 2012).

Perhaps most interestingly, the researchers broke down the sources of noise into categories: “Staff conversation (65%), roommates (54%), alarms (42%), intercoms (39%), and pagers (38%) were the most common sources of noise disruptive reported by patients” (Garcia, 2012). “Despite the importance of sleep for recovery, hospital noise may put patients at risk for sleep loss and its associated negative effects,” they wrote. In addition, researchers found that the intensive care and surgical wards had some work to do in dampening noise levels, with ICU peaking at 67 dB and 42 dB for surgical areas. Both far exceeded WHO’s 30 dB patient room recommendation (Garcia, 2012).

Besides patient sleep deprivation, which itself can lead to a multitude of health problems including high blood sugar, high blood pressure and fatigue, studies have reported that elevated noise levels can increase heart and respiratory rates, blood pressure and cortisol levels. Recovery room noise causes patients to request more pain medication, and preterm infants “are at increased risk for hearing loss, abnormal brain and sensory development, and speech and language problems when exposed to prolonged and excessive noise” (Deardorff, 2011).

There is still more research to be done, of course, but Yoder and his colleagues had good news, as well; much of the hospital noise they identified is modifiable, suggesting that hospitals can take steps to successfully create a quieter environment for both patients and healthcare providers (Garcia, 2012).

Around the country, “quiet campaigns” have been launched by hospitals in an attempt to dampen nighttime noise. Besides dimming lights and asking staff to keep their voices down at night, they are working to eliminate overhead paging systems, replace wall and/or floor coverings – even the clang of metal trashcans. Northwestern's Prentice Women's Hospital in Chicago was built with noise reduction in mind, replacing the idea of centralized nursing stations with the advent of smaller, multiple stations (Deardorff, 2011)

Billed as “one of the nation's largest hospital construction projects,” Palomar Medical Center in North San Diego County is a state-of-the-art facility that has been designed “to encourage quietness,” according to Tina Pope, Palomar Health Service Excellence Manager. Slated to open its doors this August, the hospital will feature a new nursing call system to route calls directly to staff and help eliminate the need for overhead paging, de-centralized nursing stations and clear sig lines, allowing staff to check on patients without having to leave unit doors open. With measures already in place including “Quiet Hospital” badges on staff and posters at the entrance of every unit, a “Quiet at Night” campaign (9 p.m. – 6 a.m.), and a “Quiet Champions” program that encourages staff to report noise problems, Palomar is one of a growing number of hospitals working toward a new era of quiet.

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Noises Are Truly Horrible For People Who Have PTSD

20 Mar '2018 [Sound](#)

Noise is a really big issue for PTSD survivors: people who have mental health problems because of their traumas. How are they connected?

Almost everybody has experienced a trauma. But some traumas are more scarring than others and can even result in long-lasting mental disorders like **PTSD**, which can have an extreme impact on someone's life. It's a disorder that can develop in the brain after a horrifying experience, like war or a car crash.

Symptoms

The symptoms of PTSD are, to say the least, not pleasant. They range from nightmares about the traumatic events, disturbing thoughts and feelings, anxiety, trying to avoid anything that has something to do with the traumatic event, and an increase in the fight-or-flight response.

Around ten percent of the population suffers from PTSD, according to data from **NCBI**, a part of the US National Library of Medicine. And, remarkably enough, that percentage is the same for people who suffer from tinnitus (the sound of a constant beep in your ears). The NCBI clearly sees a link between the two.

PTSD survivors also suffer from the Exaggerated Startle Syndrome, with anxiety and actions in an extreme and irrational way too loud noises and bangs. And then there are the sounds that remind them of the sounds during the traumatic events, which can trigger memories of the



Fear

PTSD can also cause a general fear of sounds: phonophobia, or a fear of some specific sounds: misophonia. Survivors of the disorder also are generally much more sensitive to sounds and perceive them as much louder than other people would.

All of this makes the life of people with PTSD very hard. If you think you are suffering from this, consult your doctor. Really, please do it. For yourself, and for the ones you love.

Do you have PTSD and would you like to tell your experiences to us? We are always very open and interested to hear what you have to say. And again: if you haven't done it yet, visit your doctor, please. Thank you!

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Does noise affect learning? A short review on noise effects on cognitive performance in children

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Abstract

The present paper provides an overview of research concerning both acute and chronic effects of exposure to noise on children's cognitive performance. Experimental studies addressing the impact of acute exposure showed negative effects on speech perception and listening comprehension. These effects are more pronounced in children as compared to adults. Children with language or attention disorders and second-language learners are still more impaired than age-matched controls. Noise-induced disruption was also found for non-auditory tasks, i.e., serial recall of visually presented lists and reading. The impact of chronic exposure to noise was examined in quasi-experimental studies. Indoor noise and reverberation in classroom settings were found to be associated with poorer performance of the children in verbal tasks. Regarding chronic exposure to aircraft noise, studies consistently found that high exposure is associated with lower reading performance. Even though the reported effects are usually small in magnitude, and confounding variables were not always sufficiently controlled, policy makers responsible for noise abatement should be aware of the potential impact of environmental noise on children's development.

Keywords: noise, cognitive performance, cognitive development, children, speech perception, listening comprehension, irrelevant sound effect, classroom acoustics

In everyday life, cognitive tasks are often performed in the presence of task-irrelevant environmental noise. Accordingly, numerous studies on noise effects on performance have been conducted since the middle of the 20th century (for reviews see Hellbrück and Liebl, 2007; Szalma and Hancock, 2011), showing that—depending on characteristics of sounds and tasks—noise of low to moderate intensity may in fact evoke substantial impairments in performance.

Most of these studies were conducted with adults. The present review, however, will focus on studies including children. Children are especially vulnerable to harmful effects of environmental noise, as cognitive functions are less automatized and thus more prone to disruption. We will report findings concerning effects of acute noise on performance in concurrent auditory and non-auditory tasks, as well as effects of chronic noise on children's cognitive development.

