ATTACHMENT J-4
WETLAND DELINEATION REPORT

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2018 Wetland Delineation Report

Boardman to Hemingway Transmission Line Project

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Acronyms and Abbreviations

ODSL	Oregon Department of State Lands
FAC	Facultative
FACW	Facultative Wetland
GIS	Geographic Information System
GPS	Global Positioning System
kV	Kilovolt
LRR	Land Resource Region
MP	Milepost
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
OAR	Oregon Administrative Rule
OBL	Obligate Wetland
OSDAM	Oregon Streamflow Duration Assessment Methodology
Project	Boardman to Hemingway Transmission Line Project
ROW	Right-of-way
SDAM	Streamflow Duration Assessment Methodology
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture

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1.0 INTRODUCTION

Idaho Power Company proposes construction of the Boardman to Hemingway Transmission Line Project (Project), a 500-kilovolt (kV) transmission line from near Boardman, Oregon in Morrow County to the existing Hemingway Substation in Owyhee County, Idaho. In Oregon, the Proposed Route crosses parts of Morrow, Umatilla, Union, Baker, and Malheur counties, with a total length of 270.8 miles within the state. The Project exits Oregon near Nyssa, Oregon in Malheur County (Figure 1).

To facilitate review of wetlands and non-wetland surface waters (other waters) for the Project by the United States Army Corps of Engineers (USACE), Portland District and Oregon Department of State Lands (ODSL), this wetland delineation report was prepared to include all Oregon counties that the Project crosses (Figure 1; Appendix A, Figures A-1). The report includes wetland delineation data collected during field surveys on accessible properties in 2011, 2012, 2013, and 2016. Field work and reporting followed ODSL direction and methodology across all counties.

A separate report for Idaho will be submitted to the USACE, Walla Walla District.

Information on landscape setting and land use, site alteration, precipitation data, methods, wetlands and other waters identified in the field, deviations from National Wetland Inventory (NWI), mapping methods, additional information, and conclusions are specific to the study areas defined in this report.

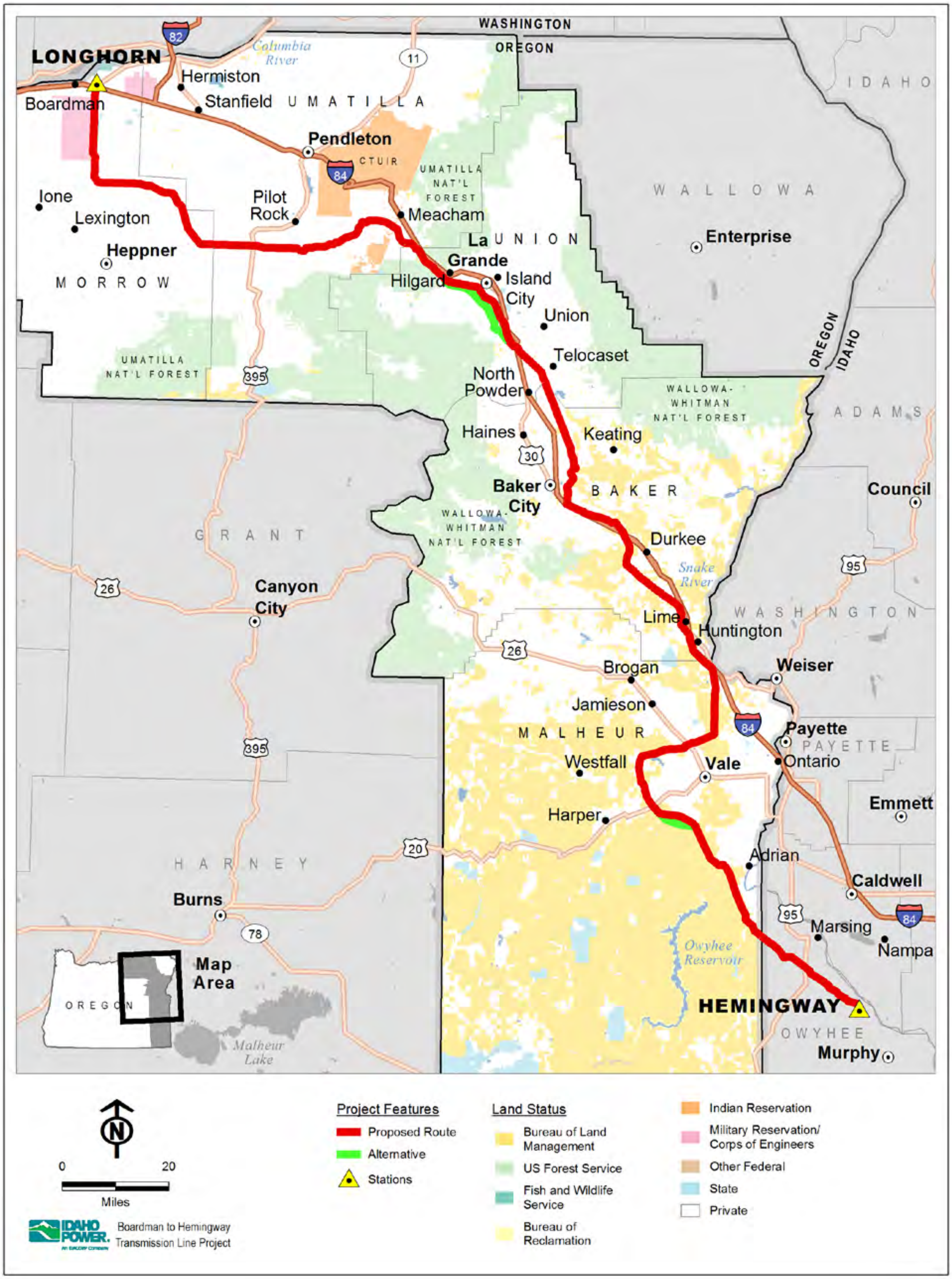

Figure 1. Project Overview Map

2.0 LANDSCAPE SETTING AND LAND USE

2.1 Survey and Study Areas

The wetland delineation survey area is the Project Site Boundary, which represents the perimeter of the site of the proposed Project, its related and supporting facilities, the temporary laydown and staging areas, the proposed and alternative transmission line routes, and access roads that lead to the Project Site Boundary. The discrete study areas (Study Area) that are presented in this report were selected based on the location of all wetlands and other waters that may be impacted by the Project, or that are in close proximity to potential ground disturbance activities.

Prior to field work, Tetra Tech reviewed NWI, National Hydrography Dataset (NHD), hydric soils data, and aerial photographs to identify as many potential wetlands and other waters as possible.

A Geographic Information System (GIS) analysis was conducted to identify locations where the Project design layout intersects wetlands and other waters. To provide additional assurance that all areas of potential impact were included, all wetlands or other waters within approximately 25 feet of identified temporary and permanent impacts were included in the analysis.

Field crews visited potential wetlands and other waters and documented them according to site conditions, conducting wetland determinations, and delineating wetlands and other waters within the survey area to which right of entry was obtained.

When the potential impact sites were identified, study areas were drawn around each site. These areas were drawn with the intent of being big enough to include the impacted features and some surrounding land; but small enough to exclude features that are not identified as being subject to impact. All wetlands and other waters within the study areas, regardless of potential jurisdictional status or potential impact, are included on the maps. Proposed components of the Project that will cause impacts (temporary and permanent impacts from roads) are not included on the wetland delineation maps. Therefore, some study areas may appear to be isolated from any development feature.

Study areas are included in some or all of the following townships, ranges, and sections (Table 2-1). Appendix A, Figures A-2.1 to A-2.87 shows the tax lots where study areas are located.

Table 2-1. Tax Lot, Range, and Section by County

Township	Range	Section	QQ/Section
Morrow County			
001 N	028 E	22	SESW, SWSW
001 N	028 E	27	NWNW, SWNE
004 N	025 E	13	SENE
004 N	026 E	18	L 2
Umatilla County			
001 N	029 E	32	NWNE, NENE, NWNE
001 S	035 E	17	SENW
001 S	036 E	31	L 4
002 S	030 E	3	L 4
002 S	031 E	11	NESE

Township	Range	Section	QQ/Section
002 S	031 E	12	NWSW
002 S	032 E	7	L 1
002 S	032 E	10	SENW, SWNE
002 S	033 E	6	L 16, L17
002 S	033 E	7	L 17
Union County			
002 S	036 E	35	NENW, NWNW, SENW, SWNW
003 S	036 E	1	L 4
003 S	037 E	7	NESE
003 S	037 E	8	NWSW
003 S	037 E	10	SESW
003 S	037 E	11	NESW, NWSE, NWSW
003 S	037 E	15	NENW
003 S	037 E	22	NENE, NENW, NWNE, NWNW, SENE, SENW
003 S	037 E	23	NWNW, SENW, SWNW
003 S	038 E	34	NESW
004 S	038 E	16	NWNE
004 S	038 E	22	NWNE, SENE, SWNE
004 S	038 E	23	NESE, SESE
004 S	038 E	24	NENW, NESW, NWSW, SENW, SWSW
004 S	038 E	25	SWNE
004 S	038 E	27	SESE
004 S	038 E	34	NENE
004 S	038 E	35	NWNW, SWNW
005 S	039 E	5	L 1, L 2, NWSW, SWSW
005 S	039 E	8	SESE, SWSE
005 S	039 E	15	NWSW, SWSW
005 S	039 E	16	NESE, NWSE, SESE, SWSE
005 S	039 E	17	NENE, NWNE, SENE, SWNE
Baker County			
007 S	040 E	4	L 1, SWSW
007 S	040 E	5	SESE, SWSE
007 S	040 E	15	SENW
007 S	040 E	22	NESE
008 S	040 E	25	NESE, NWSE
008 S	040 E	25	SENE
009 S	040 E	13	NWNW, SWNE
009 S	040 E	15	SENW
009 S	040 E	23	SESE
009 S	040 E	24	SWSW
010 S	041 E	8	NESW, NWSW

Township	Range	Section	QQ/Section
010 S	041 E	24	NWNE, NWSE, SWNE
010 S	042 E	19	SWNE
010 S	042 E	28	NWSE, SENW, SWNE, SWSE
010 S	042 E	33	NESE, NWNE, SENW, SESE, SWNE
010 S	042 E	34	SWSE
011 S	042 E	2	SWSW
011 S	042 E	3	L 3
011 S	042 E	11	NWNW
011 S	042 E	23	NENE, NWNE, SESW, SWSE
011 S	042 E	24	NWSE, SESE, SWSE
011 S	042 E	36	NESE, SESE, SWSE
011 S	043 E	31	L 4, NESW, SENW, SESW
012 S	042 E	1	NESE, SESE, SWSE
012 S	042 E	12	NENW, NWNE, SENE, SENW, SWNE, SWNW
012 S	043 E	6	L 4, L5
012 S	043 E	16	NESW, NWSE, SENW, SWNW, SWSE
012 S	043 E	17	SENE
012 S	043 E	22	NESW, SESW
012 S	043 E	27	NENW, NESE, NWSE
013 S	044 E	6	L 3, L 4, NESE, NWSE, SENW, SWNE, SWSE
013 S	044 E	7	NWNE, SWNE
013 S	044 E	9	NWSE, SWSE
013 S	044 E	28	NWNE, NWSE, SWNE
013 S	044 E	33	NENW
014 S	044 E	2	SESW, SWSW
014 S	044 E	11	NESW, NWNW, SENW, SWNE
Malheur County			
016 S	045 E	10	L 5, NWSW
017 S	044 E	23	NESE, NWSE, SENE, SENW, SESE, SWNE
017 S	044 E	24	NWSW, SWNW, SWSW
017 S	044 E	27	NENE, NENW, NWNE, NWNW, NWSW, SENW, SWNE
017 S	044 E	28	NENE, NESE
017 S	045 E	8	NWNE
018 S	043 E	5	SENW, SESW
018 S	043 E	32	SENE, SWNE
023 S	046 E	10	SENE
023 S	046 E	11	SWNW
023 S	046 E	24	NENW

2.2 Landscape Setting

The entire Project, from Boardman to Hemingway, crosses 4 Level III ecoregions, and 11 Level IV ecoregions within them (Thorson *et al.* 2003, McGrath et al 2002). The Level III ecoregions, with associated Level IV ecoregions include:

Level III: Columbia Plateau

- 10c, Umatilla Plateau
- 10e, Pleistocene Lake Basins
- 10n, Umatilla Dissected Uplands

Level III: Blue Mountains

- 11c, Maritime-Influenced Zone
- 11i, Continental Zone Foothills
- 11k, Blue Mountain Basins
- 11l, Mesic Forest Zone

Level III: Snake River Plain

- 12a, Treasure Valley
- 12j, Unwooded Alkaline Foothills
- 12a Treasure Valley

Level III: Northern Basin and Range

- 80f, Owyhee Uplands and Canyons

Information on precipitation, vegetation types, land cover, and land use for the Level IV ecoregions are presented in Table 2-2. An analysis of precipitation preceding the delineation is presented in Section 4.0.

The Project survey area is found in Land Resource Region(s) (LRR) B, Northwest Wheat and Range Region, LLR D Western Range and Irrigated Region, and LRR E, Rocky Mountain Range and Forest Region (NRCS 2006). LRR B, Northwest Wheat and Range Region is equivalent to LRR B Columbia/Snake River Plateau Region in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008) (Arid West Supplement). LRR D Western Range and Irrigated Region is equivalent to LRR D Interior Deserts (USACE 2008). LRR E, Rocky Mountain Range and Forest Region is equivalent to LRR E Rocky Mountain Forests and Rangeland in the *Regional Supplement to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010).

Table 2-2. Precipitation, Vegetation, Land Cover, and Land Use by Ecoregion

MP	Ecoregion III	Ecoregion IV	Precipitation–Mean Annual (inches)	Potential Vegetation	Land Cover and Land Use
Morrow County					
0-16.5; 0-3.7 (West of Bombing Range Alternative)	Columbia Plateau	10e, Pleistocene Lake Basins	7 to 10	Mostly wheatgrass–bluegrass with Idaho fescue and basin wildrye; also some sagebrush steppe/ bluebunch wheatgrass. On very shallow soils: scabland sagebrush. Alien cheatgrass covers broad areas.	Mostly cropland; some grassland. Non-irrigated winter wheat is grown using the crop–fallow rotation method. Irrigated land grows winter wheat, alfalfa, and barley.
16.5-47.5	Columbia Plateau	10c, Umatilla Plateau	9 to 15	Mostly wheatgrass–bluegrass; also some sagebrush steppe/ bluebunch wheatgrass, Sandberg bluegrass, and Idaho fescue. On very shallow soils: stiff sagebrush. Alien cheatgrass covers broad areas.	Mostly cropland; some grassland. Non-irrigated winter wheat is grown using the crop– fallow rotation method. Irrigated land grows winter wheat, alfalfa, and barley.
Umatilla County					
47.5-57.5; 60-62	Columbia Plateau	10c, Umatilla Plateau	9 to 15	Mostly wheatgrass–bluegrass; also some sagebrush steppe/ bluebunch wheatgrass, Sandberg bluegrass, and Idaho fescue. Cheatgrass covers broad areas.	Mostly cropland; some grassland. Non-irrigated winter wheat is grown using the crop– fallow rotation method. Irrigated land grows winter wheat, alfalfa, and barley.
57.5-60; 62-77.5	Columbia Plateau	10n, Umatilla Dissected Uplands	15 to 25	Wheatgrass–bluegrass/ Idaho fescue, bluebunch wheatgrass, and Sandberg bluegrass. Forested, higher elevation, north-facing slopes: Douglas-fir, ponderosa pine, snowberry, pinegrass, and ninebark.	Mostly grass-covered rangeland and wildlife habitat; on higher elevation, north-facing slopes: forest.
77.5-84.5	Blue Mountains	11c, Maritime-Influenced Zone	20 to 40	Western ponderosa pine forest, grand fir–Douglas-fir forest. Dense forest understory and riparian shrub cover: snowberry, spirea, ninebark, serviceberry, and red-twig dogwood. Herbaceous ground cover: heartleaf arnica, pinegrass, elk sedge, Idaho fescue, Sandberg bluegrass, and bluebunch wheatgrass.	Forested. Logging, grazing, wildlife habitat, and recreation.

MP	Ecoregion III	Ecoregion IV	Precipitation–Mean Annual (inches)	Potential Vegetation	Land Cover and Land Use
84.5-88.5	Blue Mountains	11l, Mesic Forest Zone	30 to 60 Mostly snow. Snow persists late into spring.	Grand fir–Douglas-fir forest/ Cold slopes: subalpine fir, Engelmann spruce, mountain hemlock, lodgepole pine, big huckleberry, grouse huckleberry, Utah honeysuckle, and northwestern sedge. Cool moist slopes: grand fir, western larch, queen's cup beadlily, and prince's pine. Drier slopes: Douglas-fir, ponderosa pine, mountain maple, ninebark, pinegrass, elk sedge, and bigleaf sandwort.	Forested. Logging, woodland livestock grazing, wildlife habitat, and recreation.
Union County					
88-90; 10-15 (Morgan Lake); 17-18 (Morgan Lake)	Blue Mountains	11l, Mesic Forest Zone	30 to 60 Mostly snow. Snow persists late into spring.	Grand fir–Douglas-fir forest/ cold slopes: subalpine fir, Engelmann spruce, mountain hemlock, lodgepole pine, big huckleberry, grouse huckleberry, Utah honeysuckle, sidebells pyrola, roundleaved violet, and northwestern sedge. Cool moist slopes: grand fir, western larch, queen's cup beadlily, and prince's pine. Drier slopes: Douglas-fir, ponderosa pine, mountain maple, ninebark, pinegrass, elk sedge, and bigleaf sandwort.	Forested. Logging, woodland livestock grazing, wildlife habitat, and recreation.
90-110; 0-10 (Morgan Lake)	Blue Mountains	11c, Maritime-Influenced Zone	20 to 40	Western ponderosa pine forest, grand fir–Douglas-fir forest/ mostly ponderosa pine, some Douglas-fir, grand fir. Dense forest understory and riparian shrub cover: snowberry, spirea, ninebark, serviceberry, and red-twig dogwood. Herbaceous ground cover: heartleaf arnica, pinegrass, elk sedge, Idaho fescue, Sandberg bluegrass, and bluebunch wheatgrass.	Forested. Logging, grazing, wildlife habitat, and recreation.
110-121; 15-17 (Morgan Lake)	Blue Mountains	11k, Blue Mountain Basins	Wallowa and Grande Ronde valleys: 13 to 25. Baker Valley: 10 to 16.	Wheatgrass–bluegrass and sagebrush steppe/ Baker Valley: sagebrush steppe composed of Wyoming big sagebrush, bluebunch wheatgrass, and Idaho fescue. Wallowa and Grande Ronde valleys: grassland containing bluebunch wheatgrass and Idaho fescue. Wetlands: tufted hairgrass, sedges, basin wildrye, and black greasewood.	Irrigated pastureland, cropland, recreation, and commercial, residential, and rural residential development. Principal crops: alfalfa, peas, winter wheat, and grass seed. Most wetlands on floodplains have been drained for agriculture.

MP	Ecoregion III	Ecoregion IV	Precipitation–Mean Annual (inches)	Potential Vegetation	Land Cover and Land Use
121-128	Blue Mountains	11i, Continental Zone Foothills	9 to 18	Mostly sagebrush steppe/ bluebunch wheatgrass, mountain big sagebrush, Idaho fescue, Wyoming big sagebrush, Sandberg bluegrass, and on schist, Nevada greasebush.	Shrub- and grass-covered. Livestock grazing and wildlife habitat.
Baker County					
140-140.5; 141-145.5; 146-147; 0-0.5 (230-kv Rebuild)	Blue Mountains	11k, Blue Mountain Basins	Wallowa and Grande Ronde valleys: 13-25. Baker Valley: 10-16.	Wheatgrass–bluegrass and sagebrush steppe/ Baker Valley: sagebrush steppe composed of Wyoming big sagebrush, bluebunch wheatgrass, and Idaho fescue. Wallowa and Grande Ronde valleys: grassland containing bluebunch wheatgrass and Idaho fescue. Wetlands: tufted hairgrass, sedges, basin wildrye, and black greasewood.	Irrigated pastureland, cropland, recreation, and commercial, residential, and rural residential development. Principal crops: alfalfa, peas, winter wheat, and grass seed. Most wetlands on floodplains have been drained for agriculture.
128-140; 140.5-141; 145.5-146; 147-190; 0.5-0.85 (230-kv Rebuild)	Blue Mountains	11i, Continental Zone Foothills	9 to 18	Mostly sagebrush steppe/ bluebunch wheatgrass, mountain big sagebrush, Idaho fescue, Wyoming big sagebrush, Sandberg bluegrass, and on schist, Nevada greasebush.	Shrub- and grass-covered. Livestock grazing and wildlife habitat.
190-196.5	Snake River Plain	12j, Unwooded Alkaline Foothills	9 to 12	Mostly sagebrush steppe/ Wyoming big sagebrush, bluebunch wheatgrass, Sandberg bluegrass, Thurber needlegrass, Indian ricegrass, and cheatgrass. Saline-alkaline areas: black greasewood, shadscale, fourwing saltbush, and inland saltgrass.	Shrub- and grass-covered rangeland and wildlife habitat; some irrigated hayland and pastureland near rivers.
Malheur County					
225-225.5	Blue Mountains	11i, Continental Zone Foothills	9 to 18	Mostly sagebrush steppe/ bluebunch wheatgrass, mountain big sagebrush, Idaho fescue, Wyoming big sagebrush, Sandberg bluegrass, and, on schist, Nevada greasebush.	Shrub- and grass-covered. Livestock grazing and wildlife habitat.

MP	Ecoregion III	Ecoregion IV	Precipitation–Mean Annual (inches)	Potential Vegetation	Land Cover and Land Use
196.5-209.5; 210.5-215; 221.5-225; 226.5-250; 0-7 (Double Mountain Alternative)	Snake River Plain	12j, Unwooded Alkaline Foothills	9 to 12	Mostly sagebrush steppe/ Wyoming big sagebrush, bluebunch wheatgrass, Sandberg bluegrass, Thurber needlegrass, Indian ricegrass, and cheatgrass. Saline-alkaline areas: black greasewood, shadscale, fourwing saltbush, and inland saltgrass.	Shrub- and grass-covered rangeland and wildlife habitat; some irrigated hayland and pastureland near rivers.
225.5-226.5; 250-270.5	Northern Basin and Range	80f, Owyhee Uplands and Canyons	8 to 14	Sagebrush steppe/ Wyoming big sagebrush, basin big sagebrush, Douglas rabbitbrush, bluebunch wheatgrass, Idaho fescue, bottlebrush squirreltail, Sandberg bluegrass, and cheatgrass. Rocky areas: scattered western juniper.	Mostly brush- and grass-covered rangeland and wildlife habitat; some hay and small grain farming. Cheatgrass has replaced depleted bunchgrasses in overgrazed areas.
209.5-210.5; 215-221.5	Snake River Plain	12a, Treasure Valley	6-15	Mostly sagebrush steppe/ Wyoming big sagebrush, bluebunch wheatgrass, cheatgrass, basin wildrye, Thurber needlegrass, rabbitbrush. Saline-alkaline areas: shadscale, greasewood, and inland saltgrass.	Irrigated cropland, pastureland, suburban and urban developments, and industrial areas. Wheat, barley, sugar beets, potatoes, beans, and specialty crops are grown. Elsewhere: grazing.

Adapted from Thorson et al. 2003, with the exception of Level IV Ecoregion 12a-Treasure Valley, which was adapted from McGrath et al. 2002.

2.2.1 Morrow County

In Morrow County, the survey area is approximately 65 percent contained in ecoregion 10c, Umatilla Plateau, and 35 percent contained in ecoregion 10e, the Pleistocene Lake Basins of the Columbia Plateau Ecoregion.

Elevation in the survey area starts at approximately 654 feet in the west side of Morrow County and rises to approximately 1,819 feet in elevation on the east side of the county. Due to relatively little difference in elevation and topography trending westward across Morrow County, there is not a large range of precipitation, vegetation types, or associated land cover and uses from the east to west side of the county and associated survey area.

2.2.2 Umatilla County

In Umatilla County, the survey area is located within the Level III ecoregions Columbia Plateau and Blue Mountains. The majority (approximately 44 percent) of the survey area is contained in 10n, Umatilla Dissected Uplands within the Columbia Plateau Ecoregion, while 29 percent is in 10c, Umatilla Plateau. The rest is within the Level III Blue Mountains Ecoregion, with 17 percent in 11c, Maritime-Influenced Zone, and 10 percent is in 11l, Mesic Forest Zone.

The survey area in Umatilla County ranges in elevation 1,000 feet to 4,300 feet from the arid hills of the Umatilla plateau to the forested highlands of the Blue Mountains

2.2.3 Union County

In Union County, the survey area is located entirely in the Level III Blue Mountains Ecoregion. The majority (approximately 50 percent) of the survey area is contained in 11c, Maritime-Influenced Zone; 28 percent is in 11k, Blue Mountain Basins; 18 percent is in 11i Continental Zone Foothills; and 5 percent is in 11l, Mesic Forest Zone.

The survey area ranges in elevation from 3,300 feet to 5,200 feet, across the rolling hills of the Blue Mountains. Due to the differences in elevation and topography trending westward across Union County, precipitation, vegetation types, and associated land cover and uses differ greatly from east to west across the survey area.

2.2.4 Baker County

In Baker County, the survey area is located within the Level III Blue Mountains Ecoregion and the Level III Snake River Plain Ecoregion. The majority (approximately 82 percent) of the survey area is contained in 11i, Continental Zone Foothills; 9 percent is in 11k, Blue Mountain Basins of the Blue Mountains Ecoregion; and 9 percent is in 12j, Unwooded Alkaline Foothills of the Snake River Plain Ecoregion. The 230 kV Rebuild falls entirely within Baker County. Approximately 59 percent is contained in 11k, Blue Mountain Basins of the Blue Mountains Ecoregion, and 41 percent is within 11i, Continental Zone Foothills.

Baker County is further divided into 3 Level IV ecoregions: Blue Mountain Basins, Continental Zone Foothills, and Unwooded Alkaline Foothills (Thorson *et al.* 2003). The Level IV Blue Mountain Basins Ecoregion includes the Wallowa, Grande Ronde, and Baker valleys. These valleys occur amongst the most rugged mountains in northeastern Oregon and the climate of each of the valleys is a product of their location relative to the mountains. While the Wallowa and Grande Ronde valleys have a marine-moderated climate, the Baker Valley is relatively drier due to the rain shadow effect created by the Elkhorn Mountains. The Level IV Continental Zone Foothills Ecoregion occurs on the eastern side of the Blue Mountains where a rain shadow effect supports vegetation communities of desert shrubs and mixed conifer forests (Thorson *et al.* 2003). The Level IV Unwooded Alkaline Foothills Ecoregion is characterized by topography of rolling hills, benches, alluvial fans, and scattered badlands. Vegetation within this ecoregion consists of sagebrush-grassland communities with salt tolerant shrubs occurring in areas of alkaline soils (Thorson *et al.* 2003).

The survey area ranges in elevation from 2,500 feet to 4,600 feet, across the rolling foothills lying between the Blue Mountains and Wallowa Mountains and the northwestern Snake River Plain in Baker County. Due to the differences in elevation and topography trending westward across Baker County, there is a large difference in precipitation, vegetation types, and associated land cover and uses from the northern to southern side of Baker County and associated study area within this county.

2.2.5 Malheur County

In Malheur County, the survey area is located within the Level III Blue Mountains Ecoregion, Level III Snake River Plain Ecoregion, and the Level III Northern Basin and Range Ecoregion. Approximately 60 percent of the survey area is contained in 12j, Unwooded Alkaline Foothills of the Snake River Plain Ecoregion; 29 percent is in 80f, Owyhee Uplands and Canyons of the Northern Basin and Range Ecoregion; 10 percent is in 12a, Treasure Valley of the Snake River Plain; and less than 1 percent is within 11i, Continental Zone Foothills of the Blue Mountains Ecoregion.

The survey area ranges in elevation from 2,300 feet to 4,000 feet, including the rolling foothills south of the Blue Mountains and the northwestern Snake River Plain in Malheur County. Due to the differences in elevation and topography trending south-southeastward across Malheur County, there is a large difference in precipitation, vegetation types, and associated land cover and uses from the northern to southern side of Malheur County and associated study area within this county.

2.3 Desktop Analysis

Prior to field work, a desktop analysis of recent aerial photographs, USFWS National Wetlands Inventory (NWI) maps (Oregon GIS Framework 2016), NHD maps (Oregon GIS Framework 2009), and mapped soil units (USDA 2015), was conducted within the study areas. The data were used to guide the field work for wetlands and is discussed further in Section 4.0. Wetlands documented during the survey are discussed further in Section 5.1. These wetlands are presented in Appendix A, Figures 5.1 to 5.312.

2.3.1 National Wetlands Inventory Data

Figure A-3 exhibits NWI-mapped features in the study areas.

In Morrow County a desktop review identified 3 wetlands mapped by NWI (Oregon Spatial Data Library 2012). Of the 3 NWI features, two were palustrine wetlands (PEM1F, and PUBF), and one was riverine (R3UBH). The riverine feature is a crossing near milepost 34.2.

In Umatilla County, 6 NWI features were identified. Two NWI features were riverine with 1 intermittent stream and 1 upper perennial stream. There were four 4 palustrine wetland features including 3 forested wetlands, and 1 shrub/scrub wetland.

There were 22 NWI features in Union County. Of the NWI features, 14 were palustrine, with 6 emergent wetlands, 4 shrub/scrub wetlands, 2 unconsolidated bottom wetlands, and 1 forested wetland. There were 9 mapped riverine features, including 3 upper perennial, and 6 intermittent.

In Baker County there were 71 NWI features. Forty two of the NWI features were palustrine, with emergent being the most common class. Riverine features accounted for 29 features, with most being intermittent streams.

In Malheur County 21 NWI features were identified. Ten of those features were palustrine and 11 were riverine. Emergent, shrub/scrub, forested, and unconsolidated bottom wetlands were all identified in Malheur County. Of the riverine features, 9 were intermittent, and 2 were upper perennial.

2.3.2 National Hydrography Dataset

Figure A-3 exhibits NHD-mapped features in the study areas.

In Morrow County, 5 NHD features intersect the study area. Three of these features are intermittent streams, and 2 are perennial. Three of the features are segments of the same stream, Butter Creek or its tributaries near milepost 34.

There are 5 NHD features within the study area in Umatilla County. Three of these features are perennial streams, and 2 are intermittent. Two features are Butter Creek or one of its tributaries on the western edge of the county. Four features are forks of Birch Creek or its tributaries, and 1 feature is Little Beaver Creek which flows near the eastern edge of the county.

In Union County, there are 22 NHD features within the study area. These features largely flow out of the Blue Mountains to the south and west of the project ROW. Of those, 19 are perennial streams, and 3 are intermittent.

A large number of NHD features flow out of the Blue, Elkhorn and Wallowa Mountains in Baker County. There are 64 NHD features that intersect the study area in Baker County. Two are canal/ditch, 37 are perennial streams, and 25 are intermittent streams.

In Malheur County, there are 25 NHD features that intersect the study area. Of these 17 are canal/ditch, 5 are perennial streams, 1 is an intermittent stream, and 2 are classified as artificial paths.

2.3.3 Natural Resources Conservation Service (NRCS) Hydric Soils Data

Table 2-3 lists soils all soils with a hydric component mapped in the study area and their percent hydric soil. Figure A-4 exhibits NRCS-mapped soils in the study area.

Table 2-3. NRCS Mapped Soils in the Study Area

Map Unit Name (Symbol)	Percent Hydric Soil
Morrow County	
None	NA
Umatilla County	
39A - Hermiston silt loam, 0 to 3 percent slopes	1
67B – Pilot Rock silt loam, 1 to 7 percent slopes	1
55A – Mondovi silt loam, 0 to 3 percent slopes	2
126A - Xerofluvents, 0 to 3 percent slopes	2
55A - Mondovi silt loam, 0 to 3 percent slopes	2
110A - Veazie cobbly loam, 0 to 3 percent slopes	10
Union County	
31 – Jett silt loam	1
58E - Starkey very stony silt loam, 2 to 35 percent slopes	1
59E – Tolo silt loam, 12 to 35 percent slopes	1
60D - Ukiah silty clay loam, 2 to 20 percent slopes	1
62 – Umapine silt loam	1

Map Unit Name (Symbol)	Percent Hydric Soil
71 – Wingville silt loam	1
9A – Conley silty clay loam, 0 to 2 percent slopes	2
7 - Catherine silt loam	2
8 - Catherine silty clay loam	2
40C - Lookingglass very stony silt loam, 2 to 20 percent slopes	2
9A - Conley silty clay loam, 0 to 2 percent slopes	2
Baker County	
40A - Cumulic Haploxerolls, 0 to 2 percent slopes	10
15A - Balm loam, 0 to 3 percent slopes	11
41A - Damore-Silvies silt loams, 0 to 3 percent slopes	40
Malheur County	
31 - Stanfield silt loam	2
29 - Riverwash	100

2.4 Land Use

Land use in the study area is presented according to Level IV ecosystems, as defined in Section 2.2. Potential impacts to wetlands from each type of land use are discussed in Section 3.0

2.4.1 Morrow County

Located within the Level III Columbia Plateau Ecoregion, the study area in Morrow County occurs in the Level IV ecoregion of Pleistocene Lake Basins, and in the Level IV Umatilla Plateau Ecoregion. (Thorson *et al.* 2003). The Pleistocene Lake Basins ecoregion is adjacent to the Columbia River. (Thorson *et al.* 2003). It is the driest and warmest part of the Columbia Plateau Ecoregion, and have been widely converted to irrigated agriculture.

Land Use in the Level IV Umatilla Plateau Ecoregion is mostly cropland, and some grassland. Non-irrigated winter wheat is grown using the crop– fallow rotation method. Irrigated land grows winter wheat, alfalfa, and barley (Thomson et al. 2003)

2.4.2 Umatilla County

The western portion of the Umatilla County survey area consists of croplands dominated by fields of winter wheat, alfalfa, and barley. Near MP 78, the survey area enters grassland that is used for grazing, before transitioning to forested lands from MP 86 to 96, which include logging, grazing and recreational land uses.

Land Use in the Level IV Umatilla Plateau Ecoregion is mostly cropland. Some grassland. Non-irrigated winter wheat is grown using the crop– fallow rotation method. Irrigated land grows winter wheat, alfalfa, and barley (Thomson et al. 2003)

The Maritime-Influenced Zone occurs on the west side of the Blue Mountains where maritime weather supports a forest cover that occurs at lower elevations relative to other parts of the Blue Mountains (Thorson et al. 2003). Forestry is the primary land use, with cattle grazing also occurring in the vicinity. Douglas fir (*Pseudotsuga menziesii*) and ponderosa pine (*Pinus ponderosa*) are the dominant tree species.

2.4.3 Union County

Within the Level IV Mesic Forest Zone Ecoregion, rangeland and forestry are the major land uses, with irrigated agriculture occurring in the vicinity of La Grande, Elgin, and Enterprise, along with small amounts of dryland farming between Pilot Rock and Cayuse (OSU 2011). There are areas of irrigated pasture and cropland with commercial and residential development between MP 123 and MP 128. The area between MP 129 and MP 136 is dominated by shrub and grassland that is used for grazing. The most obvious impacts to wetlands are from forestry roads that intersected or abutted wetlands. Roads through wetlands often impact hydrology and fragment wetland habitats. Wetlands observed in rangeland areas were usually intact, but often showed reduced vegetation and obscured wetland indicators

The Maritime-Influenced Zone Ecosystem occurs on the west side of the Blue Mountains where maritime weather supports a forest cover that occurs at lower elevations relative to other parts of the Blue Mountains (Thorson et al. 2003). Forestry is the primary land use, with cattle grazing also occurring in the vicinity. Douglas fir (*Pseudotsuga menziesii*) and ponderosa pine (*Pinus ponderosa*) are the dominant tree species.

Land use in the Blue Mountain Basins is largely irrigated pastureland, cropland, recreation, and commercial, residential, and rural residential development. Principal crops: alfalfa, peas, winter wheat, and grass seed. Most wetlands on floodplains have been drained for agriculture.

Land use in the Level IV ecoregion Continental Zone Foothills is mostly shrubland and grassland used predominantly for grazing and wildlife habitat.

2.4.4 Baker County

The survey area is oriented south-southeast through shrub steppe-dominated rolling hills that provide wildlife habitat and are used for livestock grazing, with some irrigated pastures and hay land occurring throughout. Principal crops include alfalfa, peas, winter wheat, and grass seed.

Reflecting the climate and terrain, the major land uses within the Level IV Blue Mountain Basins Ecoregion are rangeland and forestry (OSU 2011). Minor land uses include irrigated agriculture in the vicinity of La Grande, Elgin, and Enterprise and a small amount of dryland farming occurs between Pilot Rock and Cayuse (OSU 2011). The most obvious impacts to wetlands were from forestry roads which intersected or abutted wetlands. Roads through wetlands often impacted hydrology and fragmented wetland habitats. Wetlands occurring within rangeland areas were usually intact but often showed reduced vegetation and obscured wetland indicators.

Land use within the Level IV Continental Zone Foothills Ecoregion is a mixture of logging at the higher elevations and cattle grazing at lower elevations. Wetlands impacted from existing roads typically have decreased hydrophytic vegetation cover near the road and road fill may obscure hydric soil indicators. There are relatively fewer wetlands in this ecoregion due to the rain shadow effect.

Land use within the Level IV Unwooded Alkaline Foothills Ecoregion is predominantly rangeland with some agriculture occurring near sources of irrigation. Wetland areas occurred near streams and seeps. Livestock grazing in these wetlands has caused reduced vegetation cover and an increase in invasive plant species.

2.4.5 Malheur County

Across the extent of Malheur County, the survey area crosses shrub steppe-dominated rolling hills mixed with disturbed lands, used primarily for grazing and agriculture.

Major land uses within the Level IV Continental Zone Foothills Ecoregion, located on the eastern side of the Blue Mountains, are a mixture of logging at the higher elevations and cattle grazing at lower elevations. Relatively few impacts from logging were encountered during the wetland delineations. The primary impacts were caused by logging roads that intersected or abutted wetlands. Wetlands impacted from existing roads often have decreased hydrophytic vegetation closest to the road and obscured hydric soil indicators due to the presence of road fill.

Land use within the Level IV Unwooded Alkaline Foothills Ecoregion, is predominantly rangeland with some agriculture occurring near sources of irrigation. Impacts to wetlands from grazing practices included disturbed or compacted soils, reduced vegetation cover, and an increased cover of invasive plant species.

Land use within the Level IV Owyhee Uplands and Canyons Ecoregion consists of rangeland and wildlife habitat (Thorson *et al.* 2003). Impacts to wetlands occur in areas heavily used by livestock and to those wetlands intersected by unimproved roads. Impacts include reduced vegetation cover, altered hydrology, and the presence of invasive plant species.

Land use within the Level IV Treasure Valley Ecoregion is largely Irrigated cropland, pastureland, suburban and urban developments, and industrial areas. Wheat, barley, sugar beets, potatoes, beans, and other specialty crops are common crops in this ecoregion (McGrath et al. 2002).

3.0 SITE ALTERATIONS

Site alterations are those activities which would directly or indirectly impact wetlands and other waters such that the function or area of the feature changes significantly. A significant alteration would be one which renders the feature non-functioning or one which changes the boundaries of the wetland. Primary sources of alterations to wetlands across the Project study area includes agriculture, livestock grazing, and roads.

3.1 Agriculture and Livestock Grazing

Agricultural lands and associated paved and dirt roads may disrupt normal hydrological circumstances and act as vectors for the establishment of invasive vegetation and volunteer agricultural grasses. These activities were common near wetlands in Morrow and Umatilla counties.

Livestock grazing occurs throughout the study area in the sagebrush steppe and perennial grassland vegetation communities. Site alterations to wetlands from cattle grazing were primarily due to heavy vegetation browse and trampling. The most common impacts observed from cattle grazing were a reduction in plant biomass, changes to vegetation community composition and the alteration of local hydrology, including changes to stream channel shape and compaction of the upper soil column.

The impounding of water changes the amount of time an area receives water throughout the growing season, and changes stream hydrology; thus, the potential for that area to develop wetland characteristics. Excavated areas within the study area create depressions in the landscape that would not occur under normal circumstances. Water can collect in these areas allowing hydric conditions to develop in areas where they normally would not. This situation was observed within the study area.

3.2 Roads

Roads that intersect wetlands and other waters and roads that are adjacent to these features occur in the study area. Roads can be a significant contributor to site alterations as they may change the physical environment, fragment habitat, and provide a vector for the introduction of exotic vegetation.

The severity of the alteration generally is proportional to the size of the road. Within the study area in roads range in size from improved, regularly maintained dirt roads to seldom used 2-track dirt roads. Roads may alter the physical environment of the wetland or non-wetland water when it crosses the feature perpendicularly or when it occurs adjacent to the feature. Roads that intersect wetland or non-wetland water may act as a dam and can introduce a variety of alterations to the wetland. At the intersection of a road and wetland or non-wetland water, the road can alter the hydrologic regime of the immediate area, changing the size and distribution of the wetland, or the flow velocity and duration of a non-wetland water. The process may impact biotic and abiotic processes including the formation of hydrophytic vegetation communities, the formation of hydric soils, and the hydrologic regime.

4.0 PRECIPITATION DATA AND ANALYSIS

4.1 Morrow County

Precipitation data for the period preceding and during field work were collected from the National Weather Service (NWS) Heppner, Oregon climate station (HEPO3) located at the town of Heppner, Oregon (NOAA 2017). The HEPO3 Station varies in distance from 14 to 34 miles southwest of the survey area. It was used for climate data because it is roughly in the middle of the study area and contained complete records for the survey area within Morrow County.

Prior to field work on May 8, 2013, 0.64 inches of precipitation was recorded (NOAA 2017). In 2016, no measurable precipitation was recorded in the 10 days leading up to field survey, which began on June 8 or in the 10 days prior to surveys conducted on August 26 (NOAA 2017).

Average historical monthly precipitation data (1971 through 2016) were obtained from the HEPO3 station and are summarized into an NRCS WETS table, presented below in Tables 4-1 and 4-2**.** Information is provided for the 3 months preceding field work (February, March, and April) and for May, June, July, and August the months during which field work occurred.

2013 began with below normal precipitation from February through April, however, May and June had above normal precipitation (Table 4-1). Despite this above normal precipitation, 2013 was considered a below normal water year (Table 4-2) (NOAA 2017).

Similarly, 2016 was a below normal water year (Table 3-2), despite above normal precipitation recorded in June (Table 3-1) (NOAA 2017).

Table 4-1. Monthly, Normal and Observed Precipitation in Inches

Date	1971-2016 Monthly Average	Normal Range		Precipitation Observed	
		30th Percentile	70th Percentile	2013	2016
February	1.09	0.66	1.32	0.04[b]	0.87
March	1.46	1.05	1.73	0.71[b]	0.72[b]
April	1.46	0.87	1.77	0.75[b]	1.59
May	1.67	1.16	1.98	2.07[a]	0.53[b]
June	1.21	0.57	1.48	1.79[a]	2.22[a]
July	0.33	0.12	0.37	0[b]	0.75[a]
August	0.48	0.12	0.45	0.61[a]	0.6[a]

Source: NOAA 2017

a. Indicates above normal value.

b. Indicates below normal value.

Table 4-2. Water Year-to-Date Normal and Observed Precipitation in Inches

Date	1971-2000 Water Year-to-Date Average	Normal Range Water Year-to-Date		Water Year-to-Date Observed	
		30th Percentile	70th Percentile	2013	2016
February	6.50	5.52	7.56	4.29[b]	4.71[b]
March	7.96	6.73	9.31	5.0[b]	5.43[b]
April	9.37	8.24	10.65	5.75[b]	7.02[b]
May	11.04	9.55	12.45	7.82[b]	7.55[b]
June	12.24	10.52	13.06	9.61[b]	9.77[b]
July	12.57	11.09	13.50	9.61[b]	10.52[b]
August	13.04	11.42	14.56	10.22[b]	11.12[b]

Source: NOAA 2017
a. Indicates above normal value.
b. Indicates below normal value.

4.2 Umatilla County

Precipitation data for the period preceding and during field work were collected from the National Weather Service (NWS) Pilot Rock 1 SE, Oregon climate station (PLTO3) located approximately 0.5 mile to the southeast of the town of Pilot Rock, Oregon (NOAA 2017). The climate station varies from approximately 5 to 21 miles north of the survey area. It was used for climate data because it is the closest climate station to the survey area within Umatilla County.

In 2011, there was 0.02 inches of precipitation recorded within the 10 days preceding field work on occurred on July 15. No measurable precipitation was recorded prior to field work on August 3, 2011 (NOAA 2017).

Precipitation in the amounts 0.07, 0.13, and 0.06 inches were recorded within the 10 days prior to beginning fieldwork on August 10, 2016 (NOAA 2017). Prior to field work conducted on September 7, 2016, 0.02 inches of precipitation was recorded. In addition, 0.19 inches of precipitation was measured on September 7 (NOAA 2017).

Average historical monthly precipitation data (1971 through 2016) were obtained from the PLTO3 station and are summarized into an NRCS WETS table, presented below in Tables 4-3 and 4-4**.** Information is provided for the 3 months preceding field work (March, April and May) and for June, July, August, and September, the months during which field work occurred.

Generally, observed monthly precipitation, and water year-to-date records indicate that the 2011 water year was above normal while 2016 was within the normal range (Table 4-3 and 4-4). March and May of 2011 were especially wet months (Table 4-4).

Table 4-3. Monthly, Normal and Observed Precipitation in Inches

Date	1971-2016 Monthly Average	Normal Range 30th Percentile	Normal Range 70th Percentile	2011	2016
March	1.56	1.17	1.83	2.28[a]	1.67
April	1.48	0.96	1.78	1.74	0.4[b]
May	1.75	1.13	2.11	3.82[a]	1.52
June	1.29	0.82	1.56	1.63[a]	1.03
July	0.37	0.15	0.43	0.02[b]	0.91[a]
August	0.58	0.15	0.6	0.01[b]	0.41
September	0.7	0.28	0.78	0.01[b]	0.51

Source: NOAA 2017
a. Indicates above normal value.
b. Indicates below normal value.

Table 4-4. Water Year-to-Date Normal and Observed Precipitation in Inches

Date	1971-2000 Water Year-to-Date Average	Normal Range Water Year-to-Date 30th Percentile	Normal Range Water Year-to-Date 70th Percentile	2011	2016
March	7.95	7.13	9.0	9.91[a]	8.46
April	9.39	8.51	10.7	11.65[a]	8.86
May	11.12	10.00	12.6	15.47[a]	10.38
June	12.38	11.25	13.8	17.1[a]	11.41
July	12.77	11.95	14.3	17.12[a]	12.32
August	13.35	12.08	14.7	17.13[a]	12.73
September	14.00	12.38	15.2	17.14[a]	13.24

Source: NOAA 2017
a. Indicates above normal value.
b. Indicates below normal value.

4.3 Union County

Precipitation data for the period preceding and during field work were collected from the National Weather Service (NWS) La Grande, Oregon climate station (LGDO3) located just south of La Grande, Oregon along Highway 30 (NOAA 2017). The LGDO3 Station varies in distance from 2 to 20 miles east of the survey area. It was used for climate data because it is the closest climate station to the survey area within Union County.

In 2011, there was no measurable precipitation recorded in the 10 days prior to field work on August 10 (NOAA 2017).

Within the 10 days prior to field work that occurred on June 13, 2016, no measurable precipitation was recorded. However, on June 13, 0.15 inches of precipitation was recorded (NOAA 2017). Similarly, no measurable precipitation was recorded within the 10 days preceding field work that commenced on August 1, 2016 (NOAA 2017).

Average historical monthly precipitation data (1971 through 2016) were obtained from the LGDO3 station and are summarized into an NRCS WETS table, presented below in Tables 4-5 and 4-6**.** Information is provided for the 3 months preceding field work (March, April, and May) and for June, July, and August, the months during which field work occurred.

Generally, water year-to-date records indicate that the 2011 water year was within the normal range, while 2016 was below normal from April through August (Table 4-6).

Table 4-5. Monthly, Normal and Observed Precipitation in Inches

Date	1971-2016 Monthly Average	Normal Range		2011	2016
		30th Percentile	70th Percentile		
March	1.55	1.1	1.83	2.13[a]	2.16[a]
April	1.57	1.02	1.89	1.26	0.73[b]
May	1.9	1.32	2.25	1.75	1.0[b]
June	1.55	1.07	1.85	1.67	1.17
July	0.65	0.31	0.79	0.5	1.33[a]
August	0.79	0.31	0.88	0.0[b]	0.16[b]

Source: NOAA 2017
a. Indicates above normal value.
b. Indicates below normal value.

Table 4-6. Water Year-to-Date Normal and Observed Precipitation in Inches

Date	1971-2000 Water Year-to-Date Average	Normal Range Water Year-to-Date		2011	2016
		30th Percentile	70th Percentile		
March	9.49	8.45	10.29	9.7	8.85
April	11.06	9.76	11.84	10.96	9.58[b]
May	12.94	11.05	14.28	12.71	10.58[b]
June	14.50	12.81	15.78	14.38	11.75[b]
July	15.14	13.52	16.67	14.88	13.08[b]
August	15.91	13.79	17.55	14.88	13.24[b]

Source: NOAA 2017
a. Indicates above normal value.
b. Indicates below normal value.

4.4 Baker County

Precipitation data for the period preceding and during field work were collected from the National Weather Service (NWS) Baker, Oregon climate station (BKE) located at the Baker City Municipal Airport (NOAA 2017). The BKE Station is located approximately 4 miles to the northeast of Baker City, and varies in distance from 3 to 46 miles west and of the survey area. It was used for climate data because it is the closest climate station to the survey area within Baker County.

In 2011, there was no measurable precipitation recorded in the 10 days prior to field work on August 19. Trace amounts of moisture were recorded on August 15, and 16. Prior to field work on October 5, 0.08 of an inch was recorded on October 4, 2011 (NOAA 2017).

In 2012, there was no measurable precipitation recorded in the 10 days preceding field work in Baker County on August 13 (NOAA 2017).

Prior to field work in April and May of 2013, 0.13 inches of precipitation was recorded. In the 10 days preceding field work on June 26 and in early July, 1.57 inches of precipitation fell on June 20, 2013. Additional precipitation totaling 0.6 inches was recorded from June 24 to June 26. Prior to the August 2013 field work, 0.32 inches of precipitation was recorded on August 1, 2013.

In 2016, four precipitation events occurred within the 10 days preceding field work that occurred on June 26. Those events totaled 0.04, 0.11, 0.08, and 0.07 inches of precipitation. There was no measurable precipitation recorded prior to field work conducted in August 2016. In September 2016, 0.05 inches of precipitation was recorded one day prior to field work that occurred on September 7.

Average historical monthly precipitation data (1971 through 2016) were obtained from the BKE station and are summarized into an NRCS WETS table, presented below in Tables 4-7 and 4-8. Information is provided for the 3 months preceding field work (February, March, and April) and for May, June, July, August, September, and October, the months during which field work occurred.

Generally, water year-to-date records indicate that the 2011 water year was above normal while 2012 was at or slightly below normal (Table 4-8). In 2013, March, April, and May were below normal, but the rest of the water year through September remained within the normal range. The 2016 water year was below normal through September (Table 4-8).

Table 4-7. Monthly, Normal and Observed Precipitation in Inches

Date	1971-2016 Monthly Average	Normal Range		Precipitation Observed			
		30th Percentile	70th Percentile	2011	2012	2013	2016
February	0.57	0.36	0.69	0.65	0.57	0.43	0.21[b]
March	0.82	0.56	0.98	2.06[a]	0.59	0.31[b]	0.32[b]
April	0.85	0.54	1.03	0.76	1.22[a]	0.35[b]	0.35[b]
May	1.43	0.87	1.73	3.24[a]	0.93	1.52	1.07
June	1.21	0.74	1.46	1.01	1.92[a]	2.18[a]	0.37[b]
July	0.64	0.26	0.77	0.47	0.41	0.05[b]	0.80[a]
August	0.72	0.24	0.83	0.00[b]	0.00[b]	0.46	0.12[b]
September	0.64	0.23	0.71	0.00[b]	0.06[b]	1.61[a]	0.07[b]
October	0.61	0.33	0.74	0.95[a]	0.69	0.17	1.33

Source: NOAA 2017

a. Indicates above normal value.

b. Indicates below normal value.

Table 4-8. Water Year-to-Date Normal and Observed Precipitation in Inches

Date	1971-2000 Water Year-to-Date Average	Normal Range Water Year-to-Date		Water Year-to-Date Observed			
		30th Percentile	70th Percentile	2011	2012	2013	2016
February	4.02	3.25	4.69	5.05[a]	2.73[b]	3.29	3.14[b]
March	4.82	3.93	5.55	7.11[a]	3.32[b]	3.60[b]	3.46[b]
April	5.62	4.48	6.74	7.87[a]	4.54	3.95[b]	3.81[b]
May	7.10	5.69	8.30	11.11[a]	5.47[b]	5.47[b]	4.88[b]
June	8.38	6.91	9.65	12.12[a]	7.39	7.65	5.25[b]
July	8.93	7.49	10.21	12.59[a]	7.80	7.7	6.05[b]
August	9.59	8.08	10.76	12.59[a]	7.80[b]	8.16	6.17[b]
September	10.17	8.76	11.41	12.59[a]	7.86[b]	9.77	6.24[b]
October	0.38	0.19	0.52	0.95[a]	0.69[a]	0.17[b]	1.33[a]

Source: NOAA 2017

a. Indicates above normal value.

b. Indicates below normal value.

4.5 Malheur County

Historic precipitation data for the study area were obtained from the USDA NRCS Agricultural Applied Climate Information System for the Malheur Branch Experimental Station (MLHO3), Oregon, (NOAA 2017) and are summarized in Table 4-9. The Malheur Branch Experimental station is located from 12 to 30 miles east of the survey area. The Malheur Branch Experimental station was selected as it is located in close proximity to the project and maintained the most complete precipitation record for surveys occurring in 2011, 2012, and 2013.

In the 10 days preceding the start of field work in Malheur County on July 21, 2011, there was a total of 0.18 inches of precipitation recorded from July 14 to July 16 (NOAA 2017). No precipitation was recorded prior to field work conducted on August 6, 2011.

In July of 2012, no measurable precipitation was recorded prior to field work (NOAA 2017). Prior to field work in April 2013, 0.12 inches of precipitation was recorded on April 19 and 20. No measurable precipitation was recorded in the 10 days prior to field work in June of 2013 (NOAA 2017).

Average historical monthly precipitation data (1971 through 2013) were obtained from the MLHO3 station and are summarized into an NRCS WETS table, presented below in Tables 4-9 and 4-10**.** Information is provided for the 3 months preceding field work (January, February, and March) and for April, June, July, and August, the months during which field work occurred (NOAA 2017).

Monthly precipitation varies greatly in early 2011 and 2012 (Table 4-9). However, monthly precipitation was below normal from January through May in 2013 (NOAA 2017).

Generally, water year-to-date, presented in Table 4-10, was above normal in 2011, within the normal range in 2012, and below normal in 2013 (NOAA 2017).

Table 4-9. Monthly, Normal and Observed Precipitation in Inches

Date	1971-2013 Monthly Average	Normal Range				Precipitation Observed
		30th Percentile	70th Percentile	2011	2012	2013
January	1.23	0.77	1.48	1.05	1.64[a]	0.58[b]
February	0.92	0.5	1.12	0.42[b]	0.49[b]	0.28[b]
March	1.1	0.58	1.34	2.97[a]	1.33	0.32[b]
April	0.83	0.44	1.01	0.44	1.02[a]	0.19[b]
May	1.03	0.45	1.25	2.61[a]	0.77	0.37[b]
June	0.76	0.4	0.93	0.81	0.45	0.78
July	0.3	0.1	0.32	0.19	0.0[b]	0.0[b]
August	0.36	0.08	0.36	0.02[b]	0.04[b]	0.06[b]

Source: NOAA 2017
a. Indicates above normal value.
b. Indicates below normal value.

Table 4-10. Water Year-to-Date Normal and Observed Precipitation in Inches

Date	1971-2013 Water Year-to-Date Average	Normal Range Water Year-to-Date		2011	2012	Water Year-to-Date Observed 2013
		30th Percentile	70th Percentile			
January	4.40	3.65	4.85	7.49[a]	4.16	3.34[b]
February	5.33	4.49	6.02	7.91[a]	4.65	3.62[b]
March	6.30	5.32	6.97	10.88[a]	5.98	3.94[b]
April	7.08	5.99	7.92	11.32[a]	7.00	4.13[b]
May	8.17	6.57	8.90	13.93[a]	7.77	4.50[b]
June	8.95	7.48	9.92	14.74[a]	8.22	5.28[b]
July	9.17	7.74	10.26	14.93[a]	8.22	5.28[b]
August	9.51	8.05	10.79	14.95[a]	8.26	5.34[b]

Source: NOAA 2017

a. Indicates above normal value.

b. Indicates below normal value.

4.6 Conclusion

Field personnel conducting the wetland delineations determined that the variability in precipitation did not affect the delineation of wetlands, as evidence of hydrology was not observed in locations with non-hydric soils or non-hydrophytic vegetation. Higher than average precipitation levels did not affect the delineation of other waters as determinations of intermittent versus ephemeral streams were made using indicators described in the Streamflow Duration Assessment Method (SDAM) (Nadeau 2013, 2015), which relies on multiple indicators independent of the presence or absence of hydrology.

5.0 METHODS

5.1 Pre-Field Work

Prior to the on-site investigation, an analysis of the mapped soil units, recent aerial photographs, recent precipitation, USFWS National Wetland Inventory (NWI) maps, and the NHD maps was completed for the study area (USFWS 2012 and USGS 2001). Maps used in the field contained the NWI, NHD, soils units, and recent aerial photograph overlays. Figure A-3 exhibits NWI-mapped features in the study area.

5.2 Feature Naming Convention

The naming convention for wetlands and other waters used during the four survey years varied slightly, but typically identifies features based on county, and consecutive feature number. For example, BA_FL_W_305 is in Baker County, and is wetland feature FL_W_305. For wetland features, an alphabetical sequence letter was added to the feature name to indicate associated wetland and upland plots, if applicable (e.g. “BA_FL_W_305a, BA_FL_W_305b). For other waters, the code STRM was part of the feature name (e.g. BA_WT_STRM_306).

Photographs for wetlands, other waters, and other features are arranged sequentially from north to south, by county in Appendix D.

5.3 Field Work Wetland Delineation Methods

Field investigations for the delineation of wetlands and other waters included pedestrian surveys within the study area at locations where wetlands and other waters may be impacted by the Project. Delineations covered areas where property access was allowed.

The delineation was conducted utilizing techniques published in the 1987 US Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (USACE 2010), the Oregon Administrative Rules (OARs) for Wetland Delineations 141-090-0005 through 141-090-0055 (Oregon Department of State Lands [ODSL], 2001), and Delineations for Large Linear Projects (ODSL 2017).

The Project is primarily located in the Columbia/Snake River Plateau Land Resource Region (LRR B) of the Arid West Region (USACE 2008a), and in a portion of the Rocky Mountain Forests and Rangeland Region (LRR E) of the Western Mountains, Valleys, and Coast Region (USACE 2010)

It is necessary to conduct the delineation of wetlands and other waters during the growing season, which, within LRR B, coincides with the normal dry season (March to October) characterized by falling water tables and a period in which evapotranspiration exceeds precipitation. For this reason, observations of wetlands and other waters performed later in the growing season were made outside the optimum hydroperiod for observing inundation, saturation, and highest water tables. In some cases, flow and/or saturation/inundation were present; however, for many wetlands, delineations relied on a combination of secondary hydrology indicators

In addition, over the period of survey years, SDAM (Nadeau 2013, 2015) and OSDAM (Topping *et al.* 2009) methodologies were employed for assessing the duration of streamflow at locations where determinations were in question due to seasonality.

Information was collected on wetlands and other waters as well as the connections to other surface waters of each wetland or waterway and estimated duration of streamflow within observed waterways per the methods described in the US EPA and USACE 2008 Clean Water Act Jurisdiction Following the US Supreme Court's Decision in Rapanos v. United States & Carabell v. United States (USACE 2008b).

Paired sample points were used to determine wetland boundaries and were selected to best represent conditions in each wetland and adjacent upland location. Each of the sample plots was selected to be in close proximity to the line separating wetland from upland. Single sample plot locations were dug to confirm absence of wetland conditions at locations that appeared as potentially wetland on aerial maps, and to confirm upland conditions at NWI mapped wetlands and mapped hydric soil. All data sheets are included in Appendix C-1.

The location of each wetland and upland sampling point was selected based on vegetation community homogeneity and points are considered representative of the vegetation community. At each sample plot, trees within a 30- foot radius, shrubs within a 15-foot radius, and non-woody herbaceous plants within a 5-foot radius of plot center, were identified and recorded on a wetland field data form. The dominant species for each stratum are defined as those that provide 20 percent or more cover. The indicator status of each of the dominant species was used to determine the presence of wetland vegetation. A sample plot is considered to have wetland vegetation if more than 50 percent of the dominant species have an indicator status of facultative (FAC) or wetter (FACW). Scientific nomenclature of all plant species follows that of the Hitchcock and Cronquist (1973) and the National Wetland Plant List for the State of Oregon 2016 (Lichvar, et al. 2016). Wetland Delineation Methods

Soil samples were obtained at each representative sampling plot by digging a pit down to a depth of at least 20 inches, unless an impenetrable layer or rock prohibited digging. Soil samples were then examined for hydric indicators. Soil colors were evaluated against a Munsell soil color chart (Munsell Color 2010). Wetland soil indicators primarily observed were Depleted Matrix (F3), Redox Dark Surface (F6) and Depleted Below Dark Surface (A11).

Wetland hydrology, if present, was generally determined through the presence of the primary indicators: Surface Water (A1), High Water Table (A2), Saturation (A3), and Hydrogen Sulfide Odor (C1). When two or more secondary hydrology indicators were found, they were typically Geomorphic Position (D2), and FAC-Neutral Test (D5).

5.4 Other Waters Field Methods

Boundaries of waterways such as ditches, streams, and rivers were delineated utilizing ODSL Field Determination of Ordinary High Water Line (OHWL) guidelines per Oregon Administrative Rule (OAR) 141-085-0515(3) and the Removal-Fill Guide (ODSL 2016). These generally included a combination of the following:

- Distinct high water demarcation along the stream banks;
- Defined bed and bank;
- Top of bank where a high water line was not discernible;
- Change in dominant vegetation from wet-tolerant to dry-tolerant species;
- Debris line;
- Changes in the character of the soil; and
- Scour.

Streams are classed as perennial, intermittent, or ephemeral according to water permanence. Streams are determined to be perennial if they flow continuously throughout the year and methodology included direct observation during the site visit. Intermittent streams are larger drainages that receive base flow only during the wet weather season. Methods for classifying intermittent streams, as detailed in SDAM (Nadeau 2013, 2015), include position in the landscape, indicators of flow level and velocity, hydrophytic plant species in or adjacent to stream banks, indicators of prolonged soils saturation within the channel, well developed banks, and a defined developed meandering channel with scour and deposition. Ephemeral drainages only flow in direct response to precipitation, may or may not have a well-defined channel. It was common that ephemeral drainages were dominated by upland vegetation. The geomorphology, hydrology, and dominant vegetation data was collected at each feature and listed on Table B-2 in Appendix B. Additional information recorded included vegetation, channel depth, and site alterations, if any. Where an SDAM was recorded, the data sheets are included in Appendix C.

Ponds were also delineated during surveys and are listed on Table B-2 in Appendix B.

5.5 Other Features

Potential stream channels viewed on aerial photos and NHD maps were examined for channel structure and potential hydrology. In some cases, these features that appeared to be wetland swales or stream channels on aerial photos turned out to be erosional features or upland swales that lacked channel structure, a defined OHWM, evidence of hydrology, or the contours had been smoothed due to plowing. In cases where features were determined to lack channel characteristics, they were mapped as erosional features or upland swales, and photographed. The feature name includes the label "XBB" (e.g. BA_FL_XBB_302). These features are found on Table B-3 in Appendix B.

6.0 DESCRIPTION OF WETLANDS AND OTHER WATERS

All wetlands and other waters evaluated in the study areas are depicted in Appendix A, Figure A-5. These figures are provided at two scales. Index-scale inset maps (1:2,000) on each figure depicts the locations of the detail scale (1:100) figures; Figure A-5.1 through Figure A-5.305

6.1 Wetlands

Within the study area, 50 wetland features totaling 25.14 acres were identified, evaluated, and delineated. Table B-1 in Appendix B summarizes all wetland features observed and delineated within the Project study area. Notes pertaining to specific characteristics for each feature surveyed have been included. Wetland types crossed by the Project include Palustrine Emergent Wetlands (PEM), Palustrine Aquatic Bed Wetlands (PAB), Palustrine Unconsolidated Bed Wetlands (PUB), Palustrine Unconsolidated Shore Wetlands (PUS), Palustrine scrub-shrub (PSS), and Palustrine Forested Wetlands (PFO). PEM wetlands were the majority of wetlands within the Project study area.

Table 6-1 lists species that were dominant in wetlands in the study area. The species name is followed by the wetland indicator status for plants as listed in the National Wetland Plant List for Oregon 2016 (Lichvar et al. 2016).

Table 6-1. Dominant Wetland Species Present in Study Areas

***Scientific Name,* Common Name**	**Wetland Indicator Status [a]**
Agrostis stolonifera, spreading bent	FACW [b] FAC [c]
Alopecurus pratensis, field meadow-foxtail	FACW [b] FAC [c]
Calamagrostis canadensis, bluejoint	FACW
Canadanthus modestus, Canada aster	FACW
Carex nebrascensis, Nebraska sedge	OBL
Carex pellita, wooly sedge	OBL
Cornus alba, red osier	FACW
Danthonia californica, California wild oat grass	FAC
Deschampsia caespitosa, tufted hairgrass	FACW
Eleocharis palustris, common spike-rush	OBL
Equisetum fluviatile, water horsetail	OBL
Hordeum jubatum, fox-tail barley	FACW
Juncus acuminatus, knotty-leaf rush	OBL
Juncus balticus, Baltic rush	FACW
Juncus bufonius, toad rush	FACW
Nasturtium officinale, watercress	OBL
Poa pratensis, Kentucky blue grass	FAC
Polypogon monspeliensis, annual rabbit's-foot grass	FACW
Salix amygdaloides, peach-leaf willow	FACW

***Scientific Name,* Common Name**	**Wetland Indicator Status [a]**
Scirpus microcarpus, red-tinge bulrush	OBL
Typha latifolia, broad-leaf cat-tail	OBL
Veronica americana, American brooklime	OBL

a. Unless otherwise noted, all wetland indicators are applicable to both the Arid West Region and the Western Mountains, Valleys, and Coast Region.

b. Applicable only to Arid West Region.

c. Applicable only to the Western Mountains, Valleys, and Coast Region.

6.2 Non-Wetland Other Waters

Waters Table B-2, located in Appendix B, lists all irrigation canals, ephemeral, intermittent, and perennial channels within the study area. Ephemeral single thread channels are the most common type of stream morphology in the study area. A total of 13.27 acres of other waters were delineated within the study area.

6.3 Other Features

Table B-3, included in Appendix D, lists other features that were identified within the portion of the study area observed during field investigations that did not meet the wetlands or waters criteria but are worth documenting. Other Features sample points typically document upland conditions located at some mapped NWI wetlands, mapped soil units with a hydric soil component, and suspect areas identified through aerial photo interpretation.

7.0 DEVIATION FROM NWI AND LWI

Deviations are features that are mapped by the NWI that significantly differ from field observations. Table B-4, included in Appendix B, provides a list of the wetlands and waters delineated as deviations. In addition, features determined in the field to be wetlands or other waters that were not mapped by the NWI, and streams that had a different flow regime than mapped, are also included in Table B-4.

The Project study area does not cross mapped Local Wetland Inventory (LWI) areas (ODSL 2014).

8.0 MAPPING METHOD

Wetland and stream boundaries and sample plot locations were recorded using Trimble GeoXH handheld GPS units. Field data was then differentially corrected in post-processing using same time data from known surrounding base stations to remove geometry and topology error. Such errors included: polygon overlaps, polygon self-intersections, and extraneous vertices. Trimble GeoXH data typically has submeter accuracy when using real-time differential correction.

Wetland boundaries were recorded as polygon features using GPS units set to collect vertices every 2 seconds. Field staff walked the perimeter of the wetland with GPS in hand, at a pace consistent with creating an accurate representation of the wetland feature. Locations of sample plots, photograph locations, and other data collection sites were recorded as a point feature consisting of the average of 30 GPS recorded positions.

Other waters were recorded as polyline features. Streams wider than 6 feet, regardless of their duration of flow, were documented with 2 line features, one representing OHW stage on each side of the channel. Streams less than 6 feet wide were documented as a single centerline of the channel. These small streams were documented with a centerline because the combination of the estimated accuracy of the GPS equipment and software (1 meter) and the mapping scale would not reliably result in the features being depicted as polygons if the data was collected as such.

Wetlands and other waters are detailed in Figure A-5.1 through Figure A-5.305 at 1:100 scale. These figures depict the locations where features were recorded during field investigations.

Delineated wetlands and streams that are completely contained within the study areas are noted by feature name in the legend of Figure A-5.1 through Figure A-5.305. Otherwise, all other delineated wetlands and streams are considered to extend outside of the study areas.

9.0 ADDITIONAL INFORMATION

Please refer to wetland and other waters summary tables in Appendix B.

10.0 RESULTS AND CONCLUSIONS

Based on the results of site investigations from delineation performed in 2011, 2012, 2013, and 2016, 50 wetlands and 112 other water features were identified within the Project study area. Table 10-1 summarizes wetland features observed within the study area by wetland type classifications. Table 10-2 summarizes the non-wetland other water features delineated within the Project study area by water type.

Table 10-1. Summary of Identified Wetlands

Wetland Type	Number of Features	Acres
PAB	1	0.30
PUB	3	1.23
PUS	1	0.05
PEM	43	19.06
PSS	1	0.11
PFO/PSS/PEM	1	4.39
TOTAL	**50**	**25.14**

Table 10-2. Summary of Delineated Other Waters

Feature	Number of Features	Acres
Ephemeral	53	3.46
Intermittent	29	3.12
Perennial	30	6.70
TOTAL	**112**	**13.27**

11.0 DISCLAIMER

This report documents the investigation, best professional judgment and conclusions of the investigator. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at one's own risk unless it has been reviewed and approved in writing by ODSL in accordance with OAR 141-090-0005 through 141-090-0055.

12.0 REFERENCES

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APPENDIX A
FIGURES

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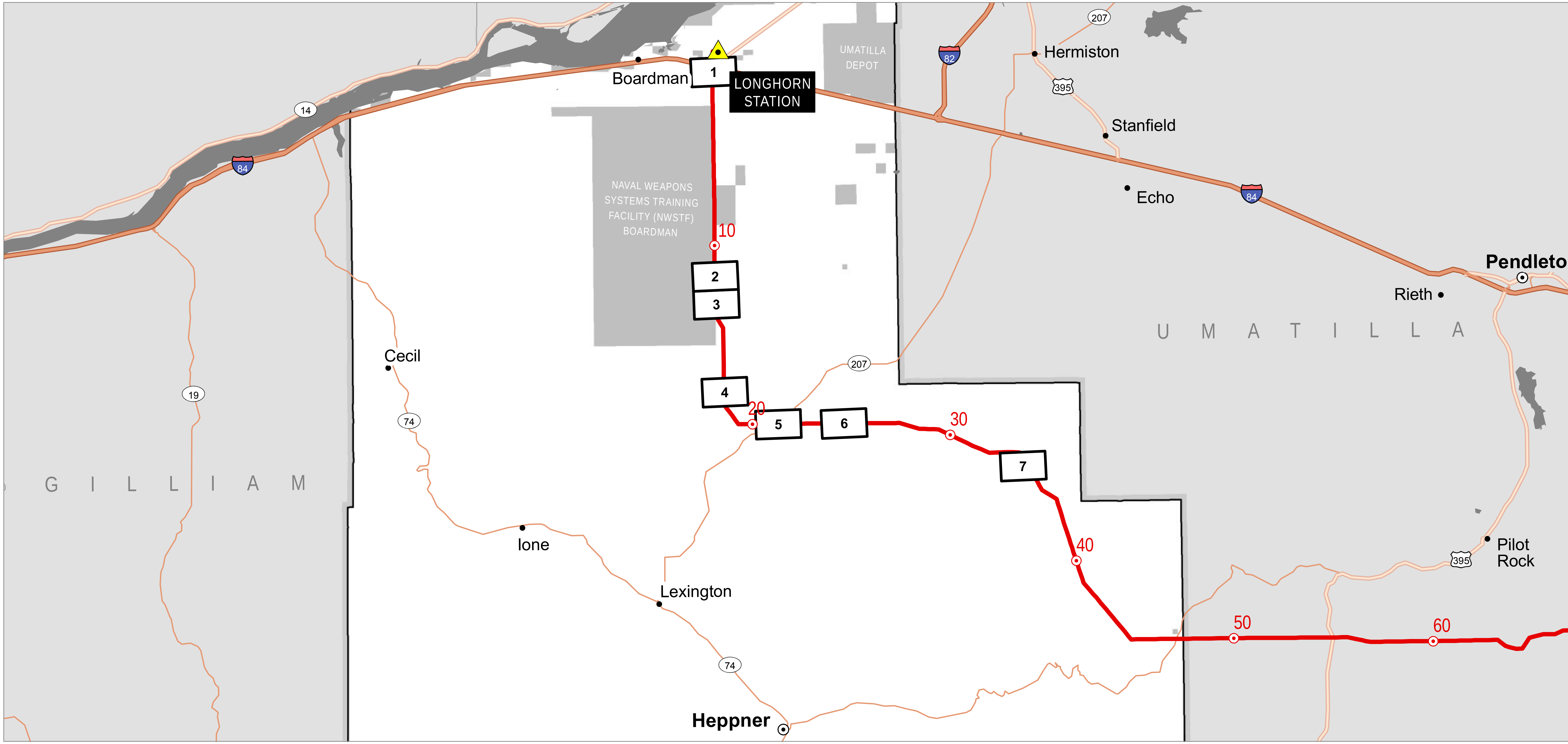

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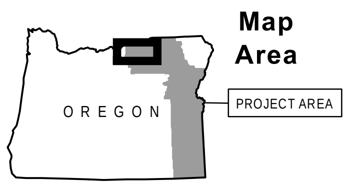

Map Area

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Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Project Features
- Proposed Route
- Alternative
- Stations
- Ten Mile Marker

Land Status
- Public Lands
- Map Tile (1 inch = 1,000 feet)

IDAHO POWER
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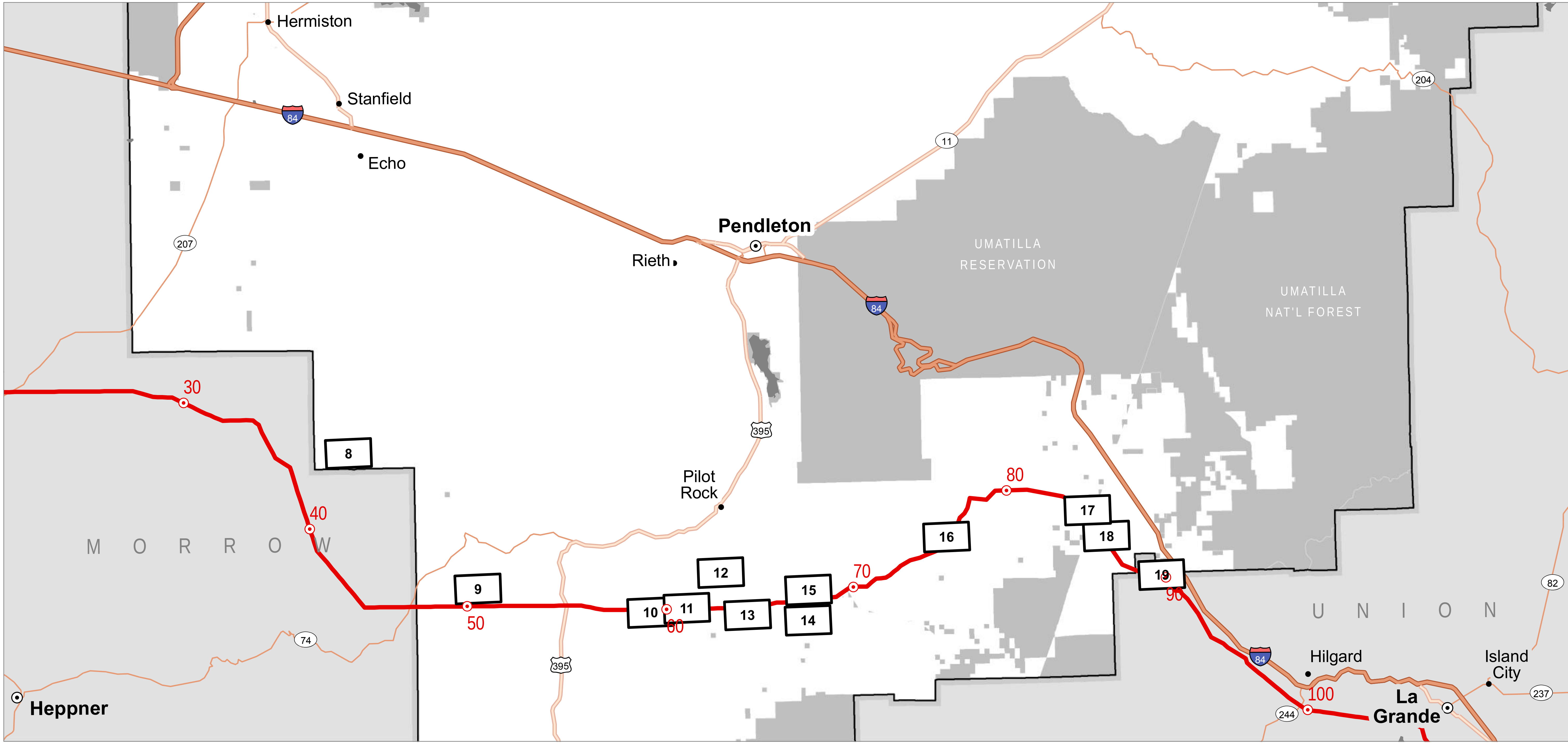
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-1.1
Wetland and Other Waters Delineation Report
Index Map
Morrow County



Map Area

Project Features

- Proposed Route
- Ten Mile Marker

Land Status

- Public Lands
- Map Tile (1 inch = 1,000 feet)

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-1.2
Wetland and Other Waters Delineation Report
Index Map
Umatilla County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo

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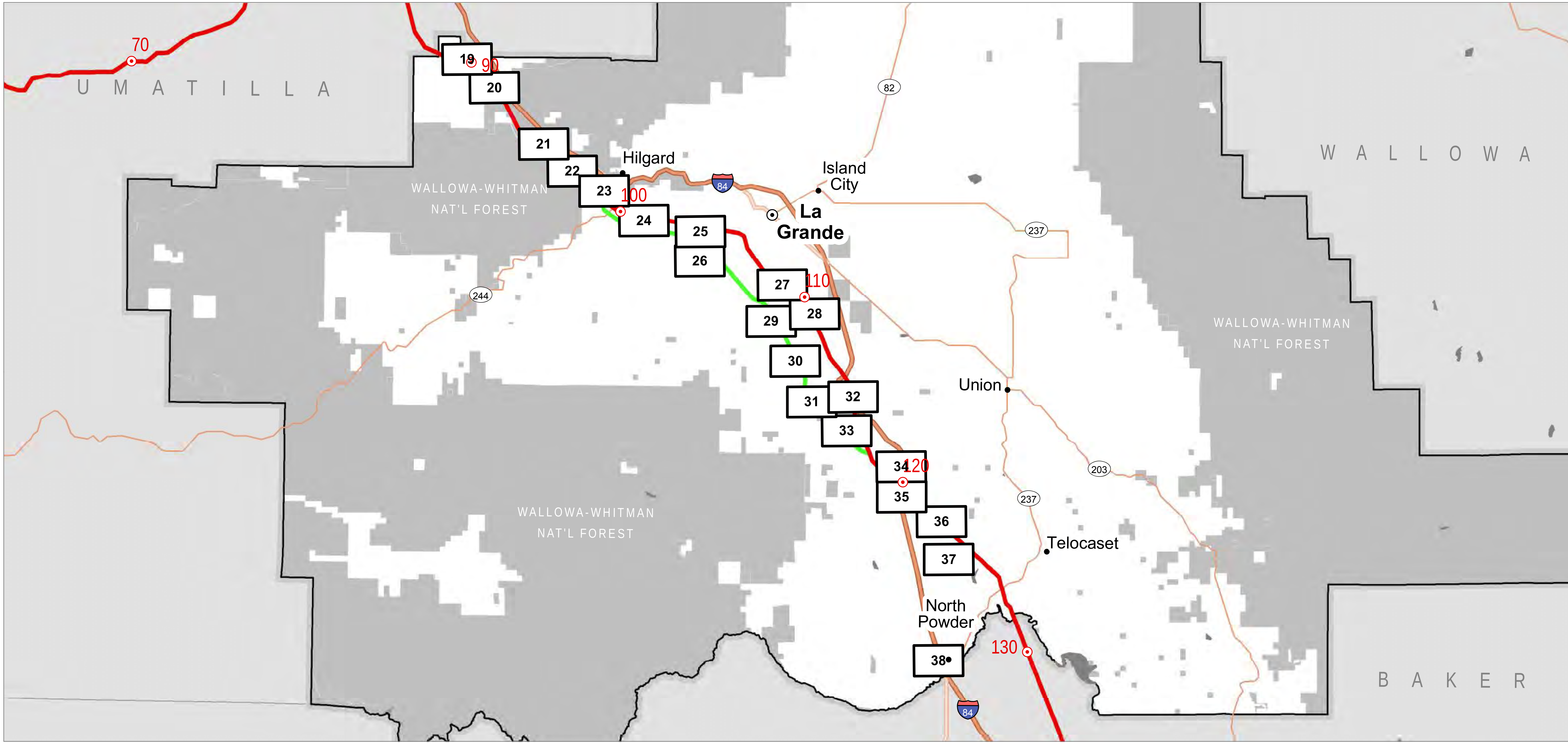

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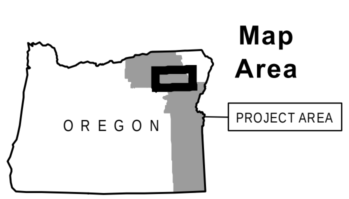

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Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Project Features
- Proposed Route
- Alternative
- Ten Mile Marker

Land Status
- Public Lands
- Map Tile (1 inch = 1,000 feet)

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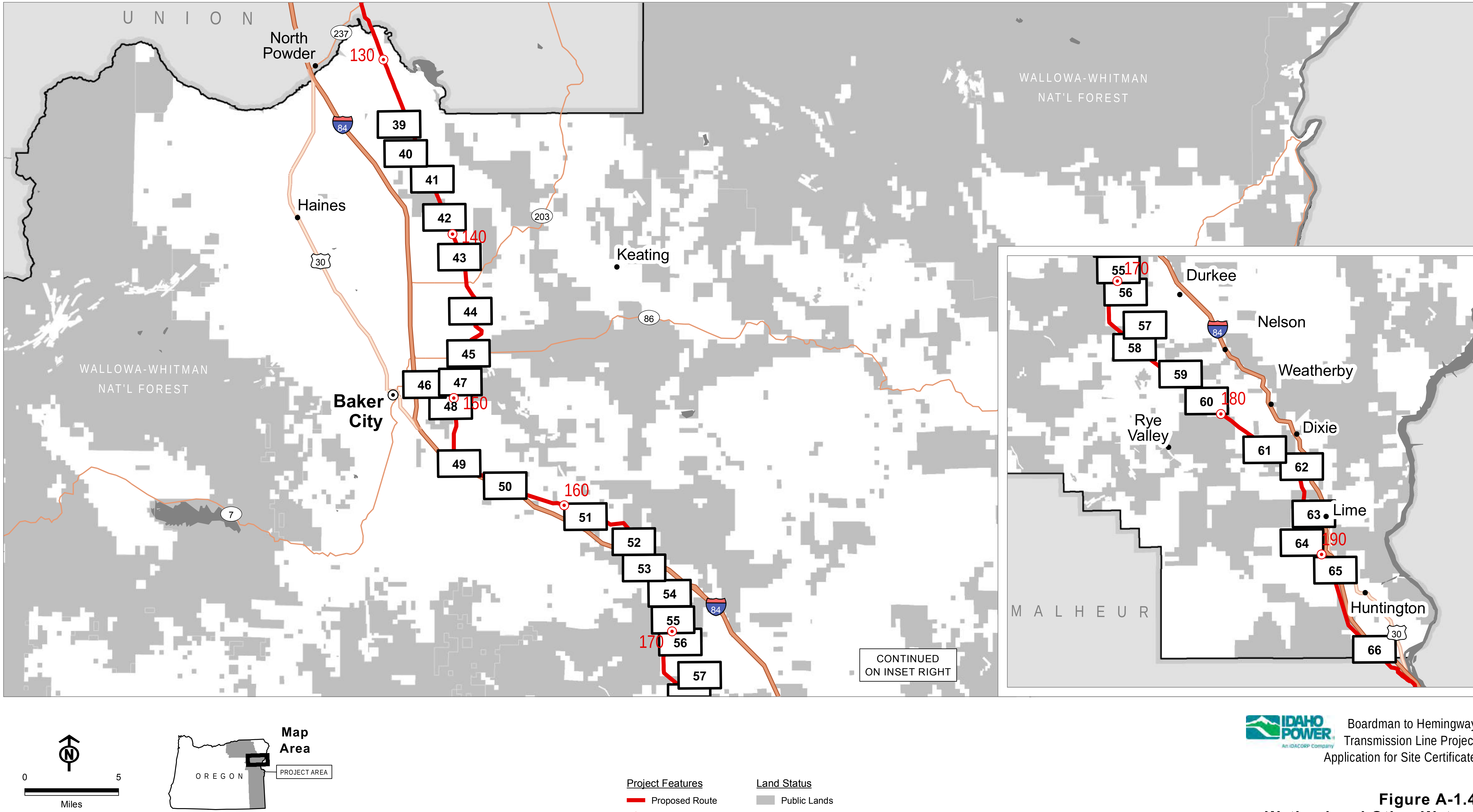
Figure A-1.3
Wetland and Other Waters Delineation Report Index Map
Union County



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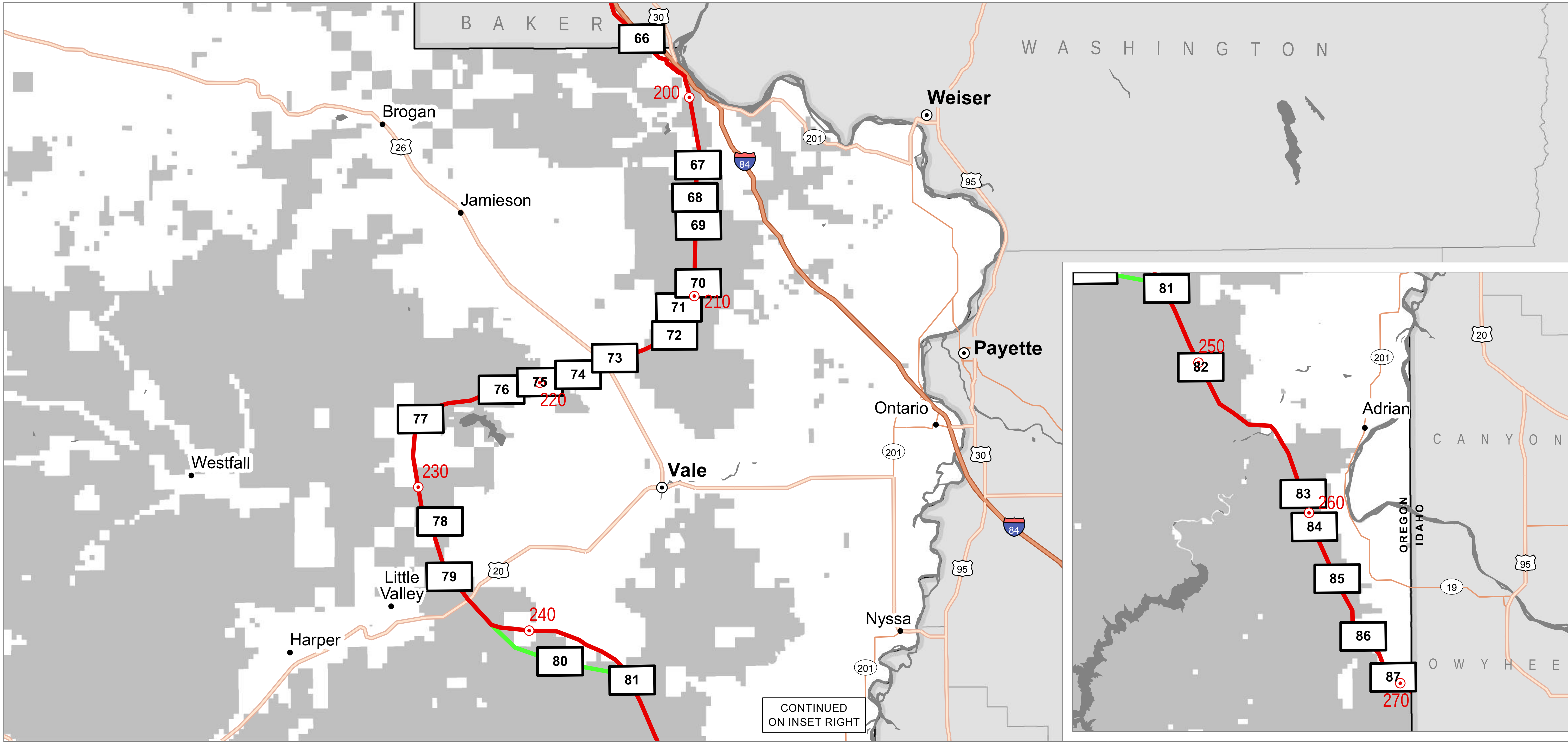
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

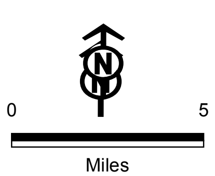
Project Features
- Proposed Route
- Ten Mile Marker

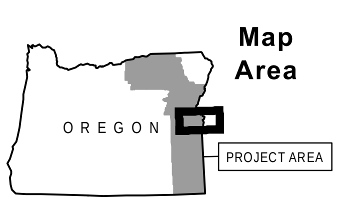
Land Status
- Public Lands
- Map Tile (1 inch = 1,000 feet)

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-1.4
Wetland and Other Waters Delineation Report Index Map
Baker County







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Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Project Features
- Proposed Route
- Alternative
- Ten Mile Marker

Land Status
- Public Lands
- Map Tile (1 inch = 1,000 feet)

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-1.5
Wetland and Other Waters Delineation Report
Index Map
Malheur County

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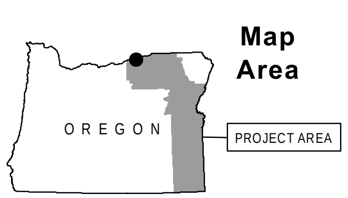
Miles

0 1,000
Feet



Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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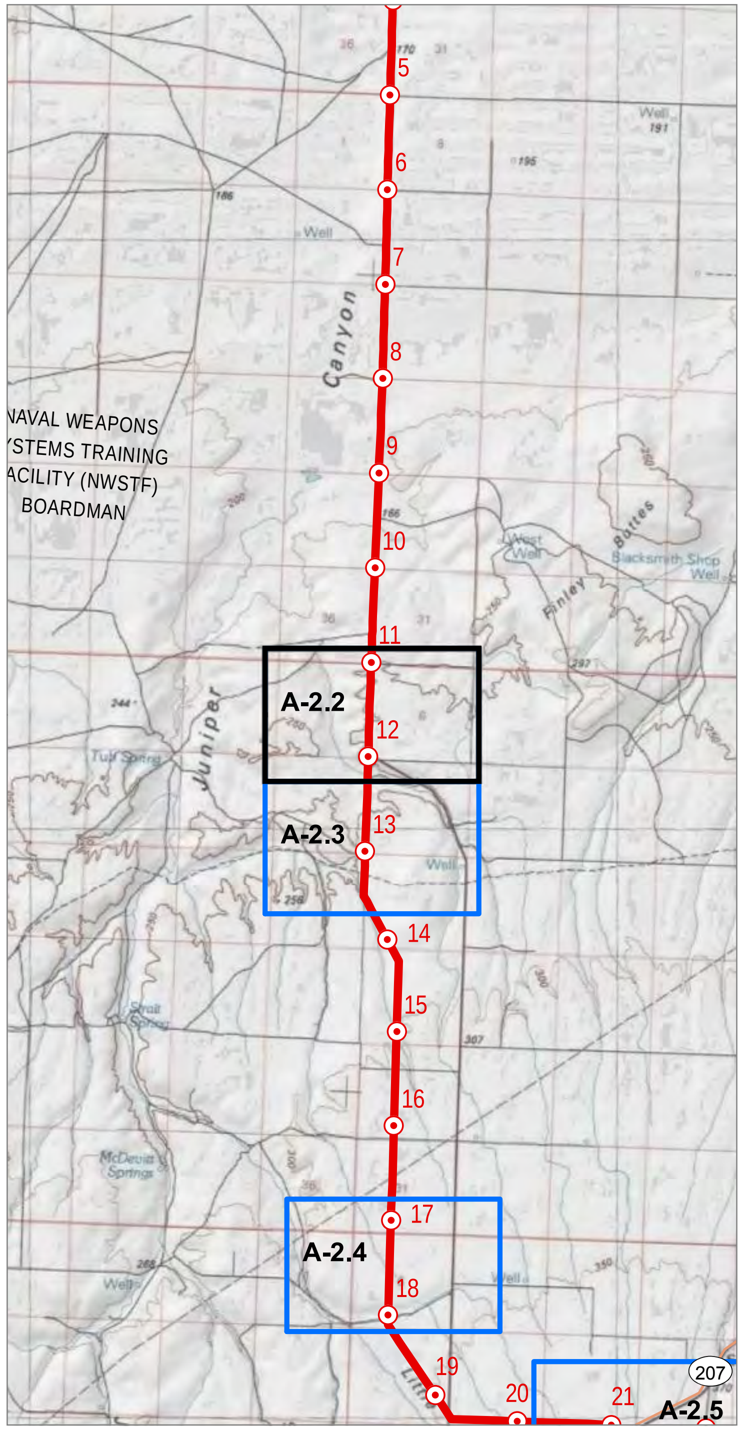
Application for Site Certificate

