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8	FOURTH AMENDED
9	SITE CERTIFICATE
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11	FOR THE
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13	NORTHWEST NATURAL
14	SOUTH MIST PIPELINE EXTENSION
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27	ISSUED BY
28	On the case Francisco Francisco Grant Company
29	OREGON ENERGY FACILITY SITING COUNCIL
30	625 MARION STREET NE
31	SALEM OR 97301-3737
32	502 270 4040
33	503.378.4040
34	503.373.7806 fax
35	
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38	JULI 21, 2001
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2		FOURTH AMENDED SITE CERTIFICATE FOR SOUTH MIST PIPELINE EXTENSION		
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2	FOURTH AMENDED			
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4	FOR THE			
5	NORTHWEST NATURAL			
	SOUTH MIST PIPELINE EXTENSION			
6 7	SOUTH WIIST FIFELINE EXTENSION			
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9	I. Introduction			
10	This Amended Site Certificate for the South Mist Pipeline Extension ("SMPE") is issued and			
11	executed in the manner provided by ORS chapter 469, by and between the State of Oregon			
12	("State"), acting by and through its Energy Facility Siting Council ("Council"), and Northwest			
13	Natural Gas Company ("NWN" or "certificate holder").			
14				
15	The findings of fact, reasoning and conclusions of law underlying the terms and conditions of			
16	this Site Certificate are set forth in:			
17	(1) the Council's Final Order in the Matter of the Application for a Site Certificate for the South			
18	Mist Pipeline Extension, which the Council granted on March 13, 2003;			
19	(2) the Council's Final Order Approving Amendment #1, which the Council issued on August			
20	28, 2003;			
21	(3) the Council's Final Order Approving Amendment #2, issued on December 5, 2003;			
22	(4) the Council's Final Order Approving Amendment #3, issued on April 23, 2004; and			
23	(5) the Council's Final Order Approving Amendment #4, issued on July 27, 2007.			
24	De this reference the Final Orders listed shows one in compared housing. In intermediate this Site			
<ul><li>25</li><li>26</li></ul>	By this reference, the Final Orders listed above are incorporated herein. In interpreting this Site Certificate, any ambiguity shall be clarified by reference to, and in the following priority: (1)			
27	this Site certificate; (2) the Final Orders Approving the Site Certificate and Amendments			
28	1through 4; and (3) the record of the proceedings that led to the Final Order in the Matter of the			
29	Application for Site Certificate.			
30	Approximation for Site Commence.			
31	The terms used in this Site Certificate shall have the same meaning set forth in ORS 469.300 and			
32	Oregon Administrative Rules (OAR) 345-001-0010, except where otherwise stated or where the			
33	context clearly indicates otherwise. The term "corridor" means the 200-foot wide corridor that			
34	the Council approved as the site for the SMPE, plus workspaces and access routes approved by			
35	the Council under Amendments 1, 3 and 4.			
36				
37	II. SITE CERTIFICATION			
38	1. To the extent authorized by State law and subject to the conditions set forth herein, the			
39	State approves and authorizes the certificate holder to construct, operate and retire a 24-			
40	inch diameter natural gas transmission pipeline, approximately 62 miles in length, within			
41	a corridor described in Section C of this Site Certificate, between the Bacona Station in			
42	Washington County and the Molalla Gate Station near Molalla Oregon. ORS 469.401(1).			

1 2. This Site Certificate shall be effective (1) until it is terminated pursuant to OAR 2 345-027-0110 or the rules in effect on the date that termination is sought, or (2) until the 3 Site Certificate is revoked pursuant to ORS 469.440 and OAR 345-029-0100 or the 4 statutes and rules in effect on the date that revocation is ordered. ORS 469.401(1).

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6 3. This Site Certificate does not address, and is not binding with respect to, matters that 7 were not addressed in the Council's Final Order of March 13, 2003 or the Orders 8 Approving Amendments 1 through 4. These matters include, but are not limited to: 9 building code compliance; wage, hour and other labor regulations; local government fees 10 and charges; other design or operational issues that do not relate to siting the SMPE; and permits issued under statutes and rules for which the decision on compliance has been 11 12 delegated by the federal government to a state agency other than the Council. ORS 13 469.401(4) and 469.503(3).

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15 4. Both the State and the certificate holder shall abide by local ordinances and state law and 16 the rules of the Council in effect on the date this Site Certificate is executed. In addition, upon a clear showing of a significant threat to the public health, safety or the environment 17 18 that requires application of later-adopted laws or rules, the Council may require 19 compliance with such later-adopted laws or rules. ORS 469.401(2).

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21 For a permit, license or other approval addressed in and governed by this Site Certificate, 5 22 the certificate holder shall comply with applicable state and federal laws adopted in the 23 future to the extent that such compliance is required under the respective state agency 24 statutes and rules. ORS 469.401(2).

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26 6. Subject to the conditions herein, this Site Certificate binds the State and all counties, cities and political subdivisions in this state as to the approval of the site and the construction, operation and retirement of the SMPE as to matters that are addressed in and governed by this Site Certificate. ORS 469.401(3).

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7. Each affected state agency, county, city and political subdivision in the State with authority to issue a permit, license or other approval addressed in or governed by this Site Certificate shall, upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this Site Certificate. ORS 469.401(3).

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37 After issuance of this Site Certificate, each state agency or local government agency that 8. 38 issues a permit, license or other approval for the SMPE shall continue to exercise 39 enforcement authority over such permit, license or other approval. ORS 469.401(3).

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41 9. After issuance of this Site Certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy ("ODOE" or 42 43 "Department") to inspect, or request another state agency or local government to inspect, 44 the site at any time in order to assure that the SMPE is constructed and operated 45 consistently with the terms and conditions of this Site Certificate. ORS 469.430.

### III. FACILITY DESCRIPTION

A. FACILITY

The SMPE is a 24-inch diameter natural gas pipeline, approximately 62 miles long. Its northern terminus is the Bacona Blowdown Station, which is located in forest land north of Dairy Creek just south of the Washington and Columbia County border. It extends generally south and east through rural lands in Washington, Marion and Clackamas Counties. Its most southerly point is the Williams Pipeline Gate Station located northwest of Molalla.

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NWN proposed the pipeline to effectively utilize gas storage capacity at the Mist Underground Natural Gas storage facility. An underground natural gas storage facility provides NWN with a means of balancing relatively constant pipeline gas supplies with widely fluctuating demand. Gas usage is generally lowest during summer months and peaks during the winter. The underground natural gas storage operation consists of a natural gas production field, retrofitted to inject gas back into the ground and withdraw it on a cyclical basis. Gas is injected into storage during off-peak periods and is withdrawn during periods of peak demand.

Underground reservoir storage requires suitable underground geological conditions in a specific geographic area, and can only be sited where those conditions exist naturally. Mist is one such area because it was, at one time, a producing gas field. The gas stored at Mist is purchased from the interstate natural gas transmission system. NWN proposes this pipeline in order to connect the Mist storage facility with the interstate system.

A second purpose of this pipeline is to accommodate the growth in demand for natural gas in the western Portland suburbs. The NWN distribution system currently includes major feeder lines serving Hillsboro, Sherwood and Newberg. NWN proposed the SMPE in order to connect with these feeder lines and increase the available supply to these suburbs during peak periods.

NWN already operates one 16-inch pipeline that connects the Mist storage facility with the distribution system serving the Portland area. NWN operates this pipeline under a Site Certificate issued by the Council in 1989. The 16-inch pipeline is called the South Mist Feeder. It travels south from Mist, crosses the Tualatin Mountains and enters Washington County in forested land north of the Dairy Creek Valley, travels south through Dairy Creek Valley and east along Mountaindale and West Union Roads until it reaches West Union.

In 1999 the Council amended the South Mist Feeder site certificate, authorizing a 24-inch pipeline parallel to the 16-inch line and located within the same corridor. NWN constructed this 24-inch pipeline in 1999. It starts at the Mist storage facility and runs for approximately 30 miles, tying in to the 16-inch line at a point called the Bacona Blowdown Station, located in forest land just south of the Washington and Columbia County border. NWN proposes to begin the SMPE at the Bacona Blowdown Station and follow the existing corridor for the 16-inch line until just north of Mountaindale Road. From that point, the SMPE site is all new corridor.

In most locations, the proposed pipeline will be buried at a depth of 5 feet on average. This depth may vary based on local requirements. The pipeline must be designed and constructed in accordance with federal safety regulations of the US Department of Transportation at 49 CFR 192. The maximum allowable operating pressure (MAOP) as established by the hydrostatic pressure test, will be 720 psig. The Oregon Public Utility Commission administers the 49 CFR 192 regulations under a delegation from the federal government. The pipeline would be underground its entire length, with the exception of certain above ground valves and inspection points that are required by the federal code.

Although NWN requested a 200-foot wide corridor, the approved site is limited by condition. During the construction period, there will be a construction easement, generally 80 feet wide (the "Construction Easement"). The full width of the Construction Easement will be used only during construction. It will be restored after construction and returned to its previous use. NWN also will require a permanent easement directly over the pipeline for maintenance and safety (the "Maintenance Easement"). The Maintenance Easement will be restored to its pre-construction condition and use except that large trees or other vegetation with potentially damaging root structures will not be allowed to grow in close proximity to the pipeline. The term "easement" is given a specific meaning in this site certificate and is defined for the purposes of this site certificate in General Land Use Conditions.

In general, the Maintenance Easement will be 40 feet wide. Where the pipeline is along public right-of-way, the Council adopts conditions limiting the width of the easement on private land in the EFU zone. In areas where the new pipeline will be placed next to the 16-inch pipeline, the easement will remain 40 feet. In certain locations NWN may need to deviate from the nominal widths of these easements. The site certificate includes conditions under the Council's Land Use Standard OAR 345-022-0030 and Mandatory Conditions under OAR 345-027-0020 that address deviations from the nominal width of the Maintenance and Construction easements.

NWN included 44 aerial photographic panels with the ASC, submitted as Appendix K-2 (and supplemented in July 2001). These panels are the clearest representation of the proposed corridor location, and we refer to them throughout this site certificate. Among other things, the panels show the expected location of temporary lay-down areas that will be required in connection with the construction of the proposed facility. Portions of these proposed lay-down areas are outside of the 200-foot pipeline corridor. On June 5, 2003 NWN requested approval for additional laydown areas and temporary access roads outside the 200-foot corridor. The Council approved of these additional laydown areas and access roads in its August 28, 2003 Order Approving Amendment #1. The approval granted by EFSC includes approval for the construction-related use of the temporary lay-down areas and access roads. To ensure that this use complies with applicable siting standards, this site certificate contains conditions relating to the temporary use of these areas. NWN has also indicated that certain other areas will be used for pipeline construction staging in connection with construction of the proposed facility. This site certificate authorizes only the use of those areas shown on the 44 aerial photographs in Appendix K-2 as supplemented, those described in Exhibit 3 and shown on Exhibits 4 and 5 of NWN's June 5, 2003 request for amendment #1, and those described or shown in Exhibits 2, 3 and 4 of NWN's February 19, 2004 request for amendment #3. In the event that the use of other areas is necessary in connection with the construction of the proposed facility, NWN will (to the extent such uses are within the Council's jurisdiction) address the use of those areas through additional amendment to the site certificate. [amendments 1,3].