Effects of acute noise on children's performance in auditory tasks

Psychoacoustic studies have consistently shown that children's speech perception is more impaired than adults' by unfavorable listening conditions. The ability to recognize speech under conditions of noise or noise combined with reverberation improves until the teenage years (Johnson, 2000; Wightman and Kistler, 2005; Talarico et al., 2007; Neuman et al., 2010). With stationary noise makers, signal-to-noise ratios (SNRs) have to be 5–7 dB higher for young children when compared to adults in order to achieve comparable levels of identification of speech or nonspeech signals, with adult-like performance reached at about 6 years of age (Schneider et al., 1989; Fallon et al., 2000; Werner, 2007). However, with maskers that vary over time, i.e., with trial-by-trial variation of the maskers' spectral composition (Oh et al., 2001; Hall et al., 2005; Leibold and Neff, 2007) or with fluctuating maskers such as single-talker speech (Wightman and Kistler, 2005), adult-like performance is usually not reached before the age of 10 years. Furthermore, children are less able than adults to make use of spectro-temporal and spatial cues for separation of signal and noise (Wightman et al., 2003; Hall et al., 2005). These findings demonstrate that children are especially prone to *informational* masking, i.e., masking that goes beyond energetic masking predicted by filter models of the auditory periphery.

Studies identified a range of linguistic and cognitive factors to be responsible for children's difficulties with speech perception in noise: concerning the former, children are less able than adults to use stored phonological knowledge to reconstruct degraded speech input. This holds for the level of individual phonemes, as children's phoneme categories are less well specified than adults' (Hazan and Barrett, 2000), but also for the lexical level since children's phonological word representations are more holistic and less segmented into phoneme units. Therefore the probability of successfully matching incomplete speech input with stored long-term representations is reduced (Nittrouer, 1996; Metsala, 1997; Mayo et al., 2003). In addition, young children are less able than older children and adults to make use of contextual cues to reconstruct noise-masked words presented in sentential context (Elliott, 1979). Concerning attention, children's immature auditory selective attention skills contribute to their difficulties with speech-in-noise perception. Children's susceptibility to informational masking has been attributed to deficits in focusing attention on auditory channels centered on signal frequencies, while ignoring nonsignal channels (Wightman and Kistler, 2005). Behavioral and ERP measures from dichotic listening paradigms provide evidence that auditory selective attention improves throughout entire childhood (Doyle, 1973; Pearson and Lane, 1991; Coch et al., 2005; Wightman et al., 2010; Gomes et al., 2012).

Owing to the mediating role of linguistic competence and selective attention, children with language or attention disorders are still more impaired than normally developing children by noise in speech perception tasks (Geffner et al., 1996; Ziegler et al., 2005, 2009). A stronger noise effect is also evident for children tested in their second language when compared to native children (Crandell and Smaldino,

Autism & Anxiety: Parents seek help for extreme reaction to loud noise

September 5, 2018

Our 12-year-old son has autism, mild intellectual disability and anxiety attacks so severe that we end up in the emergency room. Loud noises are the worst – for example the school fire alarm, thunderstorms, a balloon popping, fireworks. Any help would be greatly appreciated.



This week's "Got Questions?" answer is by Judy Reaven, a clinical psychologist and associate professor of psychiatry and pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado, in Denver. Dr. Reaven's conducted research on the effectiveness of cognitive-behavioral therapy for anxiety in adolescents with autism, with the support of an [Autism Speaks research grant](#).

Editor's note: The following information is not meant to diagnose or treat and should not take the place of personal consultation, as appropriate, with a qualified healthcare professional and/or behavioral therapist.

Thanks for the great question. It certainly sounds like your family is experiencing a very difficult situation. Anxiety symptoms and reactions are very common in individuals with autism spectrum disorder (ASD). They can interfere with functioning across home, community and school settings.

Although your son's reaction sounds more severe than most, many people with autism struggle with a range of fears, phobias and worries. These can range from a debilitating fear of, say, spiders or the dark to chronic anxiety about making mistakes or being late.

Fortunately, recent research suggests that anxiety in children and adults who have autism is quite treatable. Often, these individuals are helped by the same or similar strategies that work well in treating anxiety in the general population.

These approaches include cognitive behavior therapy, or CBT. Cognitive-behavioral approaches are well-established, evidenced-based treatments that have become the gold standard of psychosocial treatments for anxiety. [My own research](#) and that of my colleagues has demonstrated the helpfulness of modifying cognitive-behavioral approaches to address the special needs of those who have autism.

Where to begin?

You describe a number of fears that may be related to sensory sensitivities. I recommend that you begin by consulting an occupational therapist who can assess whether your son's extreme sensitivities to noises are part of a broader sensory processing disorder. If this is the case, and if your son's fears are exclusively triggered by sensory stimuli, then his symptoms may be best addressed by a sensory-focused intervention. Many occupational therapists who specialize in autism receive special training in this area.

It's common for children with ASD and anxiety to become extremely frightened in response to sensory stimuli. Perhaps – like many individuals with autism – your son also has difficulty telling you what's scaring him. Instead, he may show his fear with extreme avoidance of a situation.

For example, he might refuse to go to school after a fire drill. He might become fearful of birthday parties after being frightened by a balloon that popped unexpectedly. Other signs of extreme distress can include yelling, crying, clinging and general agitation. Because your son may have difficulty communicating, it's important to observe his behavior for these signs of distress. This can help you determine what's triggering his fears.

Avoidance versus learning to cope

Many parents go to great pains to protect their children by avoiding agitating situations. This approach is sometimes appropriate and even necessary. However, it denies individuals the opportunity to learn how to manage anxiety-provoking situations on their own.

By helping your son learn to manage his fear, you can prepare him for an unpredictable world so that he can participate in it to the maximum extent possible.

Given the severity of your son's anxiety symptoms, I suggest that you seek professional support in addition to the strategies offered here. Families whose children have milder symptoms of anxiety can try these strategies on their own – seeking professional help if symptoms worsen.

Tackling one fear at a time

I suggest making a list of your child's major fears and worries. Try to rank order them from mild to severe. To encourage success, I'd start with a mild-to-moderate fear before taking on his extreme reaction to loud noises.

Key components of a cognitive behavioral approach include introducing coping strategies such as deep breathing and "helpful thoughts" that can help a person manage fearful reactions.

For example, you can teach your son to take deep slow breaths to help manage his body's physical anxiety reactions.

"Helpful thoughts" are statements that your son can say to himself when faced with a situation that makes him anxious. For example, you can coach to your son to say, "This is a loud noise. I don't like it, but I can handle it."

To help your son to learn these strategies, I suggest you model taking deep breaths while repeating a "helpful thought" out loud.

Graded exposure

The most important step is to help your son face his fears a little at a time. We call this "graded exposure." For example, explain to your son that the two of you are going to listen to a recording of thunder. The first time, you might play the recording at a soft volume, then gradually increase the volume over time as he demonstrates increased comfort with the sounds.

Or you might try watching a video of a balloon pop – perhaps with the volume off the first time. Then he can watch a real balloon pop while standing some distance away. Over time, he can move closer and closer to the balloon.