Figure A-2.1
Wetland and Other Waters Delineation Report
Tax Lots
Morrow County



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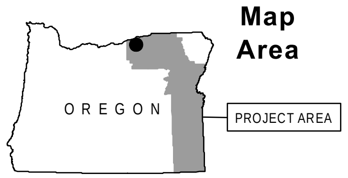

Map Area

0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route
- Alternative

Other Features

- Other Major Roads
- Tax Lot Parcel

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.2

Wetland and Other Waters Delineation Report
Tax Lots
Morrow County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
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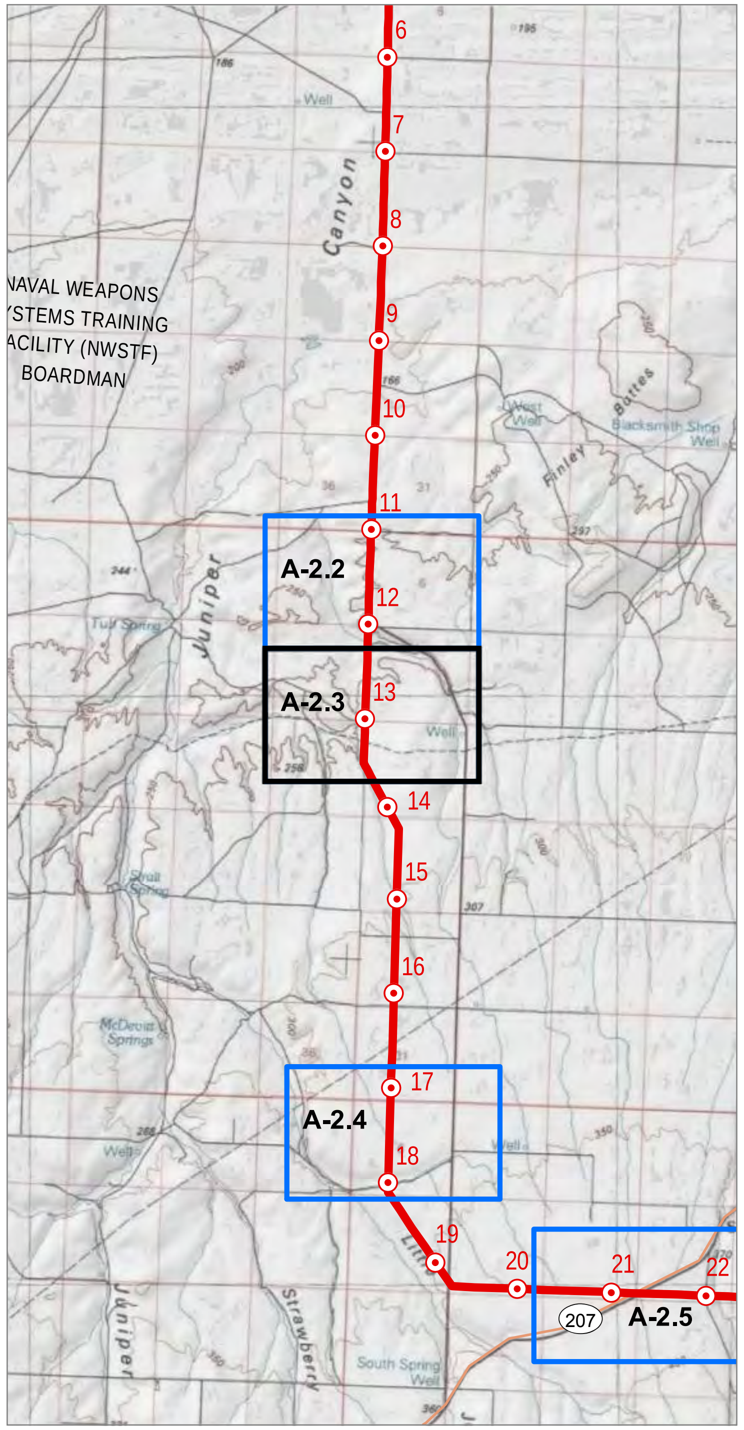
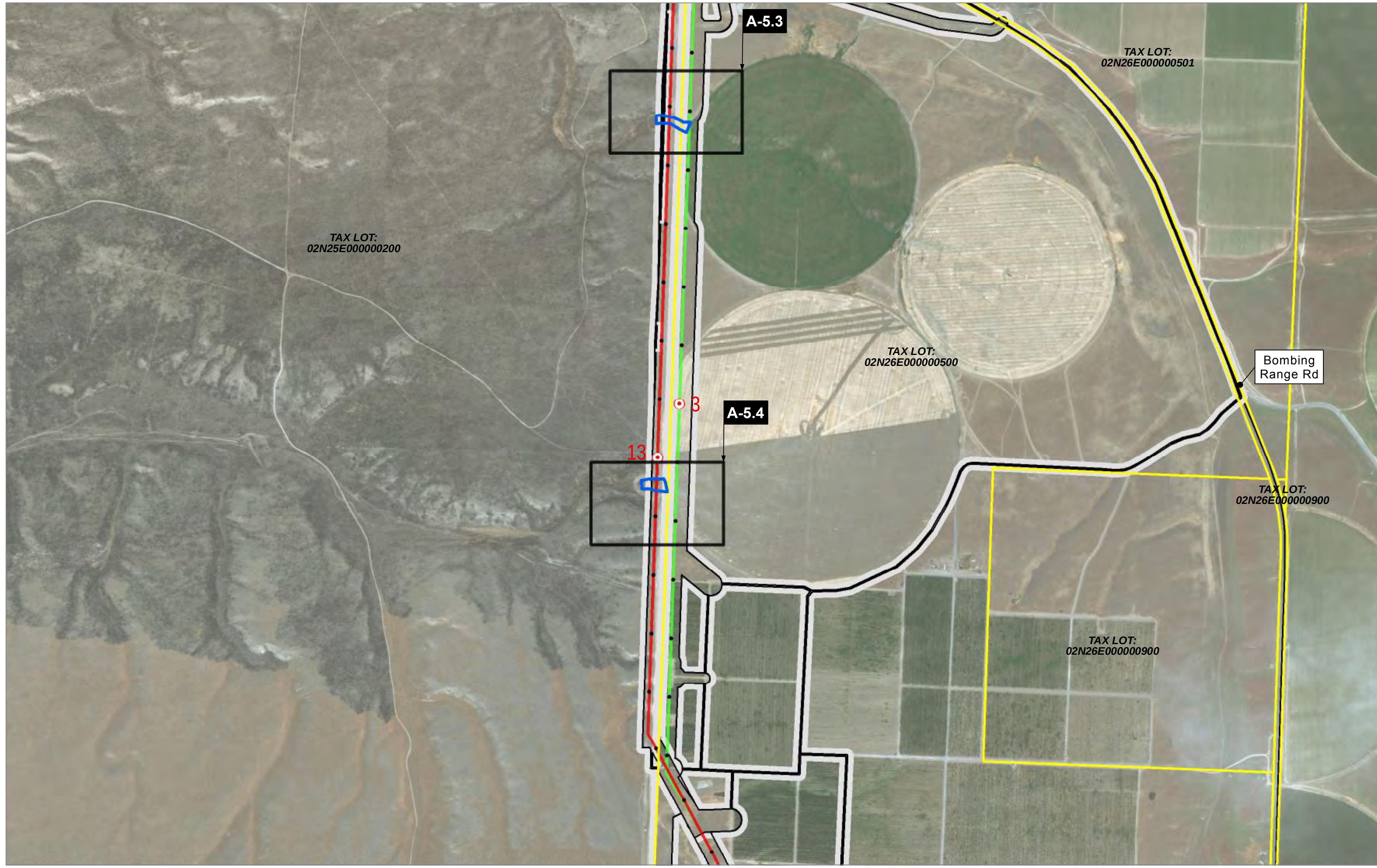




0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

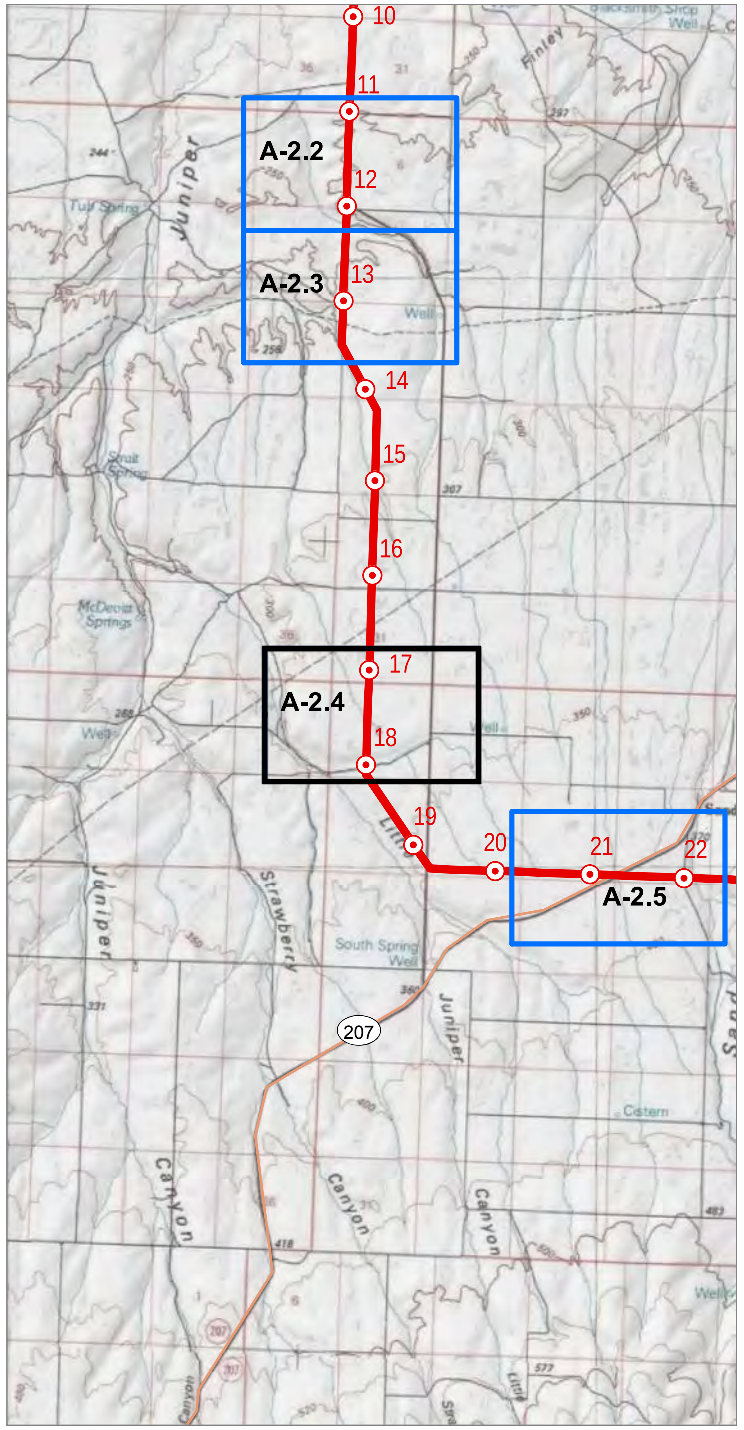
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

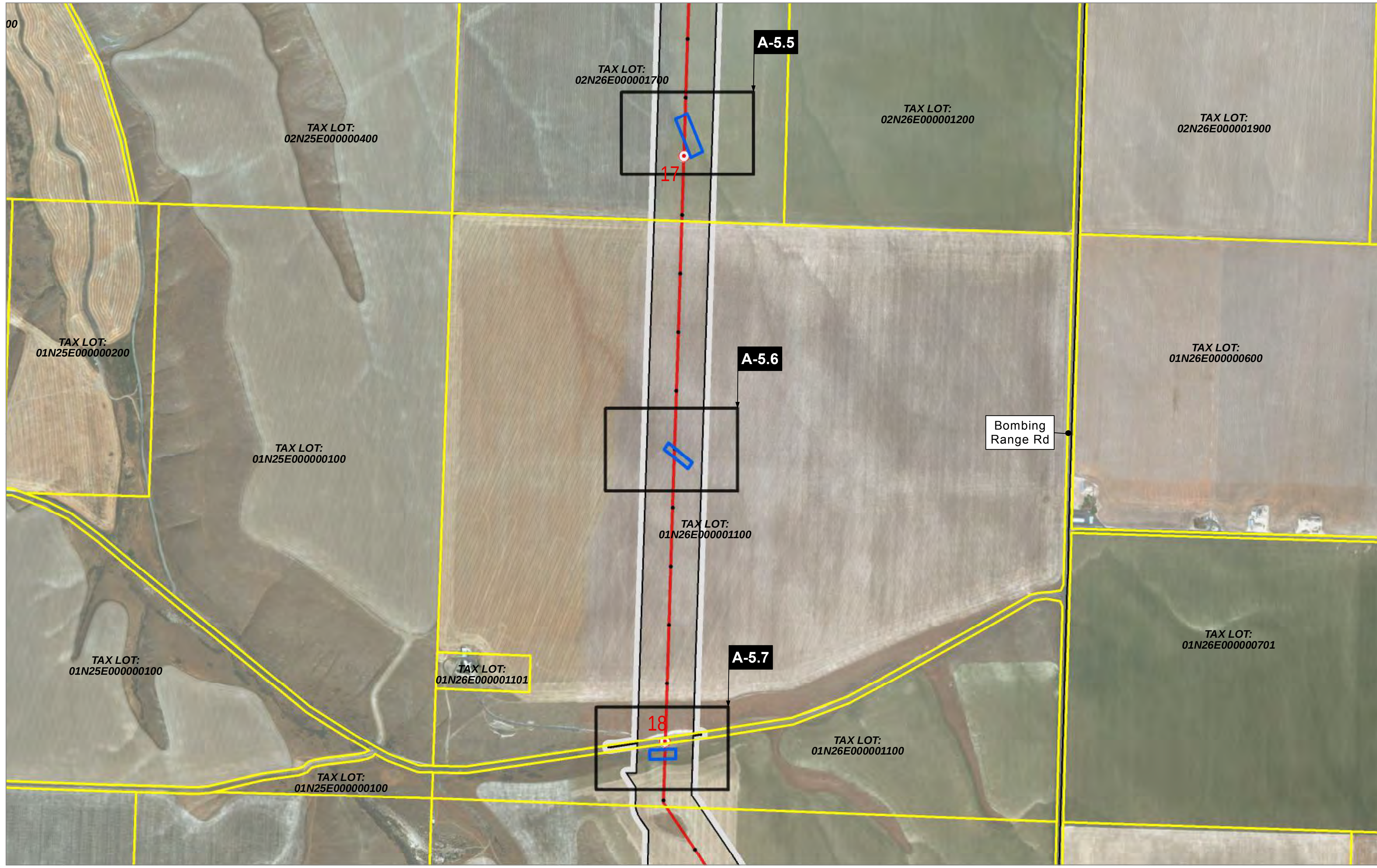
IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

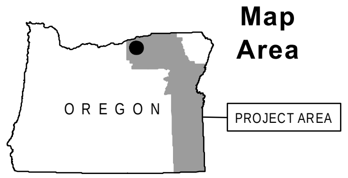
Figure A-2.3

Wetland and Other Waters Delineation Report
Tax Lots
Morrow County





0 2
Miles



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

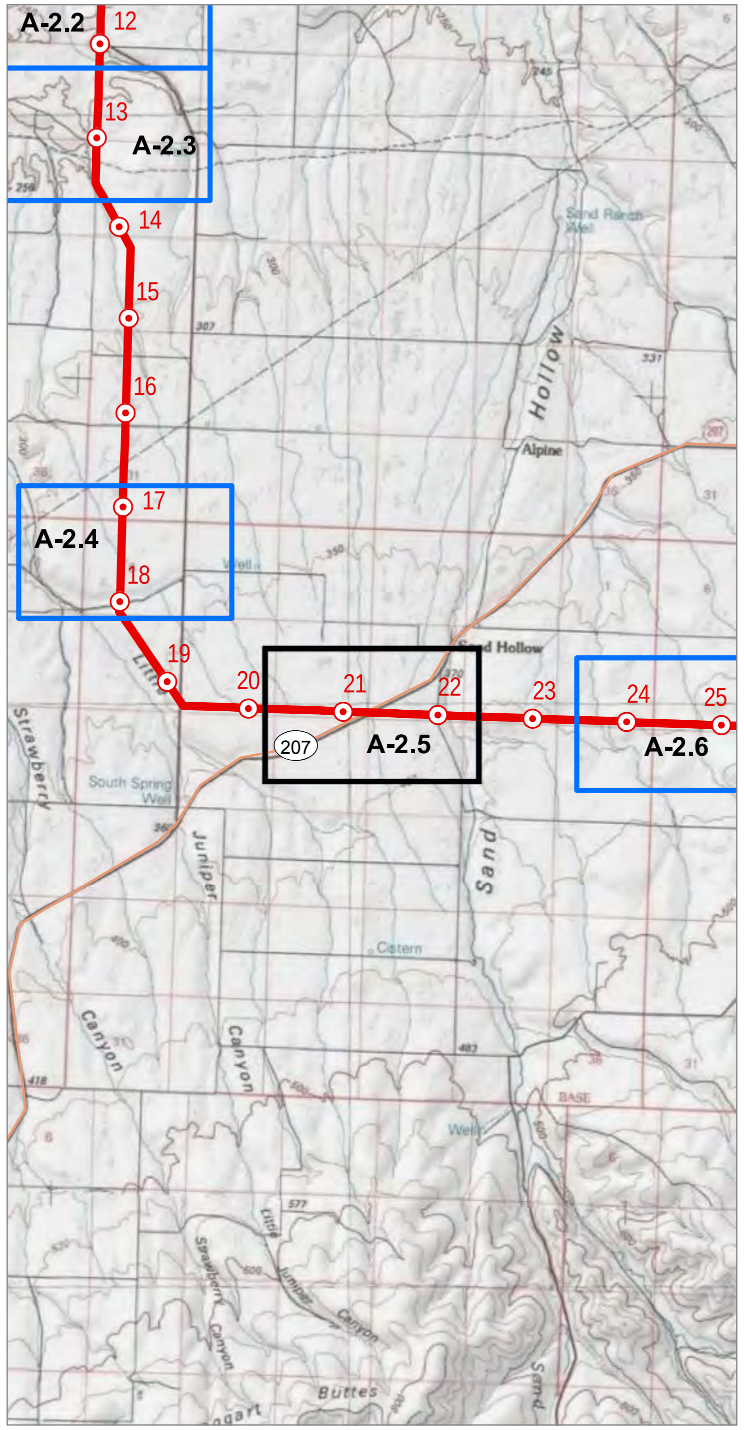
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.4
Wetland and Other Waters Delineation Report
Tax Lots
Morrow County



0 2
Miles

Map Area
OREGON
PROJECT AREA

0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area

Other Features
Other Major Roads
Tax Lot Parcel

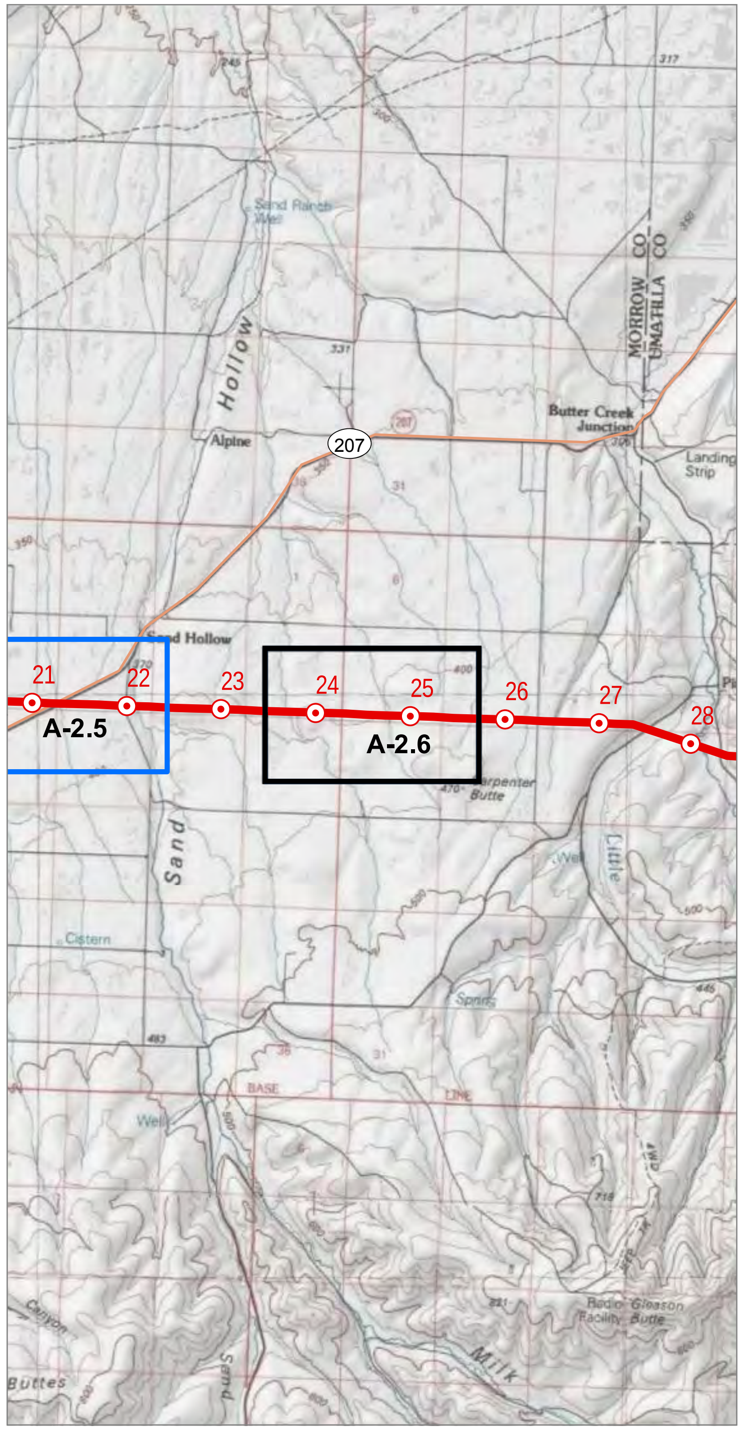
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.5
Wetland and Other Waters Delineation Report
Tax Lots
Morrow County



0 2
Miles

Map Area

OREGON
PROJECT AREA

0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.6

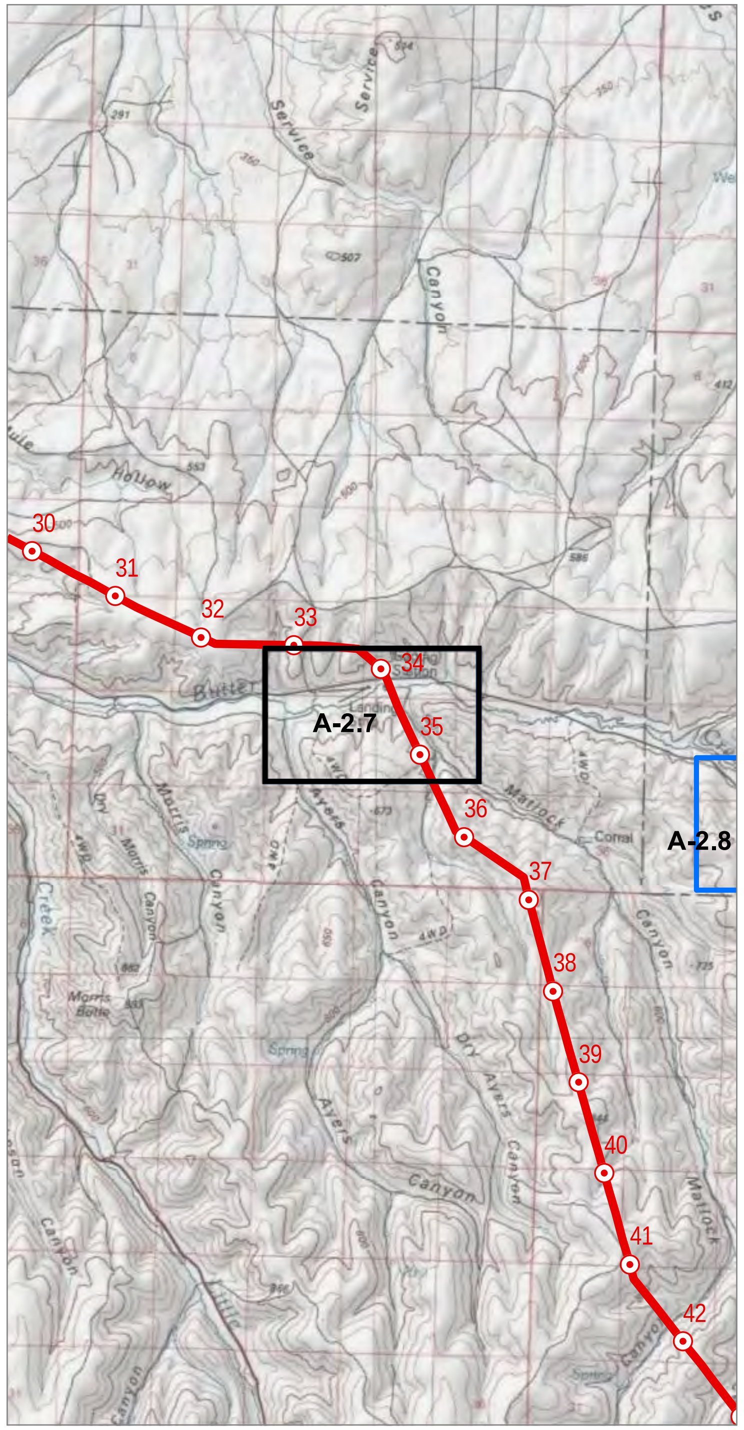
Wetland and Other Waters Delineation Report

Tax Lots

Morrow County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



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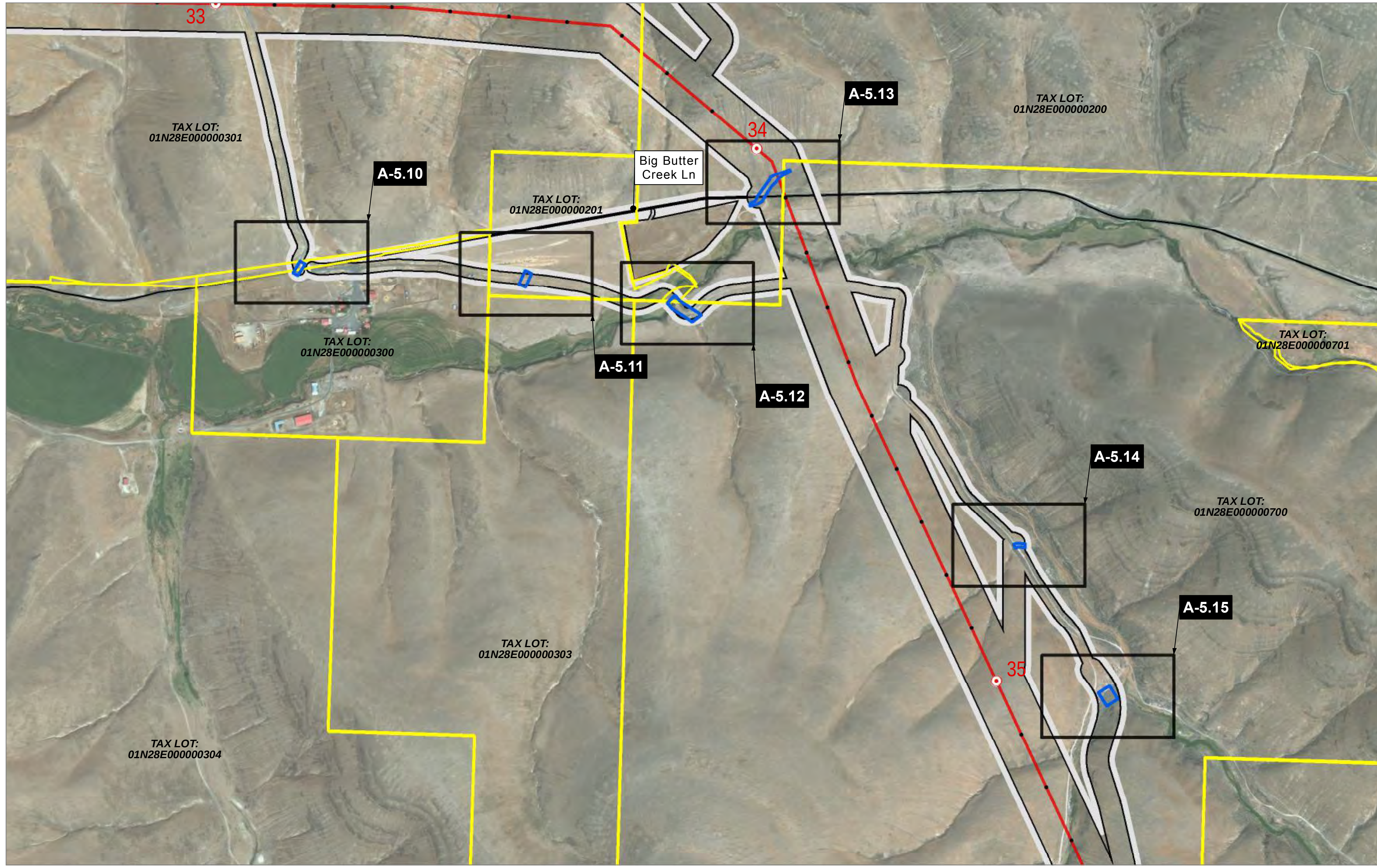
Miles

Map Area
OREGON
PROJECT AREA



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

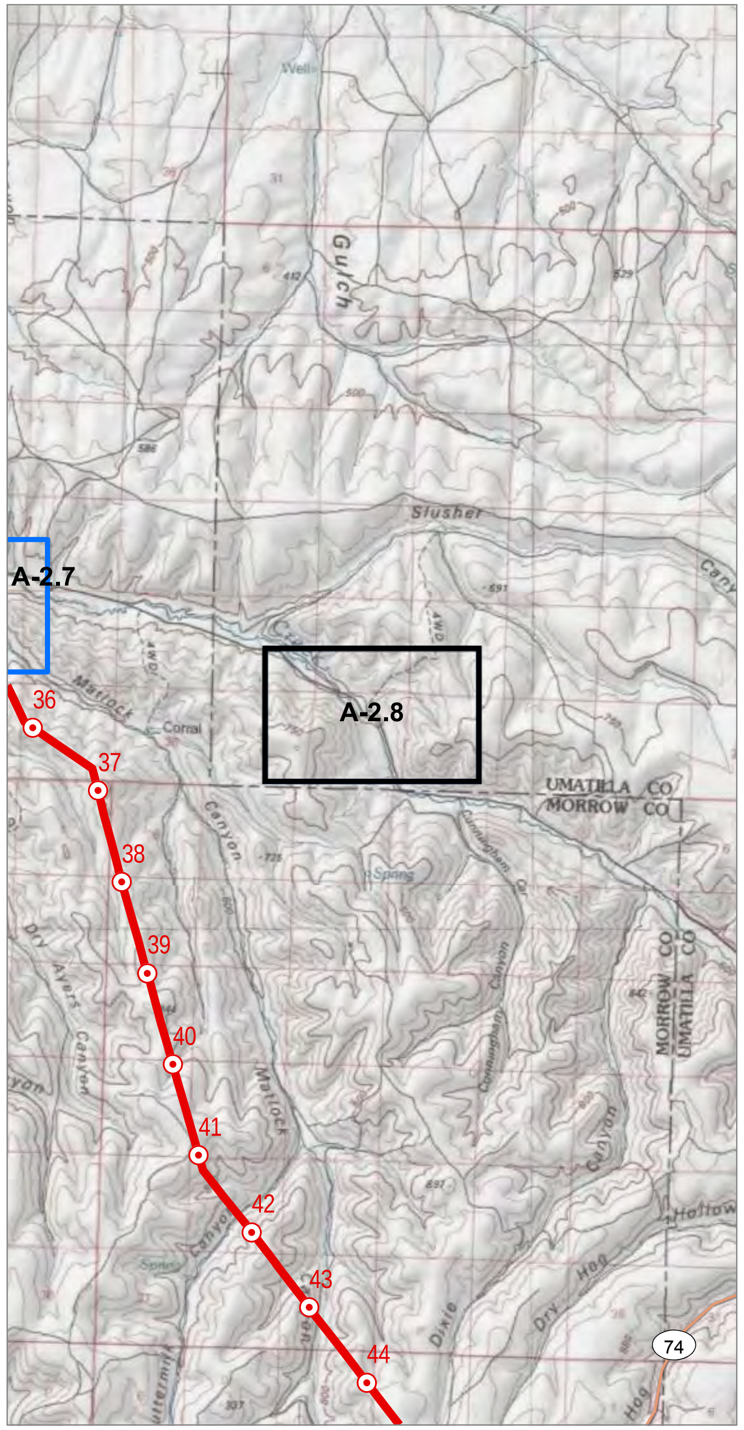
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

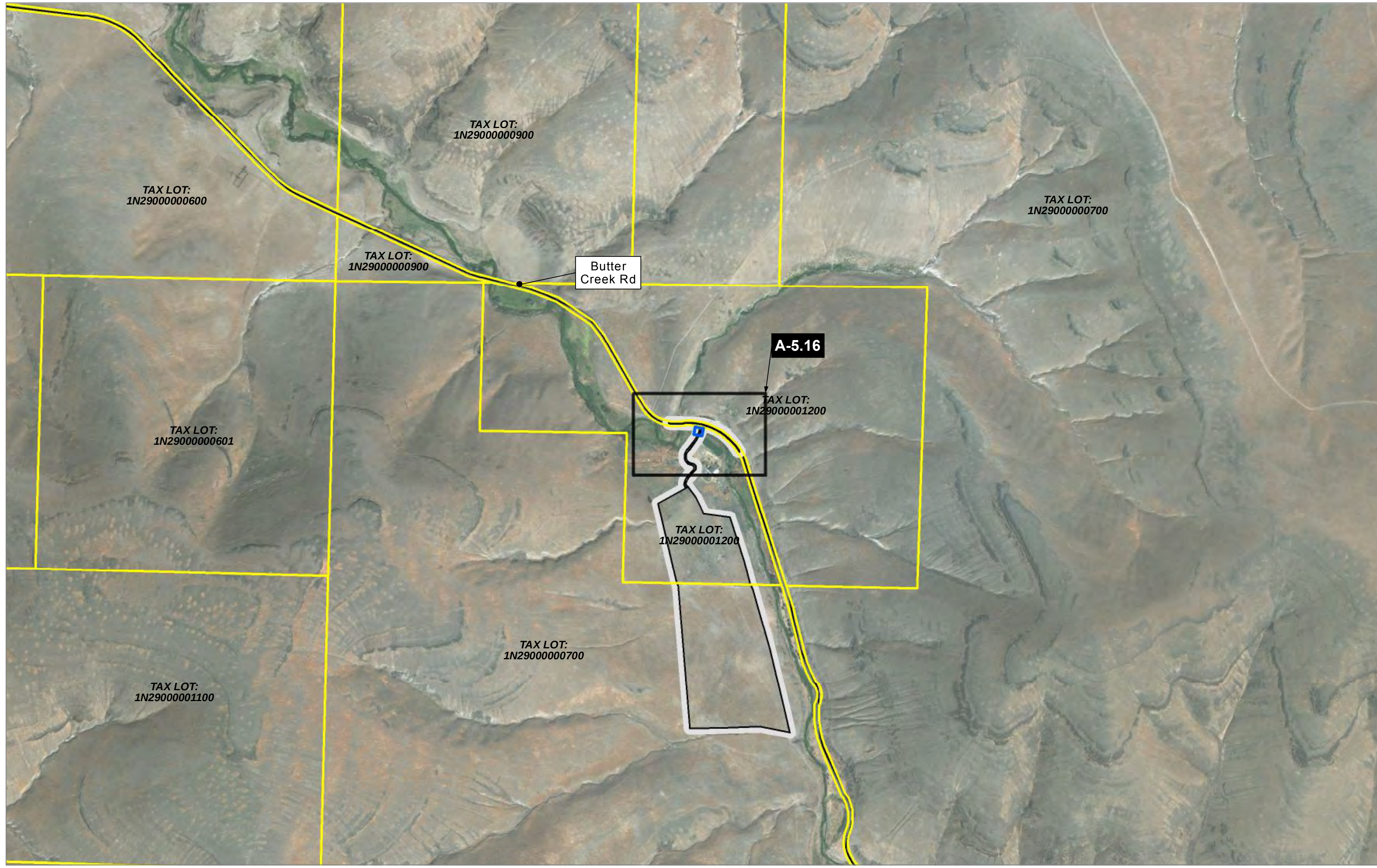
IDAHO POWER
An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.7

Wetland and Other Waters Delineation Report
Tax Lots
Morrow County





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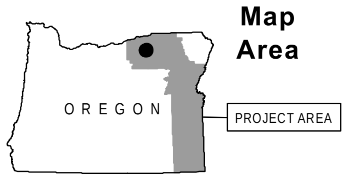
Miles



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Index Map Extent
- Study Area

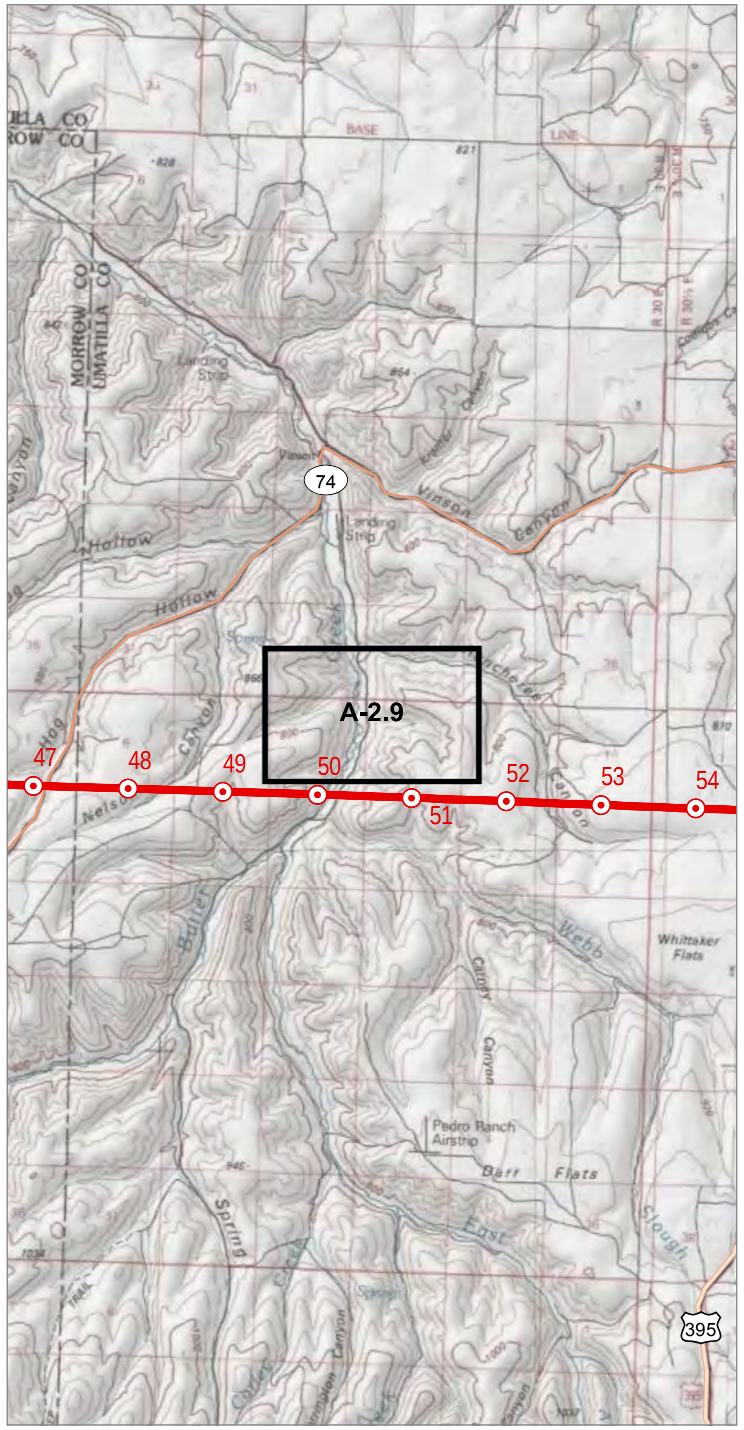
Other Features
- Other Major Roads
- Tax Lot Parcel

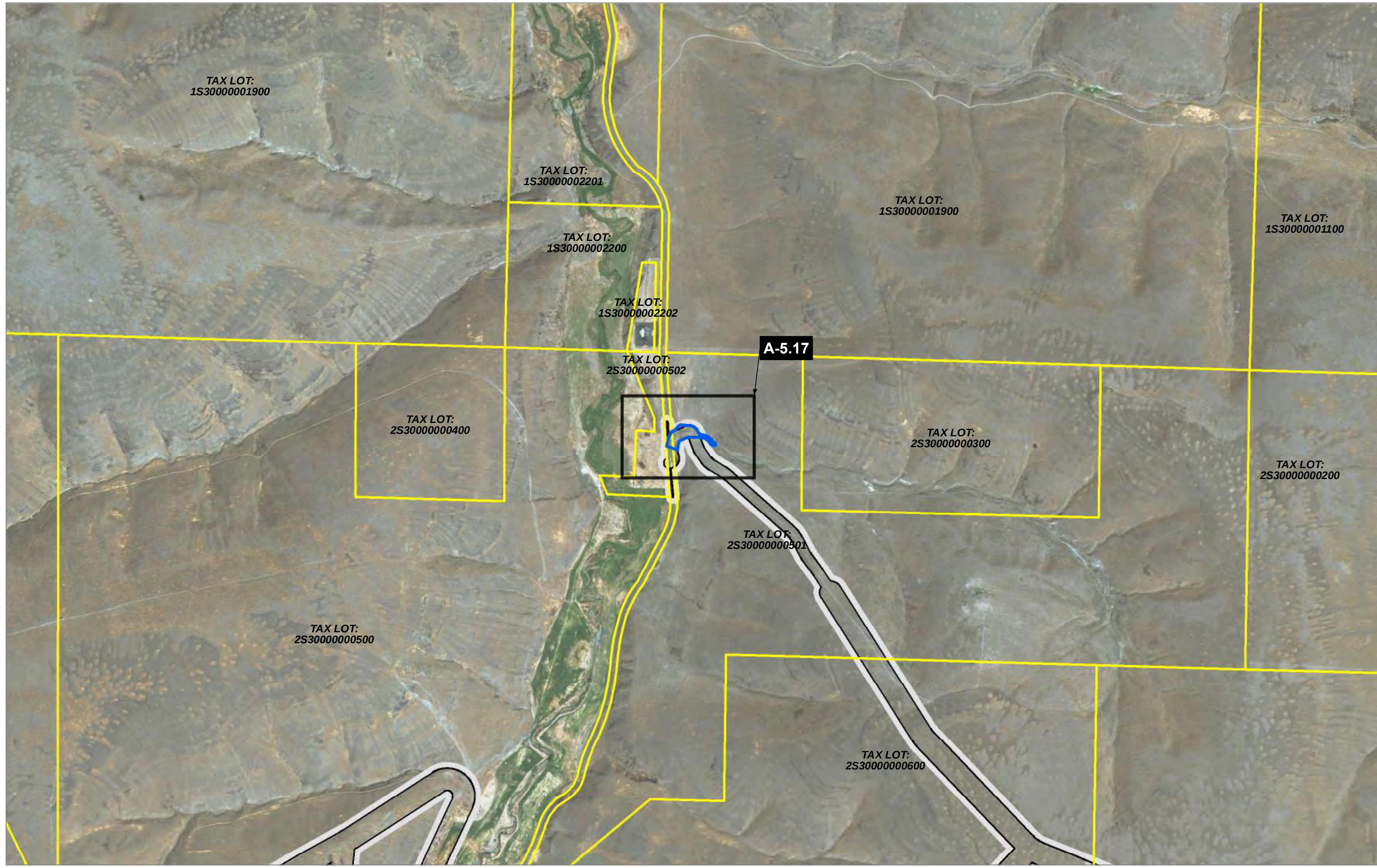
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.8
Wetland and Other Waters
Delineation Report
Tax Lots
Umatilla County





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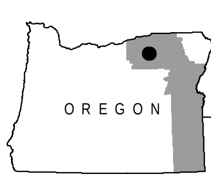


Map Area

0 1,000
Feet

Project Features

- Site Boundary
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

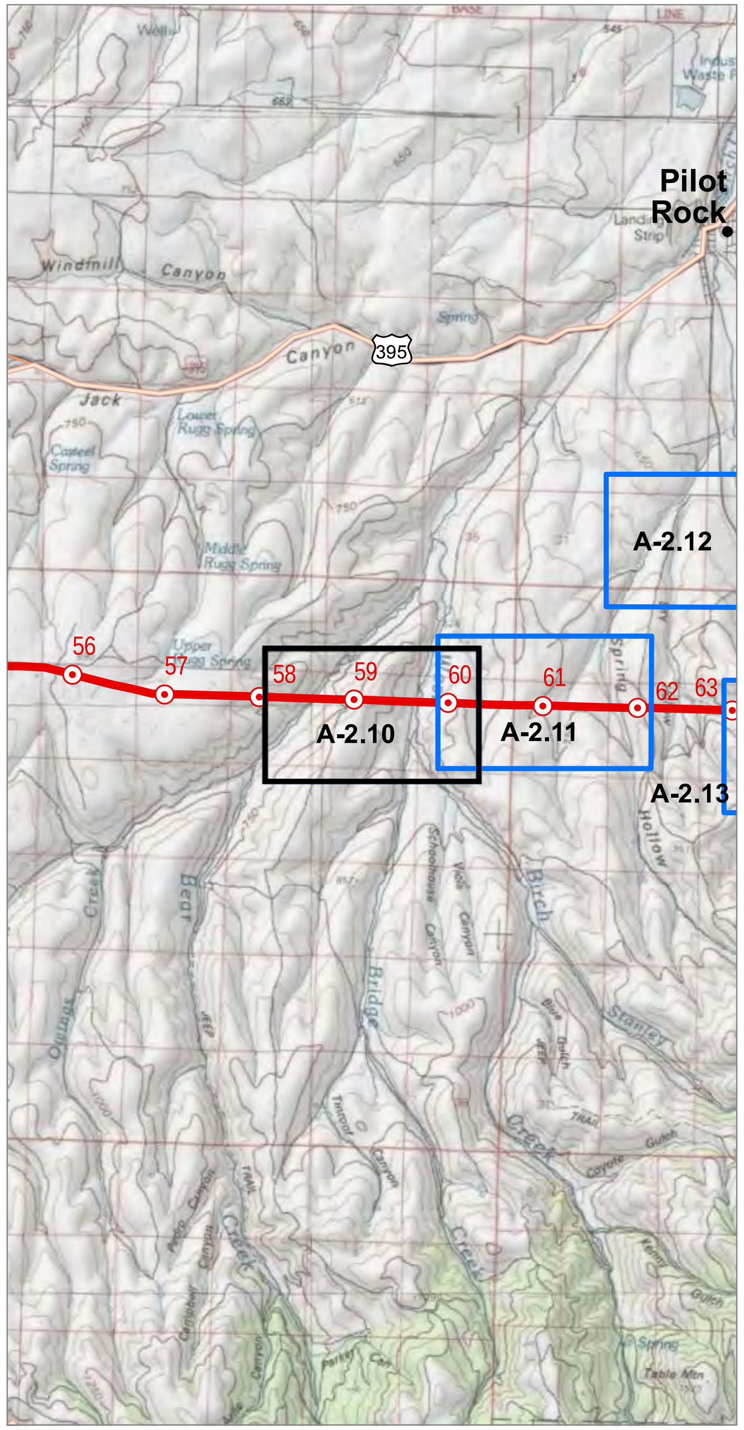
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.9

Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County



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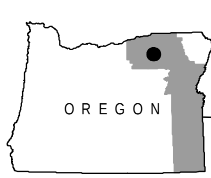
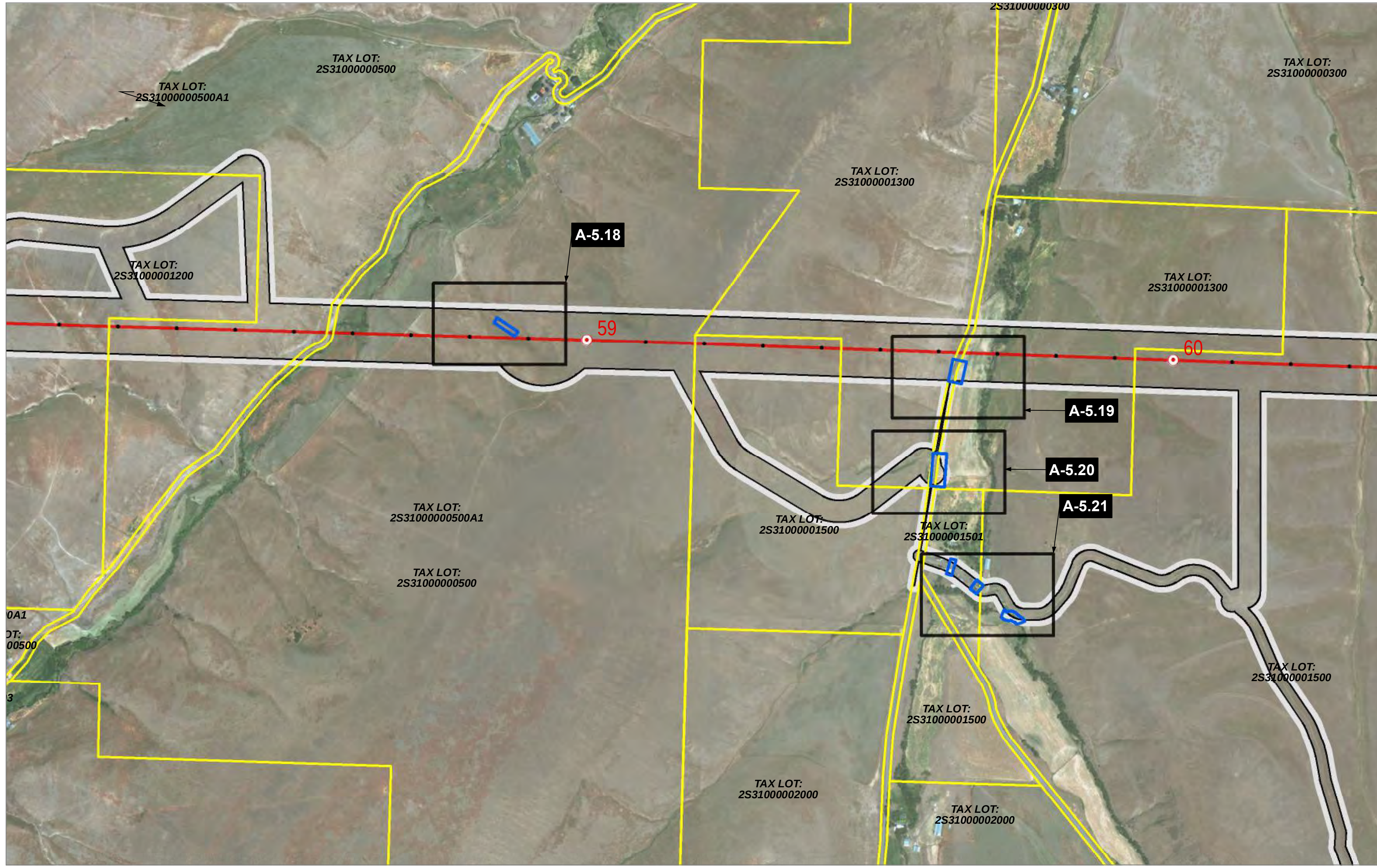


Map Area



0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

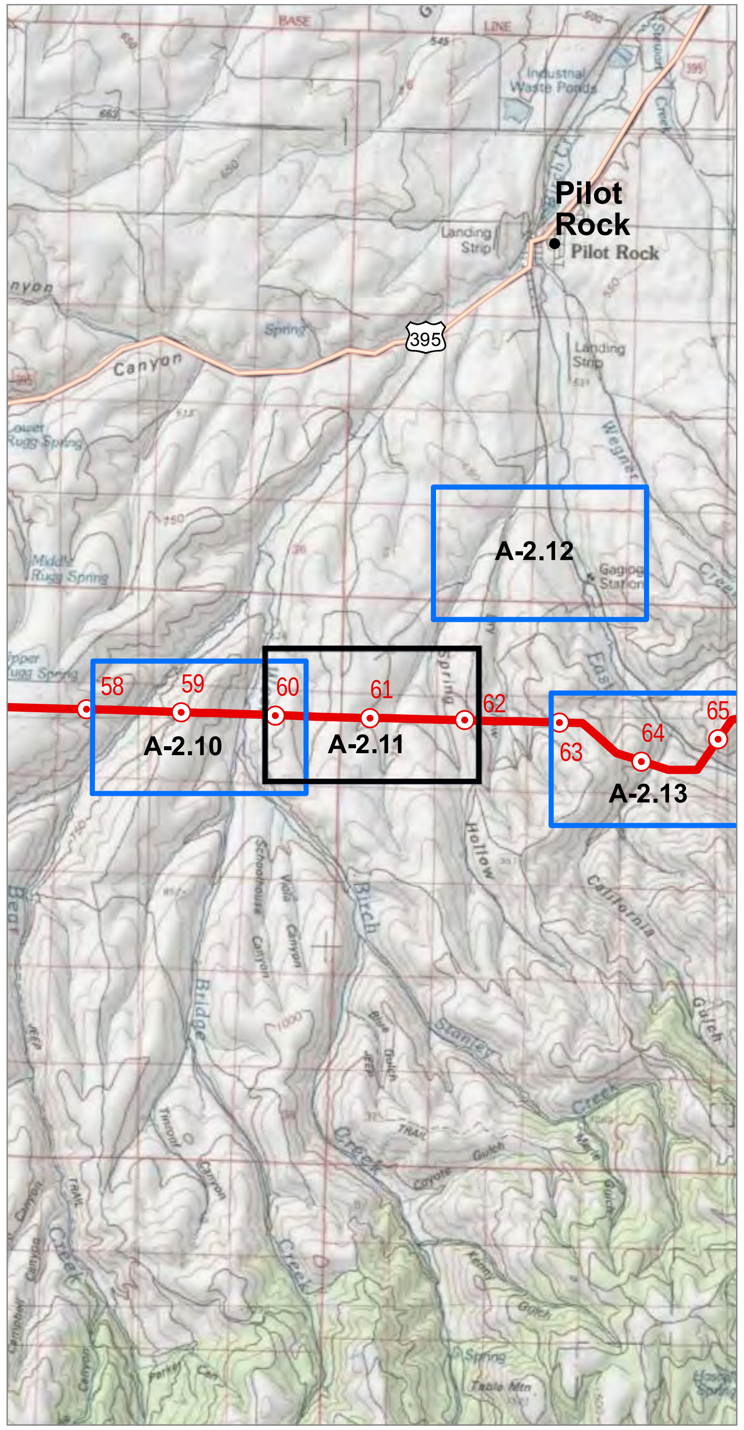
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

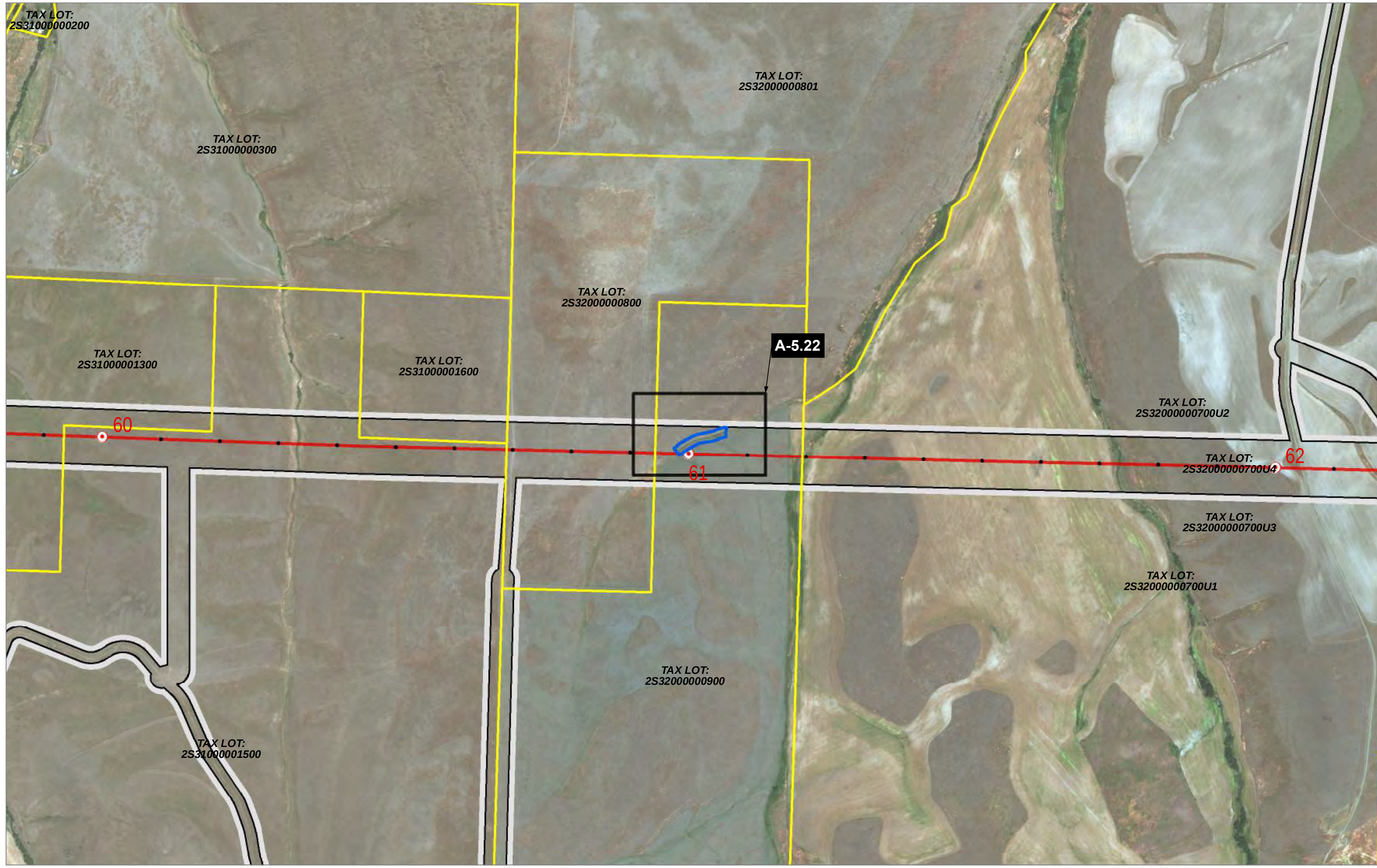
IDAHO POWER
An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.10

Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County





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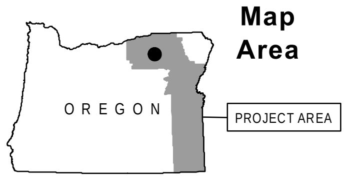
Miles

0 1,000
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

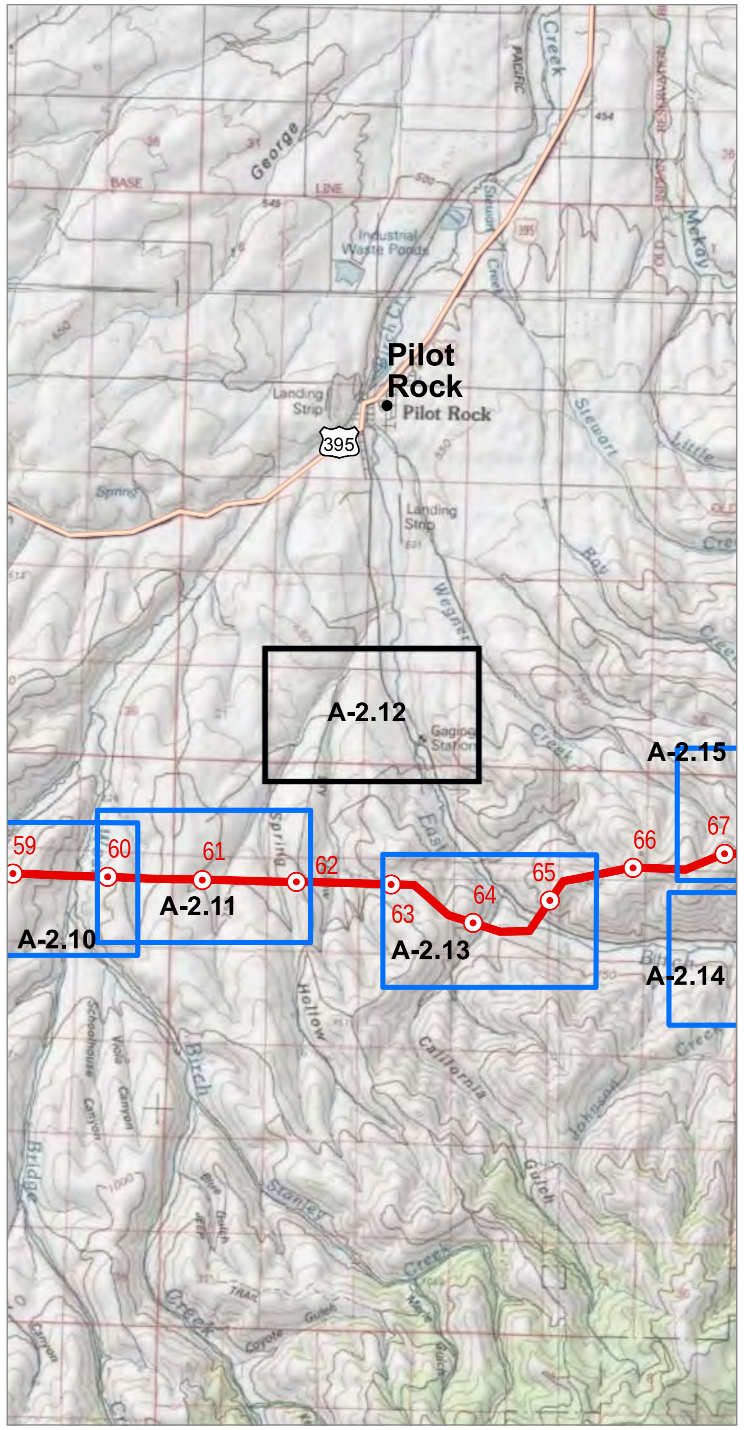
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

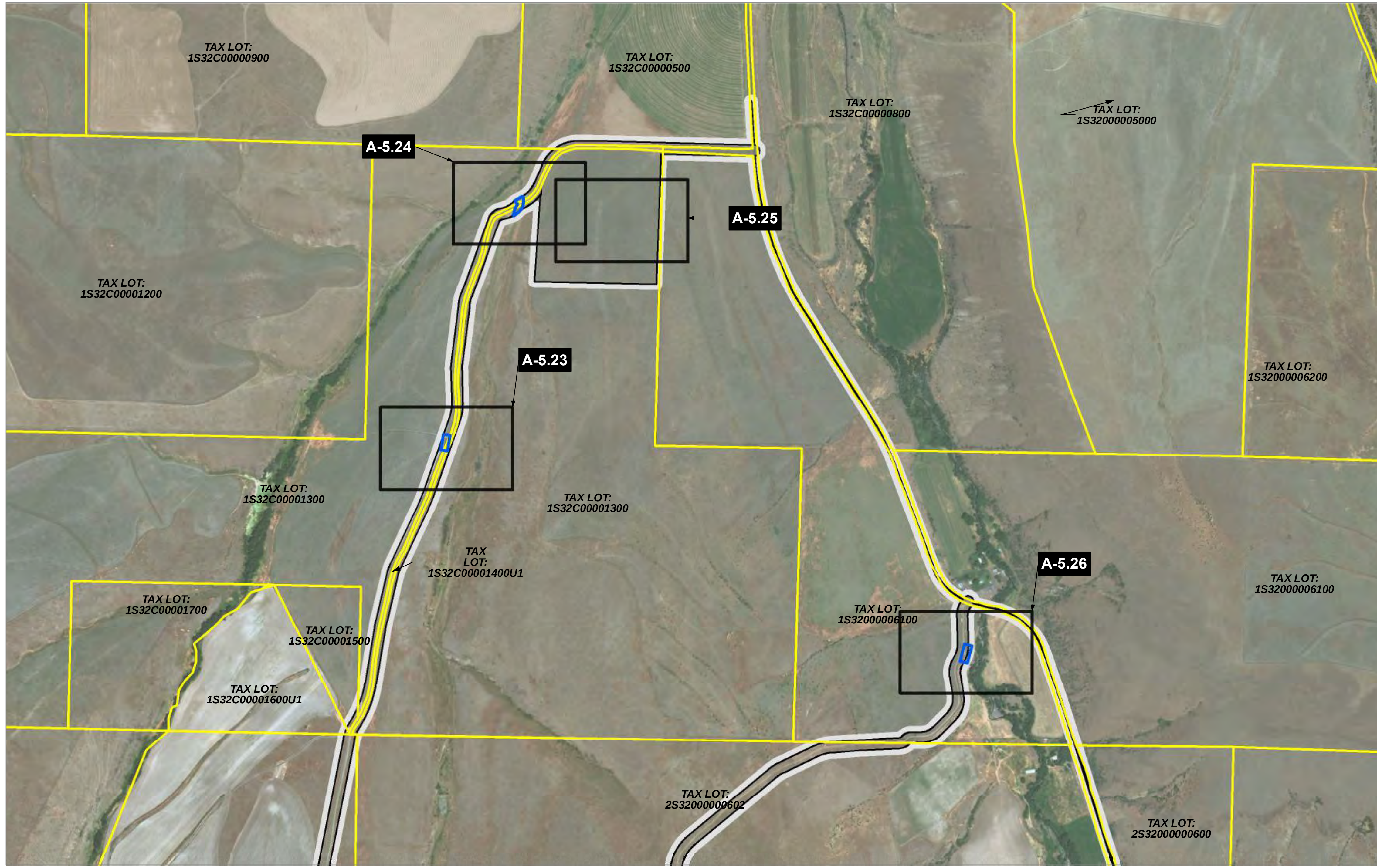
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.11
Wetland and Other Waters Delineation Report Tax Lots
Umatilla County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Project Features

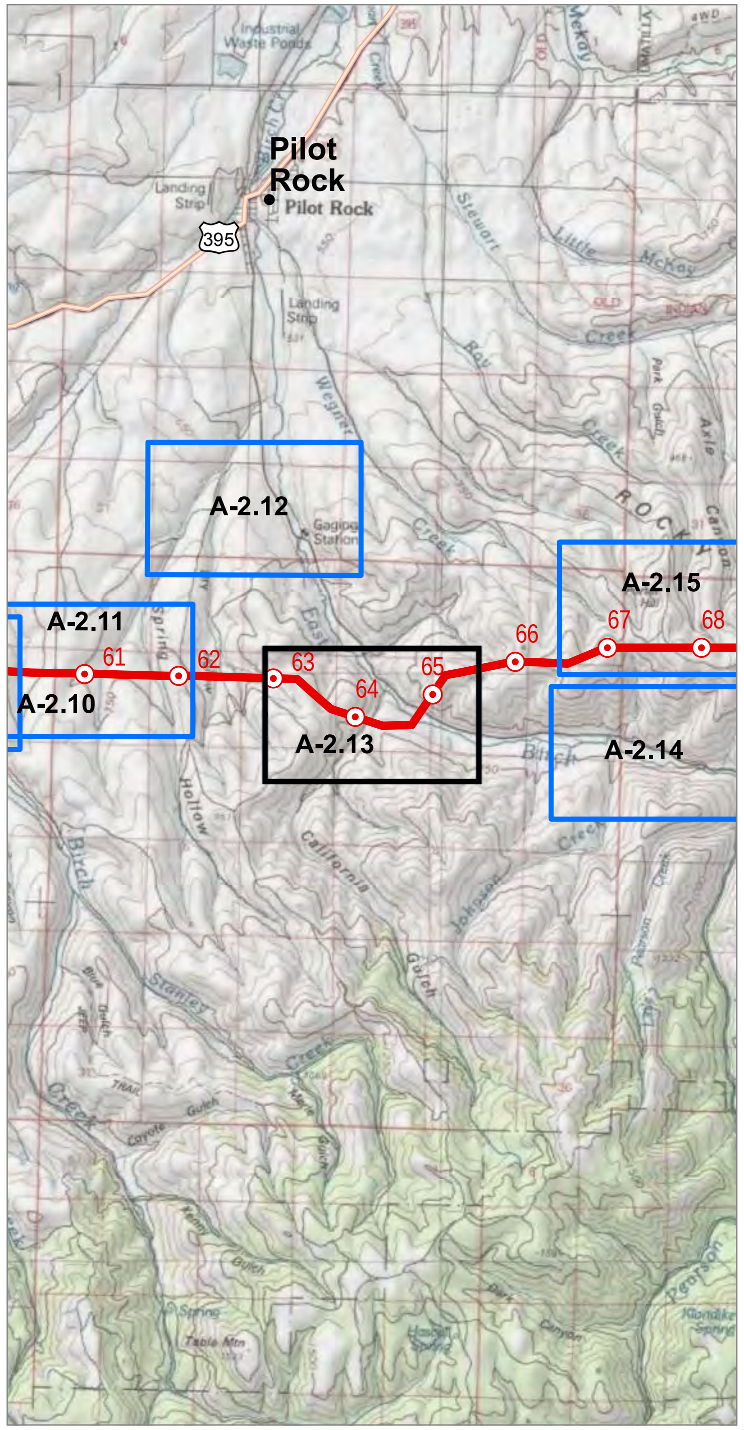
- Site Boundary
- Index Map Extent
- Study Area
- Tax Lot Parcel

Figure A-2.12

Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



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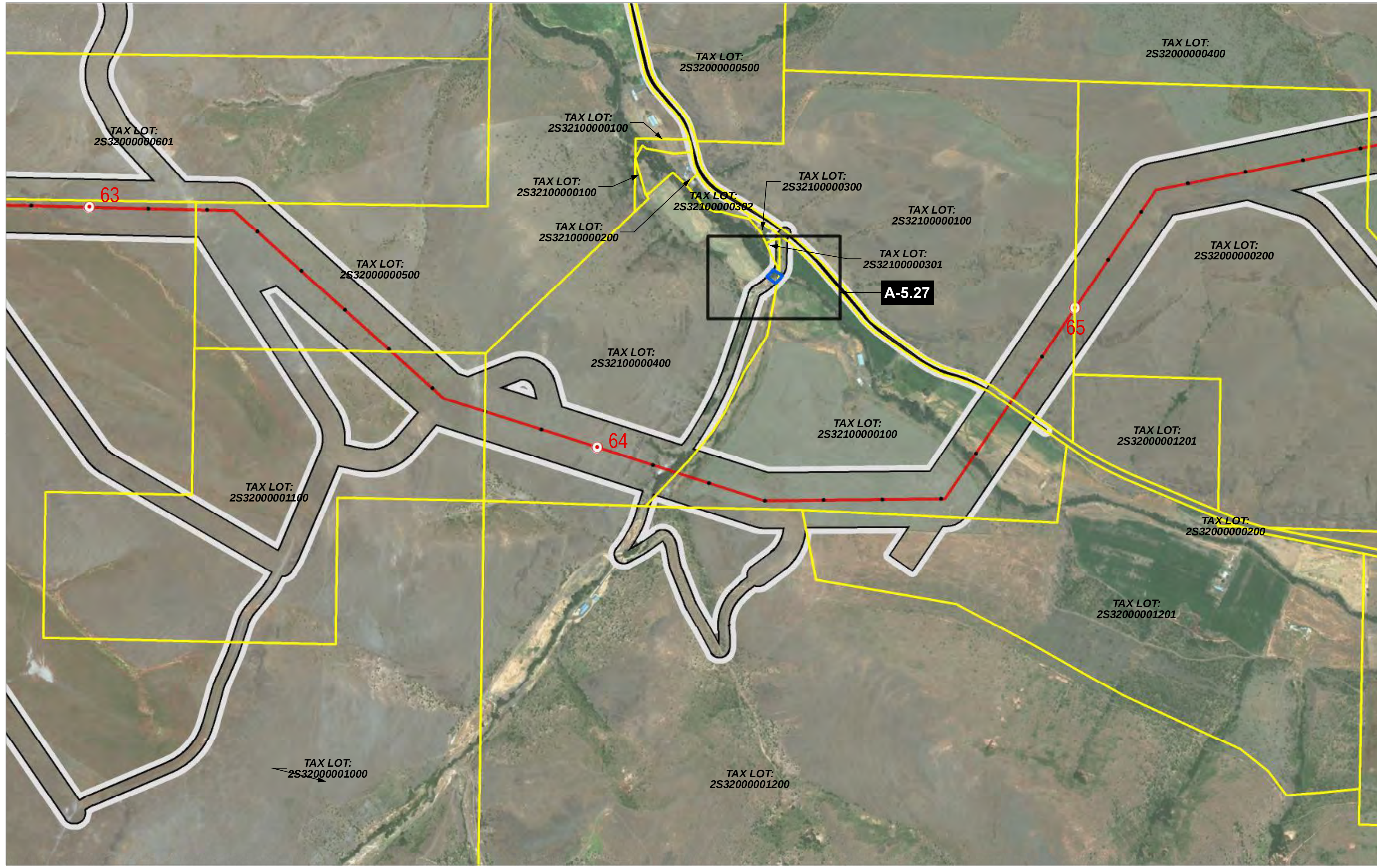

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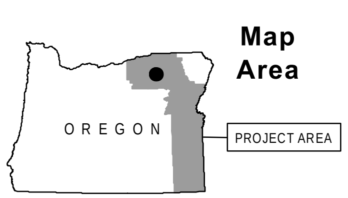
Feet



Project Features
- Site Boundary
- Proposed Route

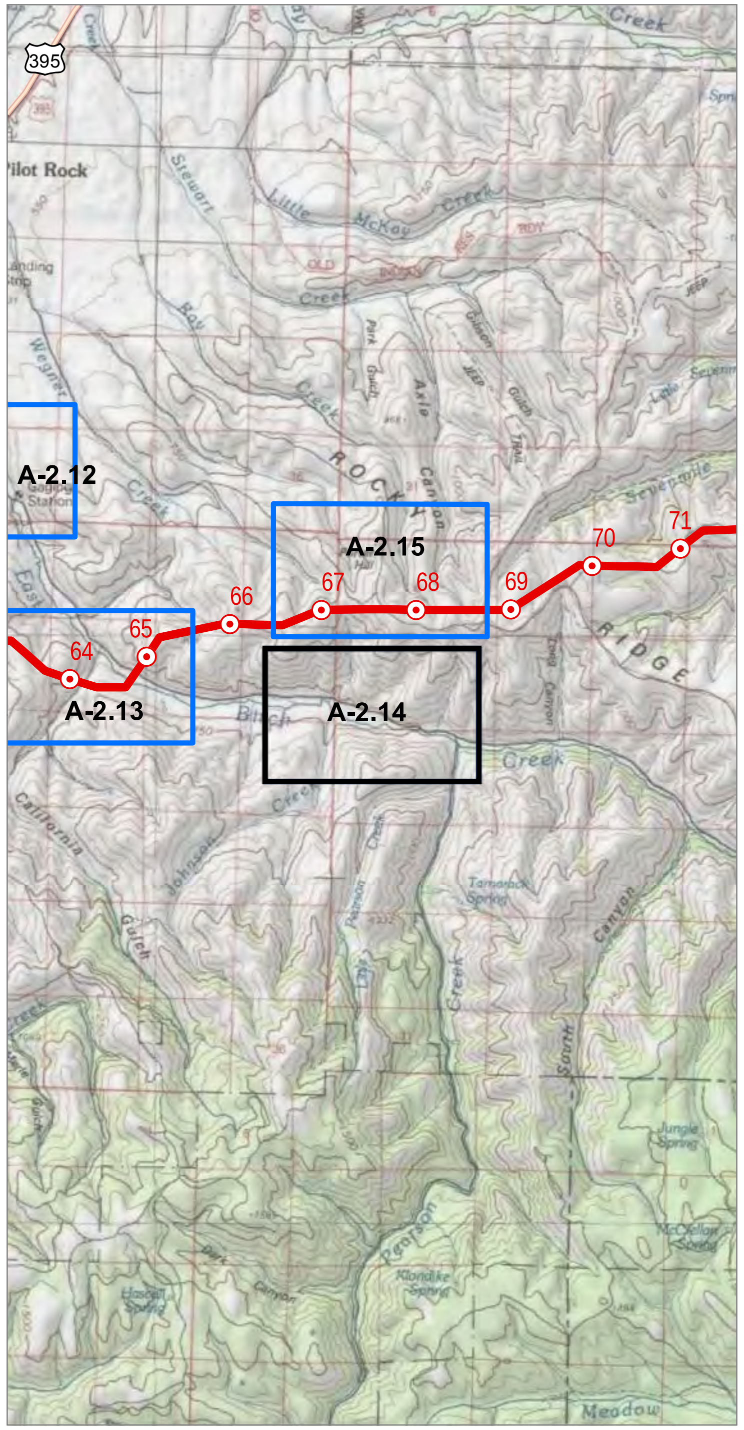
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

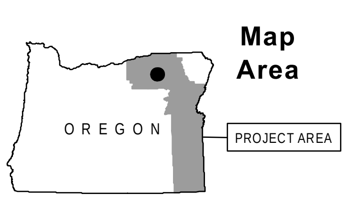
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.13
Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County





Project Features

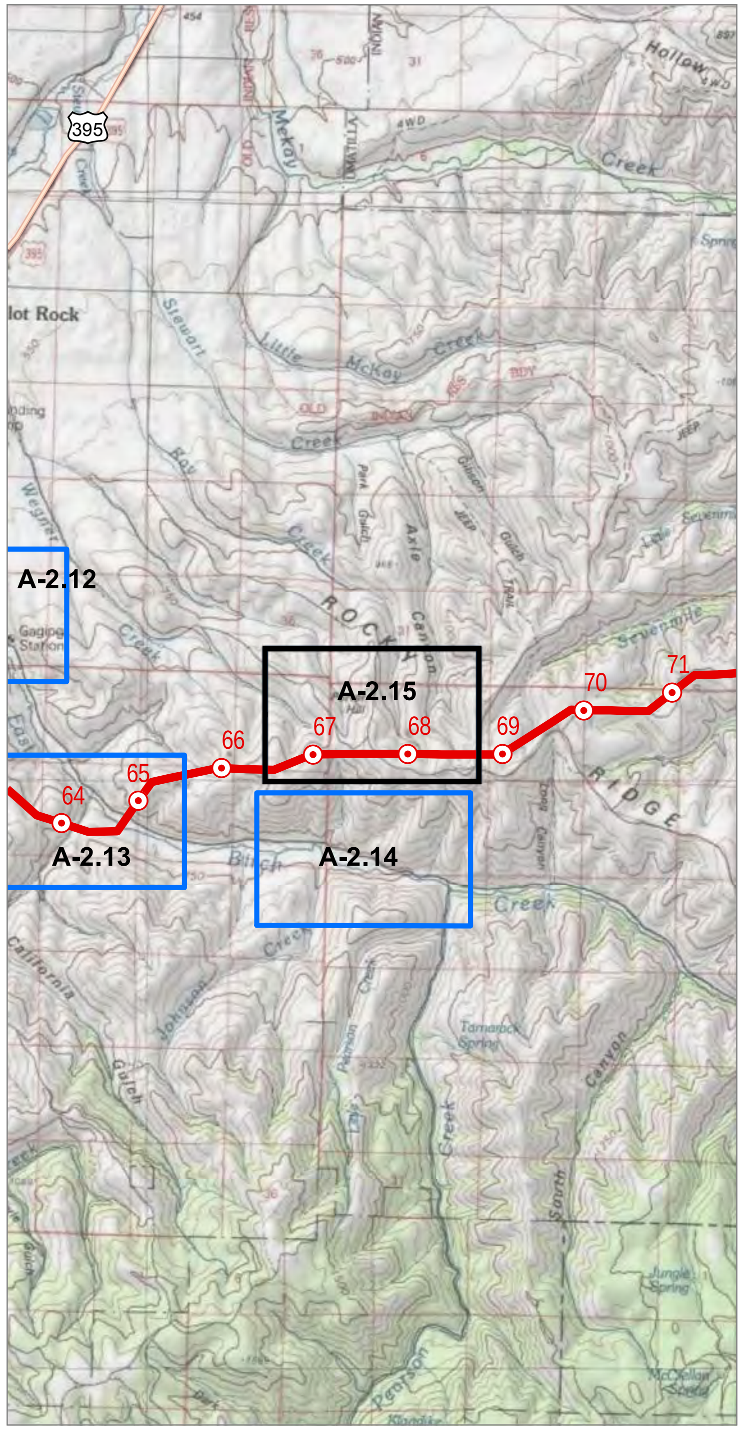
- Site Boundary
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.14
Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County



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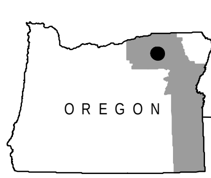
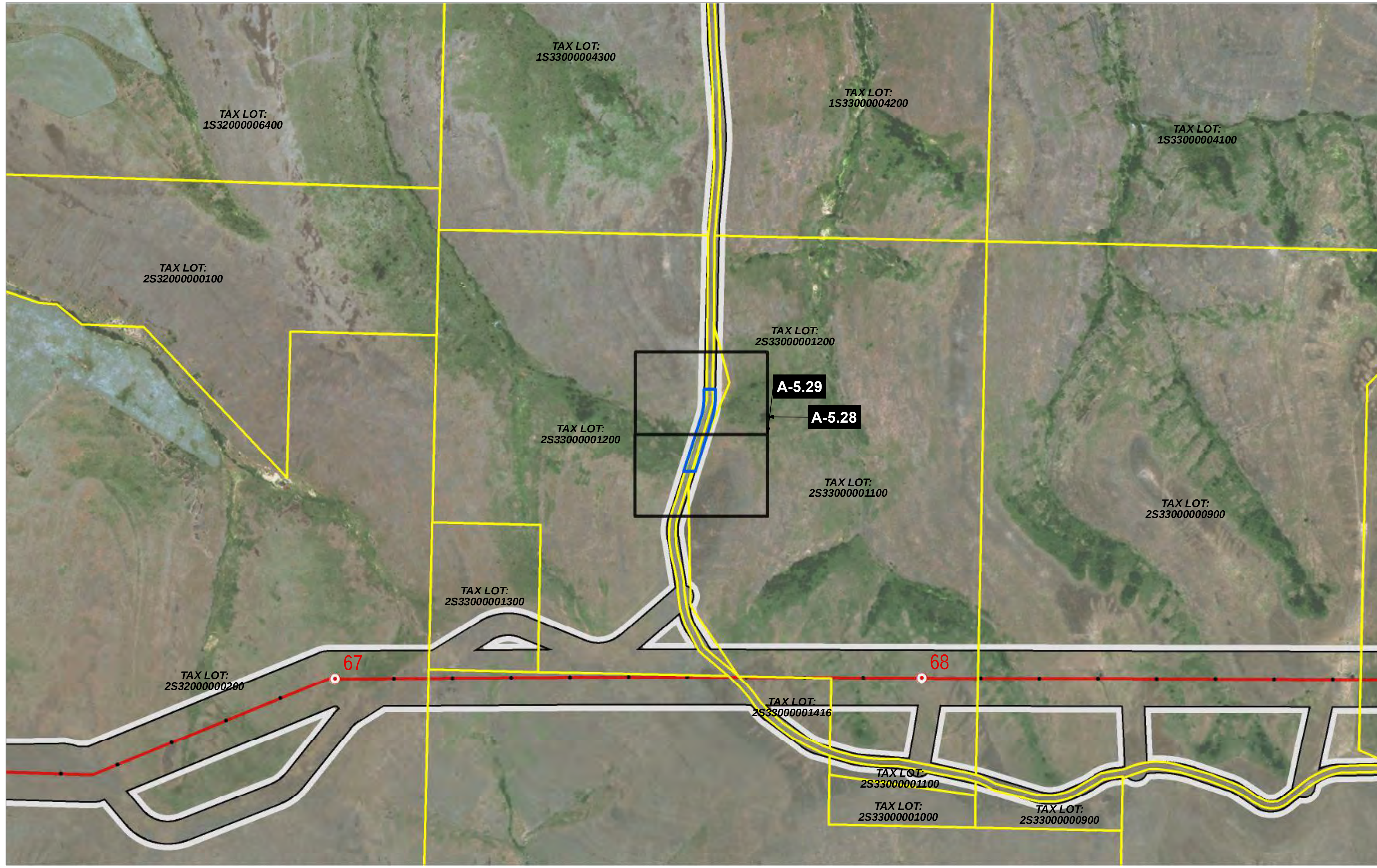




0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

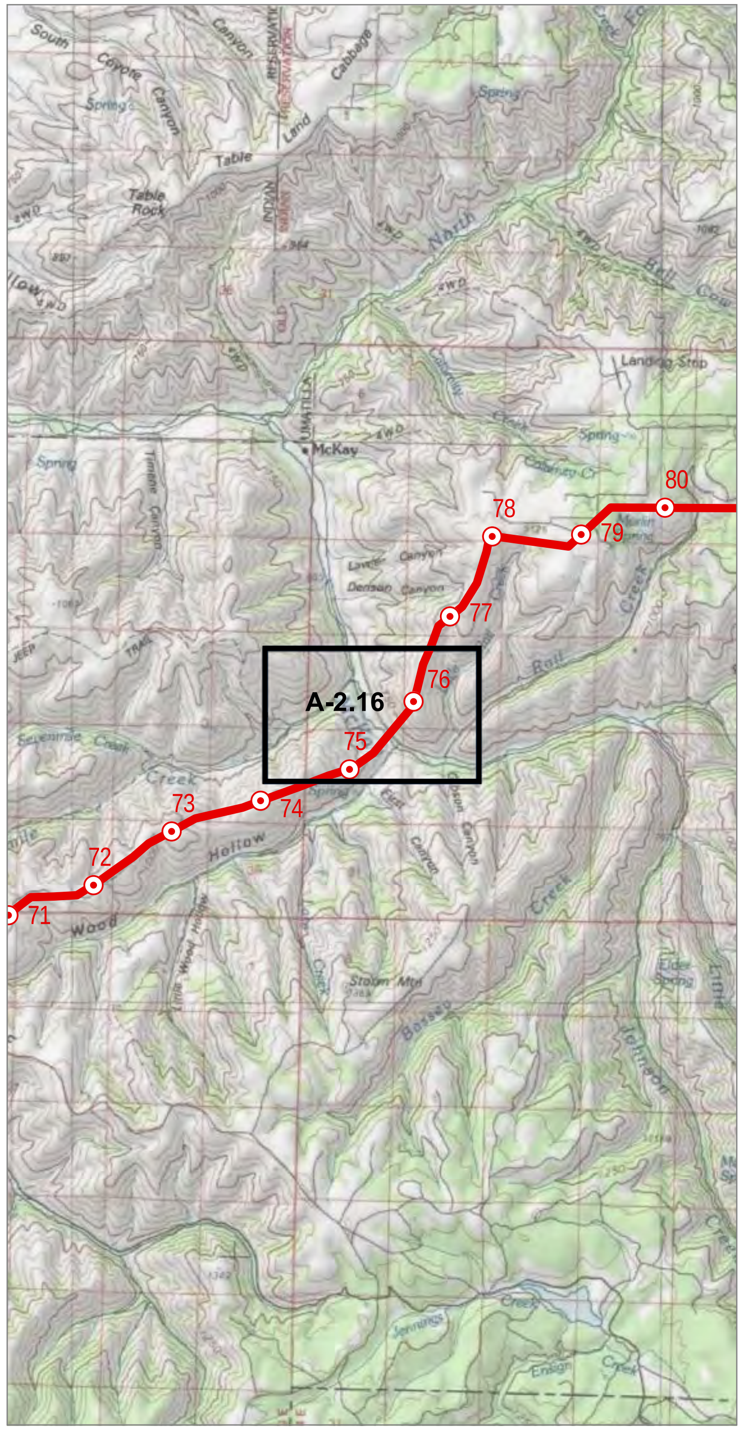
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

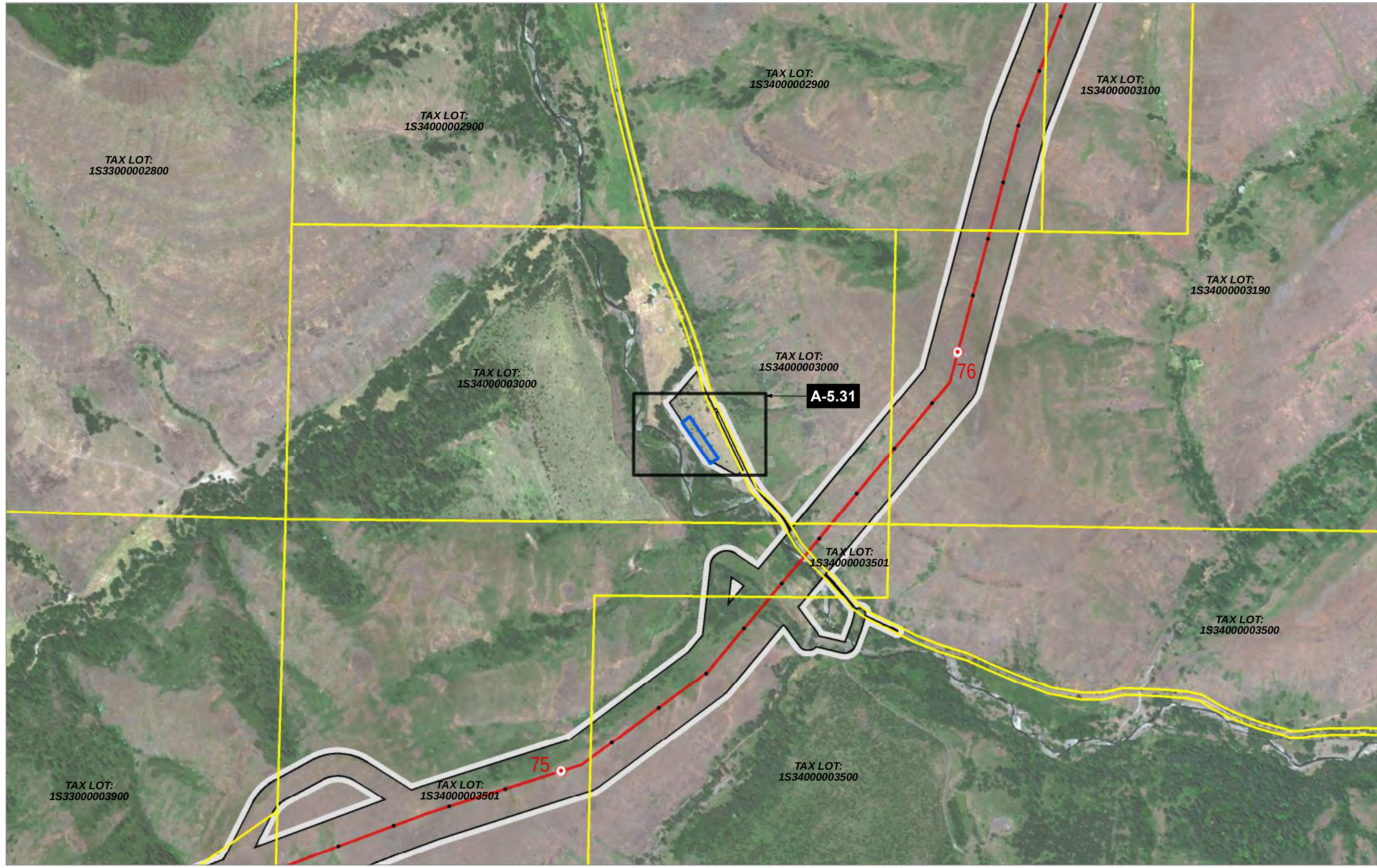
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.15
Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County





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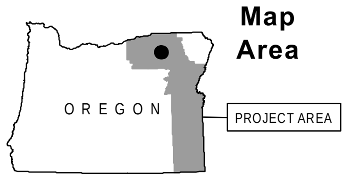
Miles



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

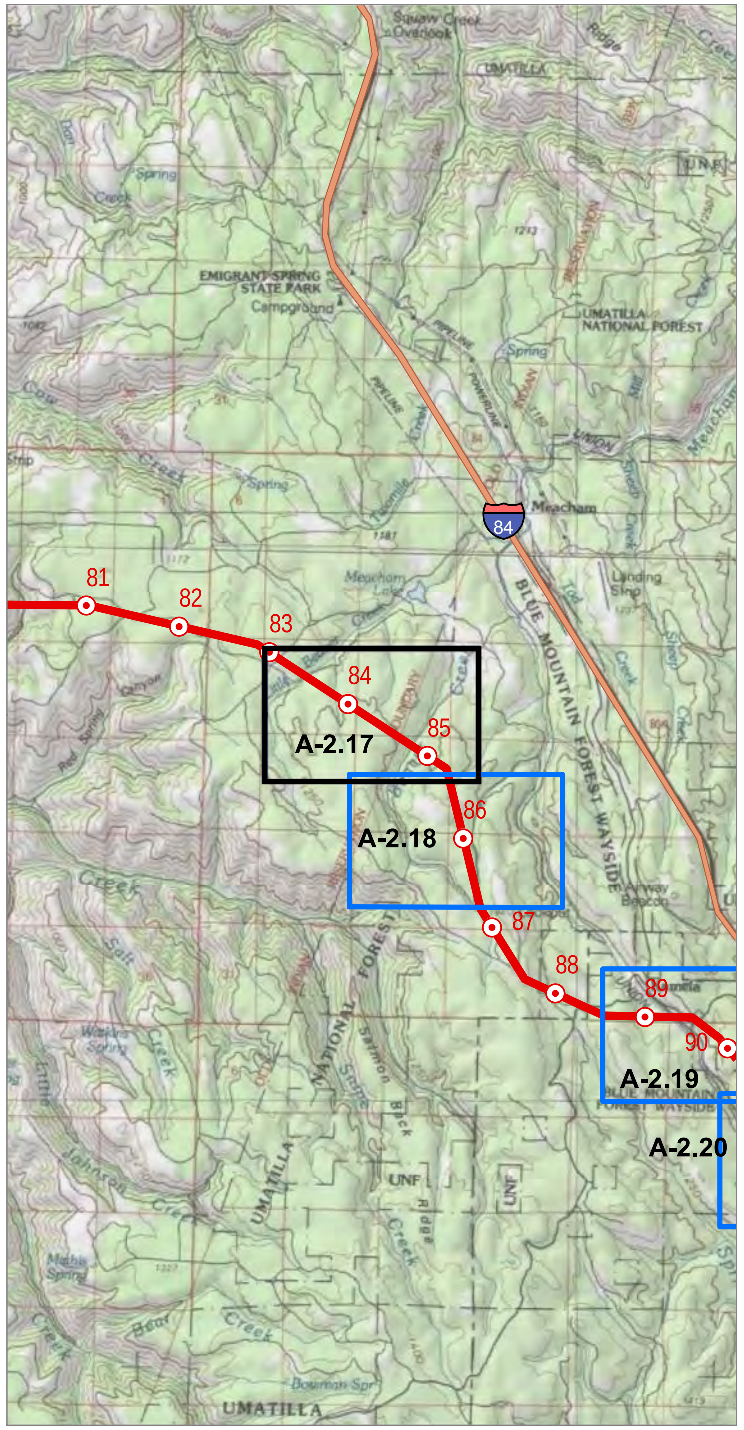
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