In addition to the equipment and structures described in the Application for Site Certificate, the facility includes two compressors installed at the Molalla Gate Station. The compressors can provide additional throughput to the interstate pipeline operated by Williams Co. The compressors are approved in Amendment 4. Associated with the compressor installation is the use of temporary laydown area on the South of Barnards Road, depicted in Exhibit 10 of NWN's request for amendment 4. [Amendment #4]

The SMPE does not include any "related or supporting facilities", as that term is defined at OAR 345-001-0010.

#### B. LOCATION OF THE FACILITY

The following route description is for the approved corridor and the alternate corridor segments. The corridor and corridor segments have also been overlain onto 44 aerial photos, which provide more accurate visual representations of them. Figure K-2 of the ASC shows this in reduced size and is the clearest depiction of the pipeline location in the Application. For purposes of this description, road names are used to identify the location of the Preferred Corridor and Alternate Corridor Segments, but the location in or along the right of way for those roads is governed solely by conditions of the site certificate. The following description does not attempt to deal with the specific location of the pipeline within the corridor.

The approved corridor for the SMPE has its northern terminus in Washington County at the Bacona Blowdown Station, which is the terminus of the 24-inch loop that NWN added to the South Mist Feeder pipeline in 1999 under amendment 2 to its existing site certificate. It continues through the Dairy Creek Valley, paralleling in close proximity to the existing 16-inch South Mist Feeder. The Preferred Corridor deviates from the existing easement for the 16-inch pipeline just north of Mountaindale Road. At this point, the Council authorizes Preferred and Alternate corridor segments. Both options include a bore under Dairy Creek near its intersection with Mountaindale road. From this intersection, the route proceeds south along Mountaindale Road and Dersham Road to the north side of State Highway 26, where it turns to the east and runs parallel to the highway right-of-way. The route continues east approximately one-half mile to the highway overpass and then turns south, crossing under the highway overpass and the railroad right-of-way.

At this point, a Preferred Corridor and an Alternate Corridor Segment have been identified. The Preferred Corridor aligns with Milne Road and continues south to Zion Church Road, turns east, and then proceeds to Davis Road. The Alternate Corridor Segment, known as the Milne/Gordon Road Alternate, proceeds east along the south side of the Highway 26 right-of-way, turns south along Gordon Road, proceeds south to Zion Church Road, and then turns west and proceeds to Davis Road. The Preferred Corridor and the Milne/Gordon Road Alternate intersect at Davis Road and Zion Church Road where both turn south along Davis Road.

The Preferred Corridor then proceeds south to Wren Road, where it turns east and then south along Leisy Road. It continues south to the intersection with Hornecker Road and Padgett Road, where it continues south along the Padgett Road public right-of-way for approximately one-half mile and then traverses private land to the west. At this point, NWN again identified Preferred and Alternate options. Both options generally parallel Dairy Creek and lead to an underground bore south across State Highway 8. The corridor continues cross-country in a general southeasterly direction and then turns southerly just west of Highway 219, which it parallels until the first crossing of the Tualatin River.

The Preferred Corridor intersects Highway 219 just south of the Tualatin River and continues to just south of Burkhalter Road, where it traverses cross-country in a generally easterly direction along property boundaries and then intersects Burkhalter Road near Road Bridge Road.

The corridor continues east past Rood Bridge Road and traverses cross-country in a southeasterly direction to the second crossing of the Tualatin River. Just south of the Tualatin River, the corridor intersects River Road and continues southerly and southeasterly along River Road where it transitions to Highway 210. In the vicinity of Tuefel Hill Road, the corridor traverses cross-country until it intersects Pleasant Valley Road and then proceeds southbound. Just south of the Tualatin River National Wildlife Refuge, the corridor traverses cross-country to the south, crossing the Tualatin River and continuing south to Scholls-Sherwood Road.

At this point, the Council has approved a Preferred corridor and one Alternate corridor segment. The Preferred corridor aligns eastbound along Scholls-Sherwood Road and transitions onto Elwert Road southbound. It diverges from Elwert Road at Chicken Creek, where the corridor traverses southwest cross-country to Krueger Road. The alternate to the Preferred Corridor, the Edy/Elwert Road Alternate, continues further south along Elwert Road, and across Edy Road, for approximately one-half mile and then proceeds cross-country to the west, turning south and east along property lines to Haide Road, until it intersects the Preferred Corridor. (A second alternate Corridor Segment, the Eastview Road Alternate, was proposed in the application but shall not be used, in accordance with a condition to the Site Certificate.)

At this point, the Preferred Corridor turns east and crosses Highway 99W and continues east along Brookman Road. The corridor follows Brookman Road to a point near the Washington/Clackamas County line, traverses cross-country to the south and intersects with Ladd Hill Road. It continues south and east following Ladd Hill, Pleasant Hill, McConnell, and Tooze Roads, and then turns south onto Baker Road.

At this point, Council approved a Preferred Corridor, which continues along Baker Road, and an Alternate Corridor Segment, the Baker Road Alternate, which would provide a more direct lineup for the directional drilling under the Willamette River. The Preferred Corridor and the Baker Road Alternate join at the proposed laydown area, where the Preferred Corridor continues south cross-country, passing under the Willamette River and emerging in close proximity to Butteville Road approximately one-half mile west of Graham Road. The Preferred Corridor continues cross-country to the south, crosses the Marion/Clackamas County line, continues to

45 Arndt Road, and turns east.

- 2 At this point the Preferred Corridor proceeds eastbound, crosses under I-5, transitions from
- 3 Marion to Clackamas County, and continues east to the Hubbard cutoff, where it turns south.
- 4 The corridor continues south a short distance and traverses to the east on private property to
- 5 Airport Road. Before the Preferred Corridor's intersecting with Airport Road, NW Natural has
- 6 identified another Alternate Corridor Segment, the Aurora Airport Alternate, through the Aurora
- 7 Airport. The Aurora Airport Alternate and the Preferred Corridor join at the intersection with
- 8 Airport Road.

- 10 The Preferred Corridor then turns south onto Airport Road, proceeds a short distance to the
- south, turns east and traverses private property, crosses under the Pudding River, and emerges in
- 12 the vicinity of Anderson Road. It follows Anderson Road for a short distance, turns south about
- 13 600 feet before Barlow Road, and crosses Highway 99E. The corridor intersects Barlow Road,
- turns south, and follows Barlow road south until a point just before Zimmerman Road.

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- At this point, the Preferred Corridor runs parallel to roads, but follows property lines. It
- 17 traverses easterly cross-country just north of Zimmerman Road and proceeds east to Oglesby
- Road, where it then turns south. The corridor travels east again on private land just north of
- 19 Heinz Road. It continues east past Dryland Road, and turns south along property lines to the
- 20 Molalla Gate Station. A site certificate condition states that NWN shall use this preferred
- 21 corridor. An alternate corridor, along Heinz, Zimmerman and Dryland Roads, was proposed but
- will not be used.

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### IV. Site Certificate Conditions

- 25 Based upon the review of the record, excluding any evidence not properly or timely made a part
- of the record and including the Application for Site Certificate, the Proposed Order, the Hearing
- 27 Officer's Recommended Order and findings contained therein, parties' exceptions and responses
- 28 to exceptions to the Recommended Order and oral argument of the parties, the Council on March
- 29 13, 2003 adopted the ODOE Proposed Order, attached to the Council's final order as Attachment
- 30 C, as specifically modified by the Council's final order, and approved a site certificate for the
- 31 SMPE, subject to conditions of approval. The Council modifies those conditions based on its
- 32 review of NWN's requests for Amendments 1 and 2. As amended, the conditions of the site
- 33 certificate are as follows:

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### A. MANDATORY CONDITIONS FROM OAR CHAPTER 345, DIVISION 27

1) NWN shall submit to the Department two copies of a legal description of the site to be appended to the Site Certificate prior to beginning operation. For the purposes of this site certificate, the term "legal description" means a legal description of the permanent maintenance easements recorded by NWN, and an accurate map or set of maps that clearly and specifically show the boundaries of the maintenance easements. The map must be in no smaller scale than 1 inch to 500 feet. In the event of a conflict between the recorded easements and the map, the recorded easements will control.

- 2) The pipeline shall be designed, constructed, operated and retired substantially as described in
- 4th Amended Site Certificate NWN South Mist Pipeline Extension 7/23/2007 p.7

1 the Final Order Approving Site Certificate; in compliance with the requirements of ORS 2 Chapter 469, applicable Council rules, and applicable state and local laws, rules and 3 ordinances in effect at the time the Site Certificate is issued; and in compliance with all 4 applicable permit requirements of other state agencies.

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3) Construction shall commence not later than 18 months after issuance of the site certificate or the final resolution of appeals and shall be completed not later than three years following the commencement of construction. In no event shall construction commence after July 1, 2005.

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11 12 4) No construction, including clearing of a right of way, except for the initial survey, may commence on any part of the facility until the certificate holder has adequate control, or has the statutory authority to gain control, of the lands on which clearing or construction will occur.

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5) NWN shall prevent any condition over which NWN has control from developing on the site that would preclude restoration of the site to a useful condition.

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6) NWN shall restore vegetation to the extent practicable and shall landscape portions of the area disturbed by construction in a manner compatible with its surroundings and/or proposed future use. Upon completion of construction, NWN shall dispose of all temporary structures not required for future use and all refuse and flammable materials or combustible material resulting from the clearing of land or from construction of the facility, as well as timber and brush that is not used for habitat mitigation in accordance with conditions related to the Council's Fish and Wildlife Habitat standard.

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32 33 7) The construction easement shall be limited to 80 feet, except where a narrower or wider construction corridor is required by conditions related to individual Council standards. NWN may deviate from this maximum construction easement width if such deviations are authorized by ODOE. To obtain authorization from ODOE for a deviation in easement width, NWN must provide ODOE with the following information: 1) the location of the requested deviation; 2) the reason(s) for the deviation and any documentation necessary to demonstrate such reasons; 3) the proposed easement width; and 4) measures that NWN will implement to mitigate additional impacts, if any, on resources protected by Council standards.