After such exercises, you can present him with small rewards for being brave and "facing fears." Remember that even a small act of bravery – such as listening to a recording of thunder for 10 seconds – represents an important step toward handling fears. It deserves to be acknowledged.

Although graded exposure may seem counterintuitive, [research](#) indicates that this strategy is the single most effective strategy for getting over a particular fear.

I wish you and your son the very best. Please let us know how you're doing with an email to GotQuestions@autismspeaks.org.

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I have read the attached letter regarding noise and it expresses my concerns and my request to abandon the use of the proposed route for the Boardman to Hemingway Transmission Project and that it be rerouted to an area that is much less impactful to the residents of La Grande and to the surrounding area.

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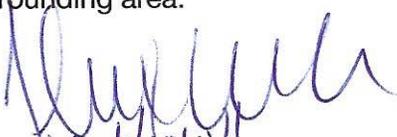
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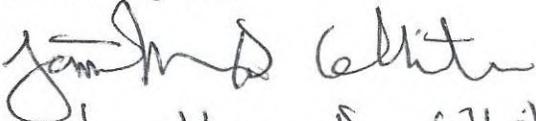
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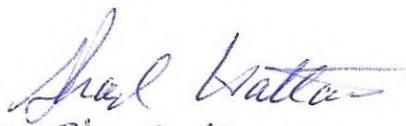
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SIGNATURE *Heather M. Null*
PRINTED NAME Heather M. Null
ADDRESS 492 Madelaine Dr. La Grande, OR 97850
EMAIL hnull@conic.com

SIGNATURE *Bert R. Freewing*
PRINTED NAME Bert R. Freewing
ADDRESS 709 South 12th Street La Grande, OR 97850
EMAIL jeanfreewing@gmail.com

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

SIGNATURE
PRINTED NAME
ADDRESS
EMAIL

ESTERSON Sarah * ODOE

From: Arlene Young <arlene.young@gmail.com>
Sent: Tuesday, August 20, 2019 11:46 AM
To: B2H DPOComments * ODOE
Subject: Stop B2H

August 20, 2019

Energy Facilities Siting Council

c/o Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St, N.E.

Salem, OR 97301

Sent Via E-Mail: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Anadromous Fish in Ladd Creek, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. Specifically, I am protesting as a concerned citizen regarding the B2H Draft Proposed Order, the Final Environmental Impact Statement, and the project's plan regarding wild and threatened fish.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's Mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (page 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but **that status has changed** due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction has resulted in costs over 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and ([PPT] Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species (ESA). The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

The B2H Draft Proposed Order contains the following outdated information:

1. In *Table 1. Road-Stream Crossing Ownership, Risk Summaries, Proposed Crossing Types, and Fish Passage Information* Idaho Power names 5 waters in the Ladd Creek area (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*) with stream crossings. The report states that the only fish in these waters are resident fish. This information is now incorrect.
2. The B2H Draft Proposed Order states that for all of Ladd Creek and its tributary streams that “No new ODFW fish plan anticipated.” (page 9-11 of Attachment BB-2). It cannot be overemphasized that this information is now incorrect.
3. The alternative route Idaho Power has chosen will necessitate a 3a/3b (page 11 BB-2) design change for a bridge crossing on Ladd Creek if this route is chosen, this will trigger an ODFW fish passage plan to be implemented (OAR 17 412-0035) based on Oregon Administrative Rules (OAR) 635-412-0020. Again, the B2H Draft Proposed Order information is now incorrect.

Because of the change of status of the fish population in Ladd Creek, the B2H Draft Proposed Order is out of compliance with several Federal and State laws including:

1. ORS 509.580 through 509.910: *Fish Passage; Fishways; Screening Devices; Hatcheries Near Dams*
2. OAR 635-41-0005 through 635-412-0040: *Fish Passage*
3. *Oregon Forest Practice Administrative Rules and Forest Practices Act, OAR Chapter 629 (ODF 2014)*
4. *Forest Practices Technical Note Number 4, Fish Passage Guidelines for New and Replacement Structures (ODF 2002)*

5. *Fish and Wildlife Mitigation Policy (OAR 635-415-0000), which states that :*

(a) The mitigation goal if impacts are unavoidable, is no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.

(b) The Department shall act to achieve the mitigation goal for Category 2 habitat by recommending or requiring:

(A) Avoidance of impacts through alternatives to the proposed development action; or

(B) Mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be provided. Progress towards achieving the mitigation goals and standards shall be reported on a schedule agreed to in the mitigation plan performance measures. The fish and wildlife mitigation measures shall be implemented and completed either prior to or concurrent with the development action.

(c) If neither 635-415-0025(2)(b)(A) or (B) can be achieved, the Department shall recommend against or shall not authorize the proposed development action.

In conclusion, the B2H Draft Proposed Order contains an improper evaluation of the potential short and long term negative impacts to the fish habitat in the Ladd Creek drainage, including surrounding creeks, given the fact that species listed as threatened under the Endangered Species Act are now returning to Ladd Creek, with their numbers expected to increase in upcoming months and years.

Sincerely,

Arlene Young

96 Penn Avenue

La Grande, OR 97850

541.963.3879

ESTERSON Sarah * ODOE

From: Arlene Young <arlene.young@gmail.com>
Sent: Tuesday, August 20, 2019 11:54 AM
To: B2H DPOComments * ODOE
Subject: Stop B2H

August 20, 2019

Energy Facilities Siting Council

c/o Kellen Tardaewether, Senior Siting Analyst

Oregon Department of Energy

550 Capitol St, N.E.

Salem, OR 97301

Sent Via email: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order.

RE: Endangered Fish in Ladd Creek and Tributaries, Union County

Dear Chair Beyeler and Members of the Energy Facility Siting Council:

I am writing in protest of the proposed Boardman to Hemingway Transmission Line Project. I request that my letter protesting issuance of an Oregon Site Certificate for the currently proposed Boardman-to-Hemingway Transmission Project (B2H Project) be entered into the permanent written record. I also request response to, and resolution of, the issues I raise herein.

Both of the proposed routes in Union County for the Boardman to Hemingway Transmission Line project include a crossing of the Ladd Creek and/or its tributaries. Ladd Creek flows approximately 14 miles through the Wallowa Whitman National Forest and private land on the east side of the Blue Mountains, into the Ladd Marsh Wildlife area, connecting with Catherine Creek and the Grande Ronde, Snake, and Columbia Rivers.