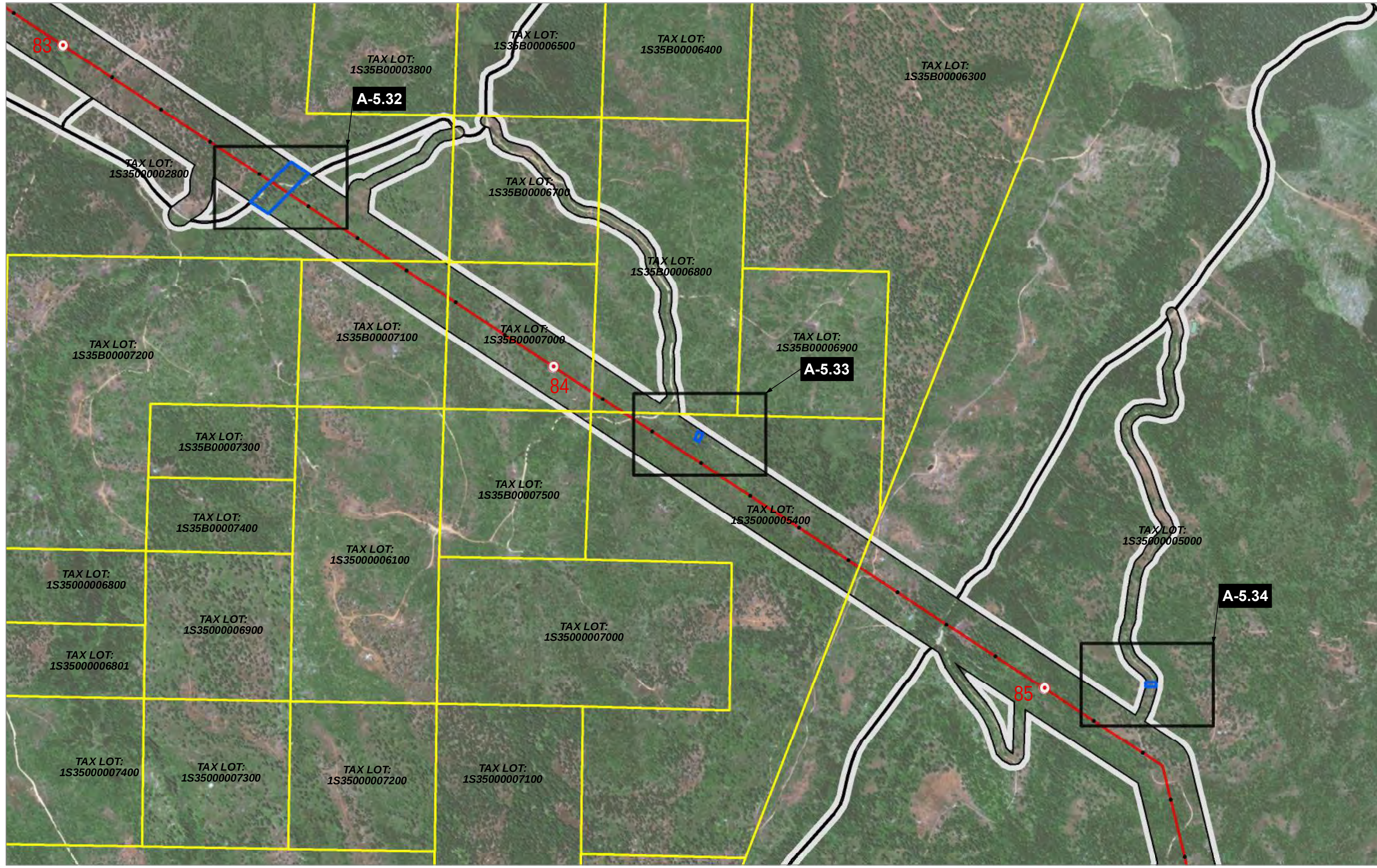
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.16
Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County





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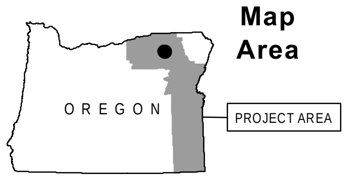
Miles



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

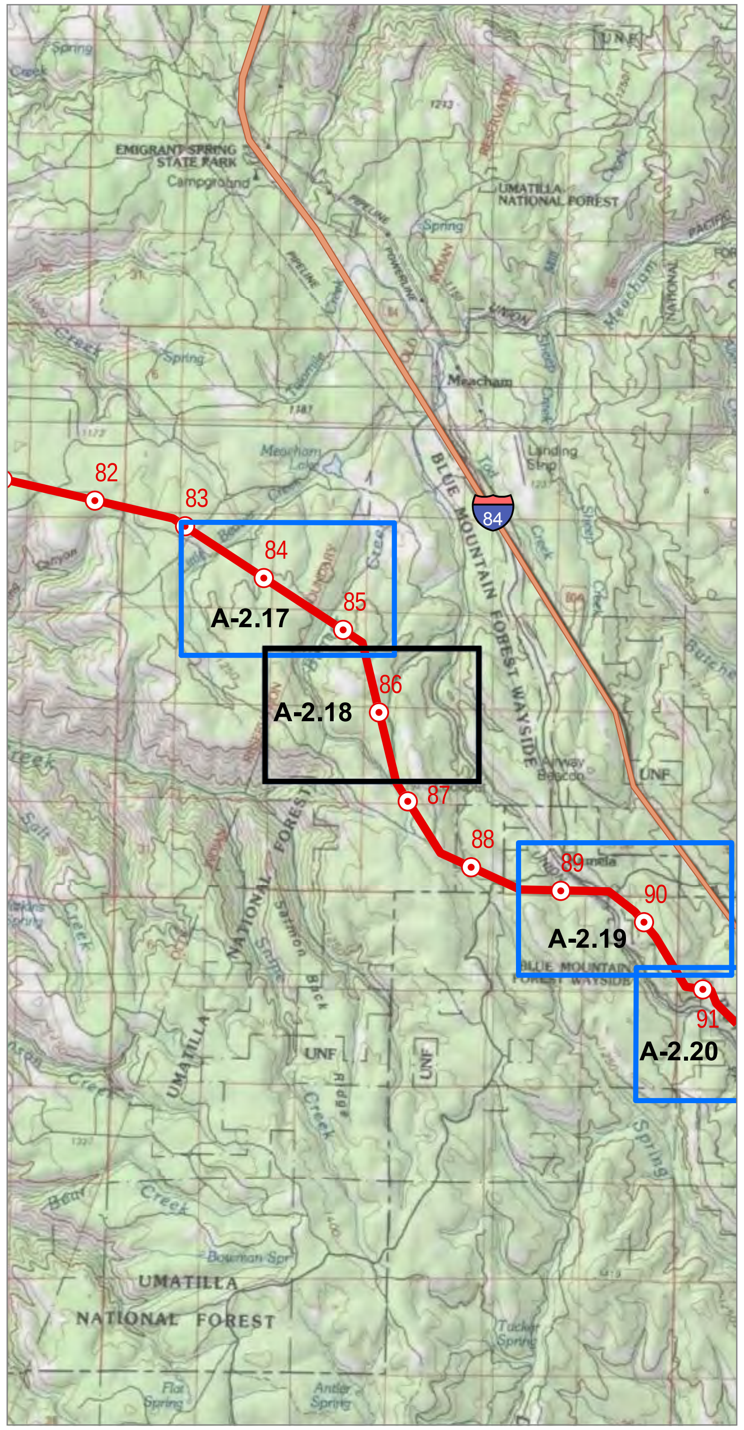
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

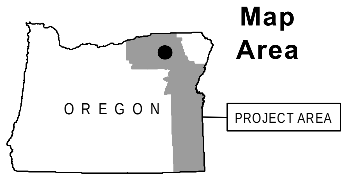
Figure A-2.17

Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County



0 2
Miles

0 1,000
Feet



Map Area

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

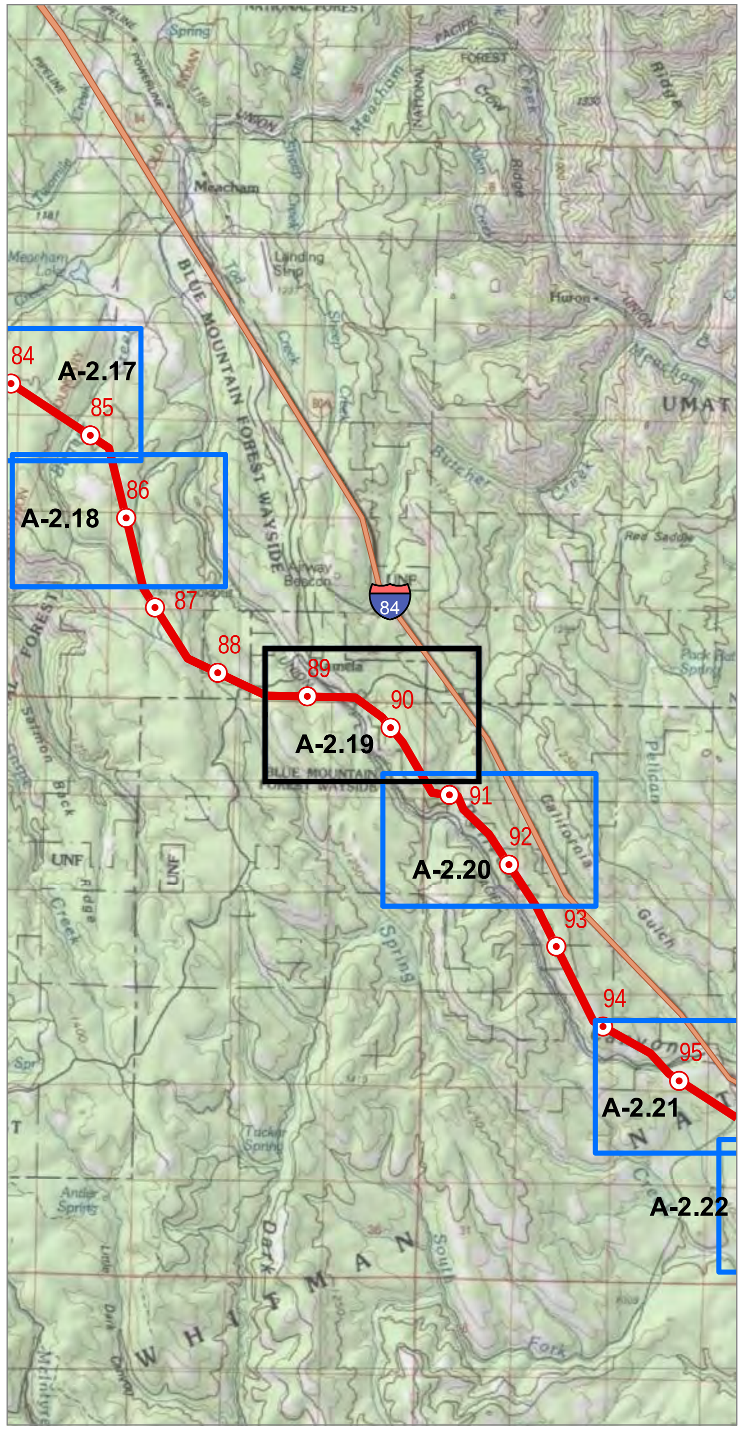
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.18

Wetland and Other Waters Delineation Report
Tax Lots
Umatilla County



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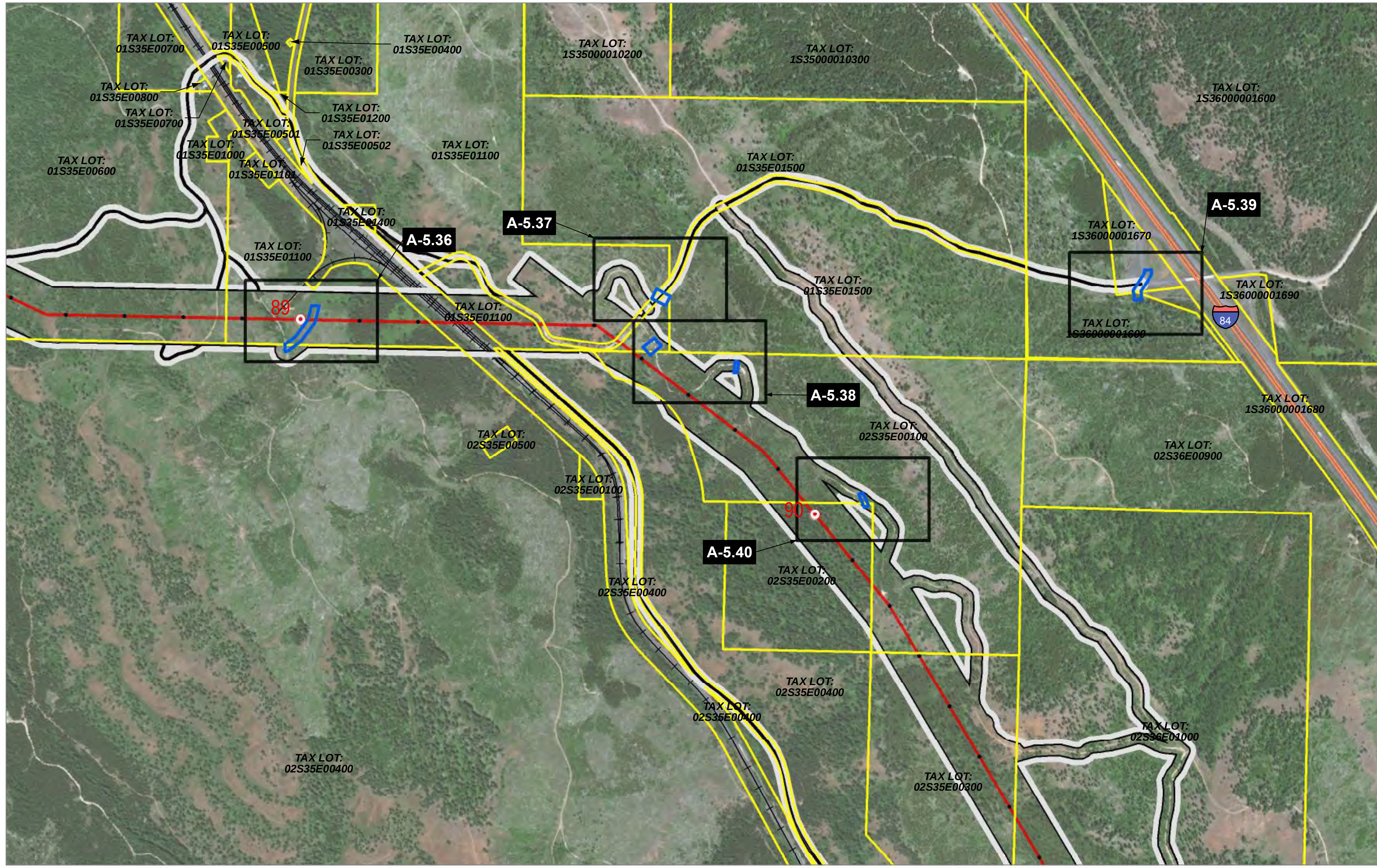
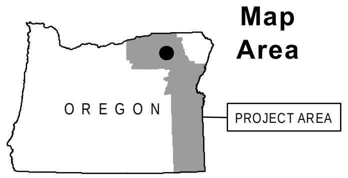
Miles



0 1,000
Feet

Map Area



Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Railroads
- Tax Lot Parcel

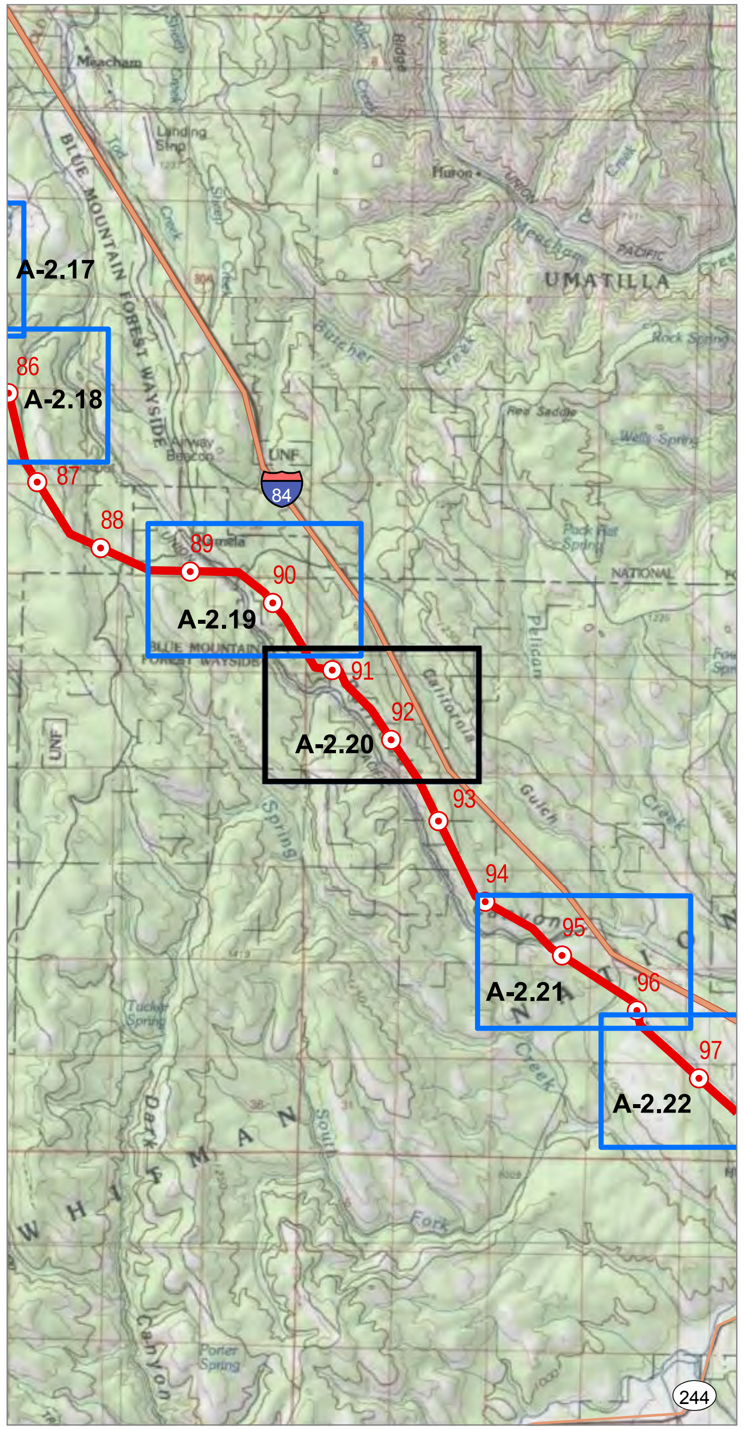
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

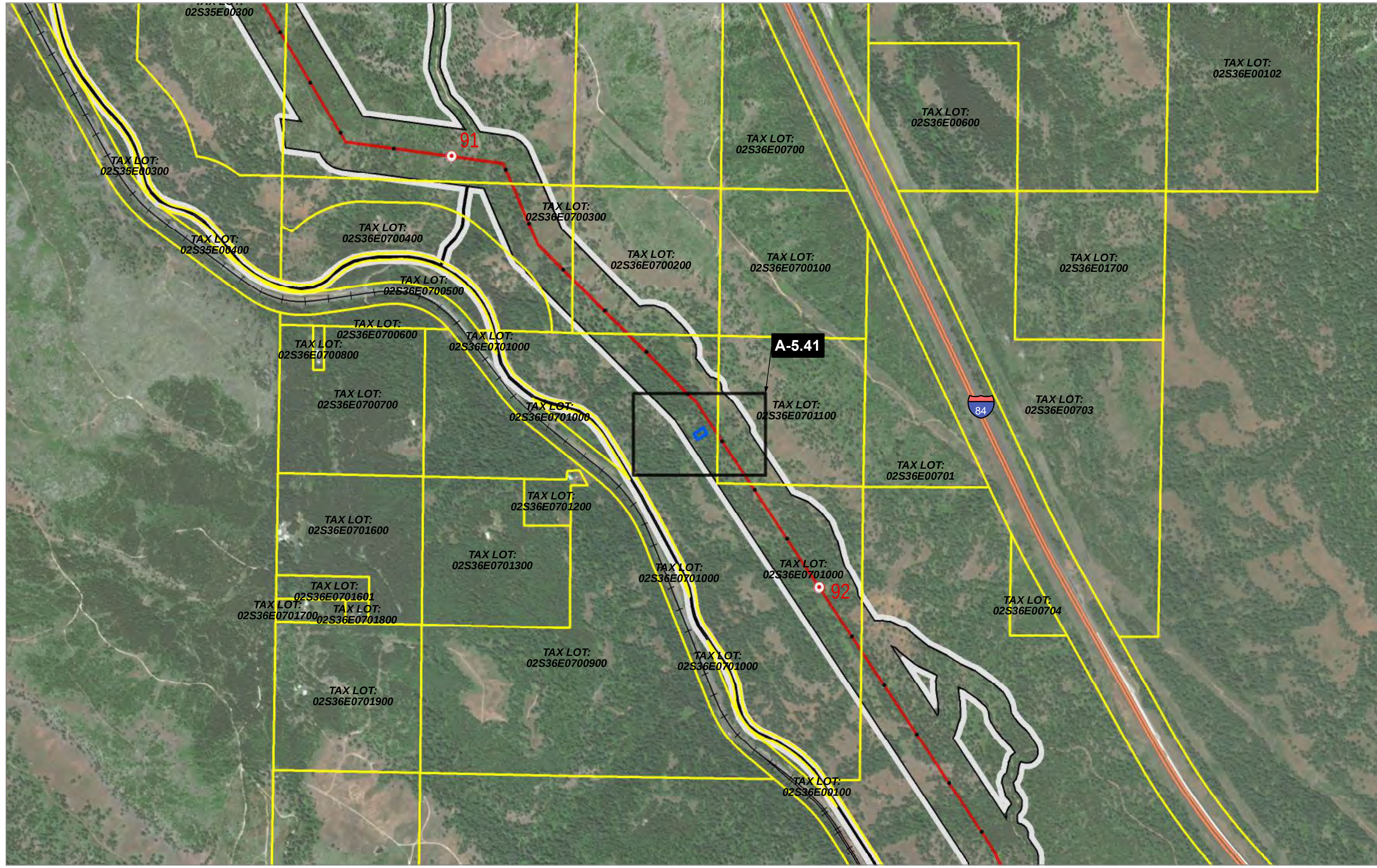
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.19
Wetland and Other Waters Delineation Report
Tax Lots
Union County





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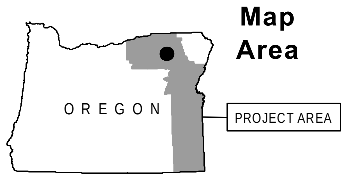
Miles

0 1,000
Feet

Map Area



Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

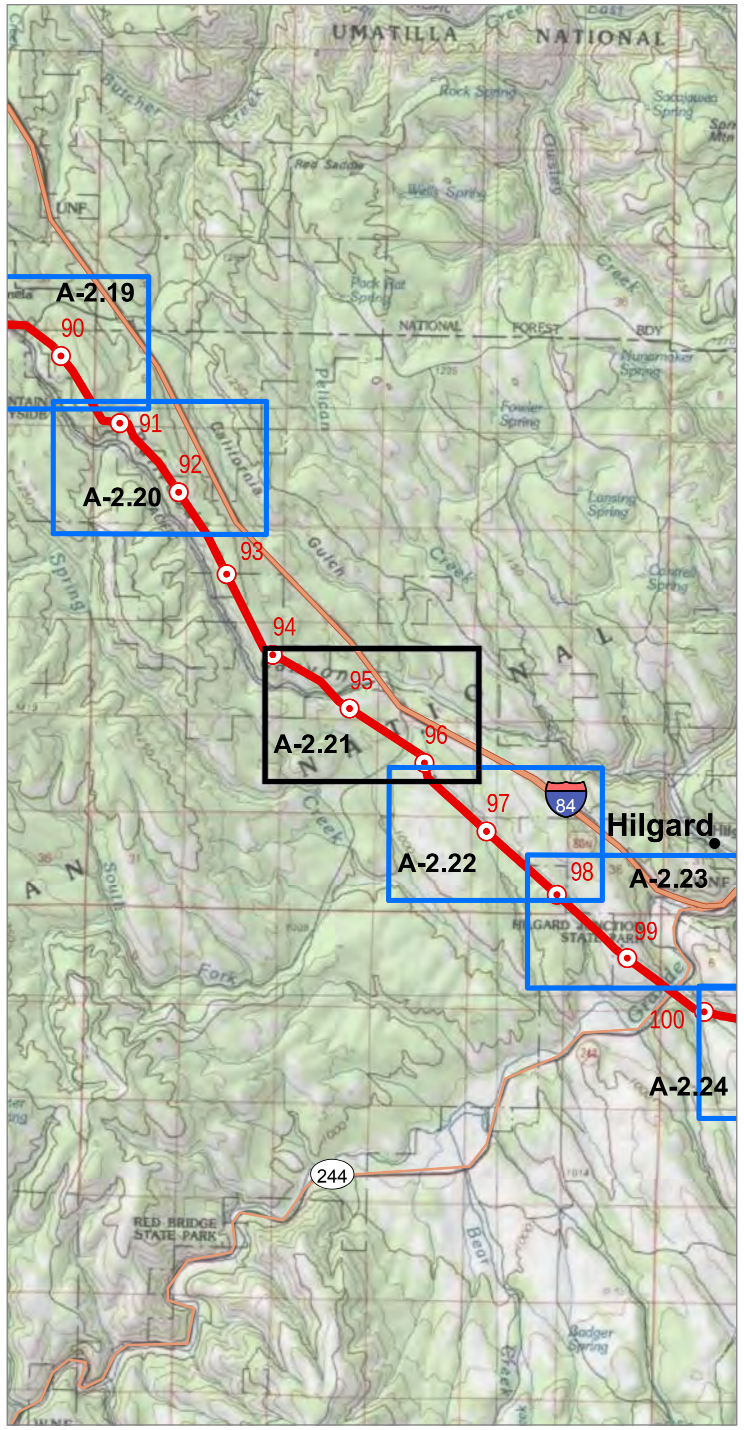
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

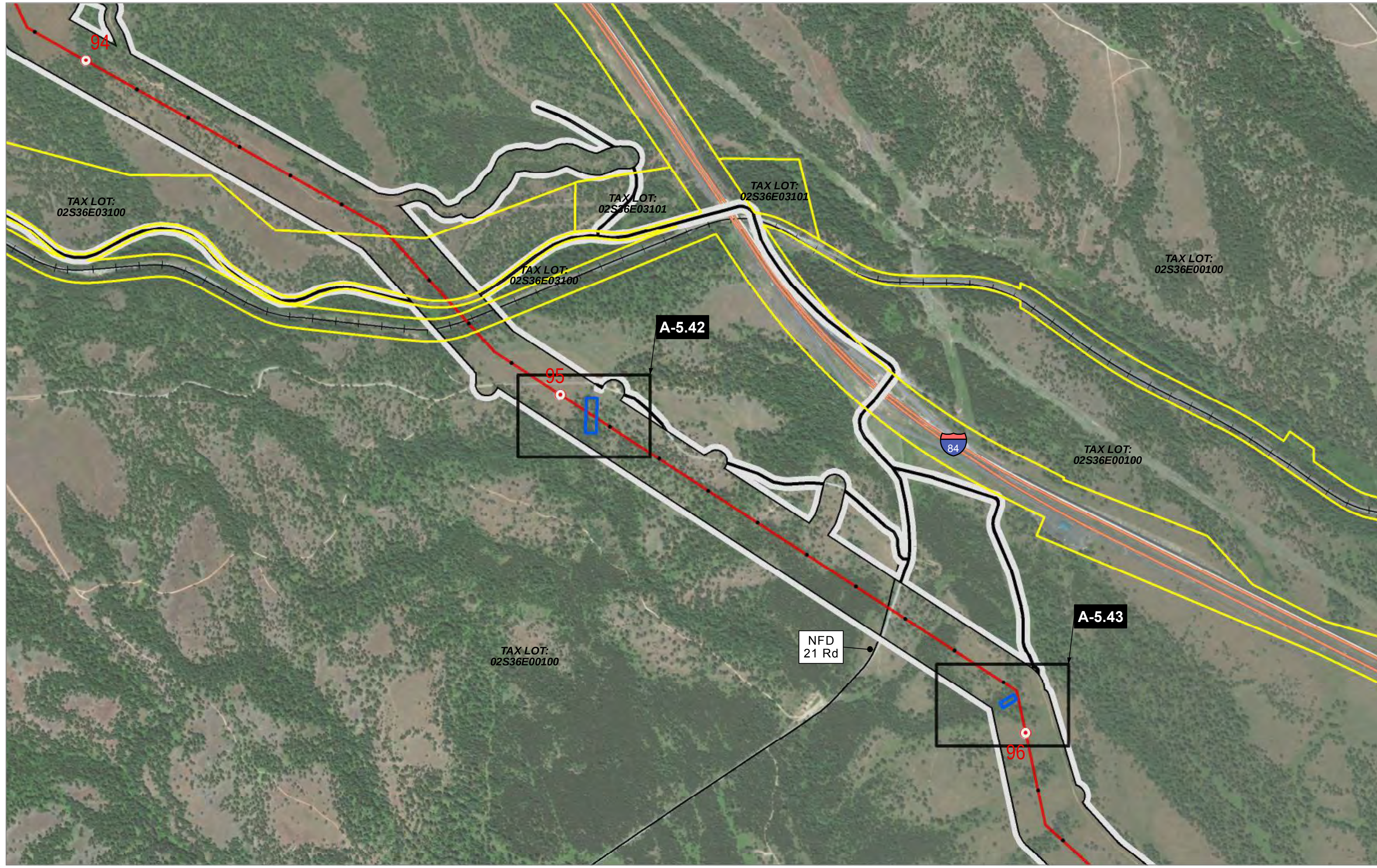
IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.20

Wetland and Other Waters Delineation Report
Tax Lots
Union County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

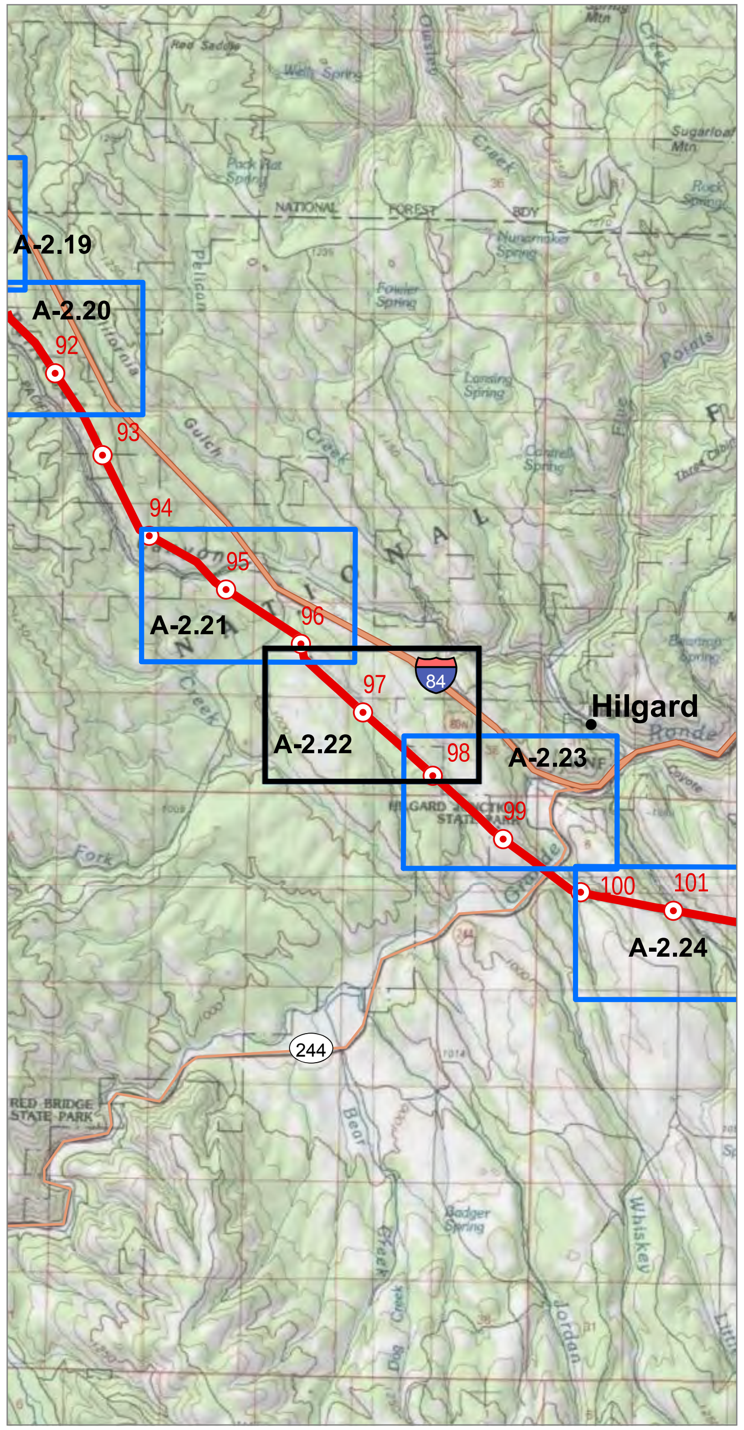
Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

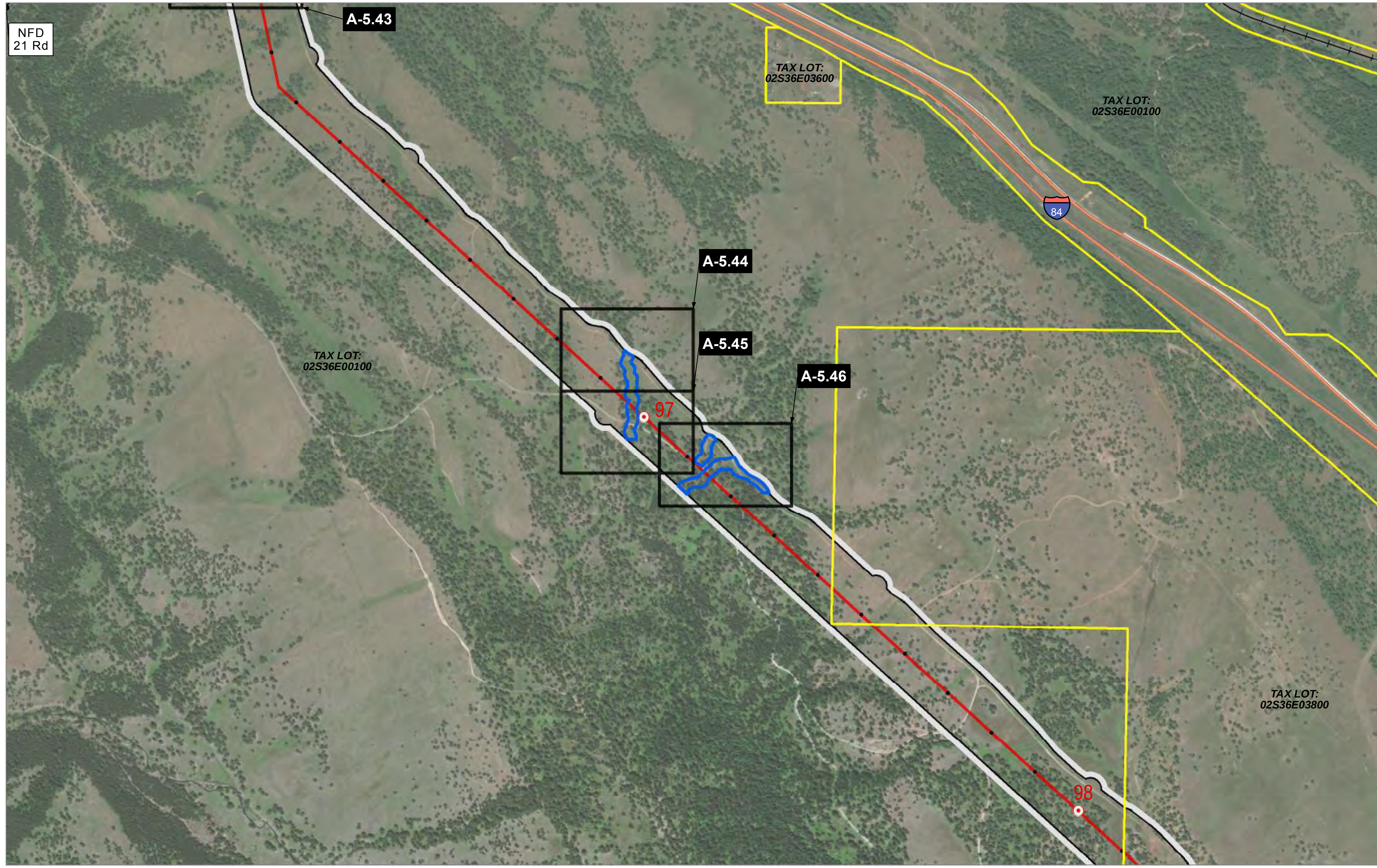
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.21
Wetland and Other Waters Delineation Report
Tax Lots
Union County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Railroads
- Tax Lot Parcel

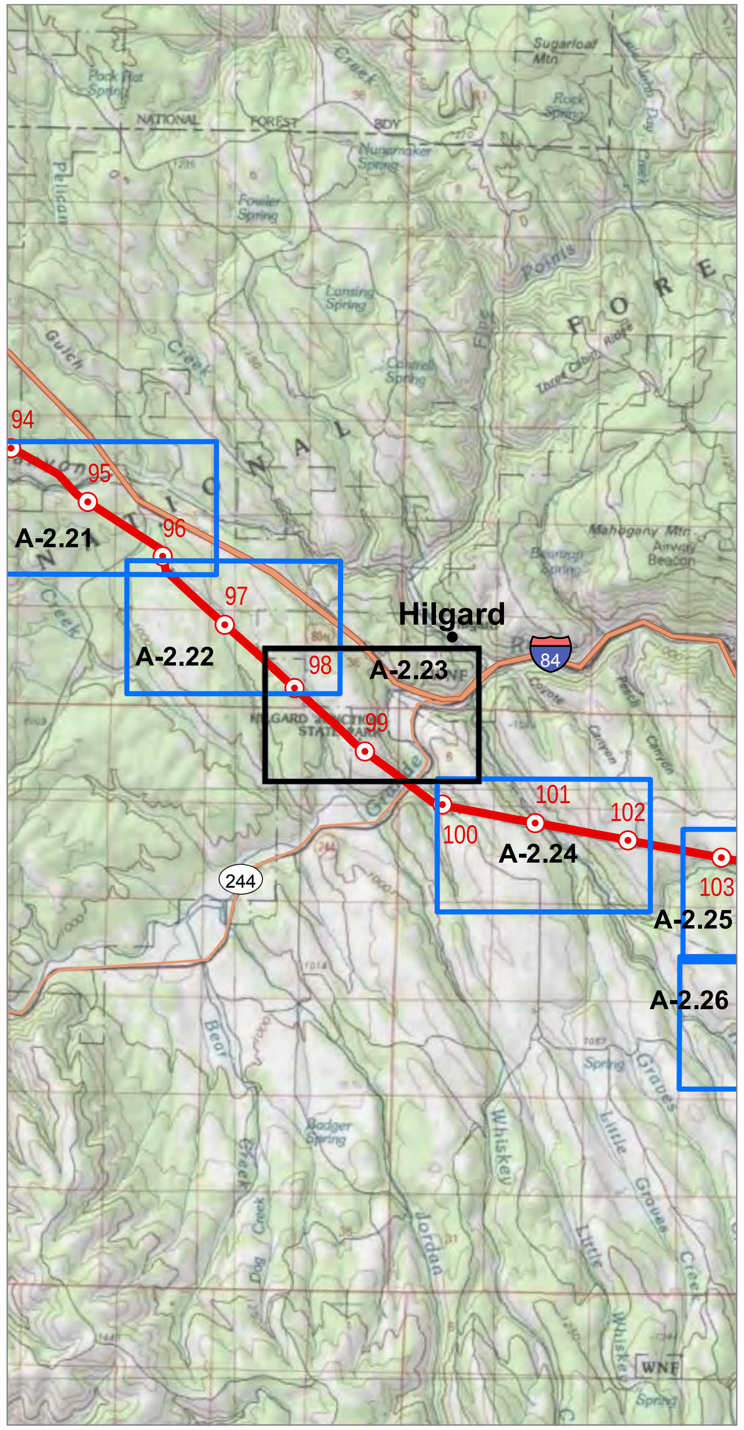
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

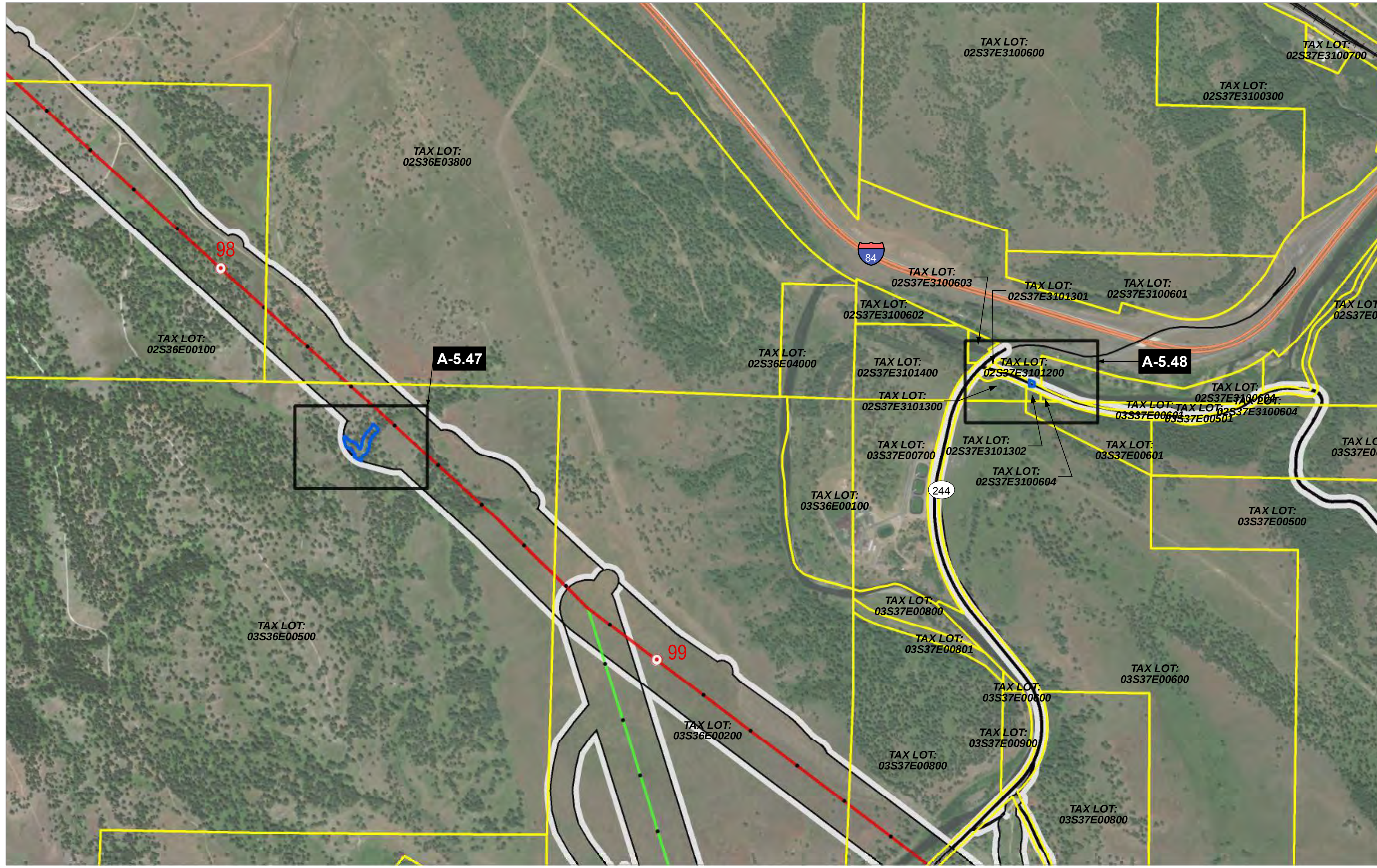
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.22
Wetland and Other Waters
Delineation Report
Tax Lots
Union County





0 2
Miles

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

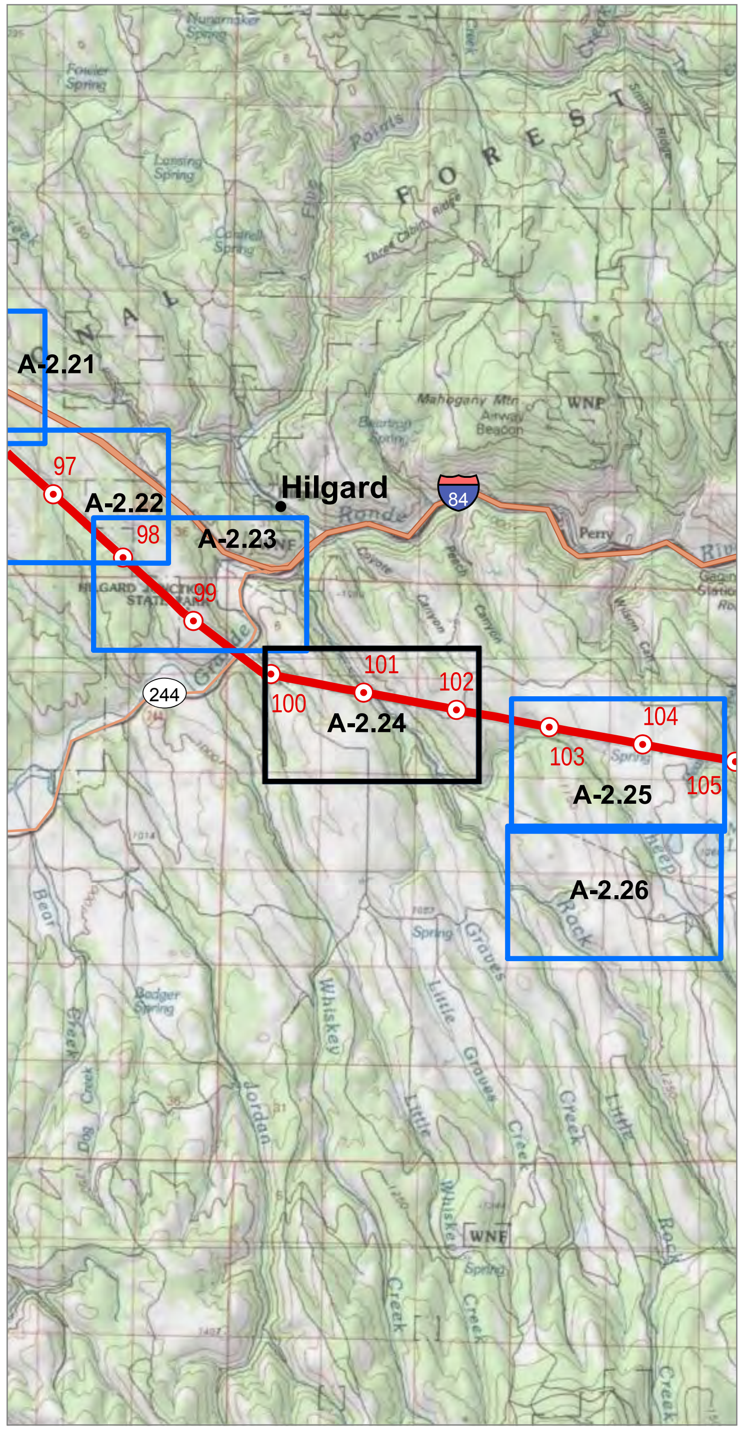
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

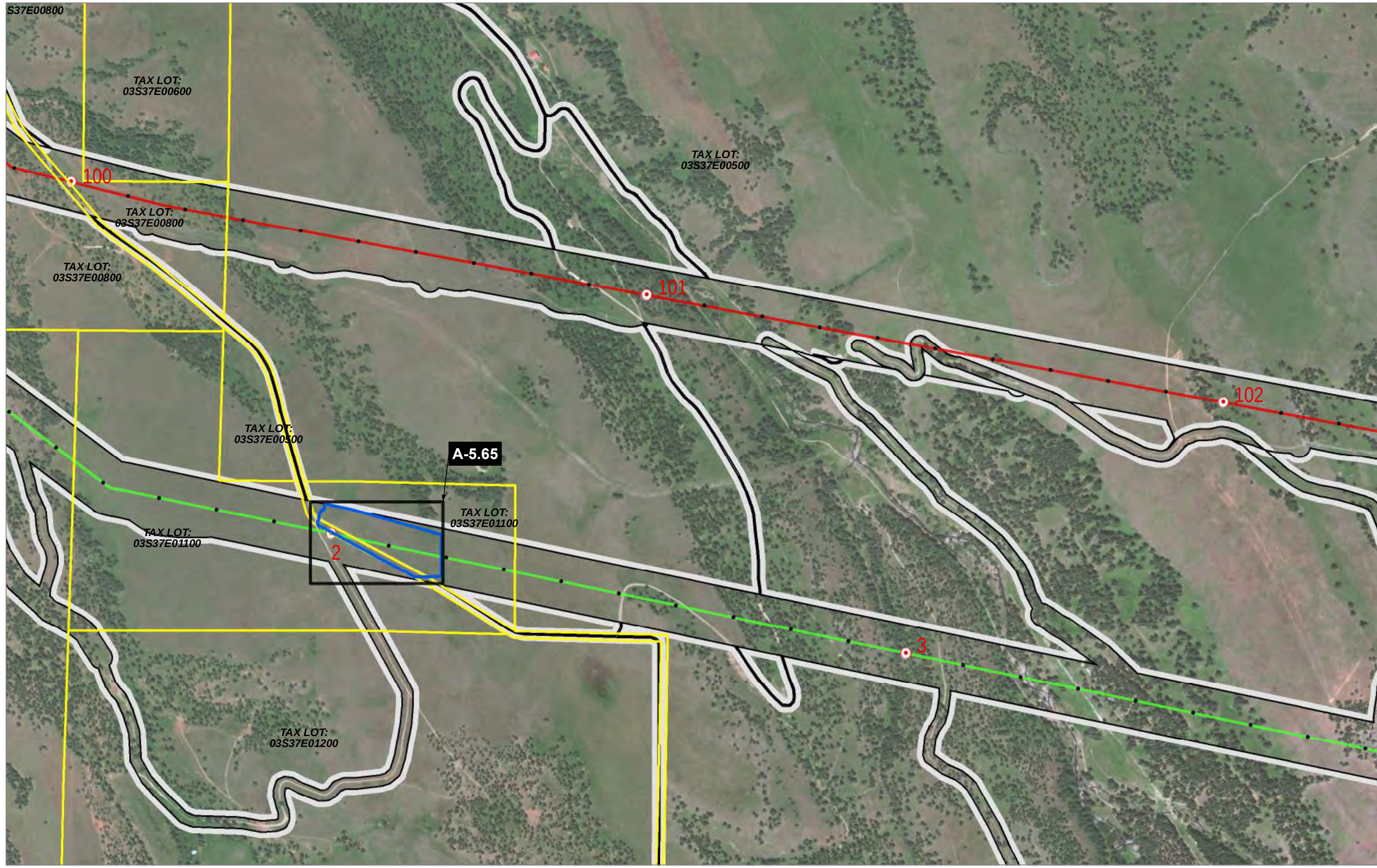
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.23
Wetland and Other Waters Delineation Report
Tax Lots
Union County





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Miles

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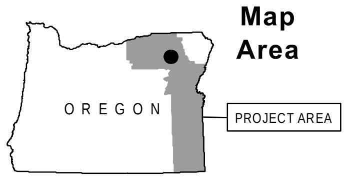
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

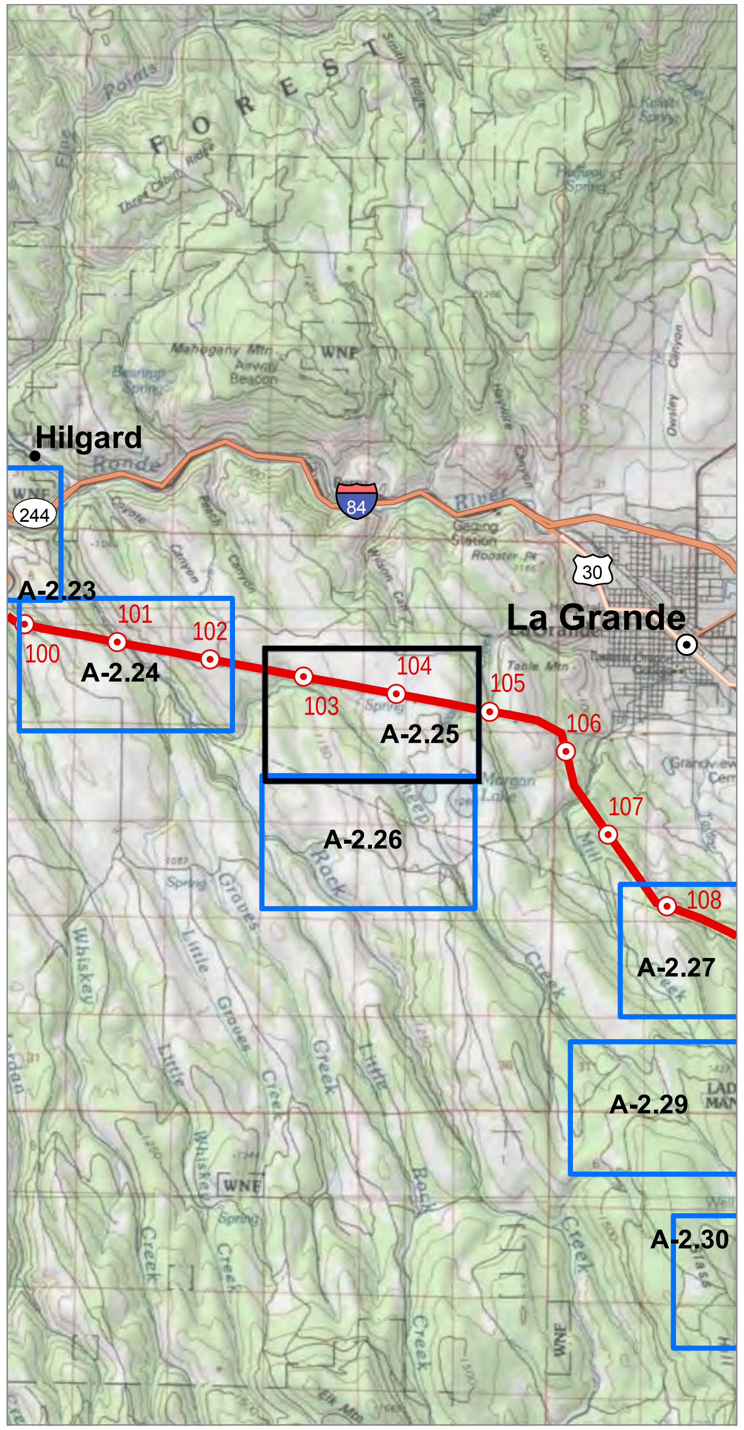
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.24
Wetland and Other Waters Delineation Report
Tax Lots
Union County



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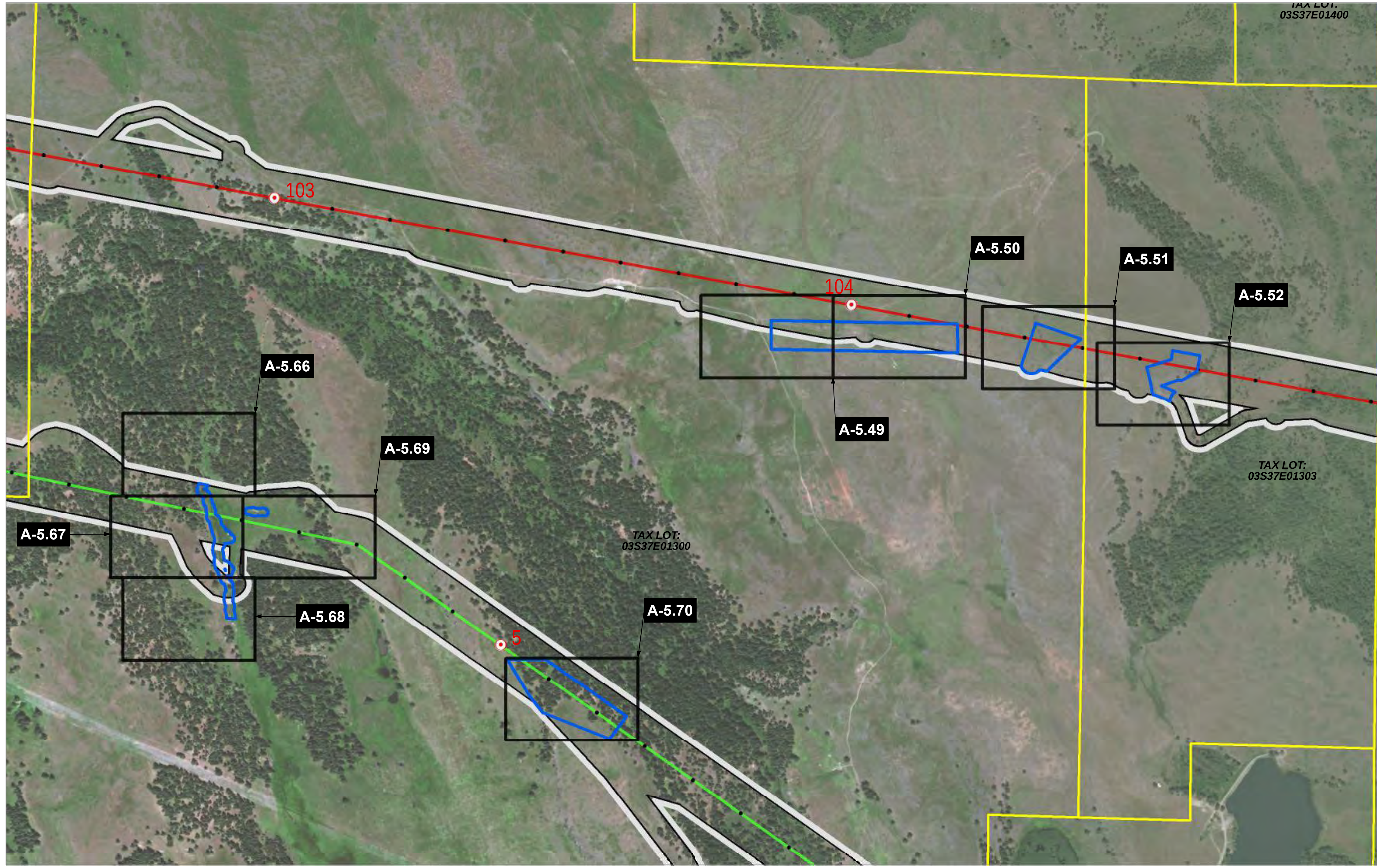

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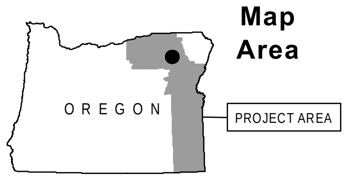
Feet



Map Area

Project Features

- Site Boundary
- Proposed Route
- Alternative

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

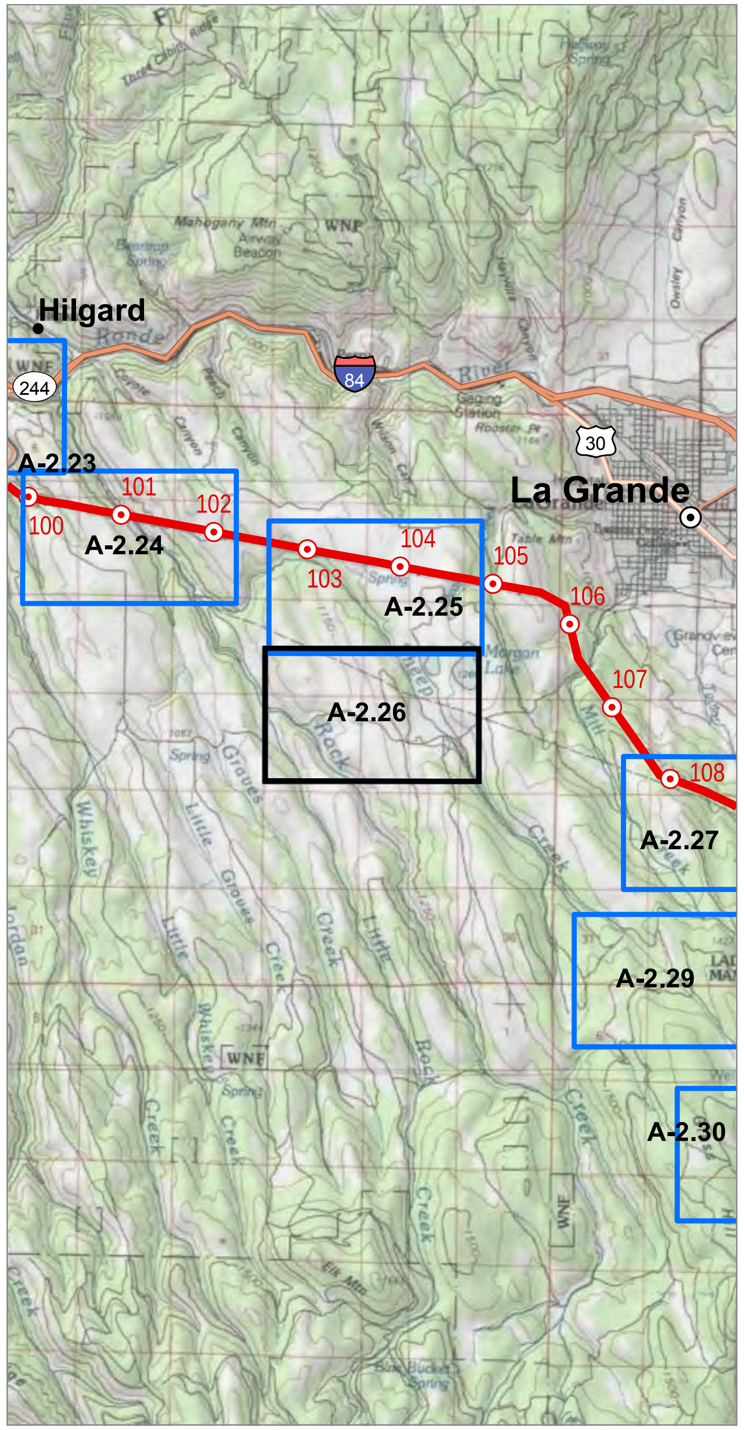
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.25

Wetland and Other Waters Delineation Report
Tax Lots
Union County



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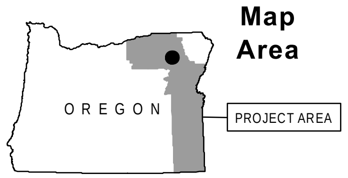
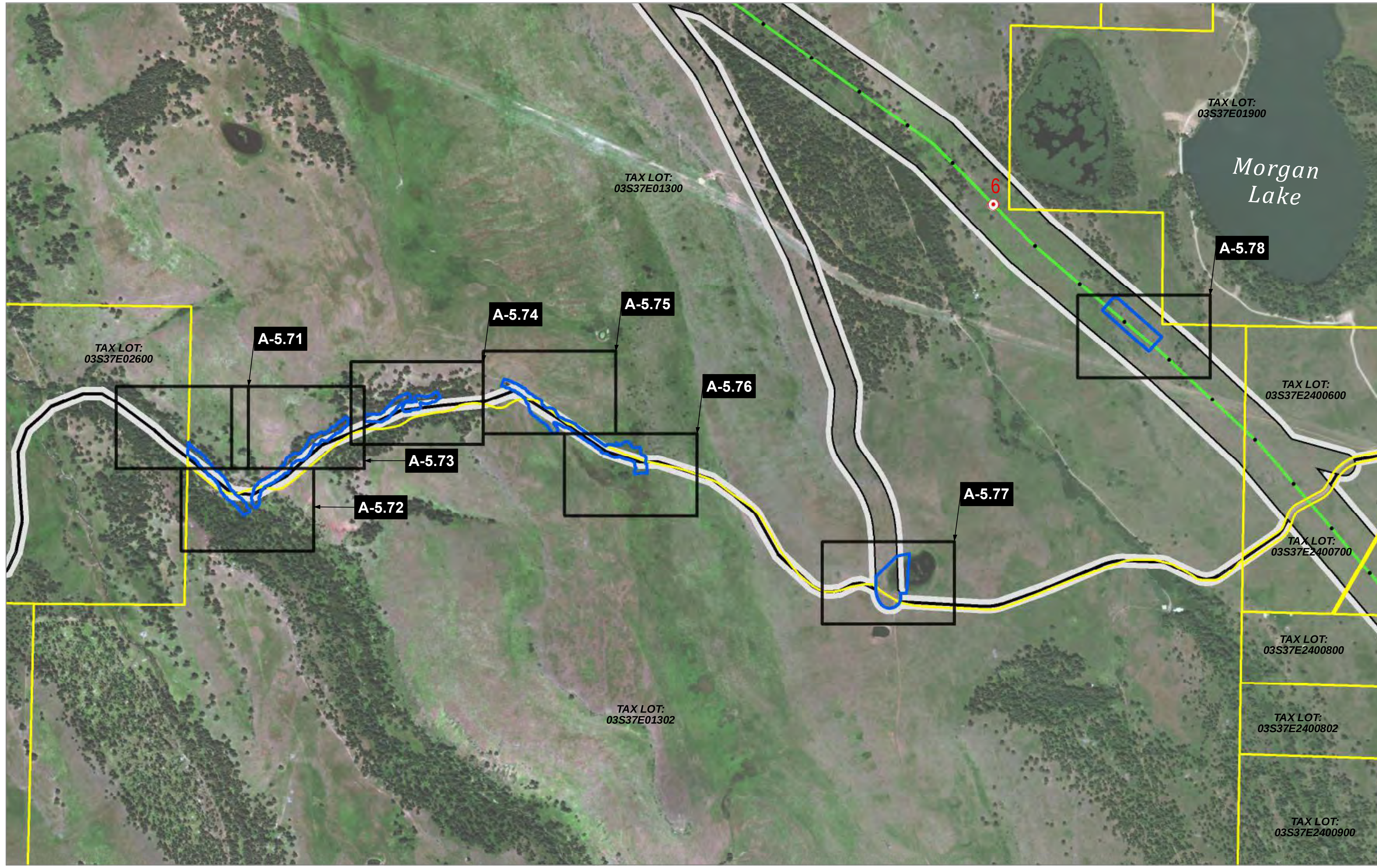
Miles





0 1,000
Feet

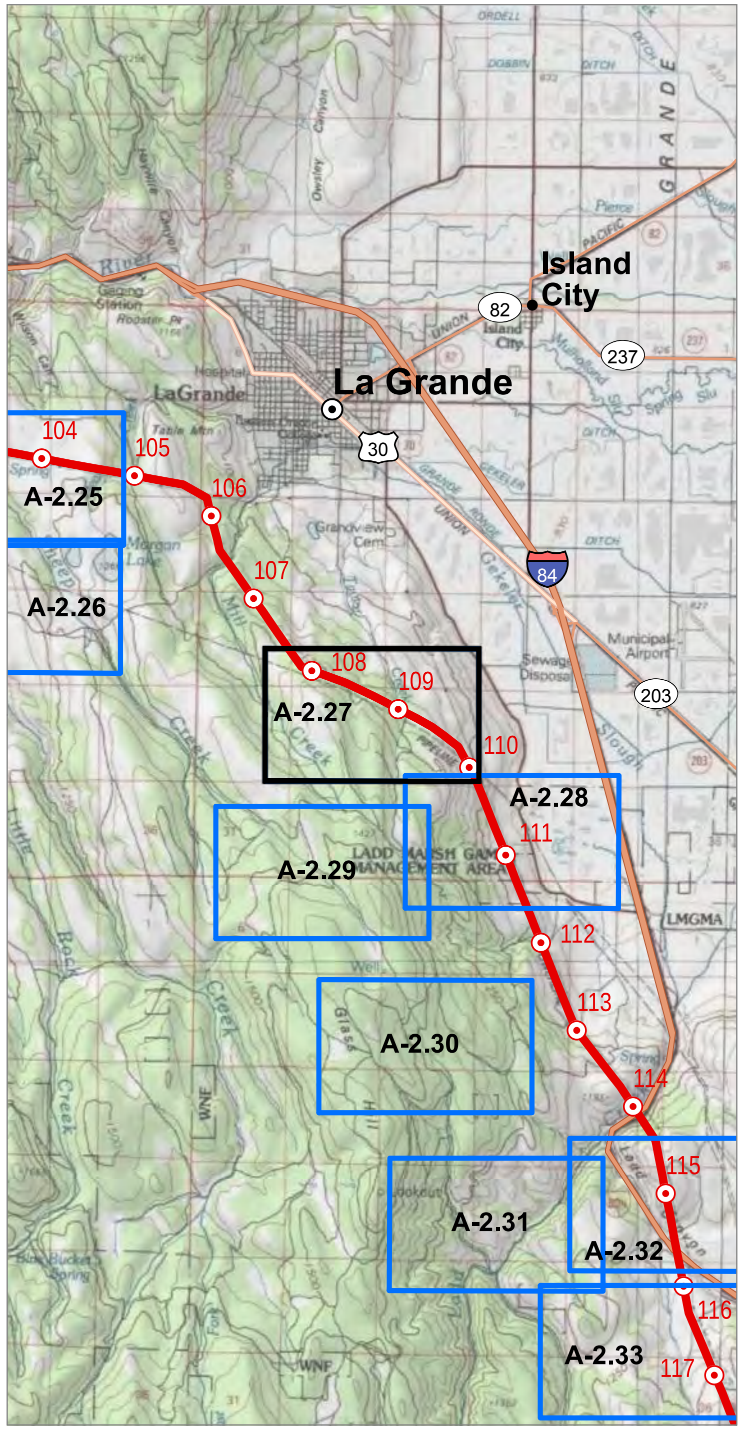
Project Features
Site Boundary
Alternative
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.26
Wetland and Other Waters Delineation Report
Tax Lots
Union County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



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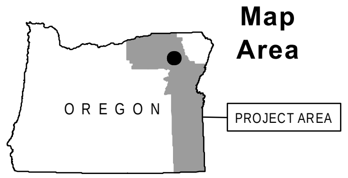
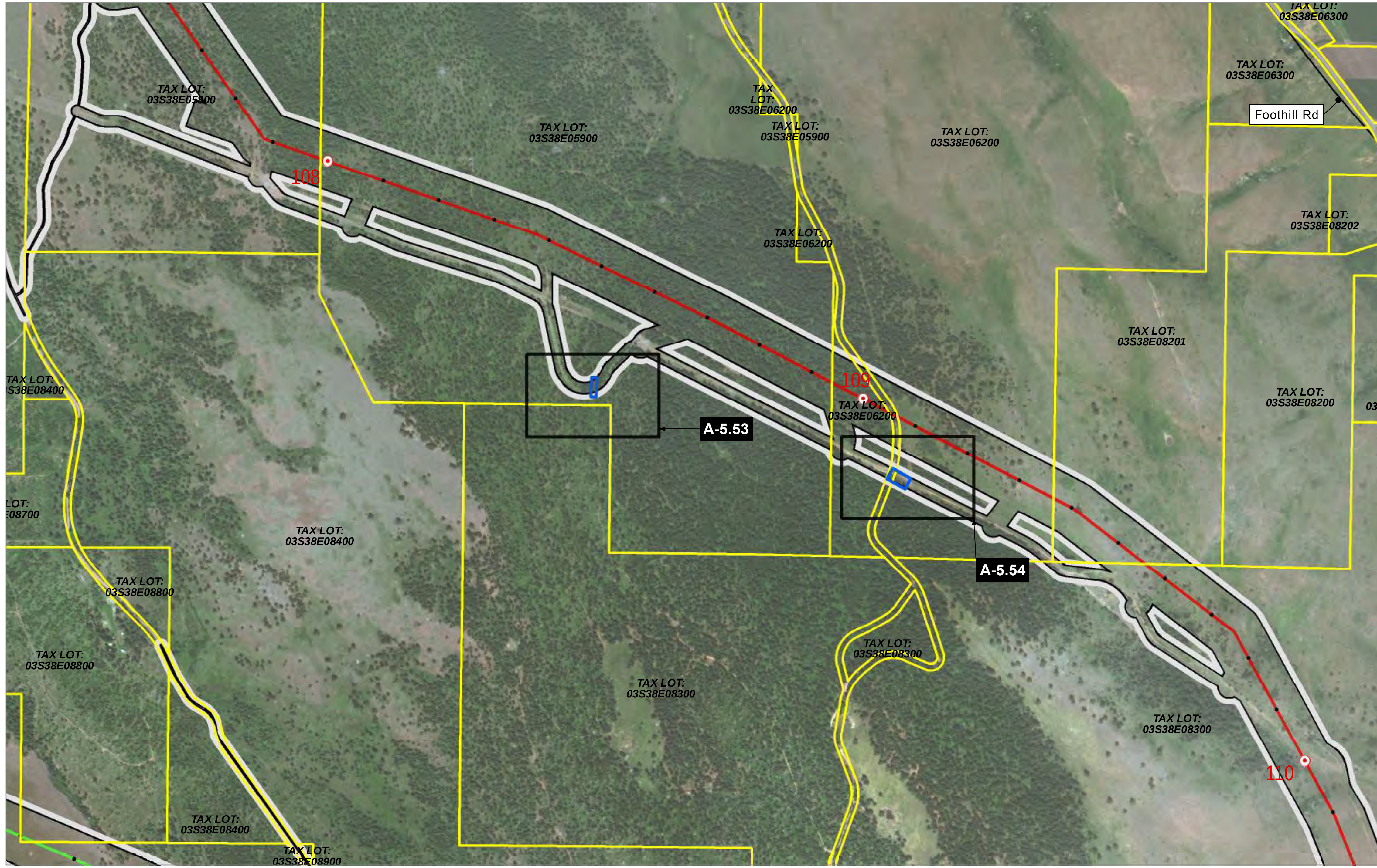


Map Area



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

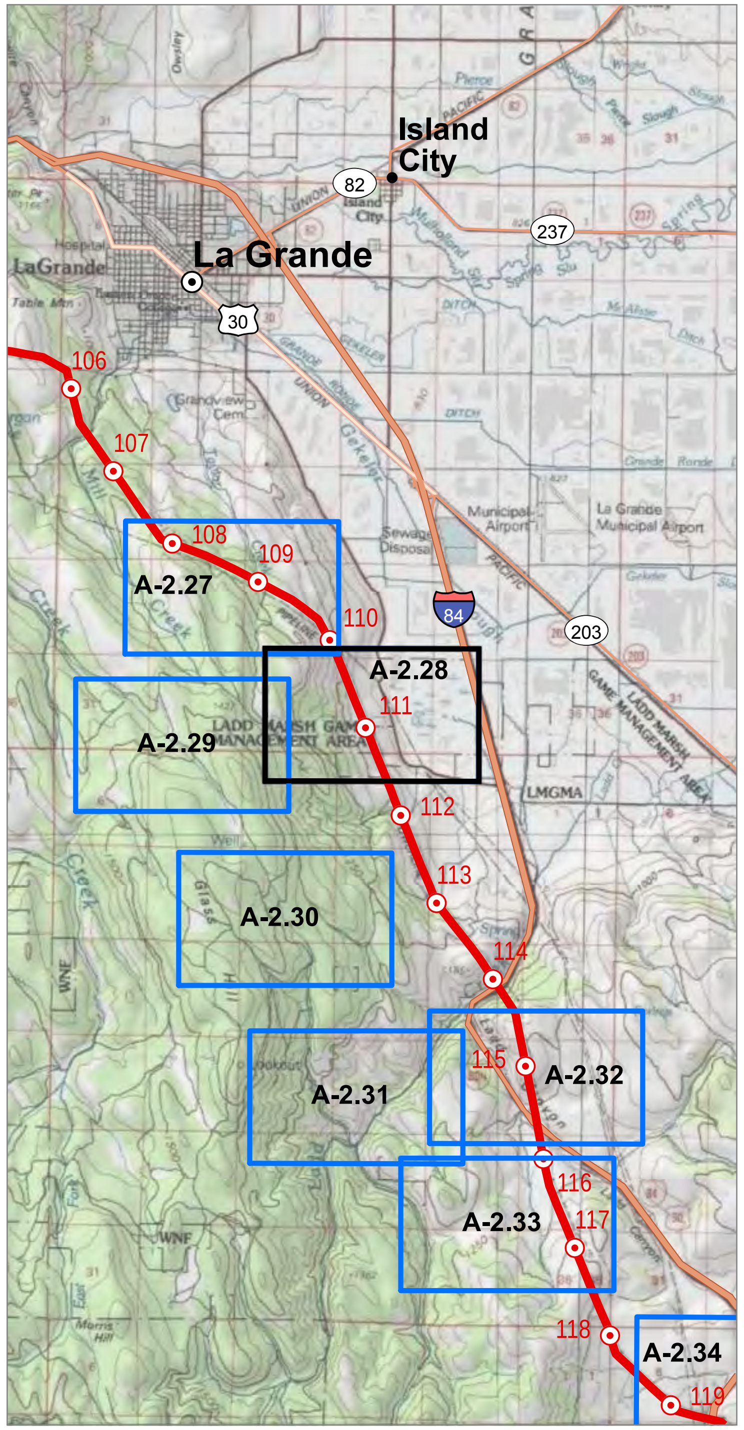
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.27

Wetland and Other Waters Delineation Report
Tax Lots
Union County



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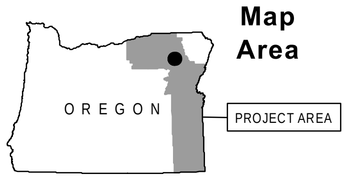
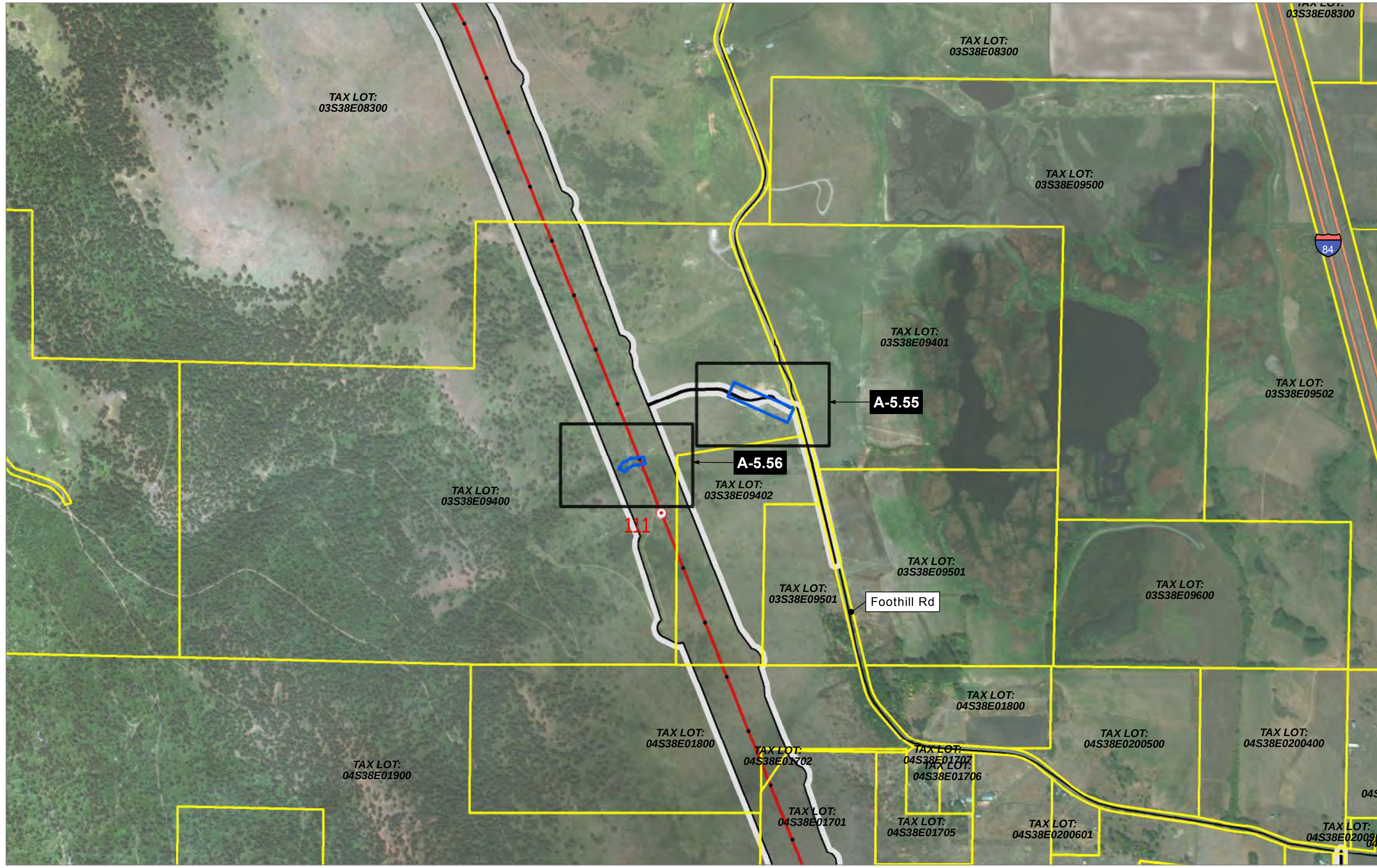


Map Area



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Tax Lot Parcel

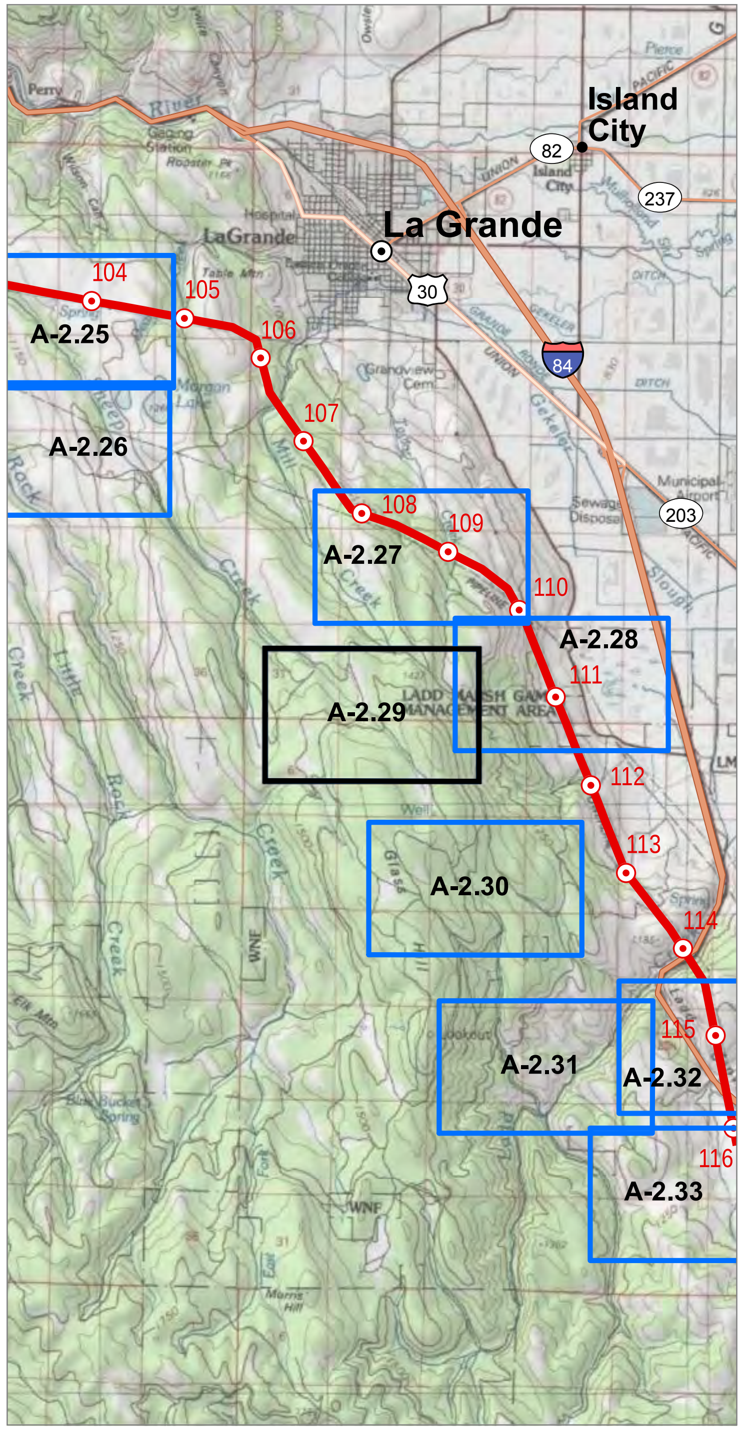
IDAHO POWER
An IDACORP Company

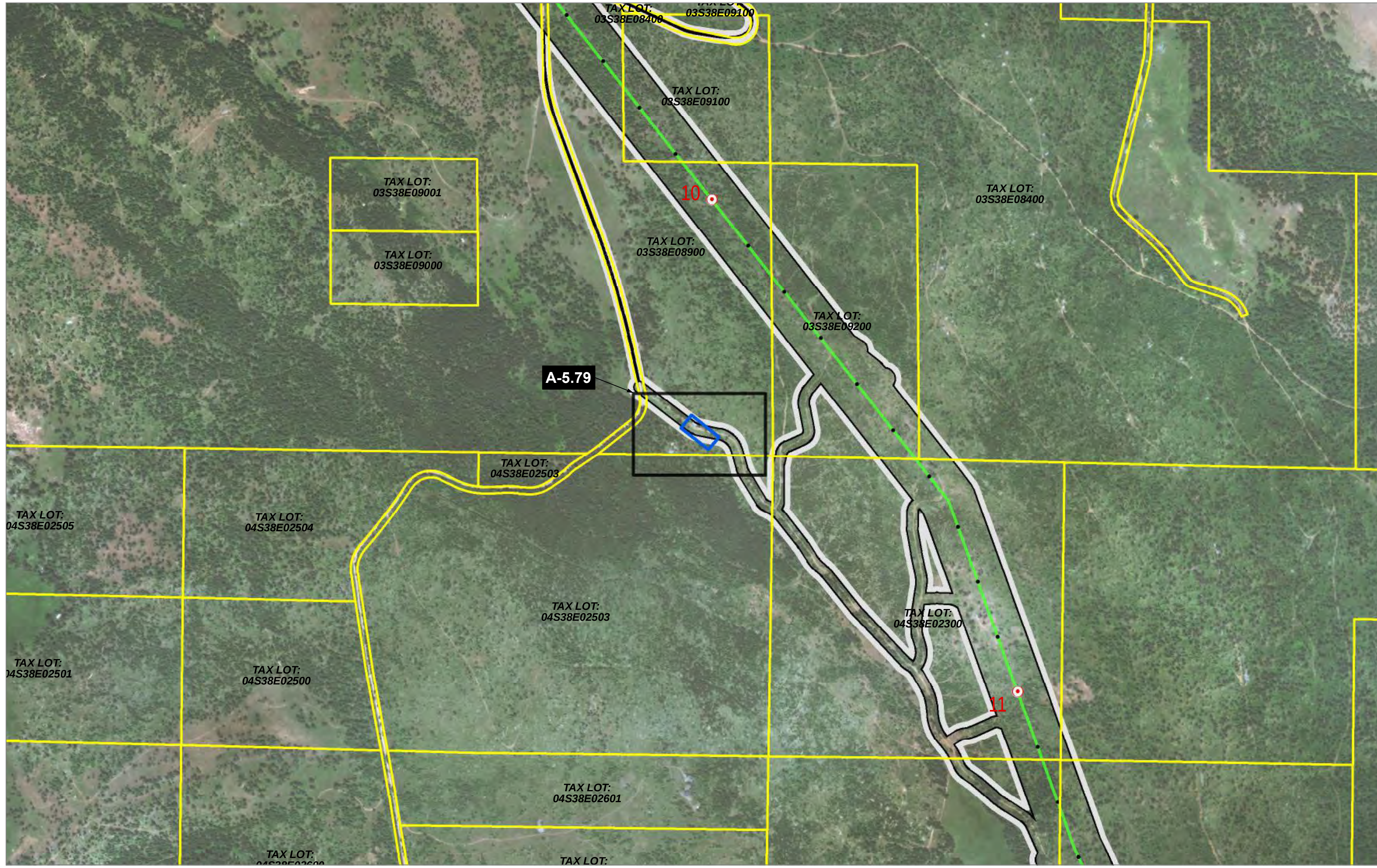
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.28
Wetland and Other Waters
Delineation Report
Tax Lots
Union County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





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Miles

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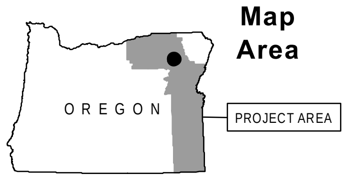


Map Area

0 1,000
Feet

Project Features
Site Boundary
Alternative
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

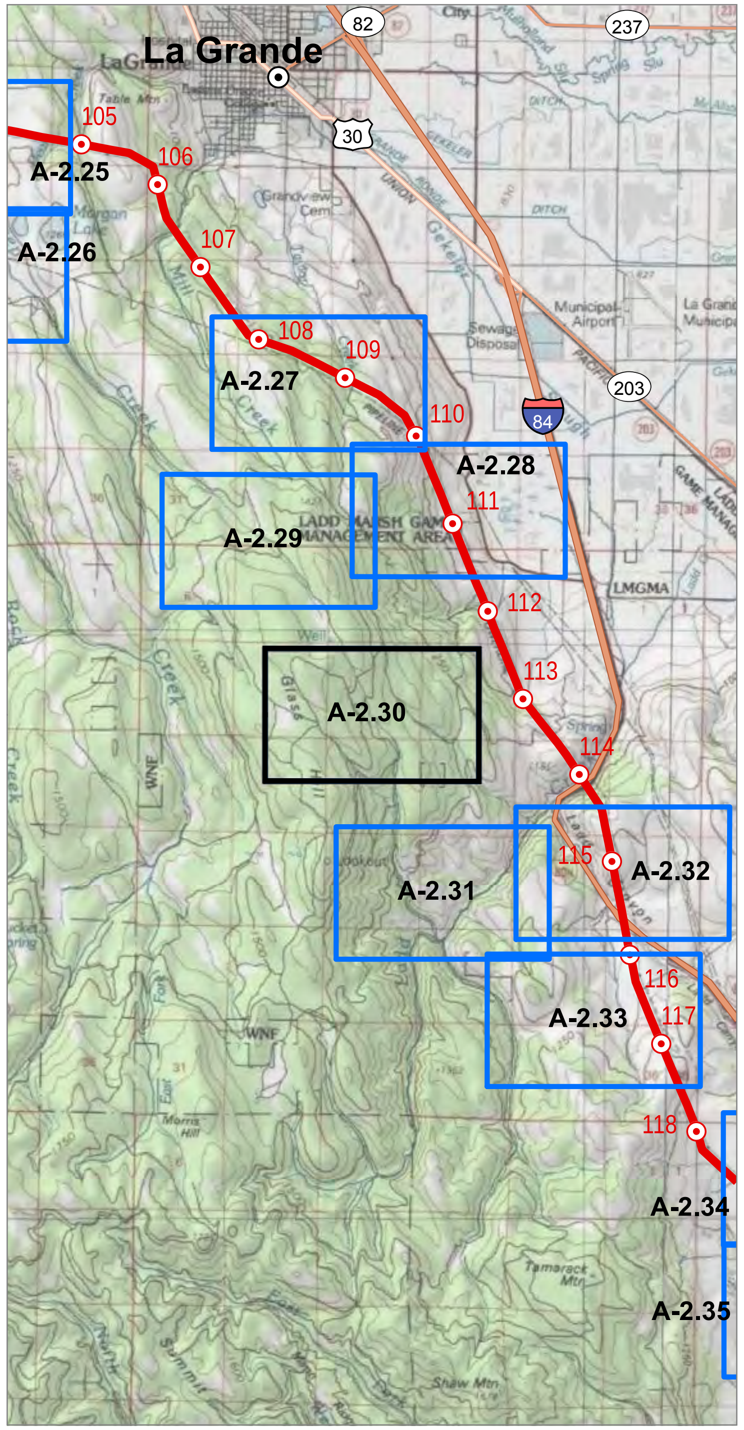
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