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In determining whether to approve the requested deviation, ODOE shall provide a landowner with the opportunity to comment on the requested easement and on mitigation and minimization measures. ODOE shall approve the requested deviation if it determines:

- 39 i. A landowner has granted a wider easement to accommodate topsoil removal and ODOE 40 concurs that the wider easement is necessary to accommodate additional topsoil removal; 41
  - ii. A deviation in easement width is necessary to comply with other site certificate conditions;
- iii. A deviation in easement width is required to meet federal pipeline safety standards or 42 OPUC or OSHA safety standards; 43
  - iv. A deviation in easement width is necessary to accommodate:

a) Laydown and workspace areas for HDD, slick bore, prefabrication and pipe 2 forming areas;

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- b) Staging areas for wetland, stream and road crossings and hydrostatic testing withdrawal and discharge areas;
- c) Temporary construction parking and pipe and construction material storage; or
- d) Topsoil and subsoil storage areas for side slope or excess trench depth; or
- e) Access to the pipeline construction easements [amendment 1]
- v. A deviation in easement width is necessary to avoid irrigation infrastructure, existing utilities, or other structures; and
- vi. NWN will implement mitigation measures as consistent with state law and this site certificate to mitigate or minimize any additional impacts to resources protected by Council Standards.
- 8) After construction, the site, as that term is defined in ORS 469.300 and OAR 345-01-0010, shall be the 40 foot wide permanent easement between the Bacona Blowdown Station and the Molalla Gate Station
- 9) Before any transfer of ownership of the facility or ownership of the site certificate holder, NWN shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that requires a transfer of the site certificate
- 10) If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the substantially as described in Section IV.A.6 of the Proposed Order (Attachment C of the Final Order), the Council may direct the Department to prepare a proposed a final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.

### SITE SPECIFIC CONDITIONS UNDER OAR 345-027-0023

1) NWN shall notify ODOE, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that subsurface conditions differ significantly from those described in the Application for Site Certificate. The Council may, at such time, require the certificate holder to propose additional mitigating actions in consultation with the Department of Geology and Mineral Industries and the Building Codes Division.

- NWN shall notify ODOE, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site.
- 5 3) NWN shall submit to ODOE copies of all incident reports involving the certified pipeline required under 49 CFR §192.709.

### C. MONITORING CONDITIONS UNDER OAR 345-027-0028

- 1) NWN shall establish, in consultation with affected state agencies and local governments, monitoring programs as required by the Site Certificate for impact on resources protected by the standards of OAR Chapter 345, Divisions 22 and 24 and to ensure compliance with the Site Certificate. The programs shall be subject to the review and approval of the Council.
- 2) NWN shall establish monitoring programs as required by permitting agencies and local governments, as required by the Site Certificate.
- 3) If NWN becomes aware of a significant environmental change or impact attributable to the facility, NWN shall submit to ODOE as soon as possible a written report identifying the issue and assessing the impact on the facility and any affected Site Certificate conditions.

### **D.** CONDITIONS UNDER **OAR 345-027-0020(10)**

- 1) NWN shall locate the SMPE within the road right-of-way along Davis, Milne, Leisy and Pleasant Valley Roads. The maintenance/operation easements for these portions of the site shall be within the existing road rights-of-way. The width and location of the construction easement for these portions of the site shall be governed by General Land Use Condition 5 (requiring that the easement be no more than 80 feet in width, beginning at the centerline of the road right-of-way).
- 2) On the Flint property, along Scholls Ferry Road, NWN shall locate the pipeline so as to avoid any disruption to the 100 year old chestnut tree that is being registered as a Heritage Tree.
- 3) NWN shall not use the Alternate Corridor Segment (along Sherwood Road, Stark Road, LeBeau, Eastview, and Kruger Road) as shown on panels 24 through 26 of Exhibit K-2 of the Application. The other proposed alignments for the Corridor in this segment of the facility are not affected by this condition and are available for use, subject to compliance with all other applicable conditions.
- 4) All temporary access roads will take the form of a traveled path, except where a court has ordered NWN to use another location and that location is permitted by the site certificate.

  NWN shall not apply gravel to any of the farm roads unless the road is already graveled prior to their use of it. [amendment 1]

- 5) Temporary access roads outside the 200-foot corridor will be at most 30 feet wide. This width was selected to accommodate the simultaneous passage of construction equipment (e.g., an 11-foot track hoe) and a 10-foot-wide farm tractor with implements. [amendment 1]
- 5 6) Once construction and restoration are completed, the Clean Water Services easement will only be used by inspectors as a footpath except where there is an existing road. [amendment 1]
- 7) Along the PGE power line right of way, NWN will minimize surface impact by restricting right-of-way access to vehicles such as side booms and tractor-mounted winch units. NWN will not cut any of the coniferous trees outside of the power transmission right-of-way.

  [amendment 1]
  - 8) There will be no clearing, grading, or ground disturbance on the workspaces and access routes other than the impact of driving vehicles and storing equipment and material except to remove vegetation for fire control. At the Chicken Creek bore laydown area in PGE's right-of-way, brush may be cut back to facilitate side-boom access, but no grading will take place. Following construction, the shrubs will be allowed to grow back. This condition is not intended to preclude post-construction site restoration activities. [amendment 1]
  - 9) NWN shall use existing farm roads for access on these properties: Shirazi, Wetter, Davis, Leach, Oregon Parks Department, Sweningson, Downey, Klupenger, Anderson, Lais and DeMartini [amendment 1].
  - 10) If workspace is needed to accommodate hard surface replacement, an HDD bore, or to enable special construction techniques due to unusual site specific constraints, use of the workspace is contingent on NWN performing the hard surface replacement, bore or other special technique. [amendment 1].
  - 11) Notwithstanding OAR 345-027-0020(1) Condition 1, the permanent maintenance easement may deviate outside of the Leisy road right-of-way to accommodate the transition of the SMPE from the Leisy Road alignment to the Padgett Road alignment as described in NWN Application for Amendment No. 3, Exhibit 2, Panel 12. [amendment 3]

#### E. CONDITIONS RELATED TO EFSC STANDARDS

Organizational Expertise Standard:

- 1) NWN shall contractually all require contractors and subcontractors involved in the construction and operation of the Project to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. Such contractual provision shall not operate to relieve the certificate holder of responsibility under the site certificate.
- 2) NWN shall obtain all necessary state and local permits or approvals required for the construction, operation and retirement of the Project.

Structural Standard:

- 1) NWN shall assess seismically induced damage from slope movement following any earthquake that generates peak ground accelerations in excess of 0.1g along the corridor.
- 4th Amended Site Certificate NWN South Mist Pipeline Extension 7/23/2007 p.11

2) NWN shall design and construct the pipeline substantially in accordance with the recommendations of Appendix H-1 of the Application, Section 6.1: "Hazard Mitigation."

3) During construction of the pipeline, NWN shall provide that construction is observed by a qualified geo-professional to ensure that the recommendations contained in Appendix H-1 of the Application are implemented properly and that any unforeseen field conditions are reported to NWN. If changes are encountered in the field, NWN shall ensure that the pipeline design is modified to provide for safe installation and operation of the pipeline.

4) In areas of critical geotechnical importance, trenching will not proceed without confirmation that ODOE and DOGAMI have been notified at least one week in advance. This notice is required to afford ODOE and DOGAMI the opportunity to send qualified monitoring personnel, which monitoring shall be performed at NWN expense. If NWN provides timely notice, the failure of ODOE or DOGAMI to send qualified personnel shall not prevent NWN from performing the specified work. The critical areas are defined as the corridor north of the point where Dairy Creek Road terminates, and the corridor between Brookman and Tooze Roads.

5) On properties to which NWN has been denied access prior to issue of this site certificate, a registered geologist or geotechnical engineer shall be present during trenching along the ridge north of where Dairy Creek Road terminates, and also on private property between Brookman Road and the intersection with Ladd Hill Road, and shall provide to ODOE a written record of observations prior to pipeline operation.

6) NWN shall follow a schedule of right-of-way monitoring for landslide hazard, based on the following criteria:

- immediately after 4 or more inches of rain within 48 hours

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immediately after 6 or more inches of rain within 7 days
immediately after a rain on snow event that might have a similar effect as either of the above precipitation events.

Rainfall shall be measured using METARS and RAWS, including Miller Station, as described by URS.

7) In addition to strain gauges installed on the pipeline, NWN shall install vertical and horizontal inclinometers in appropriate locations to monitor for ground movement in the vicinity of the Sherman Mill slide. The installation shall be prior to or concurrent with pipeline construction. NWN shall monitor these instruments and report findings to ODOE yearly after installation. If the instruments indicate ground movement that is different from what was predicted in the ASC, NWN shall promptly report to the Council and describe any corrective actions necessary to alleviate danger to the pipeline. Pursuant to Amendment 4, continued use of the horizontal inclinometers is not required. Any abandonment of horizontal inclinometers shall meet Water Resources Department regulations at OAR Chapter 690 Division 240.

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8) NWN may install two additional compressors at the Molalla Gate Station, on land within the existing gate station. Installation of compressors at Molalla Gate Station shall be substantially in accordance with the engineering recommendations of Exhibit 11 in the Request for Amendment #4. [amendment 4].

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#### Soil Protection Standard

1) NWN shall use erosion prevention techniques and sediment control measures as described in the Erosion Prevention and Sediment Control Manual (December 2000) jointly developed by the Clean Water Agency, Washington County, Clackamas County, and the city of West Linn, or its successor. Use of these measures shall not be limited to Washington County.

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2) ODOE will hire an independent, qualified agricultural inspector to facilitate, verify, document and enforce the implementation of the AIMP. This agricultural inspector will work with NWN, who will continue to have primary responsibility to implement the measures described in the AIMP, in accordance with its terms. NWN will reimburse ODOE for the expense of the independent agricultural inspector.

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3) NWN shall implement the Agricultural Impact Mitigation Plan (AIMP) (October 2001) and all steps contained therein, except that the AIMP shall be modified (1) to require segregation of topsoil to the "A" horizon, as opposed to the 12 inches described in the AIMP, and (2) by the inclusion of an alternate method of topsoil segregation described in Addendum 1 to the AIMP. As a supplement to the AIMP, NWN shall implement the Post Construction Crop Monitoring Plan (PCCMP) (November 2002) and all steps contained therein. The AIMP, including revisions adopted by the Council, is included as Attachment D to the Final Order.

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4) NWN shall design and construct the pipeline substantially in accordance with the representations made in Exhibit I of the Application for Site Certificate, March 2001. Mitigation steps that are described in Exhibit I and are not listed in the AIMP are nonetheless considered binding commitments by NWN and shall apply.

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5) Site specific mitigation measures shall be tailored to the soil type, as listed in Tables I-2, I-3 and I-4 of the ASC.

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6) NWN shall certify that all NWN and contract supervisory personnel with construction responsibility are trained in the specific mitigation requirements described in Exhibit I, the Agricultural Impact Mitigation Plan, and the Council's final order. Plans, subject matter, and the schedule for this training shall be made available to ODOE and ODA prior to start of construction.

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#### Land Use Standard

#### 42 General Land Use Conditions

1) Definition of "Easement." For purposes of the conditions contained in this order and site certificate, the term "easement" means both the area within an existing public road or highway right-of-way within which the construction, operation and/or maintenance of the facility is authorized by a county or state permit or other similar governmental authorization, and any adjoining easement area outside of the right-of-way.