Historically, there were anadromous fish (steelhead and salmon returning from the ocean) in Ladd Creek. ODFW has documented that steelhead and salmon used Ladd Creek for spawning. However, construction of Interstate 84 in the 1970's stopped the passage of these fish above the interstate due to a vertical culvert being installed (see attached Power Point "Ladd Creek Fish Passage Project - ODOT FTP").

The Oregon Department of Fish and Wildlife's mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The department is the only state agency charged exclusively with protecting Oregon's fish and wildlife resources. The state Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources.

The B2H Draft Proposed Order (pages 9-10 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*), states that Ladd Creek and its tributaries contain only local fish (trout), but that status has changed due to major culvert work along and under the I-84 interstate in the last 4 years. As a result, the information contained in the B2H Draft Proposed Order is incorrect and out of compliance with Oregon and Federal statutes.

In 2015, ODOT completed a 2-year project to replace culverts that previously had blocked fish passage in the creek and at the I-84 crossing of Ladd Creek (see <https://www.lagrandeobserver.com/csp/mediapool/sites/LaGrandeObserver/LocalState/story.csp?cid=4108250&sid=824&fid=151>).

According to ODFW Fish biologist Tim Bailey, in the year after completion of the fish passage project (2016) a steelhead redd was documented above the culvert, upstream from the freeway.

ODOT has continued this fish passage project in 2019 along with plans for freeway reconstruction and additional traffic lanes (see <https://www.constructionequipmentguide.com/odot-works-to-improve-i-84-fish-passage-in-ladd-canyon/45648>). Construction projects have resulted in costs above 32 million dollars, and the list of agencies and individuals in support of this costly fish passage project include ODFW, Union County Board of Commissioners, The Grande Ronde Model Watershed, the US Army Corps of Engineers, Senator Jeff Merkley, Senator Ron Wyden, and the National Marine Fisheries Service (see <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20381>) and attached ([PPT]Ladd Creek Fish Passage Project - ODOT FTP).

An entire watershed is protected when it is determined that it contains federally threatened or endangered fish species. Idaho Power in its application and the B2H Draft Proposed Order have failed to incorporate information regarding identification of the habitat category or locations which will be impacted by the proposed B2H powerline development. Critical habitat is specifically identified in the federal law recording the listing of threatened species. The current application and site certificate fails to include requirements that would assure that the state is complying with federal laws in providing habitat protection for listed species (salmon and steelhead).

Idaho Power has two proposed line routes across and through Ladd Canyon, a preferred and an alternative. Idaho power has also stated that because there are only resident fish in Ladd Creek, that "No new fish passage plan anticipated" (page 9-11 of *draft Fish Passage Plan in ASC Exhibit BB, Attachment BB-2*).

Because the alternative route through Ladd Canyon would necessitate a 3a/3b design change for a bridge crossing on Ladd Creek and there are threatened anadromous fish in Ladd Creek, an ODFW fish passage plan will need to be implemented (*OAR 17 412-0035*) based on (*OAR 635-412-0020*) for this route for Ladd Creek and its tributaries.

In conclusion, the B2H DPO contains improper evaluation of the potential long term negative impacts on fish habitat in the Ladd Creek drainage, including tributaries. The Endangered Species Act requires identification and evaluation of effects of the proposed action through ESA section 7(a)(2) consultation with NMFS (anadromous fish species). Federally protected anadromous species are currently present in Ladd Creek, and its tributaries.

Idaho Power's B2H DPO is not in compliance with State or Federal Protected Species laws. The applicant has failed to meet the requirements for issuance of a Site Certificate contained in OAR-345-022-0080. Therefore, issuance of a Site Certificate should be denied.

Sincerely,

Arlene Young

96 Penn Avenue

La Grande, OR 97850

arlene.young@gmail.com

541.963.3879

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project 9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

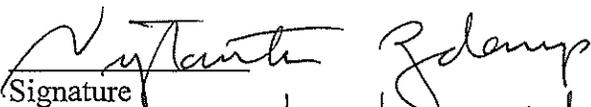
I appreciate the opportunity to comment on the Draft Project Order for the Boardman to Hemingway Transmission Project. I am very supportive of the Oregon California Trails Association (OCTA) and the work that they have done to protect the Oregon Trail, especially here in Oregon. OCTA is mentioned numerous times in **Exhibit S** and the **Historic Properties Management Plan and Programmatic Agreement**. OCTA does NOT believe that Exhibit S Historic Properties Management Plan is complete in 7.2.3 Field Crew, and offers this additional condition.

ADDITIONAL CONDITION #1 OCTA recommends that the Council add an Oregon Trail expert to the Cultural Resource Team. This Oregon Trail individual will have qualifications similar to Field crew members. For example, they will have an undergraduate degree in anthropology, archaeology, or in a field such as geology, engineering or history. It will not be necessary to have attended a field school. This individual will be recommended by the National OCTA President and agreed to by the Field Director.

The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not ~~acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into~~ documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources. **EFSC Must Deny the Site Certificate!**


Signature

Printed name: Vytautas Zdanys

Mailing address: P.O. Box 756
La Grande OR 97850

Email address: vytauszdanys@gmail.com
phone number: (optional)

12 August 2019

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E
Salem, OR 97301

Dear Chair Beyeler and Members of the Council:

As I understand it, the applicant did not complete noise modeling on multiple noise sensitive properties within ½ mile of the development as required by OAR 340-035-0015(38). In fact, the closest noise modeling was performed at Hilgard, the junction of I-84 and 244, about 8 miles air miles away, with a train track near by. Applicant could scarcely have chosen a site less representative of the absolute silence typical of the Morgan Lake setting.

Page 145 (T-4-46) Baseline condition: "... A goal of minimal development of Morgan Lake Park should be maintained to preserve the maximum natural setting and to encourage solitude, isolation, and limited visibility of users..." Solitude, of course, suggests an absence of distraction from external stimuli including noise. Campers often comment on the tranquility of the park where a 5 mph speed limit is enforced to limit noise, and no shooting or motorized craft are allowed on the lake. Even when the campground is full, it's possible to picnic or hike beside the lake in absolute silence.

Noise Sensitive Property is "property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Obviously the noise corona of popping, humming transmission lines will interfere with the silence campers have every right to expect in a natural setting.

This transmission line is planned to be sited within 500' west of the park boundary, which would place it easily within less than 1/5 of a mile of overnight camp sites.

The applicant's ASC should be denied until all required and adequate noise modeling has been performed.