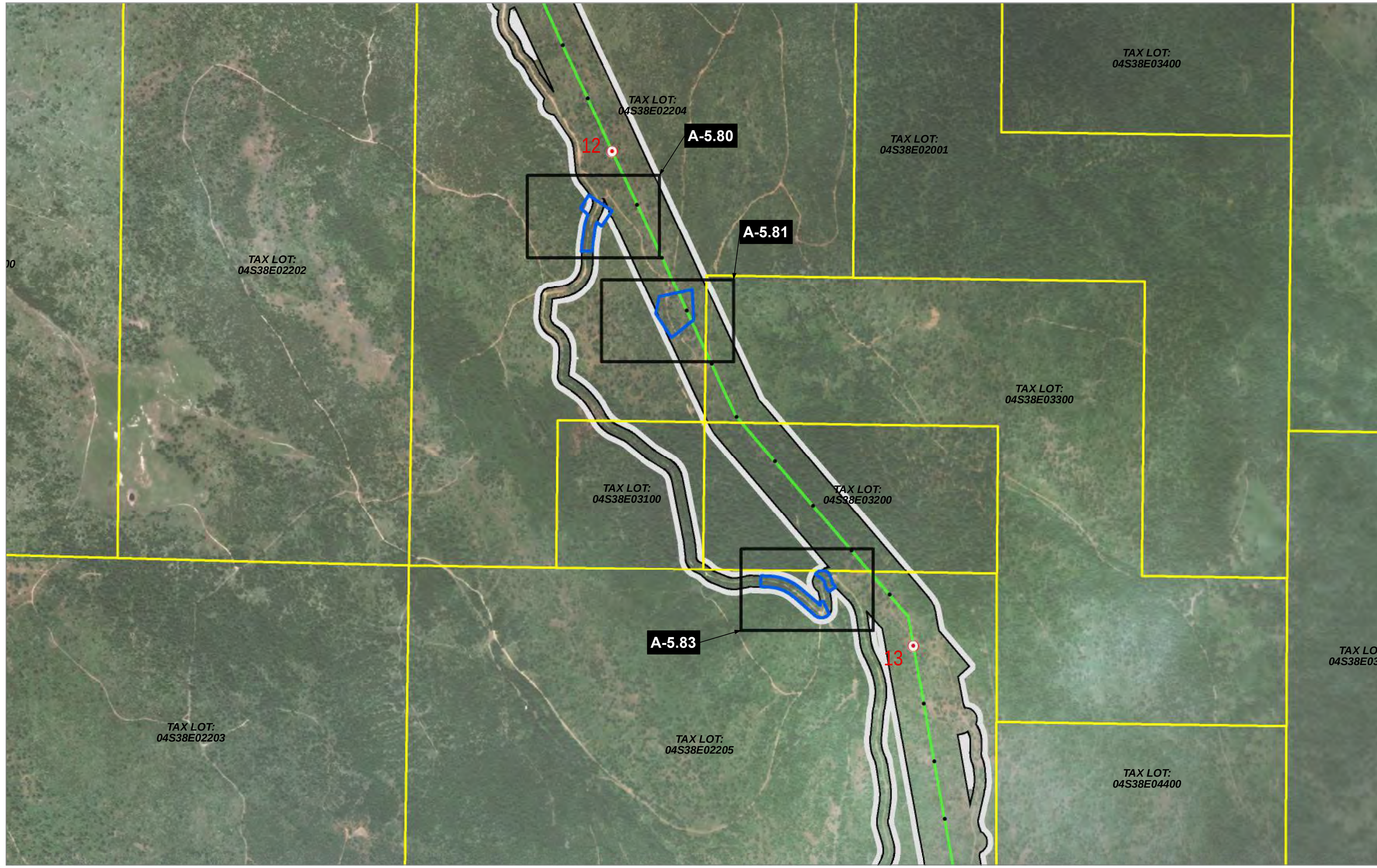
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.29
Wetland and Other Waters Delineation Report
Tax Lots
Union County





0 2
Miles

Map Area
OREGON
PROJECT AREA

0 1,000
Feet

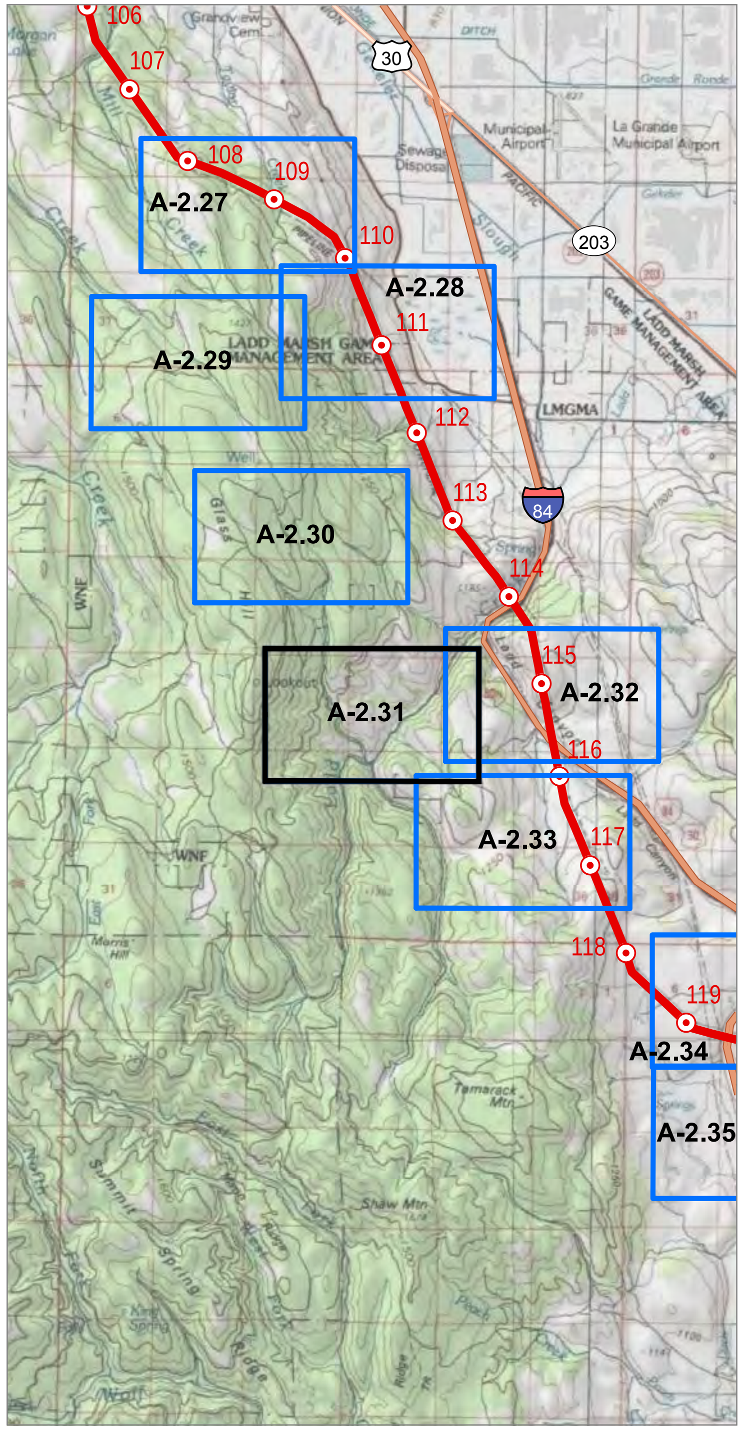
Project Features
Site Boundary
Alternative
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

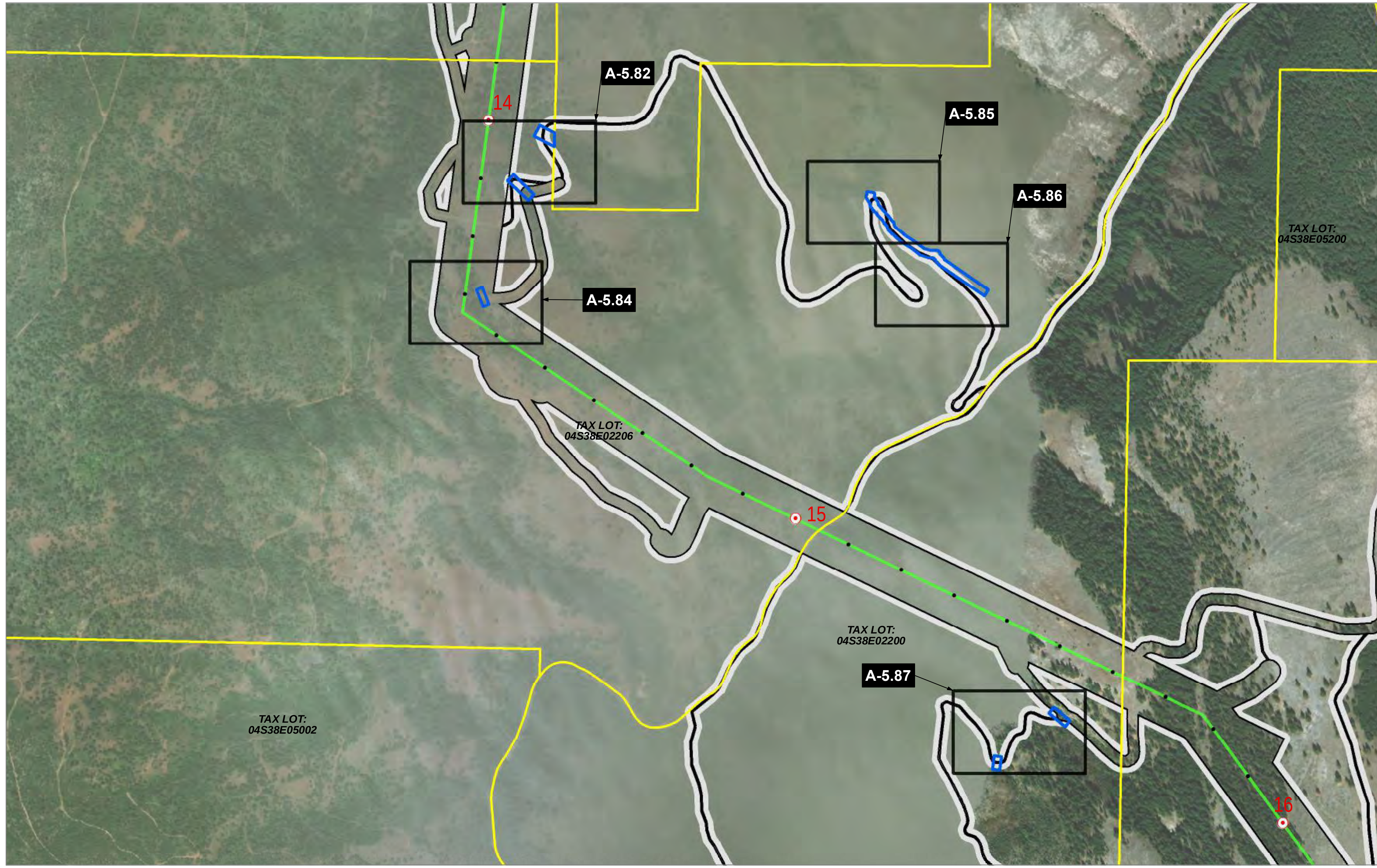
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.30
Wetland and Other Waters Delineation Report
Tax Lots
Union County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





Map Area

OREGON

PROJECT AREA

Project Features

Site Boundary

Alternative

Mileposts

Mile

Tenth-mile

Index Map Extent

Study Area

Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

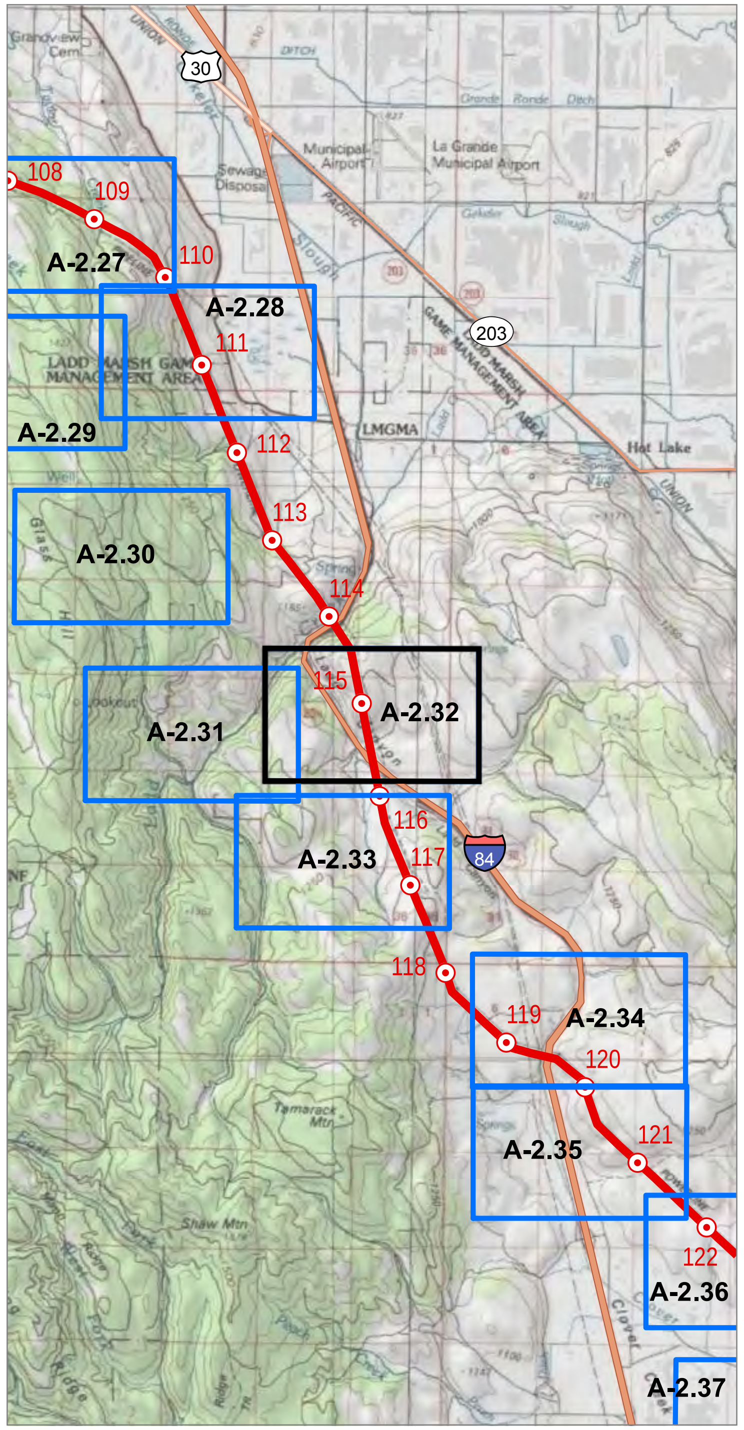
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

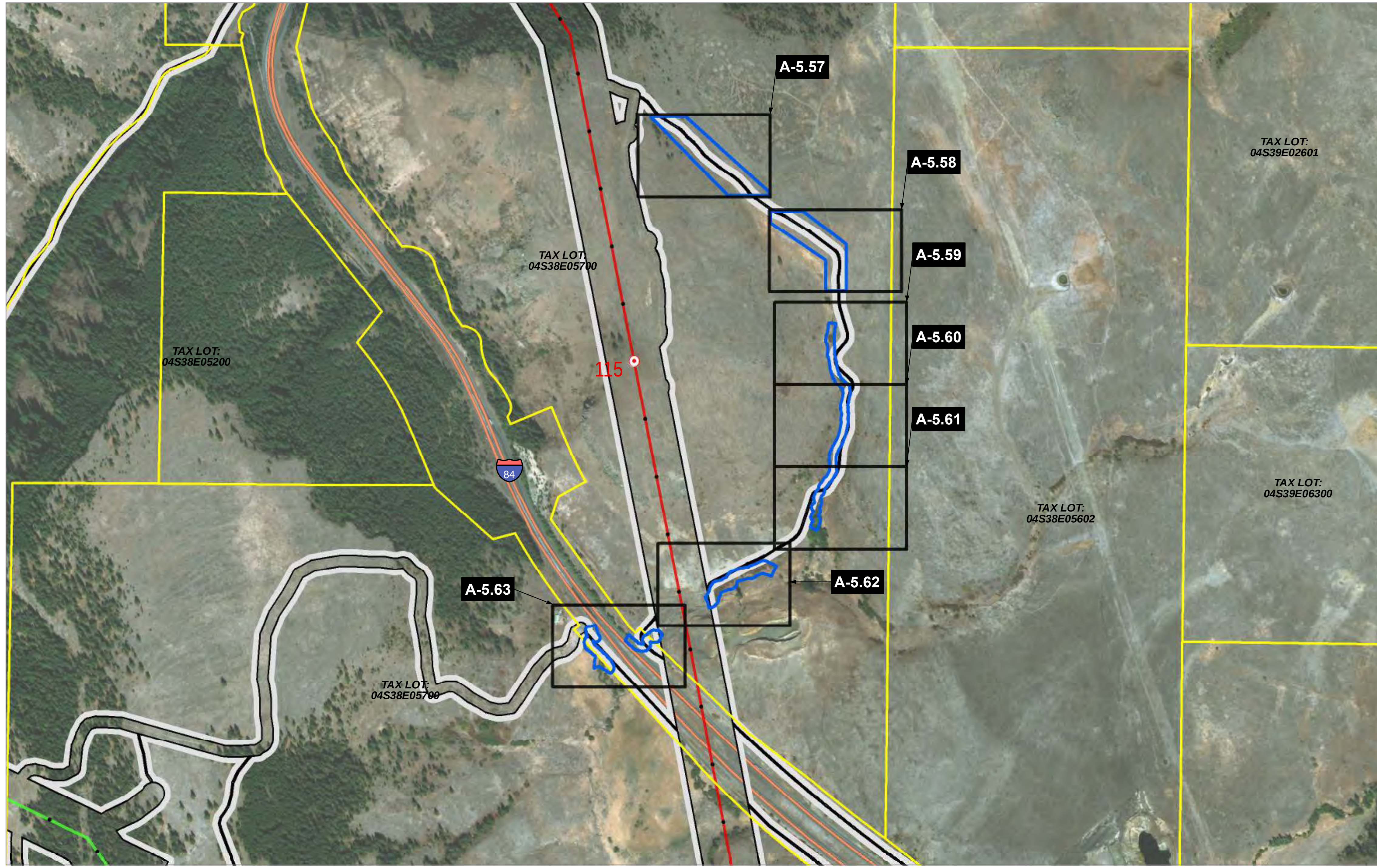
Figure A-2.31

Wetland and Other Waters Delineation Report

Tax Lots

Union County





0 2
Miles

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Tax Lot Parcel

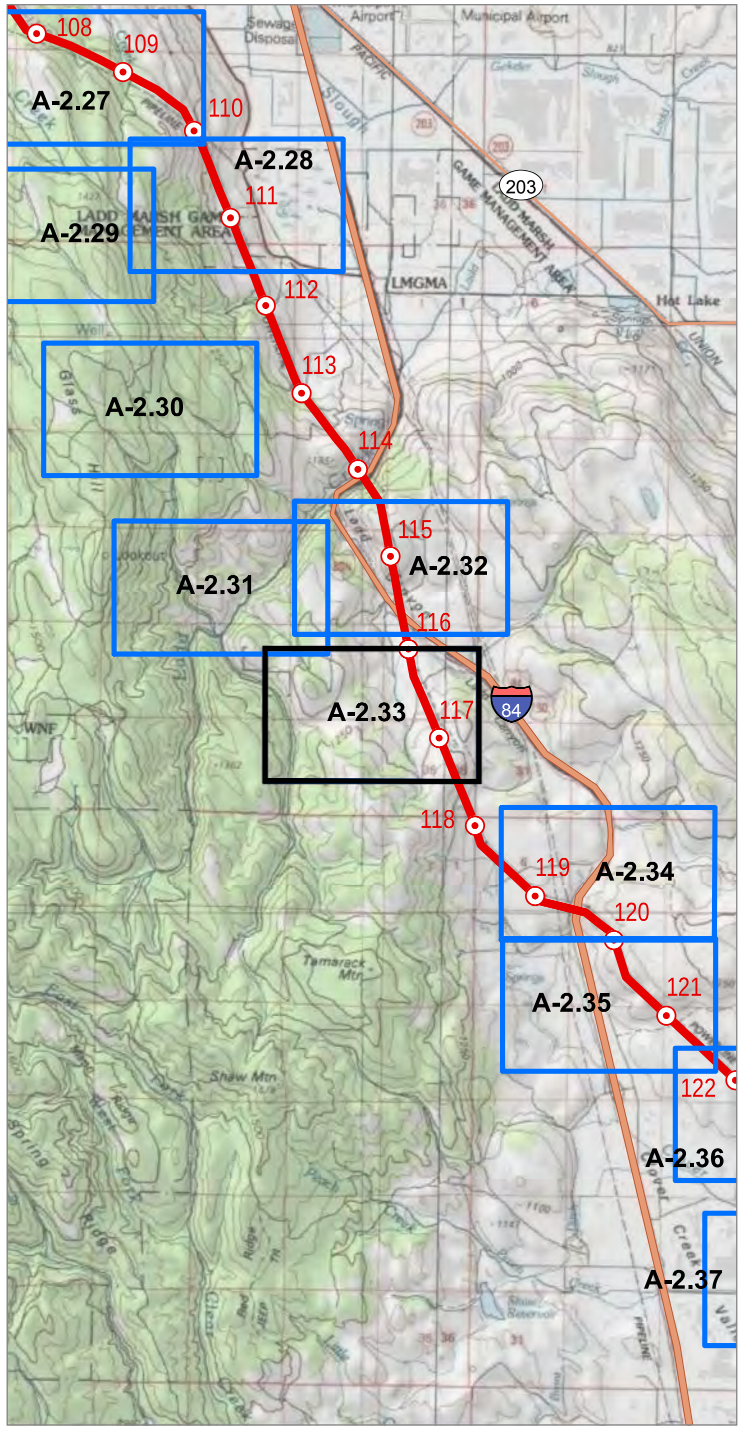
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

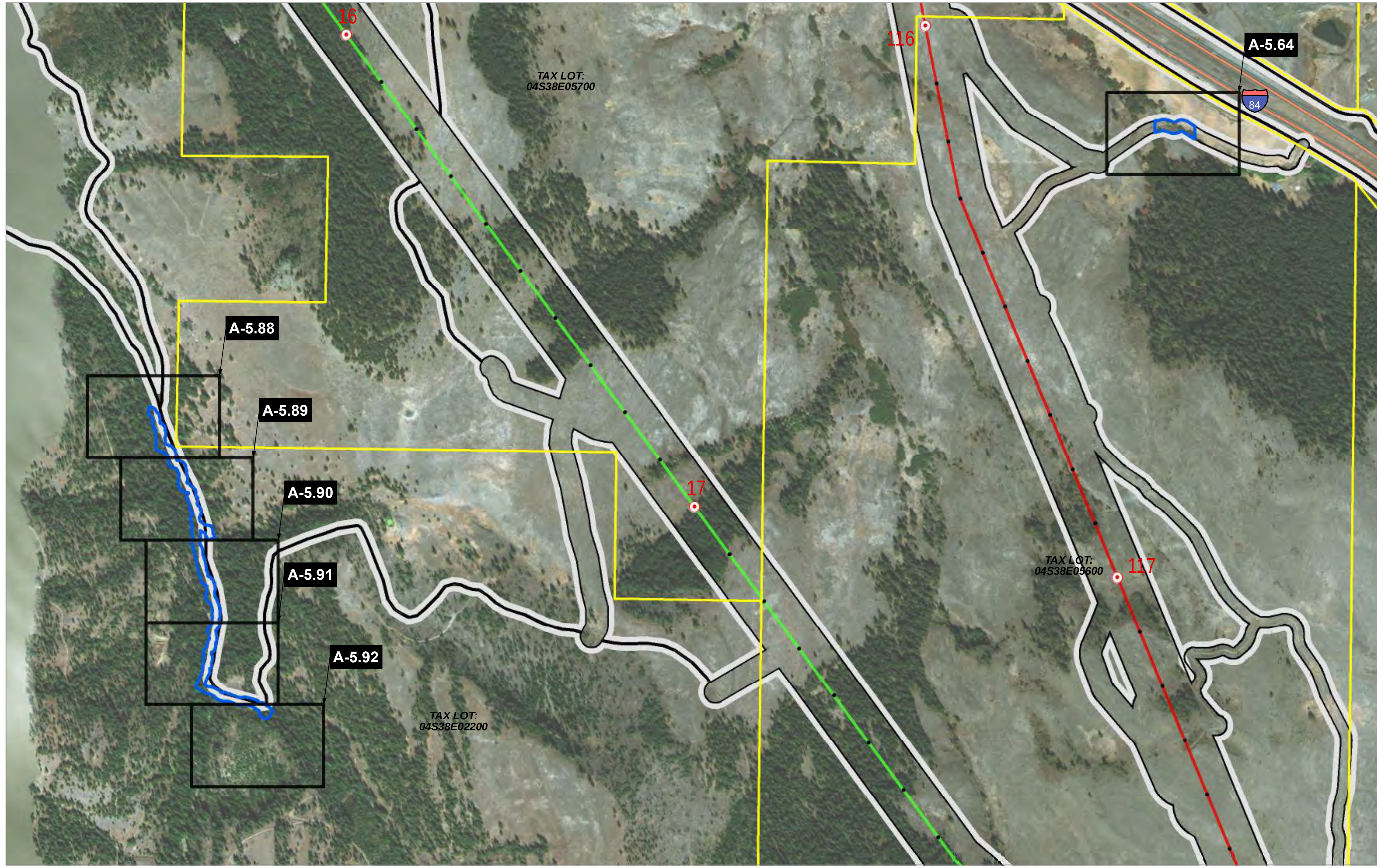
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.32

Wetland and Other Waters Delineation Report
Tax Lots
Union County





0 2
Miles

Map Area

OREGON

PROJECT AREA

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

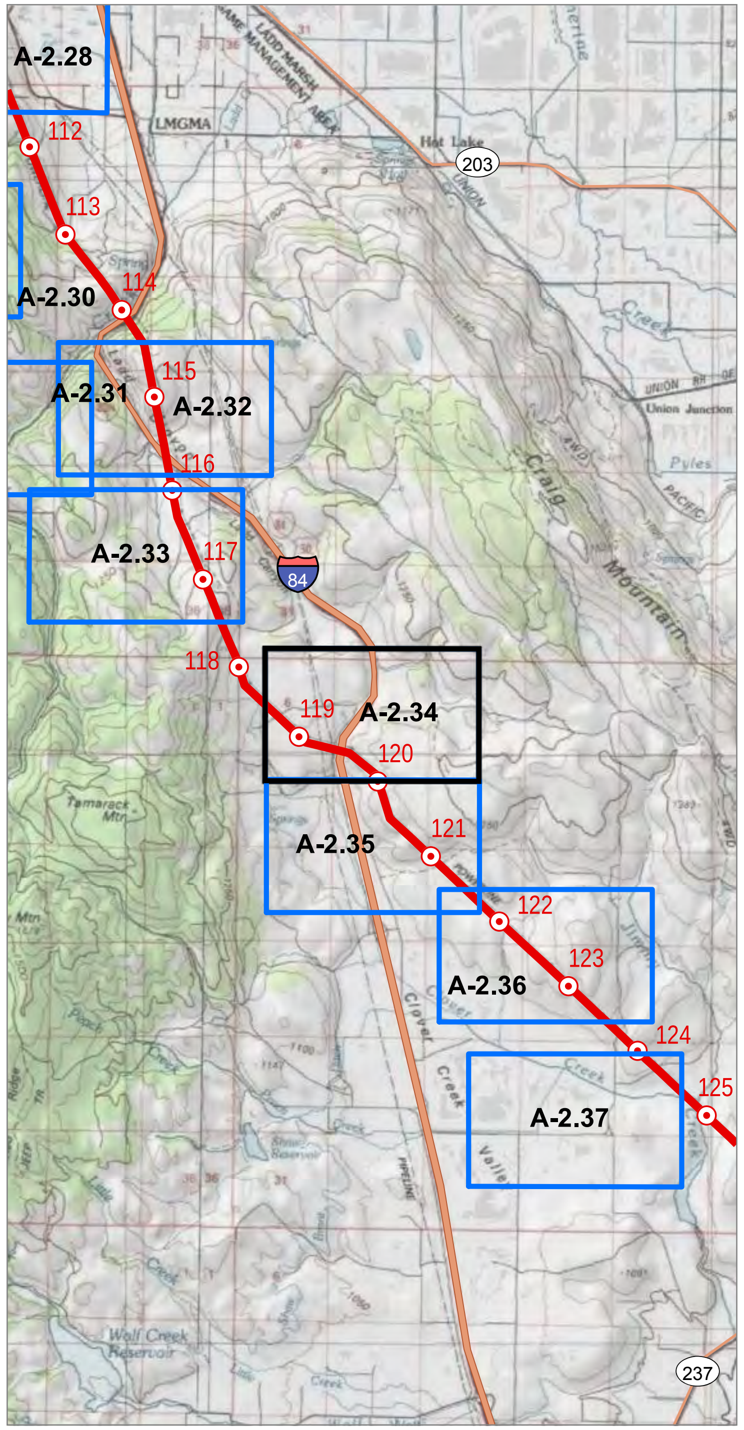
Other Features
- Interstates or Highways
- Tax Lot Parcel

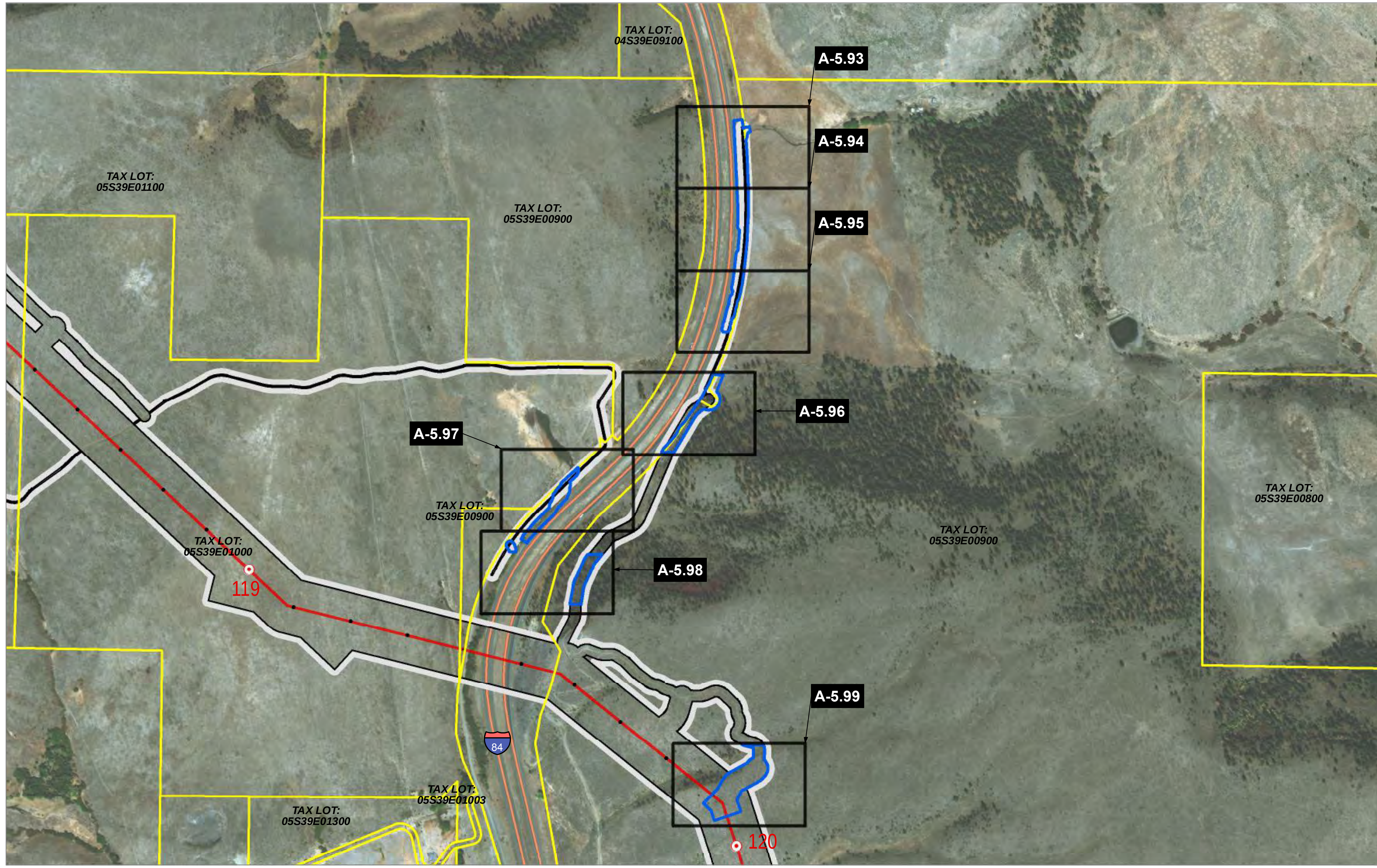
IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.33

Wetland and Other Waters Delineation Report
Tax Lots
Union County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area

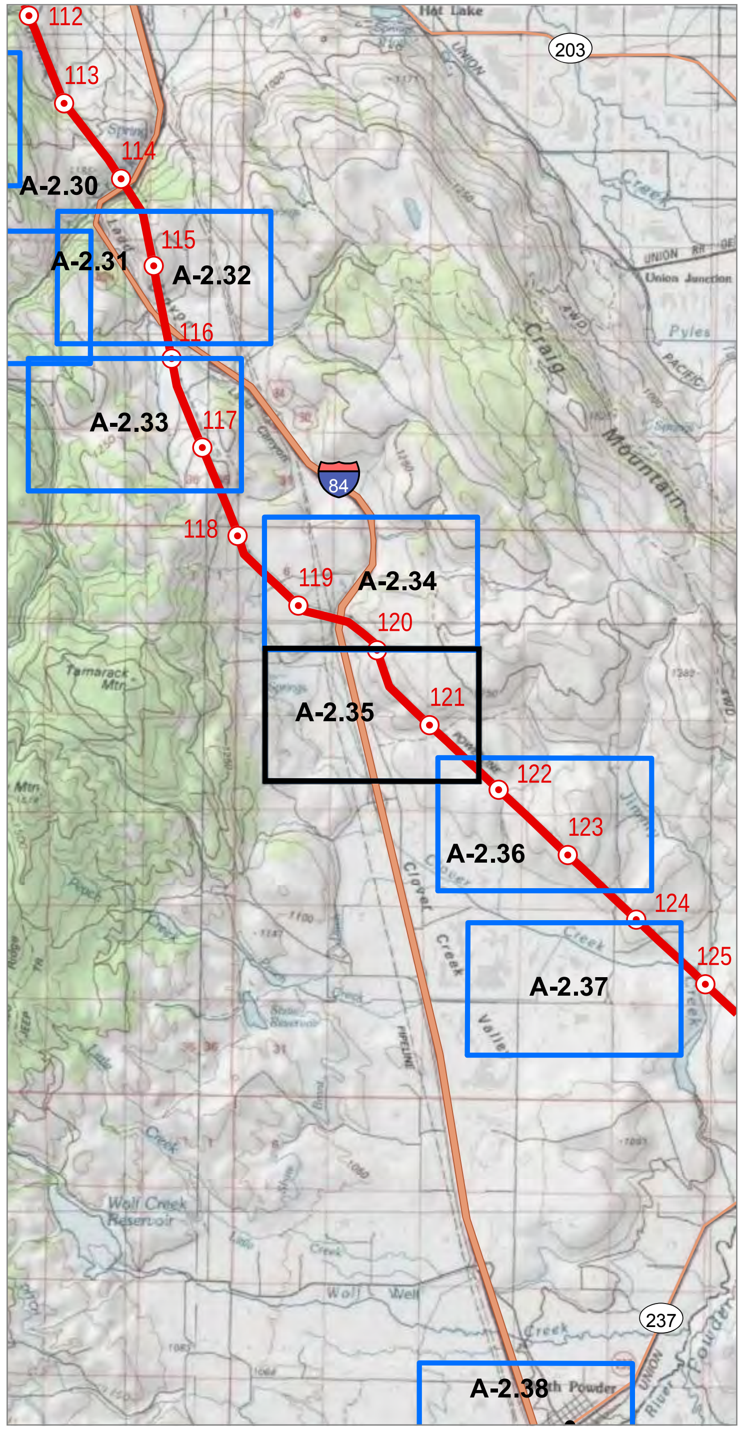
Other Features
Interstates or Highways
Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.34
Wetland and Other Waters Delineation Report
Tax Lots
Union County



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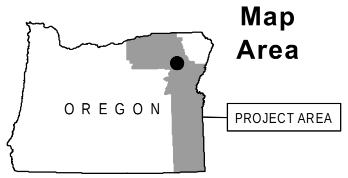
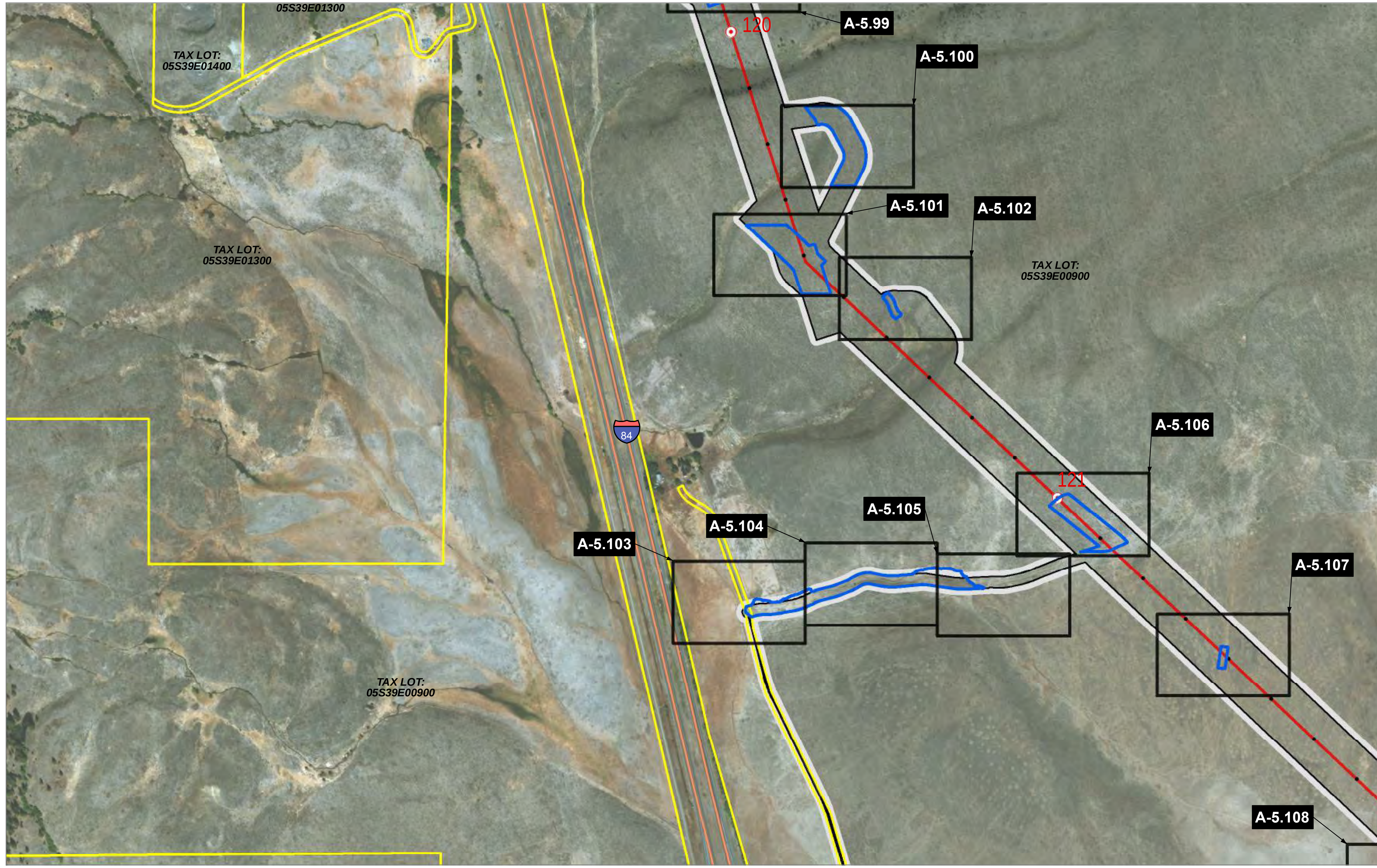
Miles



Map Area



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

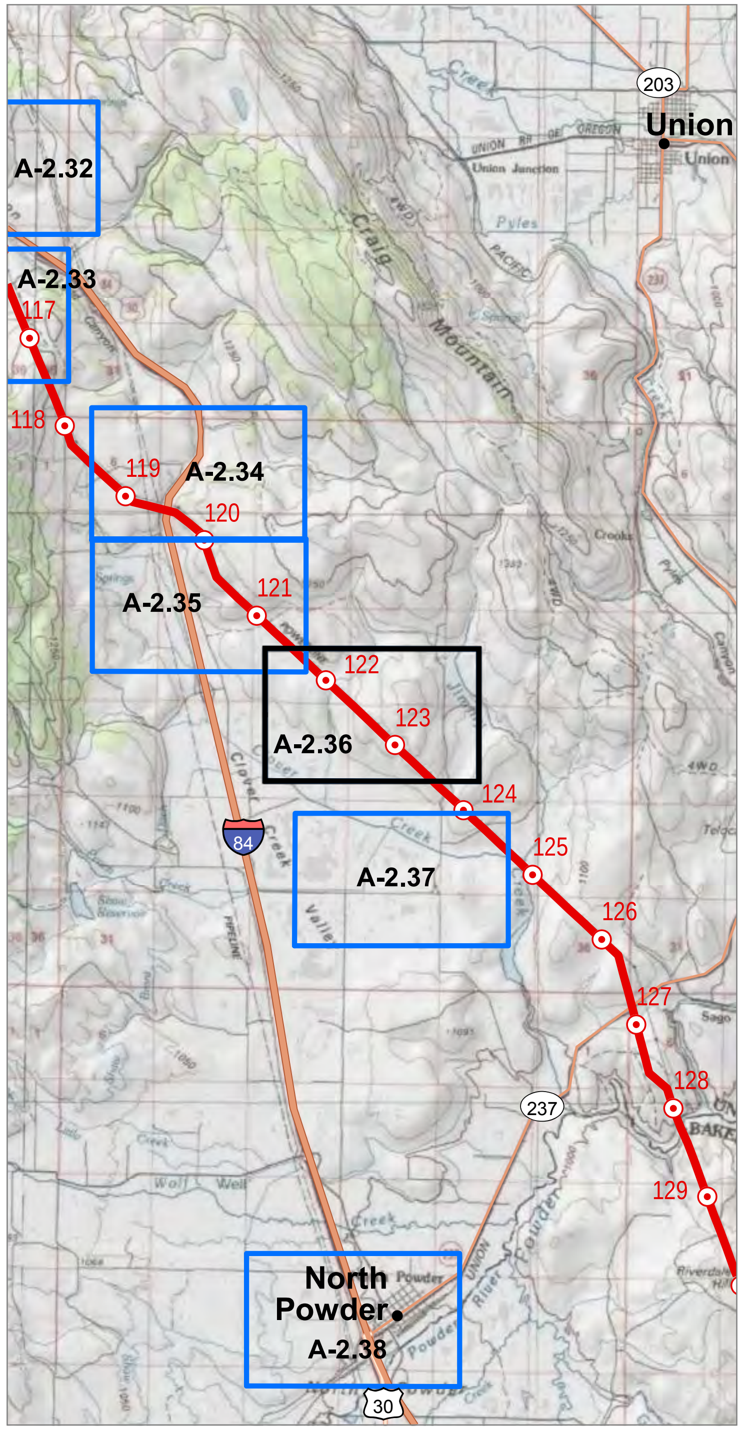
IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.35

Wetland and Other Waters Delineation Report Tax Lots

Union County

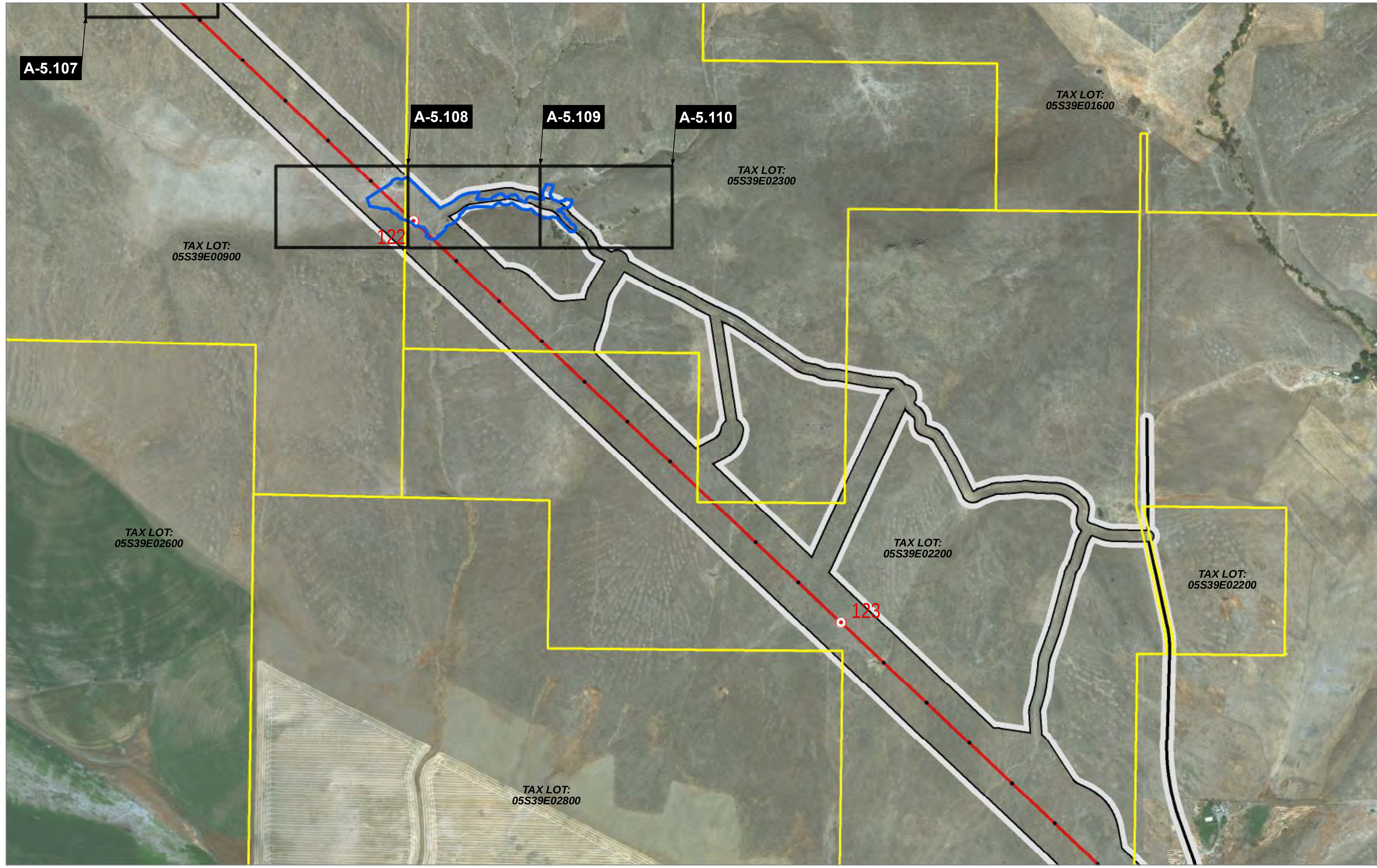


0 2
Miles

Map Area
OREGON
PROJECT AREA

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



0 1,000
Feet

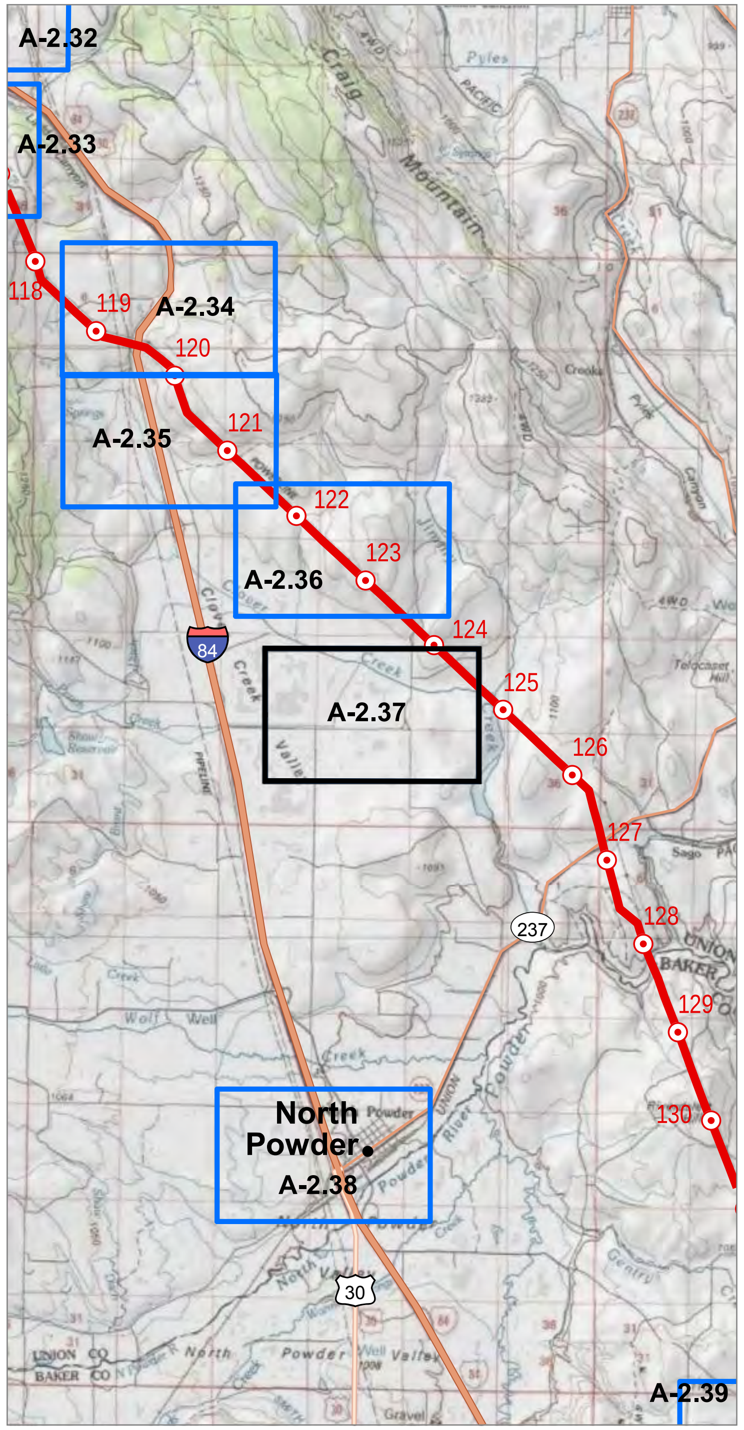
Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

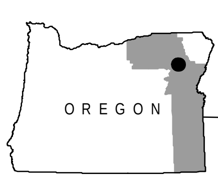
IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

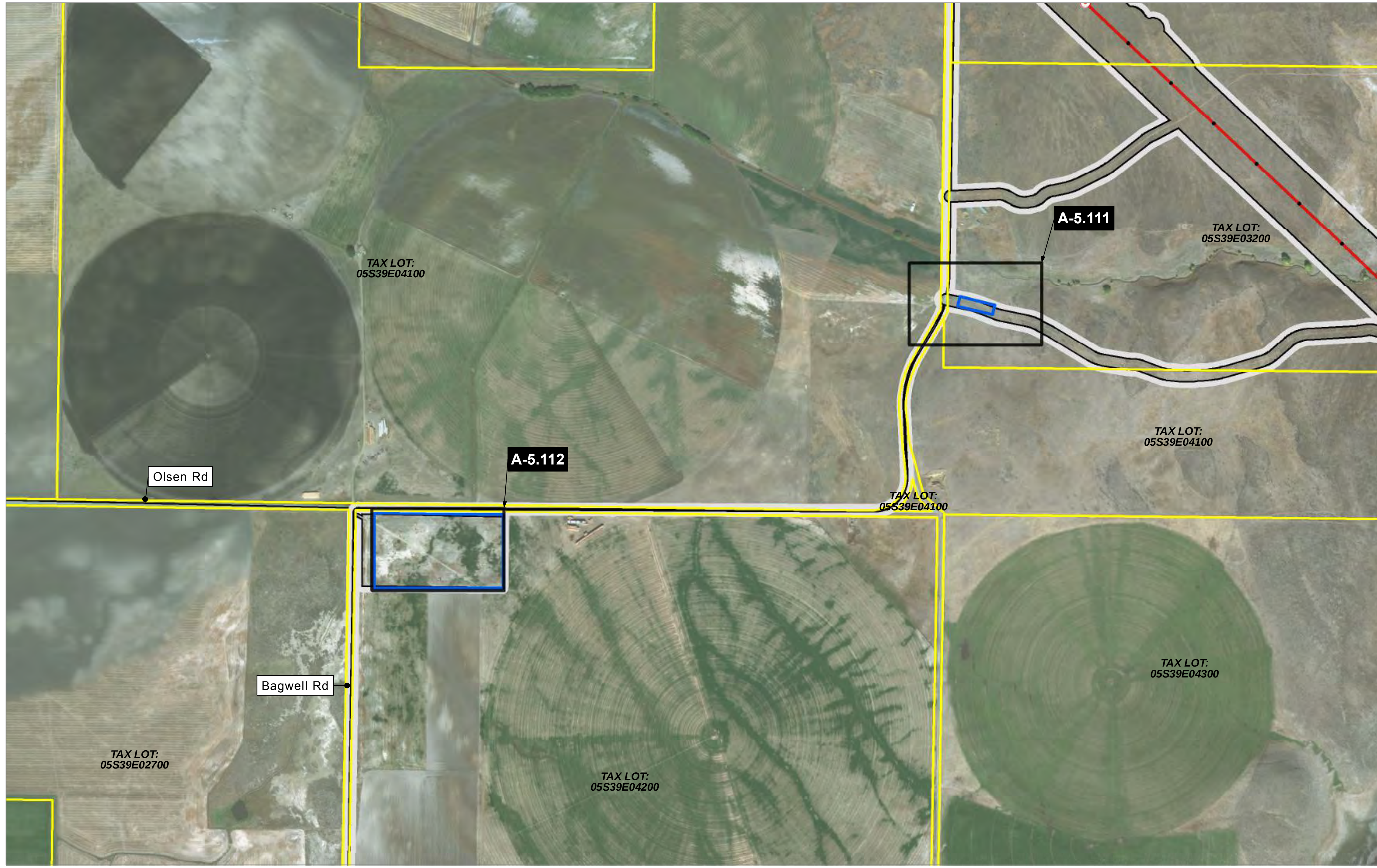
Figure A-2.36
Wetland and Other Waters Delineation Report
Tax Lots
Union County



0 2
Miles



Map Area



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

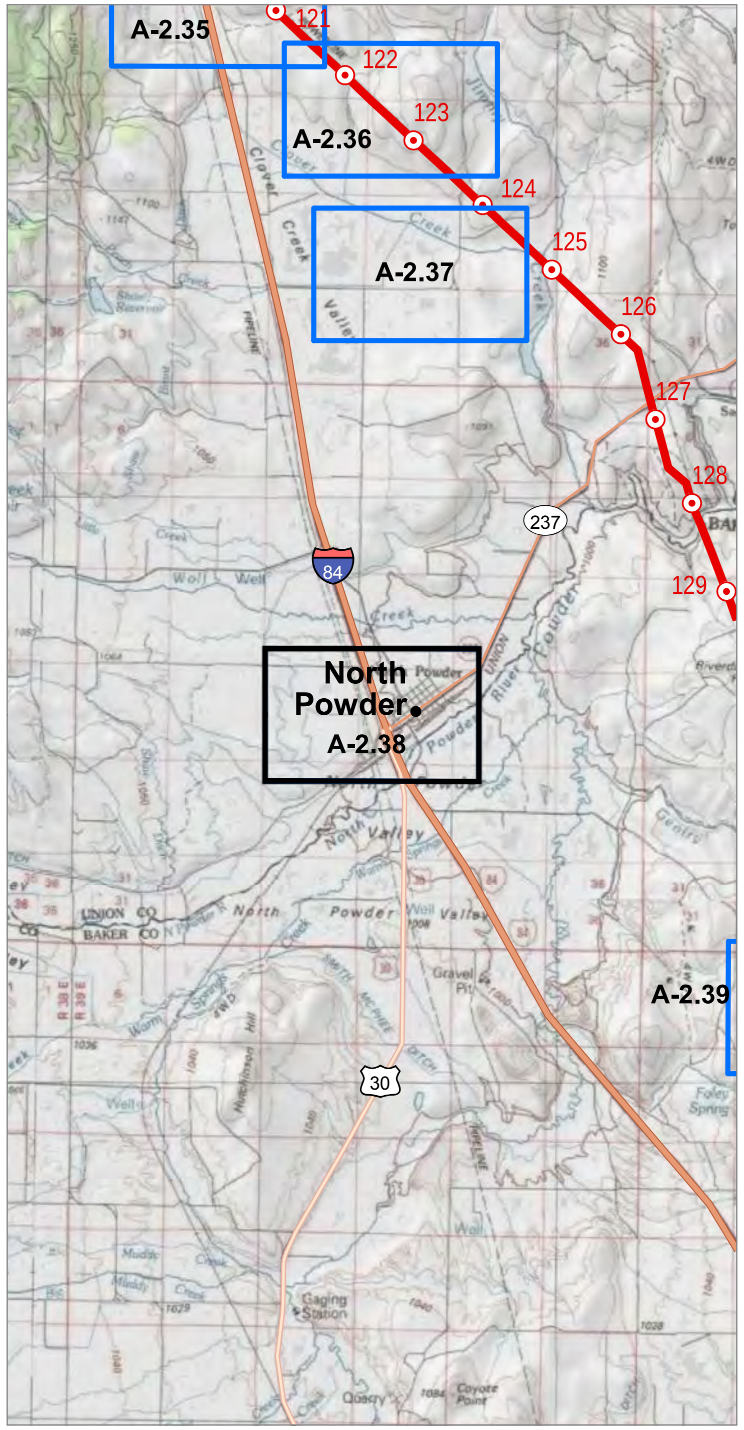
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

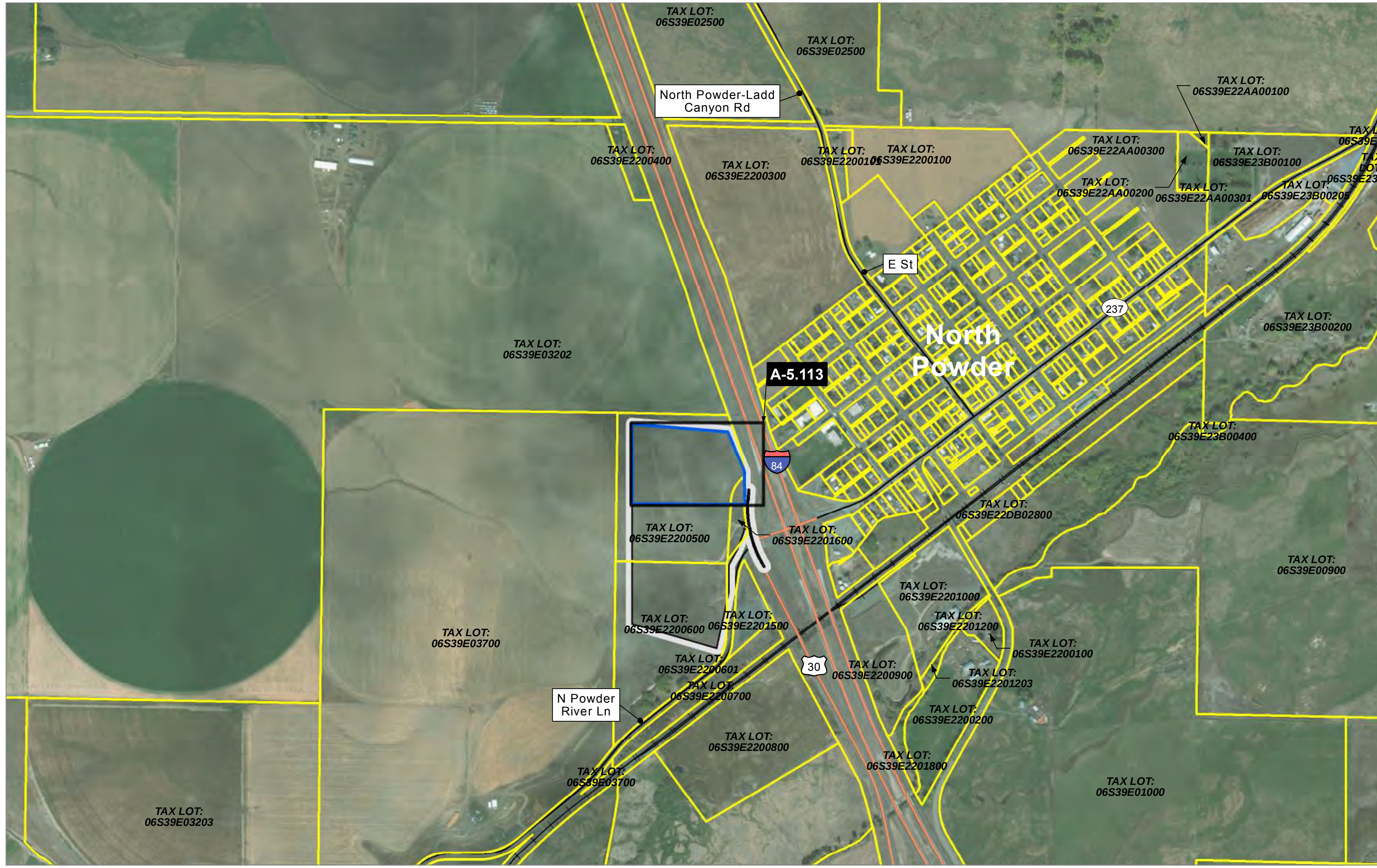
IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.37

Wetland and Other Waters Delineation Report
Tax Lots
Union County





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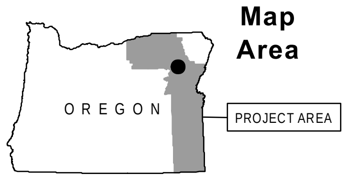
Miles



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Index Map Extent
- Study Area

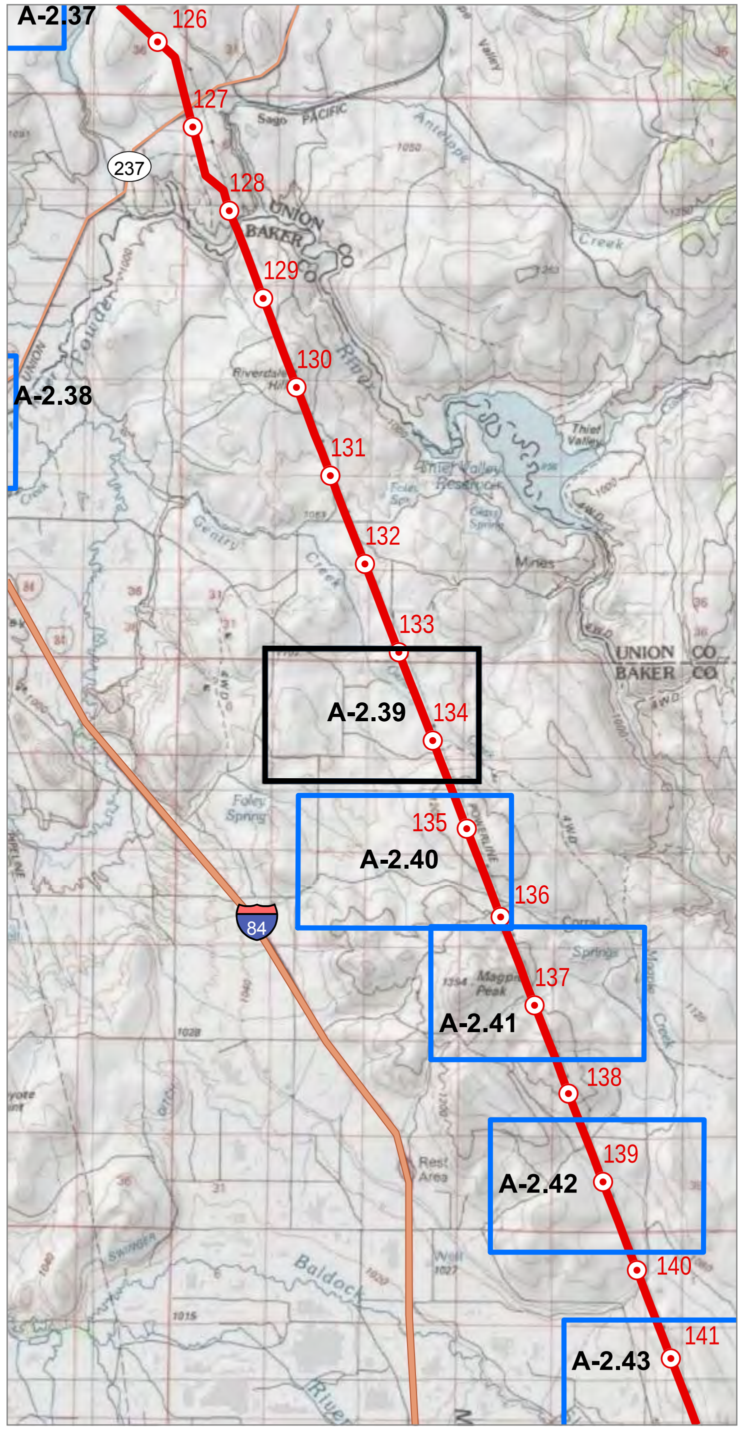
Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

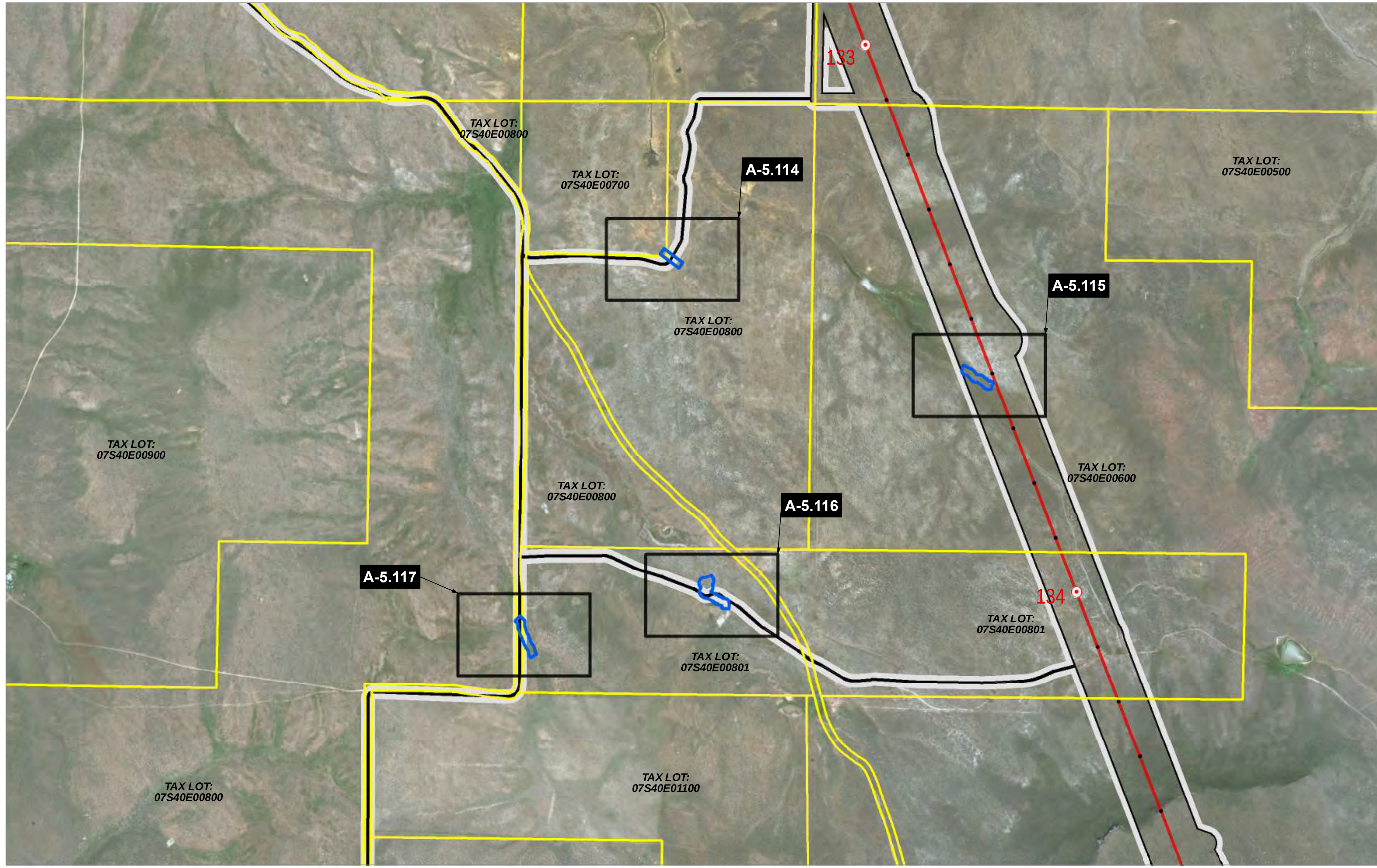
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.38
Wetland and Other Waters Delineation Report Tax Lots
Union County





0 2 Miles

Map Area

OREGON

PROJECT AREA

0 1,000 Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

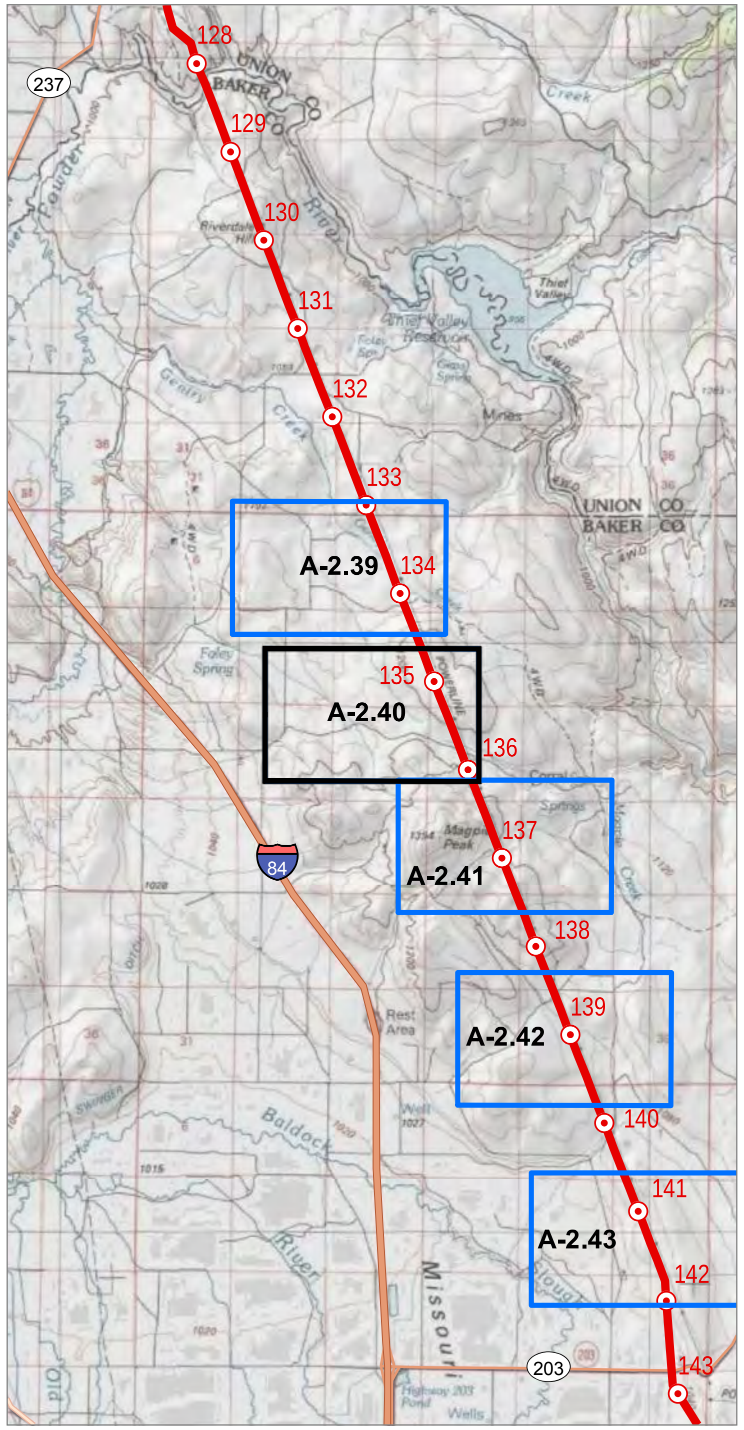
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.39

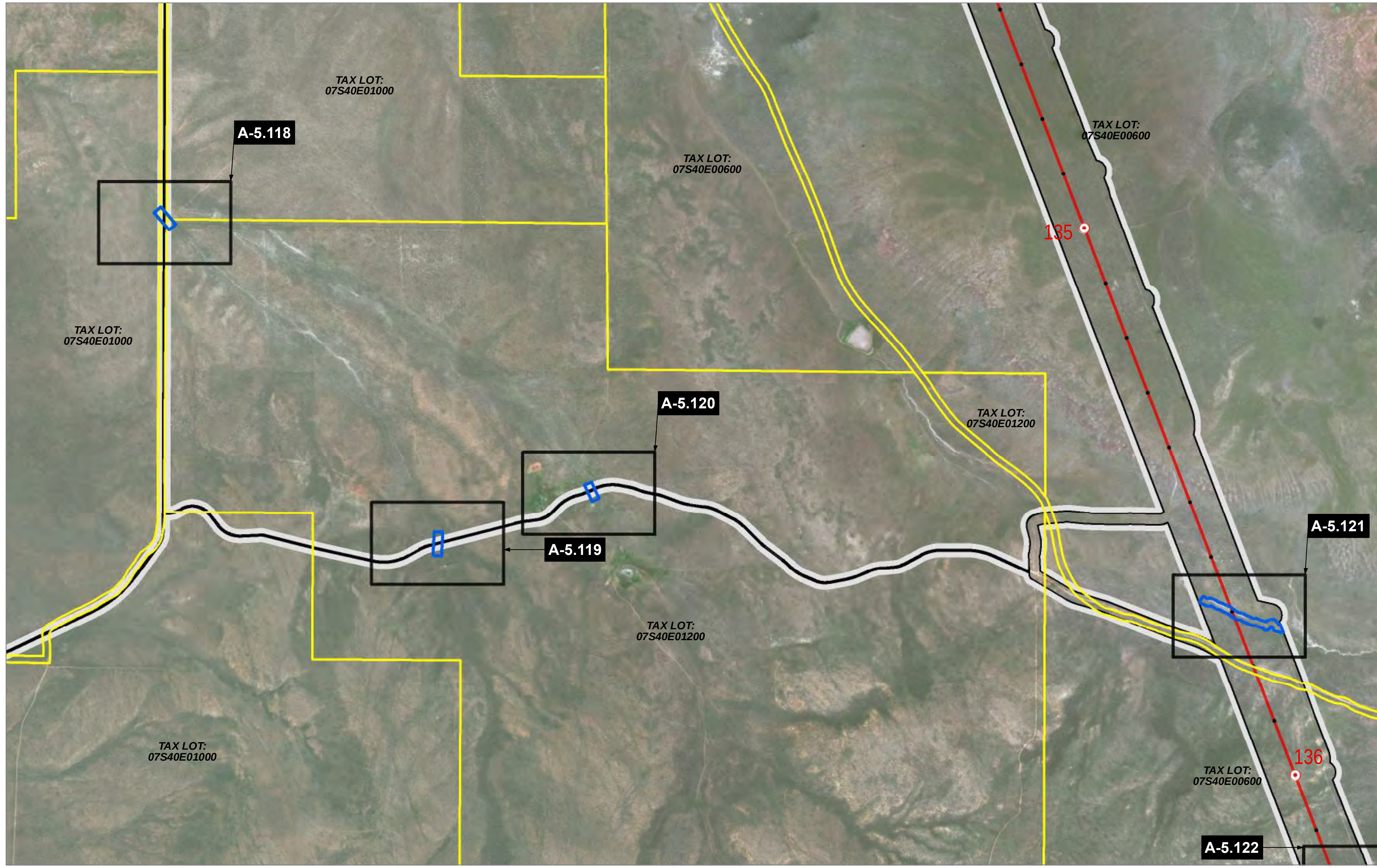
Wetland and Other Waters Delineation Report Tax Lots

Baker County



0 2
Miles

Map Area
OREGON
PROJECT AREA



0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

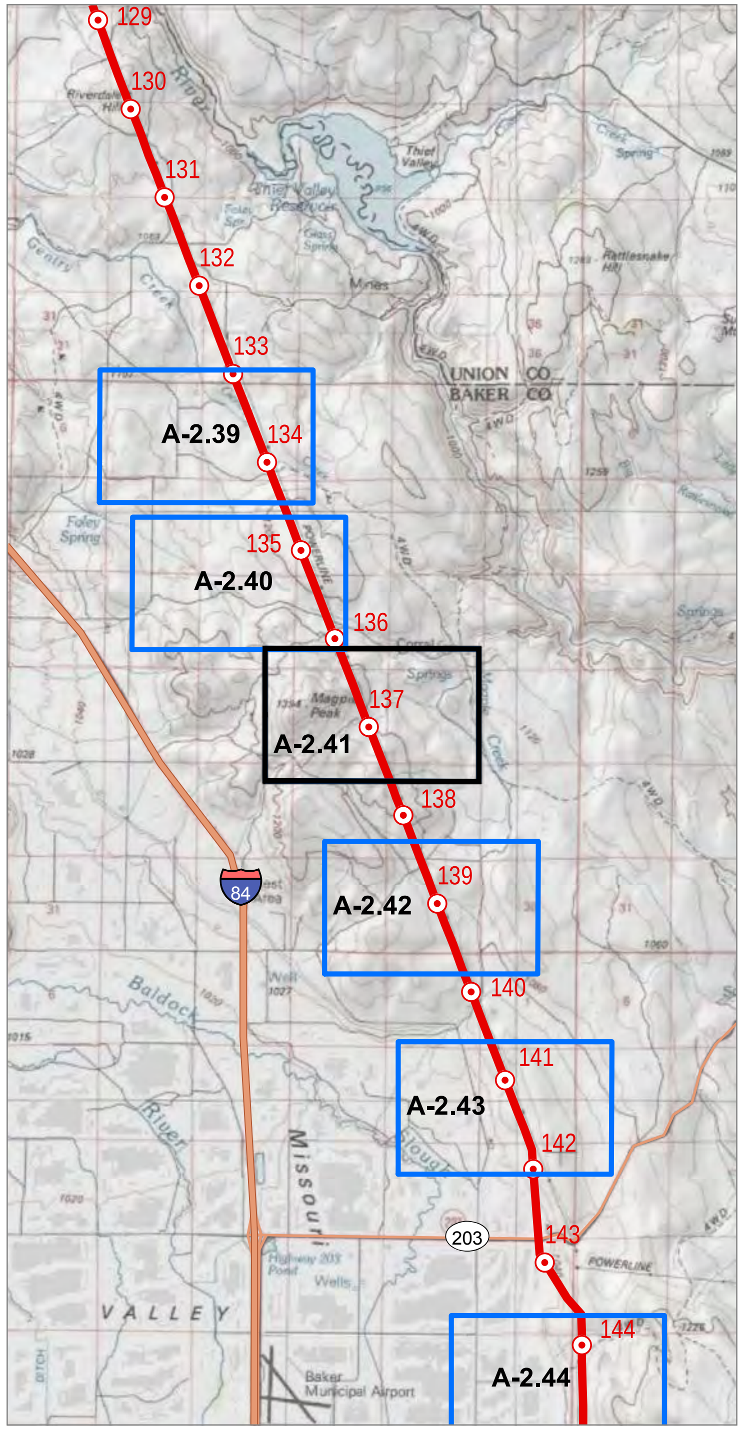
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

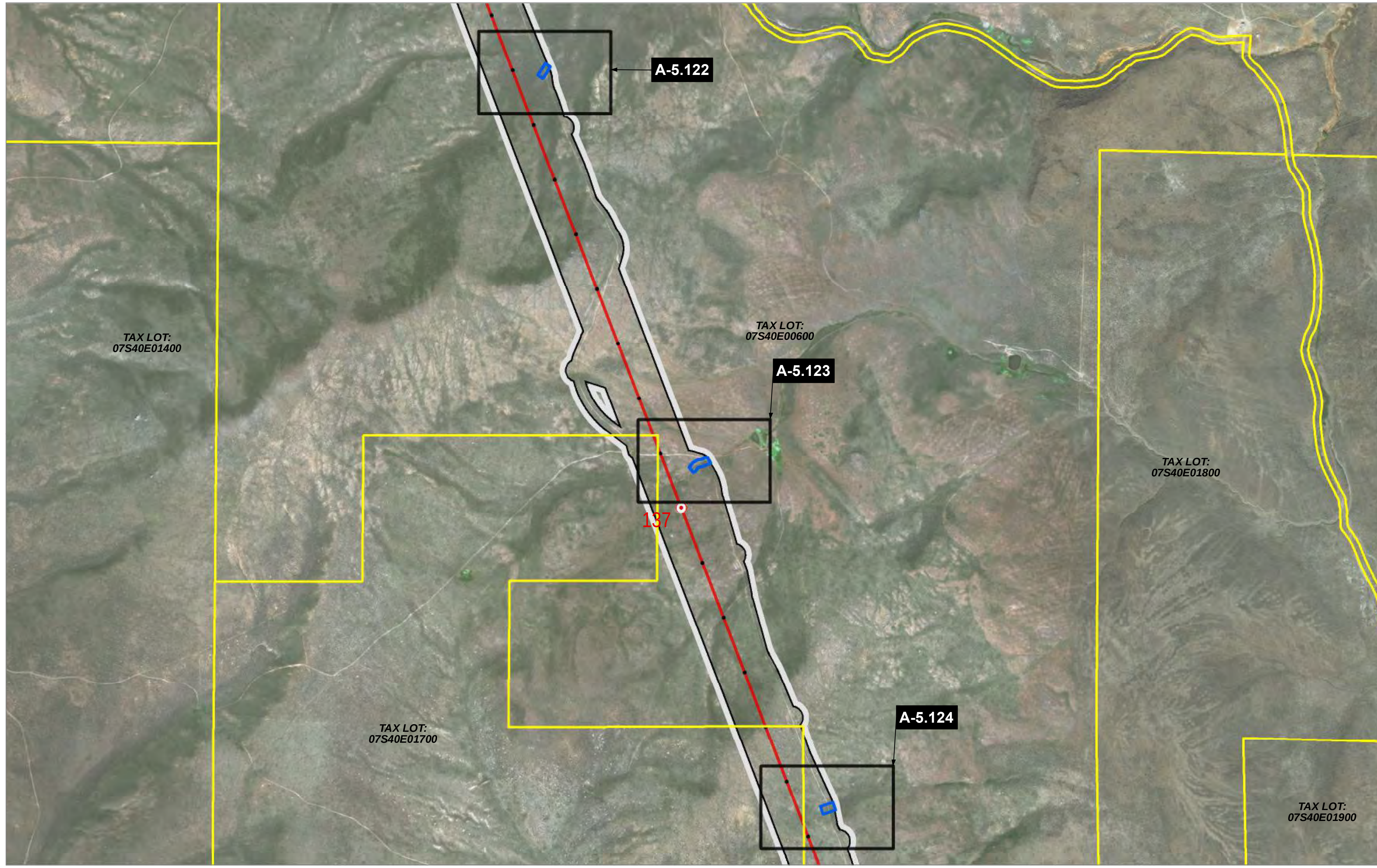
IDAHO POWER. An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.40

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

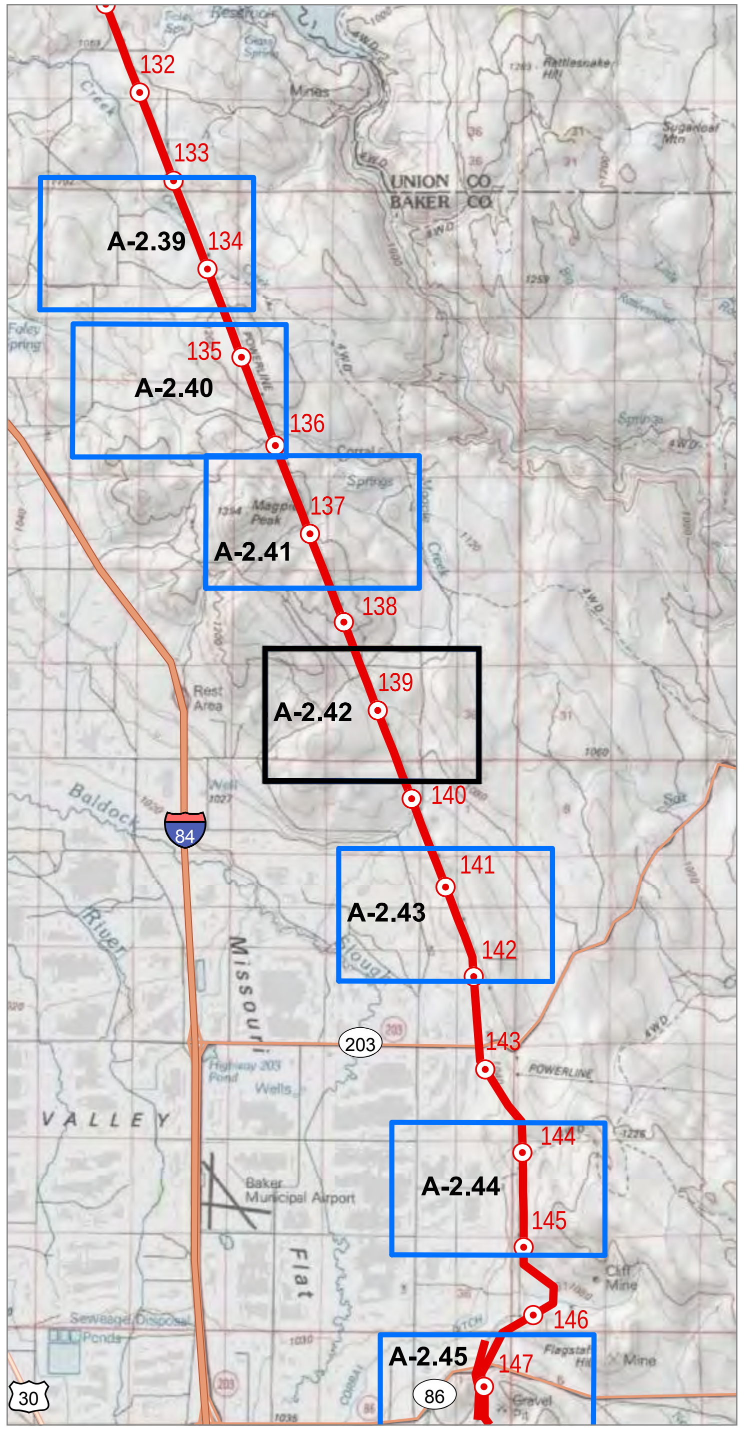
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

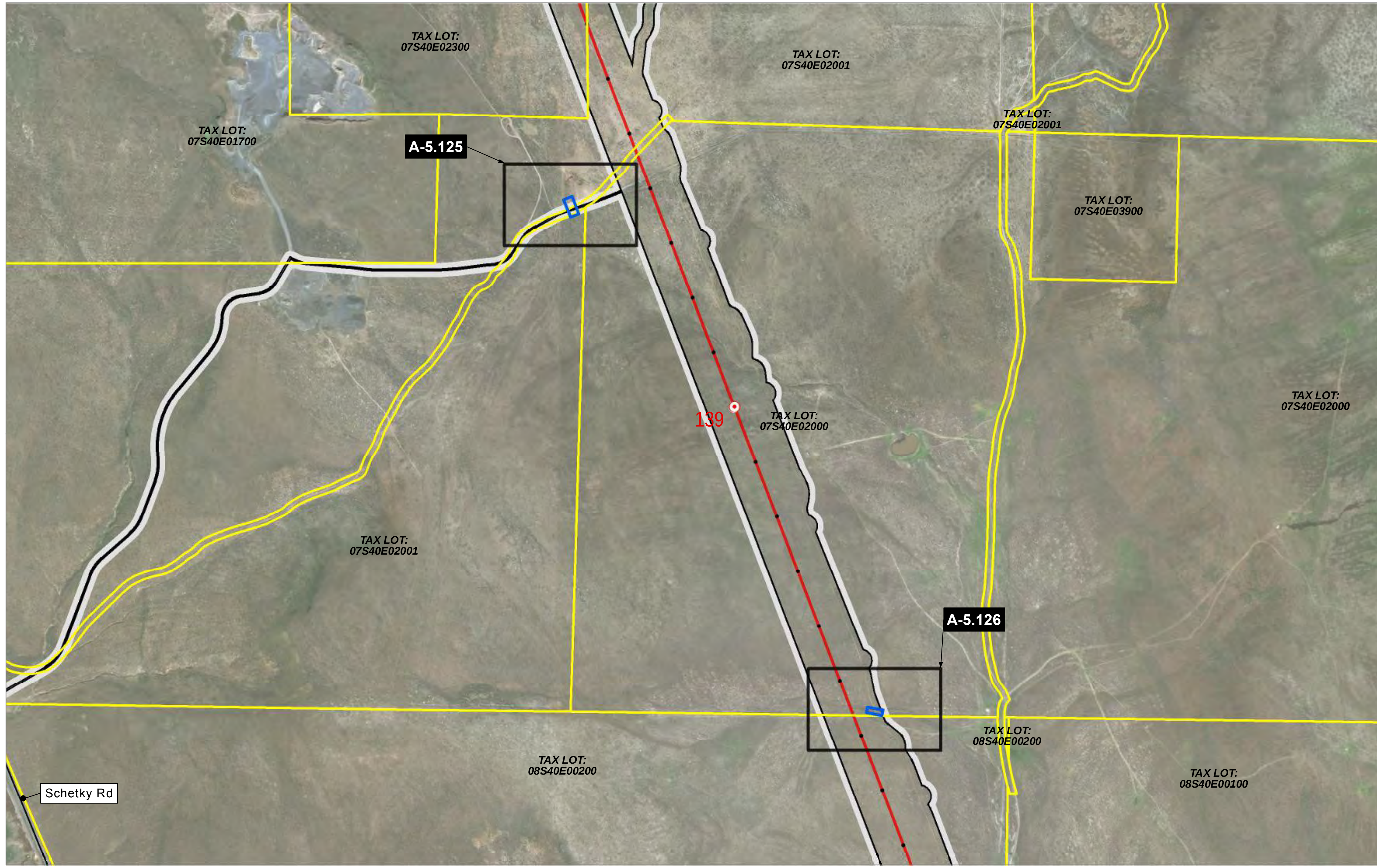
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

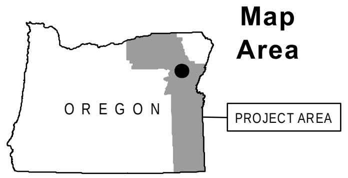
Figure A-2.41

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





0 2
Miles



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

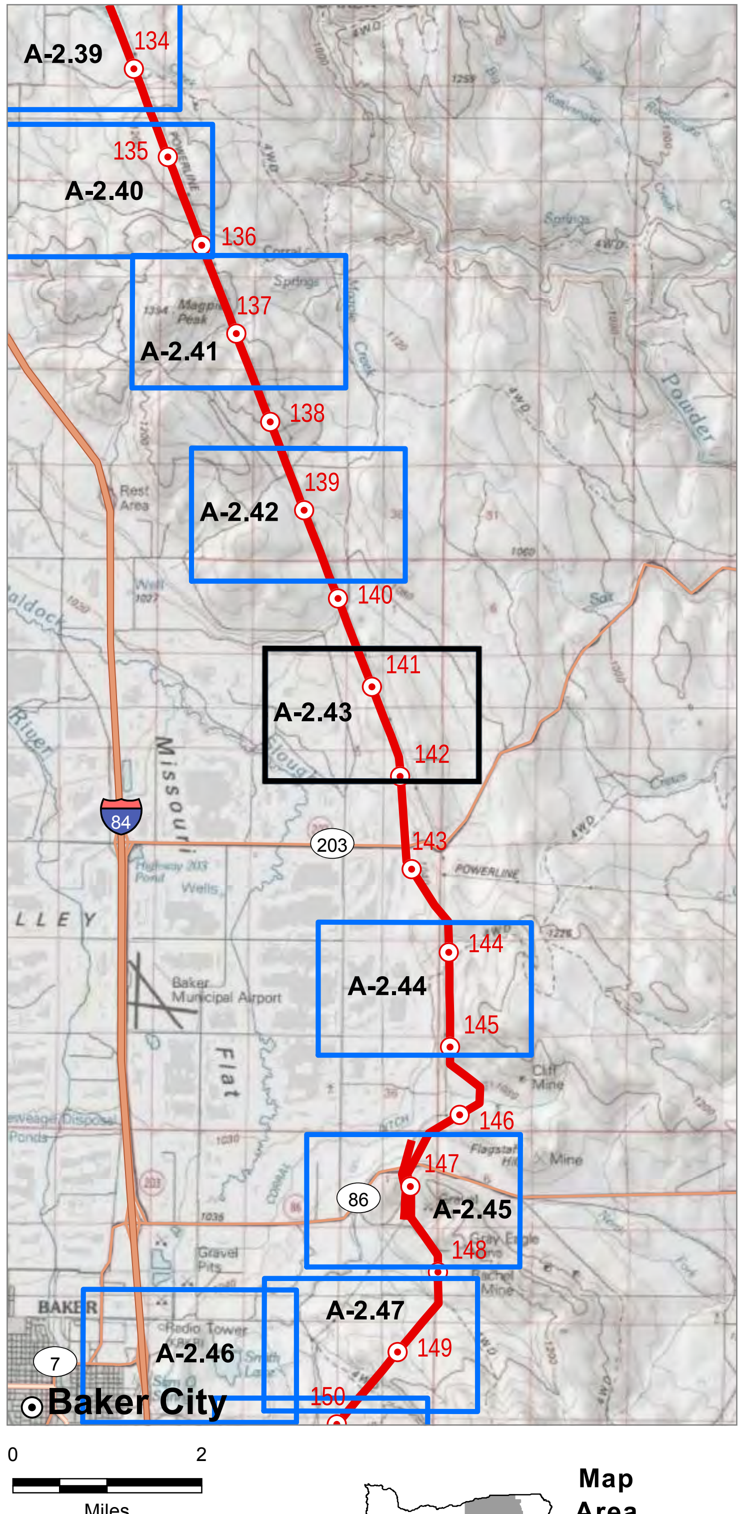
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