2) Permanent Easement: Arterials and Collectors in an EFU Zone. Where the corridor includes existing public road or highway right-of-way (whether or not that right-of-way is improved) within an EFU district, and the road or highway is classified by the county or by the state as an arterial or collector road, the maintenance/operation easement for that portion of the facility shall be located so that the edge of the easement begins at the centerline of the right of way. In addition, the width of the maintenance/operation easement for this portion of the facility may extend beyond the edge of existing public road or highway right-of-way by up to 20 feet.

3) Construction Easement: Arterials and Collectors in an EFU Zone. Where the corridor includes existing public road or highway right-of-way (whether or not that right-of-way is improved) within an EFU district, and the road or highway is classified by the county or by the state as an arterial or collector road, the construction easement for that portion of the facility shall be located so that the edge of the easement begins at the centerline of the right of way. In addition, the width of the construction easement for this portion of the facility may extend beyond the edge of existing public road or highway right-of-way by up to 50 feet.

4) Permanent Easement: Local Roads in an EFU Zone. Where the corridor includes existing public road or highway right-of-way (whether or not that right-of-way is improved) within an EFU district, and the road or highway is classified by the county or by the state as a local road, the maintenance/operation easement for that portion of the facility shall be located so that the edge of the easement begins at the centerline of the right of way. In addition, the width of the maintenance/operation easement for this portion of the facility is limited to no more than 40 feet, measured from the centerline of the road right-of-way.

5) Construction Easement: Local Roads in an EFU Zone. Where the corridor includes existing public road or highway right-of-way (whether or not that right-of-way is improved) within an EFU district, and the road or highway is classified by the county or by the state as a local road, the construction easement for that portion of the facility shall be located so that the edge of the easement begins at the centerline of the right of way. In addition, the width of the construction easement for this portion of the facility is limited to no more than 80 feet, measured from the centerline of the road right-of-way.

6) General Width Restrictions (All Zones). Unless otherwise allowed by these conditions, the permanent easements for the facility are limited to no more than 40 feet in width, and the temporary/construction easements are limited to no more than 80 feet in width. See also, Mandatory Conditions 7 and 8. In the event of any conflict between this condition, conditions 2-5 above, or mandatory conditions 7 or 8, the following priority shall control: (a) Mandatory Condition 7 shall take first priority in the event of any conflict involving a temporary/construction easement; (b) General Land Use Conditions 2-5 shall take next

priority; and (c) the general widths of 40 and 80 feet specified in this condition and in mandatory conditions 7 and 8 shall control to the extent that (a) and/or (b) do not.

7) Conflict with Existing Utility Lines. Notwithstanding conditions 2, 4 and 6, above, where there are existing utility lines in that portion of the public road or highway right-of-way where the facility would otherwise be located, the maintenance/operation easements for the facility may extend outside of the existing road or highway right-of-way by up to 20 feet, regardless of the classification of the road and regardless of the resulting overall width of the easement.

8) Conflict with Safety Regulations. Notwithstanding conditions 2, 4 and 6, above, the maintenance/operation easements for the facility may extend further outside of existing road or highway right-of-way (than otherwise allowed by conditions 1-7, above) where necessary to comply with safety regulations of Oregon Occupational Safety and Health Administration or the Oregon Public Utilities Commission.

9) Split Zone Corridor. Where the corridor includes lands on both sides of a public road, and those lands are zoned EFU only on one side of the road, NWN shall locate the facility on the side of the road that is not zoned EFU except where NWN demonstrates that it would be necessary to remove or displace a building to stay on the non-EFU side. This condition may be relaxed if using the non-EFU side would unavoidably result in the pipeline being less than 40 feet from a building used for human occupancy.

10) Avoidance of Category 1 or Category 2 Habitat. If the construction or permanent easements in or adjacent to road right-of-way would affect Category 1 or Category 2 habitat as described in section IV.7 of the Proposed Order (Attachment C of the Council's final order), the construction or permanent easement may be sited on land in the EFU zone that is not within the existing road right-of-way, to the extent necessary to avoid Category 1 or 2 habitat. In such cases the easement shall be located as close to the road right-of-way as possible. This permission shall not apply if the habitat will be avoided through HDD or other boring techniques. EFU land that is not in the public road right-of-way shall not be used to avoid habitat of category 3 or lower.

11) Where the corridor for the facility includes the right-of-way of the existing South Mist Feeder line, the permanent easement for the facility shall follow the existing SMF line and the width of the right-of-way for the two pipelines shall not exceed 40 feet.

12) Easements allowed under Amendment #1. (a) Notwithstanding conditions 2 and 6, the permanent maintenance easements on the Nordstrom and Schmidt Limited Partnership properties (NWN Application for Amendment 1 Exhibit 4 panel 40) may be 60 feet in total width including 30 feet of private easement, where the easement includes the drip lines of an ash tree (Nordstrom property) and an oak tree (Schmidt property) and a permanent access easement is allowed access the Clean Water Services property on panel 14. (b) Notwithstanding conditions 3,5 and 6: (1) if a landowner requests topsoil storage on the landowner's property in a location outside the 80-foot easement width, NW Natural may

acquire and utilize a temporary easement covering such other location. The selected location may not alter the contour or drainage in any flood hazard zone and may not affect any wetland as that term is defined in the Oregon State Land Division's wetland delineation criteria. All topsoil so stored shall be returned to its original location in or along the pipeline trench.; and (2) the temporary access and construction laydown easements described and shown in Exhibits 3, 4 and 5 to Application for Amendment 1 to the site certificate are authorized. [amendment 1]

13) Easements allowed under Amendment #3. (a) Notwithstanding General Land Use Conditions 2 and 6, the permanent maintenance easement on the Tonges and Simpson property may be shifted to the west to abut the proposed expanded Oregon Department of Transportation right-of-way for Highway 219 (NWN Application for Amendment No. 3, Exhibit 2, Panel 16); a permanent easement is allowed as modified on the Waibel and Evans properties (NWN Application for Amendment No. 3, Exhibit 2, Panel 13); and a permanent access easement is allowed across the Lakeside and Davis properties (NWN Application for Amendment No. 3, Exhibit 2, Panel 14); (b) Notwithstanding General Land Use Conditions 3, 5 and 6, the temporary access and construction laydown easements described and shown in Exhibits 2, 3, and 4 to Application for Amendment No. 3 to the site certificate area are authorized.[amendment 3]

14) Temporary construction area allowed under Amendment #4. Notwithstanding General Land Use Conditions 3, 5 and 6, the temporary construction parking and laydown area described and shown in Exhibit 10 to Application for Amendment No. 4 to the site certificate area is authorized. [amendment 4]

Wash. Co. Floodplain and Drainage Hazard Regulations (WCC § 421), Erosion Control Regulations (WCC § 426), and Grading and Drainage Regulations (WCC § 410):

1) NWN shall obtain from the Washington County Operations Division, and its equivalent in Clackamas and Marion counties, all required utility permits to allow construction of the pipeline within the County road right-of-way. A copy of the permit shall be submitted to the Land Use planner for that county.

2) NWN shall provide the Washington County Land Development Division Project Planner, and the equivalent in Clackamas and Marion counties, with a copy of any permits from the Oregon Division of State Lands and/or the U.S. Army Corps of Engineers for work that will be done in flood plain areas within those counties.

3) Prior to construction, NWN shall provide Washington County with the detailed grading plan and obtain a grading permit from Washington County pursuant to WCC § 410.

4) NWN shall obtain equivalent utility and grading and drainage permits in Clackamas and Marion Counties as applicable.

1 5) Prior to construction, NWN shall provide the Washington County Land Use Department with 2 the floodplain delineations meeting the requirements of WCC 421-1.2 A, B, and C. 3 4 6) Prior to construction, NWN shall submit detailed topographic information meeting the 5 requirements of WC 421-3, prepared by civil engineer registered in Oregon. 6 7 7) NWN shall implement the mitigation measures in the "Flood Hazard Impact Mitigation Plan" 8 submitted as Appendix K-10 of the ASC. 9 10 8) NWN shall provide a statement by a registered civil engineer affirming that the pipeline conforms with the standards of WCC § 421-10. 11 12 13 9) NWN shall perform any maintenance on the maintenance easement outside public right of 14 way by means of hand implements (under WCC 421-14 lawn mowers are considered hand 15 implements). 16 17 10) Excess soils generated by trench excavation and backfill shall be hauled off of the pipeline 18 alignment and disposed of in an approved fill site area. Surface conditions shall be restored 19 to pre-construction slopes and grades and disturbed areas shall be revegetated. 20 21 11) If the pipeline crosses a stream or drainage hazard area, it shall be installed six feet below the 22 bottom of the natural channel. The channel shall be restored to its original conditions. 23 24 12) NWN shall allow no above ground structures that will catch debris or impede floodwater 25 flow. Protective fencing required around above ground facilities shall be designed not to 26 impede floodwater flow. 27 28 13) The existing grades and dimensions of the floodway shall not be changed. Trench 29 excavations that have disturbed vegetation shall be revegetated. 30 31 14) NWN shall not dump fill material in a flood area without a permit from Washington County. 32 33 15) NWN shall equalize cut and fill and shall certify at the completion of construction of the 34 pipeline that no net fill has occurred in flood hazard areas, except for post-construction "crowning" to allow for soil settlement.

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16) NWN shall observe Washington County's preference for enhancement of riparian habitats through planting or other such improvements. WCC Section 421-4.6B recommends the planting of "at least 5 plants per 100 feet of bank area."

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17) NWN shall implement the Erosion and Sediment Control Plan submitted as ASC Exhibit K-11. Note – the Washington County 1991 Manual is replaced by the CWA Erosion Prevention and Sediment Control Manual dated 12/2000

18) Prior to construction, NWN shall provide ODOE with documentation of Washington County review of the final Erosion Control Plan.

### Other Conditions Requested by Washington County

19) For any section of the pipe placed under the road, NWN shall restore the road to preconstruction condition or better, and to a standard designed for normal traffic loading for a 20 year life.

20) NWN shall consult with the appropriate County's operations department regarding load capacity for any bridges utilized during construction.

21) NWN shall coordinate any road closures through the affected County.

22) NWN shall not deposit spoils from the Tualatin Valley highway bore within the M-2 district in Hillsboro.

23) Construction hours for the project are 7:00 AM until 7:00 PM daily expect for Sundays. If work is proposed after these hours or on Sunday, NWN must obtain a variance from Washington County noise standards.

24) NWN shall contact the Oregon Heritage Tree program during planning and construction to protect the tree resource located on highway 219 south of Hillsboro.

25) NWN shall obtain access permits from the County for private road intersections with County/public roads. [amendment 3]

Agricultural Mitigation Conditions under ORS 215.275(5)

1) Crops prohibited over the pipeline shall be limited to mature fruit and nut trees, and ball and burlap nursery crops and other crops that require any mechanical digging or hand digging deeper than 3 feet. Additionally, Christmas trees that are more than 10 years old, fence posts and other support posts, and other large trees shall be prohibited. Such crops and posts shall not be allowed within 5 feet of the pipe centerline, for a total width of 10 feet. Farmers may install fencing or cross the pipeline above or below the pipe for water service and drainage with prior notification to and written approval by NWN, which approval shall not be unreasonably withheld. Permanent surface structures and permanent reforestation activities are prohibited over the entire 40-foot permanent easement area.