(Signature)

Name: Vytautas Zdanys

Address P. O. Box 756
LaGrande OR 97850

August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

I appreciate the opportunity to comment on the B2H Draft Proposed Order. The Oregon National Historic Trail will be significantly affected by the B2H Transmission Line.

The Draft Proposed Order identifies significant impacts to the Oregon Trail in several Exhibits, including Exhibit C: Property Location and Maps; Exhibit L: Protected Areas; Exhibit R: Scenic Aesthetic Values; Exhibit S: Cultural Resources; Exhibit T: Recreational Facilities; and Exhibit X: Noise.

B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
2. Within OAR 345-022-0040 Protected Areas and ODEQ standards 340-035-0000-0100, this area should have been monitored and modeled as a Noise Sensitive Property and was not.
3. Does not comply with Scenic Values from the Blue Mountains Parkway and Oregon Trail Interpretive Center. The OR 86 encourages drivers to STOP and read interpretive signs, so viewer perception and resource change cause significant decrease of scenic vales. IPC says no significant impact.
4. The DPO does not comply with Exhibit L Protected Areas. The BLM ACEC at Flagstaff Hill has not considered undergrounding for the protection of the Oregon Trail. No analysis found the pristine, Class 1 swales of the Oregon Trail within the ACEC located at: Lat 44.813762 Long -117.750194 or 44° 48' 48.26"N 117° 75' 57.97"W. IPC proposes to build a new constructed road over the Oregon Trail in the area identified in the location above.
5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:
 - a. It is a BLM ACEC area managed for public tourism



- b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the *Edison Electric Institute*, January 2013 publication "Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines." This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate.

The Oregon Trail along the route of the B2H has the most damaging affects to its critical historic elements. Once the Trail is gone it cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site.

Considering the reasons above and the unconscionable desecration of our national treasure, the Council Must Deny the site certificate for the Boardman to Hemingway Transmission project.

Thank you,



Signature

Printed Name: Vytautas Zdanys

Mailing Address: P.O. Box 756, La Grande OR 97850

Email: vytauszdanys@gmail.com

ESTERSON Sarah * ODOE

From: randy zelick <rantidromic@gmail.com>
Sent: Tuesday, August 20, 2019 11:00 AM
To: B2H DPOComments * ODOE
Subject: opposed to b2h comment 1
Attachments: letter1-historic-properties.docx

Please see attached. I have taken the trouble to add personal comments and analysis, it is not just a form letter.

--
=Randy Zelick=

August 12, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

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The field surveys, even with SHPO and NPS data, have missed and/or mislabeled some sections of the emigrant trail. OCTA wants the public to know where the Trails are and I do too! OCTA over the years has marked the trail location with wooden signs, small triangles attached to trees, and more recently, carbonite posts and steel rails. Most private property owners are proud of the trail on their property, and after obtaining permission allow the public to walk and hike on the trail.

Idaho Power and their consultants have not acknowledged trail crossings shown on submitted Maps and do not acknowledge visual intrusion of the line for 10 miles per standards, and only upon ODOE's RAI's, put into documents some trail protections. This has been consistent from the BLM process to current day.

Considering the points above, Idaho Power does not comply with the state standards for cultural resources OAR 354-022-0090, or 345-022-0080, Scenic resources.

I don't have to say that the proposed power line is monumental in its physical impact, from a visual and habitat perspective, and in many other regards. In my view, the **EFSC should require nothing less than an exemplary effort by Idaho power to contain the negative impacts**. Yet, there are scores of deficiencies, both minor and major in their proposal. Should the EFSC really approve this project given the oversights, errors, omissions and non-current data provided by Idaho power? Please put the citizens of Oregon before a shareholder-driven "utility" from another state.



Signature

Printed name: Randy Zelick

Mailing address: 2230 Washington Ave, Baker City, OR 97814

Email address: zelickr@pdx.edu

phone number: 503-710-1452 (cell)

August 14, 2019

Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E.
Salem, OR. 97301

Via E-MAIL: B2H.DPOComments@Oregon.gov

Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project
9/28/2018; Draft Proposed Order 5/23/2019

To: Chairmen Beyeler and Members of the Council

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B2H crosses the Oregon Trail at least 8 times. EFSC has done a reasonable job of protecting the Trail during construction and operation, if the proposed requirements are followed, **except at the Oregon Trail Interpretive Center at Flagstaff Hill.**

The B2H Transmission Line should be buried for approximately 2 to 2 ½ miles to comply with the exhibits indicated above. Idaho Power has from the early years refused to do any significant analysis for this option. IPC uses cost as the reason for stating that undergrounding is not feasible. Cost is not a specific standard, and costs are the responsibility of the Oregon Public Utilities Commission during rate considerations. EFSC has determined that IPC has the Financial ability even if some partners choose to not participate, so reasonable cost should not be a determining factor for EFSC.

EFSC should refuse to approve the Draft Project Order for the following reasons:

1. Does not comply with Noise Standards as no measurements were done at the Oregon Trail viewpoint or walking trails endpoint near milepost 146. Perhaps not a "Noise Sensitive Property," in the context of residential sleeping areas; however, certainly for tourists and visitors to the Interpretive Center and hiking trails noise will be disturbing. Map 23 in Attachment X-1 does not even show the Oregon Trail.
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5. The DPO does not meet the standards required for Exhibit T Recreational Facilities, OAR 345-022-0100, especially at the Flagstaff Hill interpretive center, because of:

- a. It is a BLM ACEC area managed for public tourism
 - b. It is the single most visited tourist facility in Baker County
 - c. The quality of the facility is outstanding
 - d. There is no other place where the Oregon Trail can be seen and interpreted.
6. The cost estimates of IPC do not compare with those of the *Edison Electric Institute*, January 2013 publication "Out of Sight, Out of Mind, An Updated Study of the Undergrounding of Power Lines." This article suggests that for 2.5 miles of rural undergrounding, the cost will be \$67,500,000. This is almost half the IPC estimate.

The Oregon Trail along the route of the B2H has the most damaging effects to its critical historic elements. Once the Trail is gone it cannot be reconstructed or mitigated back to life. Once gone, always gone. The only easily accessible public facility in Oregon is the Flagstaff Hill Interpretive Center near Baker City. The B2H must be buried to preserve this important site.