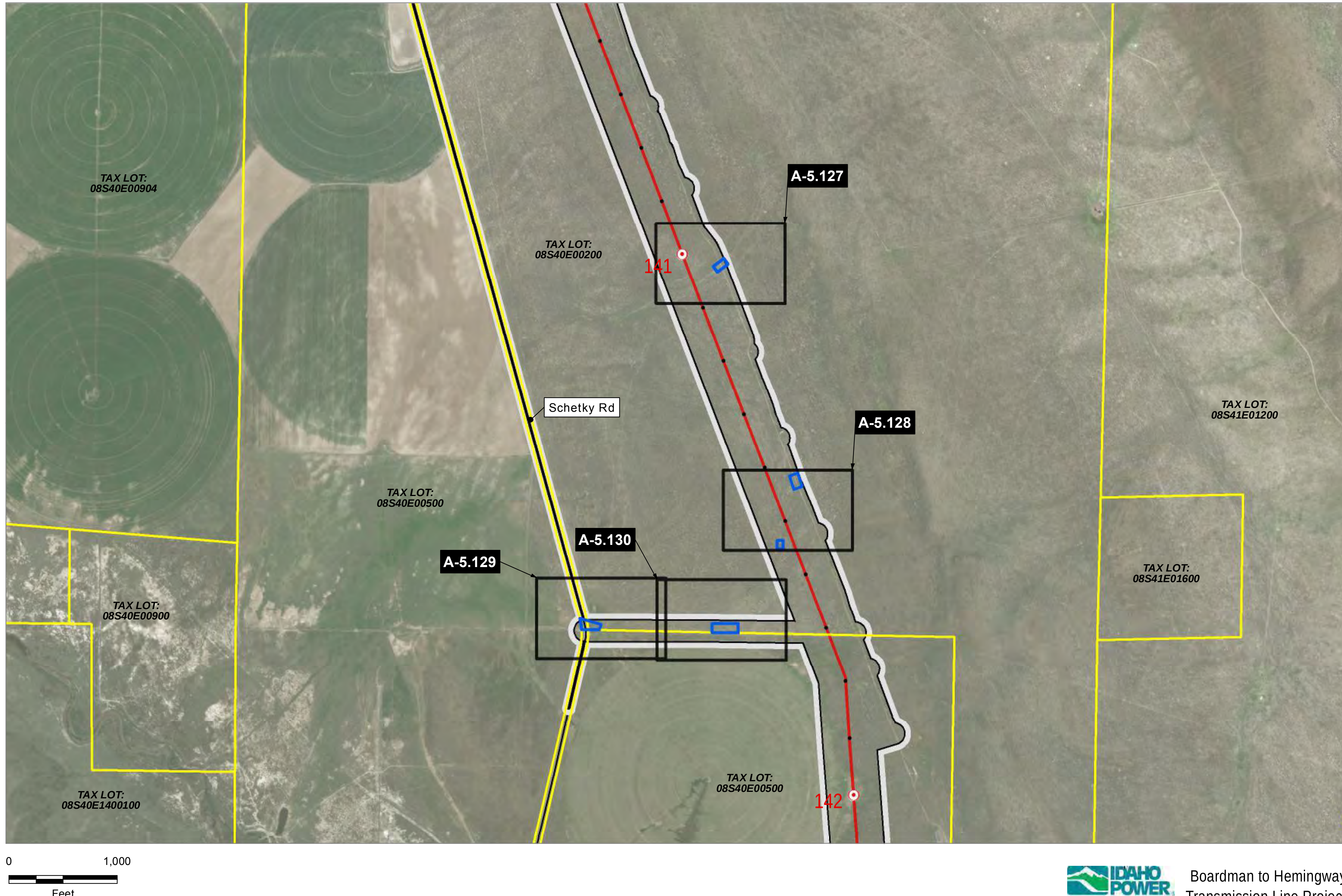
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.42
Wetland and Other Waters Delineation Report
Tax Lots
Baker County





Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

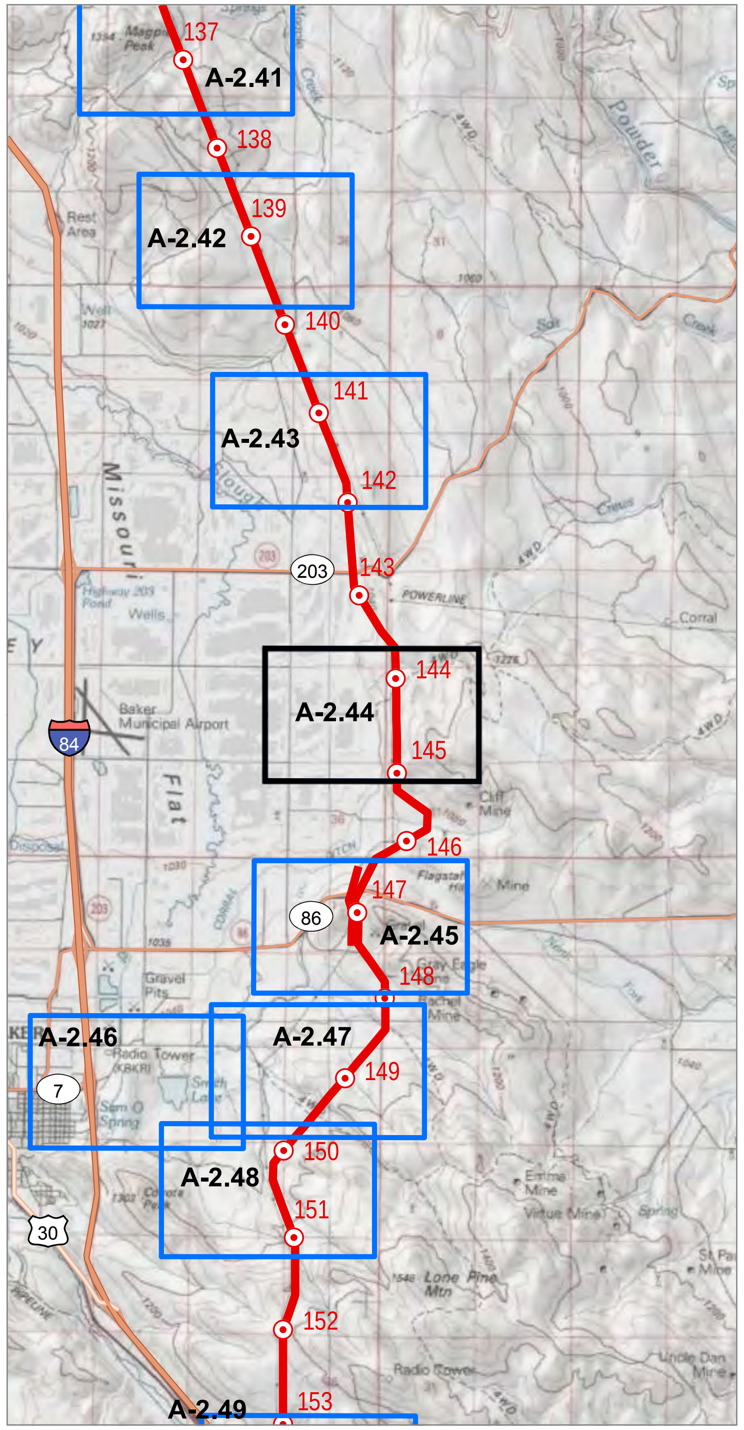
Other Features
- Other Major Roads
- Tax Lot Parcel

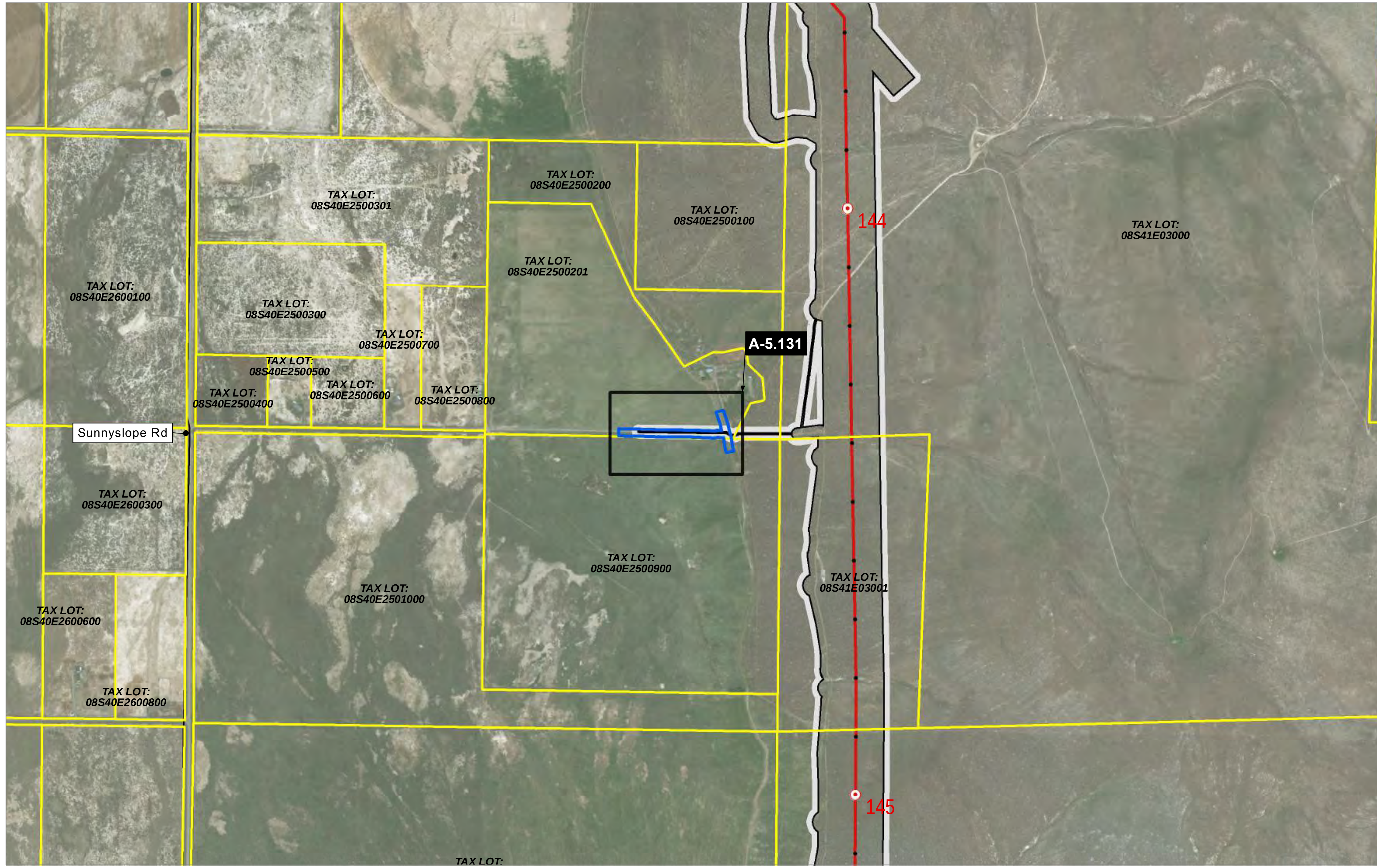
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.43
Wetland and Other Waters Delineation Report
Tax Lots
Baker County





Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

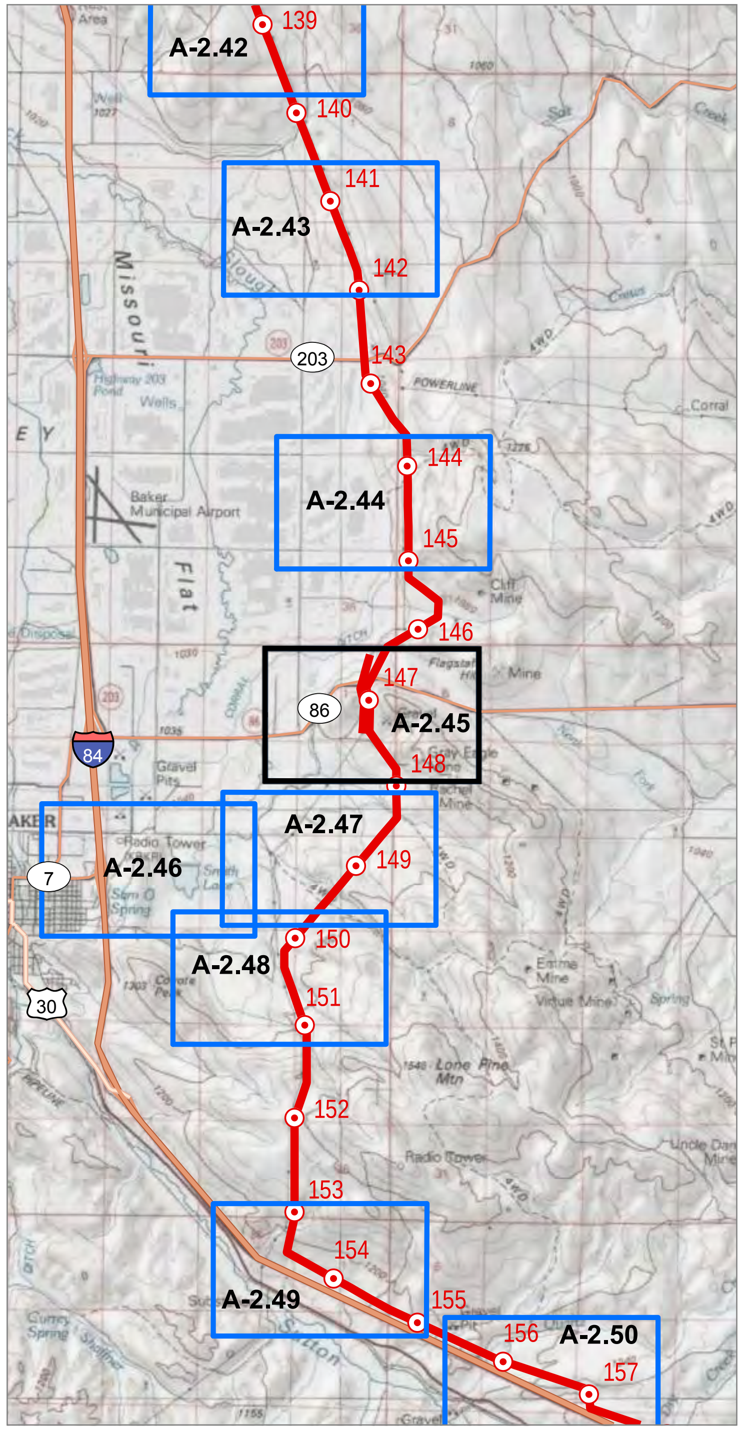
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

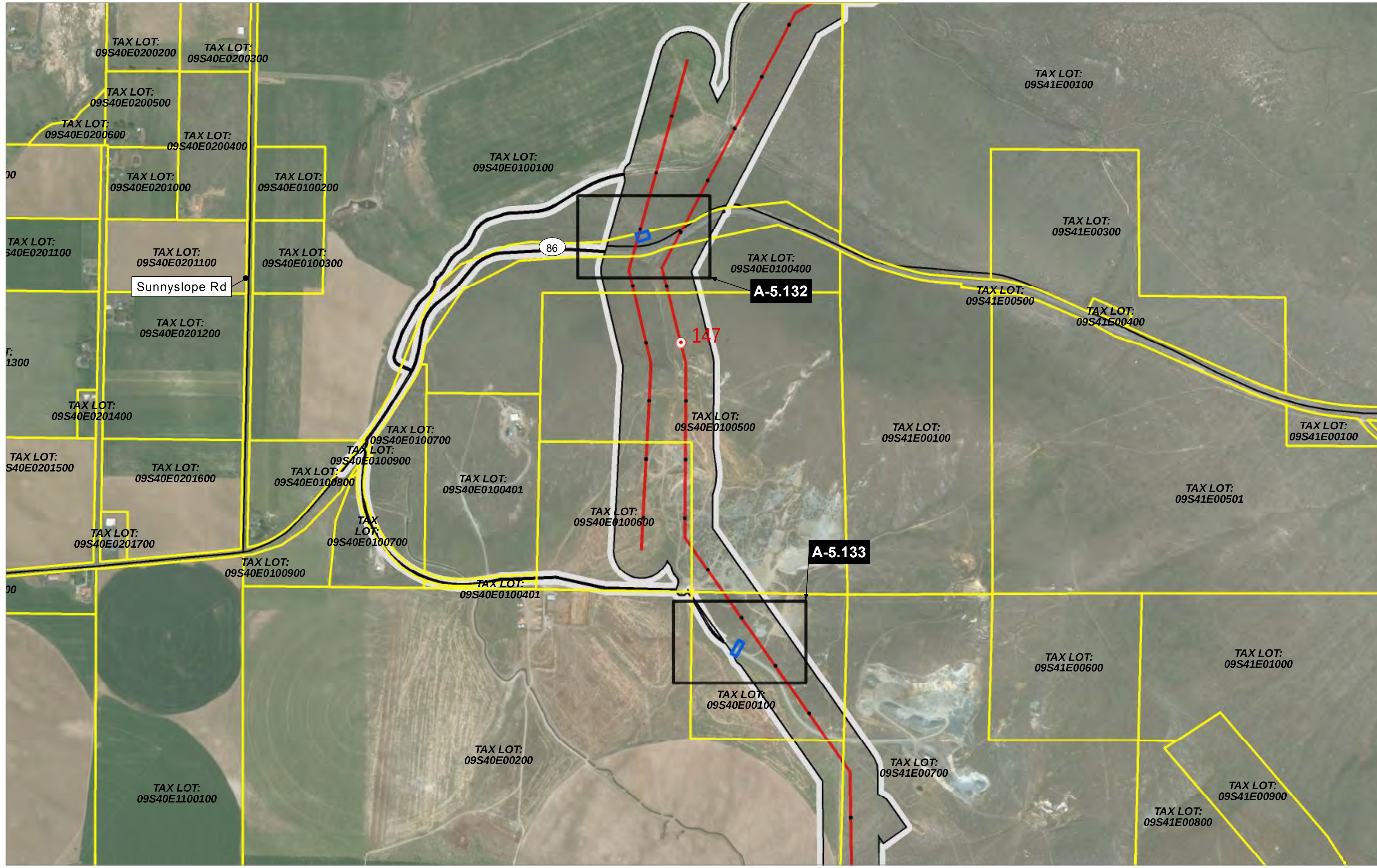
IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.44

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





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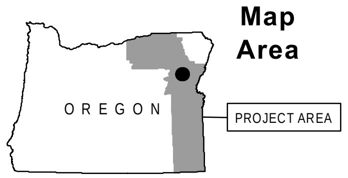
Miles



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Other Major Roads
- Tax Lot Parcel

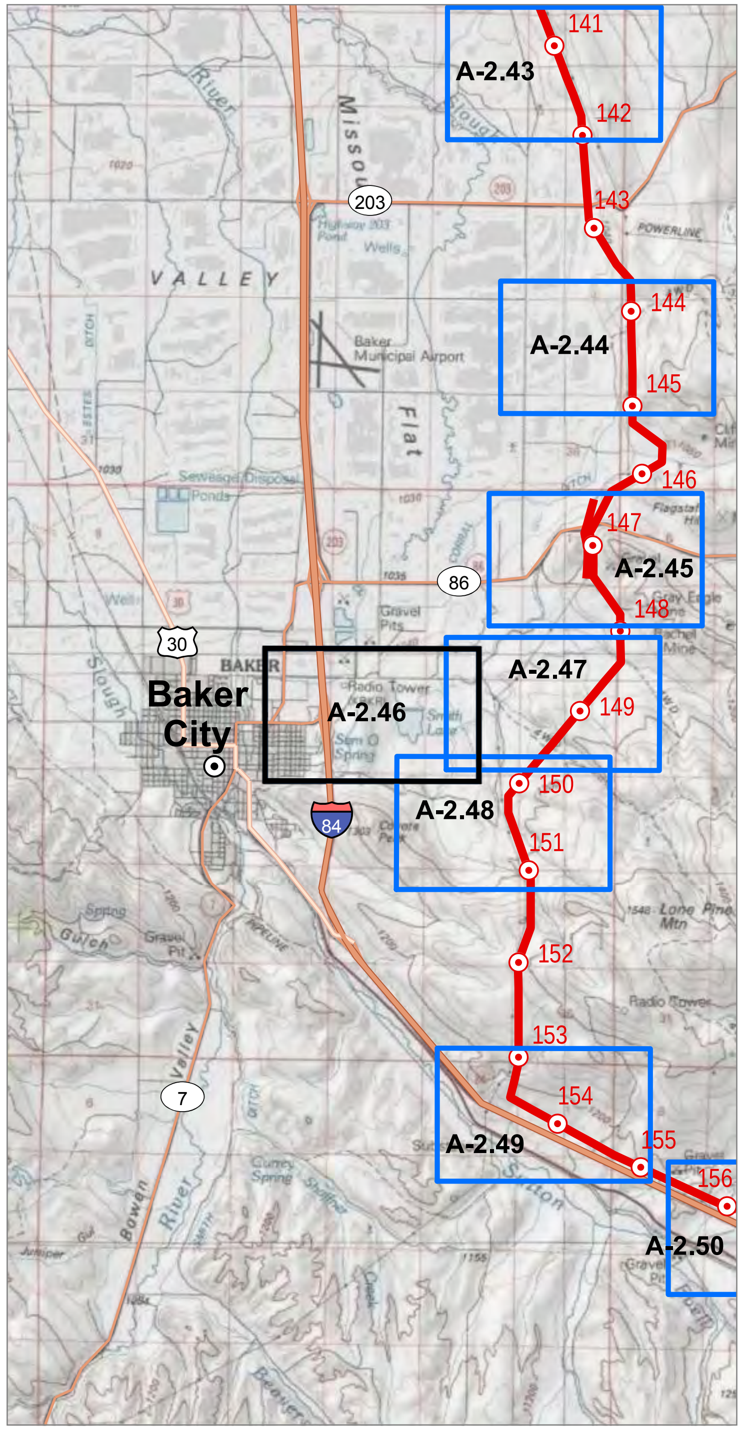
IDAHO POWER. An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.45
Wetland and Other Waters Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



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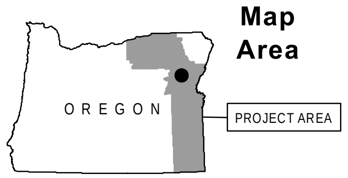
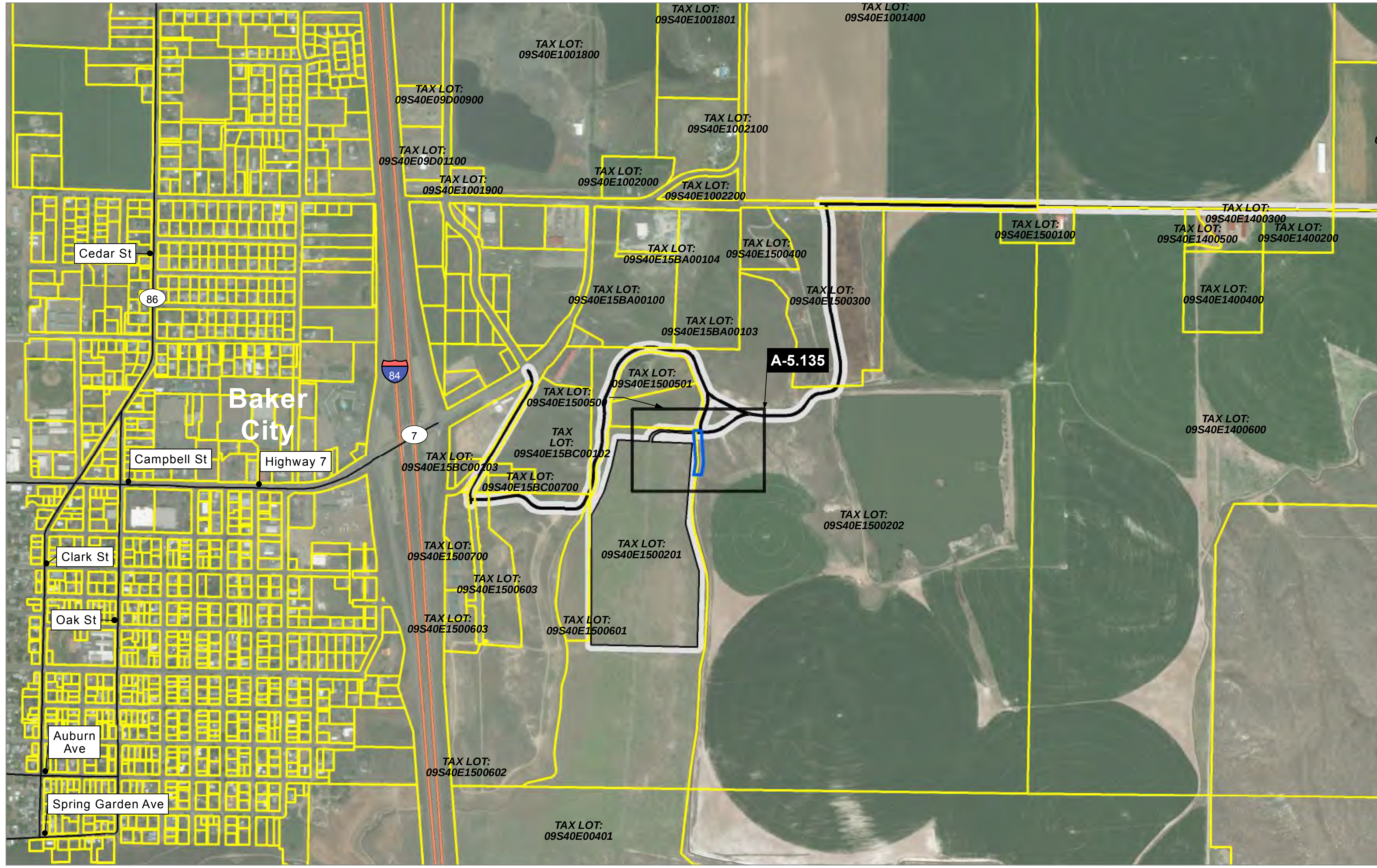
Miles



Map Area



0 1,000
Feet

Project Features
- Site Boundary
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Tax Lot Parcel

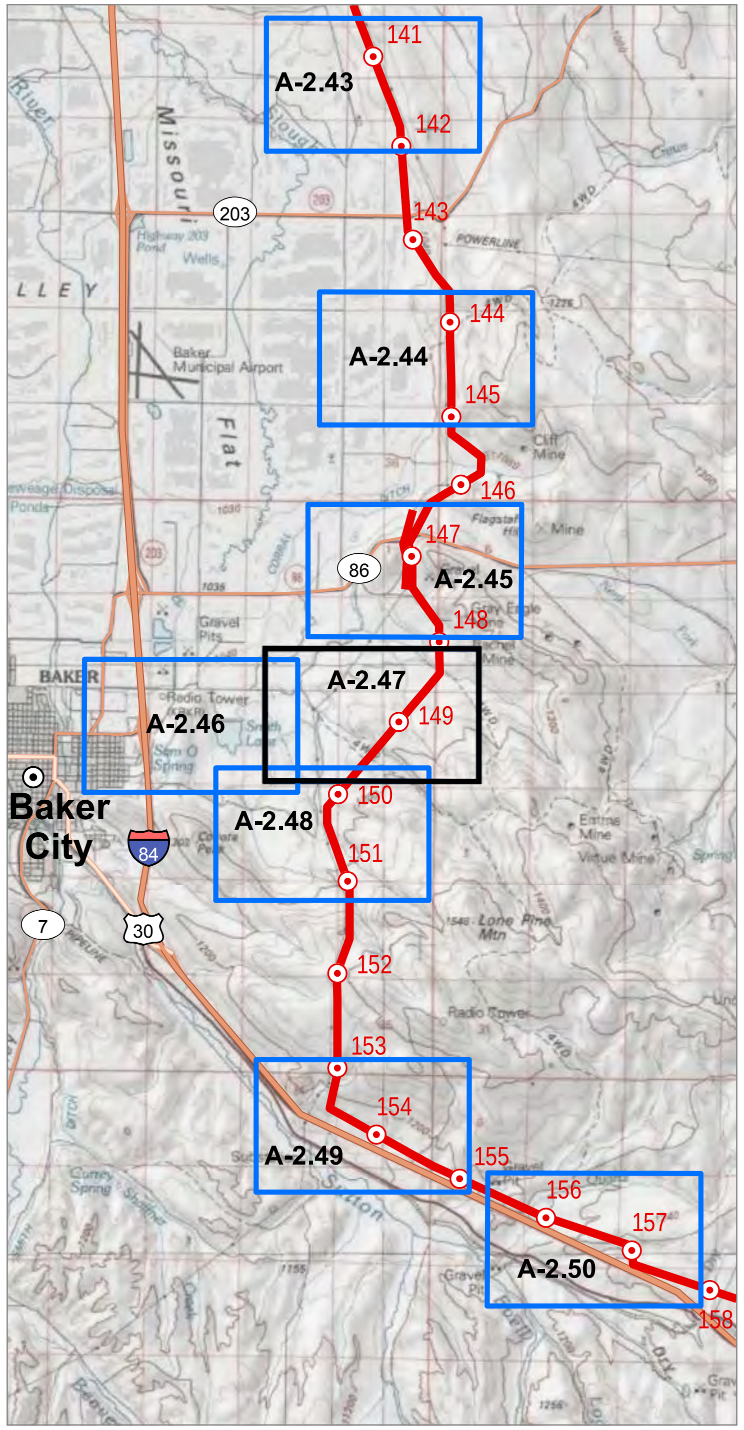
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.46
Wetland and Other Waters Delineation Report
Tax Lots
Baker County



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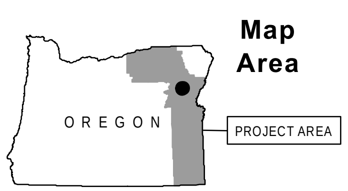
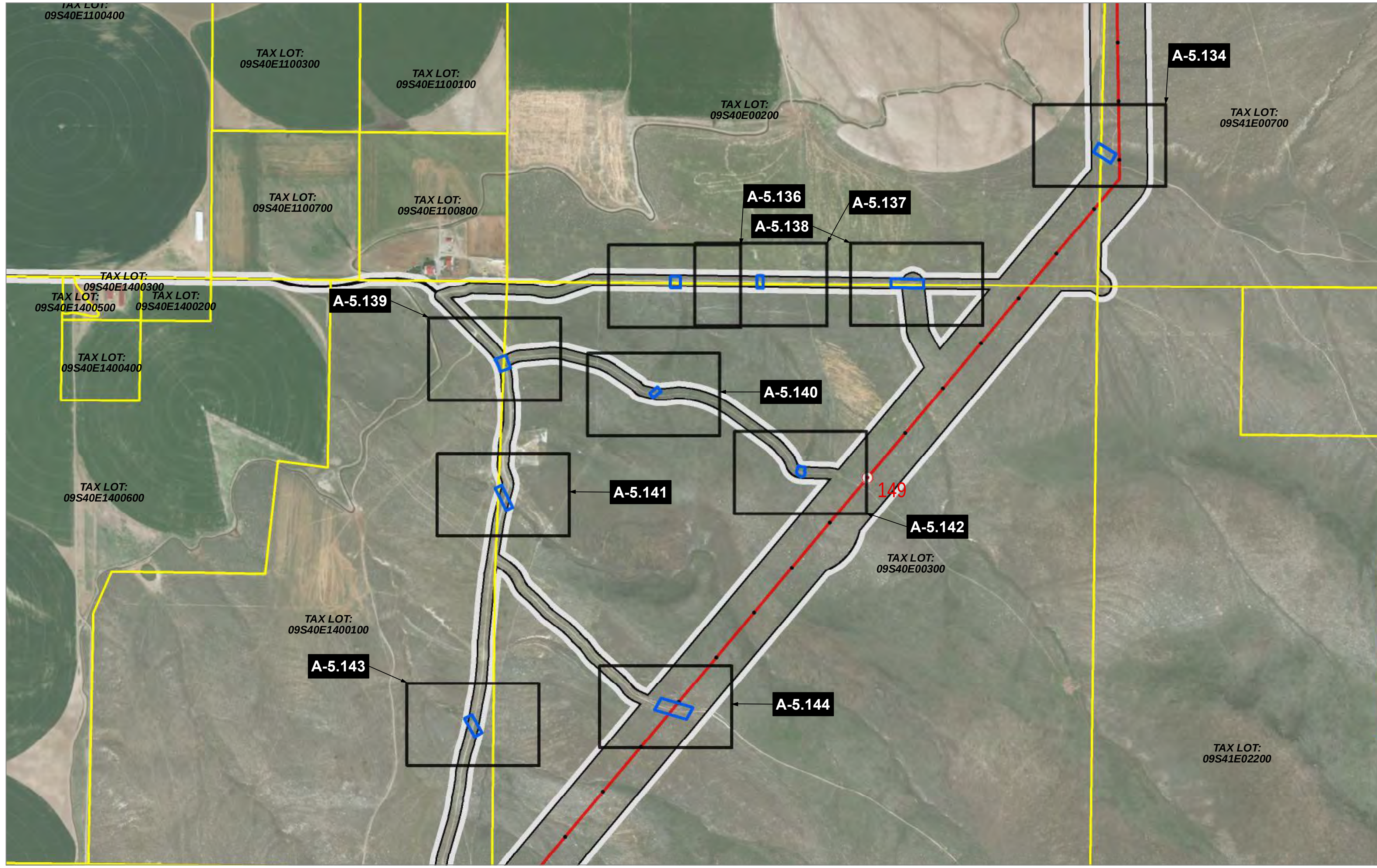
Miles





0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

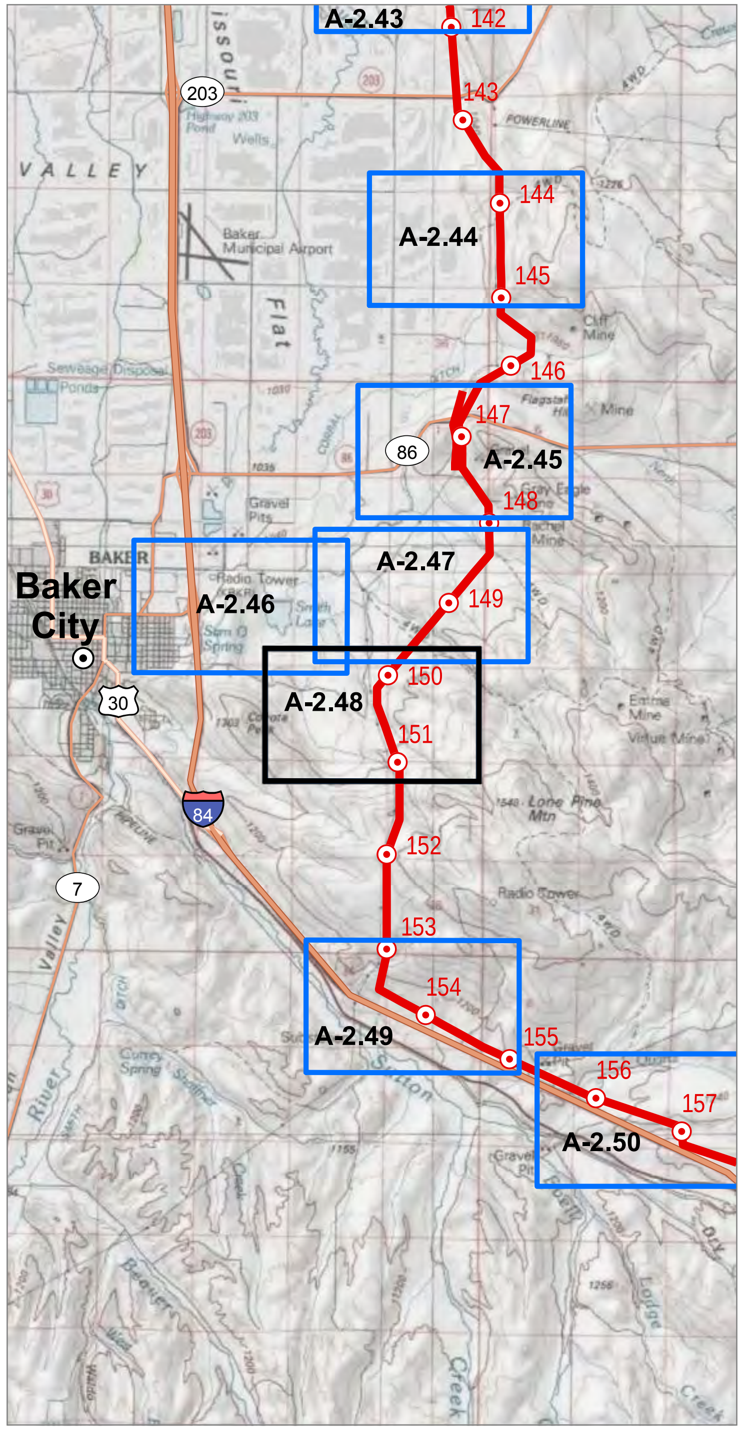
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.47
Wetland and Other Waters Delineation Report
Tax Lots
Baker County



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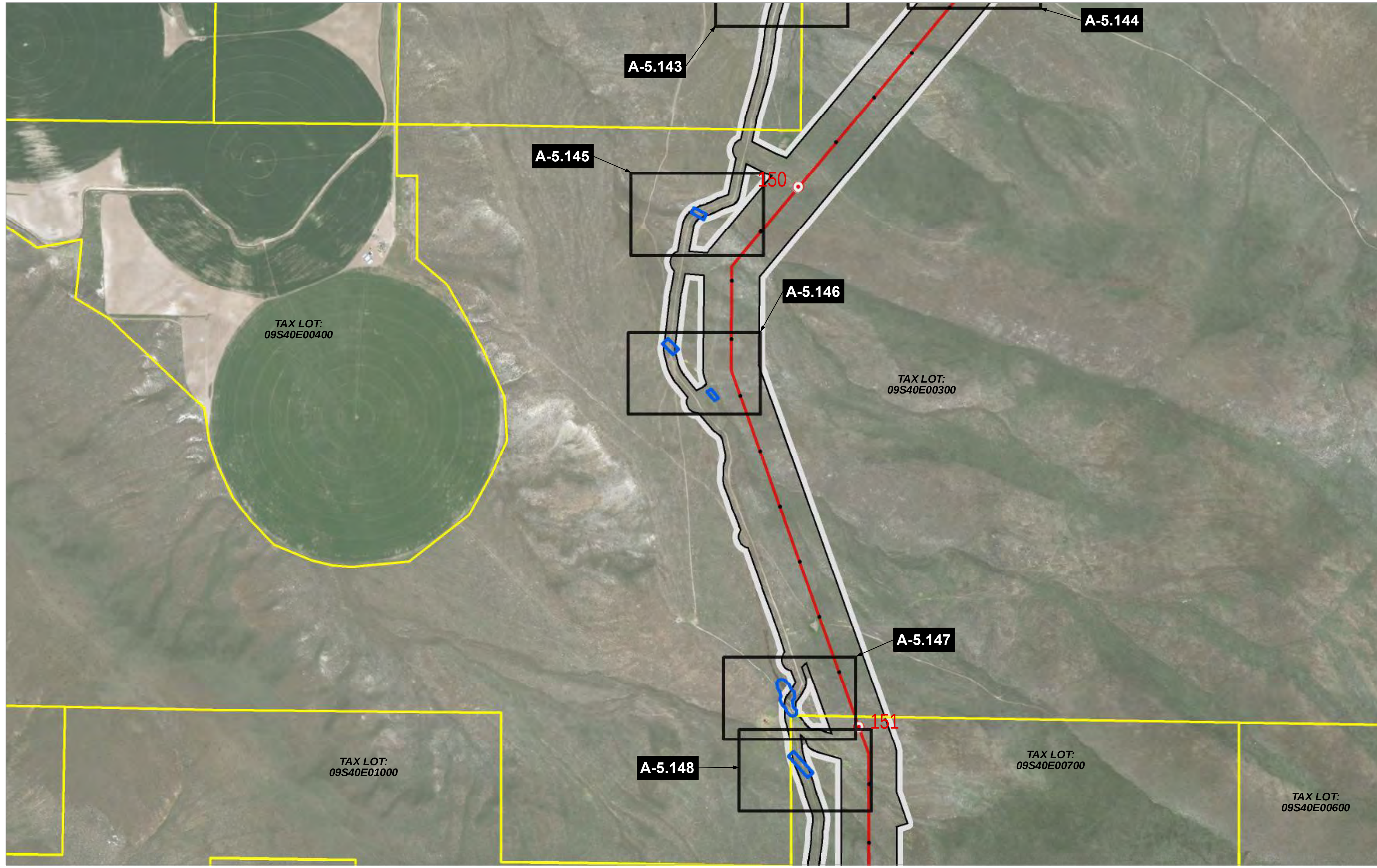
Miles



0 1,000
Feet

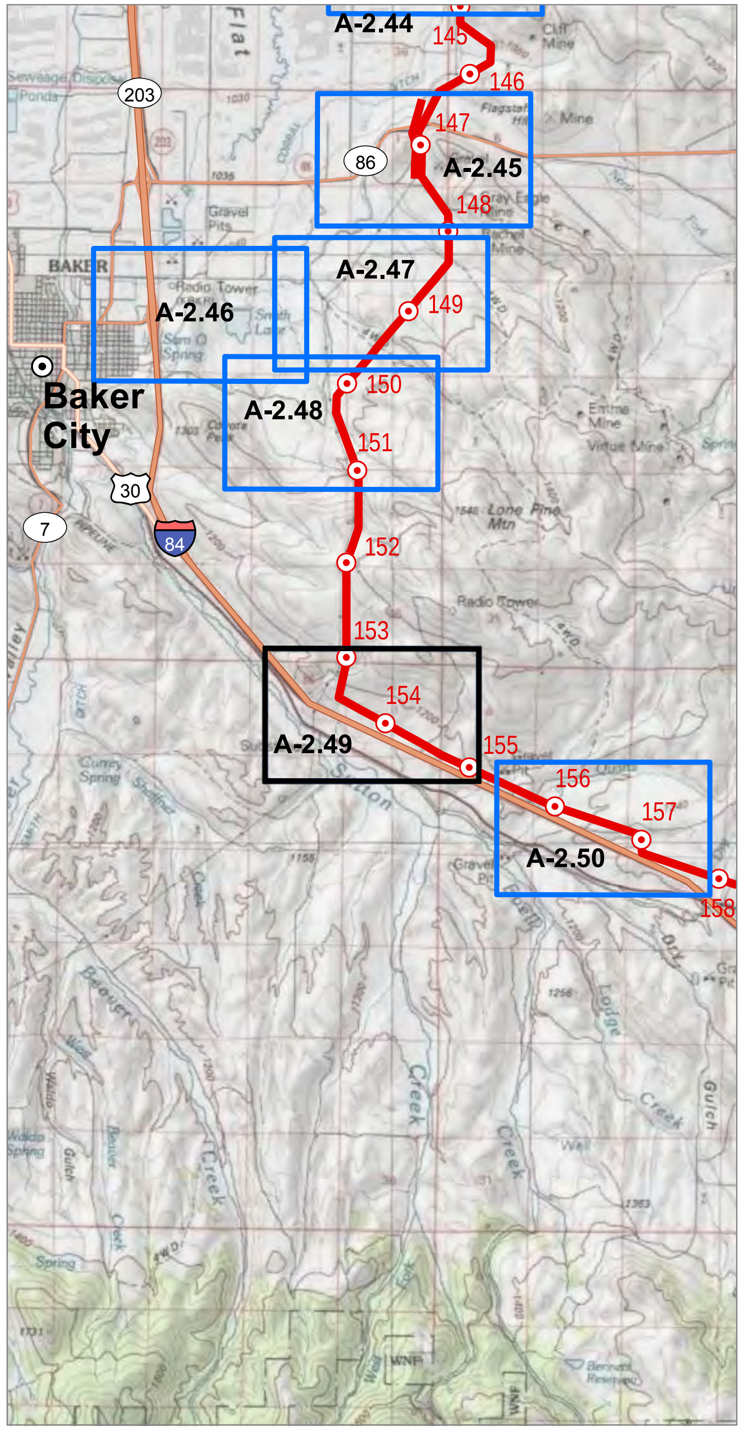
Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.48
Wetland and Other Waters Delineation Report
Tax Lots
Baker County

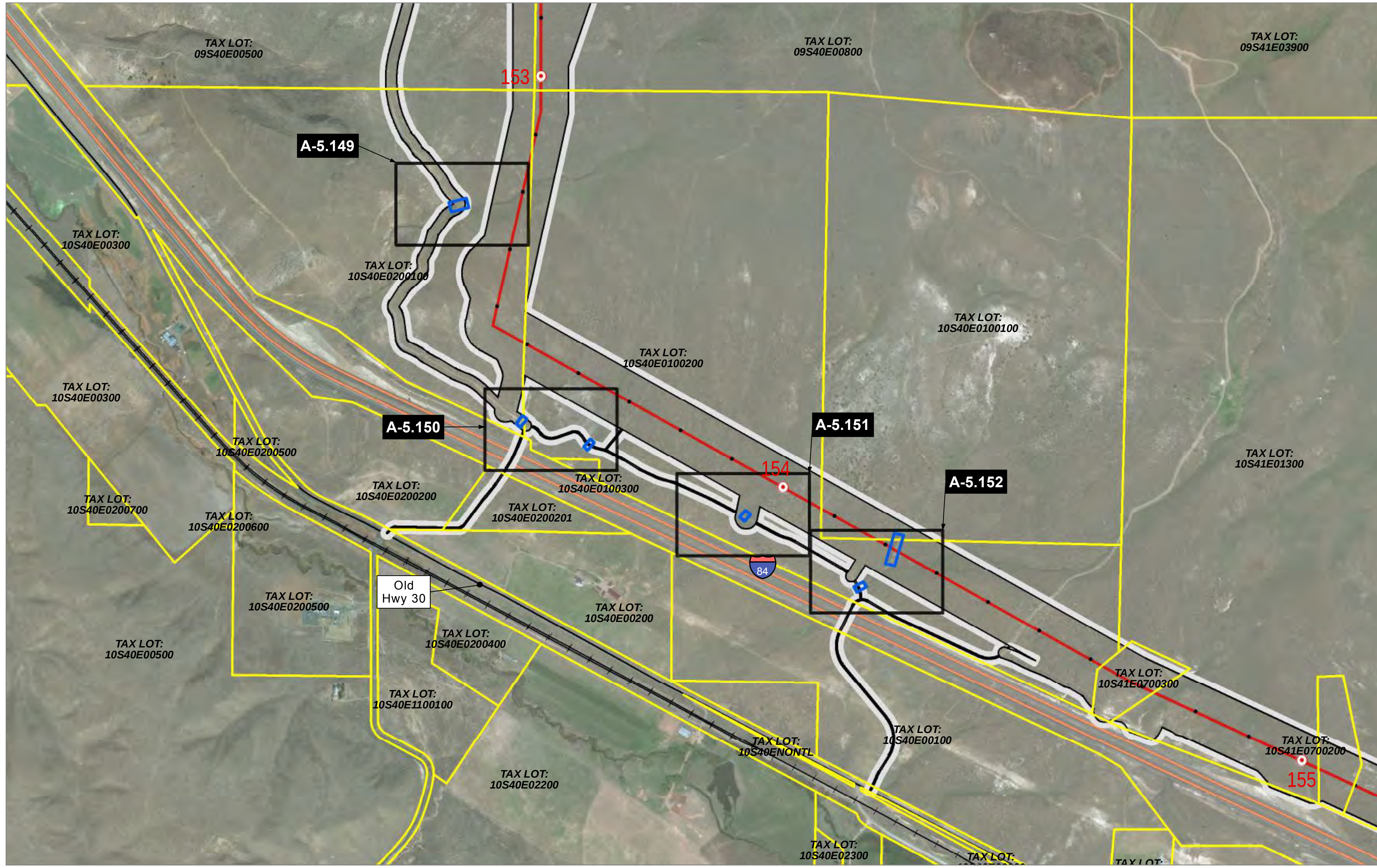


0 2
Miles

Map Area

OREGON

PROJECT AREA



0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area

Other Features
Interstates or Highways
Other Major Roads
Railroads
Tax Lot Parcel

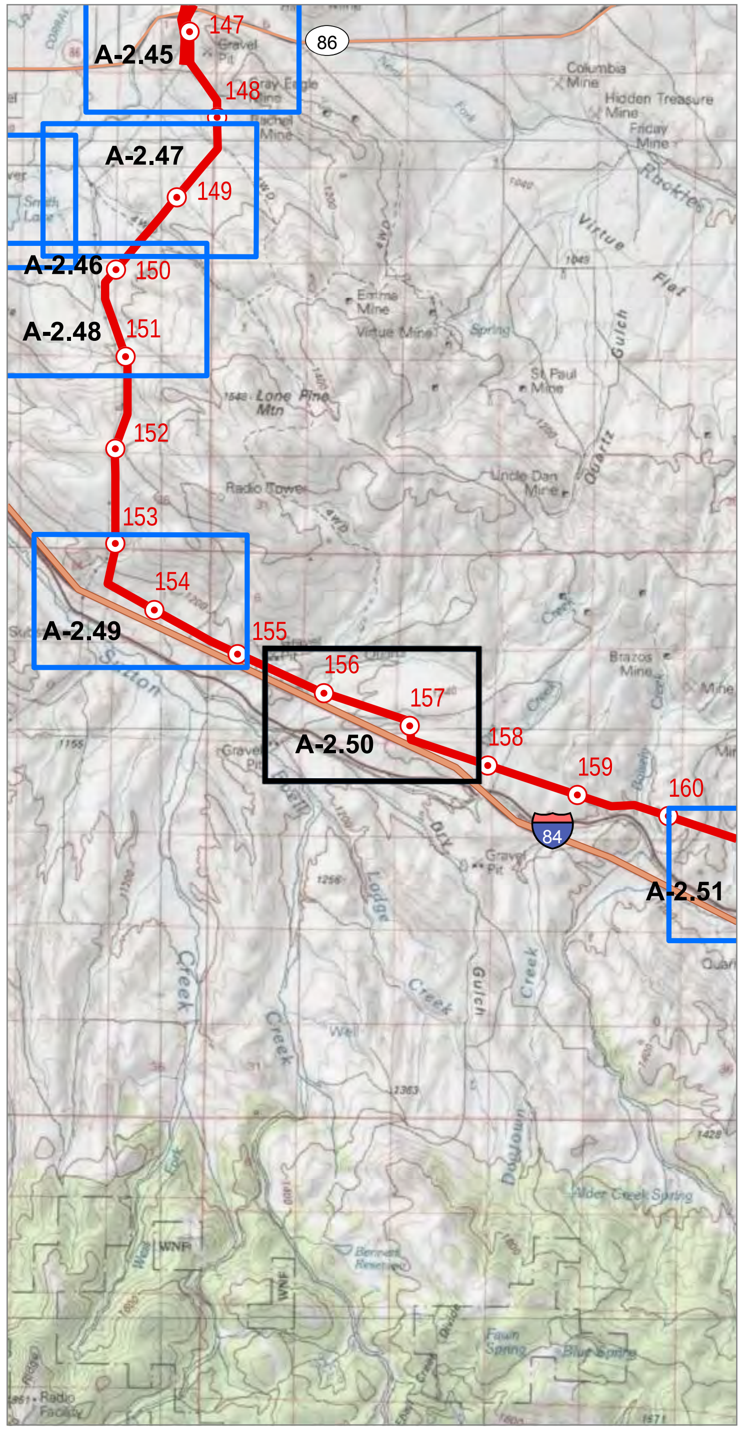
IDAHO POWER. An IDACORP Company

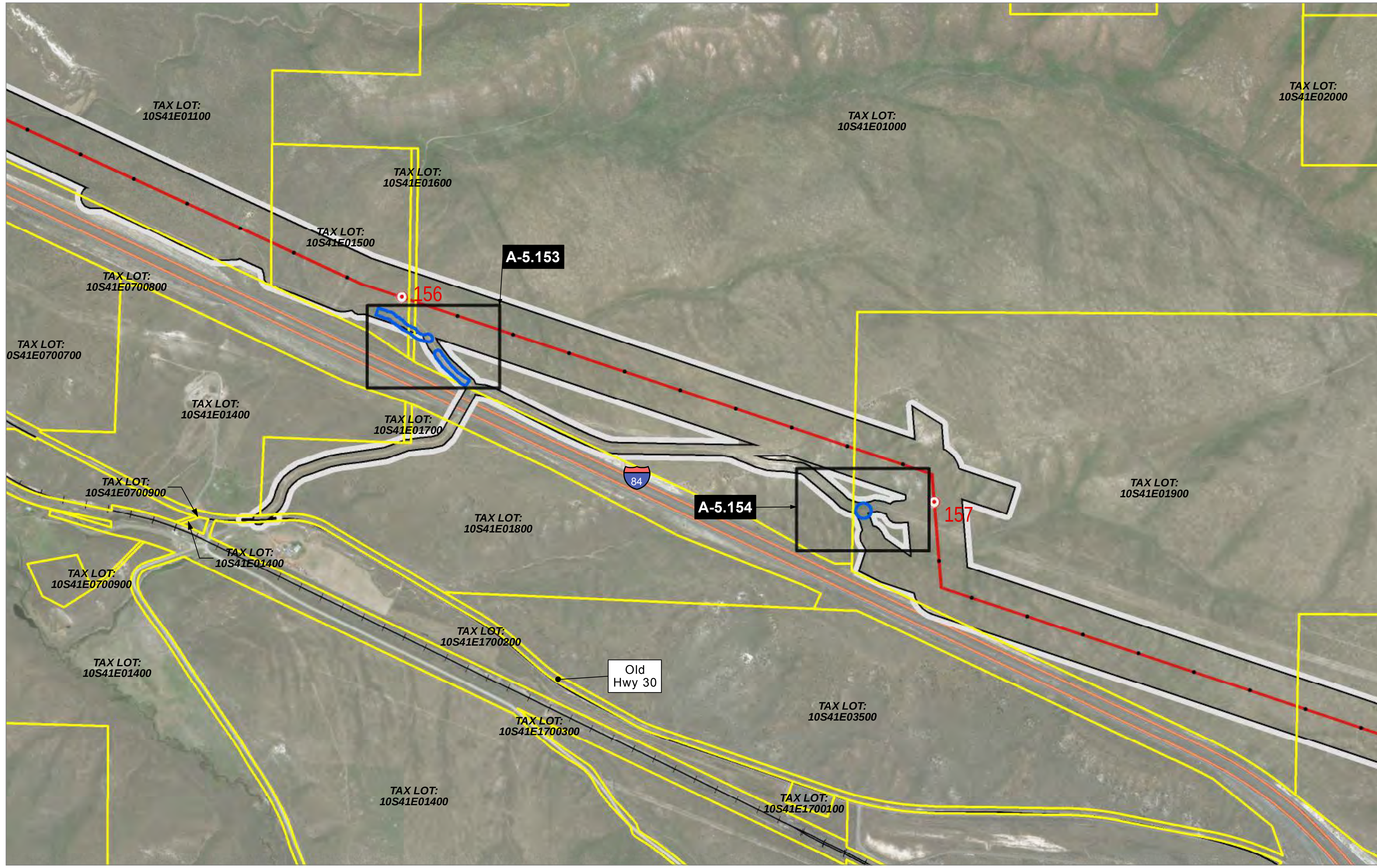
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.49
Wetland and Other Waters
Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

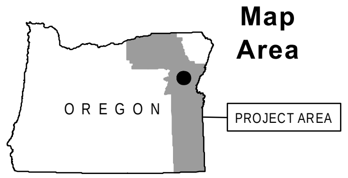
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





0 2
Miles

N



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

IDAHO POWER
An IDACORP Company

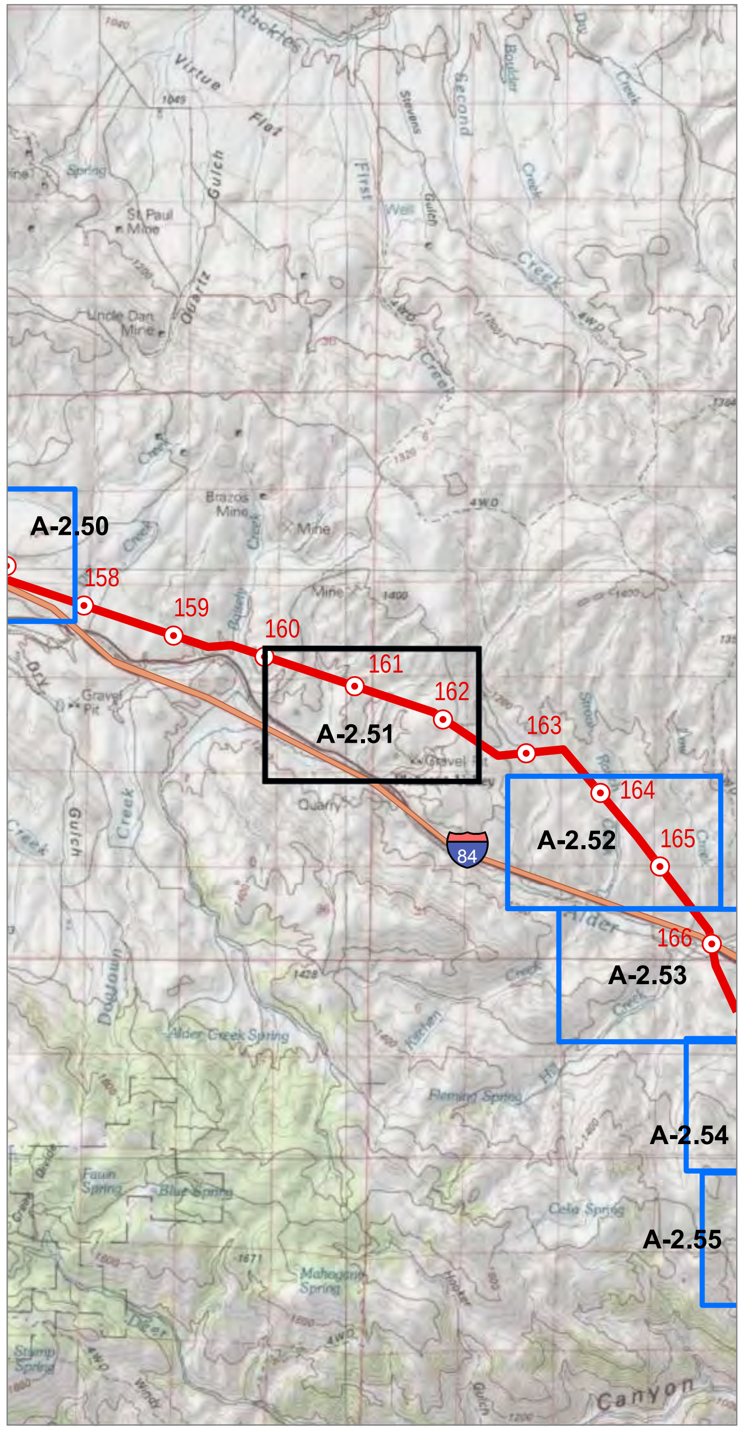
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

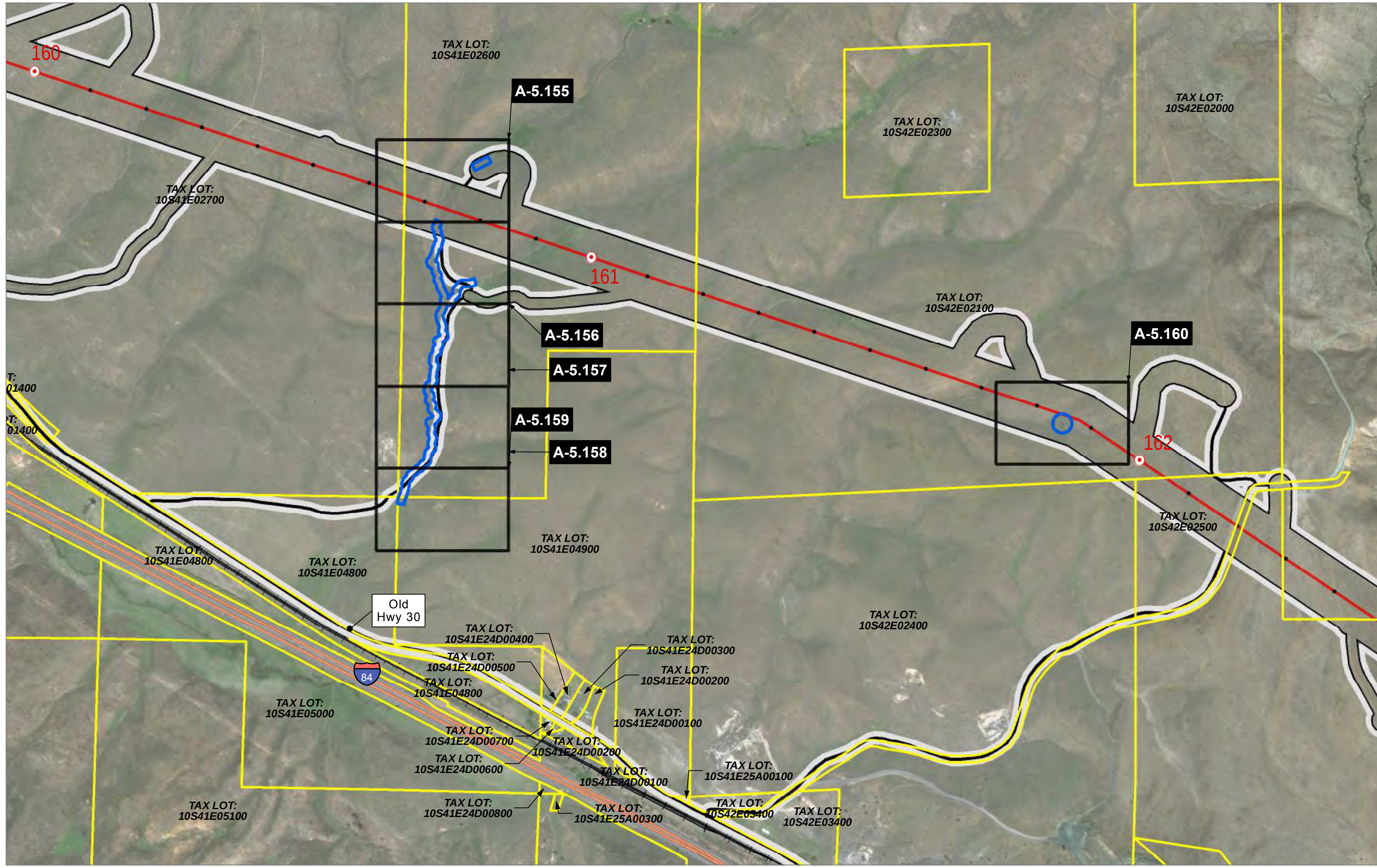
Figure A-2.50

Wetland and Other Waters Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





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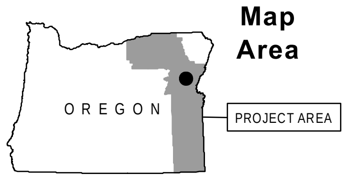
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

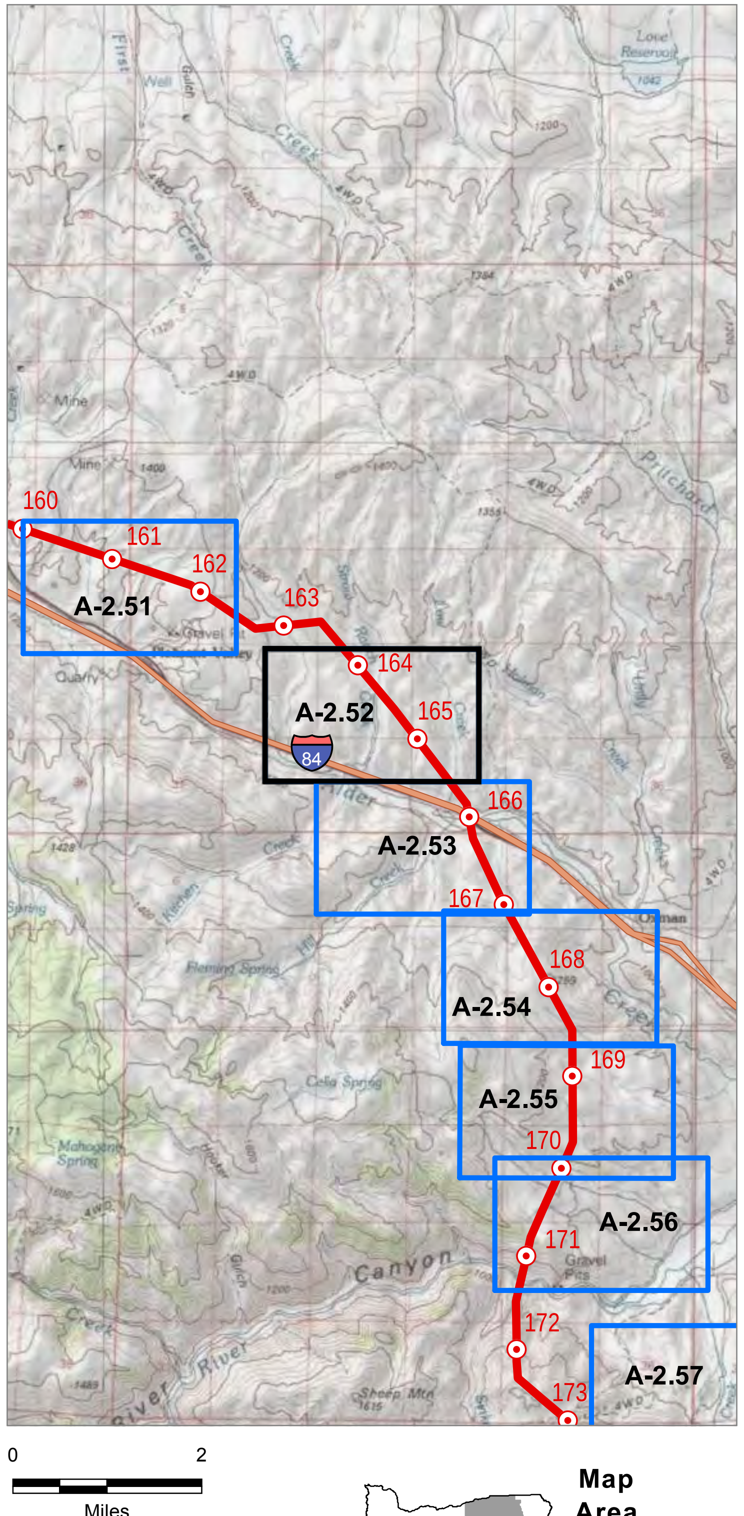
Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

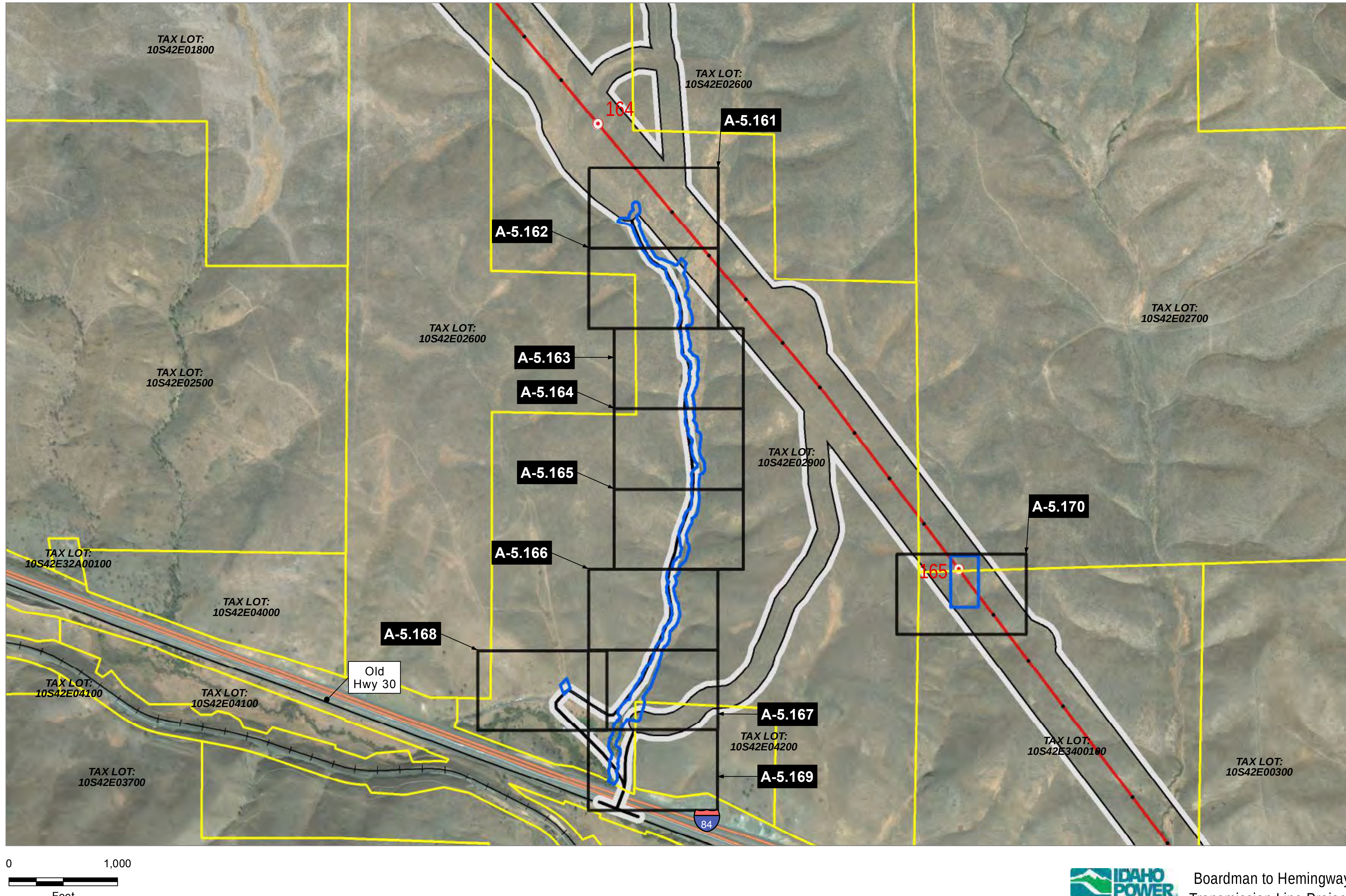
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.51
Wetland and Other Waters Delineation Report
Tax Lots
Baker County





Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

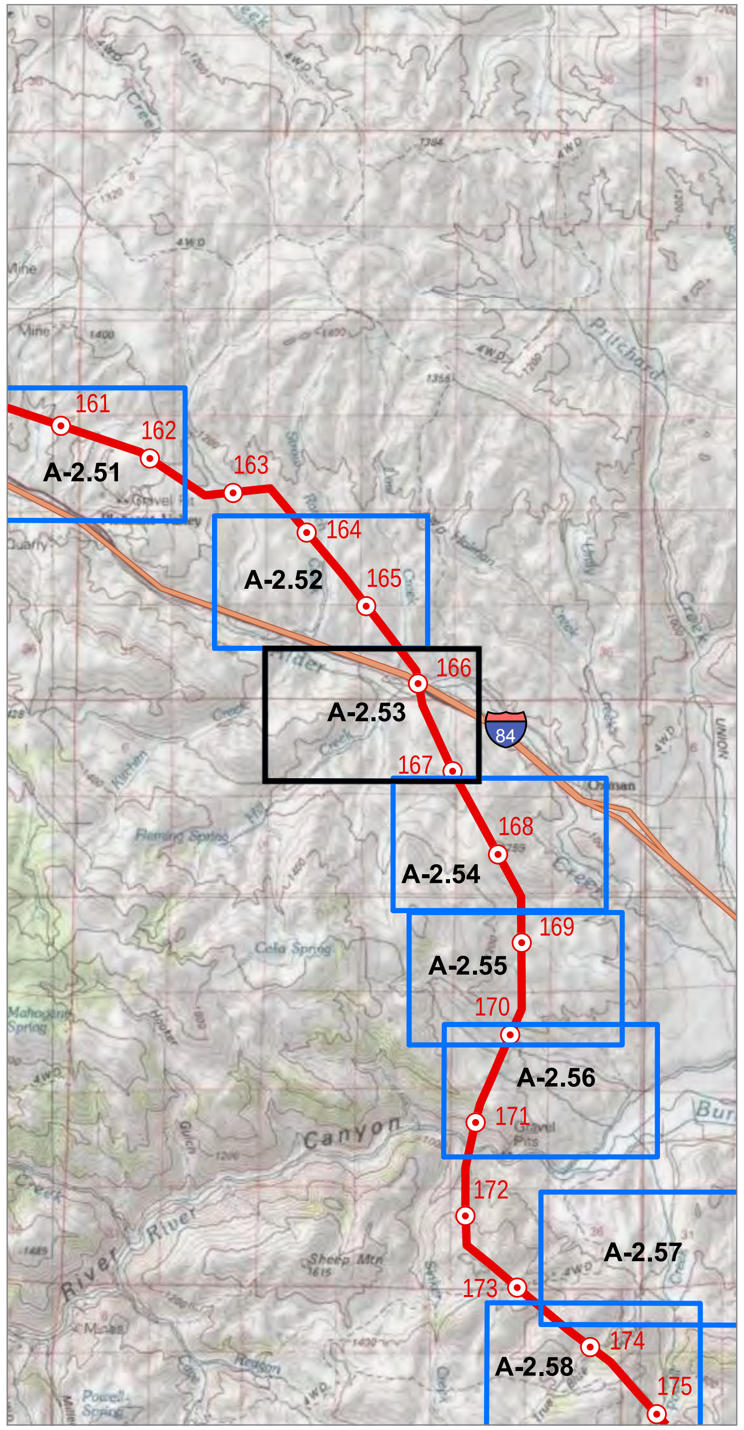
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.52
Wetland and Other Waters Delineation Report
Tax Lots
Baker County



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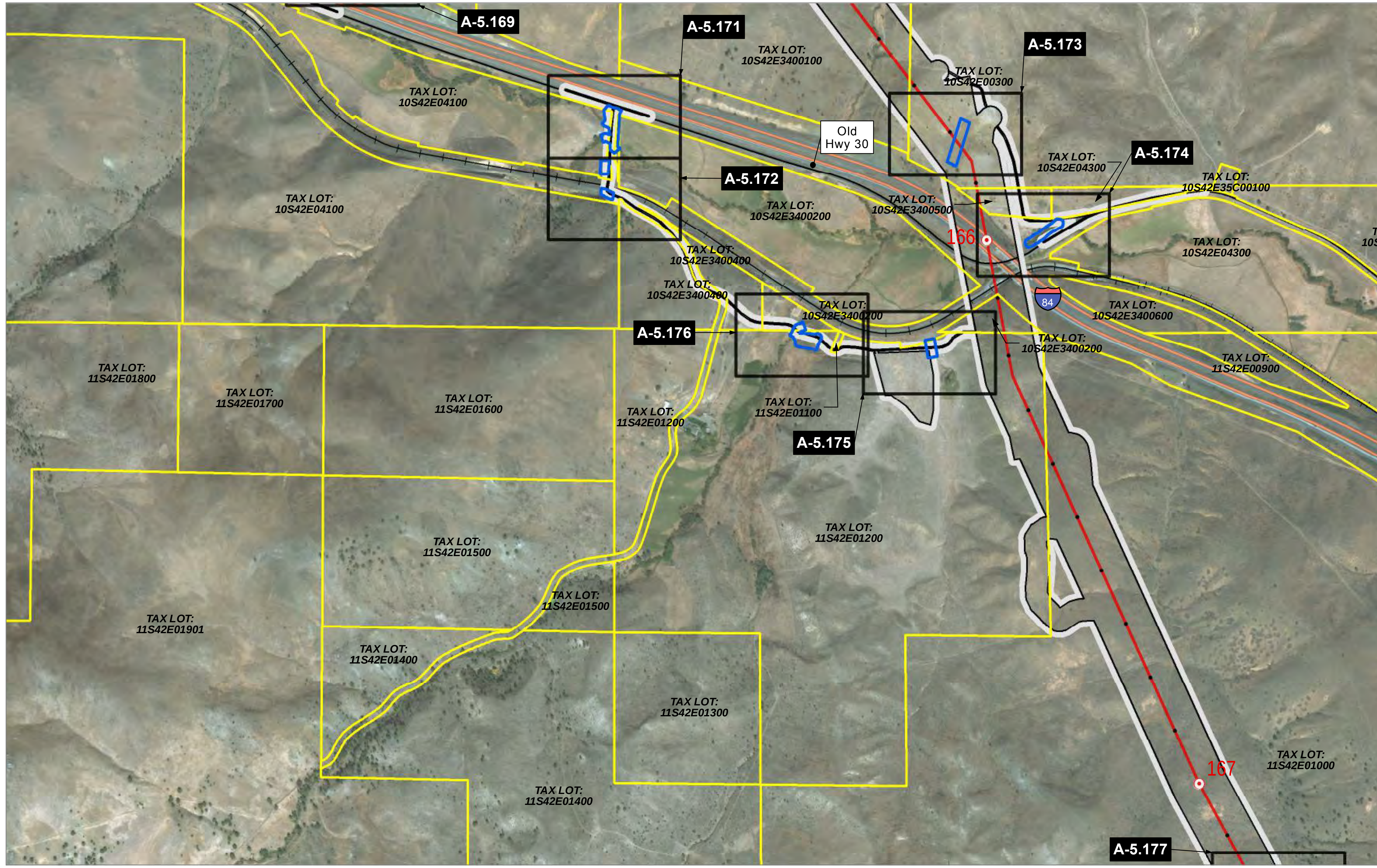

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Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

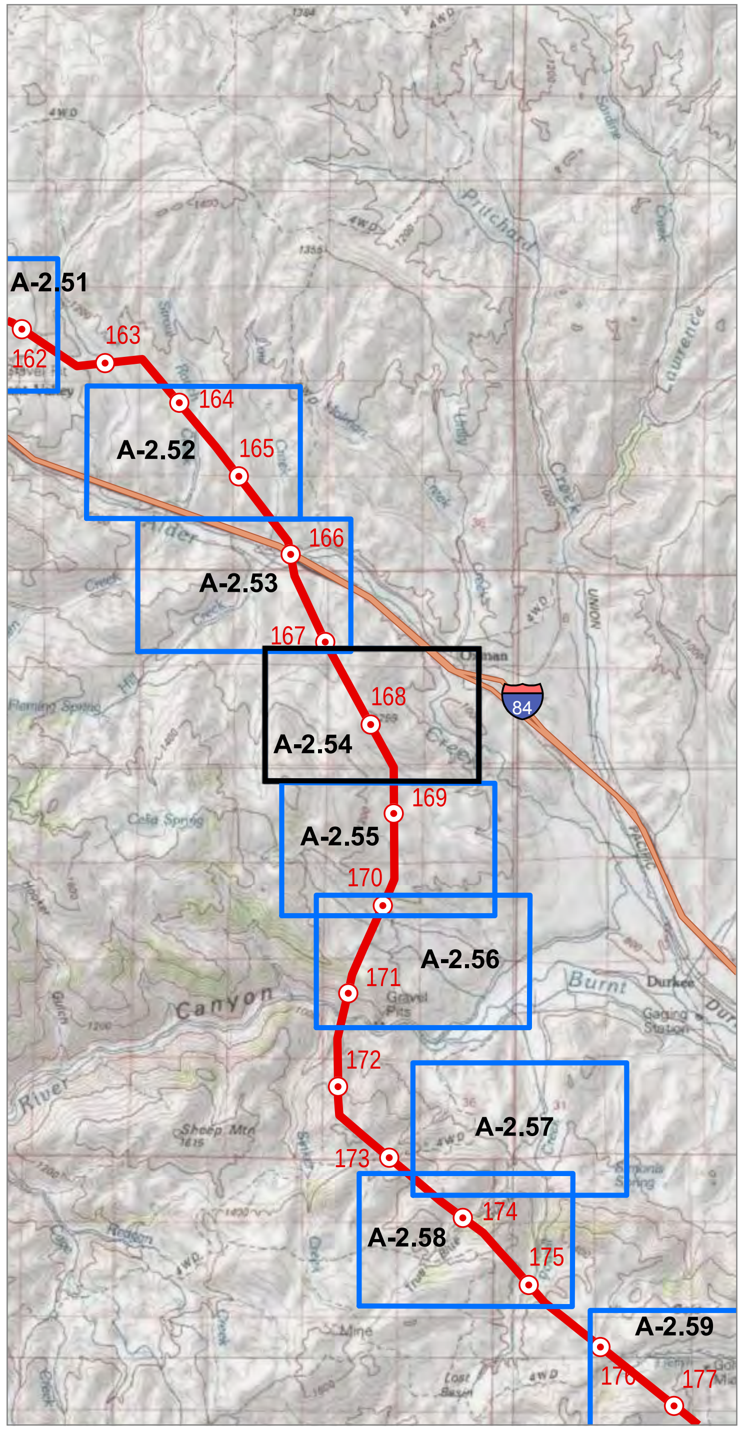
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.53

Wetland and Other Waters Delineation Report
Tax Lots
Baker County



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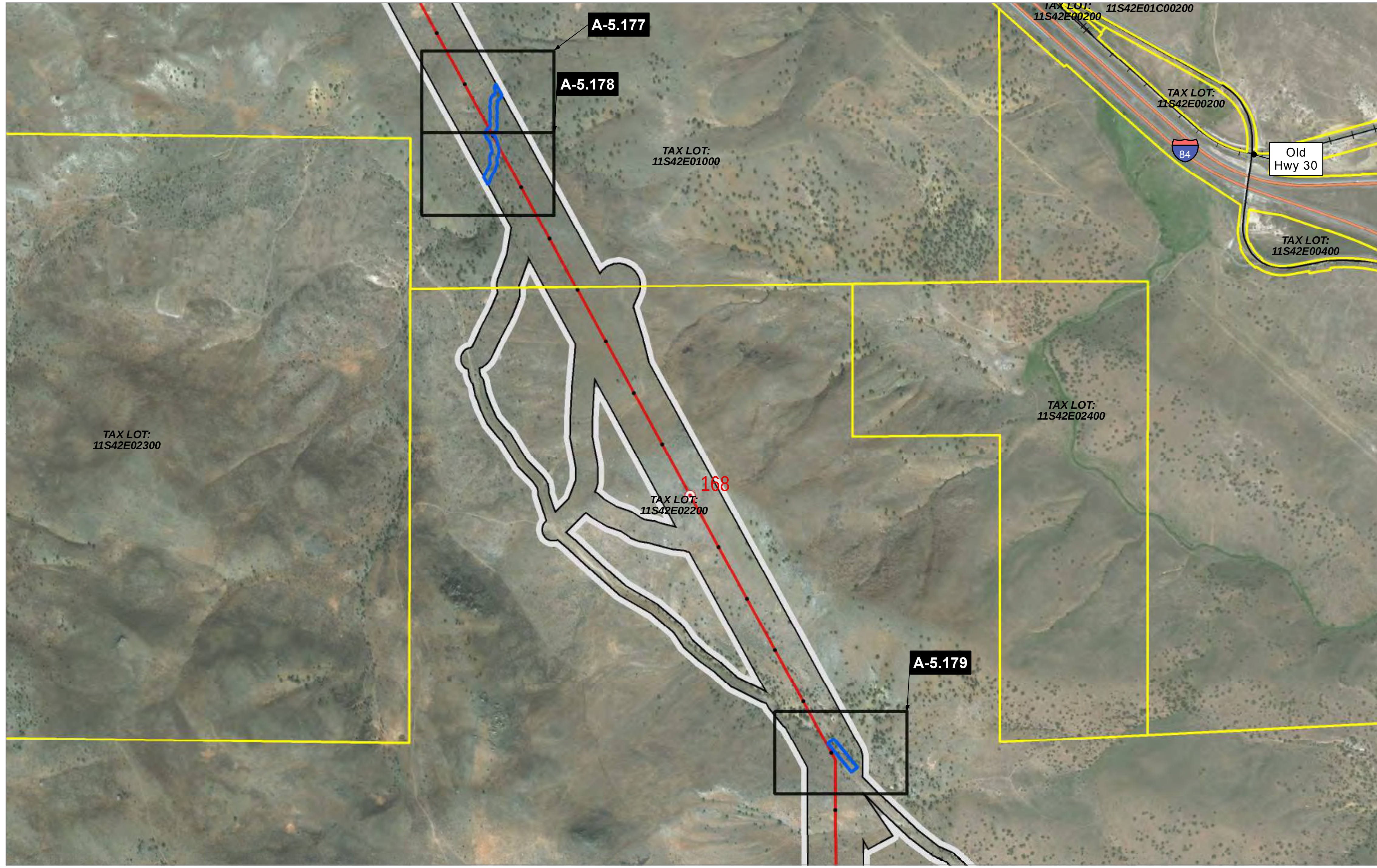

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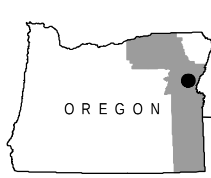


Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

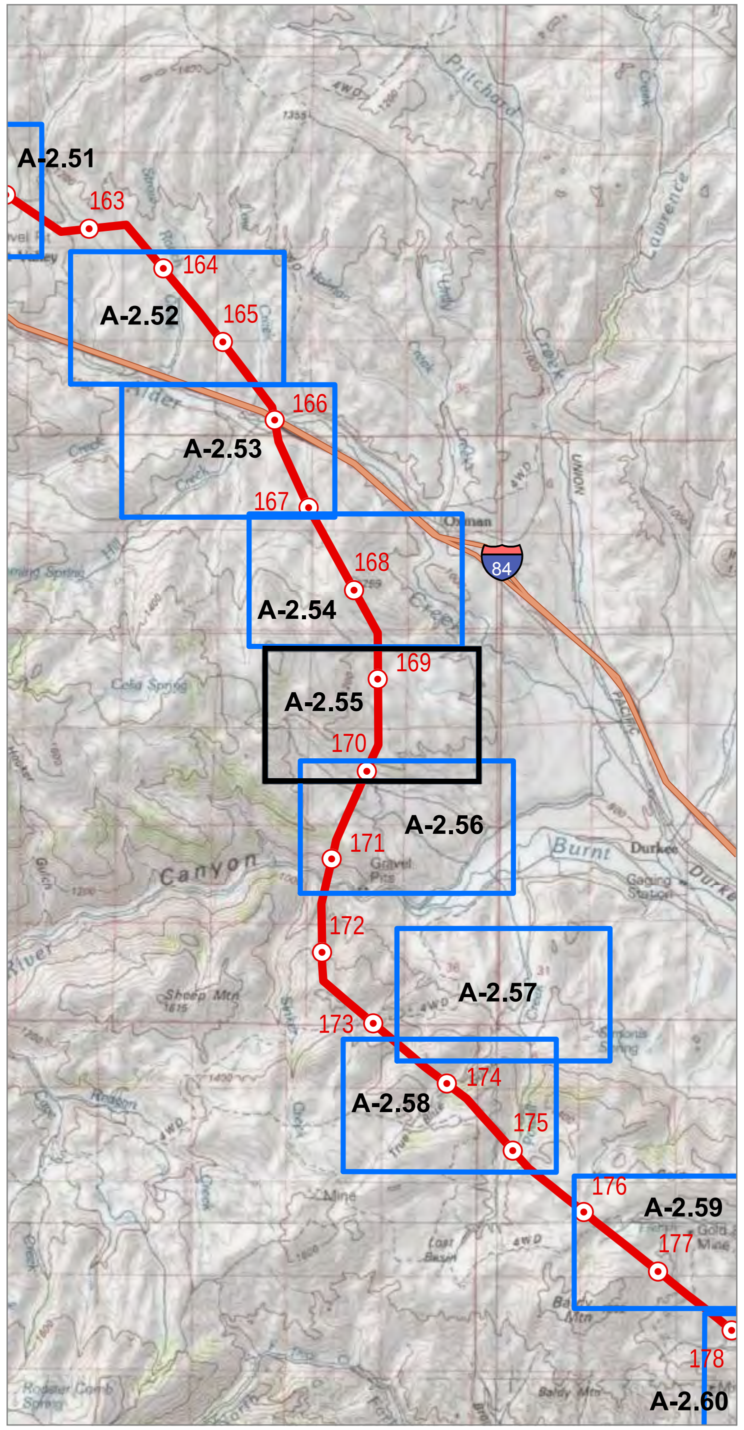
Other Features
- Interstates or Highways
- Other Major Roads
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.54
Wetland and Other Waters Delineation Report
Tax Lots
Baker County



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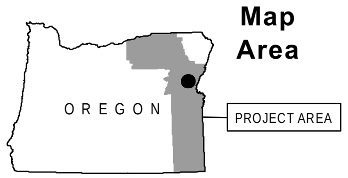
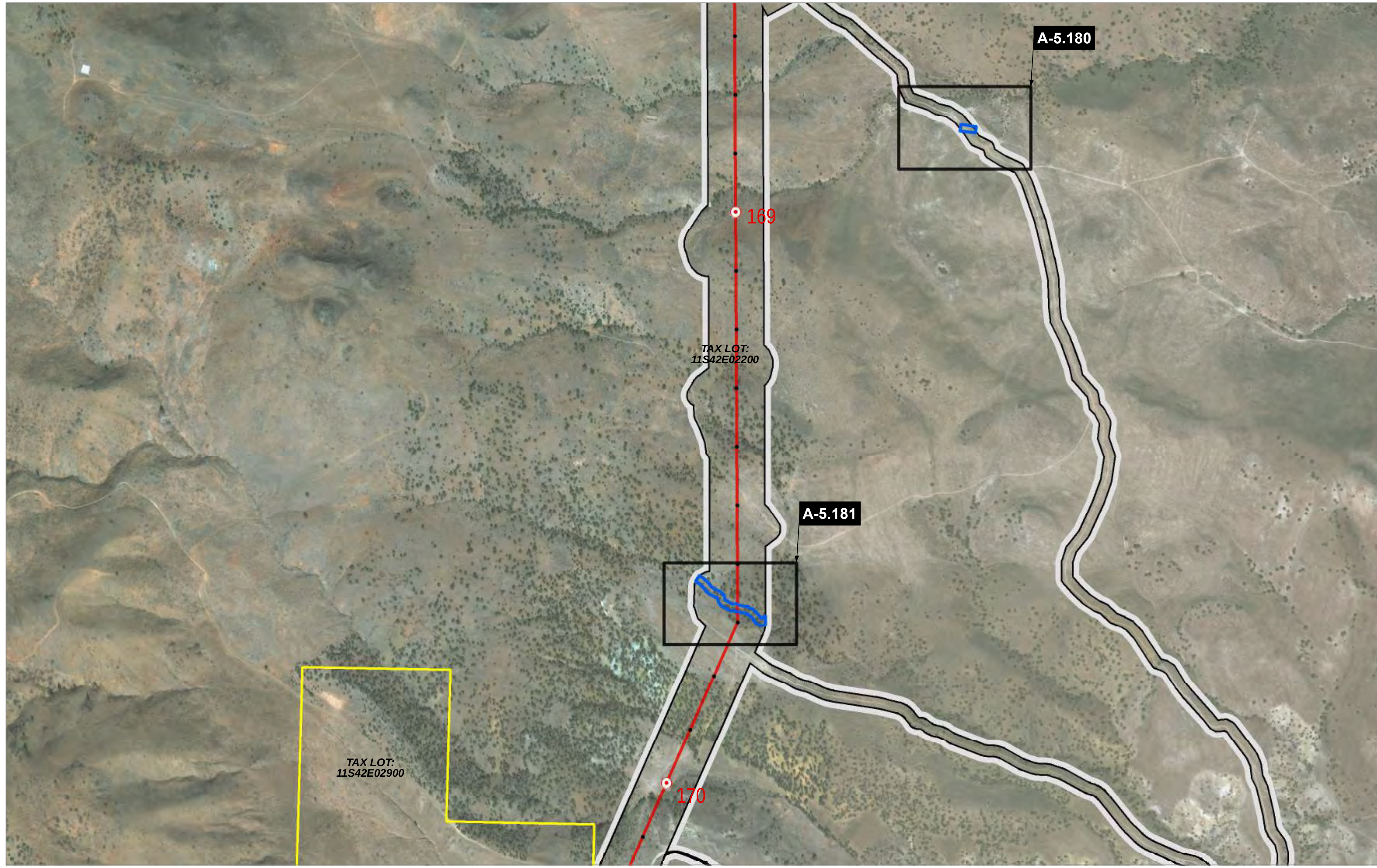


Map Area



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Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