2) NWN shall not preclude use of propane blasters for gopher control on private property near the easement. The company shall analyze and negotiate the use of such equipment in close proximity to the pipeline.

Site Specific Land Use Conditions

- 1) In the corridor along Brookman Road, NWN shall locate the pipeline either within road right of way or in exception lands to the north of the road, unless
  - a) NWN submits evidence to the Council that it has attempted to obtain the necessary wetlands permits from DSL and the US Army Corps of Engineers and cannot obtain one; or
  - b) NWN obtains concurrence from ODOE that the category 3 habitat cannot feasibly be mitigated consistent with the ODFW Habitat Mitigation Goals as required by OAR 345-022-0060.
- 2) Along Dryland, Zimmerman and Heinz Roads, the SMPE shall be located within the Preferred Corridor.

### Special Conditions for Temporary Laydown Area

- 1) Prior to the temporary, construction-related use of any laydown area shown on Appendix K-2 of the ASC, as supplemented in July 2001, that is outside the 200-foot pipeline corridor (the temporary laydown areas), NWN shall provide the Department of Energy with a map, aerial photograph or other depiction of the proposed temporary laydown area, together with a description of the temporary laydown area, including the zoning, physical conditions, existing uses, and any fieldwork studies performed at the temporary laydown area.
- 2) Use of the temporary laydown areas shall conclude within one month of the date construction is complete. Mitigation for impacts to habitat and farm land shall be completed as soon as reasonably possible after the temporary use is concluded.
- 3) The temporary laydown area shall not (1) be located within an area identified as Category 1 or 2 habitat; or (2) contain threatened or endangered species identified in Exhibit Q. It is expressly understood that the approval is only for temporary uses and no permanent uses will be allowed in these areas.
- 4) NWN shall restore, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility. Mitigation conditions applicable under the Council's Soils standard, OAR 345-022-0022, shall apply to any temporary laydown area.
- 5) Conditions (1) through (4) above shall apply to the temporary easements described in Exhibits 3, 4, and 5 of Application for Amendment 1. [amendment 1]
- 6) Conditions (1) through (4) above shall apply to the temporary easements described in Exhibits 2, 3 and 4 of Application for Amendment No. 3. [amendment 3]
  - 7) Conditions (1) through (4) above shall apply to temporary parking and laydown area described and shown in Exhibit 10 of the Request for Amendment 4. [amendment 4].

#### Protected Areas Standard

1) During construction of the pipeline Willamette River crossing, NWN shall protect riparian areas on both sides of the river by locating all bore holes for directional drilling at least 200 feet from the river's edge on the north side of the river, and 400 feet from the edge on the south side of the river.

#### Retirement and Financial Assurance Standard

- 1) Prior to beginning construction, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount of \$700,000 (in 2001 dollars) naming the State of Oregon, acting by and through the Council, as beneficiary or payee.
  - a) The calculation of 2001 dollars shall be made using the U.S. Gross Domestic Product Implicit Price Deflator, as published by the U.S. Department of Commerce, Bureau of Economic Analysis, or any successor agency (the "Index"). The amount of the bond or letter of credit account shall increase annually by the percentage increase in the Index and shall be pro-rated within the year to the date of retirement. If, at any time, the Index is no longer published, the Council shall select a comparable calculation of 2001 dollars. The form of the bond or letter of credit and identity of the issuer shall be subject to approval by the Council.
  - b) The bond or letter of credit shall not be subject to revocation or reduction prior to the certificate holder's satisfaction of Condition (2) below.

2) Upon completion of construction, NWN may reduce the amount of the bond or letter of credit to \$86,000 (in 2001 dollars) naming the State of Oregon, acting by and through the Council, as beneficiary or payee (the "Retirement Fund"). The calculation of 2001 dollars shall be made using the Index. The form of the Retirement Fund and identity of the issuer of the bond or letter of credit shall be subject to approval by the Council. The Retirement Fund shall not be subject to revocation or reduction prior to retirement of the energy facility.

3) The certificate holder shall describe the status of the Retirement Fund in the annual report submitted to the Council, pursuant to OAR 345-026-0080.

4) If the project is halted prior to completion, NWN shall restore any right of way that has been disturbed. NWN shall be responsible for backfilling of any open ditch, revegetation and restoration costs and any damages to rights of way as specified in easements.

5) Prior to termination of the Site Certificate, NWN shall retire the site sufficiently to restore it to a useful condition. Site restoration shall include, but not be limited to, steps to:

(a) Remove any hazardous material stored in buildings or located in process equipment and dispose of them following applicable state hazardous materials statutes and rules,

 (b) Remove above ground portions of all pipelines, and cut and cap the remaining portion in five mile increments and at each end. NWN shall purge the pipeline to ensure that all natural gas is removed.

(c) If necessary, revegetate the area, including pipeline right of ways, to prevent erosion and encourage habitat development,

(b) Inspect all pipelines and remove any hazardous materials found, and dispose of

hazardous materials generated from cleaning the pipelines in accordance with applicable state hazardous materials statutes and rules.

6) If the Council finds that NWN has permanently ceased construction or operation of the SMPE without retiring the SMPE according to a final retirement plan approved by the Council as described in OAR 345-027-0110, the Council shall notify NWN and request that NWN submit a proposed final retirement plan to the Department within a reasonable amount of time, not to exceed 90 days. If NWN does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in condition (1) of this section to restore the site to a useful, non-hazardous condition according to the final retirement plan, in additional to any penalties the Council may impose under OAR Chapter 345 Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the SMPE has been retired according to the approved retirement plan.

# Fish and Wildlife Habitat Standard

### General

1) NWN shall take appropriate and reasonable measures to first avoid, then reduce, then restore, and then compensate for impacts to fish and wildlife habitat that result from construction and operation of the proposed project consistent with that habitat category.

2) NWN shall reimburse the Department of Energy for costs associated with on-site construction inspection monitoring by either ODOE or ODFW.

3) NWN shall construct the pipeline within the construction corridor along the preferred alignment (the "preferred alignment construction corridor") that was the basis for Supplemental Table P-4 (May 15, 2002), Supplemental Table P-5 (March 5, 2002) and the memo from Meehan, OOE, to Hayward, NWN, dated May 22, 2002, and the Hayward reply to Meehan dated June 12, 2002. NWN may deviate from this construction corridor if there is a conflict with other conditions of the site certificate, requirements of other state, local or federal agencies, public health and safety, or if new information is discovered during construction that was not known prior to issuance of the site certificate.

4) Where NWN must deviate from the preferred alignment construction corridor within the 200-foot Preferred Corridor or an Alternative Corridor Segment, NWN shall obtain permission from ODOE for the following deviations: 1) any stream crossing that will not be bored as shown in Supplemental Table P-4 (May 15, 2002); 2) any deviation that would result in impact to a wetland with a higher status code than shown in the April 9, 2002 PHS table; 3) any deviation that would result in impact to Category 3 upland habitat subtypes (as described in Table P-1, Exhibit P) as shown in Supplemental Table P-5 (March 5, 2002). NWN shall

not begin construction in a deviation until it has notified ODOE and ODOE has approved the requested deviation.

5) To obtain permission from ODOE for a deviation from the preferred alignment construction corridor, NWN must provide ODOE the following information prior to disturbing the deviation area: 1) the location of the requested deviation; 2) the habitat categories and habitat subtypes of the original preferred alignment construction corridor referenced to Supplemental Table P-4 (May 15, 2002), Supplemental Table P-5 (March 5, 2002) and the PHS April 9, 2002 table; 2) the habitat categories and habitat subtypes within the requested deviation referenced to the tables listed above; 3) the number of trees greater than 6-inch dbh that would be removed; 4) the reason for the deviation; and 5) any measures that NWN proposes to use to limit impact to fish and wildlife habitat in the deviation. If the deviation is due to unanticipated conditions during excavation, NWN shall notify ODOE using the field method described in the following paragraph.

The field method includes the following steps:

 (1) Identification of a problem with construction in a particular segment of the original preferred alignment;

(2) Identification of an alternative segment;

 (3) Verbal notification of the Department of Energy and, as appropriate, other agencies;

 (4) Technical review of the alternative segment to ensure that construction in the alternative segment, taking mitigation into account, would not result in significant adverse impacts to resources protected by Council standards or other permitting criteria;

(5) Review of zoning to ensure compliance with local land use laws;(6) Provision of information from steps (4) and (5) to OOE;

(7) OOE site inspection, with involvement of other agency personnel, as appropriate; and

 (8) OOE concurrence, generally verbal, with construction in the alternative segment.

 6) The decision criteria for ODOE approval of a deviation requested by NWN shall include: 1) whether the deviation would result in a smaller area of impact; 2) whether the deviation would result in impact to the same, a lower or a higher category habitat; and 3) whether NWN provided appropriate documentation to ODOE within the necessary time frame.

7) NWN shall plan, construct, operate, restore, maintain and monitor and the project site consistent with the measures identified in its September 2001 Wetland Mitigation Plan, Section 2.5 "Construction Techniques" pages 2-4 to 2-11; Section 4.0 "Conceptual Mitigation Approach" pages 4-1 to 4-2; Section 5.0 "Proposed Conceptual Mitigation" pages 5-1 to 5-3; Section 7.0 "Monitoring" page 7-1; and Section 8.0 "Maintenance and Contingency Plan" page 8-1.