Have you visited the Oregon Trail museum? The view is spectacular, and gives a wonderful impression of what the Baker valley would have looked like in years past. All the way to the 1850's? Well no, but not too far off. The sense of heritage the view provides cannot be given a value, it is too high. Recently I was in Washington DC and in Boston, MA. I visited the Old South Church in Boston, a gorgeous old building, but now appearing as a complete anachronism as it is dwarfed by gigantic glass and steel skyscrapers in every direction. The visitor has no sense of historic perspective, no emotional connection to the place as it was early in the history of the United States. Washington DC was different. The settings of the buildings on the National Mall are as they were 100 and 200 years ago and in your mind you can transport yourself back in time. That is the value of forward thinking planning and consideration of heritage. In Eastern Oregon we do not have human-built grand buildings from the 1700's, but we do have the Oregon trail. This is our connection to place. Please be considerate of our heritage – it is your heritage too. In 100 years Oregonians may still be able to view the place as it was. What will they say of us, of the watchdogs for industrial excess and overreach? They did a great job not allowing 150 foot steel towers and crackling wires to ruin the view. Good for you EFSC. Or perhaps the tens of thousands of future visitors to the Oregon Trail will say "Can you believe it – Look at that abomination they allowed. For what? An obsolete and outdated minimal improvement in the power grid. They should be ashamed."

Thank you,



Signature

Printed Name: Randy Zelick

Mailing Address: 2230 Washington Ave, Baker City, OR, 97814

Email: zelickr@pdx.edu

August 18, 2019

**Energy Facilities Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR. 97301
Kellen.Tardaewether@oregon.gov**

Subject: Idaho Power Amended Application for the Boardman to Hemingway Transmission Project dated 9/28/2018; Draft Proposed Order dated 5/22/2019

Dear Chair Beyeler and Members of the Council;

My comments below concern Idaho Power's faulty and illegal "Noxious Weed Plan" (DPO Attachment P 1-5) as well as their failure to take into account in any way, the Oregon Conservation Strategy. First, though, I want to make a general comment about the power line right-of-way and access roads. This view comes from my 31 years as a Professor of Biology at Portland State University. Almost by definition, weeds are a type of plant that takes advantage of disturbed habitats. Regardless of any proposed mitigation, it will be nearly impossible to deal with invasive weeds along the power line route. Any mitigation would no doubt be implemented after tower construction and road building, but by this time it is too late. After all, building roads and towers could not be more effective at "disturbing" the habitat. Microscopic seeds will blow in and weed plants will be established, of course leading the hundreds of millions of additional seeds every year. Thus the real point is whether the value of the power line is worth the impact to the environment. With some great future effort, it would be possible to completely remove the towers. The effort to get rid of weeds, of non-native species where none existed before, is much greater and likely impossible. The power lines proposed are old technology and not forward thinking. Is this the legacy that the ODE wants? Please do not approve the project just because a huge company decides they want it. It makes much more sense that ODE instead promote innovative plans for energy security that do not cause habitat destruction.

The Oregon Conservation Strategy <http://oregonconservationstrategy.org/overview/> "represents Oregon's first overarching state strategy for conserving fish and wildlife. It uses the best available science to create a broad vision and conceptual framework for long-term conservation of Oregon's native fish and wildlife, as well as various invertebrates, plants, and algae. The Conservation Strategy emphasizes proactively conserving declining species and habitats to reduce the possibility of future federal or state listings. It is not a regulatory document but instead presents issues, opportunities, and recommended voluntary actions that will improve the efficiency and effectiveness of conservation in Oregon."

Under the Oregon Conservation Strategy, IPC's B2H project is a Key Conservation Issue: "(KCI) are large-scale conservation issues or threats that affect or potentially affect many species and habitats over large landscapes throughout the state."

Despite being a Key Conservation Issue, the Oregon Conservation Strategy and its Goals, are not mentioned in IPC's Application at all! Consider Land Use Planning Goal 1: *Manage land use changes to conserve farm, forest, and range lands, open spaces, natural or scenic recreation areas, and fish and wildlife*

habitats. Neither the current Proposed Route nor Morgan Lake Alternative of IPC's Application to EFSC takes these into account! Even if we ignore the fact that the B2H Project likely is not needed at all, given lowered demand and improved technology of energy storage batteries—IPC intends to disregard the “Proposed Route” considered in the BLM/USFS Records of Decision. That “Proposed Route” was chosen by the agencies as being the least harmful to the greatest list of resources—yet IPC has abandoned that in favor of two other routes imminently MORE harmful and despised by MOST residents of Union County. Is Goal 1 being met when the B2H line goes less than 100 feet from Twin Lake, a gem of a wetland that deserves protection? Is Goal 1 being met when B2H goes through Rice Glass Hill property, proposed as a State Natural Area? Is Goal 1 being met when noxious weeds are spread by B2H through Union County's finest wet meadows and elk wintering habitat?

No, Goal 1 one is not being met. Another very specific example is 5 State listed rare plant species (DPO Exhibit Q) within the B2H “analysis area”. IPC claims “only” two of these rare species (Mulford's milkvetch and Snake River goldenweed) will suffer “direct impacts”, by blading with heavy equipment. IPC claims that, “Avoidance and minimization measures ...described in Section 3.5.4” will “mitigate” impacts. Upon reading 3.5.4 we find that this consists of “minimum buffer of 33 feet between the disturbance and the edge of the T&E occurrence”. Habitat for these plants will be completely fragmented and a buffer of 33 – or even a few hundred--feet will not stop invasion by noxious weeds! These species will suffer irreparable damage under B2H. The Oregon Conservation Strategy rightly recognizes, “Invasive species are the second-largest contributing factor causing native species to become at-risk of extinction in the United States.”

To delve further into rare plants slated for damage by B2H, *Trifolium douglasii* is a USFWS “Species of Concern” <https://www.fws.gov/oregonfwo/Documents/OregonSpeciesStateList.pdf> yet not even considered in IPC's 3.5 “Avoidance to Minimize Impacts”. Although List 1 under ORBIC's latest ranking <https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation/vascular-plant-ranks> it is not shown as State listed Threatened or Endangered, so is ignored by IPC. Species of Concern are “Taxa whose conservation status is of concern to the U.S. Fish and Wildlife Service (many previously known as Category 2 candidates), but for which further information is still needed.” Douglas clover has a global rank of G2 “Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (extirpation), typically with 6-20 occurrences”. DPO Exhibit P Part 2b Appendix 3A and 3B Figure 9 of 23 shows Douglas clover directly on the Morgan Lake alternative! This is not even taking into account that areas of private land where access was not granted for survey, likely contain additional occurrences of Douglas clover. The area is THE main place where this rare plant grows in Oregon, and B2H is set to permanently alter and compromise its main habitat with weeds!