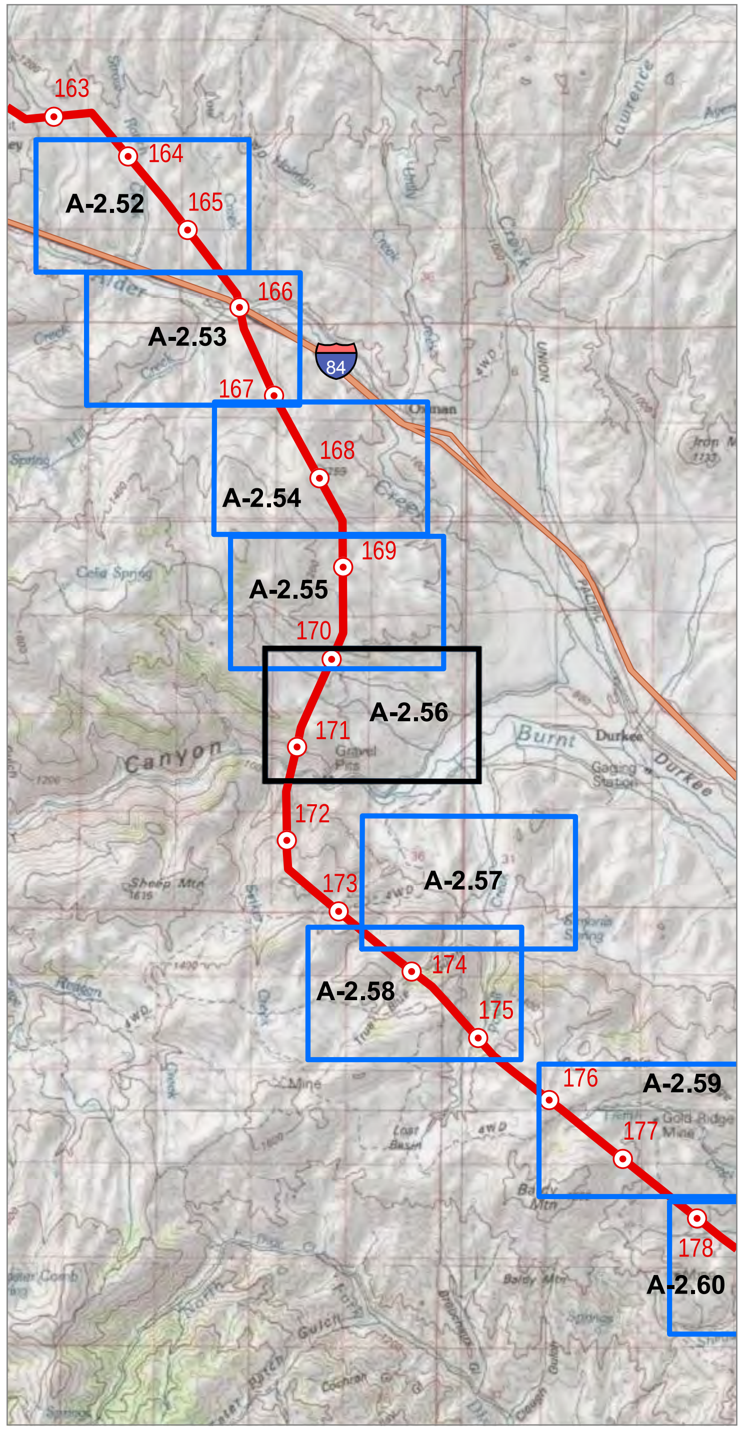
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

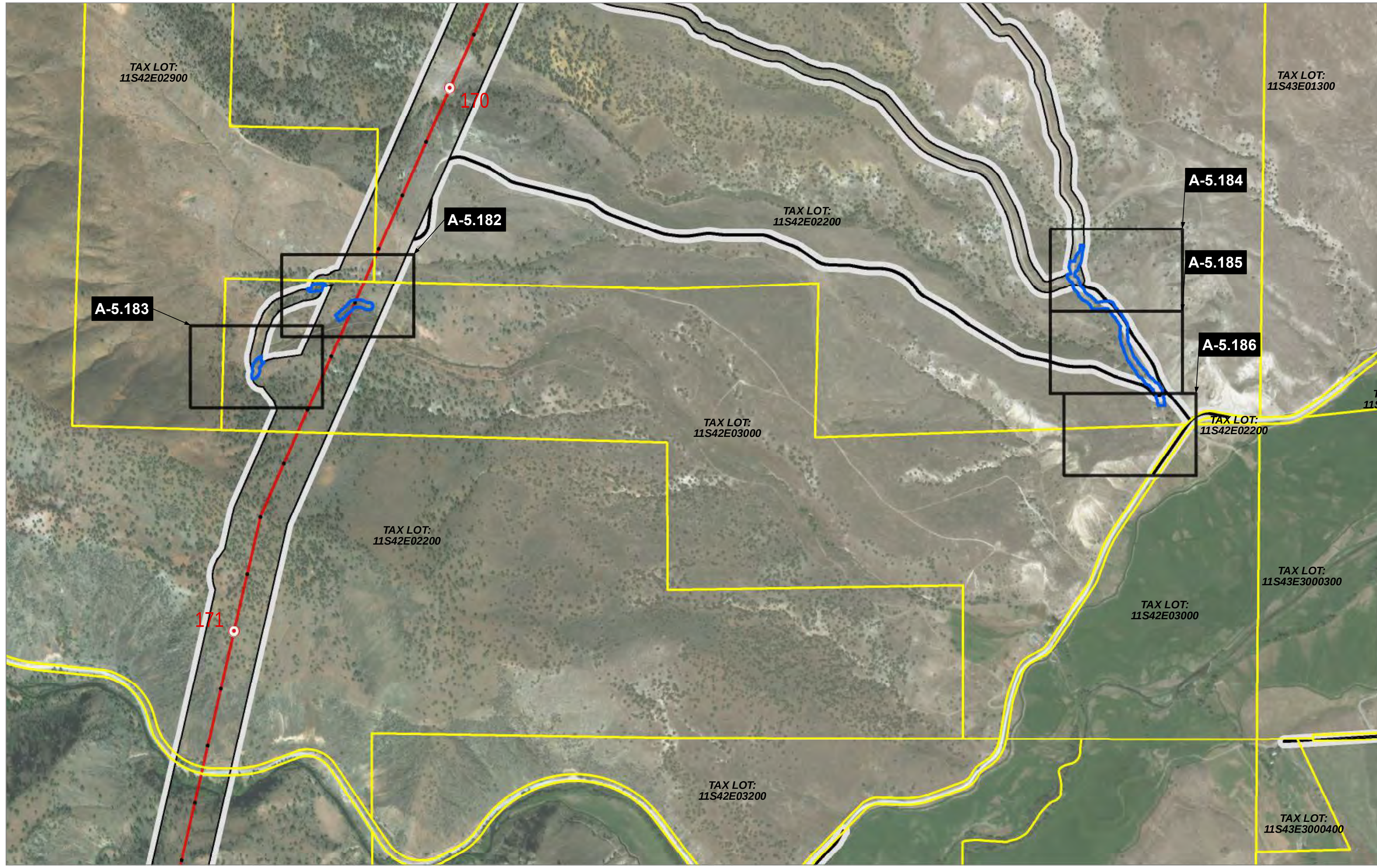
IDAHO POWER
An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.55

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





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Miles

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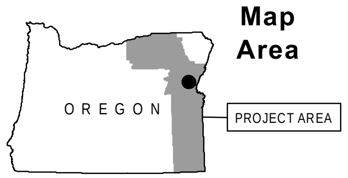
Feet

Map Area



Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

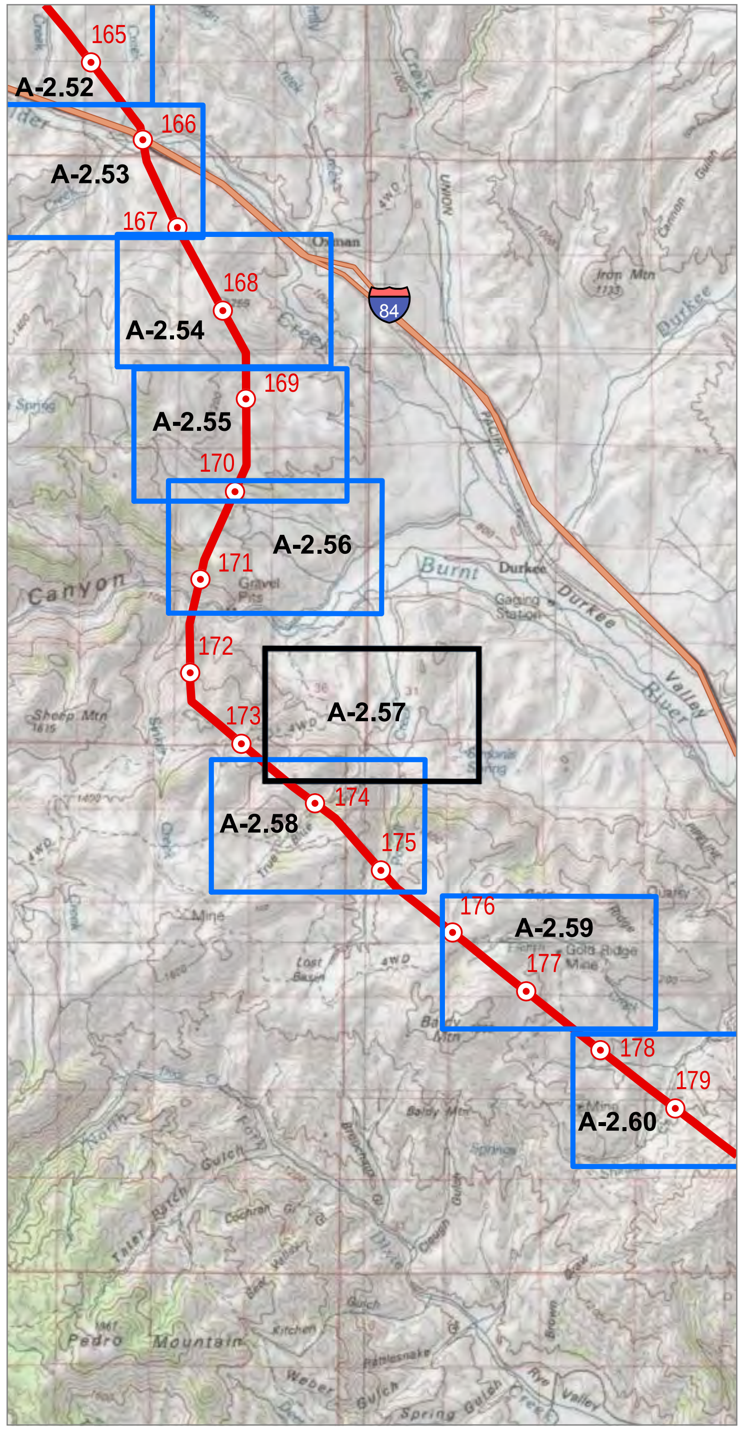
IDAHO POWER An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.56
Wetland and Other Waters
Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



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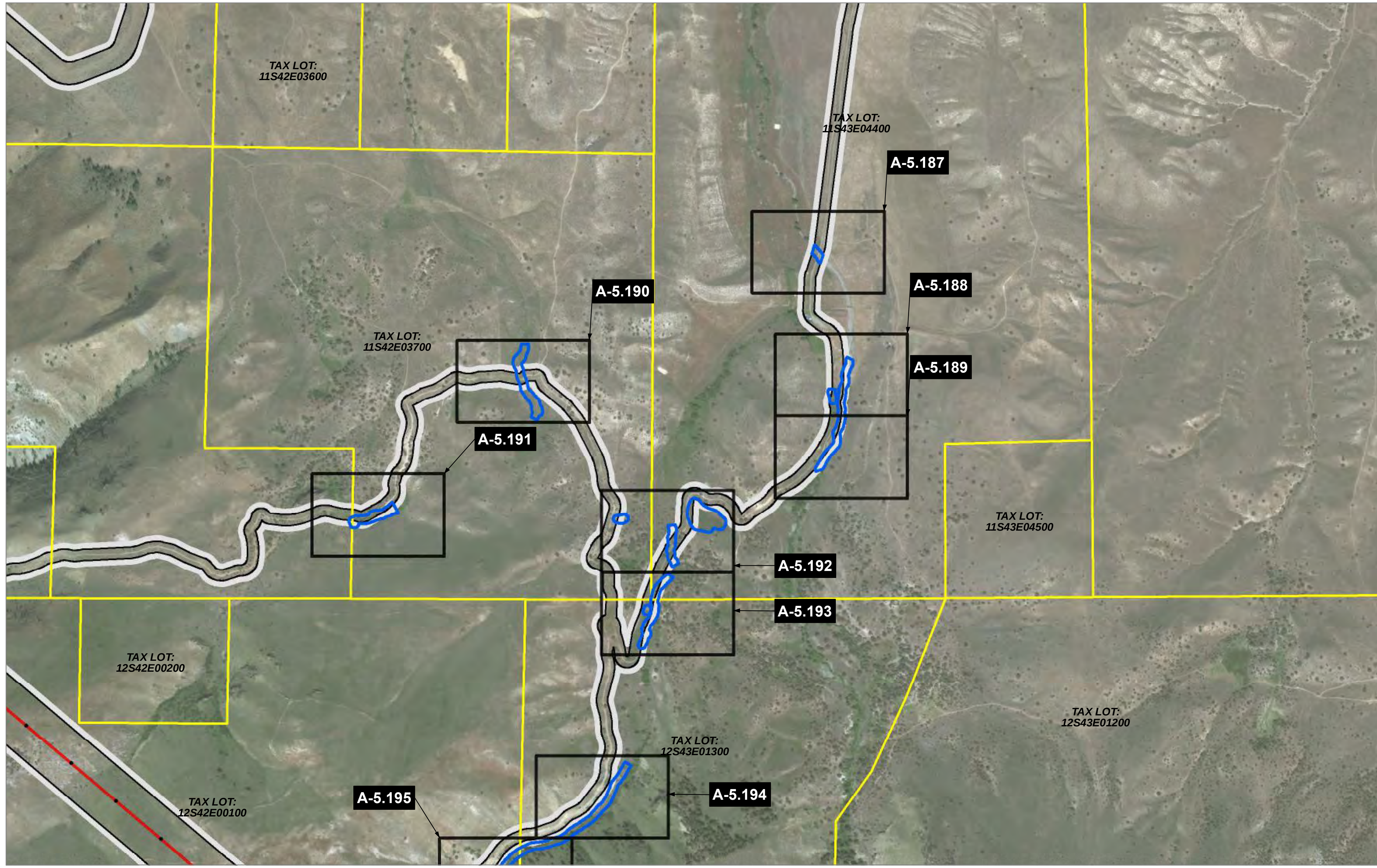


0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

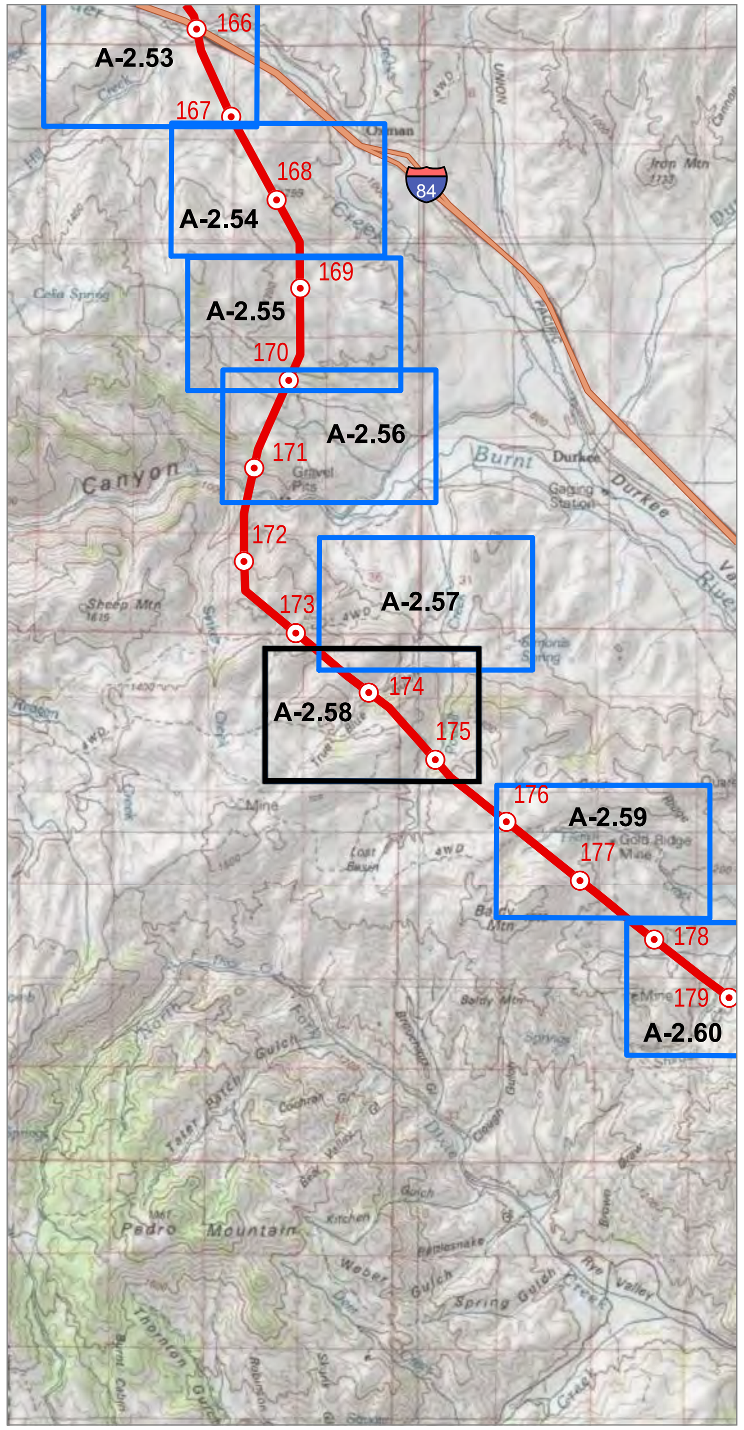
Mileposts
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

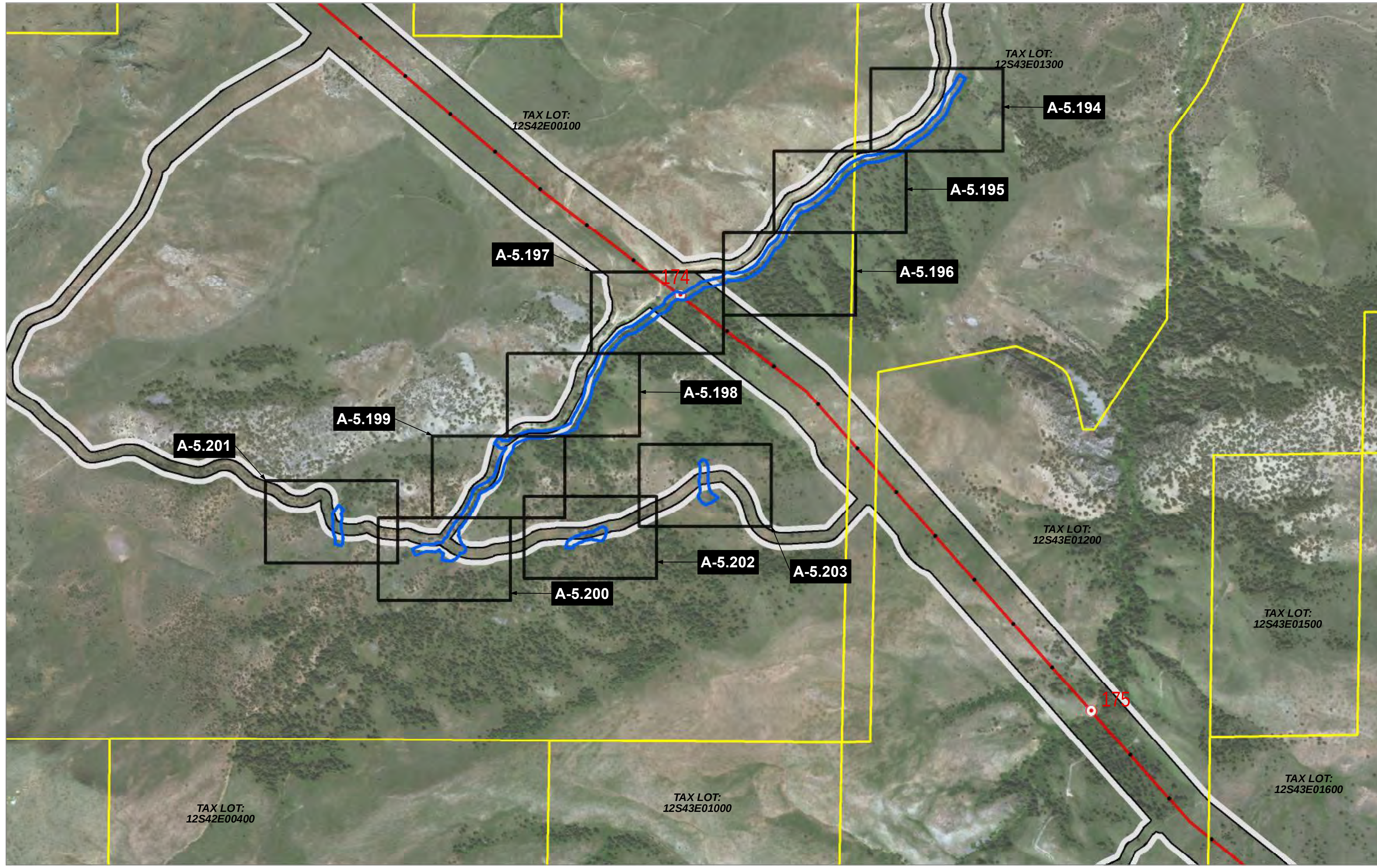
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.57
Wetland and Other Waters Delineation Report
Tax Lots
Baker County





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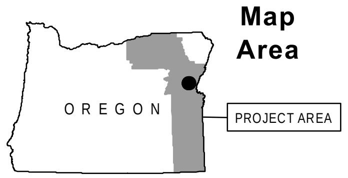
Miles

0 1,000
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

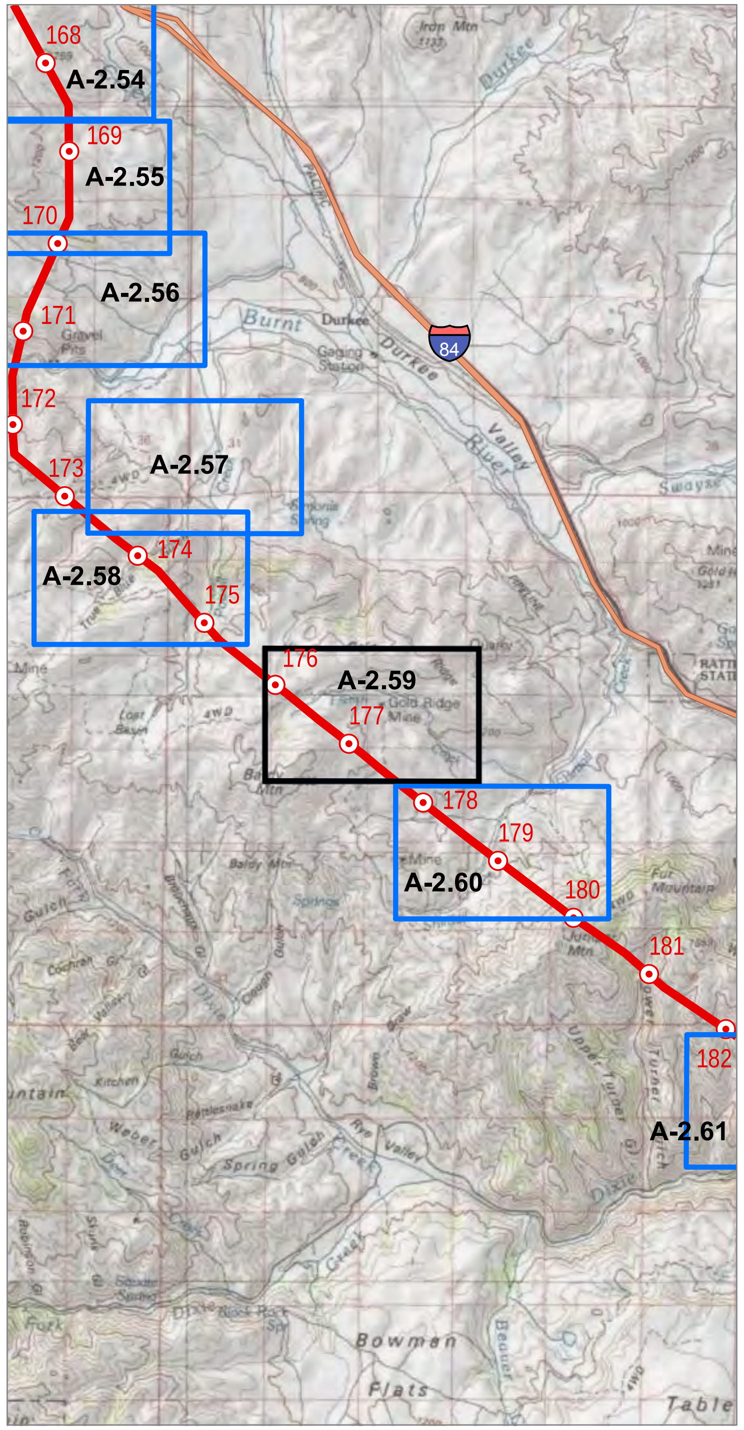
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.58
Wetland and Other Waters Delineation Report Tax Lots
Baker County



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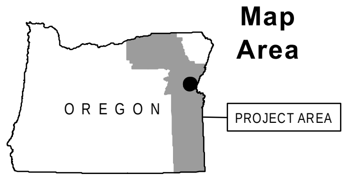
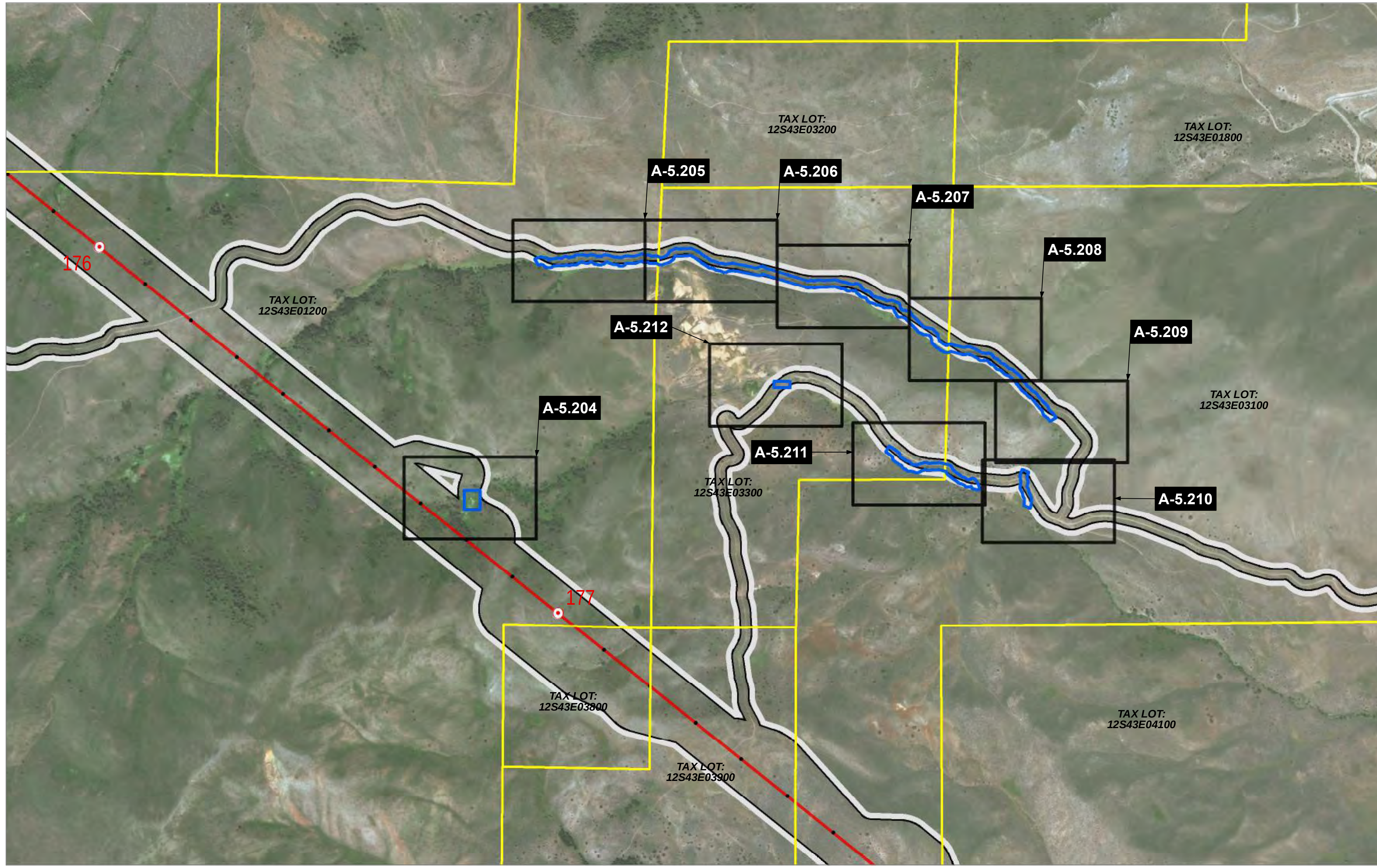
Map Area





0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

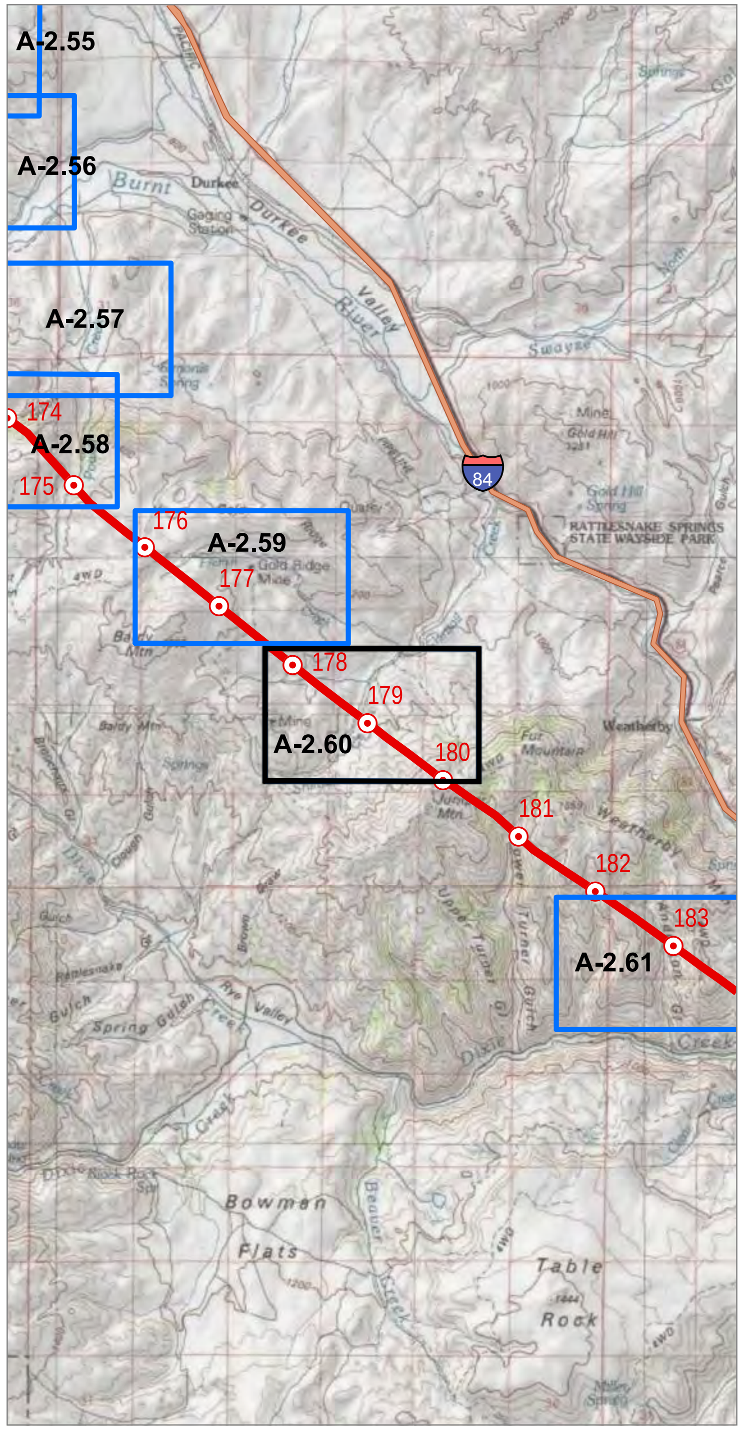
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

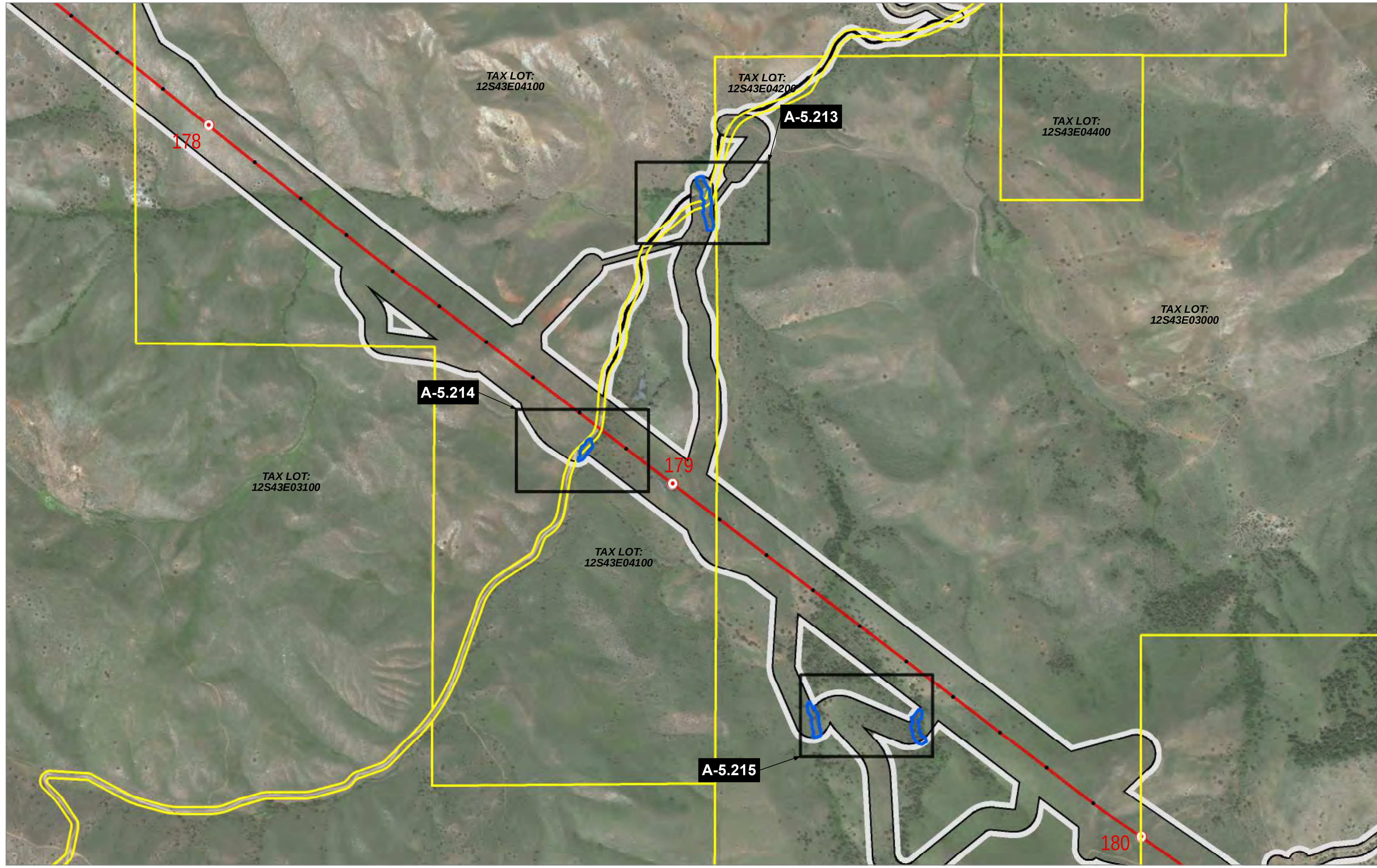
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.59
Wetland and Other Waters Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





0 2
Miles

Map Area

OREGON
PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

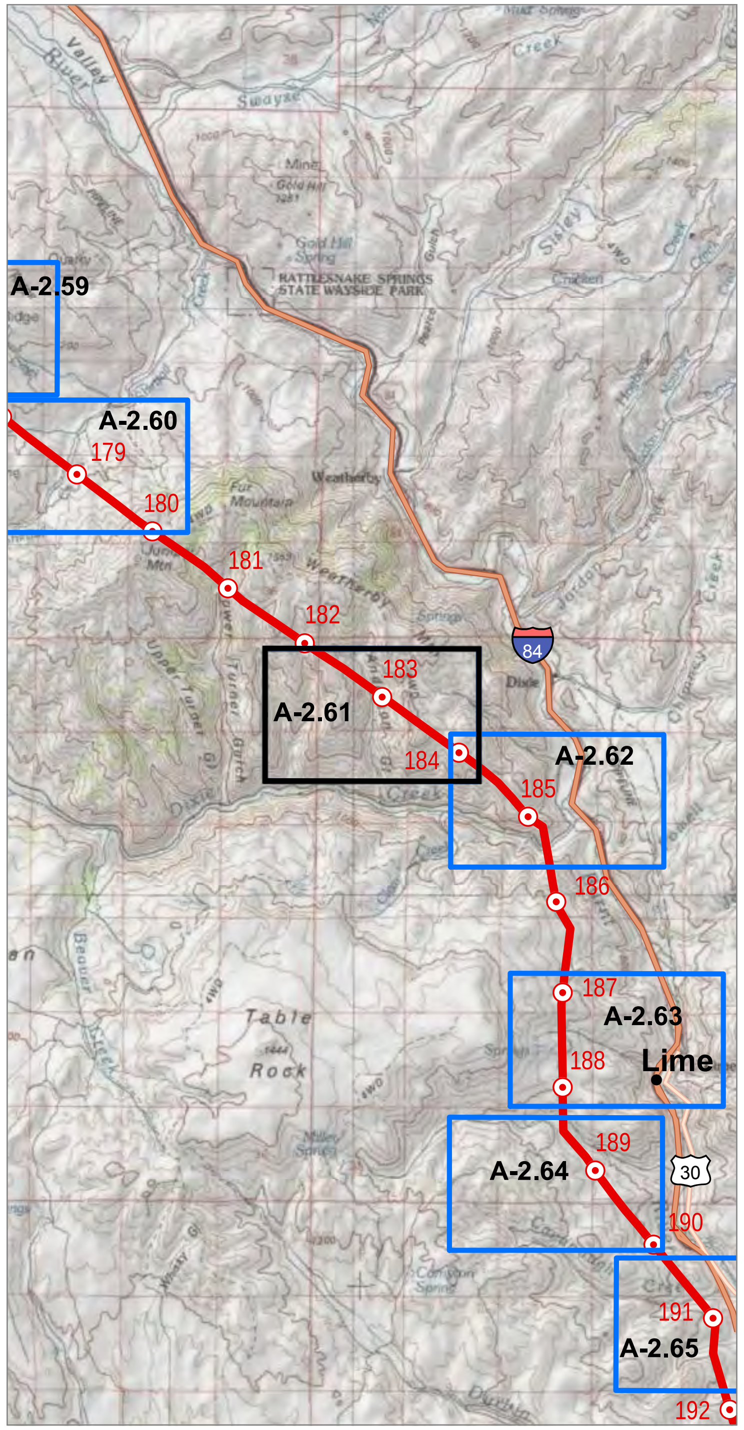
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

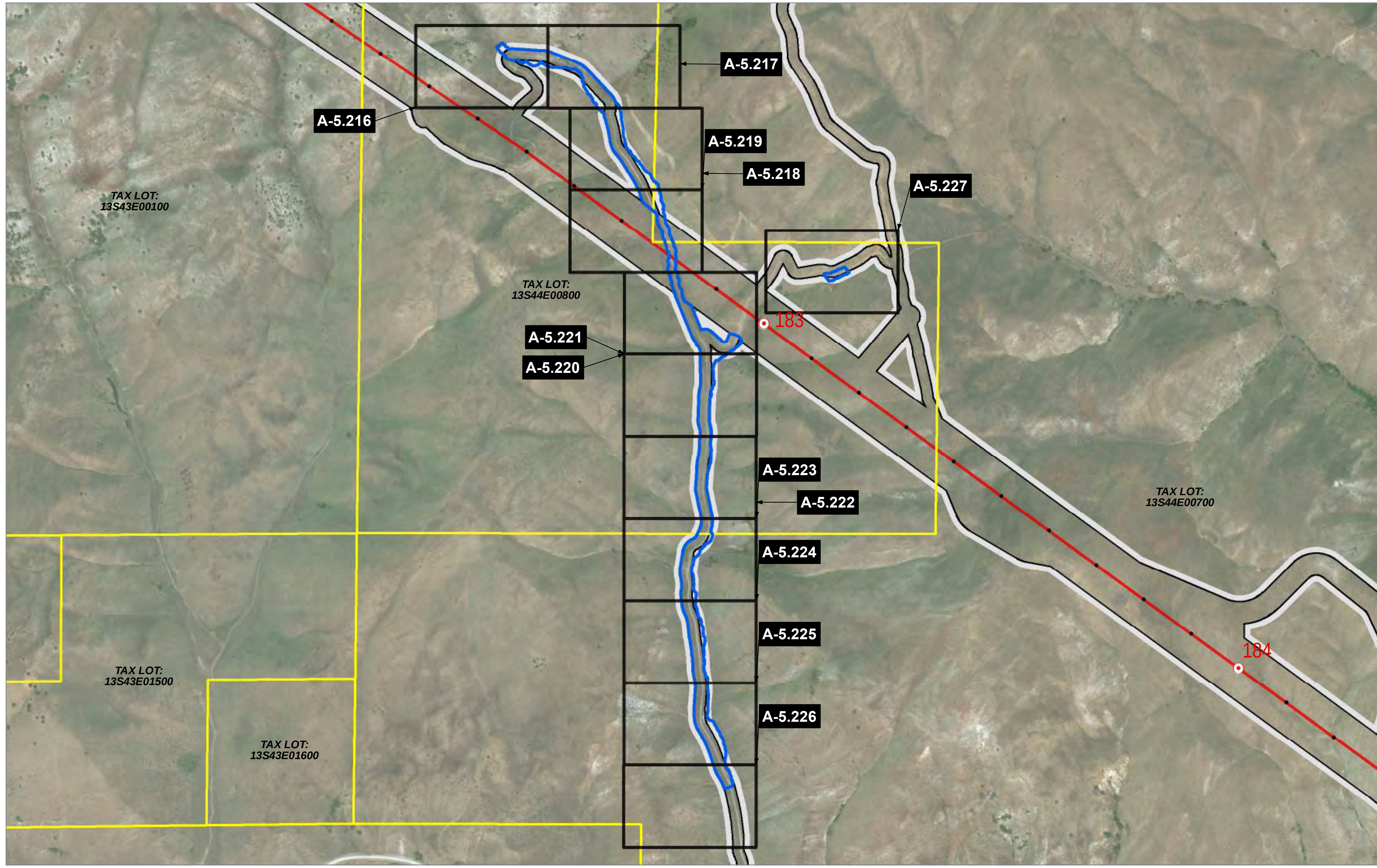
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.60
Wetland and Other Waters
Delineation Report
Tax Lots
Baker County





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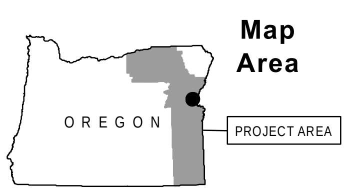


0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

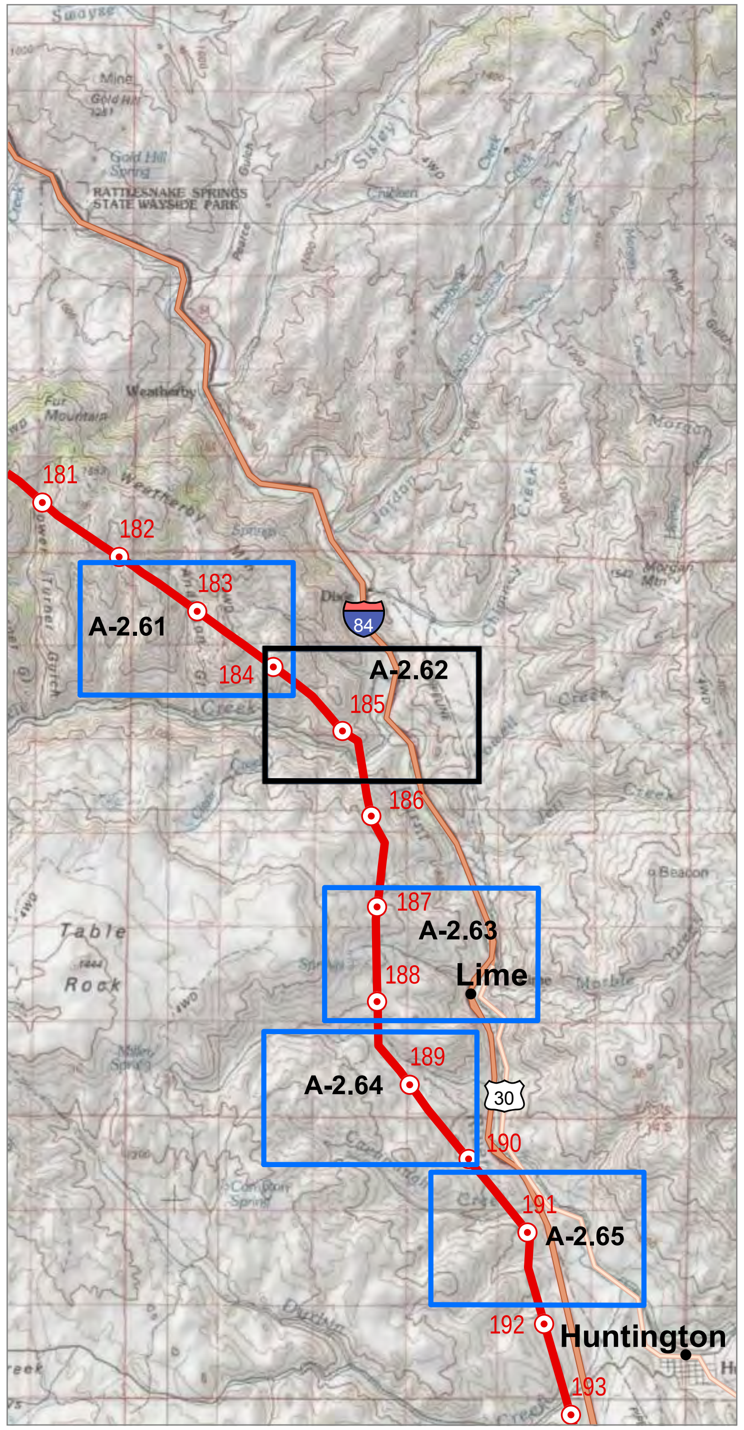
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.61
Wetland and Other Waters Delineation Report
Tax Lots
Baker County



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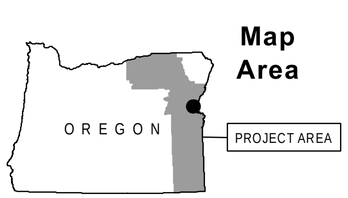
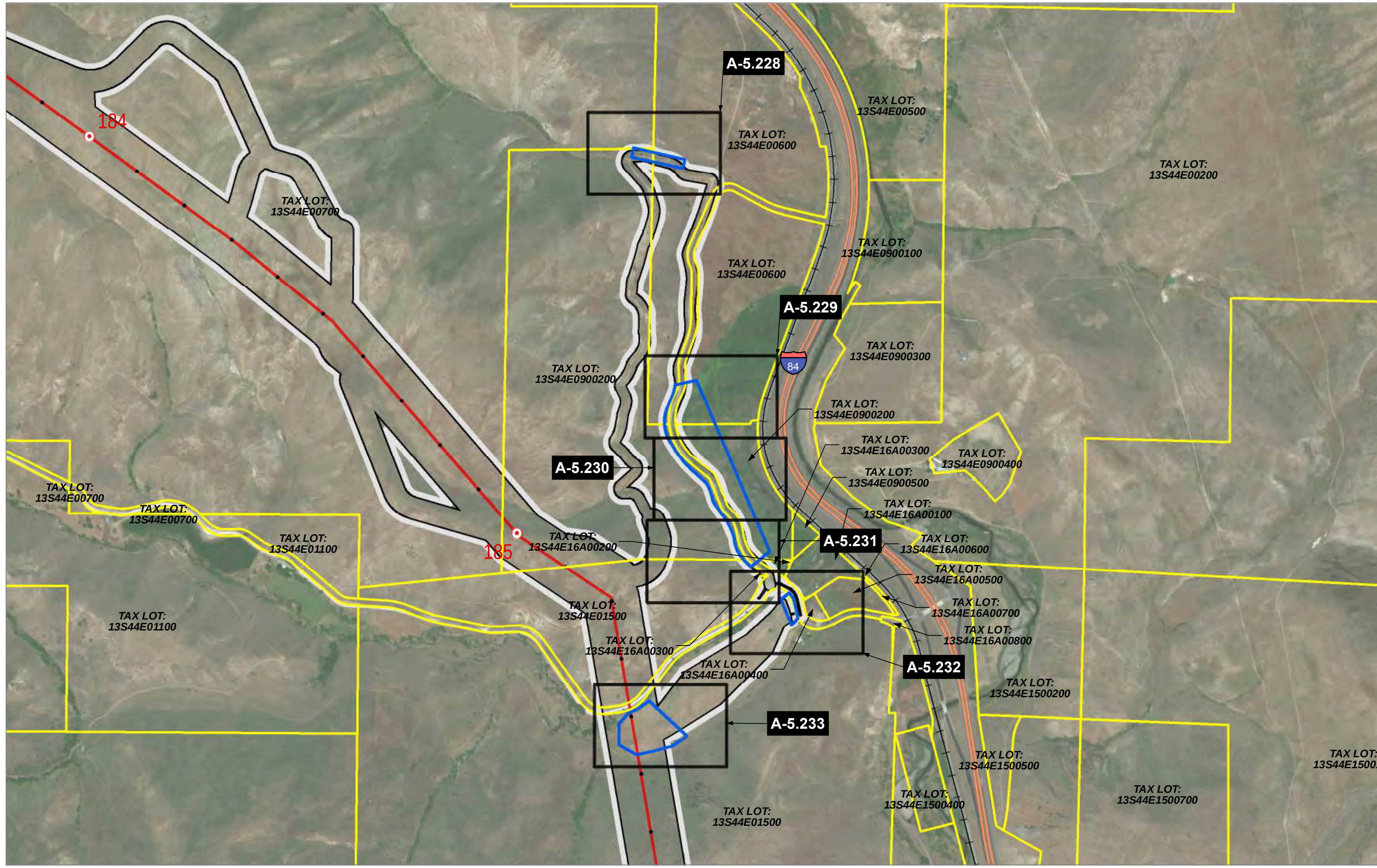




0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area

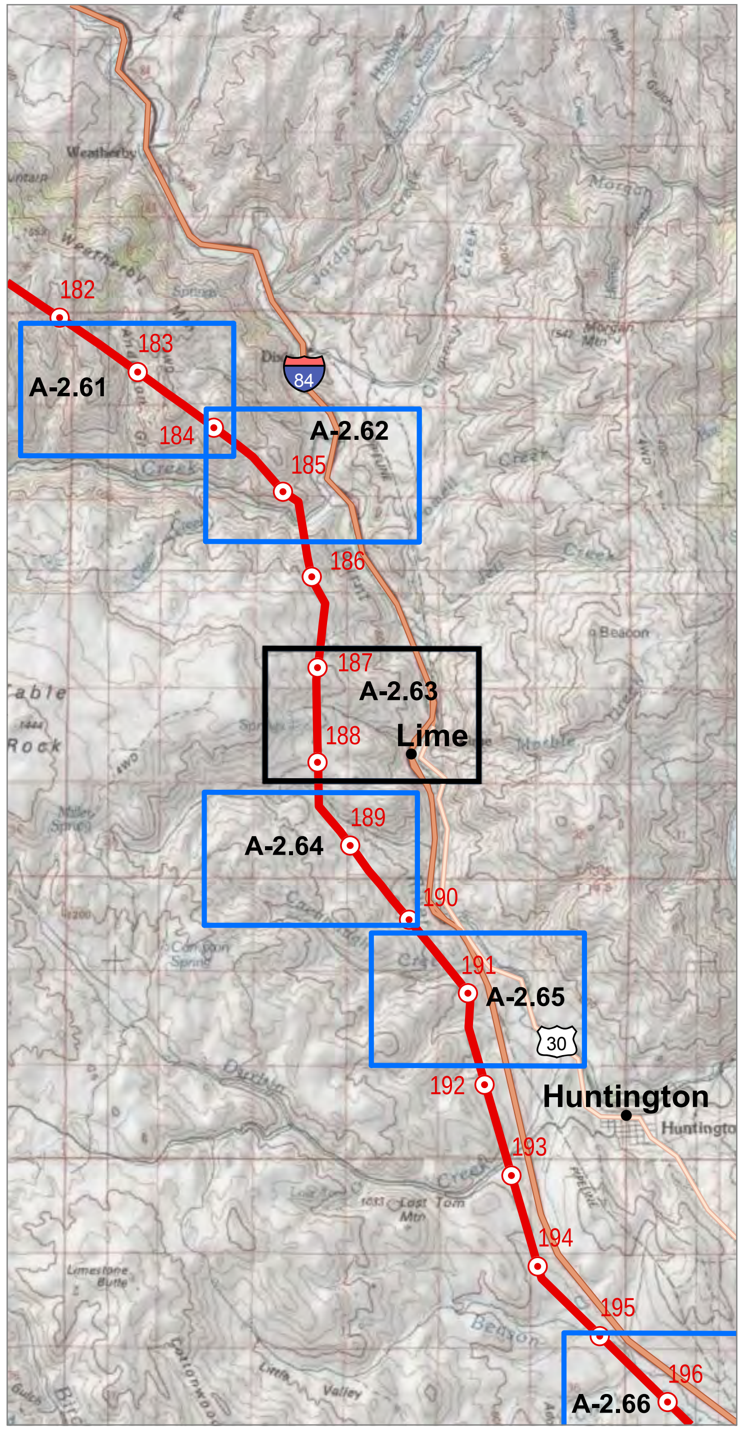
Other Features
Interstates or Highways
Railroads
Tax Lot Parcel

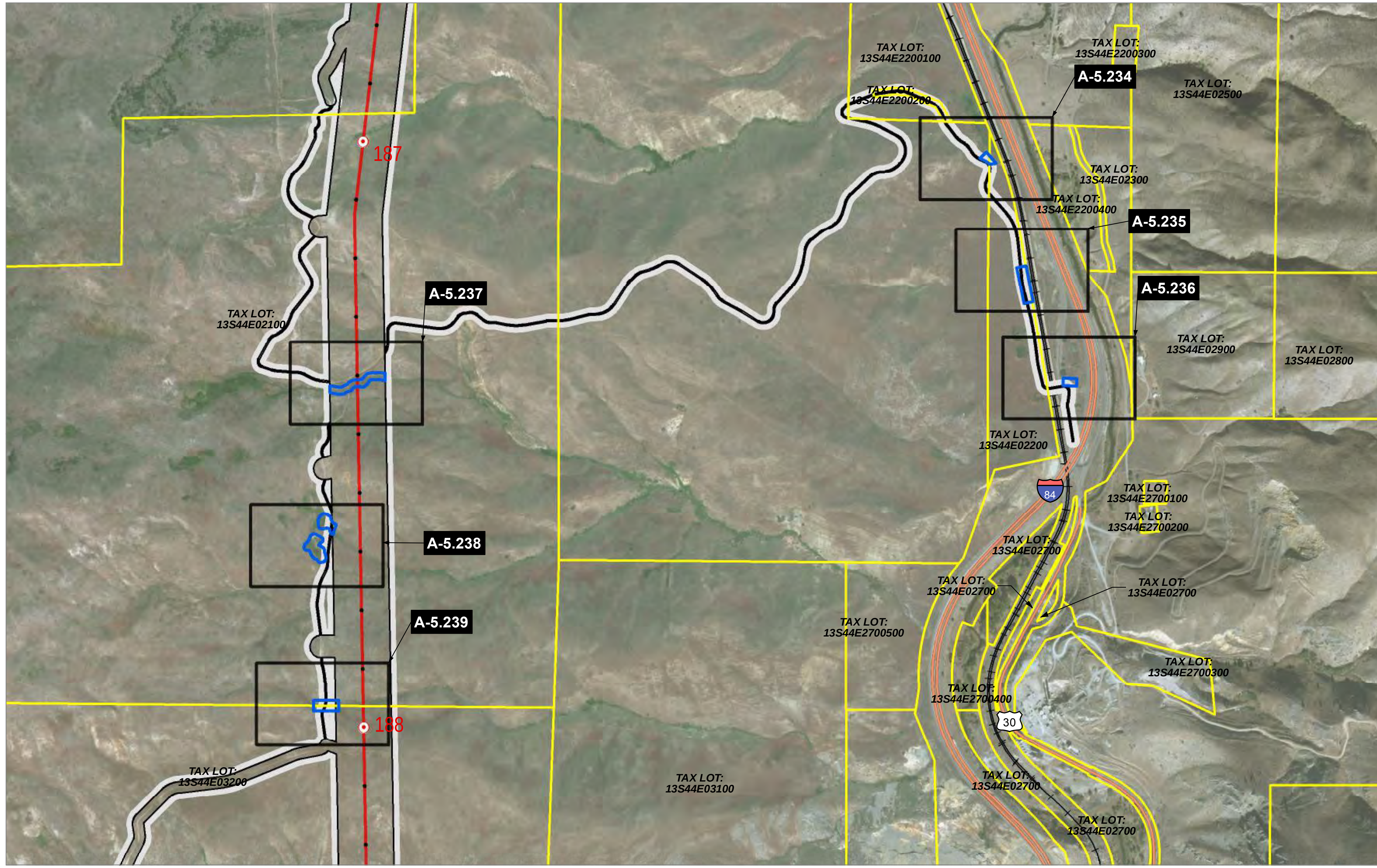
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.62
Wetland and Other Waters
Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

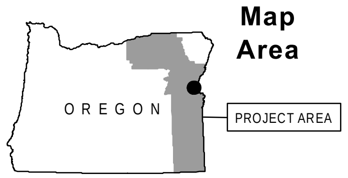




0 2
Miles

0 1,000
Feet

Map Area



Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

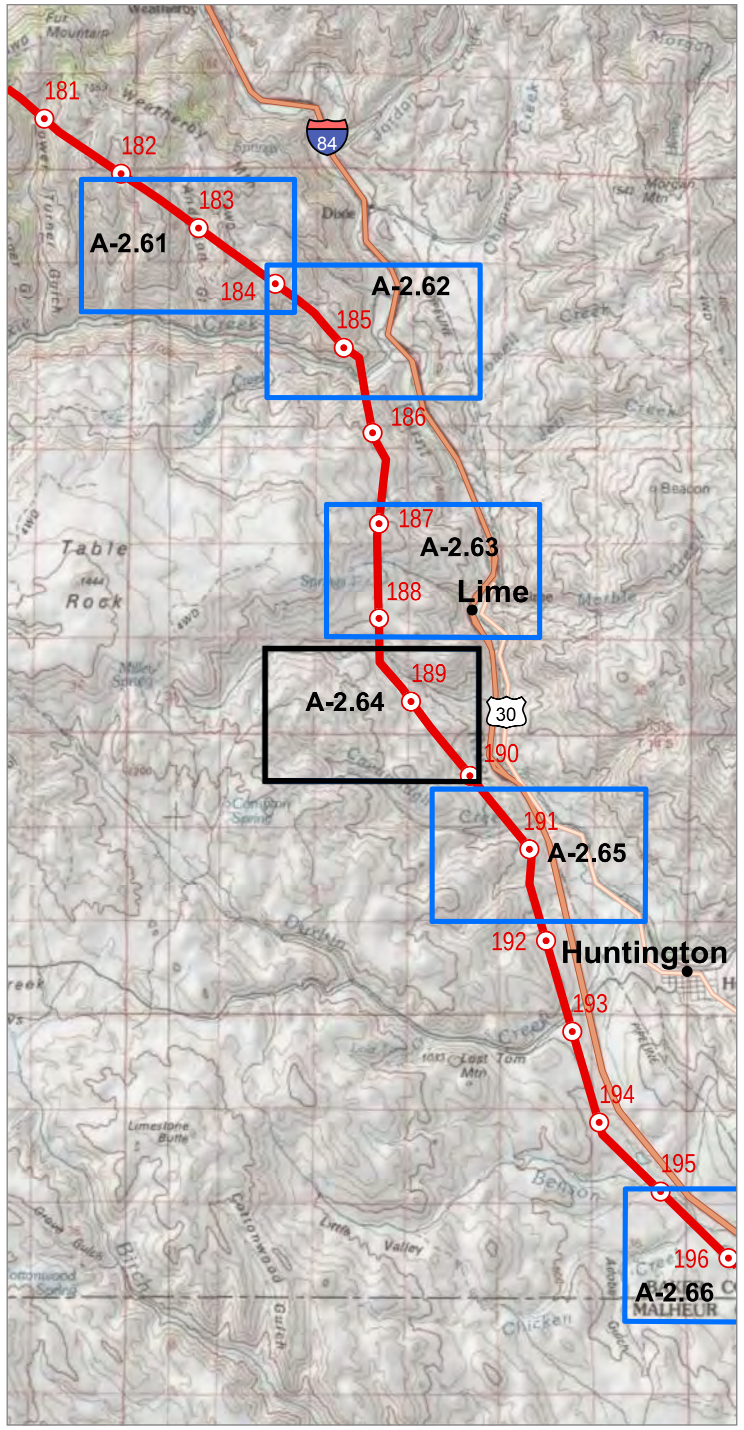
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

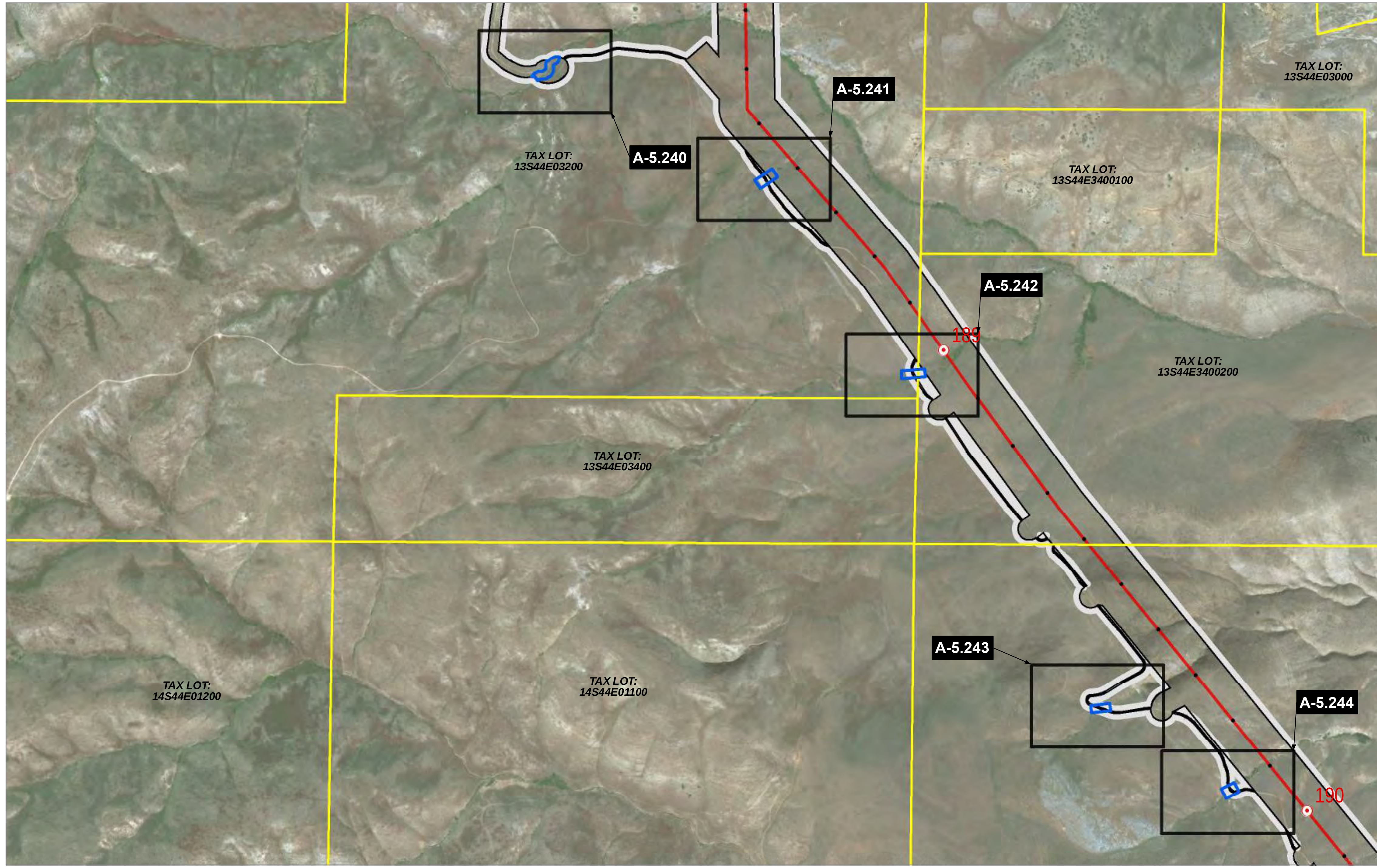
IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.63

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





0 2
Miles

0 1,000
Feet

Map Area

OREGON
PROJECT AREA

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

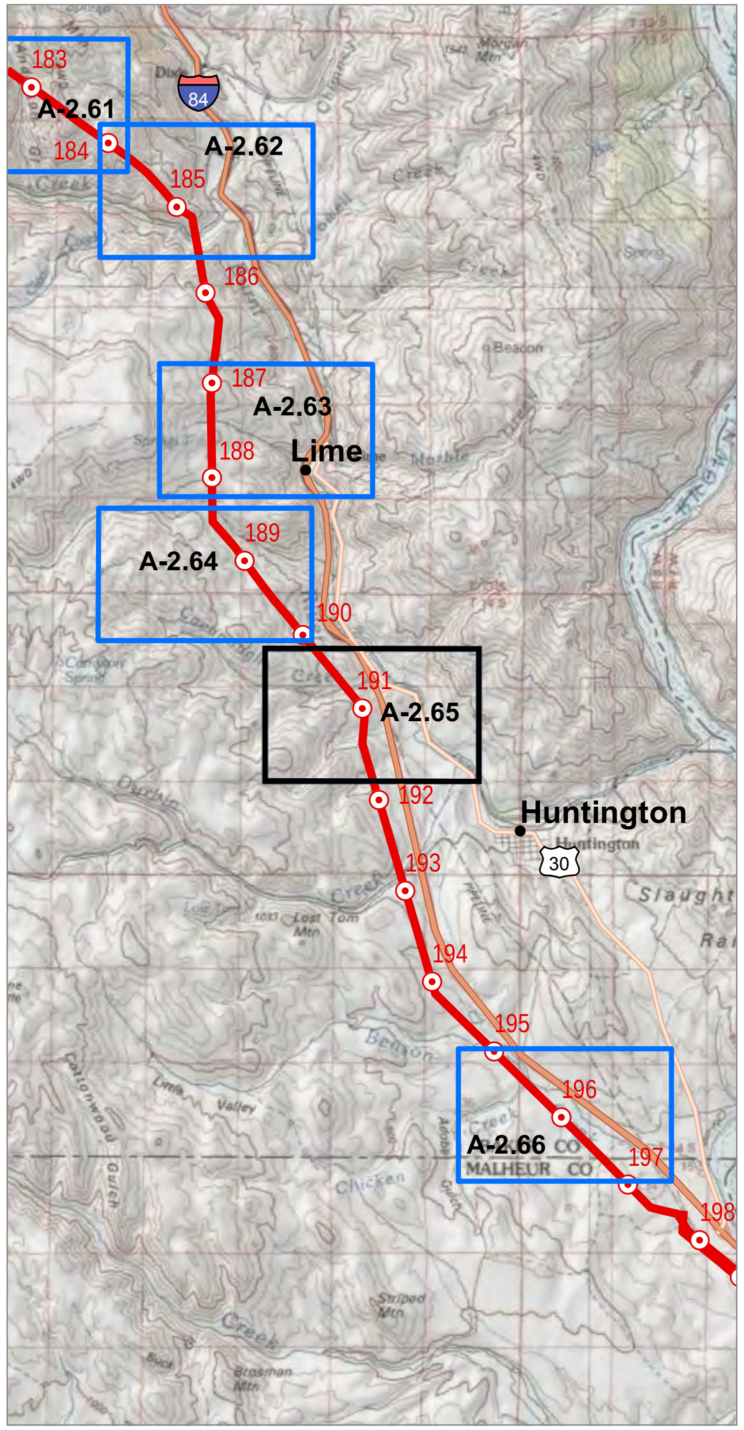
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

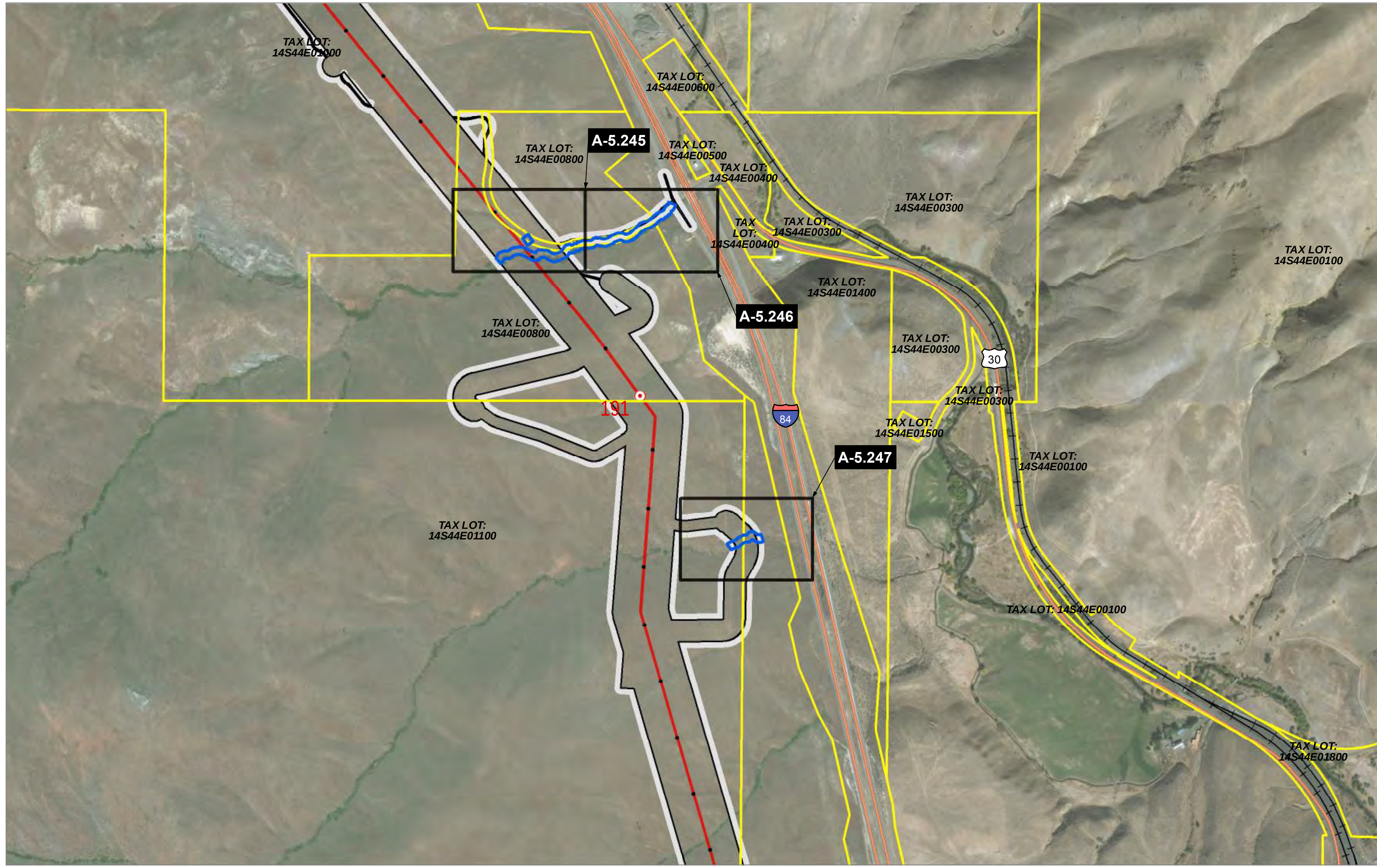
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.64

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





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Miles

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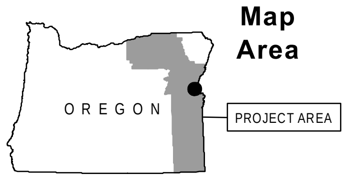
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Railroads
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

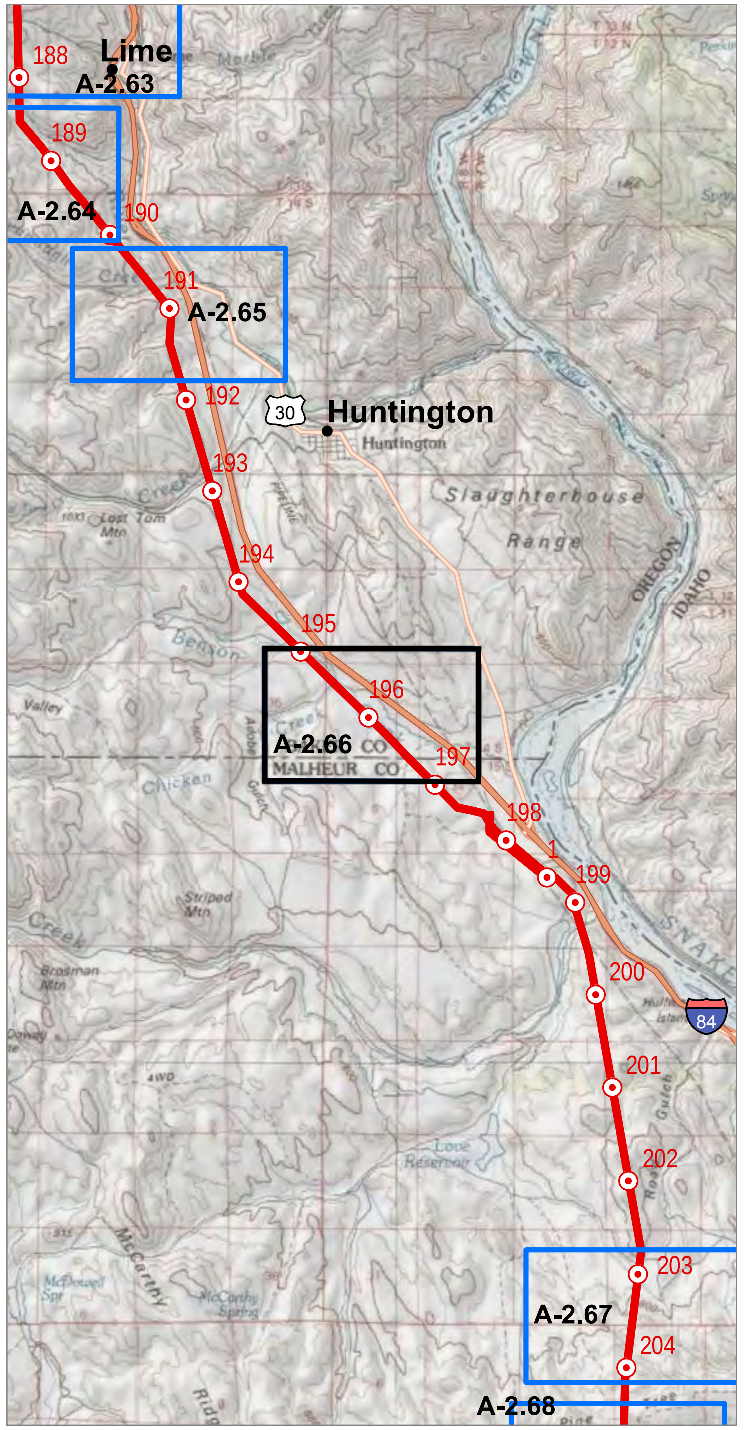
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

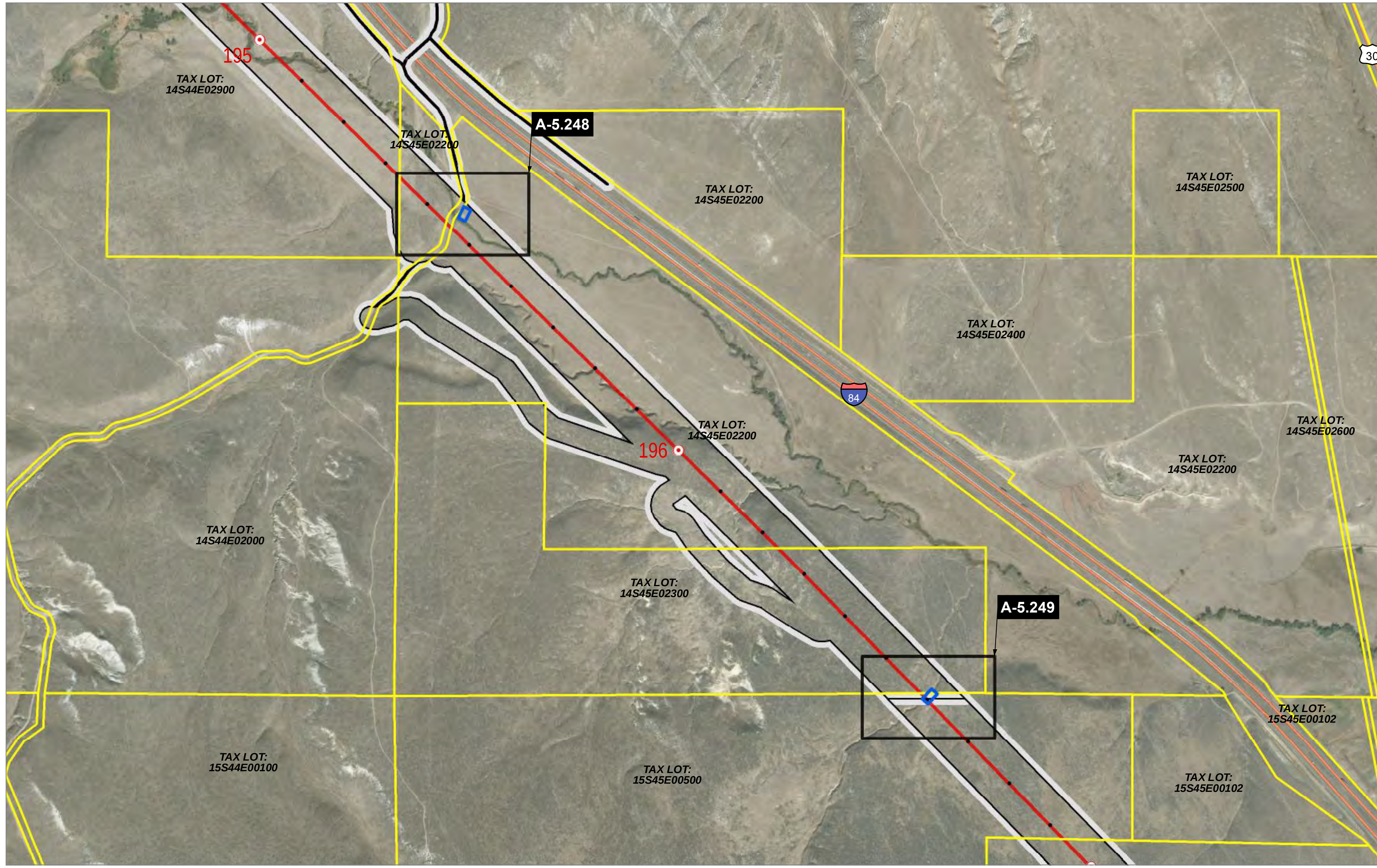
IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.65

Wetland and Other Waters Delineation Report
Tax Lots
Baker County





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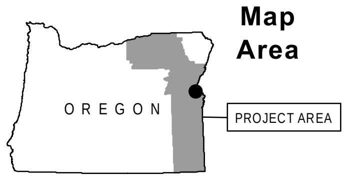


Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

Other Features
- Interstates or Highways
- Tax Lot Parcel

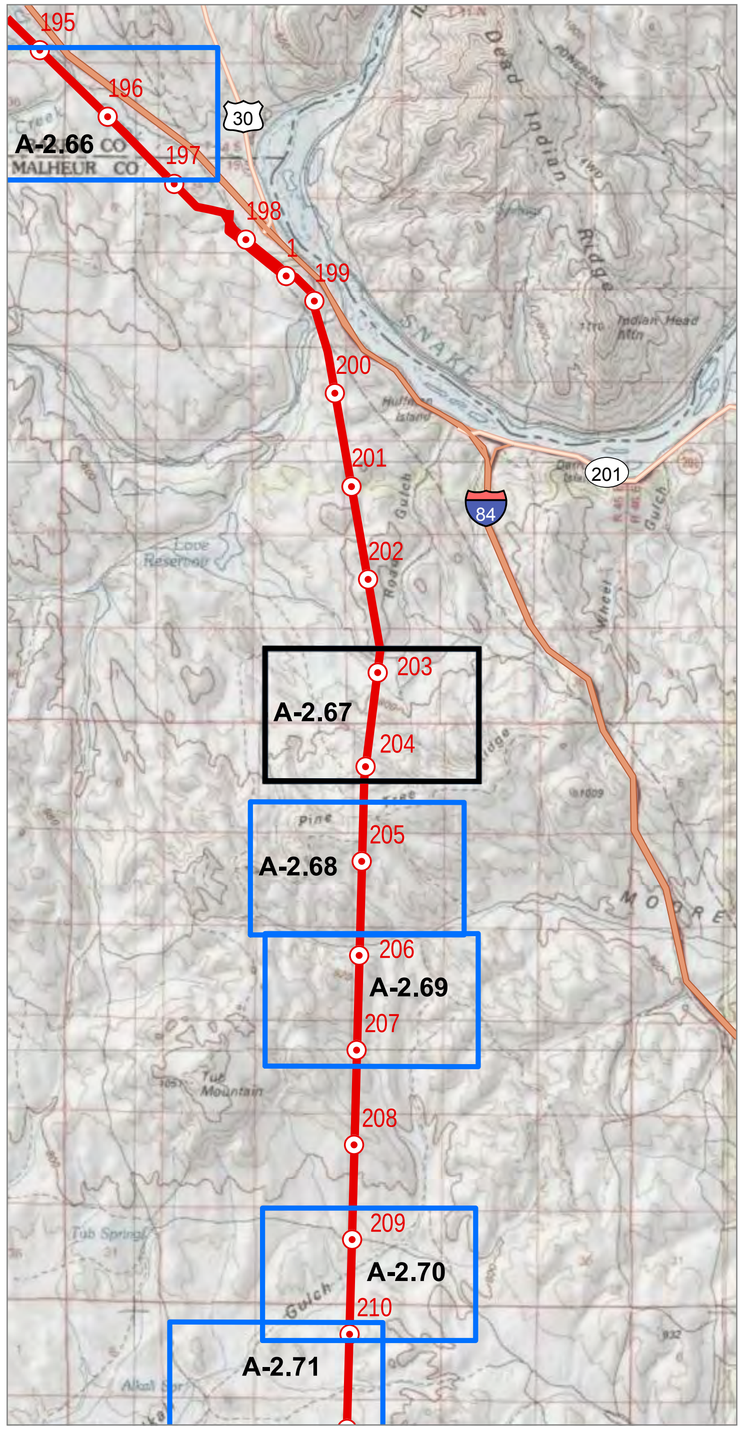
IDAHO POWER
An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.66
Wetland and Other Waters Delineation Report
Tax Lots
Baker County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



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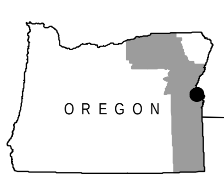
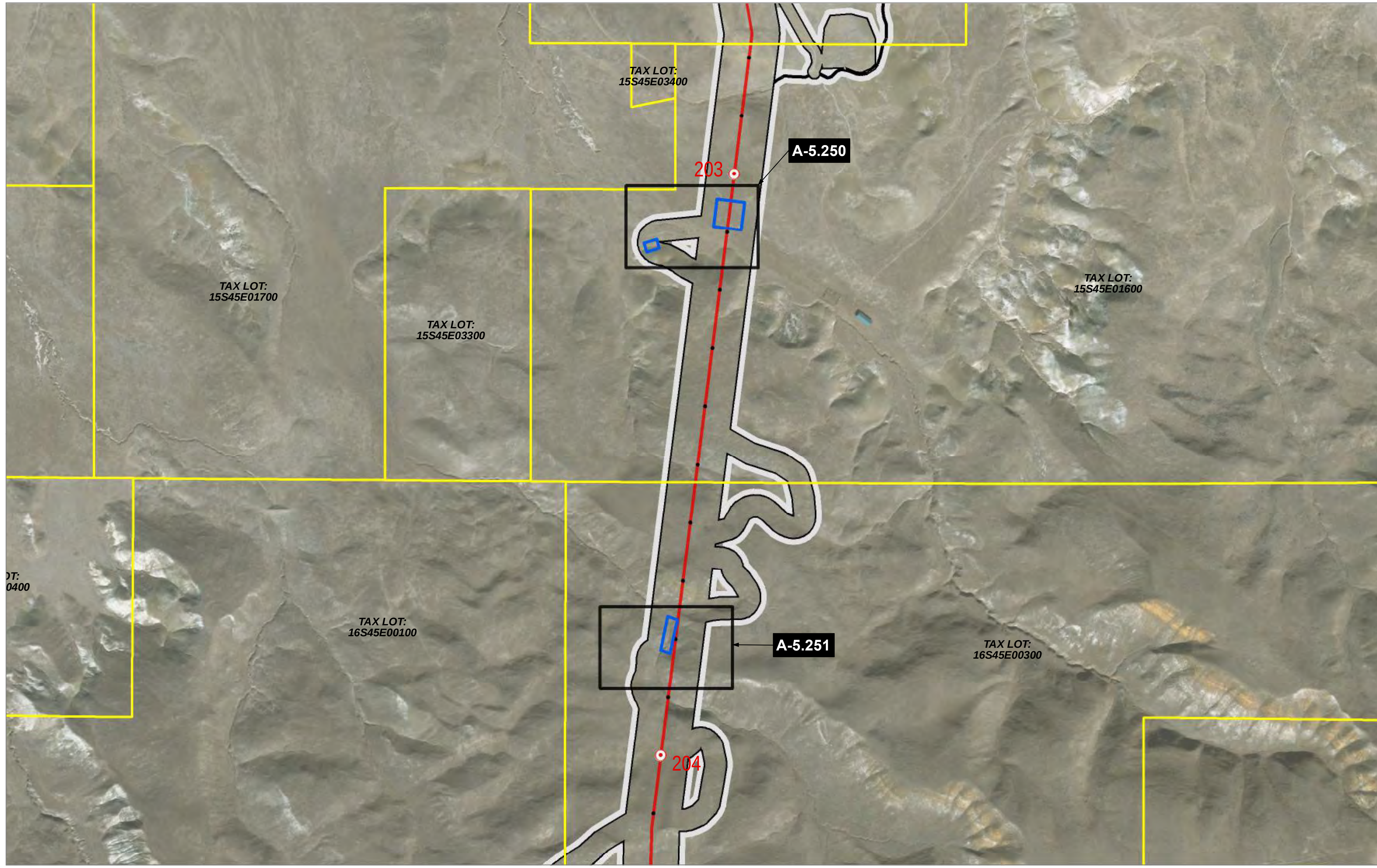


Map Area



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Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

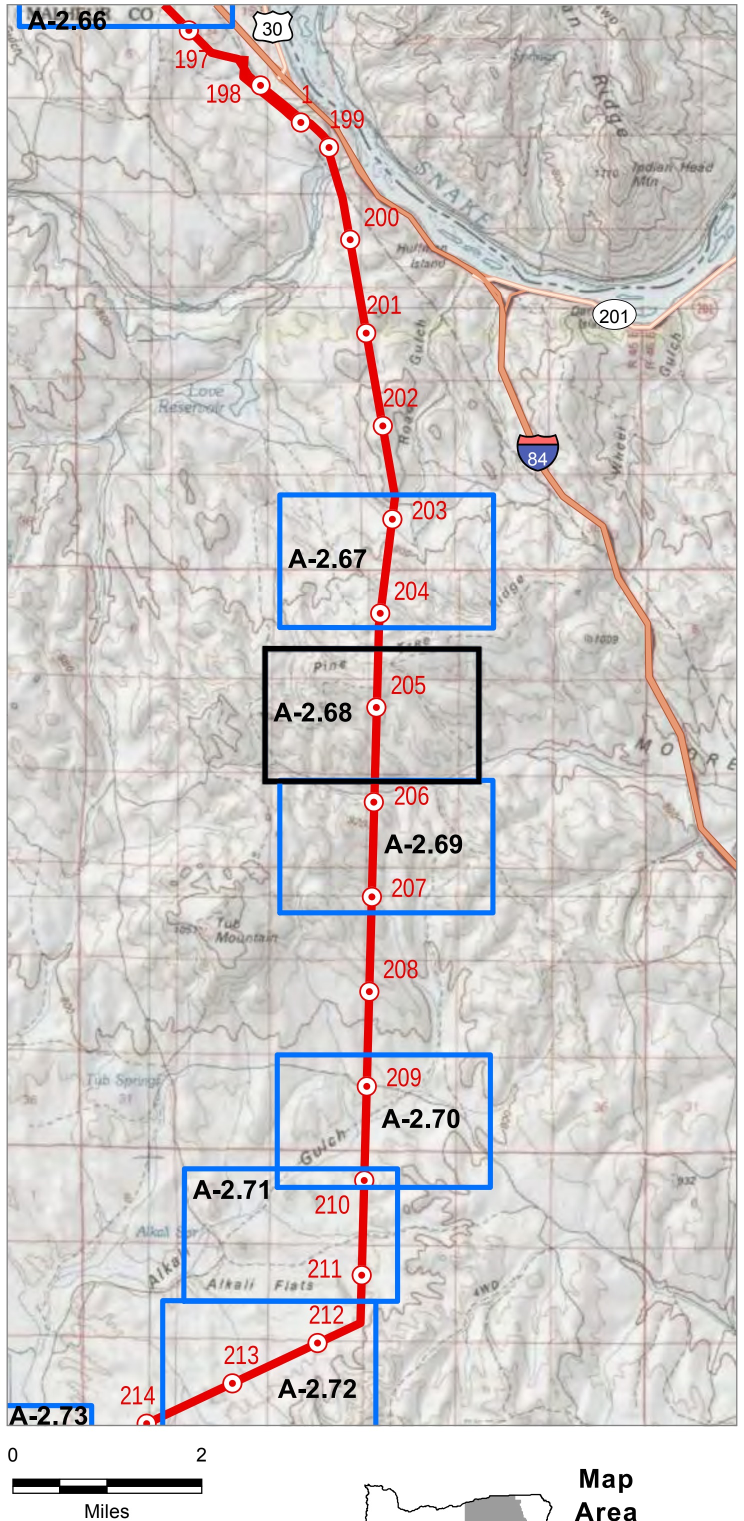
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

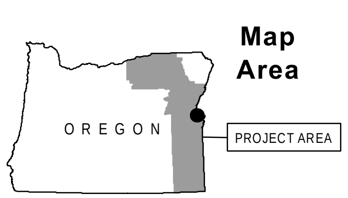
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.67

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

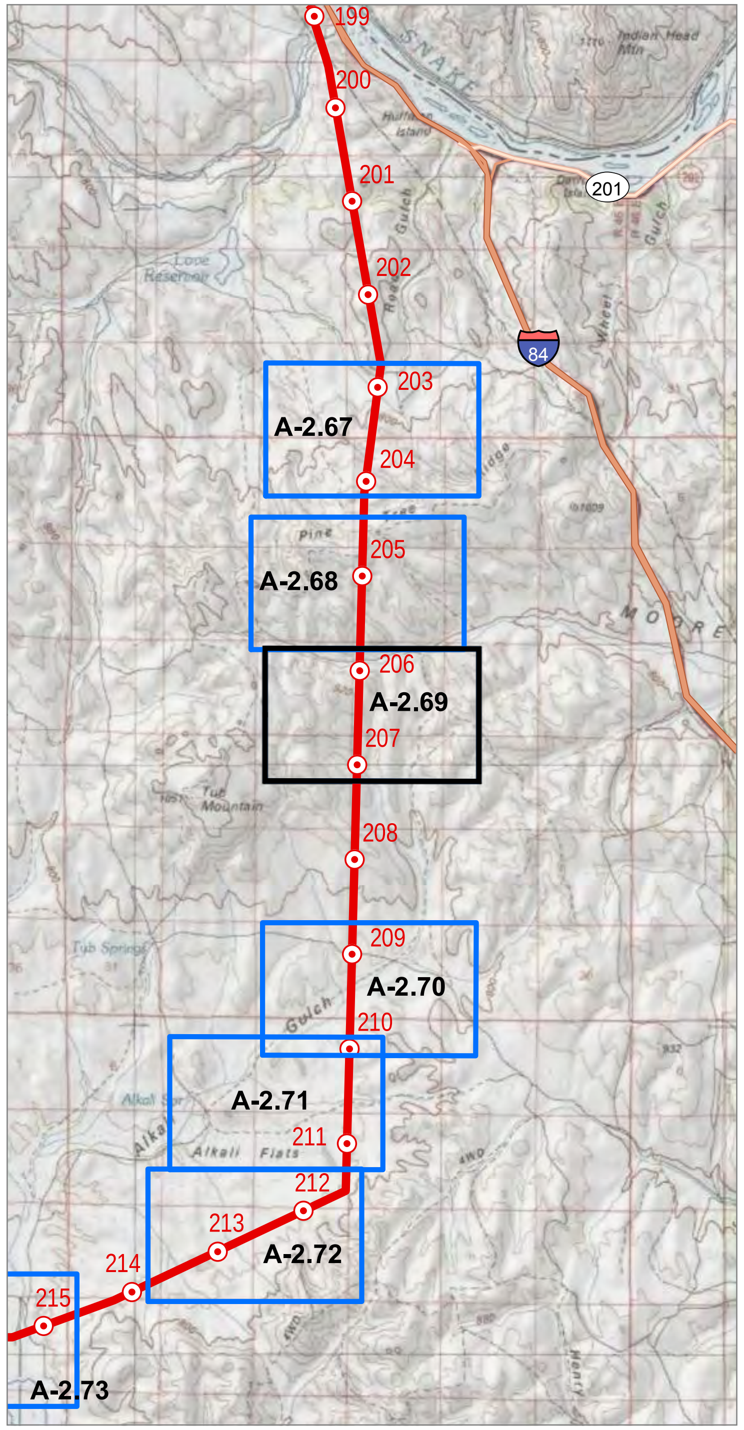
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