- NWN shall plan, construct, operate, restore, maintain and monitor the project consistent with the measures identified in its September 2001 Habitat Mitigation Plan, Section 2.2 "Mitigation Goals" page 2-4; Section 2.5 "Construction Techniques" page 2-5; Section 4.0 "Proposed Conceptual Mitigation by Category" pages 4-1 to 4-3; Section 5.0 "Performance Goals" page 5-1; Section 6.0 "Monitoring" page 6-1; and Section 7.0 "Maintenance Plan" page 7-1.
- 9) NWN shall plan, construct, operate, restore, maintain and monitor the project consistent with the measure identified in Exhibit P of its March 2001 application for site certificate as supplemented by the June 2001 supplemental Exhibit P.
  - 10) NWN shall construct the project so as to avoid disturbance to all Category 1 habitat and all Category 2 permanent ponds.
  - 11) NWN shall provide a net-benefit to Category 2 habitats that are disturbed by construction. This may include, but is not limited to, placing large woody debris, clean sand, gravel and rocks within the stream channel at or near the crossing location of Category 2 streams, enhancing habitat quality by planting trees and other woody vegetation or by other measures that provide a net benefit that is acceptable to the Department of Energy in consultation with the Oregon Department of Fish and Wildlife.
  - 12) NWN shall use Best Management Practices (BMPs) to confine construction-related disturbance to the construction corridor.
  - 13) NWN shall not disturb wetland areas, riparian areas, or waterways until it has obtained all required section 401 and section 404 permits and approvals, including any required authorization relating to a federally-listed threatened or endangered species. If the conditions in the amended site certificate conflict with conditions imposed by the DEQ in its section 401 certification or the U.S. Army Corps in its section 404 permit, NWN shall consult with ODOE and ODFW to resolve the conflict before beginning construction

### Pre-construction

- 14) NWN shall incorporate the conditions of the site certificate into its construction documents.
- 15) NWN shall provide a copy of its construction documents to the Department before beginning ground-disturbing activity (such as clearing or grading the construction corridor). These shall include five complete sets of detailed maps of the construction corridor that are cross referenced or indexed to habitat category maps provided to OOE.
- 16) NWN shall mark the construction corridor to indicate areas where the corridor will be restricted to avoid impact to wetlands, riparian areas, streams and other sensitive, important or significant areas before any ground-disturbing activity (including clearing of vegetation). ODOE shall be notified when marking is completed and ODOE inspectors shall be afforded the opportunity to inspect the marked construction corridor prior to any ground-disturbing activity.

the Detailed Mitigation Plan. The Impact Inventory shall be prepared by a qualified biologist.
18) NWN shall give the Department at least 7 days notice before beginning ground-disturbing activity.
19) NWN shall designate a qualified Environmental Inspector to work on all phases of the project, including pre-construction documentation, pipeline construction, restoration, post

17) NWN shall document pre-construction conditions at each Category 2 and 3 site within the

the habitat category and habitat unit to be impacted, the number of trees and sizes to be

removed, percent native shrub coverage, percent reed canary grass and noxious weed

coverage, the acreage of the impacts and photographs of all stream crossings prior to

construction corridor prior to any ground disturbing activity. Documentation shall include an

Impact Inventory, including a cross reference to habitat and construction maps, description of

clearing. The Impact Inventory will form the basis of the mitigation and will be included in

Inspector shall have the authority to stop construction activity temporarily to resolve environmental issues.20) NWN shall, before beginning ground-disturbing activity, identify to the Department the key personnel responsible for construction and environmental protection, including but not

construction monitoring and preparation of the Detailed Mitigation Plan. The Environmental

- limited to NWN environmental inspectors and the pipeline construction company's environmental inspectors.

  21) NWN shall, before beginning ground-disturbing activity, conduct training of key employees and contractor personnel. Training shall cover applicable environmental regulations
- and contractor personnel. Training shall cover applicable environmental regulations, including site certificate conditions that relate to fish and wildlife habitat, and NWN procedures for limiting impact to fish and wildlife habitat. NWN shall provide the Department advance notice of the time and place of training sessions and shall allow Department representatives to attend training sessions.
- Construction
  22) NWN shall use straw and straw bales of oats, wheat, barley and red fescue that are certified to be free of noxious (as that term is defined in ODA regulation) and nuisance weed contamination for both temporary and permanent erosion control in all category 1, 2 and 3 habitats, including uplands (Exhibit I, pages I-42, 43, 49, AIMP 18, 19)
- 23) NWN shall use topsoil protection measures on all Category 2 and 3 habitats, including upland habitats shown in Table P-1 (March 2001 Application), except permanent ponds (PP2 and PP3). Topsoil and subsoil shall be removed and stored separately and backfilled in the reverse order (Conceptual Mitigation Plan, Part 1, Section 2 and CMP, Part 2, Section 2.5). If excavated topsoil contains plants proposed for salvage and re-planting, it shall be replaced within 24-hours. If the topsoil needs to be stored for more than 1 day, it will be covered with

geotextile fabric and moistened to prevent drying and to ensure the viability of the plant species present (CMP, Part 1, Section 5.1).

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24) NWN shall, as necessary, use soil compaction mitigation measures on all Category 2 and 3 habitats, including uplands. Backfilled soils shall resemble pre-construction soil profiles and compacted soil surfaces shall be hand raked or scarified by appropriate equipment prior to seeding.

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25) NWN shall use, if necessary, imported soil that is free of noxious weeds and reed canarygrass in Category 2 and 3 habitats, including uplands. NWN shall, prior to construction, submit to the Oregon Department of Energy the procedures it will use to ensure that imported soils are free of noxious weeds and reed canarygrass.

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26) NWN shall reduce and control increased sediment and turbidity by: 1) locating crossings to avoid unstable stream banks and the need to remove large trees; 2) dewatering the construction reach during construction (by using a dam-and-flume or hose-and-pump to pass water around the construction area); 3) routing water pumped from trenchlines to temporary surface water detention facilities prior to discharge; 4) using erosion and sediment controls during and after construction; 5) monitoring turbidity during construction; 6) stabilizing stream banks and stream beds after construction; and 7) any other measures that may be appropriate.

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27) NWN shall prevent stream bank instability after construction by: 1) locating crossings to avoid unstable stream banks and the need to remove large trees; 2) stabilizing affected stream banks and 3) using Best Management Practices (BMPs) to control slope erosion after construction.

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28) NWN shall prevent stream bed erosion after construction by restoring stream beds to their original condition (substrate and gradient), using appropriate geotextile fabrics or other measures, and adding large rocks and or gravel if needed.

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29) NWN shall prevent loss of spawning substrate by restoring stream beds to their original conditions, including replacing spawning gravels, and using appropriate measures to control or prevent the movement of soil and silt into streams.

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30) NWN shall reduce the direct impacts to wetland habitats by: 1) confining construction activities to a 40-foot wide construction corridor and minimizing heavy equipment use within wetlands to the extent practicable; 2) constructing in wetlands when they are dry, to the extent practicable; 3) using construction mats when appropriate; 4) removing topsoil (including plant roots) from the trench separately from subsoil, stockpiling topsoil and subsoil separately and placing the topsoil (including plant roots) on top of the subsoil when backfilling the trench; 5) installing water barriers along the pipeline trench and restoring impermeable soils to prevent draining wetlands; 6) using Best Management Practices (BMPs) to control erosion and turbidity and to prevent movement of loose soil beyond the construction corridor.

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temporary fencing.

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31) Where wetlands and streams must be crossed, the pipeline will be routed through the least sensitive portions of the wetland or stream if it is feasible. The scrub-shrub and forested portions of wetlands and riparian areas shall be avoided to the greatest extent possible.

32) Construction staging areas shall be located in upland and clearly marked with signs and

33) Equipment refueling shall occur a minimum of 100 feet from any wetland or stream channel and within a designated area. The refueling station should be equipped with appropriate hazardous spill containment/clean up materials.

- 34) Construction through streams with flowing water and adjacent wetlands will occur during the designated ODFW-approved "in-water work times".
- 35) NWN shall complete each stream crossing within a 24-hour period, if practicable. If the crossings require more than 24 hours to complete, appropriate methods to allow upstream and downstream fish passage for all life stages shall be implemented using methods approved by ODFW.
- 36) NWN shall provide a qualified biologist on-site to prevent stranding fish and large aquatic invertebrates in the diversion reach during construction across Category 2 and Category 3 streams. The qualified biologist must be authorized by NWN to have stop activity authority if necessary to prevent stranding fish and large aquatic invertebrates.
- 37) All flow diversions shall be removed and the hydrology of the site restored immediately after completion of construction. The stream channel morphology shall be restored to preconstruction conditions including riffle-pool morphology and stream channel substrate. In streams with gravel bottoms, appropriate sized gravel from local sources will be used to replace any stream gravels that are lost as a result of construction. Streambanks will be stabilized and revegetated as soon as practical after construction is completed.
- 38) NWN shall locate stream crossings to avoid removal of large (>6" dbh) trees where practicable and reduce the construction corridor from 80 feet in width to 40 feet within riparian and wetland habitats.
- 39) NWN shall provide new woody debris in Category 2 habitats where appropriate and as necessary to provide a net benefit in habitat quantity or quality as determined by a qualified fisheries biologist. In-stream woody debris dimension, structure design and placement shall conform to criteria outlined in A Guide to Placing large Wood in Streams, May 1995 (Oregon Department of Forestry and Oregon Department of Fish and Wildlife), as determined by a qualified fisheries biologist.
- 40) In wetlands and riparian areas, vegetation that must be removed will be cut at ground level, leaving the root system intact. Pulling tree stumps and associated grading activities will be

41) Clay trench plugs will be used to prevent diversion of subsurface water from wetlands. Trench plugs will be installed at each end of wetland crossings to prevent diversion of subsurface water from wetlands and avoid changes to wetland hydrology. An environmental monitor will inspect the pipeline trench to check for impermeable soil layers that may be penetrated during trenching. If impermeable layers are found in the trench, they will be avoided where this is possible, or repaired with clay plugs after the pipe is in place. Clay barriers should be installed on each side of any wetland crossing site.

42) Matting will be used where this is necessary to support construction equipment in wetlands. Heavy construction equipment may work without construction mats in wetlands that are farmed, grazed or dry enough to support the equipment. In wetlands that are not dry enough to support the equipment, all construction activities will be carried out from the matting. Where matting is necessary, equipment will not be allowed in the wetland off the mats, at any time. The mats will be cleaned and inspected prior to placing in the wetland and mats with foreign material will not be used.

43) Any trees felled within category 2 and 3 habitats shall remain within the habitat site as woody debris. Trees felled within the riparian area shall be used on site for instream habitat structures. If possible the trees should be pushed over to maintain the root ball with the tree trunk.

44) NWN shall replant appropriate species and numbers of trees or shrubs as indicated by the Impact Inventory in all Category 2 and Category 3 habitats in which NWN removes trees or shrubs. Shrubs or trees less than 6-inch dbh shall be replaced at a 1-to 1 ratio. Trees equal to or greater than 6-inch dbh shall be replanted on a replacement ratio as follows:

Size of Tree to be removed	Number of trees to be
(inches dbh)	planted (24-36" height)
6 to 12	4
13-18	6
19-24	8
25-30	10
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Over 30	

45) NWN may salvage and restore native plants removed intact from the pipeline trenching area.

 46) NWN shall, at an appropriate location, thoroughly clean each unit of construction equipment with high-pressure washing before the initial move of that unit to the construction site. NWN shall, at an appropriate site, clean all construction mats that have been previously used before moving them to the construction site or placing them in a wetland.