Another very obvious lack is IPC's failure to discuss Strategy Habitats, outlined in Oregon's Conservation Strategy: <http://oregonconservationstrategy.org/strategy-habitats/strategy-habitats-summary-by-ecoregion/>.

In Union County alone, the Strategy Habitats of Grasslands, Late Successional Mixed Conifer Forest, and Ponderosa Pine Woodlands would very obviously be impacted by B2H as proposed in the Application.

The Application also neglects to address Strategy Species under OCS “*The Conservation Strategy identifies 294 Strategy Species, which are Oregon's “Species of Greatest Conservation Need”. Strategy Species are defined as having small or declining populations, are at-risk, and/or are of management concern.*” This is completely unacceptable! How can an action set to devastate so many of Northeast Oregon's Strategy Habitats and Species not even respond to our State Conservation Strategy?

Moving on to invasives, IPC's "Noxious Weed Plan" is greatly lacking. As noted above, it is a threat to Oregon's native plant communities. Oregon's Conservation Strategy states "*Invasive non-native species can have many negative consequences throughout Oregon. Depending on the species and location, invasive plants can:*

- *affect food chain dynamics*
- *change habitat composition*
- *increase wildfire risk*
- *reduce productivity of commercial forestlands, farmlands, and rangelands*
- *modify soil chemistry*
- *accelerate soil erosion*
- *reduce water quality"*

Chapter 569 of Oregon law covers weeds. Oregon statute 569.180 (Noxious weeds as public nuisance policy) states, "In recognition of the imminent and continuous threat to natural resources...noxious weeds are declared to be a public nuisance and shall be detected, controlled and, where feasible, eradicated on all lands in this state."

Upon careful reading, "Noxious Weed Plan" breaks the law by exempting IPC from weed control after 5 years, denying responsibility for Class B and C Weed species (the vast majority of weeds), and holding IPC accountable for only the very limited area of ROW, despite the B2H project introducing and spreading weeds far and wide along a 300 mile stretch plus dozens of additional access roads and tensioning areas.

In summary, IPC's Application does not take into account the Oregon Conservation Strategy. The Application clearly is breaks Goal 1 of the Strategy in many ways; additionally the Application imperils a Federal "Species of Concern", and does not consider Strategy Habitats or Strategy Species. IPC's Noxious Weed Plan does not comply with Chapter 569 of Oregon law. I strongly urge you to deny IPC's Application. Our State Conservation Strategy and Goals and the integrity of our native plant habitats and rare plant occurrences cannot be sacrificed!

Sincerely,

Name

Address

Kellen Tardaewether, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St. NE
Salem, Oregon 97301
email: B2H.DPOComments@Oregon.gov

Dear Kellen Tardaewether,

I have reviewed a good deal of the information provided by Idaho Power with respect to environmental impacts. It is difficult to determine whether Idaho Power has performed due diligence in preparing their material. Indeed, much may be outdated and incorrect relative to recent understanding of climate change, current species surveys and so forth. One disturbing aspect of the project is habitat fragmentation and how this will impact a variety of species.

Reading through the 532 page document “2019-05-21-B2H-DPO-Attachment-3.pdf” I have the following comments and observations.

1. Idaho Power’s responses to lengthy critiques from various entities are minimal, typically lacking sufficient detail to appreciate that the responses have truly taken into consideration the issues outlined. The Oregon Department of Energy should not accept abbreviated and insufficient responses to valid critiques.
2. In response to questions about alternate routes for the transmission lines, the printed response that “Idaho Power has determined... least cost, least risk...” [alternative] should not be considered adequate. This is tantamount to putting the fox in charge of the henhouse. The Oregon Department of Energy should accept nothing less than an independent analysis, not contracted by Idaho Power.
3. In terms of ecological impacts and in particular habitat fragmentation, the concerns of native peoples and, it would seem, even those of ODOE have not been considered. References to habitat loss, fragmentation, and other human impacts have focused on either large mammals like livestock or on sensitive species such as pygmy rabbits, ground squirrels and sage grouse. As yet I have found no indication of an effort to consider general effects of habitat fragmentation. One concern in particular is the effect of roads that create small ecological islands, which in turn tend to concentrate small animals in those islands. A consequence of the concentration is more rapid and complete spread of viruses that not only have a deleterious effect on mammals but can impact humans as well. Of particular concern is the sin nombre strain of Hantavirus that infects both rodents and humans. People that come into contact with the virus by way of a rodent may suffer a potentially deadly respiratory disease. According to the Center for Disease Control:

“Hantavirus Pulmonary Syndrome (HPS) is a severe, sometimes fatal, respiratory disease in humans caused by infection with hantaviruses. Anyone who comes into contact with rodents that carry hantaviruses is at risk of HPS. Rodent infestation in and around the home remains the primary risk for hantavirus exposure. Even healthy individuals are at risk for HPS infection if exposed to the virus.”

A common “reservoir” for Hantavirus is the Deer Mouse (*Peromyscus maniculatus*), common in the areas proposed for the B2H transmission lines. So, the more fragmentation, the more likely it is for a farmer, rancher, tourist or power company worker to come into contact with the virus.

Furthermore, this project will go through the area surveyed for the Antelope Ridge Wind Development. Due to the lack of meaningful information being provided by Idaho Power in their application, it is necessary to go to the 2010 formal letter information summary to find their summary of effects. These are projected habitat impacts from the Antelope Ridge Wind Development in the area to be crossed by the B2H transmission line. ODFW comments regarding the surveys completed thus far have identified four active golden eagle nests in this area. ODFW recommended no new roads be constructed within 1 mile (1/2 mile line of site) of the nests. Construction and maintenance activities should not occur within 1 mile line of sight (1/2 mile non line of site) of nest between January 1 and July 15.

How will Idaho Power construct and maintain power lines yet not disturb eagle nesting habitat? How will a reduced safety distance continue to provide protection for golden eagles. Will the roads being built at the site comply with OAR 345-022-0060. Are you satisfied that Idaho Power has considered the most recent scientific data in terms of habitat impacts? Do you have their reference list? Much of what I observed in their proposal is material that was cut-and-paste from other projects done years ago. The Oregon Department of Energy should not accept conclusions of habitat and wildlife impacts that are based on outdated information.