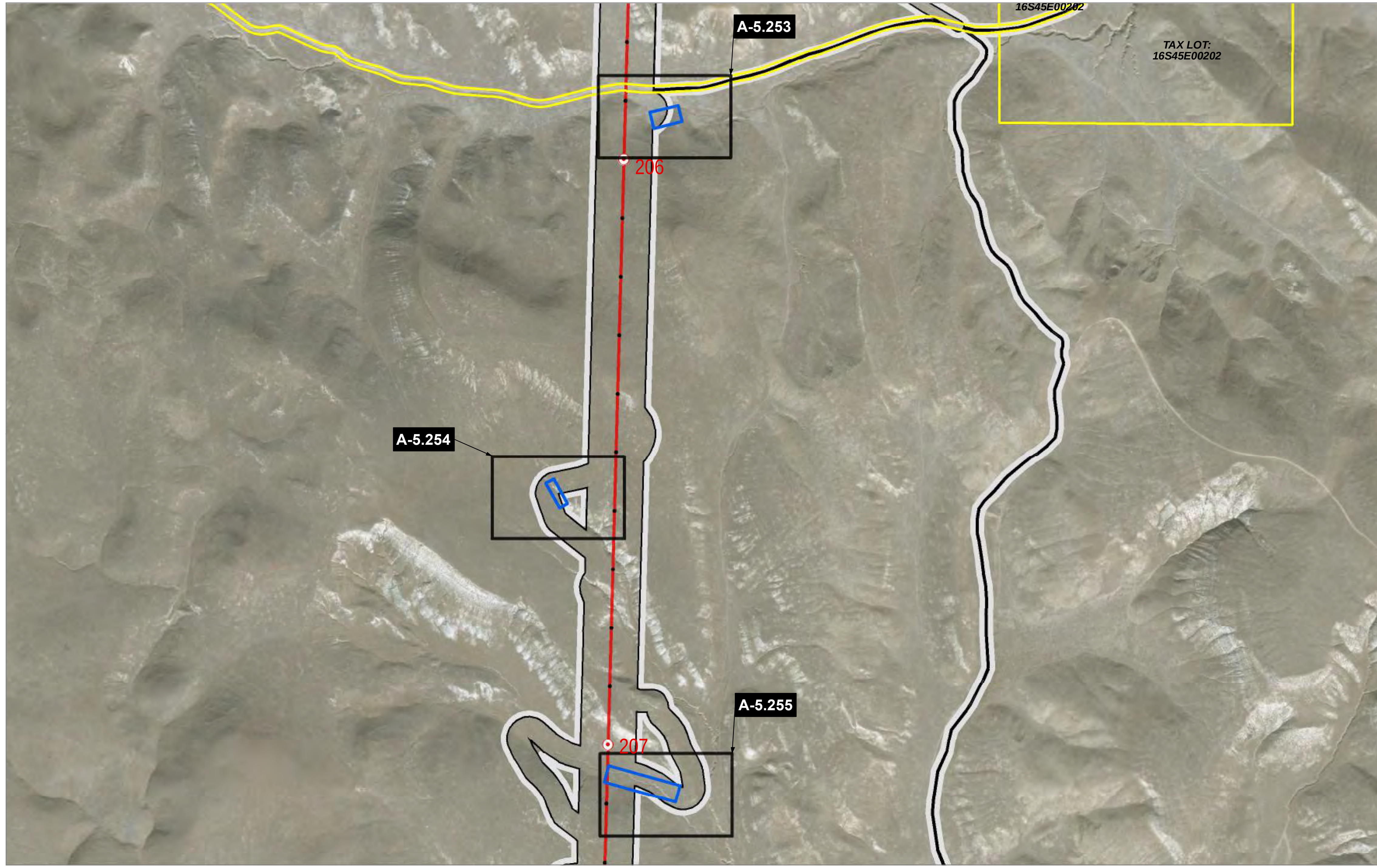
Figure A-2.68

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





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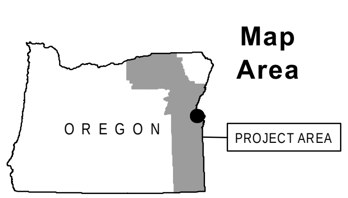


0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

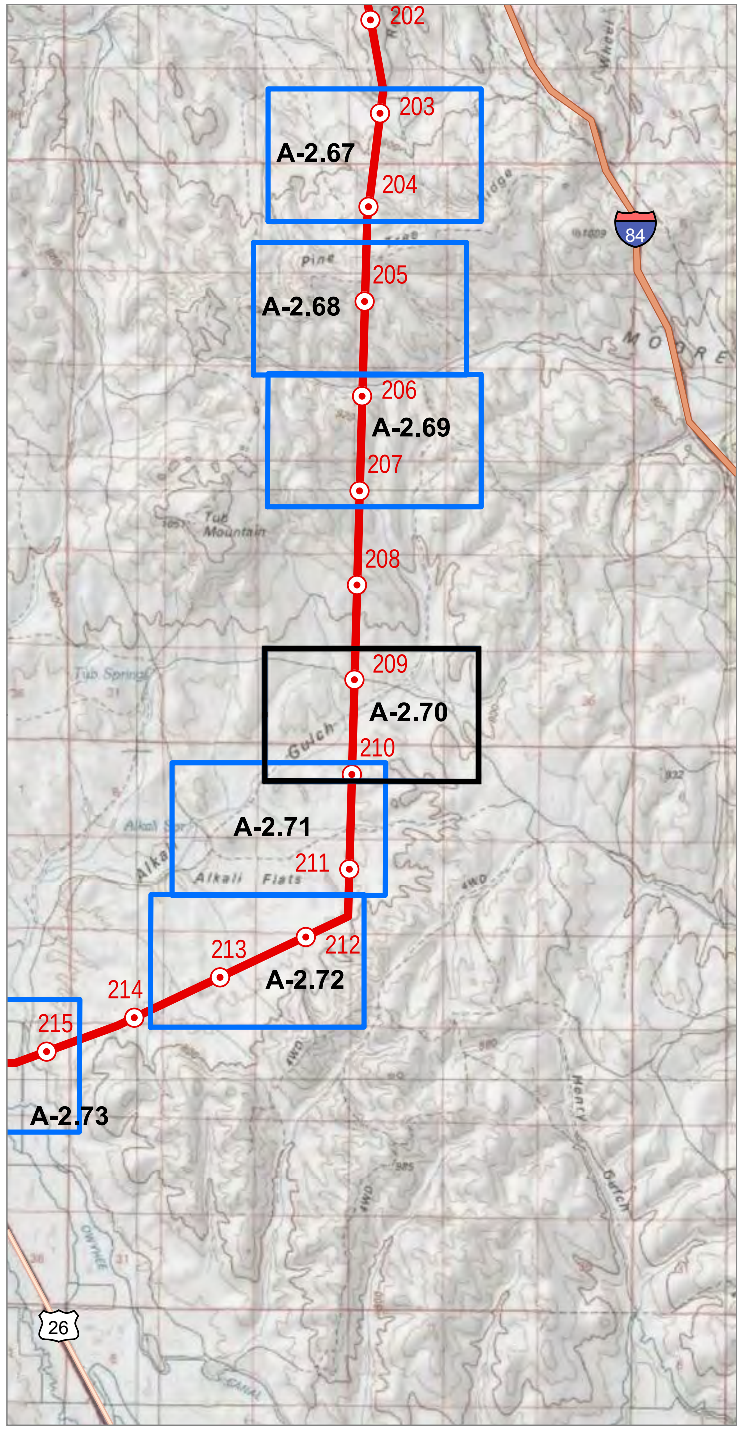
Figure A-2.69

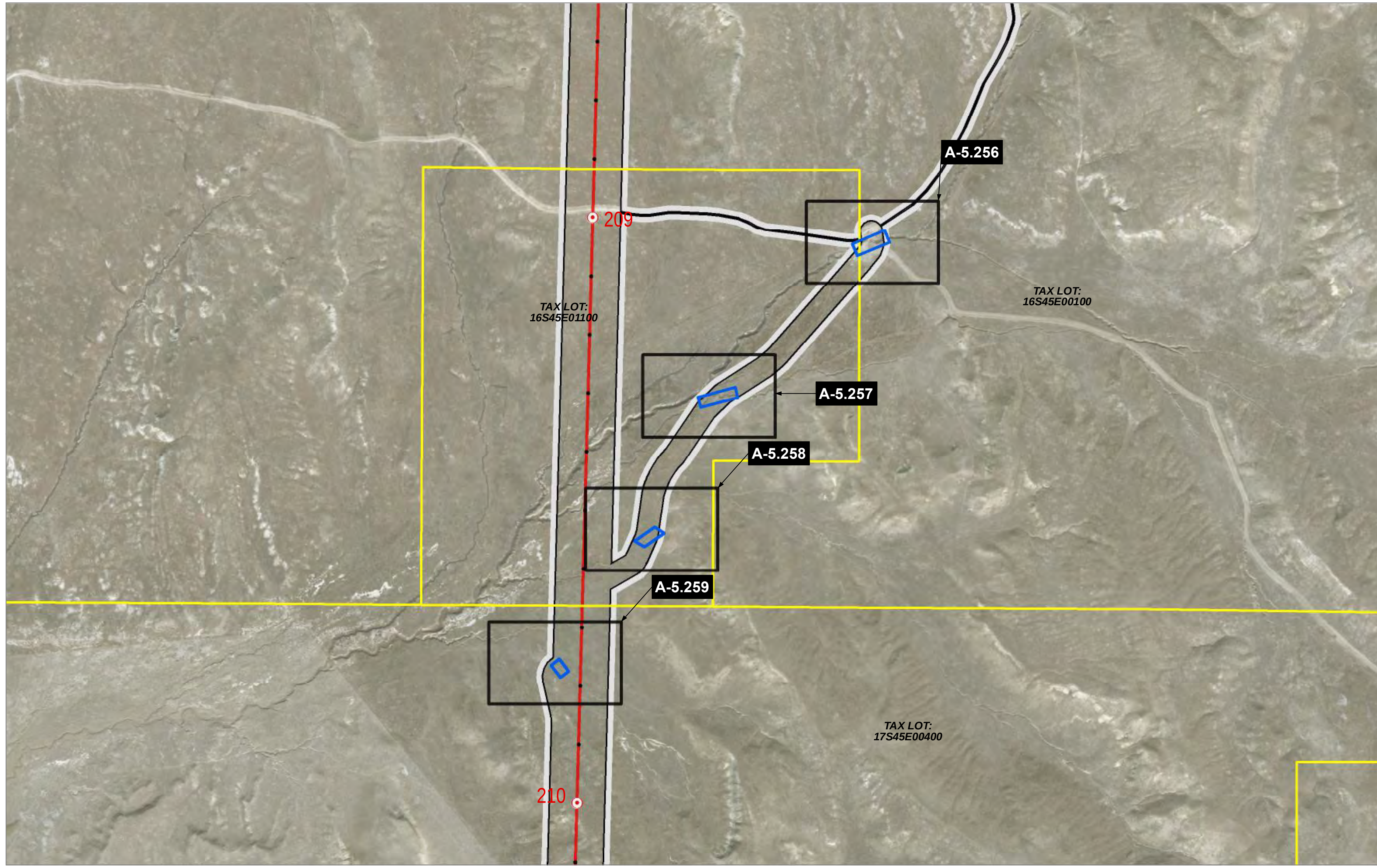
Wetland and Other Waters Delineation Report Tax Lots

Malheur County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





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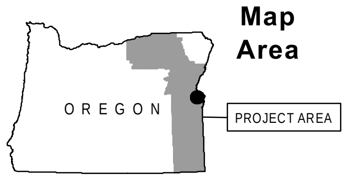


Map Area

0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

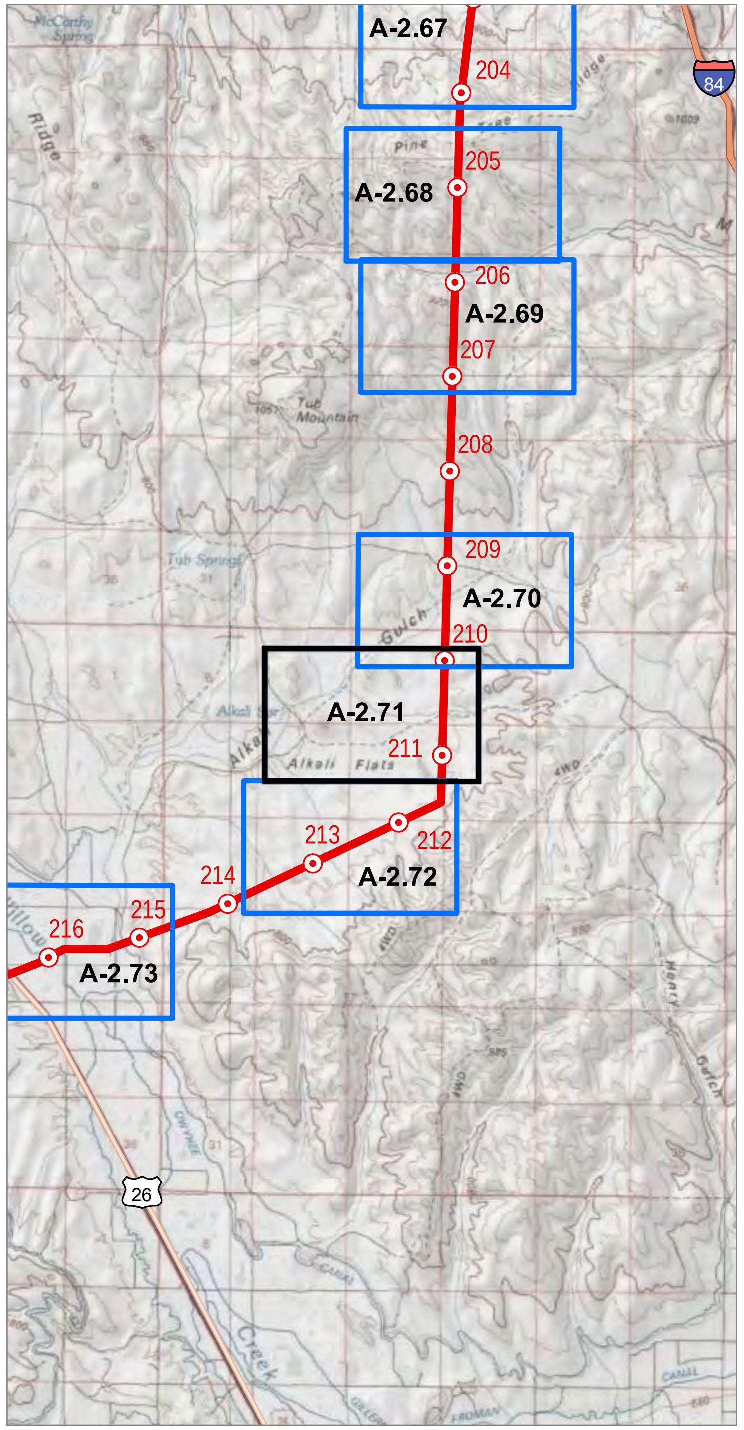
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.70

Wetland and Other Waters Delineation Report Tax Lots

Malheur County



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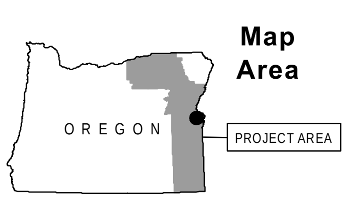
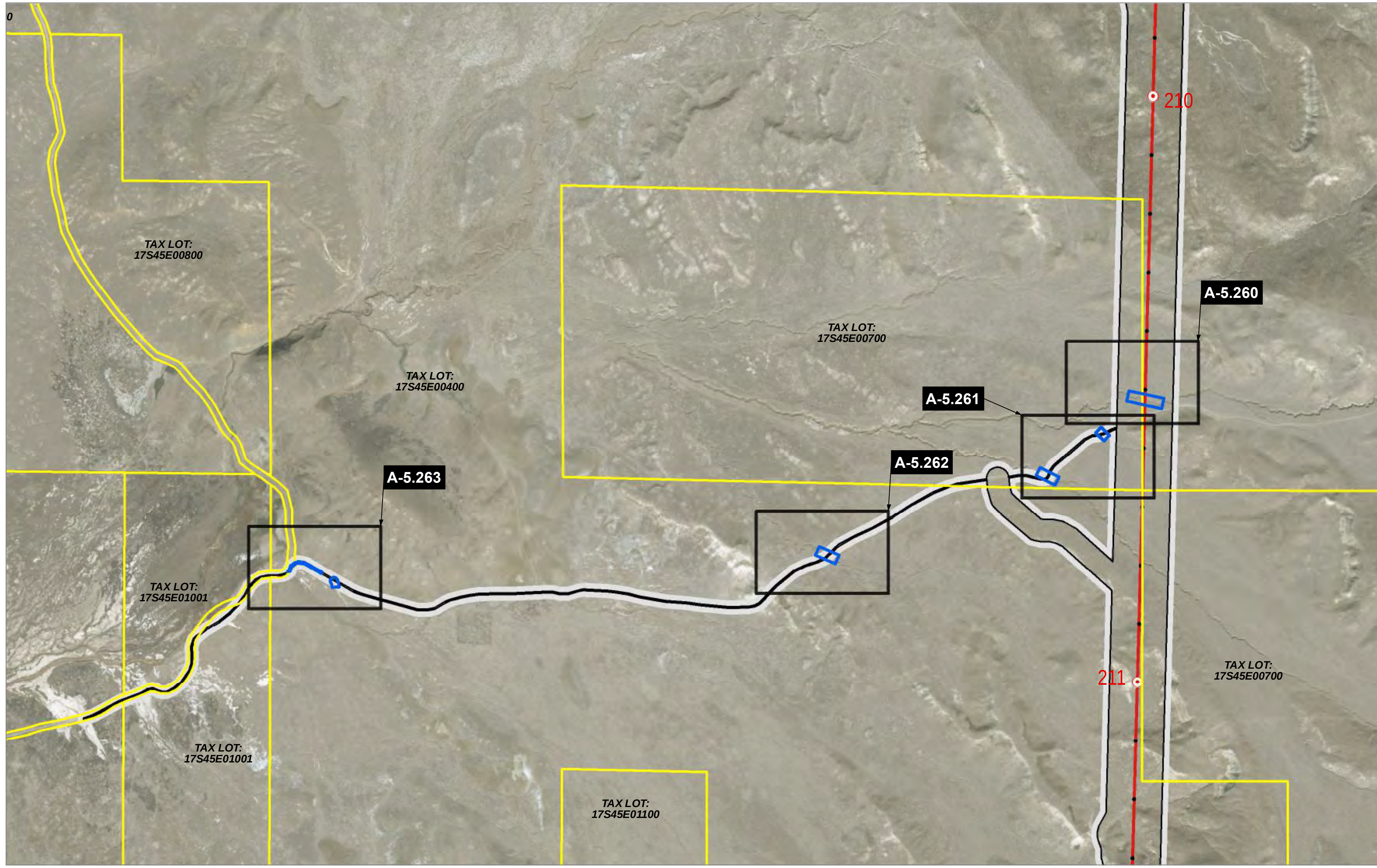




0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

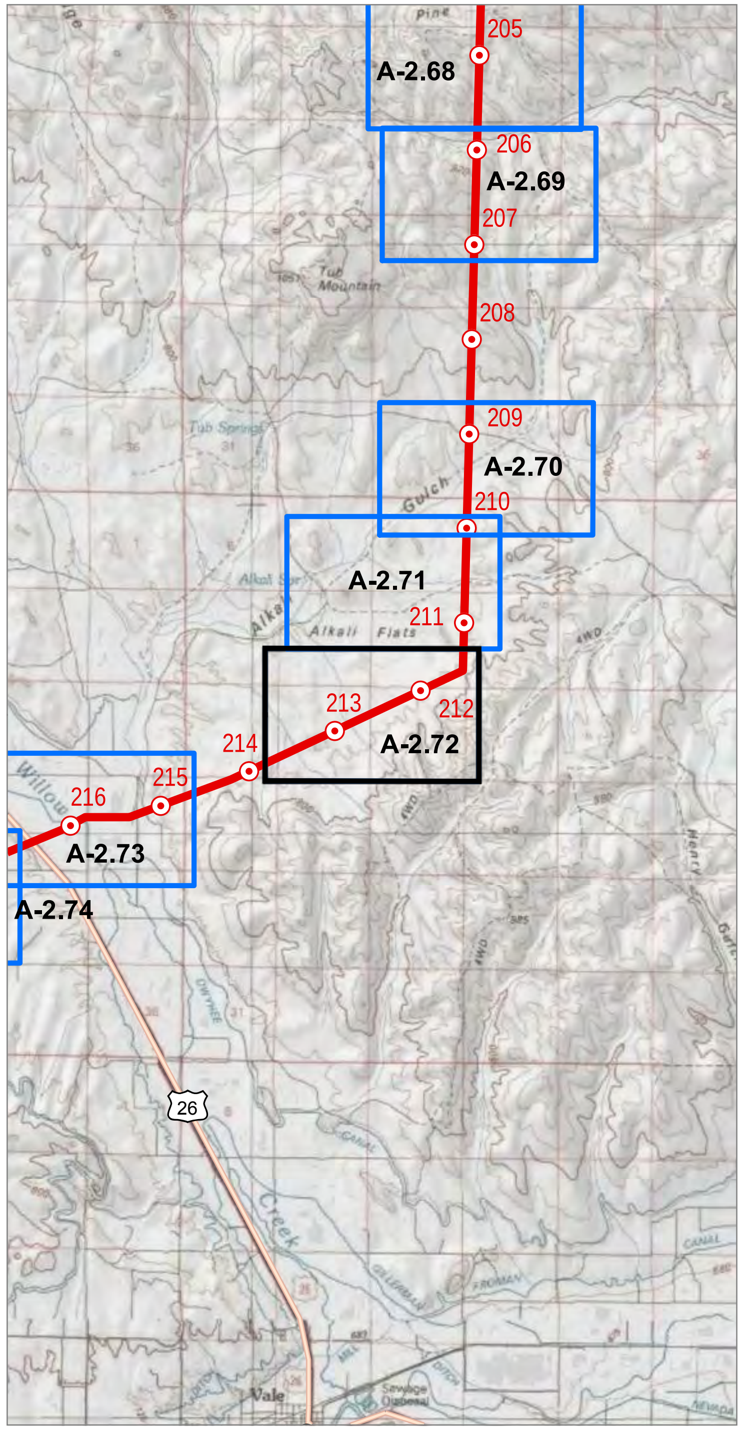
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

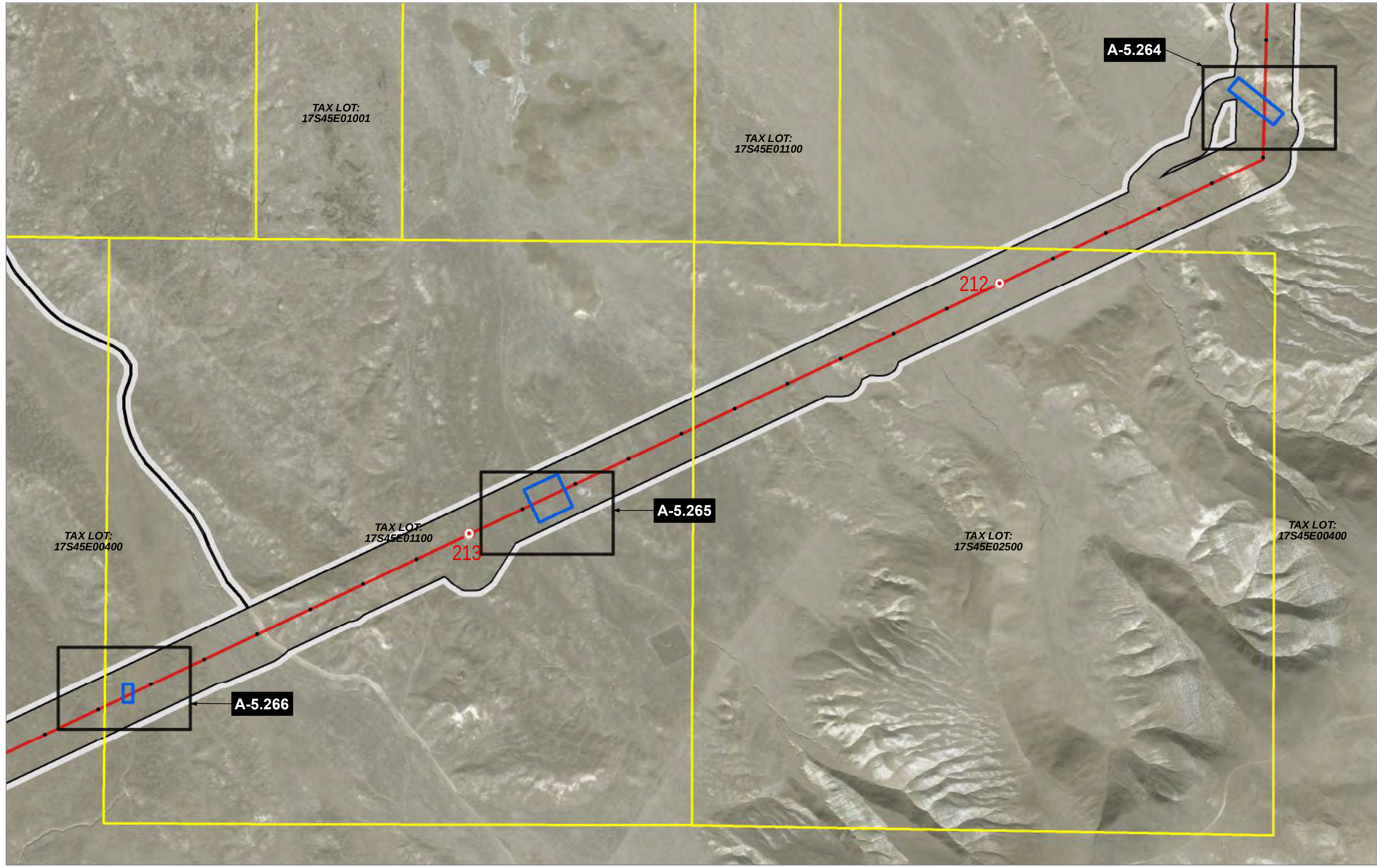
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.71
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





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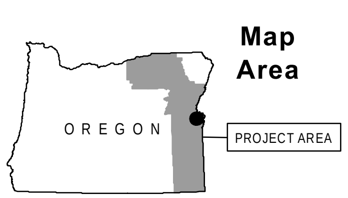

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Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.72

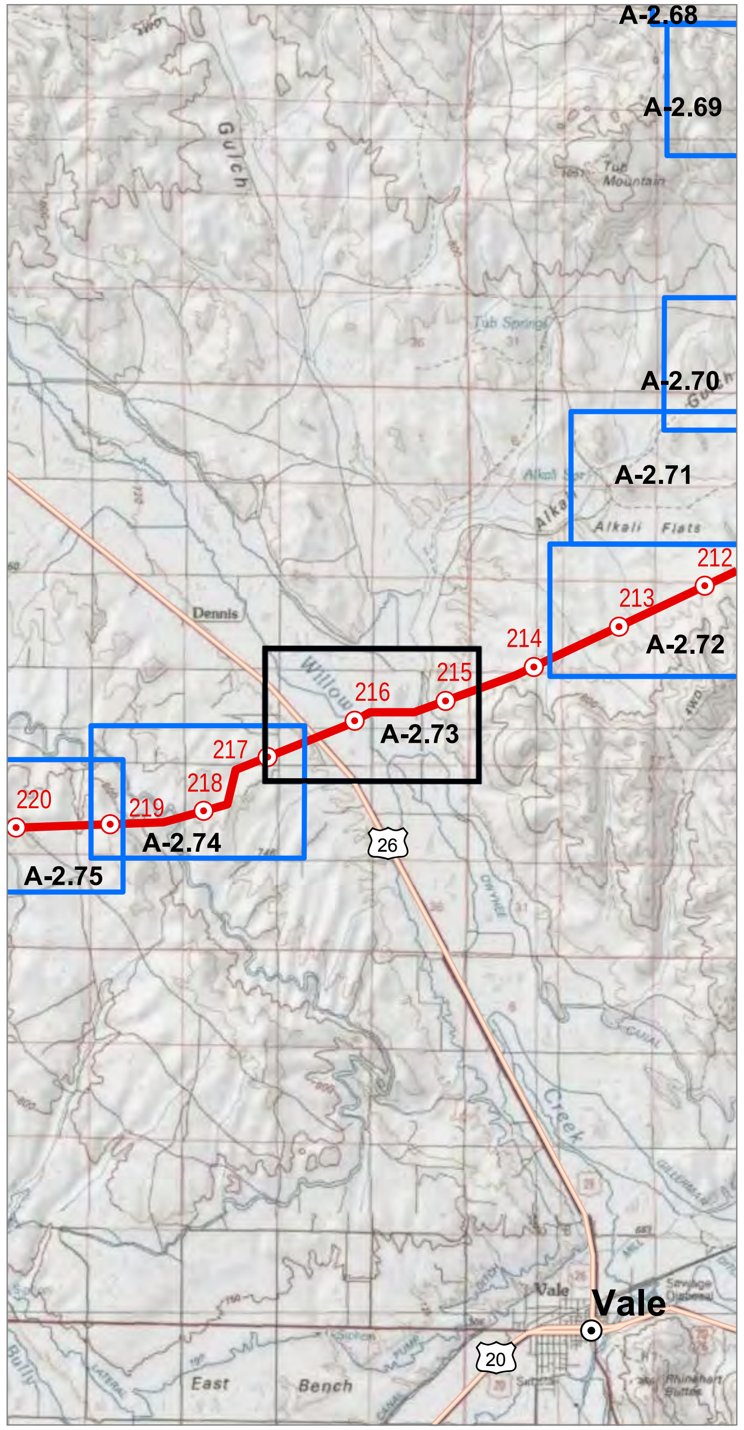
Wetland and Other Waters Delineation Report

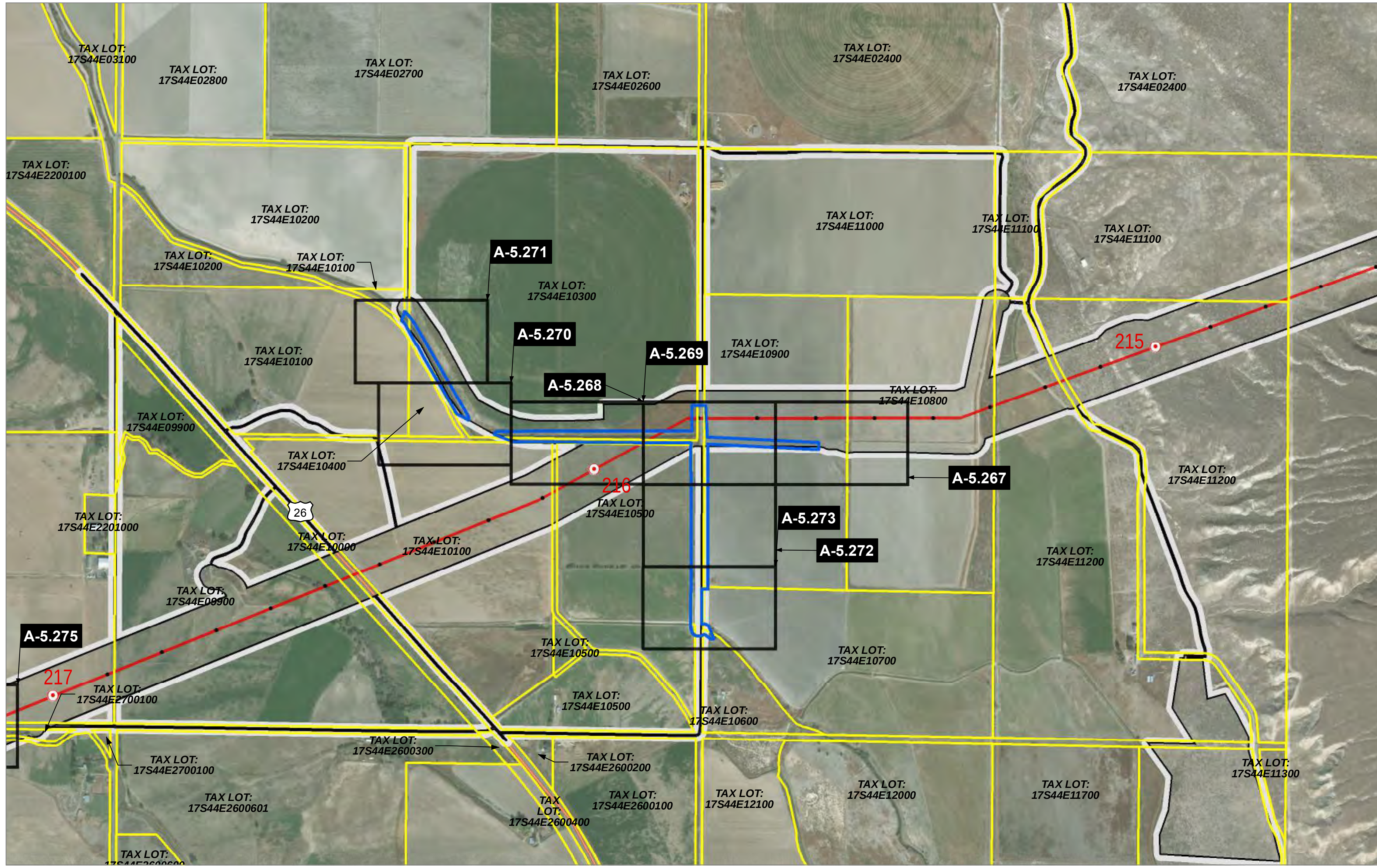
Tax Lots

Malheur County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area

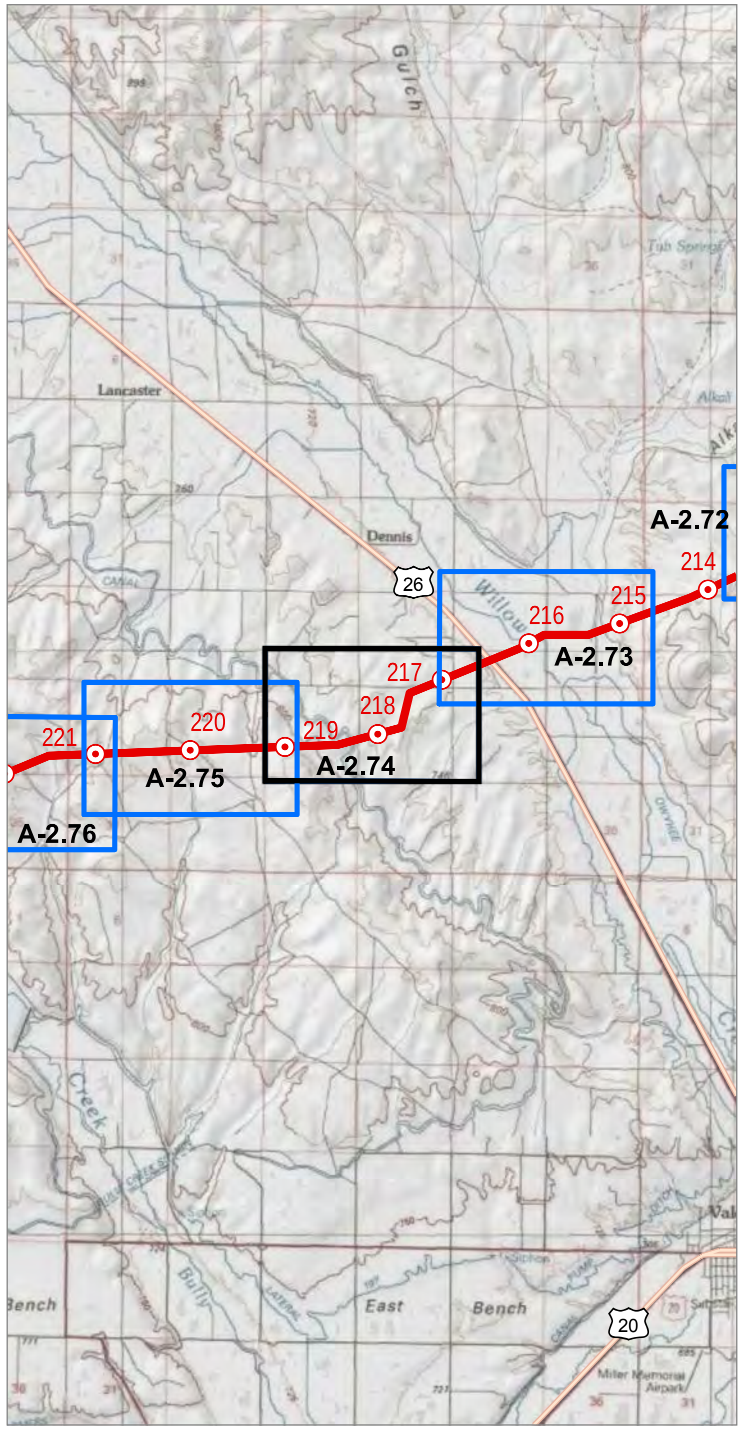
Other Features
- Interstates or Highways
- Tax Lot Parcel

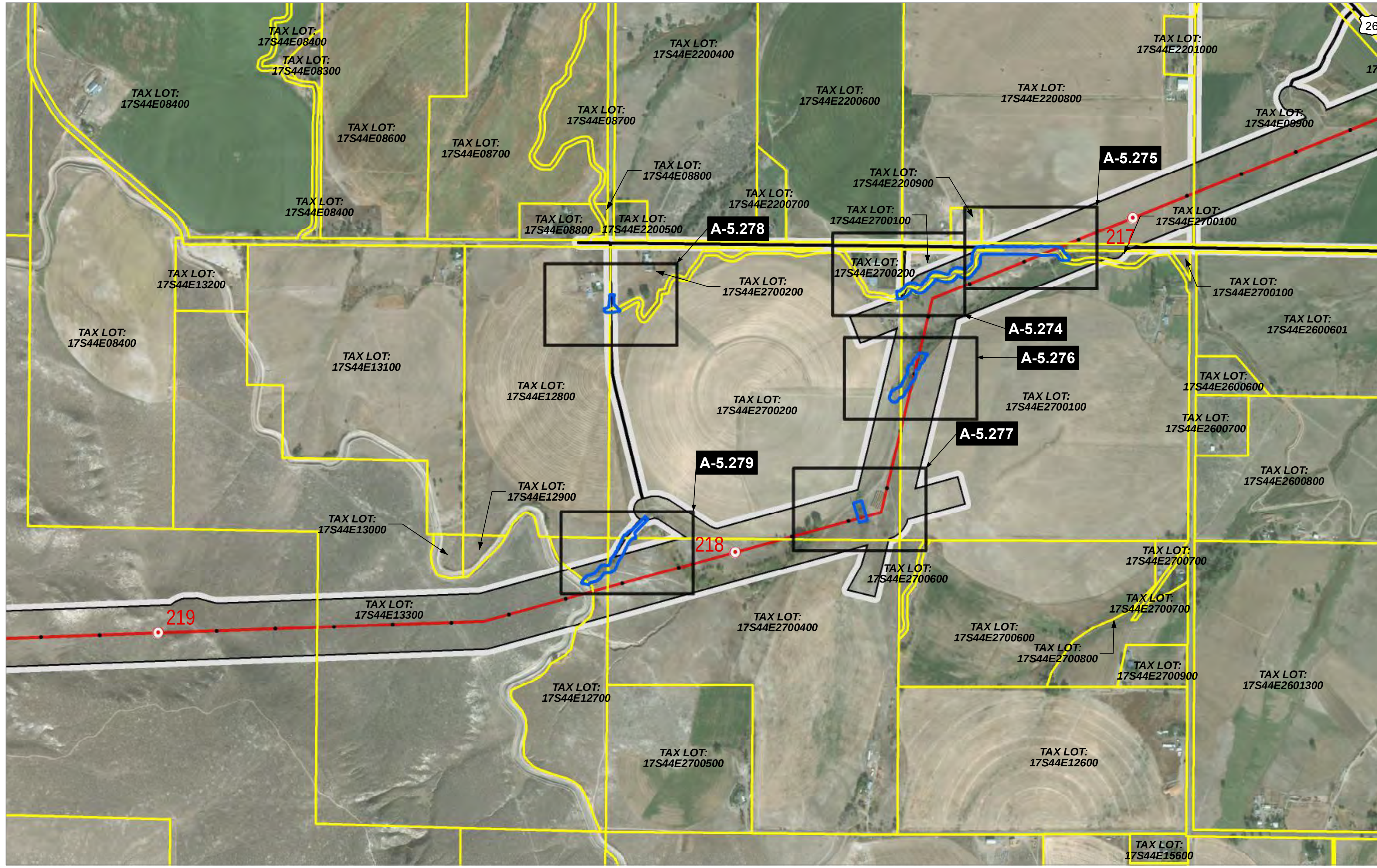
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.73
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





Map Area

OREGON

PROJECT AREA

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

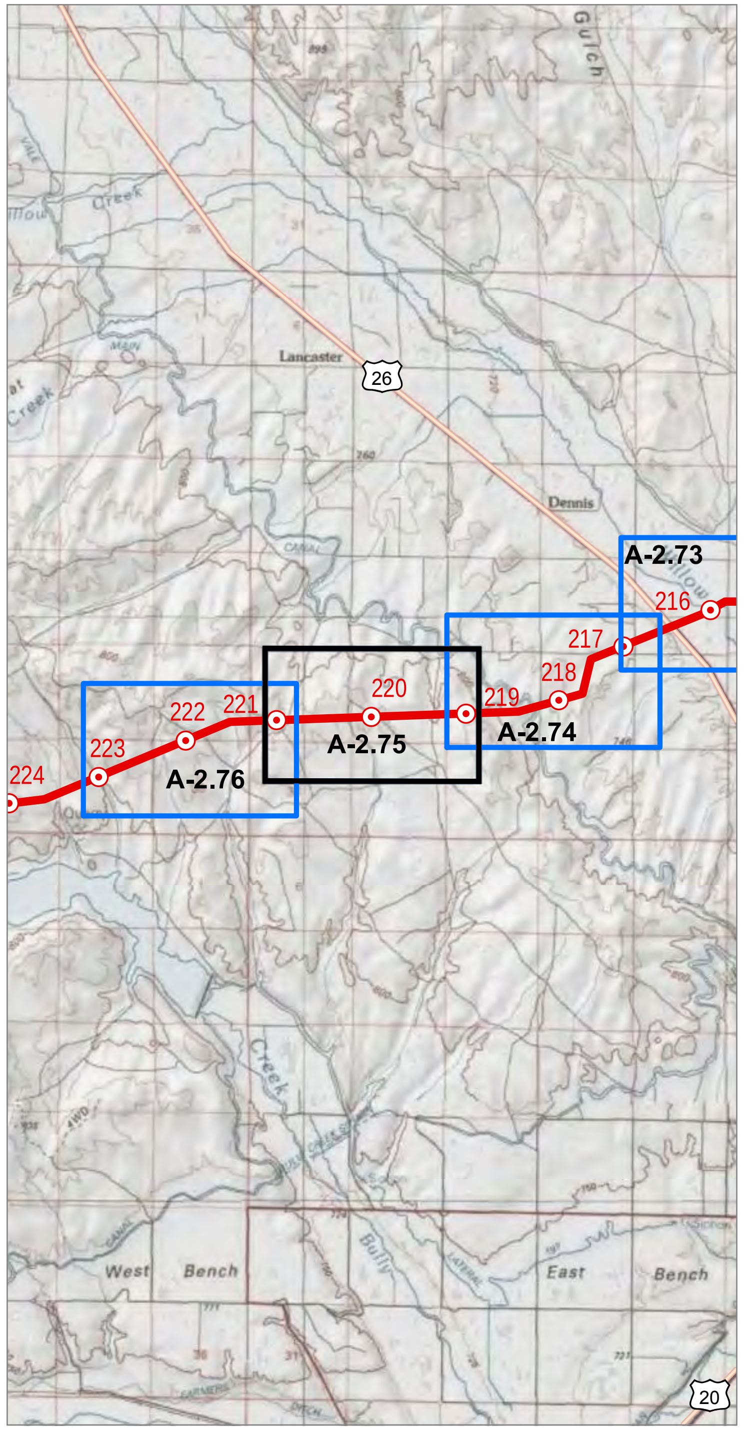
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

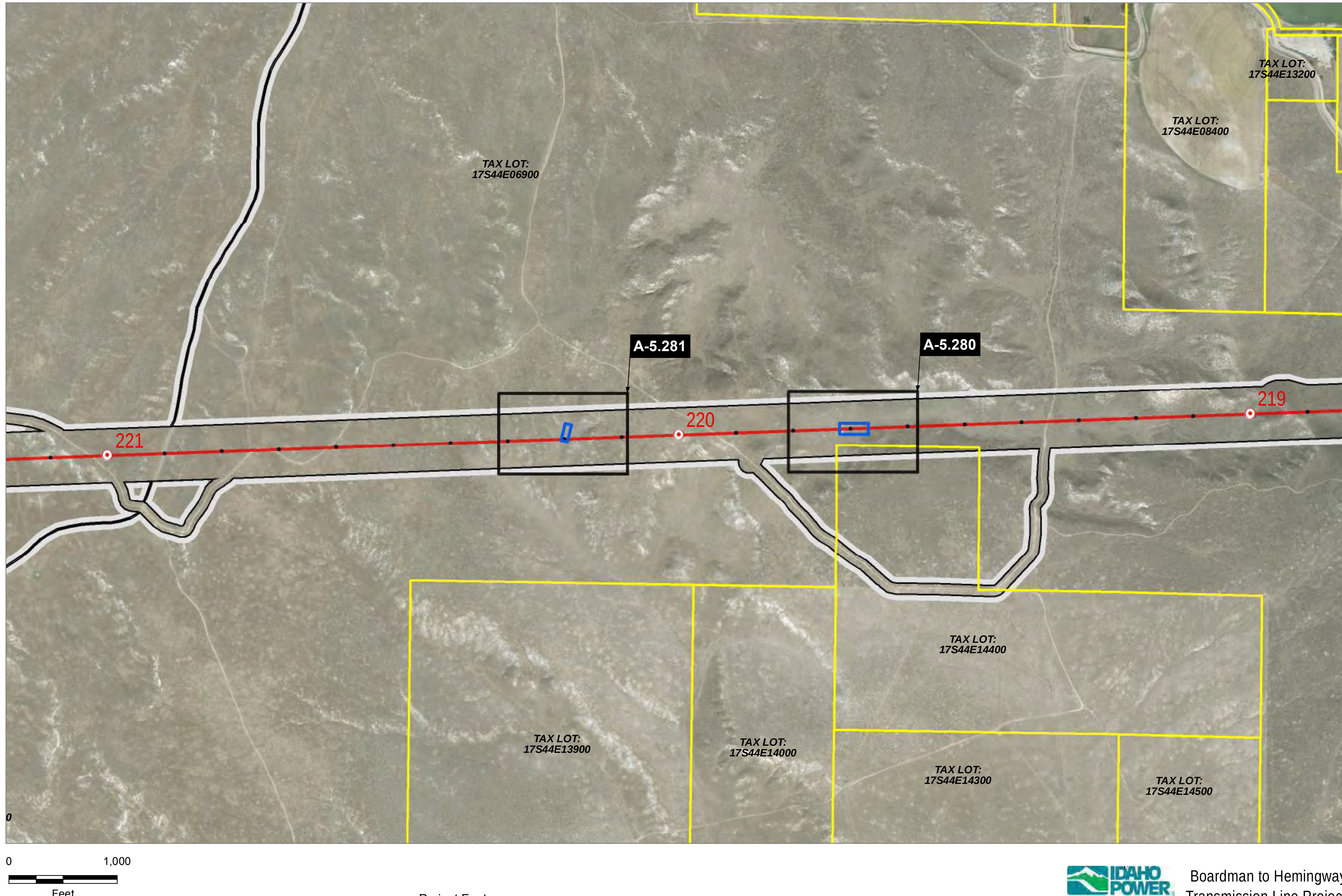
IDAHO POWER
An IDACORP Company

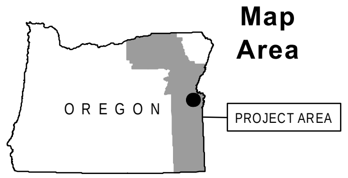
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.74

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County







Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

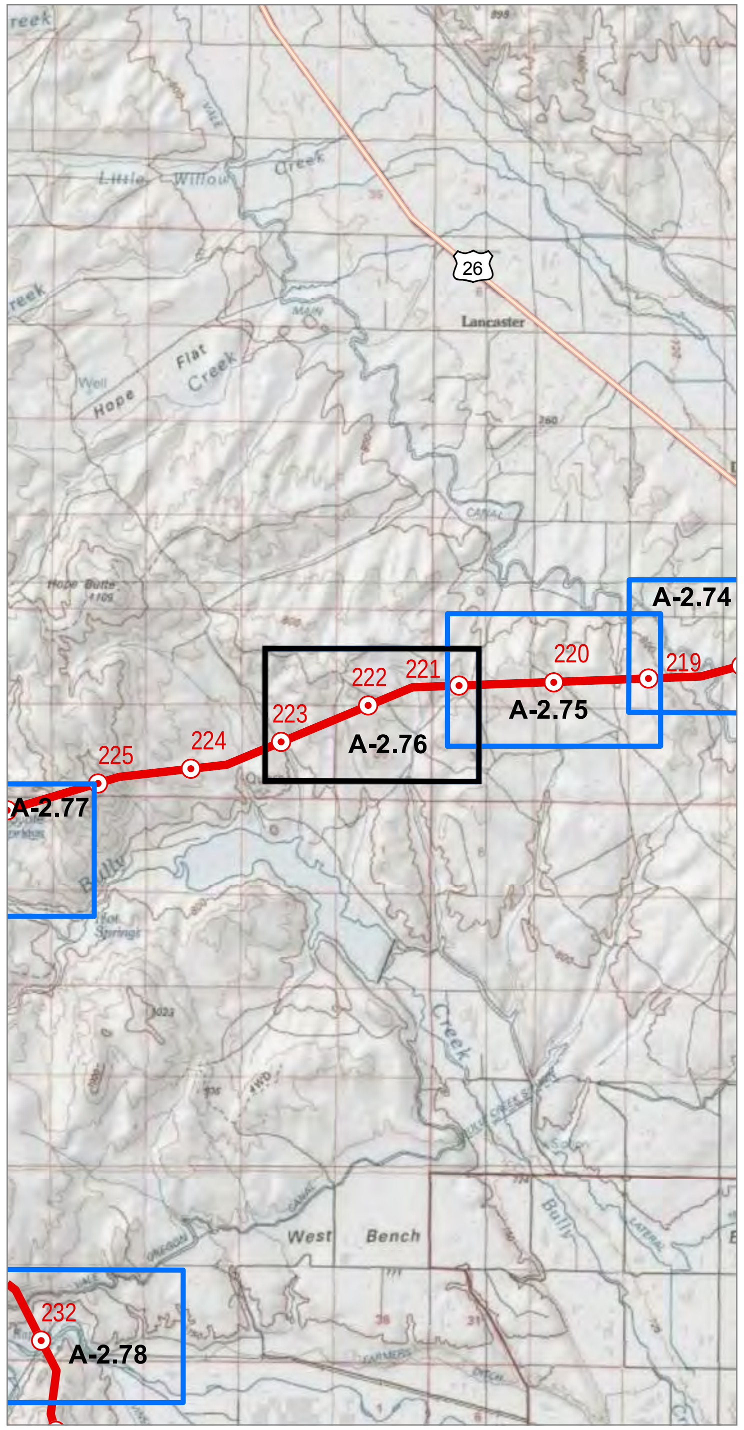
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

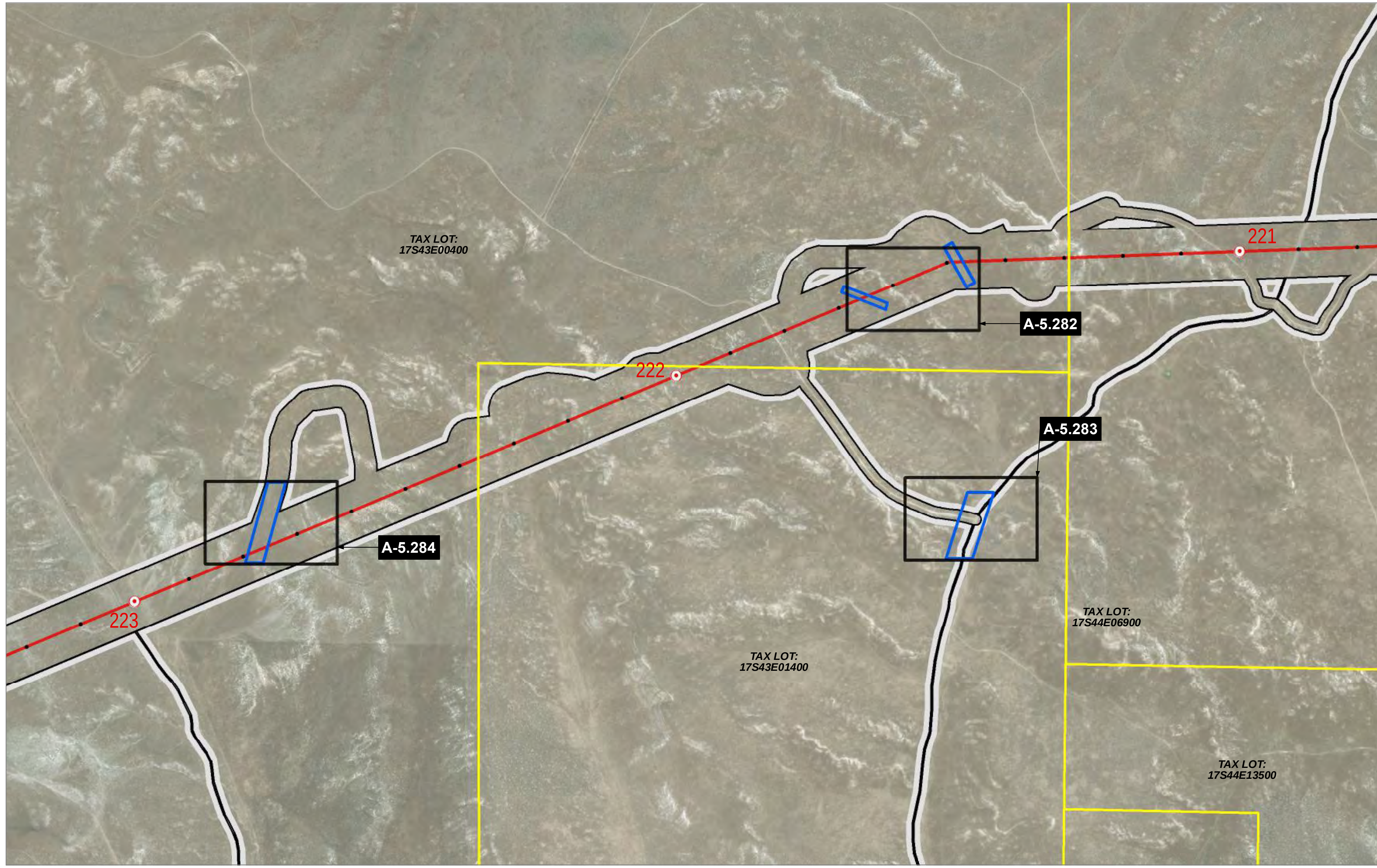
IDAHO POWER An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.75

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





0 2
Miles

Map Area

OREGON
PROJECT AREA

0 1,000
Feet

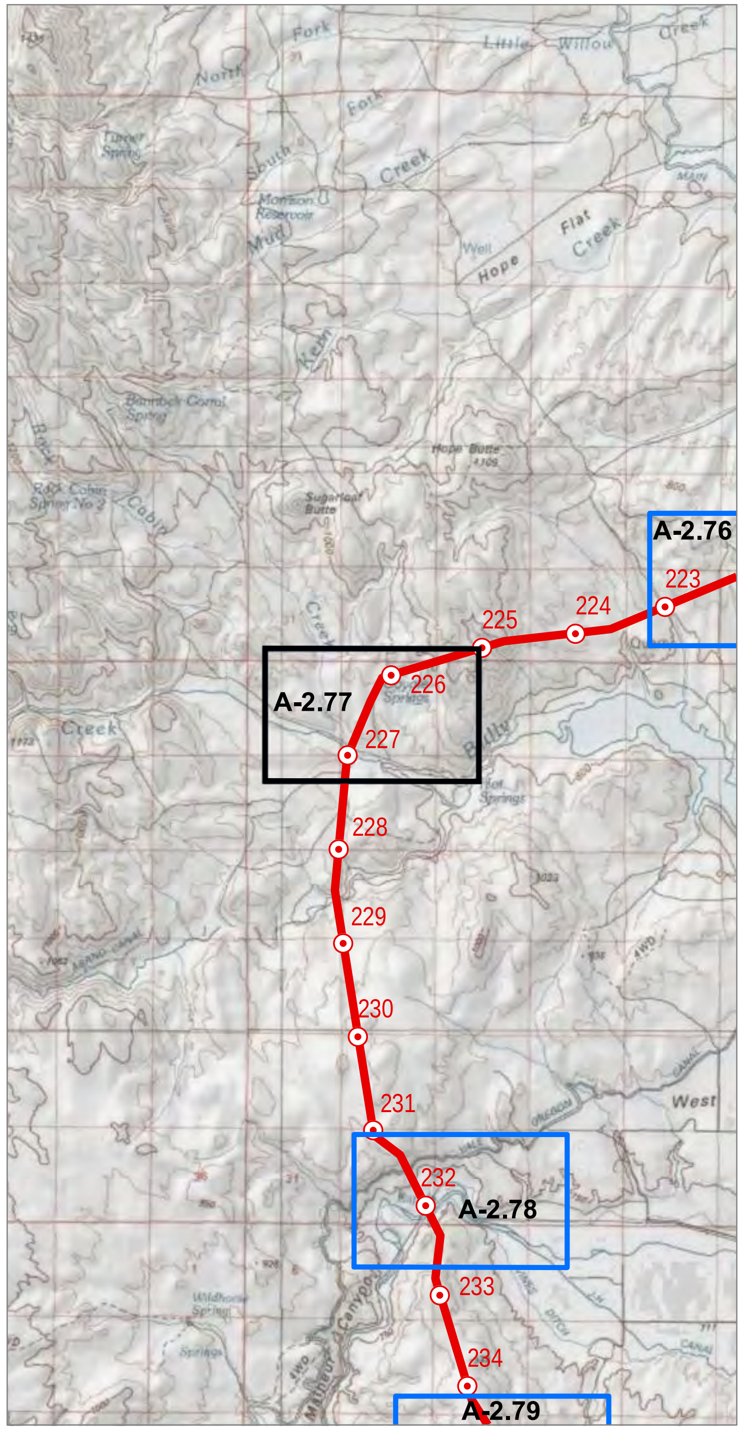
Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.76
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County



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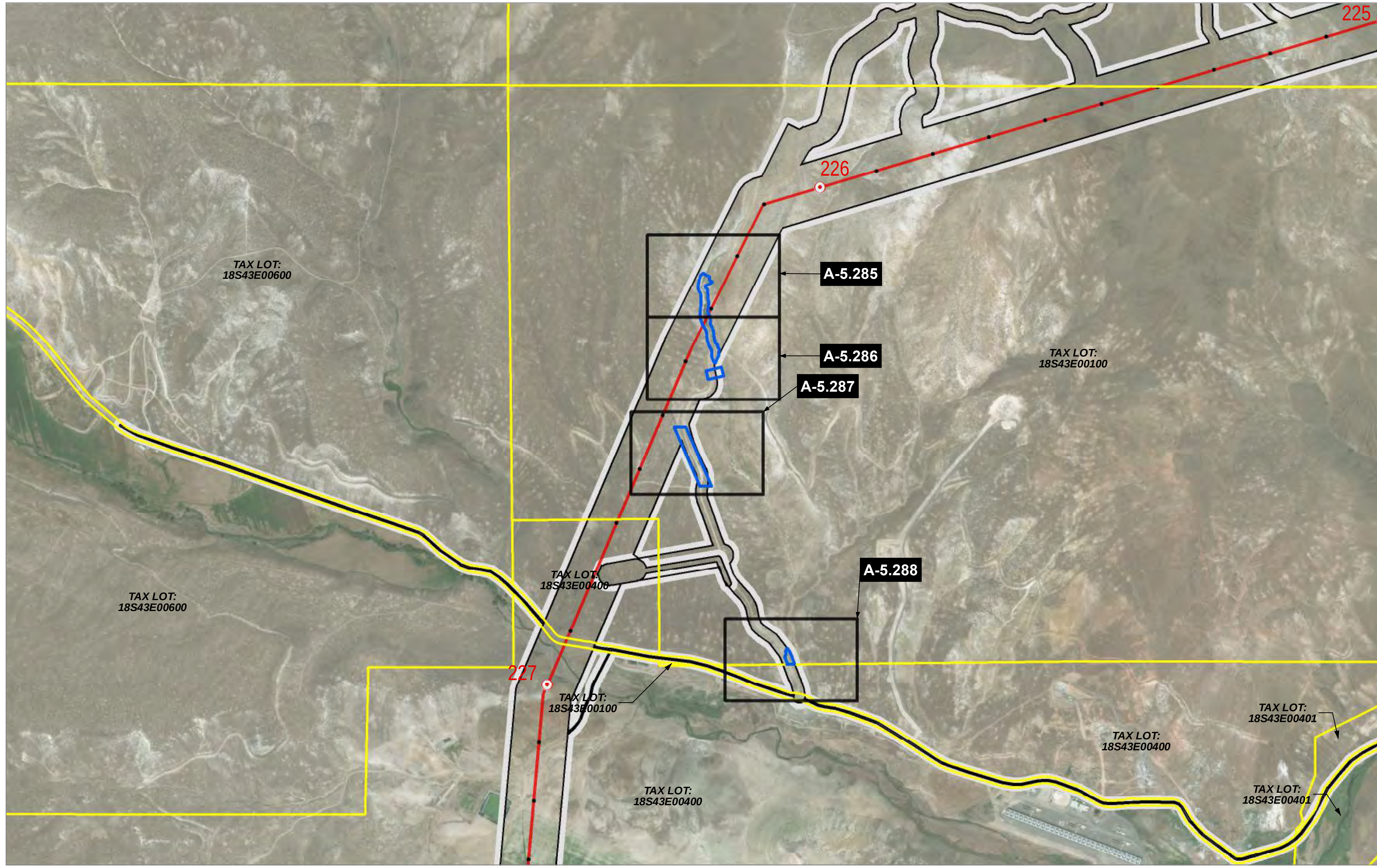

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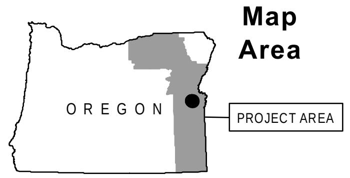


Map Area

Project Features
- Site Boundary
- Proposed Route

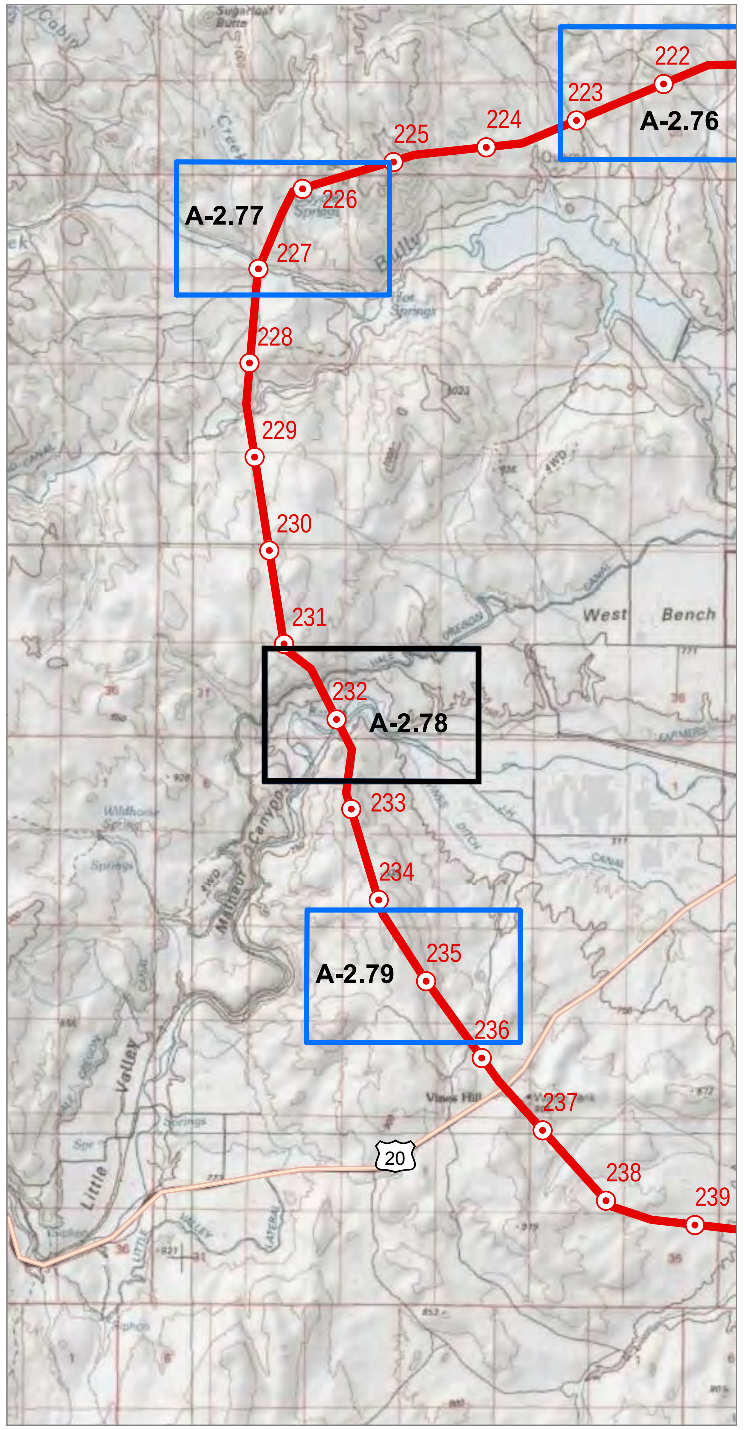
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.77
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County



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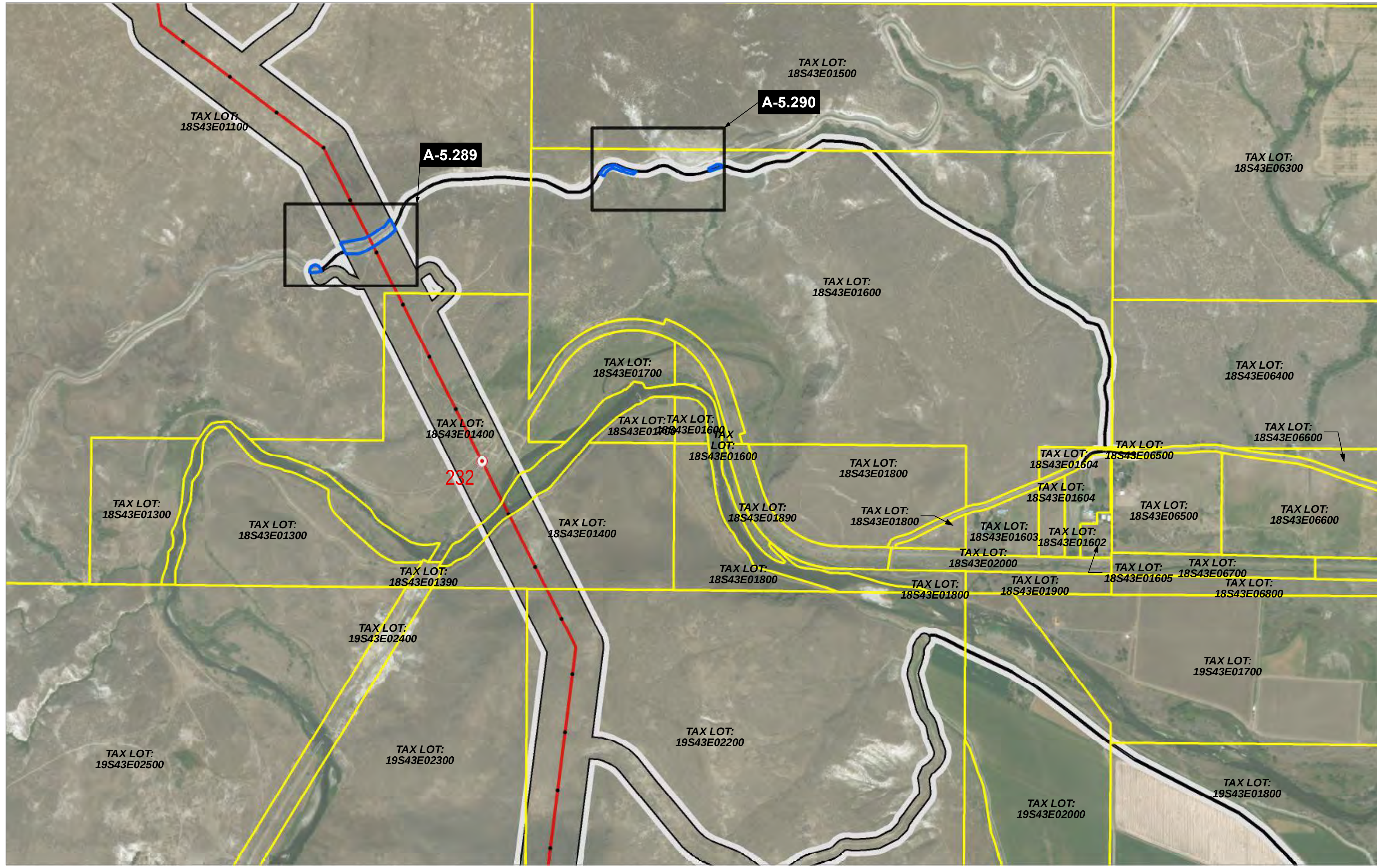
Miles



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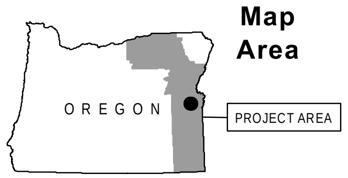
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

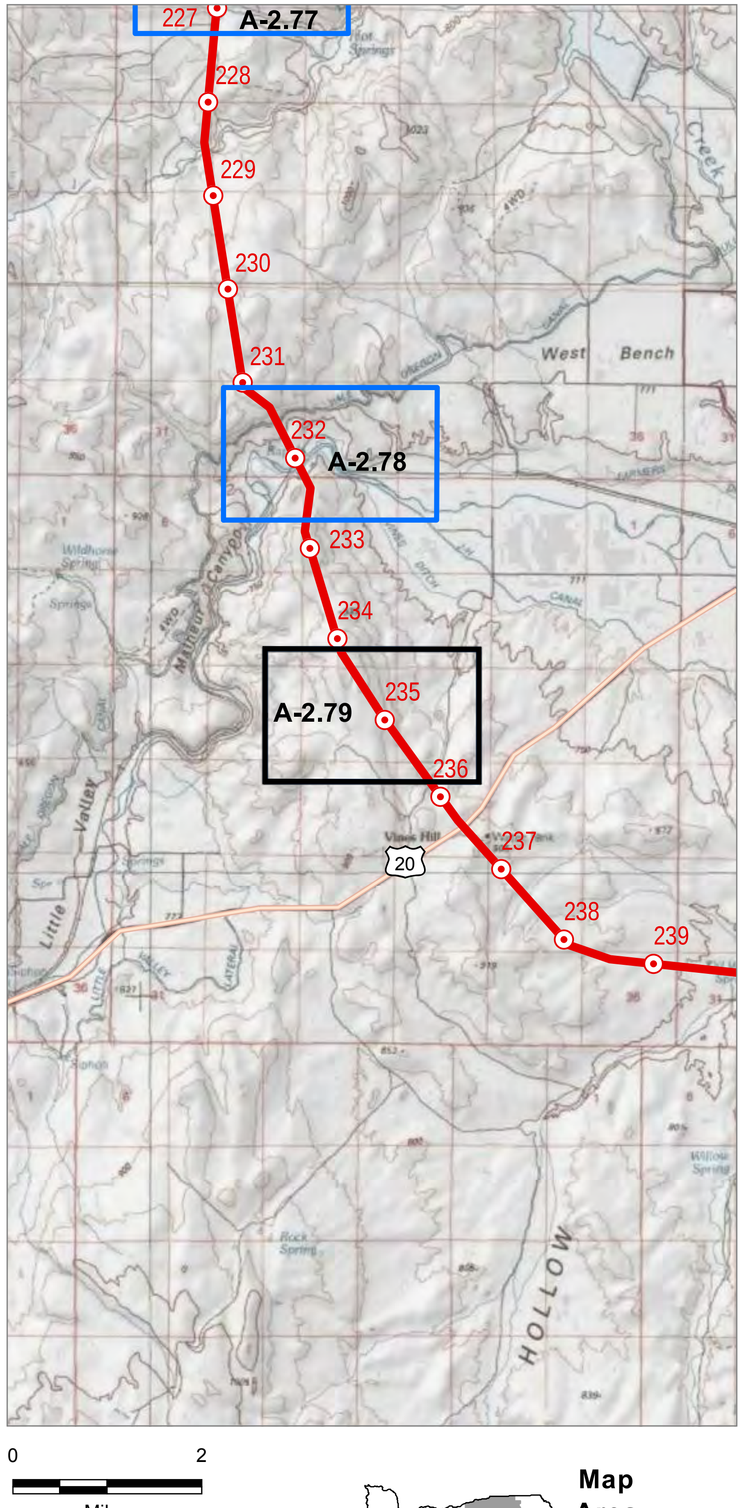
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER. An IDACORP Company

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.78

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County



Map Area

OREGON

PROJECT AREA

Project Features
- Site Boundary
- Proposed Route

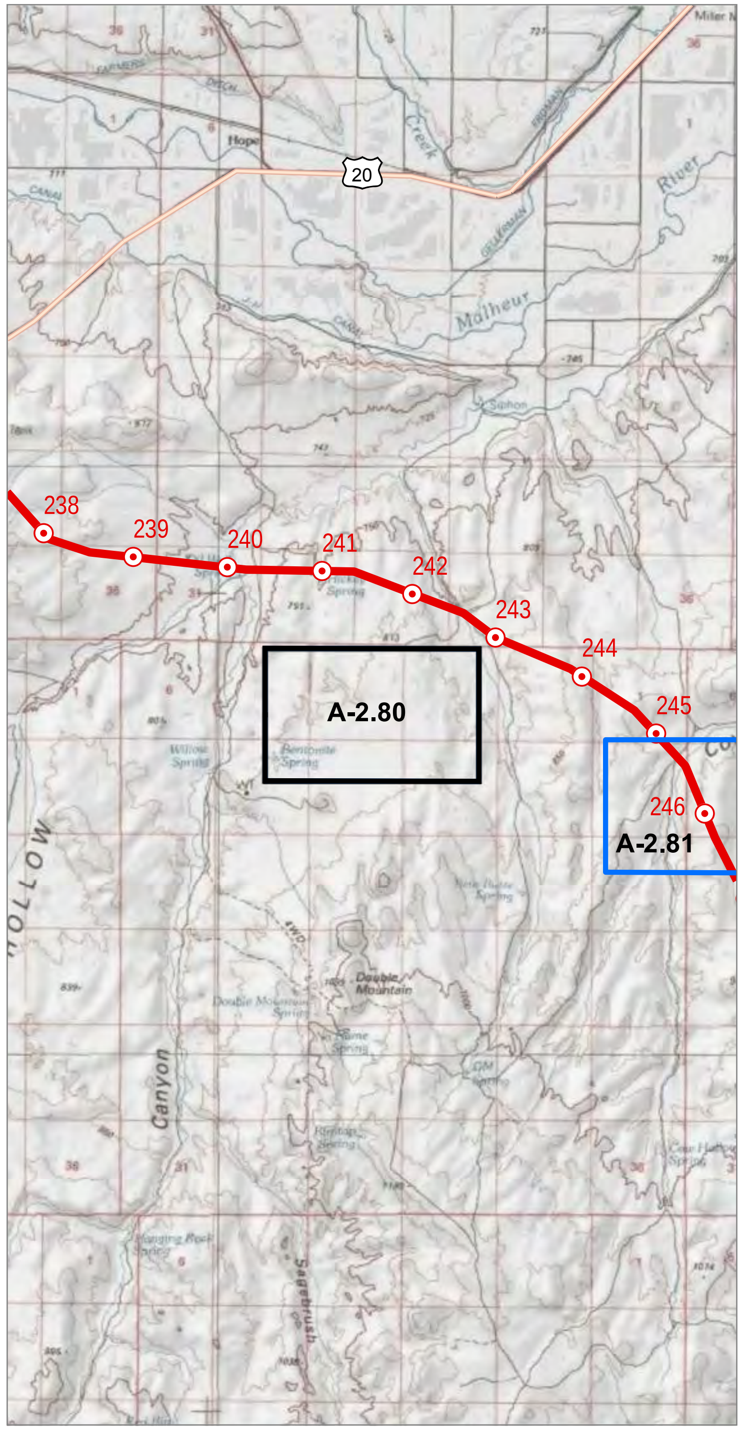
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.79
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County



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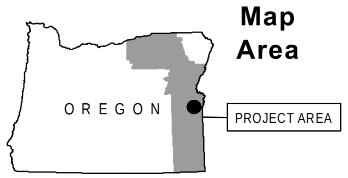
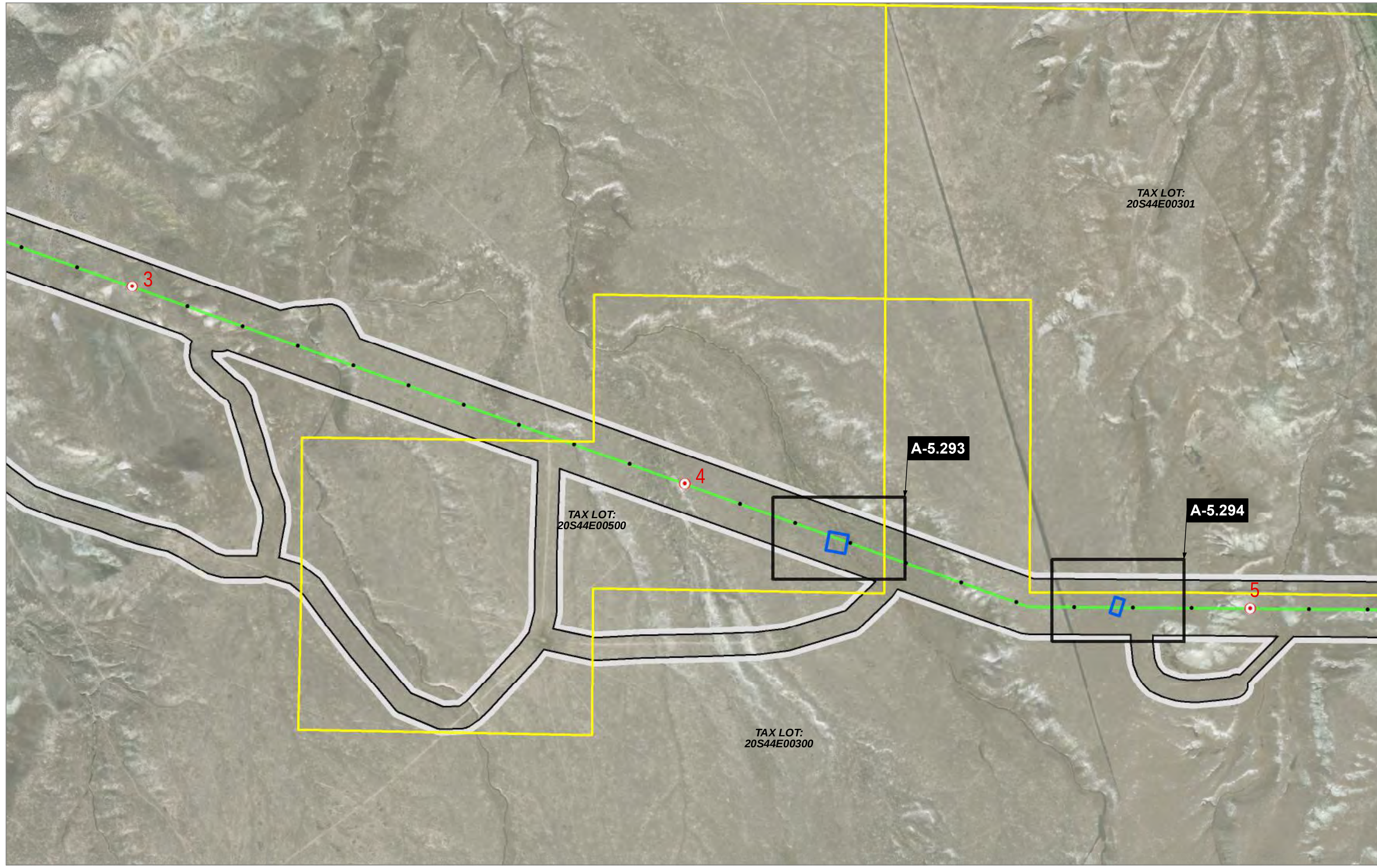




0 1,000
Feet

Project Features

- Site Boundary
- Alternative

Mileposts

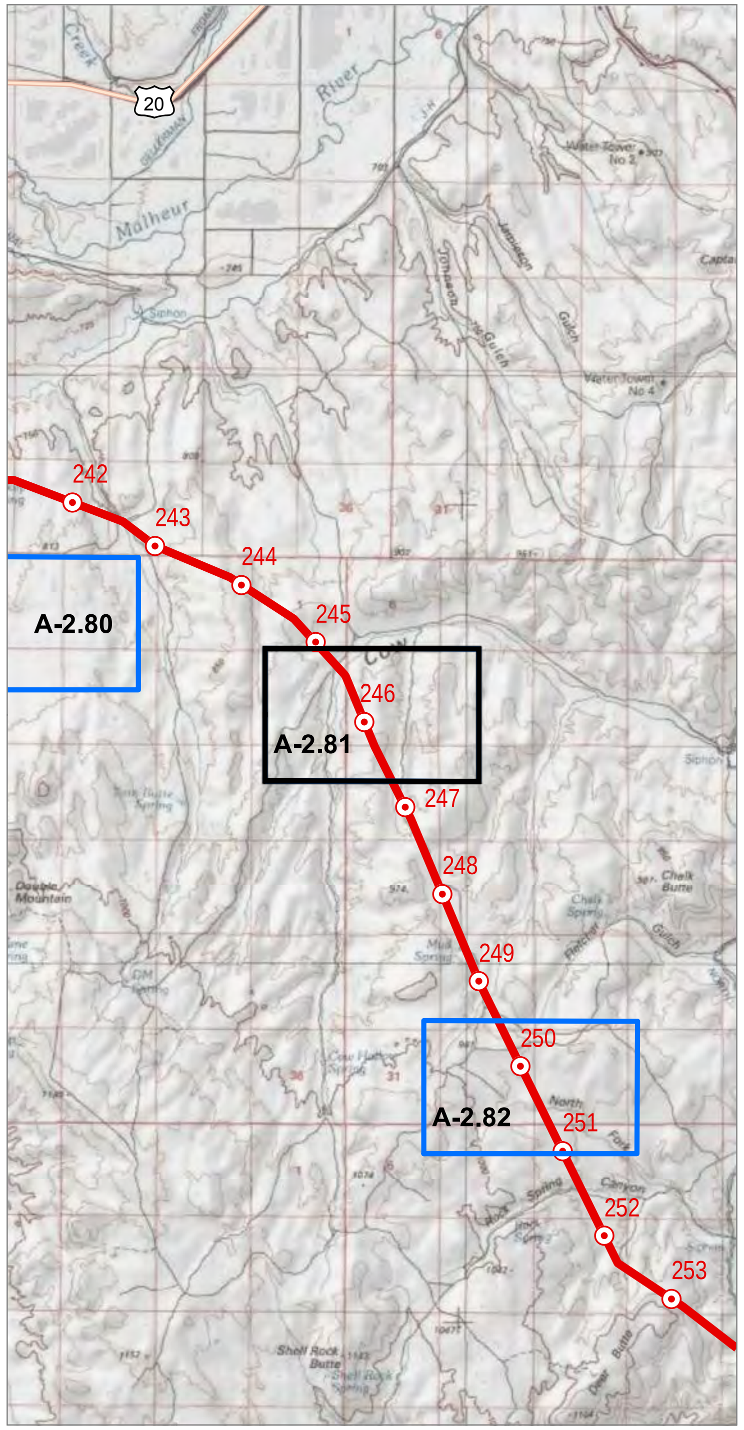
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

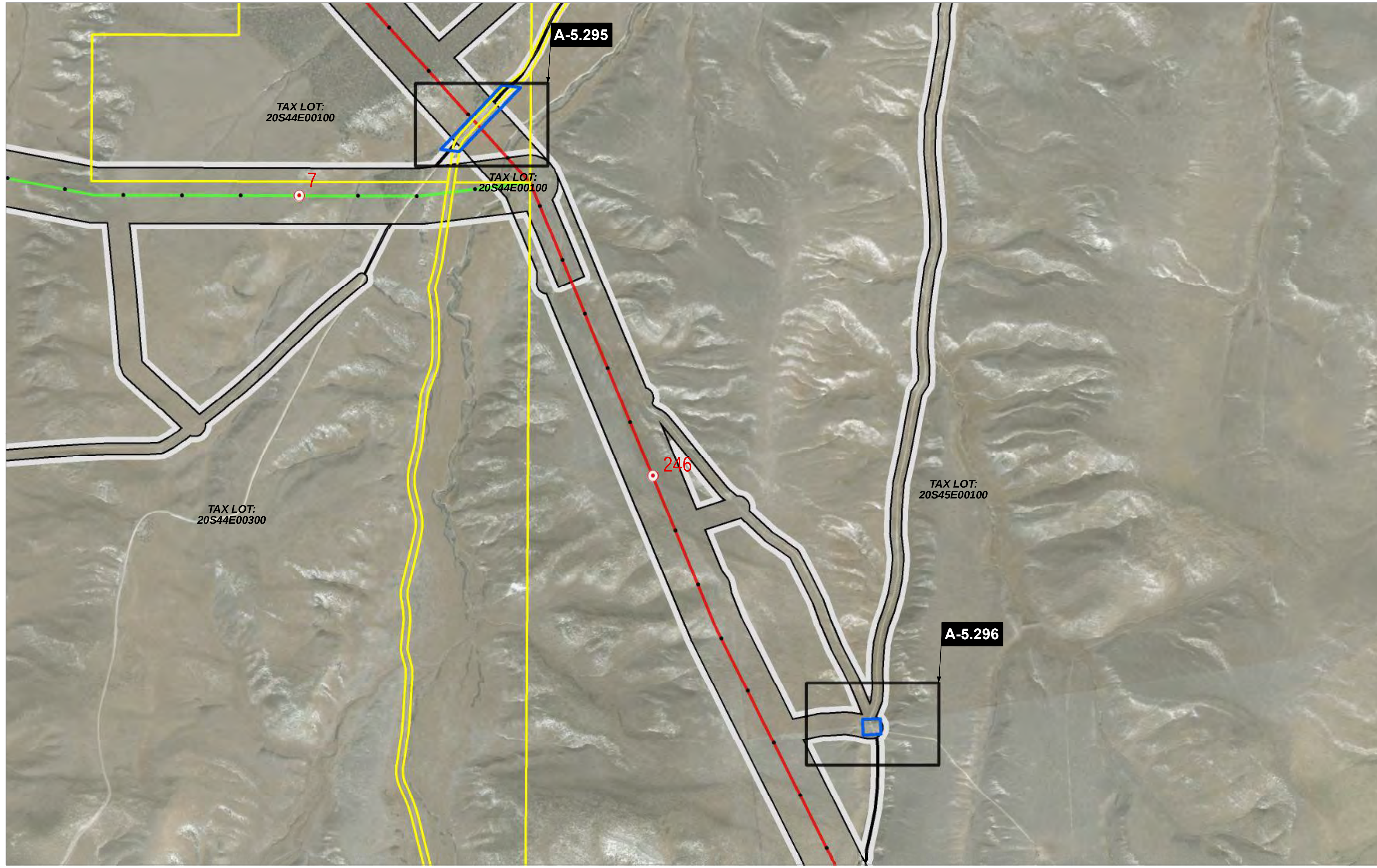
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.80
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





Project Features

- Site Boundary
- Proposed Route
- Alternative

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

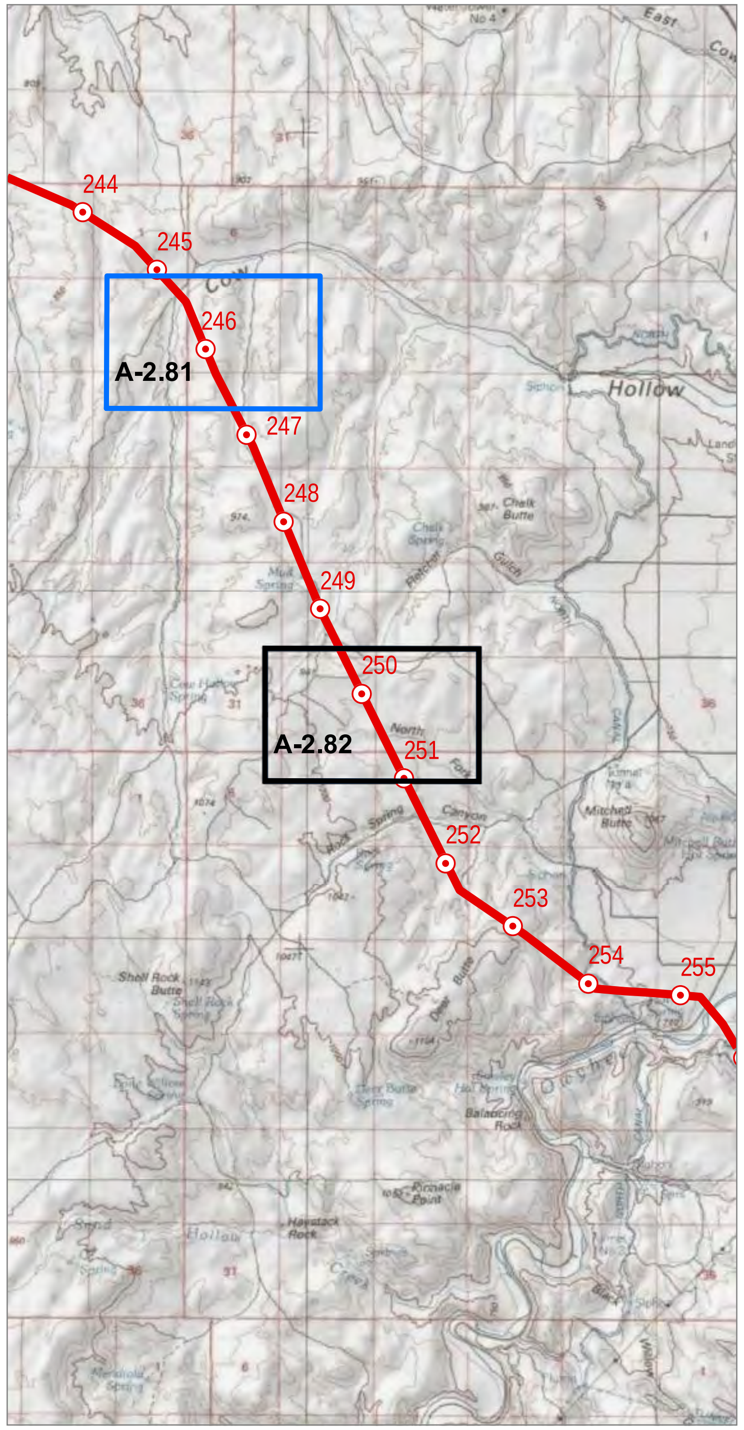
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

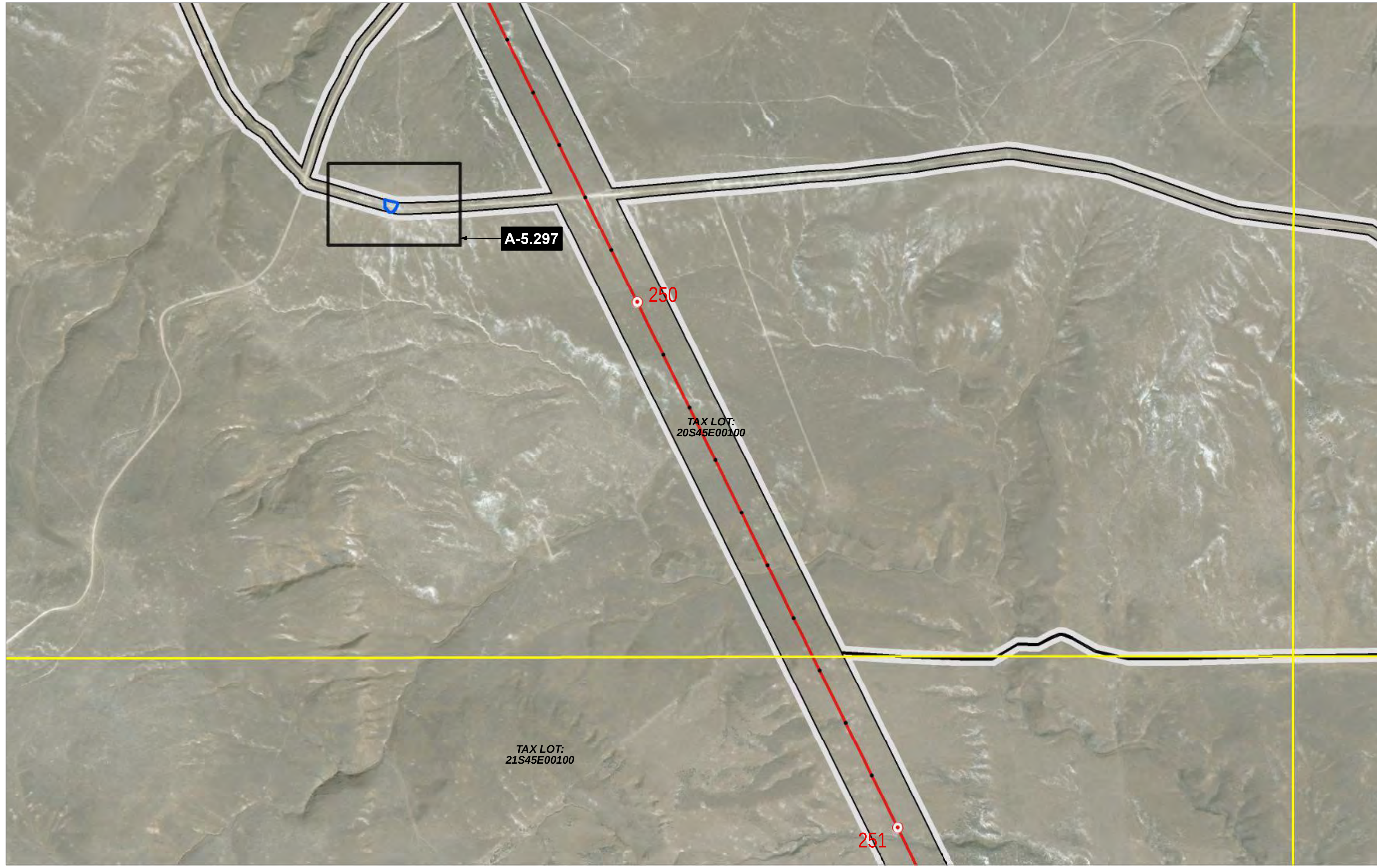
IDAHO POWER An IDACORP Company

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.81

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





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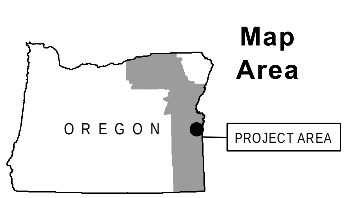
Miles