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- describe mitigation measures undertaken during the construction phase; (b)
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53) NWN shall prepare and submit to ODOE a Detailed Mitigation Plan (DMP) within 60 days

propose specific additional mitigation measures that will achieve the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025 and prevent harm to the

- 47) NWN shall, at appropriate locations, thoroughly clean each unit of construction equipment before working in category 2 or 3 wetlands.
- 48) NWN shall restore the construction corridor in category 2 and 3 habitats by replanting and seeding with an approved seed mix to re-establish vegetation. NWN shall provide ODOE the proposed ODFW-approved seed mix for review and approval prior to ground disturbing activity. Substitutions to the approved seed mixes must be approved by OOE.
- 49) The following actions must be performed immediately after backfilling the trench in trenched areas: (1) installation of erosion control measures; (2) seeding and mulching of exposed soils; (3) returning all stream beds and banks to pre-construction grade; (4) restoration of salvaged plant materials and; (5) placement of woody debris.
- 50) NWN must plant trees and shrubs, as indicated by the Impact Inventory and the Detailed Mitigation Plan approved by OOE, within 1 year of construction.
- 51) NWN shall prepare and submit to ODOE for review an Impact Inventory protocol prior to ground disturbing activity. The protocol shall include a standardized data sheet and inventory format with all information stated in Condition 17, as well as cross references to habitat and construction maps. Copies of the field-completed impact inventory forms shall be available for review by ODOE inspectors at the job site.
- 52) In the event of a release of drilling mud as a result of boring operations during pipeline construction, NWN shall stop the boring operation until a siltation fence is placed around the release point. NWN shall insure that the release point is fully encircled with siltation fencing and that the fencing effectively contains the released mud. The drilling mud will be allowed to vent into the enclosure. NWN shall pump drilling mud from the enclosed area as needed until the boring operation is completed. If the enclosure becomes nearly full, NWN shall remove the drilling mud via a vacuum truck or pump depending on accessibility to the site. NWN shall leave the siltation fencing in place during the boring, back reaming, and pipepulling procedures, and until the vent has sealed. NWN shall not remove the enclosure until all evidence of the release has ceased.
- 54) In the DMP, NWN shall:

Post-Construction

following the "used and useful" declaration to the OPUC.

- federally listed Upper Willamette River steelhead trout and Upper Willamette River Chinook salmon; including species, sizes, and quantities of proposed plantings;
- (d) identify contingency measures, and remedial measures to ensure success criteria are met; and
- (e) provide a realistic schedule for implementation of the DMP.

55) The Department, in consultation with other agencies, shall review the Draft DMP and provide NWN with its comments, including changes to the DMP, if necessary within 30 days of receipt of the DMP.

56) Within 30 days following the receipt of ODOE comments, NWN shall prepare and submit to ODOE a Final DMP that incorporates agency comments. The Final DMP shall provide the basis for the monitoring report.

57) NWN shall monitor the results of implementing the Final DMP and shall provide annual reports to the Department and other agencies for a minimum of three years. The monitoring reports shall include the Impact Inventory and provide documentation about restoration/enhancement methods, survival of salvaged and planted plants, assessment of streambank stability, net benefit in category 2 habitats, photographs from established preconstruction points, including all stream crossings, discussion of success criteria and remedial actions. The reports shall be prepared by a qualified biologist and submitted to the Department and ODFW by December 1.

58) Success Criteria shall include meeting the ODFW fish and wildlife mitigation goal for each habitat category. In addition, restored areas shall, after 3 years, have: (1) the same number of native trees and shrubs as calculated for replacement in the Impact Inventory and according to the required replacement ratios (this may include native plant volunteers); (2) less than 20 percent coverage of reed canary grass and noxious weeds (as defined by Oregon Department of Agriculture and local counties) in habitat units having pre-construction coverage of these plants less than 20 percent and as documented in the impact inventory.

59) NWN shall take remedial actions if monitoring shows that implementation of the Final DMP is not successful and monitoring shall continue until the success criteria is met.

#### Operation and Maintenance

60) NWN shall allow native vegetation, including trees, within the Maintenance Easement, except in a ten-foot-wide zone over pipeline, in all Category 2, Category 3 and Category 4 habitats.

61) NWN shall control vegetation within Maintenance Easement by mechanical means wherever practicable. NWN shall not use chemical spray within 100 feet of water bodies, including wetlands.

62) NWN shall notify ODOE prior to any scheduled repair activity that involves excavation, tree removal, or in-water work. The notification shall include site location, proposed activity, and a description of vegetation to be affected, if any. The notification shall also describe proposed measures to restore the repair site and limit impacts to fish and wildlife habitat, if applicable. For emergency repairs necessary to alleviate stress on the pipe or investigate potential damage discovered during inspections required by OPUC or USDOT regulations or this site certificate, NWN may provide the notification as soon as practical following the repair.

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### Threatened and Endangered Species

1) NWN shall schedule construction within one mile of documented or newly discovered bald eagle nest sites to avoid the critical breeding and rearing period (January 1 to August 31) for this species.

### Historic, Cultural and Archaeological Resources

1) Before beginning construction of the pipeline, NWN shall certify that all NWN and contract supervisory personnel with construction responsibility are trained in the identification of cultural resources. NWN shall make plans, subject matter and the schedule for this training available to ODOE before commencement of the training program.

2) During construction of the pipeline, in the event any additional "archaeological sites" or "archaeological objects" are identified, NWN shall cease all ground-disturbing activities in the area until a qualified archeologist can evaluate the significance of the find. If the archeologist determines that the materials are significant, NWN shall make recommendations to the Council for mitigation in consultation with SHPO, the Department, and other appropriate parties. Mitigation measures shall include avoidance or data recovery. NWN shall not restart work in the affected area until it has demonstrated to the Department that it has complied with the archeological permit requirements administered by SHPO as set forth in OAR Chapter 736, Division 51 (on public land) or has obtained the landowner's written permission to proceed (on private land.)

3) During construction of the pipeline, NWN shall route the pipeline as described in its application for site certificate and its responses to requests for additional information. Specifically, NWN shall route the pipeline as follows, unless NWN, in consultation with a qualified archaeologist, identifies another location which has less impact to these sites: in the vicinity of site S-1, within the existing 16-inch SMF pipeline corridor on the western boundary of the site; in the vicinity of site 35WN33, within the existing pipeline corridor on the west and south edges of the site; in the vicinity of site 35WN35, within the existing pipeline corridor, offset from the 16-inch SMF pipeline by 10 feet; in the vicinity of site ORWN1/35WN34, west of the existing pipeline corridor and by means of boring under the area; in the vicinity of site S-2, east of the eastern boundary of the site; and in the vicinity of site S-5, in fill and previously disturbed materials under the road within the Barlow Road right-of-way. NWN shall not disturb archaeological sites S-3 and S-4.

- 4) During construction of the pipeline, NWN shall avoid any disturbance within archaeological sites S-1, S-2, S-3, S-4, 35WN33 and ORWN1/35WN34. If such avoidance result in adverse impact to jurisdictional wetlands or habitat described in Exhibit P of the ASC, causes the use of additional land in the EFU zone outside public right of way, creates a conflict with other Council standards, or creates a condition adverse to human health and safety, NWN shall obtain approval from OOE, in consultation with SHPO, before causing any disturbance within any of these archaeological sites.
- During construction of the pipeline, NWN shall retain a qualified archaeologist to monitor construction activity in the vicinity of archaeological sites S-1, S-2, S-3, S-4, S-5, 35WN33, 35WN35, and ORWN1/35WN34 and all grading and excavation activities in the vicinity of isolated finds I-1 through I-13 to ensure that archaeological resources in these locations are not disturbed.
- Before beginning construction, NWN shall conduct an archaeological survey of the temporary laydown areas and shall submit a report of the survey to the Department of Energy. If archaeological objects or archaeological sites are discovered in the temporary laydown areas, NWN may not begin construction of that portion of the pipeline until NWN has submitted to the Department a mitigation plan consistent with the other conditions of this site certificate. In preparing the mitigation plan, NWN shall consult with SHPO, the Department, and other appropriate parties.
  - 7) On properties to which NWN has been denied access prior to issue of the site certificate, NWN shall engage a qualified archeological inspector to look for and analyze artifacts, and shall comply with state law regarding these resources, if found.

#### Public Services Standard

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- 1) NWN shall obtain all required permits from the Oregon Department of Transportation for construction in public road right-of-way and shall conform to the Standard Specifications for Highway Construction, Oregon Department of Transportation, Section 00220 Accommodation for Public Traffic. Ambulances, fire trucks and police and, in the Dairy Creek Valley area, private vehicles providing emergency transportation services, shall be afforded immediate passage. NWN will assure that a company representative is present on Dairy Creek Road during periods of complete closure Dairy Creek Road.
- 2) NWN shall perform any road work under permit provisions provided by the affected county for work within the right-of-way along county roads. NWN shall develop and implement traffic control planning measures as part of the county permitting process. NWN will have overall responsibility for assuring that all contractors on the Project comply with these permit conditions. NWN shall ensure contractor compliance through construction inspection programs and construction management personnel.
- 3) NWN will provide a detailed traffic control plan for each phase of work, showing signs and cones, certification and use of flaggers, and proposed methods of lane closures. NWN will be responsible for safely accommodating public traffic lanes within the construction area.

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NWN shall submit these plans to the ODOT District manager prior to construction along state roads or to the county road department prior to construction along county roads.

4) NWN shall provide the county road department in each affected county with final construction drawings prior to start of construction in that county. Project construction shall be coordinated with the county's future paving and culvert replacement programs.

5) NWN shall coordinate with school districts along the construction corridor to manage any potential school bus delays during project construction in months when school is in session.

#### Waste Minimization Standard

1) NWN shall transport construction waste materials to an appropriate recycling facility or to an approved sanitary landfill for nonrecyclable goods. NWN shall collect scrap steel and welding rod for transportation to a recycling facility. Geotextile and straw bales shall be transported to an approved landfill.

2) Water used for pressure testing shall be disposed of in a manner consistent with a WPCF permit issued by DEQ.

3) NWN shall minimize the use of water by recycling water for the hydrostatic testing and directional drilling process. Bentonite used in the drilling process shall be recycled to the extent practical.

Carbon Dioxide Standards at OAR Chapter 345 Division 24

(1) Immediately upon execution of Site Certificate Amendment 4 authorizing the compressor described in NWN's Request for Amendment 4 ("new compressors"), NWN shall report to ODOE the design and operating parameters of the new compressor, as specified in sub-sections (a) through (c). [amendment 4]

(a) tinough (c). [amendment

(b) If a different compressor will be installed, NWN shall provide the make and model of the compressor and shall provide manufacturer's specifications for heat rate in BTU/hp-hr. at the average hours when the compressor is expected to be used.

(a) NWN shall confirm in writing that the compressor to be installed is the same model and has the same heat rate and fuel use as is described in the request for Amendment 4.

(c) NWN shall specify the estimated annual average hours that it reasonably expects to operate the new compressor.