Below is a brief bibliography of several scientific research studies that have looked into the Hanta Virus issue:

Boone JD, Otteson EW, McGwire KC, Villard P, Rowe JE, and St Jeor SC (1998) Ecology and demographics of hantavirus infections in rodent populations in the Walker River Basin of Nevada and California. *American Journal of Tropical Medicine and Hygiene* 59:445-451

Fahrig L (2003) Effects of habitat fragmentation on biodiversity. *Annual Review of Ecology Evolution and Systematics* 34:487-515

Mackelprang R, Dearing MD, and St Jeor S (2001) High prevalence of Sin Nombre virus in rodent populations, central Utah: a consequence of human disturbance? *Emerging Infectious Diseases* 7:480-482

Myers SS, Gaffikin L, Golden CD, Ostfeld RS, Redford KH, Ricketts TH, et al. (2013) Human health impacts of ecosystem alteration. *Proceedings of the National Academy of Sciences* 110:18753-18760

Olsson GE, White N, Ahlm C, Elgh F, Verlemyr AC, Juto P, et al. (2002) Demographic factors associated with hantavirus infection in bank voles (*Clethrionomys glareolus*). *Emerging Infectious Diseases* 8:924-929

Prugh LR, Hodges KE, Sinclair AR, and Brashares JS (2008) Effect of habitat area and isolation on fragmented animal populations. *Proceedings of the National Academy of Sciences* 105:20770-20775

Rubio, A.V., Ávila-Flores, R. & Suzán, G. (2014) Responses of Small Mammals to Habitat Fragmentation: Epidemiological Considerations for Rodent-Borne Hantaviruses in the Americas

In my opinion, the environmental impact analyses for this project are inadequate. Despite a very large volume of information provided, many pernicious issues.

A handwritten signature in black ink, appearing to read "Randy Zelick". The signature is written in a cursive, flowing style.

Signature/name Randy Zelick

Address: 2230 Washington Ave, Baker City, OR, 97814

Oregon Energy Facility Siting Council
c/o Kellen Tardaewether, Senior Siting Analyst
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Subject: Idaho Power Application for a Site Certificate for the Boardman to Hemingway Transmission Project (B2H) 9/28/2018; Draft Proposed Order 5/23/2019.

Dear Chair Beyeler and Members of the Council,

This letter is a public comment for the above referenced project. Specifically, this letter will discuss Idaho Power's compliance with Standard 345-022-0110 - Public Services, in Exhibit U (3.5.6.2 and 3.5.6.5) of the EFSC application for B2H to ODOE. The letter will discuss the impact potential wildfires caused by the B2H transmission line will have on the ability of public and private providers within the analysis area to provide fire protection.

The effect of transmission lines on wildfire impact in western states has been well documented. In California, PG&E lines have caused 5 of the 10 most destructive fires since 2015, producing a liability of over 30 billion for PG&E. When considering the impact of B2H's operation, residents of Union County find the similarities between La Grande and Paradise California, where the infamous Camp Fire struck in 2018, deeply concerning. La Grande and Paradise share similar elevations and populations, however, La Grande has several characteristics that make it significantly more vulnerable to the ravages of wildfire than Paradise. For instance, La Grande averages 18 inches of rain yearly while Paradise enjoys 55 inches. Additionally, the proposed line runs adjacent to La Grande, while the line causing the Camp Fire was 7 miles from Paradise. *Oregon's 2006 Communities at Risk Assessment* by the Oregon Department of Forestry cites a startling fact: **The fire risk of the wildland urban interface (WUI) in La Grande has been rated the #1 WUI fire risk in Oregon!**

There is no doubt that construction of the proposed B2H transmission line would significantly increase the risk of wildfire in our area. From Idaho Power's own Draft Protection Order (Exhibit U-3.5.6.2, p. U-24): "Most activities will occur during summer when the weather is hot and dry. Much of the proposed construction will occur in grassland and shrub-dominated landscapes where the potential for naturally occurring fire is high. Project construction-related activities, including the use of vehicles, chainsaws, and other motorized equipment, will likely increase this potential risk in some areas within the Site Boundary. Fire hazards can also be related to workers smoking, refueling, and operating vehicles and other equipment off roadways. Welding on broken construction equipment could also potentially result in the combustion of native materials near the welding site." Idaho Power recognizes this hazard but makes no consideration of it in its application.

There are several specifics to examine in an analysis of the proposed B2H line's effects on Union County's ability to provide fire protection services. Firstly, firefighting crews in our region are

limited and volunteer. In their application, Idaho Power avers, “Most of the fire districts within the analysis area comprise volunteers, and in some cases, it takes considerable time to collect and mobilize an entire fire crew.” As well, JB Brock, Union County emergency Manager states in Idaho Power’s application “volunteer fire departments (rural fire protection districts) have a hard time finding volunteers due to budget constraints, similarly to budget constraints at the state and federal level. The wildland fires are getting bigger and cost more to fight” (U-1C-6). Fire crews in Union County are not equipped to handle potential wildfires generated by the proposed B2H transmission line.

The fact that fire crews are unstable, small and volunteer affects many aspects of their ability to respond to wildfires. Delayed response times, as noted in the quote from the previous paragraph, is one effect. Estimates of response time in the EFSC application are best-case scenarios. The estimate of 4 to 8 minutes as the response time in Union County (Table U-10) is far from even a best-case scenario (p. U-17). Residents that live on Morgan Lake Road concur that driving time is at least 10-15 minutes to the most accessible areas of the line from the base of Morgan Lake Road. Add to this estimate travel time from the La Grande Fire Station (approximately 7 minutes) and the time needed for individual fire fighters to travel to the Fire Station for a more realistic best-case scenario response time. The Paradise Camp Fire burned at a rate of over 1 acre per second!

Another factor in transmission line fires particularly impactful for small volunteer fire departments is the complications to firefighting introduced by the transmission lines themselves. According to Marvin Vetter, ODOF’s Rangeland Coordinator, “local crews have no training in this scenario and will wait for the lines to be de-energized.” JB Brock, Union County Emergency Manager, states, “The project (transmission line) could limit the ability on initial attack if fire fighters have to wait for power lines to be de-energized.” (U-1C-6) These delays allow fires to grow even more.

How can communities struggling to maintain volunteer fire crews hope to address the overwhelming additional challenges and risks imposed by a project such as the B2H transmission line? Where is this addressed in Idaho Power’s application and how can Idaho Power conclude that the proposed B2H transmission line is “not expected to have significant adverse impacts on fire protections services” (Exhibit U 3.5.6.2)? Considering the current capacities of fire protection services in Union County and the additional risks of wildfire imposed by the B2H transmission line, I urge you to act in accordance with state statute OAR 345-022-0110 and reject Idaho Power’s application to construct the Boardman to Hemingway transmission line.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy Zelick". The signature is written in a cursive, flowing style.

Name Randy Zelick

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