(2) NWN shall submit all monetary path payment requirement calculations to ODOE for verification in a timely manner prior to making payments to The Climate Trust. NWN shall use the contracted design parameters for nominal capacity and heat rate of the new compressor, along with the estimated annual hours of operation, that it reports pursuant to Condition 1 to calculate the estimated monetary path payment requirement. For the purposes of this site certificate, the "monetary path payment requirement" means the offset funds determined

pursuant to OAR 345-024-0630 and the selection and contracting funds that NWN must disburse to The Climate Trust, as the qualified organization, pursuant to OAR 345-024-0710 and this site certificate. [amendment 4]

- (a) The net carbon dioxide emissions rate for the new compressor shall not exceed 0.504 pounds of carbon dioxide per horsepower hour.
- (b) The offset fund rate for the monetary path payment requirement shall be \$1.27 per ton of carbon dioxide (in 2007 dollars). For the initial monetary path payment that NWN must make prior to beginning construction, the calculation of 2007 dollars shall be made using the US Gross Domestic Product Implicit Price Deflator, as published by the US Department of Commerce, Bureau of Economic Analysis, or any successor agency ("the index"). The amount of the payment requirement shall increase annually by the percentage increase in the index and shall be pro-rated within the year to the date of disbursement to The Climate Trust from June 30, 2007. If at any time the index is no longer published, the Council shall select a comparable calculation of 2007 dollars.
- (c) NWN shall offset excess carbon dioxide emissions using the monetary path as described in OAR 345-024-0710 and this site certificate. Contracting and selecting funds shall equal twenty (20) percent of the value of any offset funds.

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- (3) Immediately upon ODOE verification of the calculations described in Condition 2, NWN shall pay cash to The Climate Trust in the full amount of the monetary path payment requirement (in 2007 dollars) as determined by the calculations set forth in Condition 2. [amendment 4]
- (4) ODOE shall set up an "offset credit account" for the SMPE compressor described in this Amendment 4. ODOE shall credit the account shall with the total carbon dioxide offsets for which NWN has provided offset funds to The Climate Trust, pursuant to Condition 3. [amendment 4]

(5) Each year after beginning commercial operation of the new compressor ("annual carbon dioxide reporting period"), NWN shall report to ODOE the annual hours the new compressor operated and its fuel use in Btu. NWN shall provide the annual report to the Department within 30 days of the anniversary date of beginning commercial operation of the new compressor. NWN may submit this report in the report of operating hours and fuel use for the compressor at Miller Station required by Amendment 8 to the Mist Underground Storage Facility site certificate. [amendment 4]

- (a) The Department shall calculate the excess carbon dioxide emissions during each annual carbon dioxide reporting period and subtract those emissions from the offset credit account annually.
- (b) If the offset credit account contains fewer than 2,000 tons of carbon dioxide offset credits, NWN shall replenish the offset credit account. NWN shall replenish the offset credit account equivalent to the full amount of the estimated future excess emissions. The Department shall estimate excess emissions for the remaining period

of the deemed 30-year life of the facility, based on the average annual excess carbon dioxide emissions in the prior three years. The Department shall calculate the estimated future excess emissions of the new compressor and notify NWN of the amount of payment required, using the monetary path, to replenish the offset credit account.

(c) Notwithstanding the index identified in Condition 2(b), pursuant to OAR 345-024-0710(6)(a) the formula to calculate the rate for the dollar value per ton of carbon dioxide offsets by which NWN shall replenish its offset credit account through the monetary path shall be \$01.27 times (1.0862 to the power "t"); where "t" is the elapsed time in years between October 26, 2001, and the date the Department notifies NWN that it must replenish its offset credit account, pursuant of OAR 345-024-0630(4). Fractional years shall be calculated by dividing the number of elapsed days in excess of a whole year by 365.

(d) The Department shall calculate additional contracting and selection funds pursuant to Condition 2(c).

(e) NWN shall disburse in cash the additional monetary path payment requirement to replenish the offset credit account to The Climate Trust within 30 days after notification by the Department of the amount that NWN owes.

(6) The new gas turbine compressor shall be fueled solely with pipeline quality natural gas or with synthetic gas with carbon content per million Btu no greater than pipeline quality natural gas. The Department shall use a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel to calculate carbon dioxide emissions. [amendment 4]

## F. CONDITIONS RELATED TO PUBLIC SAFETY, OAR CHAPTER 345, DIV. 24

Under ORS 469.401(2), EFSC must impose conditions in the site certificate for the protection of public health and safety. Throughout the final order are conditions related to other decisional criteria that are ultimately intended to protect public health and safety. The following conditions protect public health and safety specifically with regard to EFSC standards for surface facilities related to underground natural gas storage and natural gas pipelines.

1) NWN shall maintain a program to monitor the pipelines to ensure protection of public health and safety, including but not be limited to:

  a) pressure sensing devices positioned on the pipelines at Miller Station to relay information to both Miller Station and the Portland gas control centers.

 b) high and low pressure alarms monitored on a 24 hour basis to detect and locate areas where pressure variations may indicate abnormal conditions, and

 c) emergency response personnel on duty 24 hours a day, at Miller Station or in Portland, trained to respond to situations that require immediate attention.

2) The following specifications are deemed commitments by NWN:

- a) NWN shall specify pipe that meets the requirements for Class 3 locations as defined at 49 CFR 192.5 (March 15, 1999). NWN shall specify .375 inch wall thickness and minimum 52,000 lb. tensile strength in all sections of the pipeline.
- b) NWN shall perform 100% X-ray testing of all welds on the 24 inch pipeline.
- c) NWN shall maintain at least 24 inches of clearance between the pipeline and the existing 16 inch line. Minimum separation requirements at 49 CFR 192 shall apply otherwise. [amendment 1]
- d) NWN shall maintain a minimum of 48 inches of pipe cover in all locations, and 60 inches in timberland or cultivated land.
- e) NWN shall hydrostatically test the pipeline at a minimum of 1080 psig in all sections.
- f) NWN shall use at least a 12 mil thick fusion bonded epoxy (FBE) coating on the pipeline, except that pipe used for road crossings shall have a 25 mil FBE coating.
- 3) Program Development Requirements: Prior to commencement of operations on the 24-inch pipeline, NWN shall develop and obtain ODOE approval for the following programs:
  - a) Training of personnel responsible for patrolling the pipeline, with emphasis on early recognition of conditions indicating increased landslide hazard.
  - b) Accelerated pipeline surveillance program with provisions for increased surveillance in extreme weather years. The program shall include recommendations by a geotechnical engineer for locations that warrant accelerated surveillance in excess of the periodic patrolling requirements for the pipeline in general.
  - c) Training of personnel responsible for drainage control, with emphasis on identifying areas where pipeline installation could increase the drainage hazard and on implementing effective solutions.
  - d) Continuing investigation of internal inspection devices (IID's) or "smart pigs," or other appropriate technologies with the capability to detect internal flaws, corrosion, and other pipeline defects, and development of criteria for determining the utilization of IID's, or any other appropriate technologies for detecting flaws, corrosion and other indications that the likelihood of pipeline failure may have increased. Such criteria shall, at a minimum, be consistent with federal and OPUC regulations.
  - e) Development of criteria to identify the level at which NWN will excavate pipe sections for stress relief, based on strain gauge readings.
- 4) NWN shall design and construct the pipeline substantially in accordance with the representations in ASC Appendix B-1 and Exhibit BB and NWN's July 2001 response to OOE's May 2001 Request for Additional Information (questions on exhibit BB). In the event of a conflict between these commitments and other requirements, 49 CFR Part 192 shall prevail.

## G. PERMITTING REQUIREMENTS OF AGENCIES OTHER THAN EFSC

The Council finds that the NWN Application complies with the requirements for the following permits, subject to conditions recommended in consultation with the affected agencies:

- 1) Removal/Fill permits from the Division of State Lands, subject to the conditions listed in section IV.D.1 of the Proposed Order (Attachment C of the final order).
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- 2) Limited Water Licenses from the Water Resources Department (WRD), subject to the conditions listed in section IV.D.2 of the Proposed Order (Attachment C of the final order).
- 3) Water Pollution Control Facilities (WPCF) permits from Department of Environmental Quality (DEQ), subject to the conditions listed in section IV.D.3 of the Proposed Order (Attachment C of the final order).
- 4) Amendment #2 to the Site Certificate authorizes NWN to divert up to 2 million gallons of water from the Willamette River for construction and hydrostatic testing from an additional site at the marina near where Boone's Ferry Road reaches the south bank of the Willamette River, shown on the figure in the Limited License application submitted to WRD on September 11, 2003 (Exhibit 2 of the application for Amendment 2). WRD shall issue the Limited License with conditions substantially in conformance with those at section IV.C.1 of the Order Approving Amendment 2 and valid for one year from the effective date of the final authorization required for the use to occur. [amendment 2]
- 5) NWN may discharge up to 1.5 million gallons of hydrostatic testing water within a straw bale enclosure at a site on agricultural property on the east bank of the Pudding River within the 200 foot corridor and located at 45° 14' 57"N, 122° 44'43"W. DEQ shall issue the special WPCF permit substantially as described in the October 7, 2003 letter from Neil Mullane, DEQ to Michael Hayward, NWN, valid until November 30, 2003. NWN shall station individuals at the discharge location to ensure that the rate of discharge does not result in erosion or scour that would result in an excessive increase in turbidity. [amendment 2]

### DEQ Noise Standards at OAR 340-035-0035

- 1) Prior to installation of the new compressors at Molalla Gate Station, NWN shall conduct baseline noise measurements at the nearest noise sensitive receptor. Noise measurements shall be taken in accordance with section (3) of OAR 340-035-0035. NWN shall submit a report detailing the measurement procedures, weather conditions, and results to the Oregon Department of Energy for concurrence prior to start of construction. [amendment 4]
- 2) Within six months after the installation of the new compressors at Molalla Gate Station, NWN shall conduct operational noise measurements at the nearest noise sensitive receptor. NWN shall take the measurements in accordance with OAR 340-035-0035(3), at a time when the compressors are operating at least 95% of rated capacity. NWN shall submit a report detailing measurement procedures, weather conditions and results to the Oregon Department of Energy for review. [amendment 4]
- 3) If the measurements taken in condition (2) show that the noise from the new compressors exceeds any limit in Table 8 of OAR 340-035-0035, NWN shall submit a report to ODOE

<sup>&</sup>lt;sup>1</sup> The requirement to notify ODFW 30 days prior to the diversion was fulfilled under existing Limited License LL491 because the ODFW district biologist was informed of the water diversion and has stated that the measures to protect fish species are the same regardless of which diversion point is used

describing additional noise reduction measures that it will take to reduce the noise to within the limits of Table 8. The report shall include a schedule for installation of those measures. [amendment 4] 4) If NWN cannot gain access to the nearest noise sensitive receptor for purposes of taking the measurements required by conditions (1) or (2) above, NWN shall submit an alternate measurement location and an analysis showing that the alternate location is equivalent in terms of noise reception to ODOE for review and concurrence prior to taking measurements at the alternate location. [amendment 4] SEVERABILITY AND CONSTRUCTION. If any provision of this Site Certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Site Certificate did not contain the particular provision held to be invalid. In the event of a conflict between the provisions contained in the Site Certificate and the Council's Order, the provisions contained in this Site Certificate shall control. GOVERNING LAW AND FORUM 1) This site certificate shall be governed by the laws of the State of Oregon. 2) Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon. IN WITNESS WHEREOF, this Fourth Amended Site Certificate has been executed by the State of Oregon, acting by and through its Energy Facility Siting Council, and Northwest Natural. **ENERGY FACILITY SITING COUNCIL** By: David Ripma

NORTHWEST NATURAL