0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent
Study Area
Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
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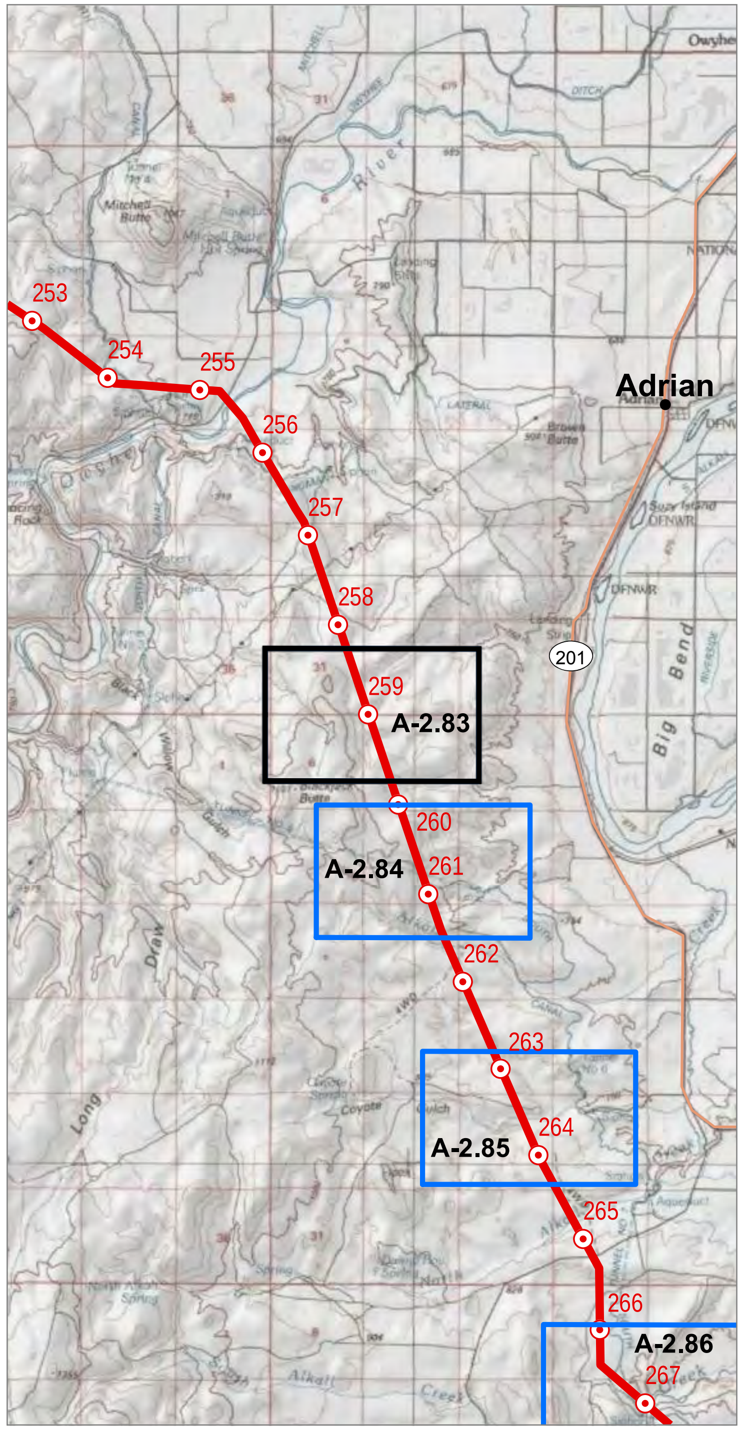
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.82

Wetland and Other Waters
Delineation Report
Tax Lots
Malheur County



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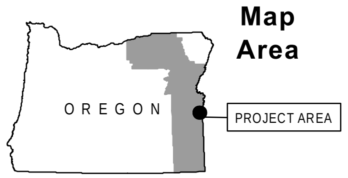
Miles



Map Area

0 1,000
Feet

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

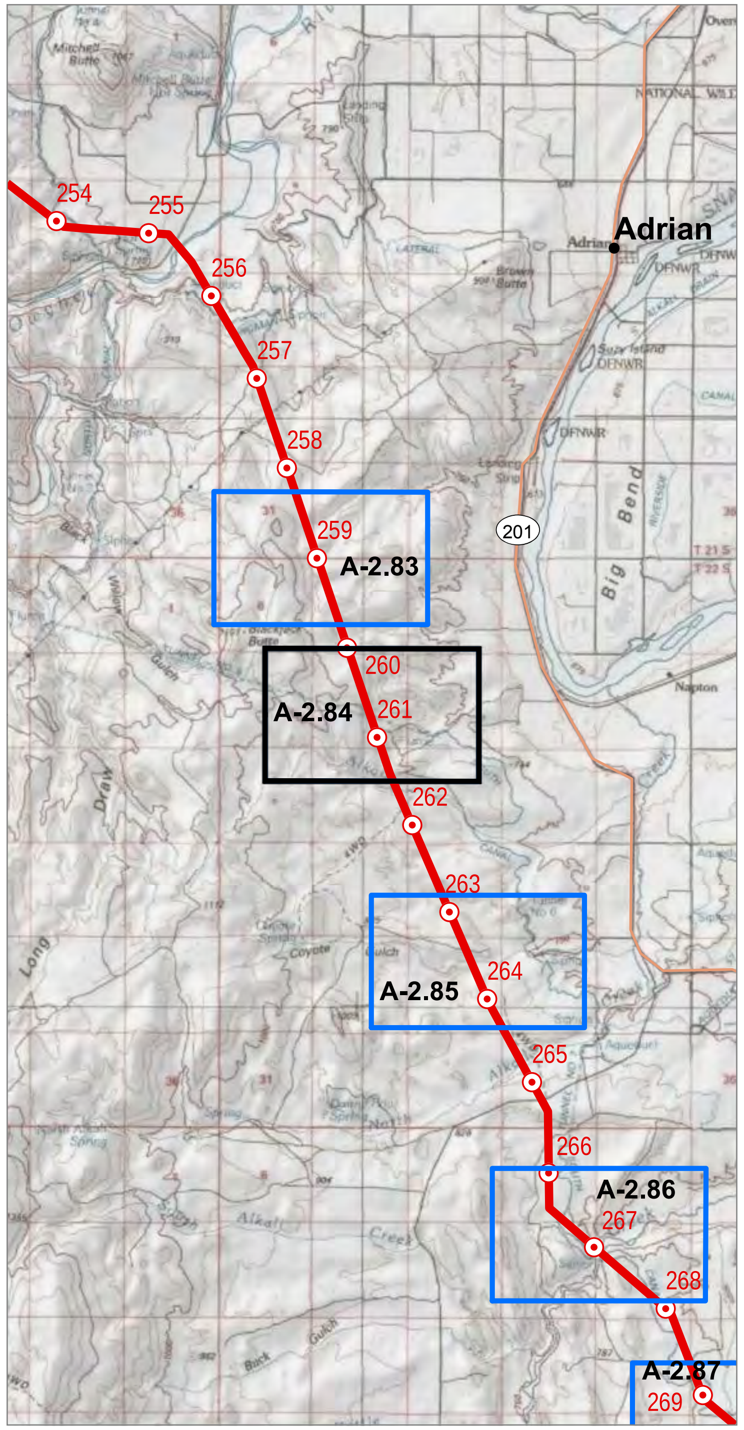
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.83

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County

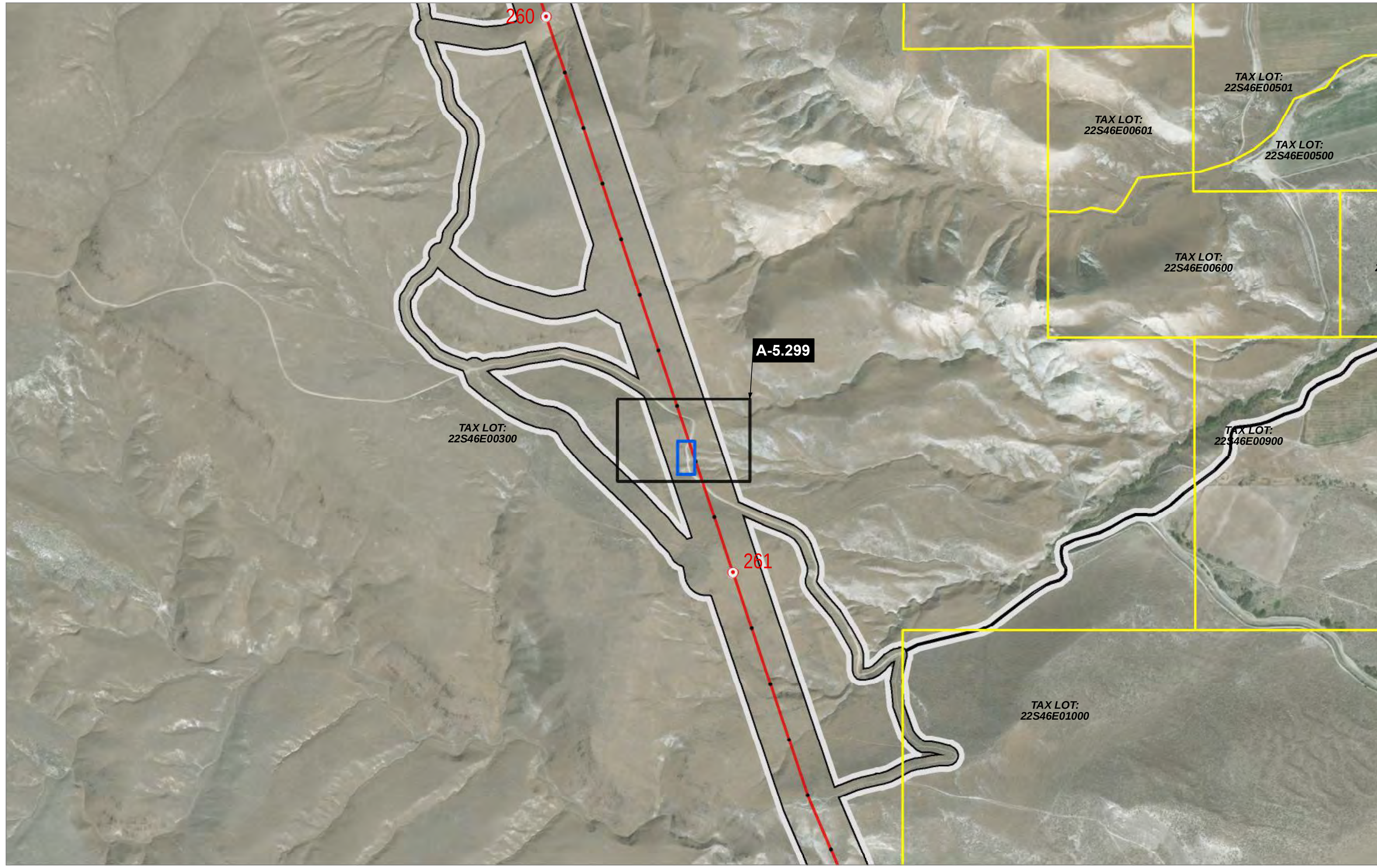
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



0 2
Miles

Map Area
OREGON
PROJECT AREA



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

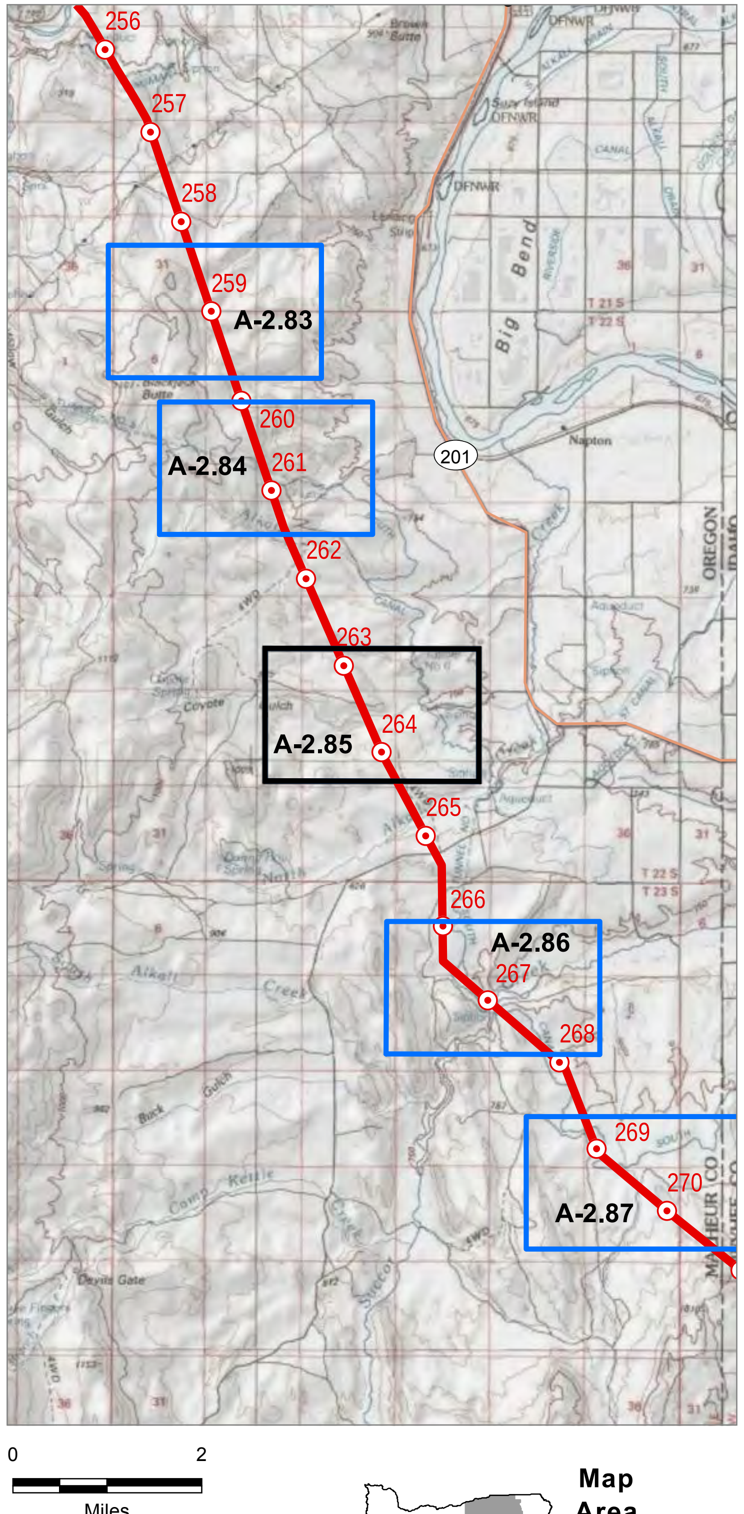
Milepost
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

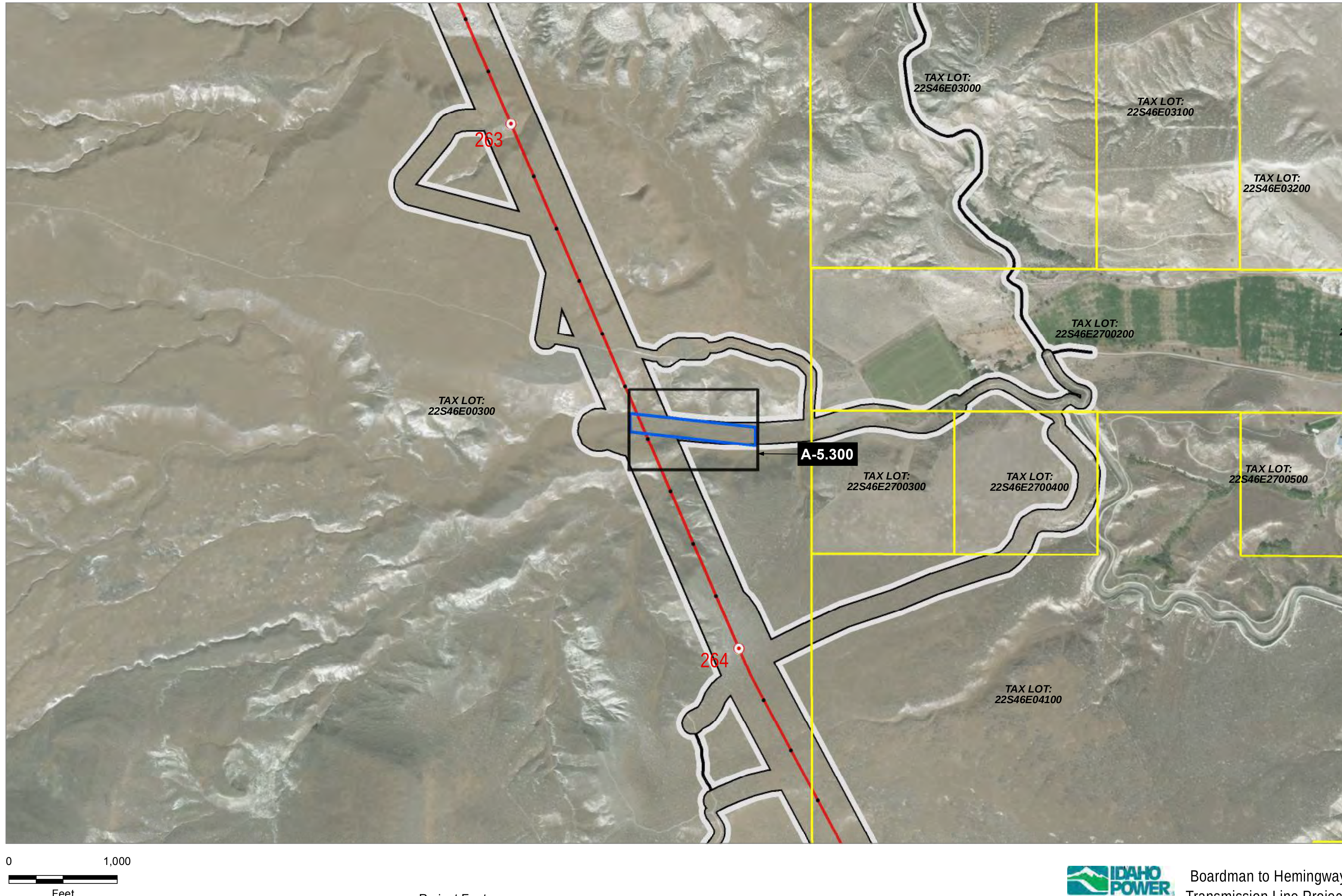
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

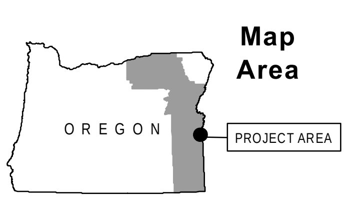
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.84
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County







Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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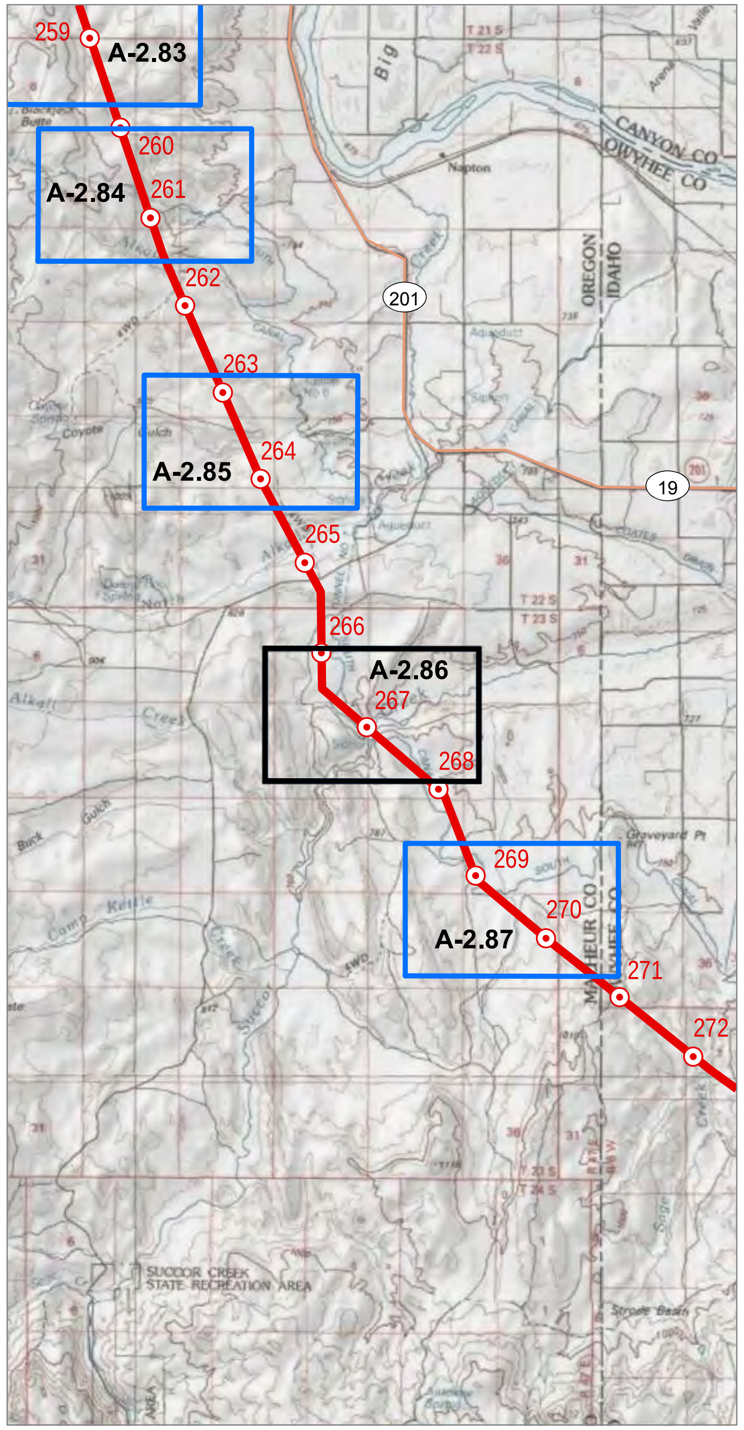
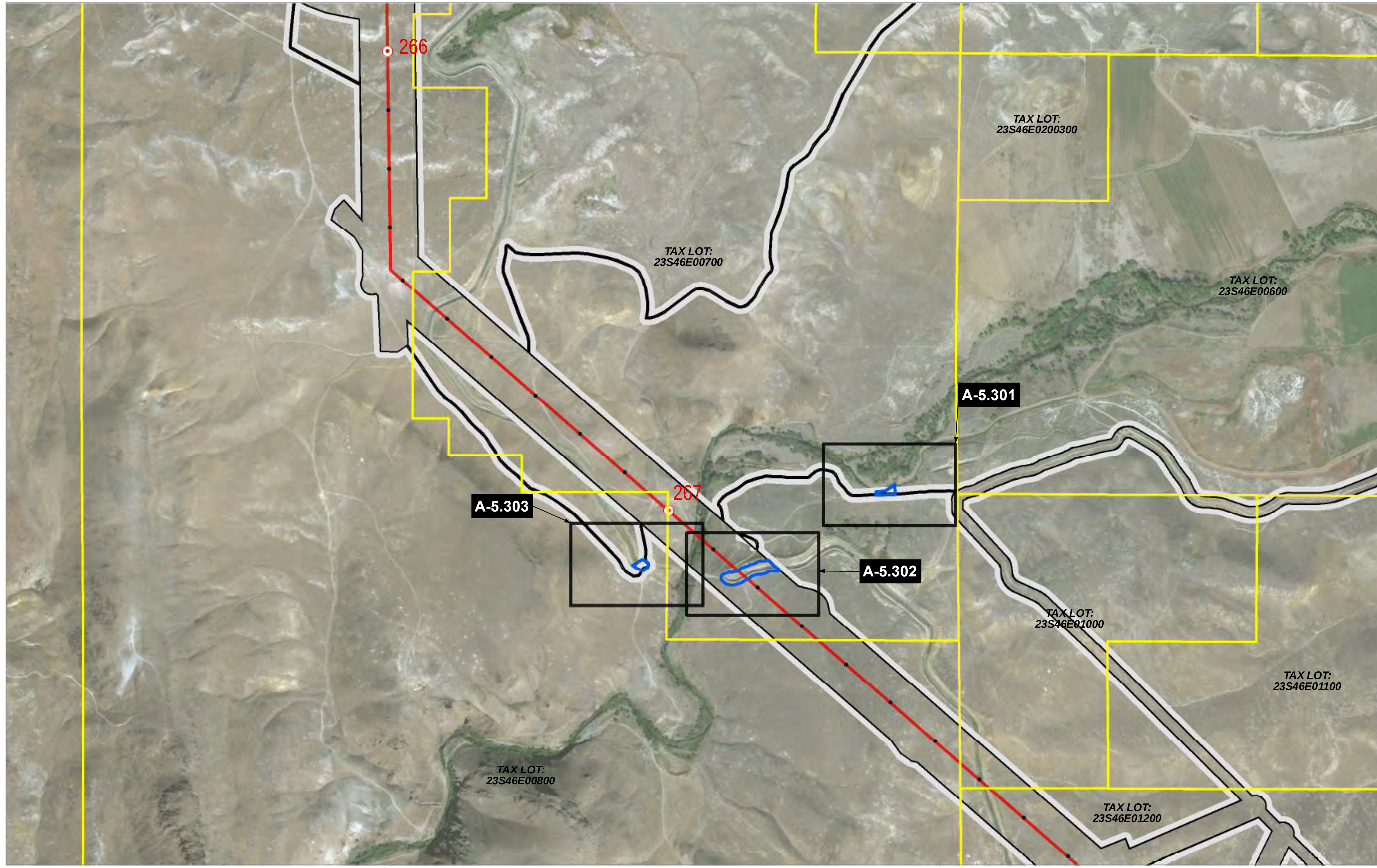
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-2.85

Wetland and Other Waters Delineation Report
Tax Lots
Malheur County





Map Area

OREGON

PROJECT AREA

Project Features

Site Boundary

Proposed Route

Mileposts

Mile

Tenth-mile

Index Map Extent

Study Area

Tax Lot Parcel

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER An IDACORP Company

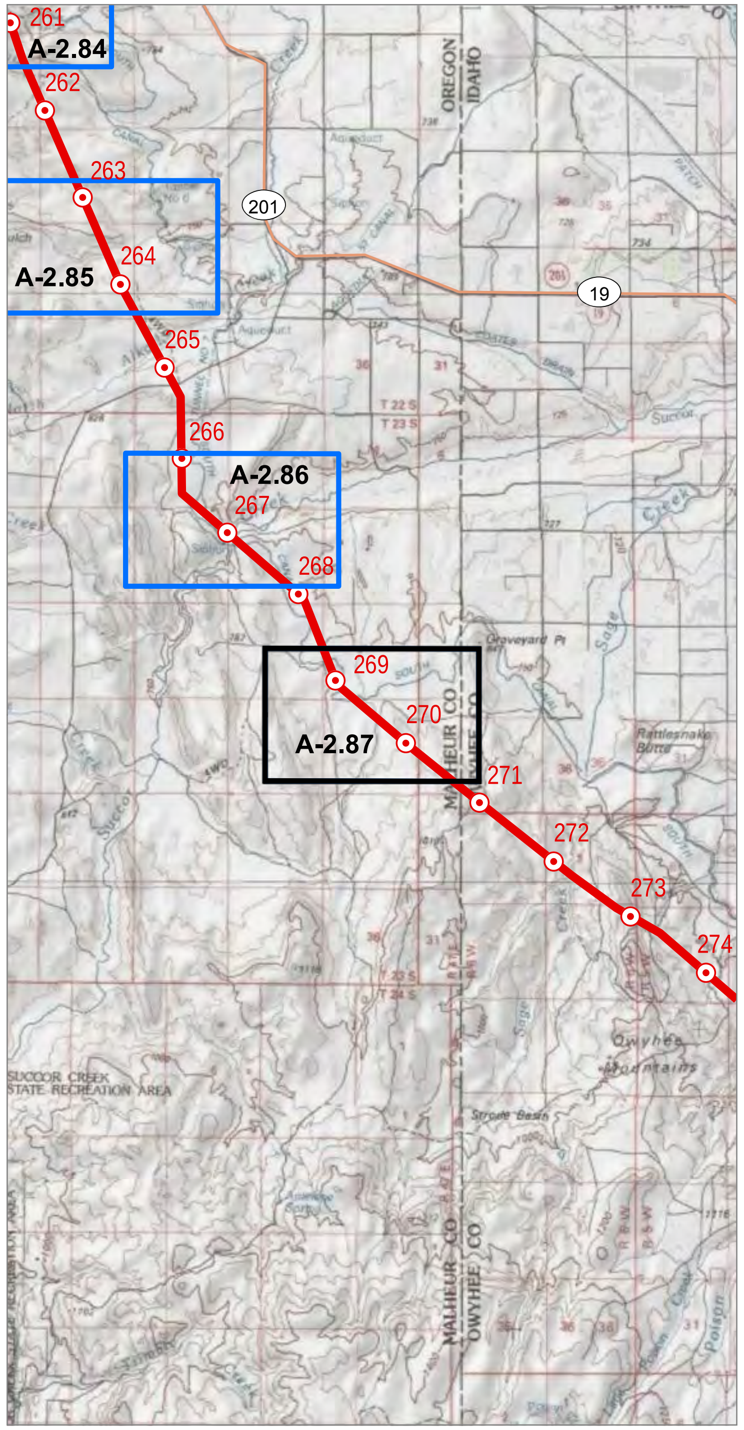
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

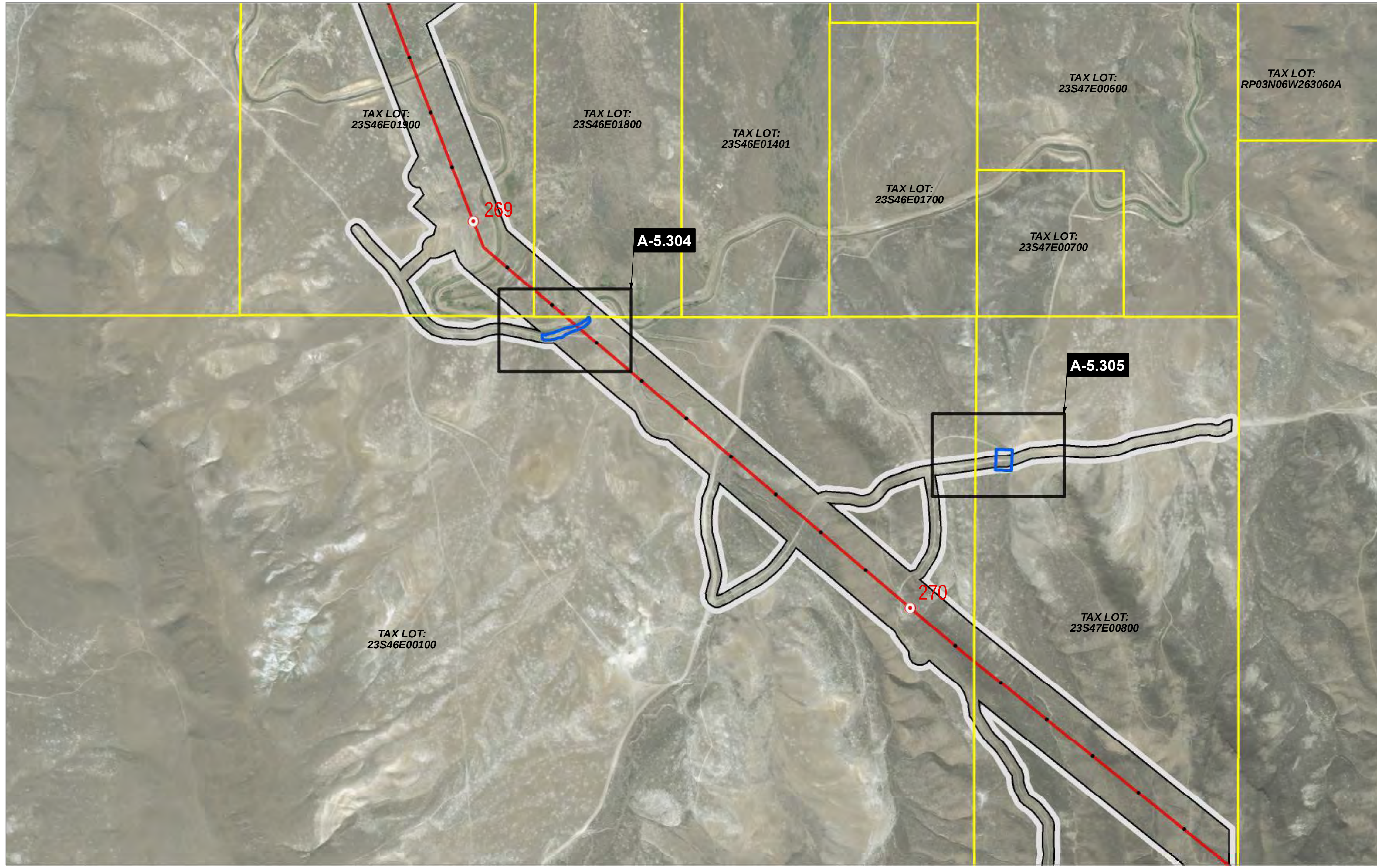
Figure A-2.86

Wetland and Other Waters Delineation Report

Tax Lots

Malheur County





0 2
Miles

Map Area

OREGON
PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

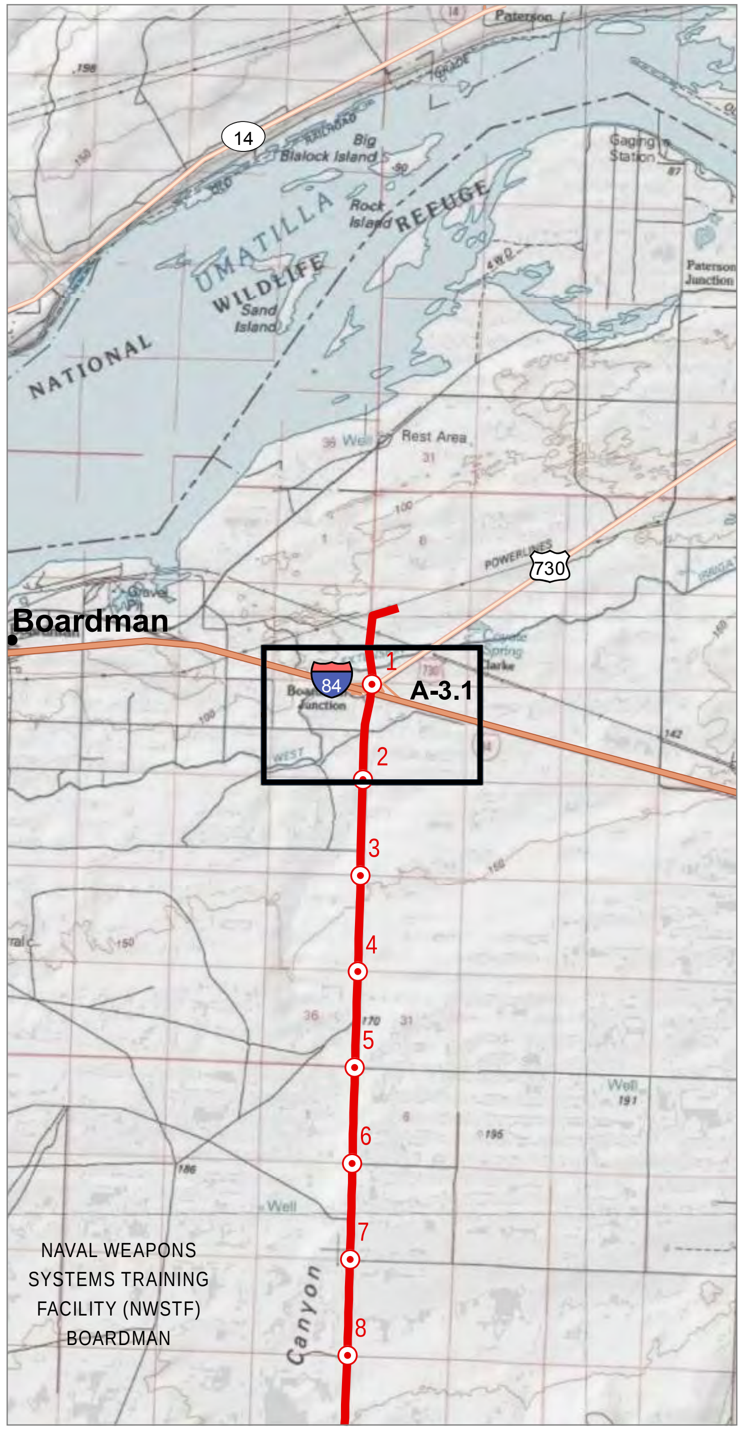
Mileposts
- Mile
- Tenth-mile
- Index Map Extent
- Study Area
- Tax Lot Parcel

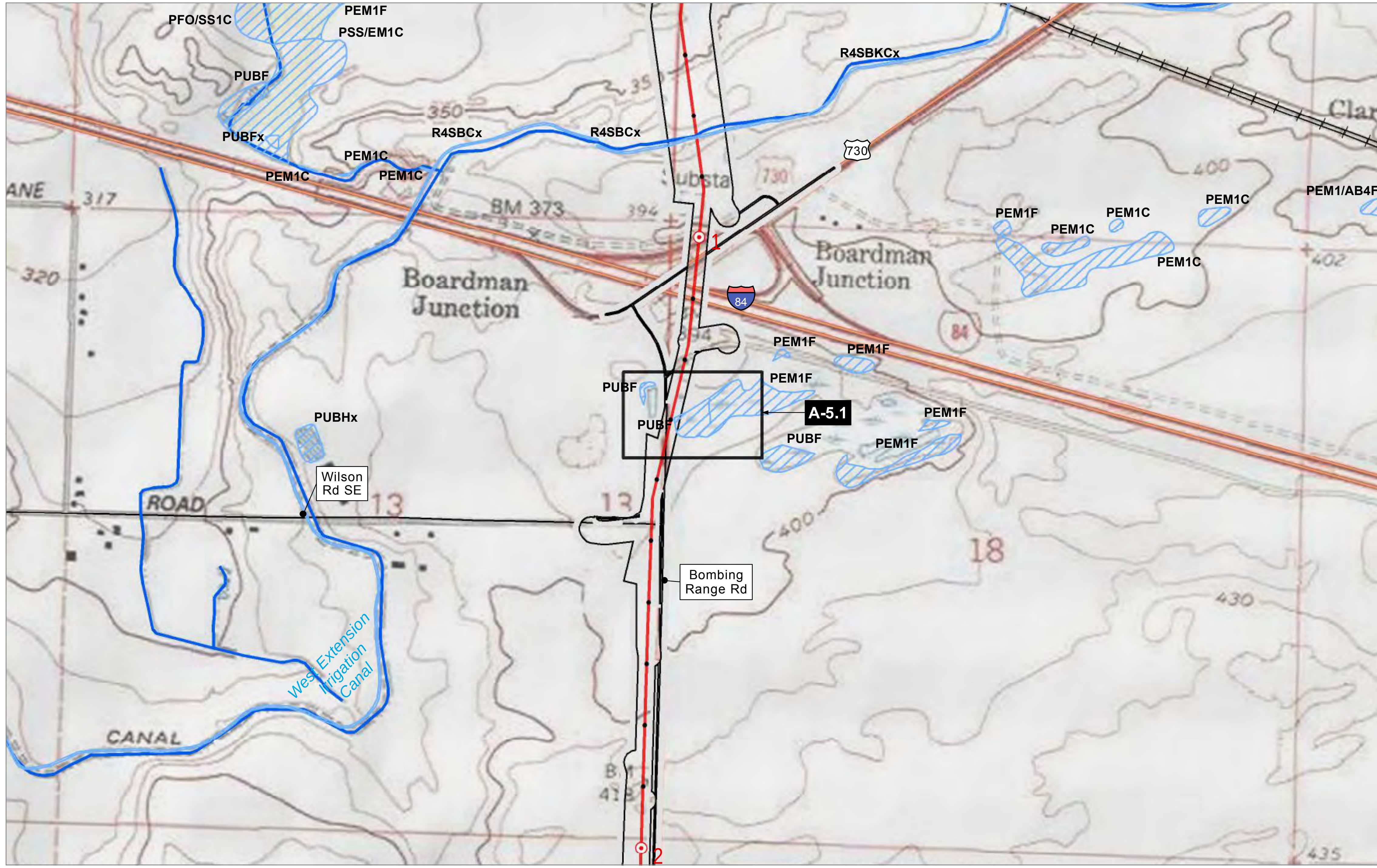
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-2.87
Wetland and Other Waters Delineation Report
Tax Lots
Malheur County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





0 2
Miles

Map
Area

OREGON
PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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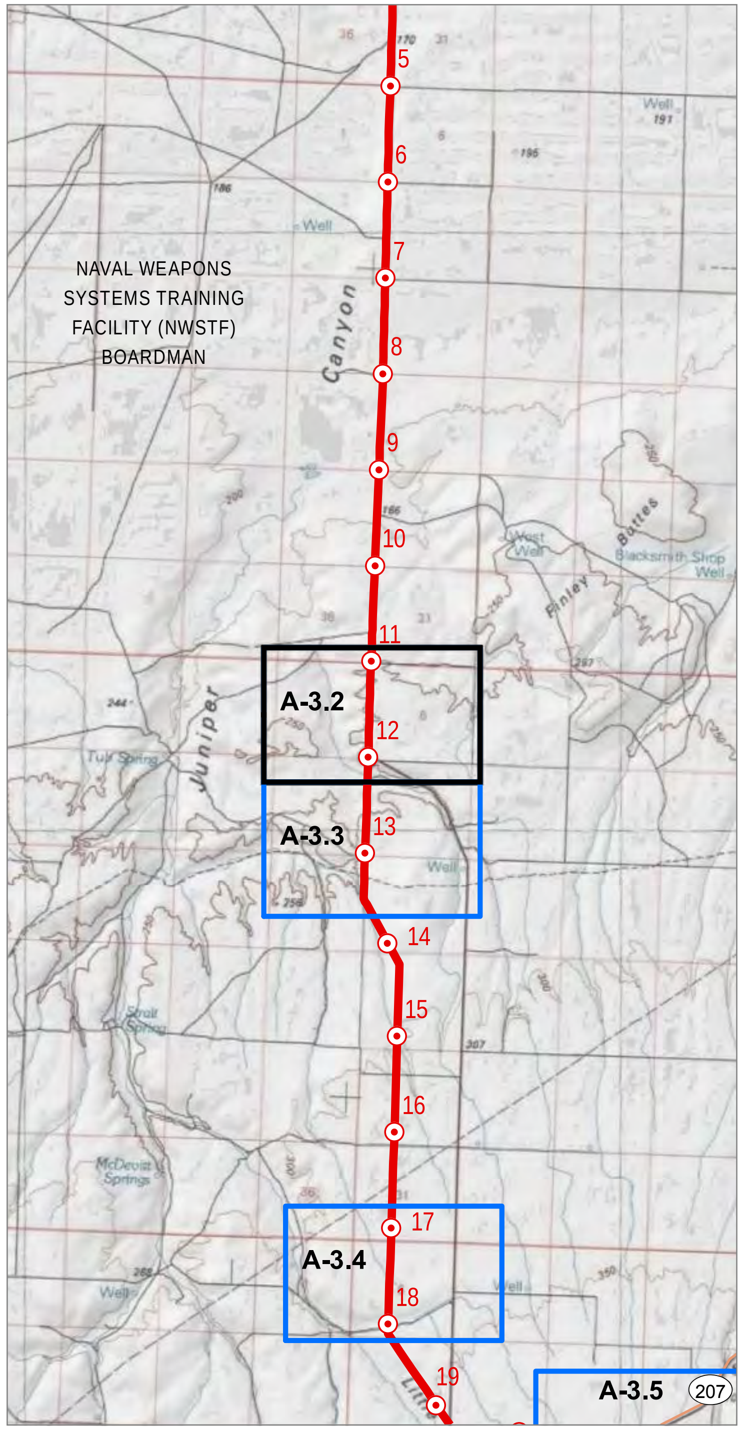
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.1
Wetland and Other Waters Delineation Report
NWI and NHD
Morrow County



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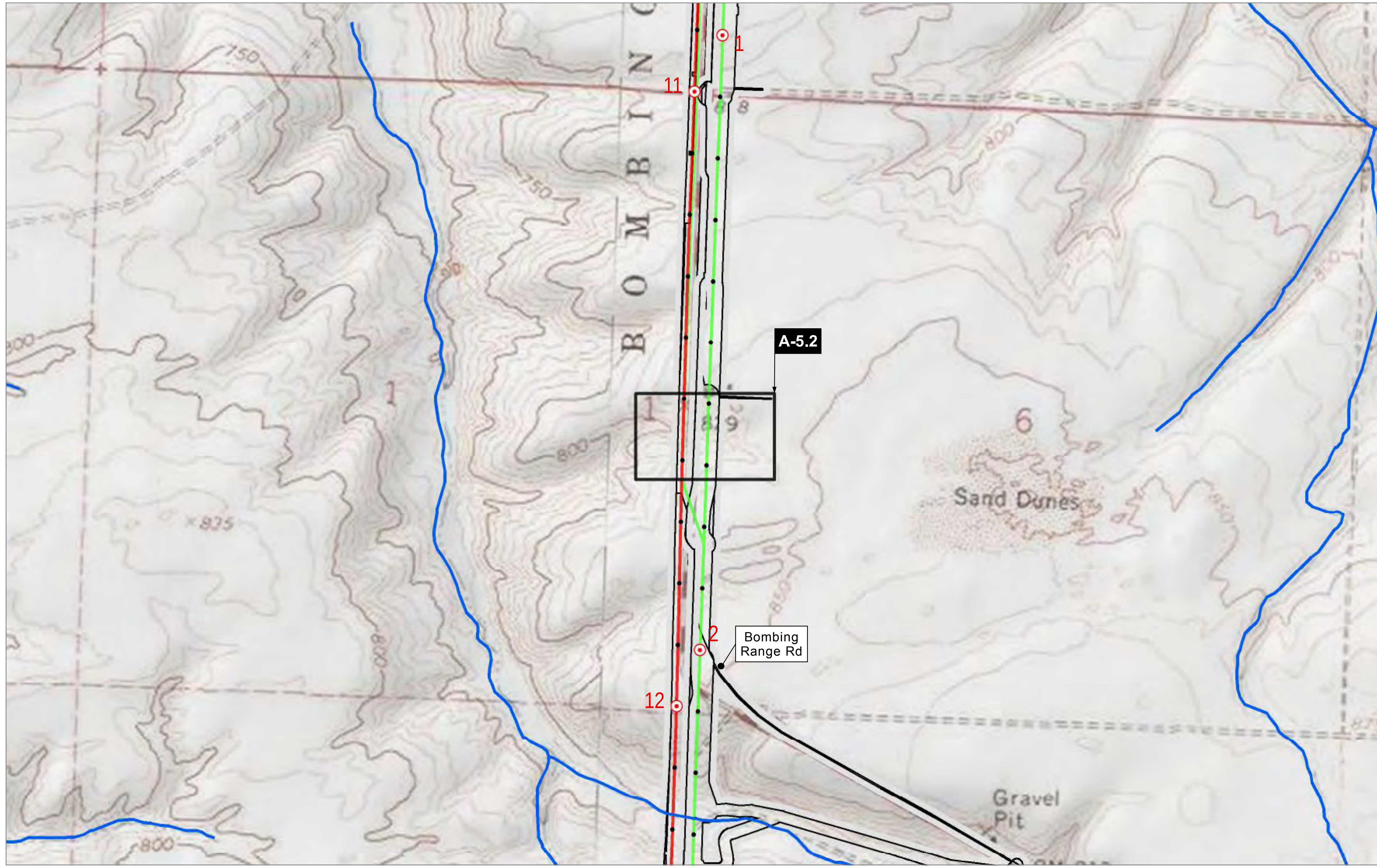
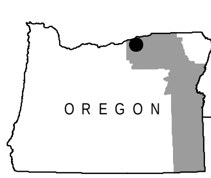
Miles



0 1,000
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset

Other Features
- Other Major Roads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

IDAHO POWER
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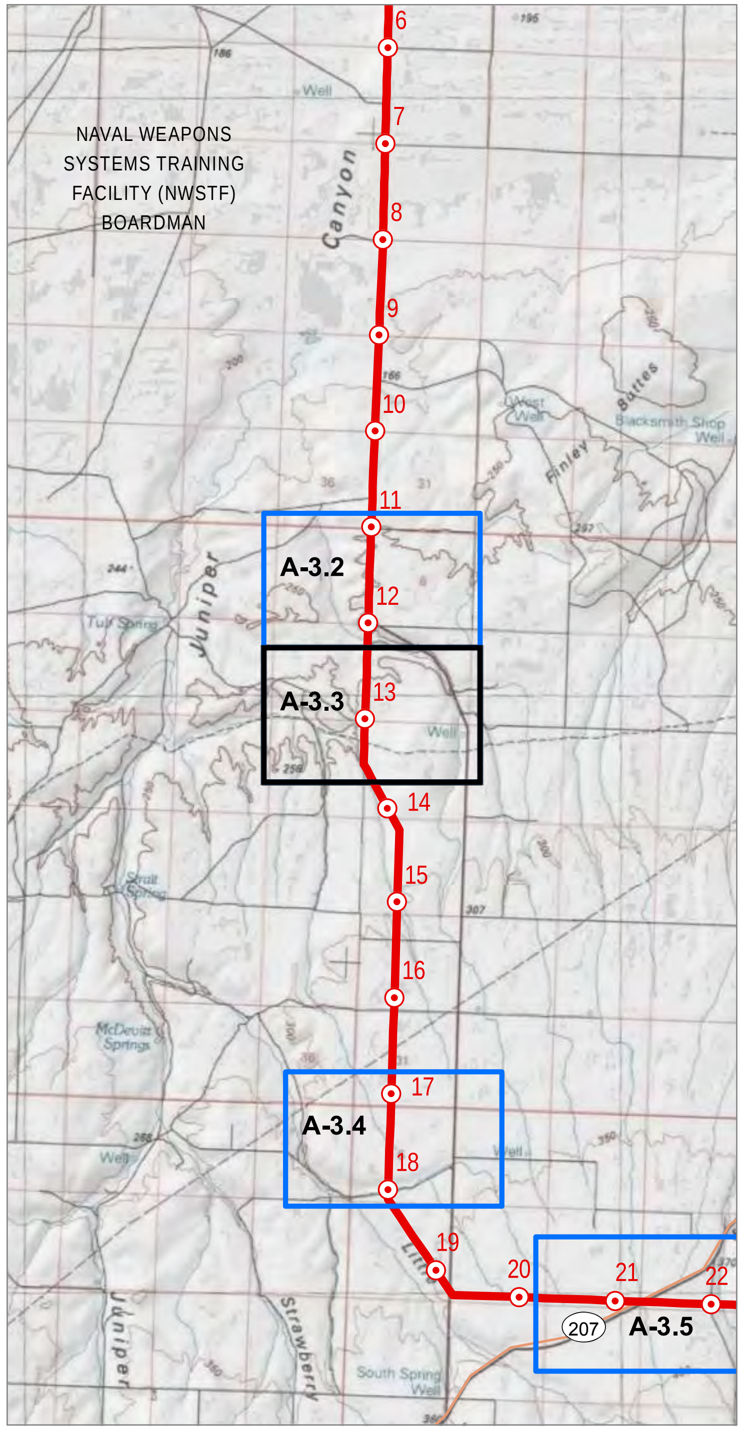
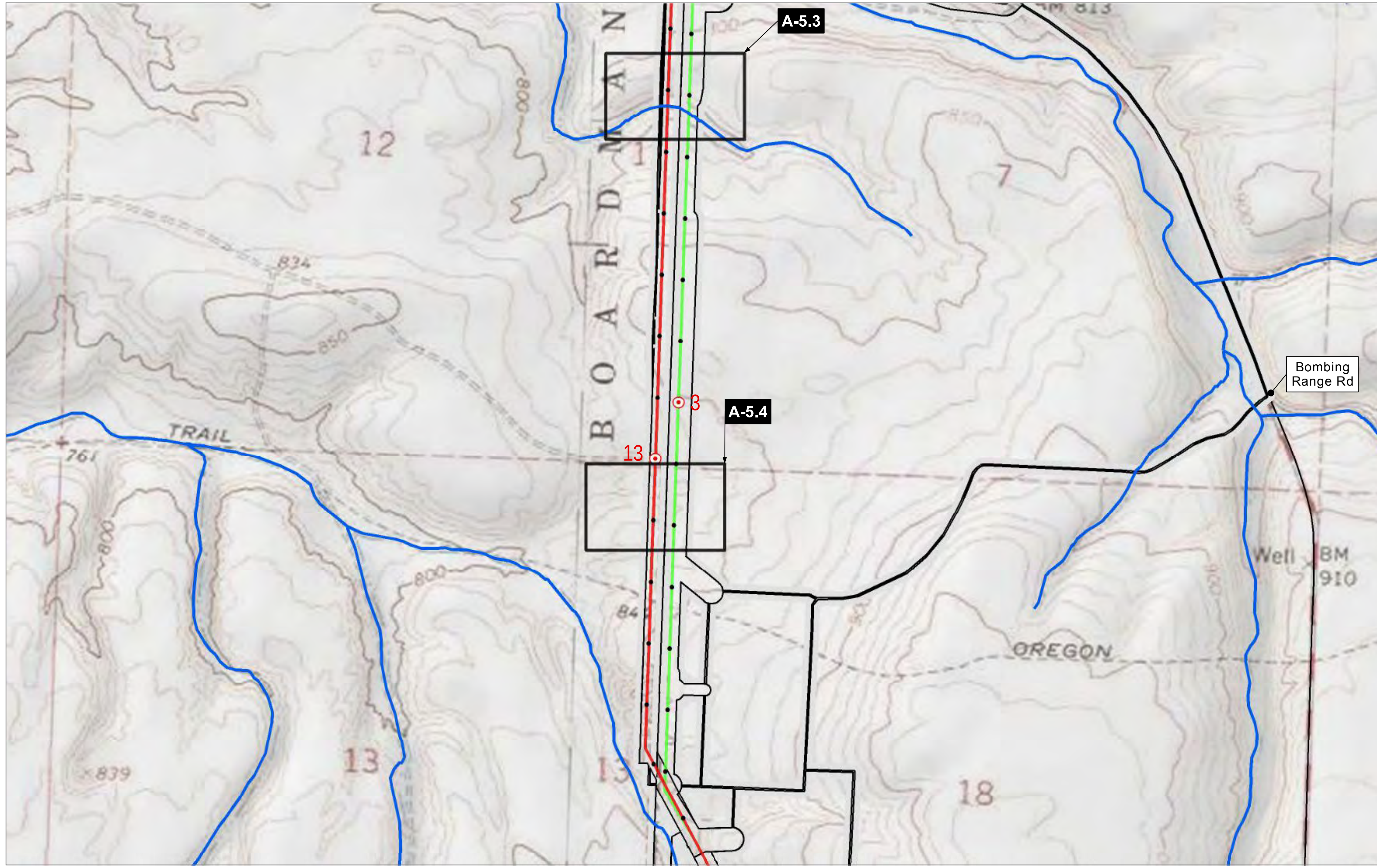
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.2
Wetland and Other Waters Delineation Report
NWI and NHD
Morrow County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Alternative

Mileposts
Mile
Tenth-mile
Index Map Extent

Wetlands and Streams
National Hydrography Dataset

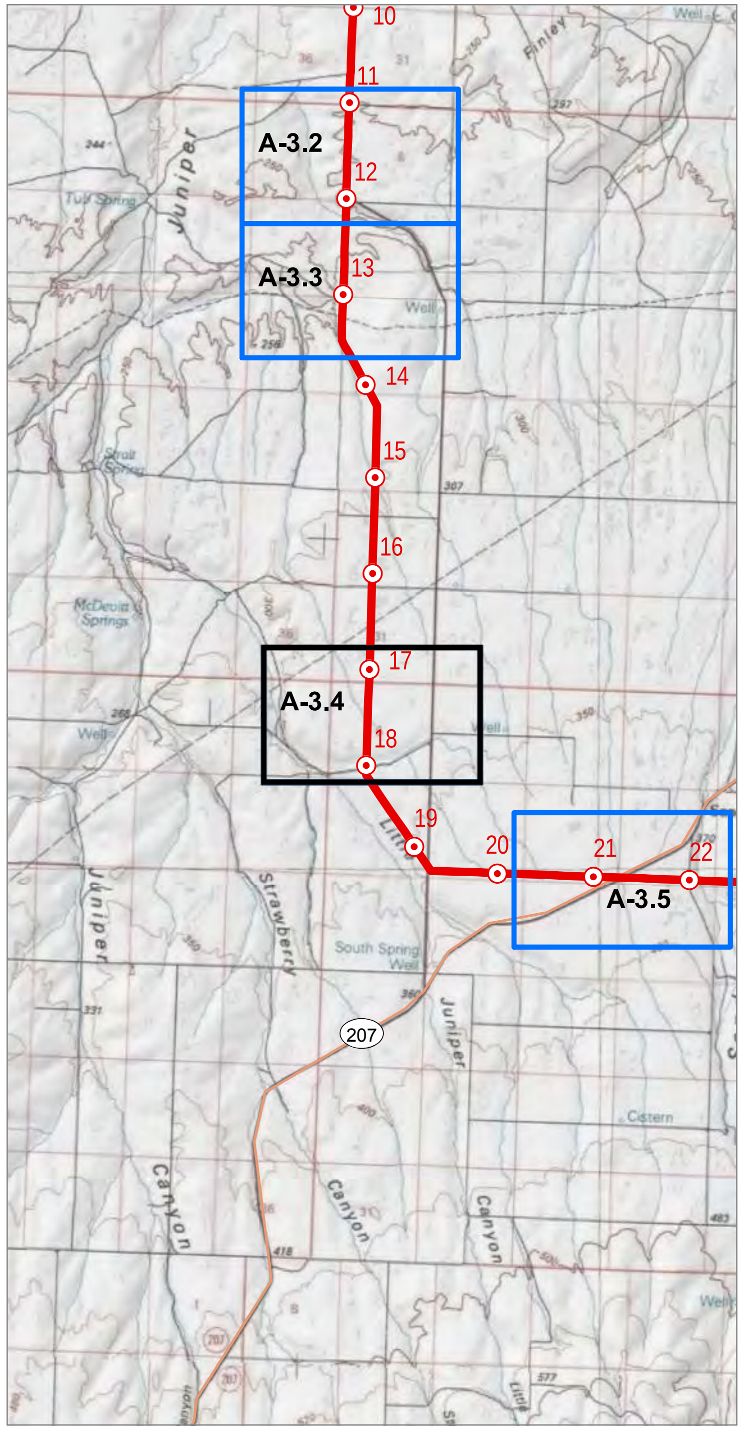
Other Features
Other Major Roads

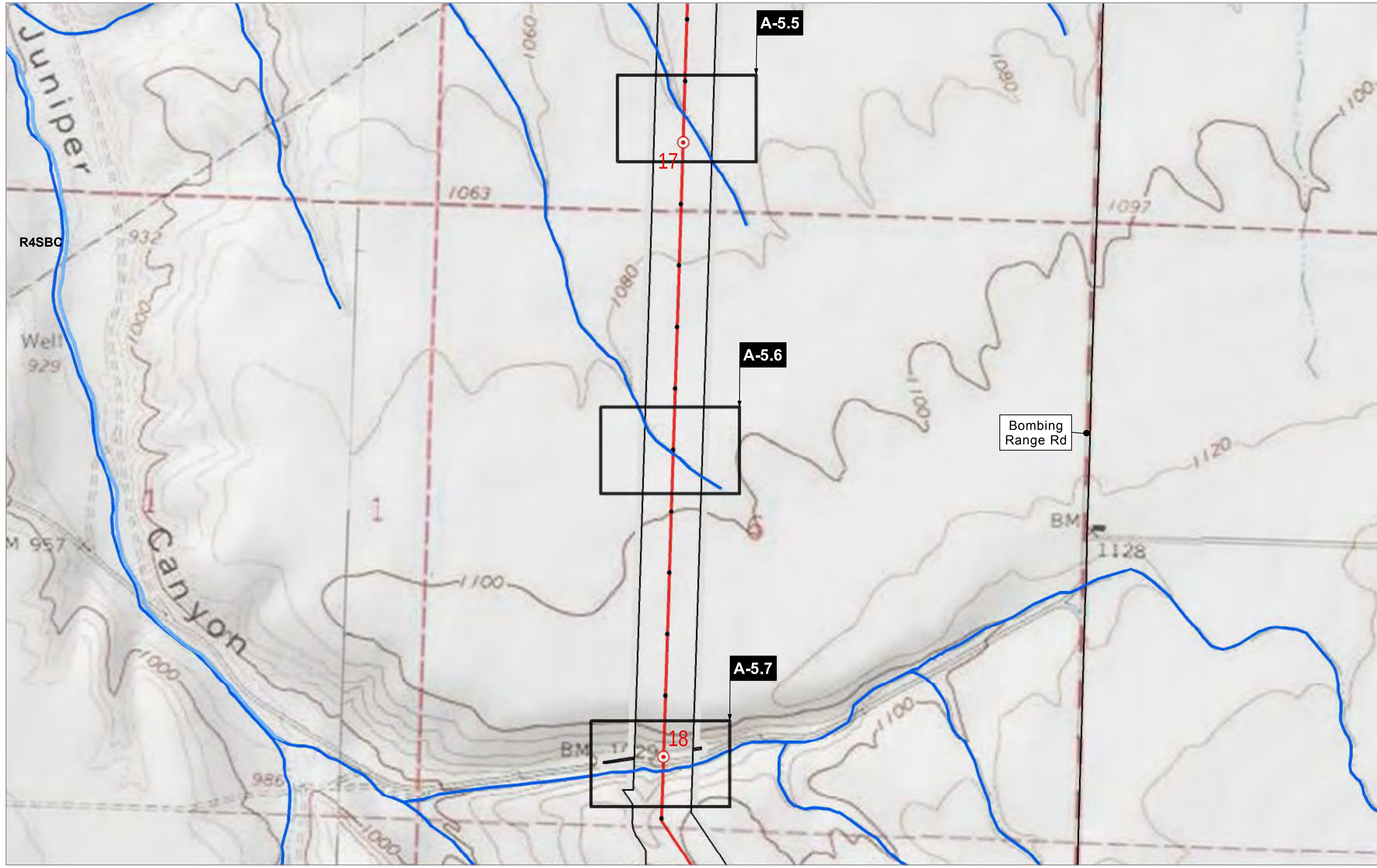
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.3
Wetland and Other Waters Delineation Report
NWI and NHD
Morrow County





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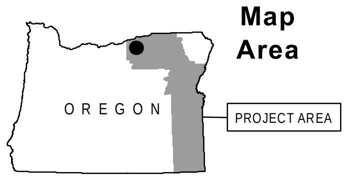
Miles



Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Other Major Roads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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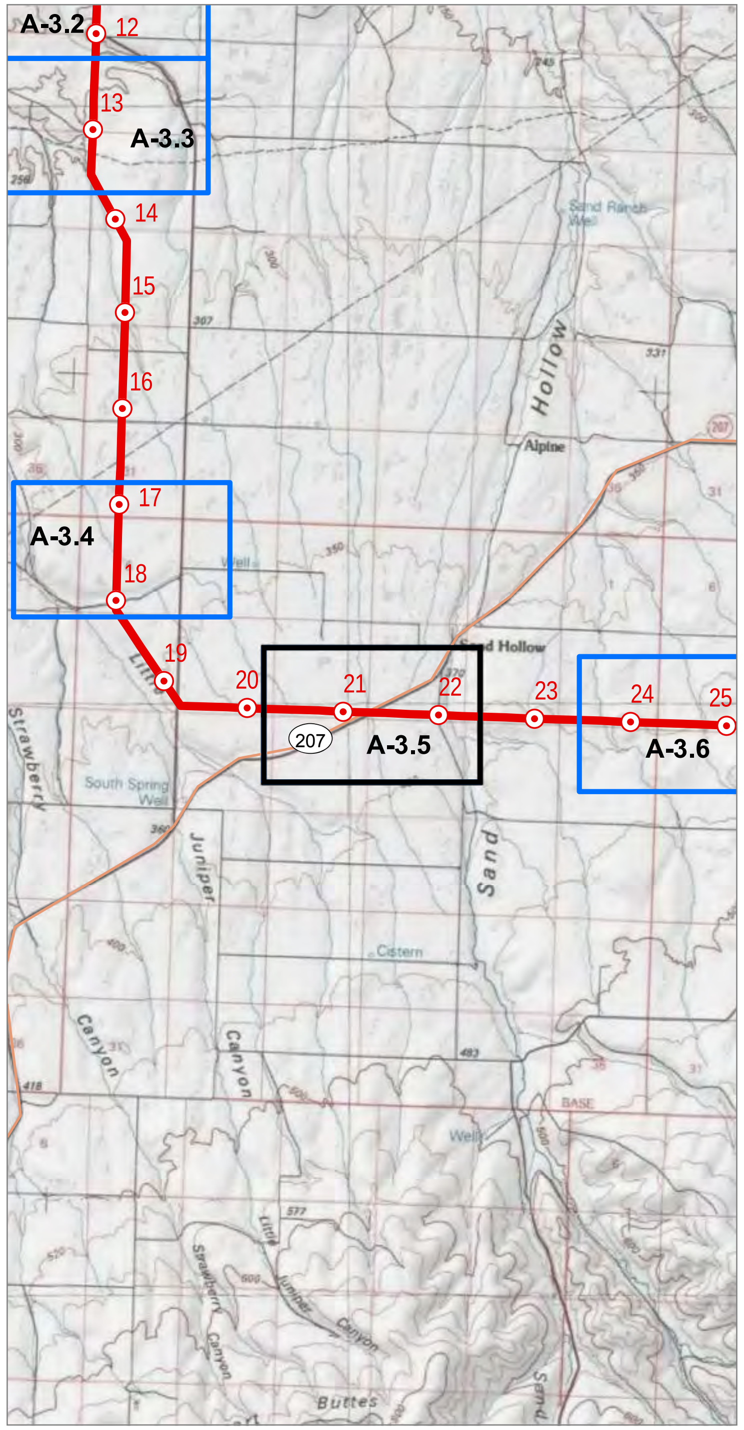
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.4
Wetland and Other Waters Delineation Report
NWI and NHD
Morrow County



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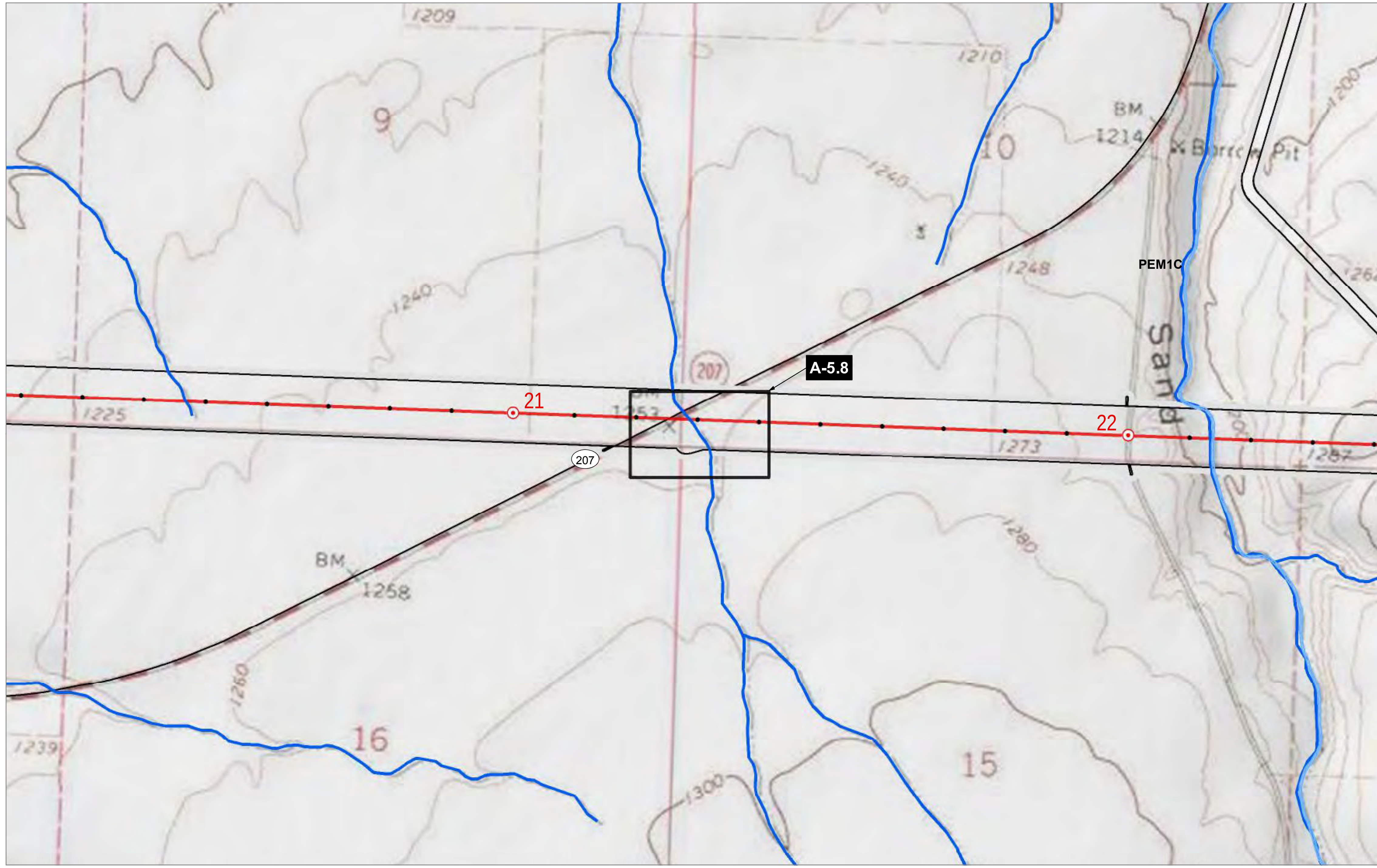
Miles

Map Area

OREGON
PROJECT AREA



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Other Major Roads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

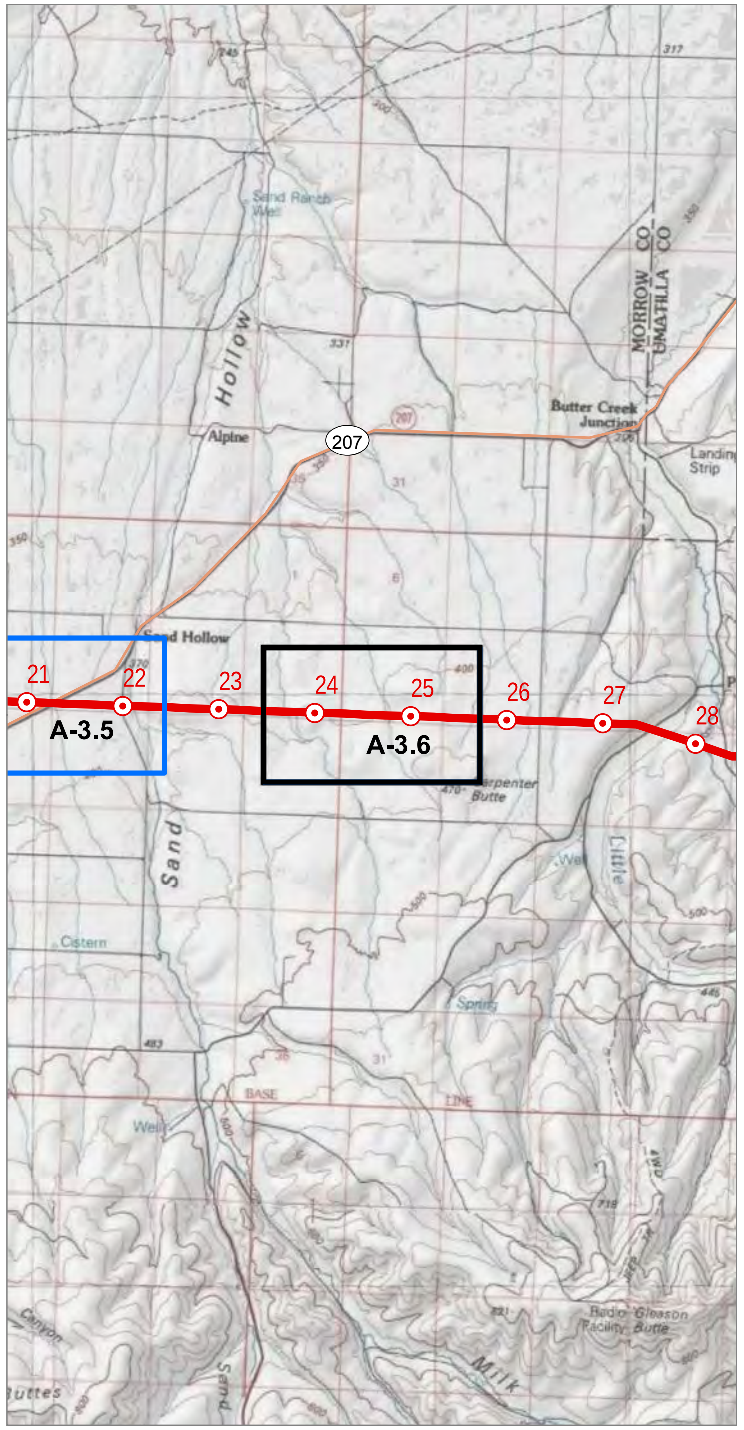
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

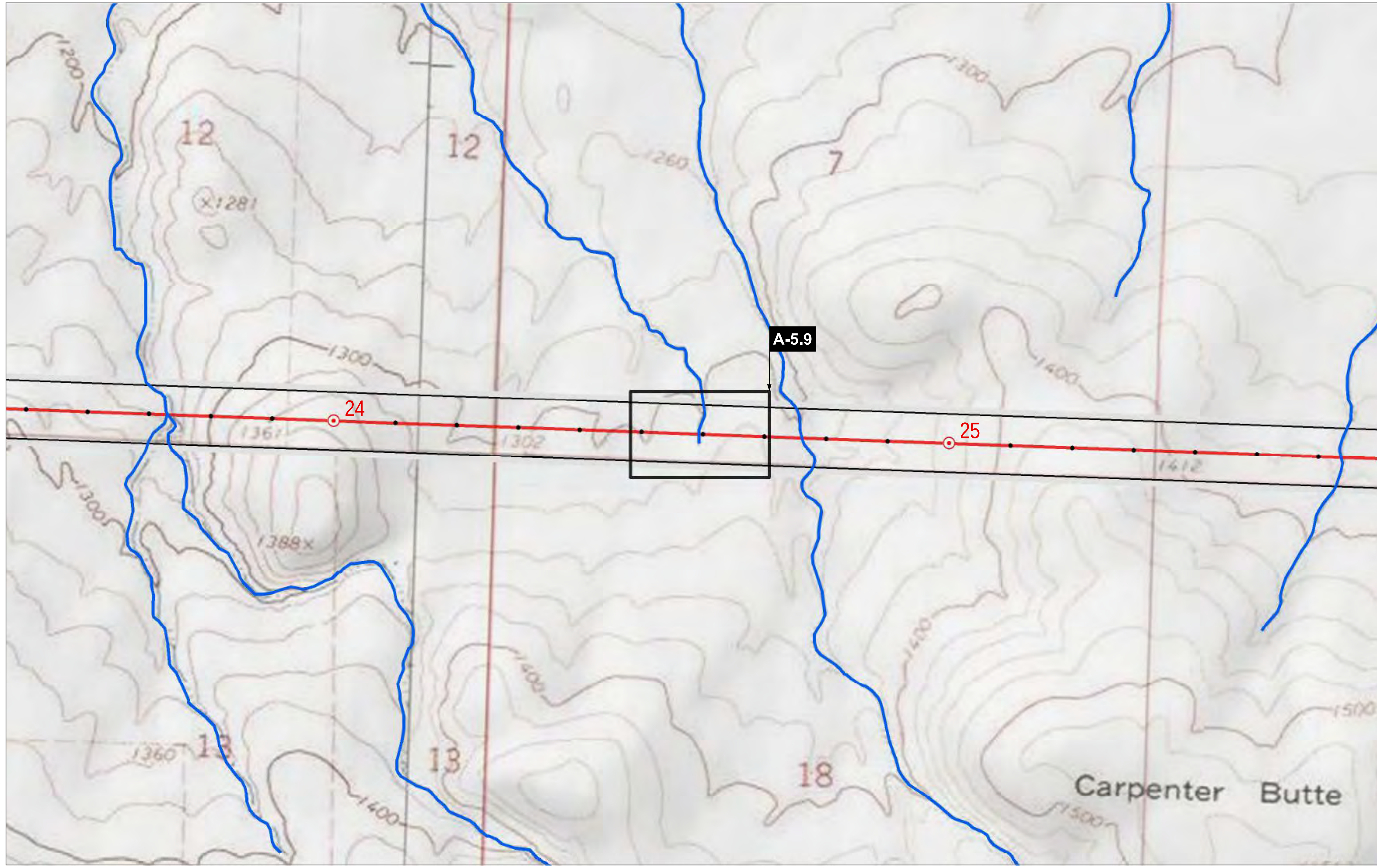
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.5

Wetland and Other Waters Delineation Report NWI and NHD

Morrow County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features

Site Boundary

Proposed Route

Mileposts

Mile

Tenth-mile

Index Map Extent

Wetlands and Streams

National Hydrography Dataset

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

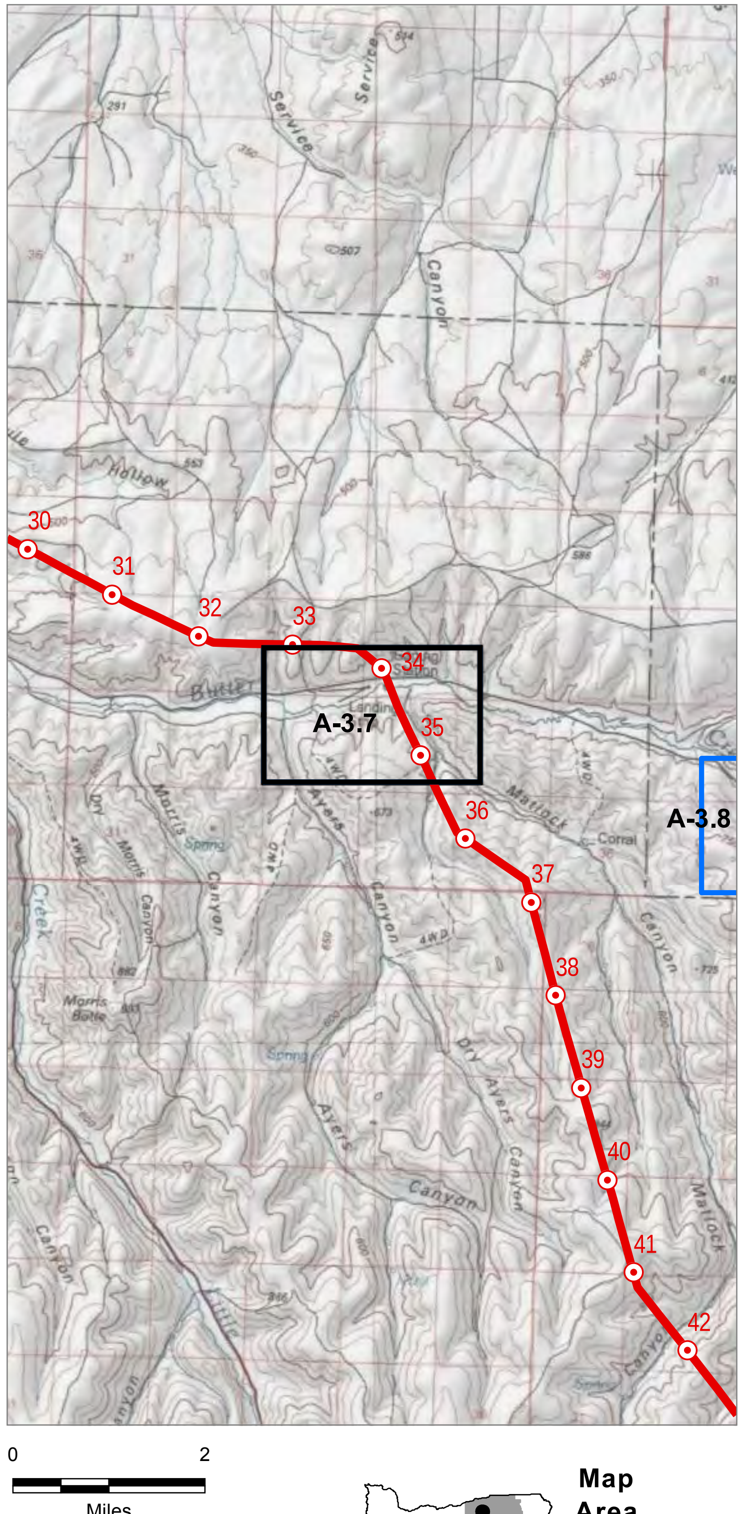
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

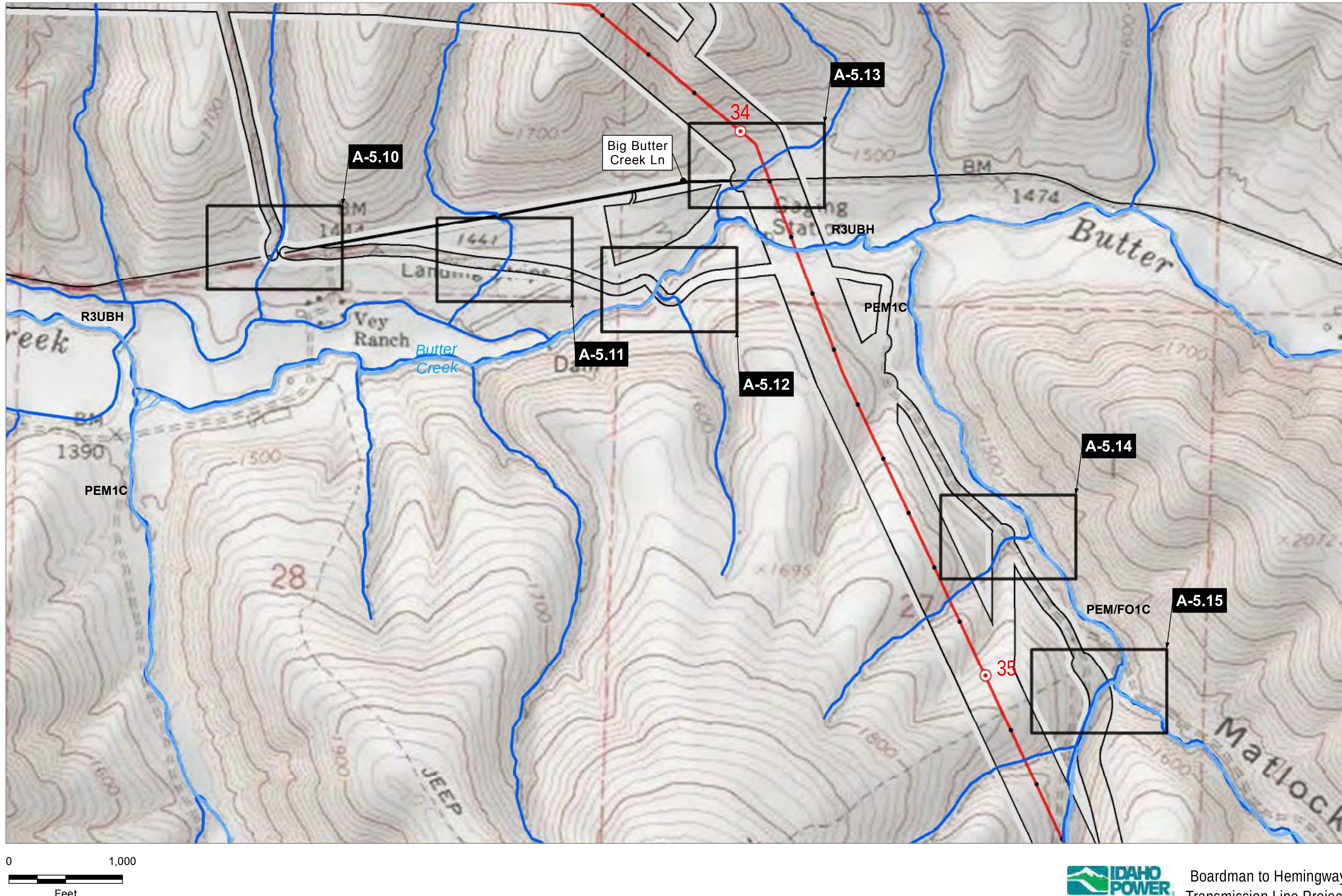
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

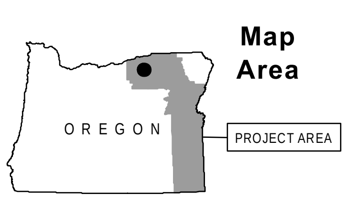
Figure A-3.6

Wetland and Other Waters Delineation Report NWI and NHD

Morrow County







Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams

- National Hydrography Dataset
- National Wetland Inventory

Other Features

- Other Major Roads

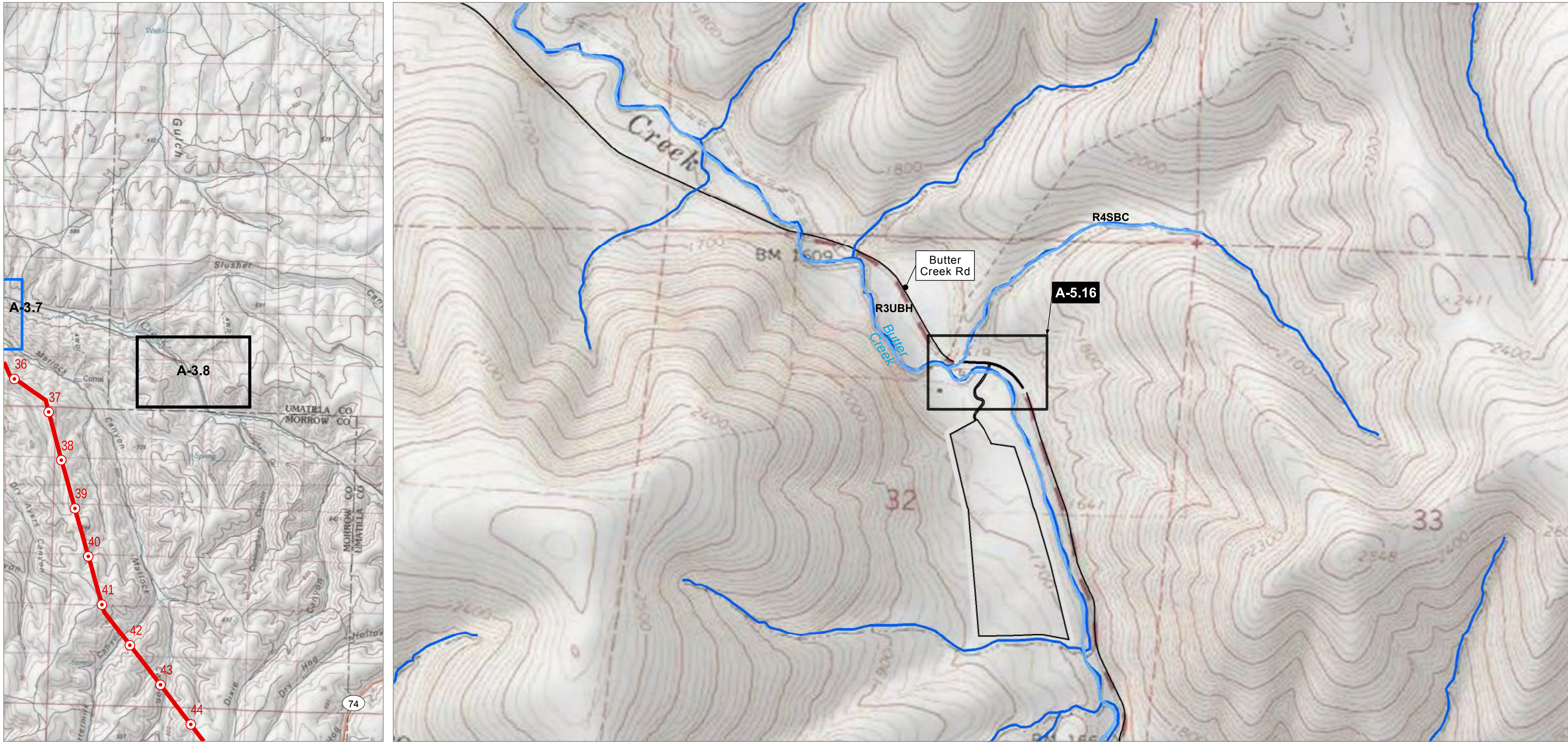
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.7

Wetland and Other Waters Delineation Report
NWI and NHD
Morrow County



0 2
Miles

Map Area
OREGON
PROJECT AREA

0 1,000
Feet

Project Features
Site Boundary
Index Map Extent

Wetlands and Streams
National Hydrography Dataset
National Wetland Inventory

Other Features
Other Major Roads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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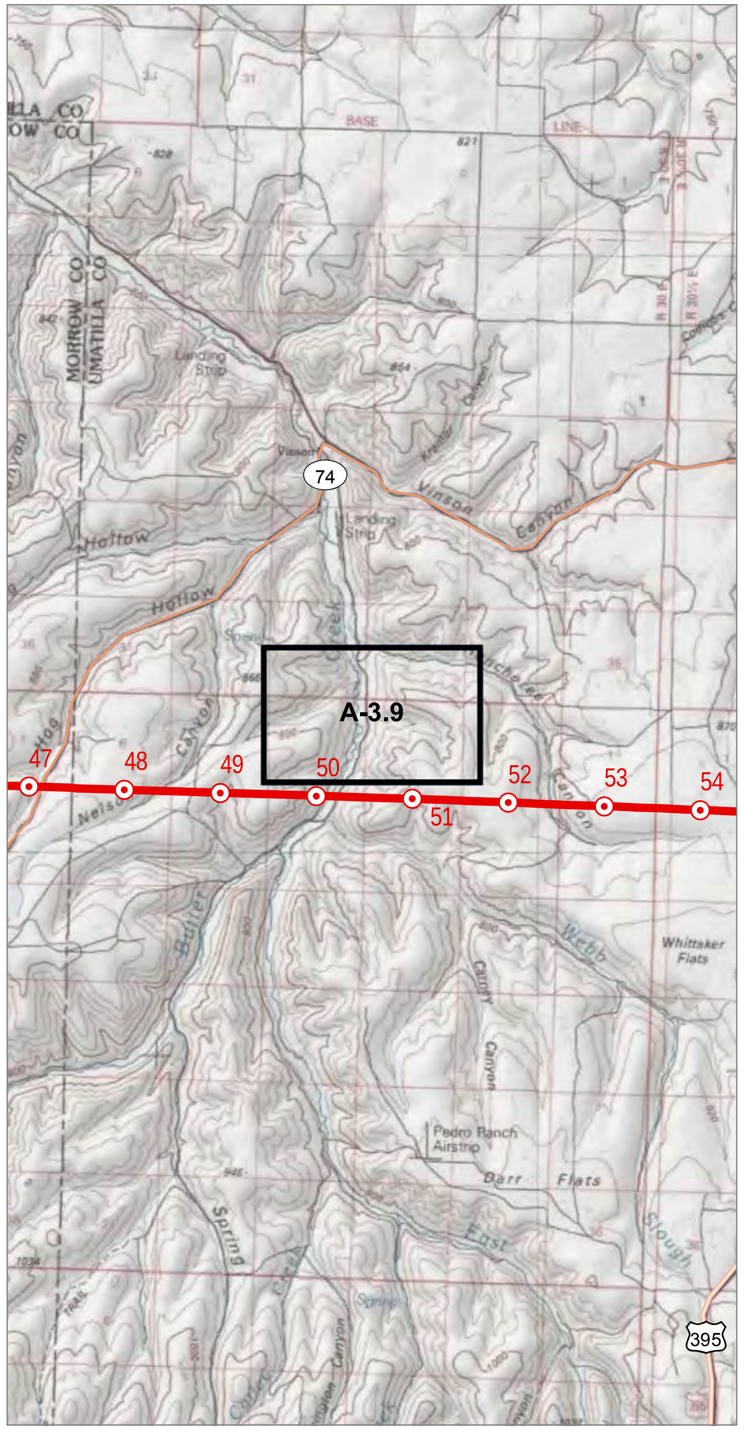
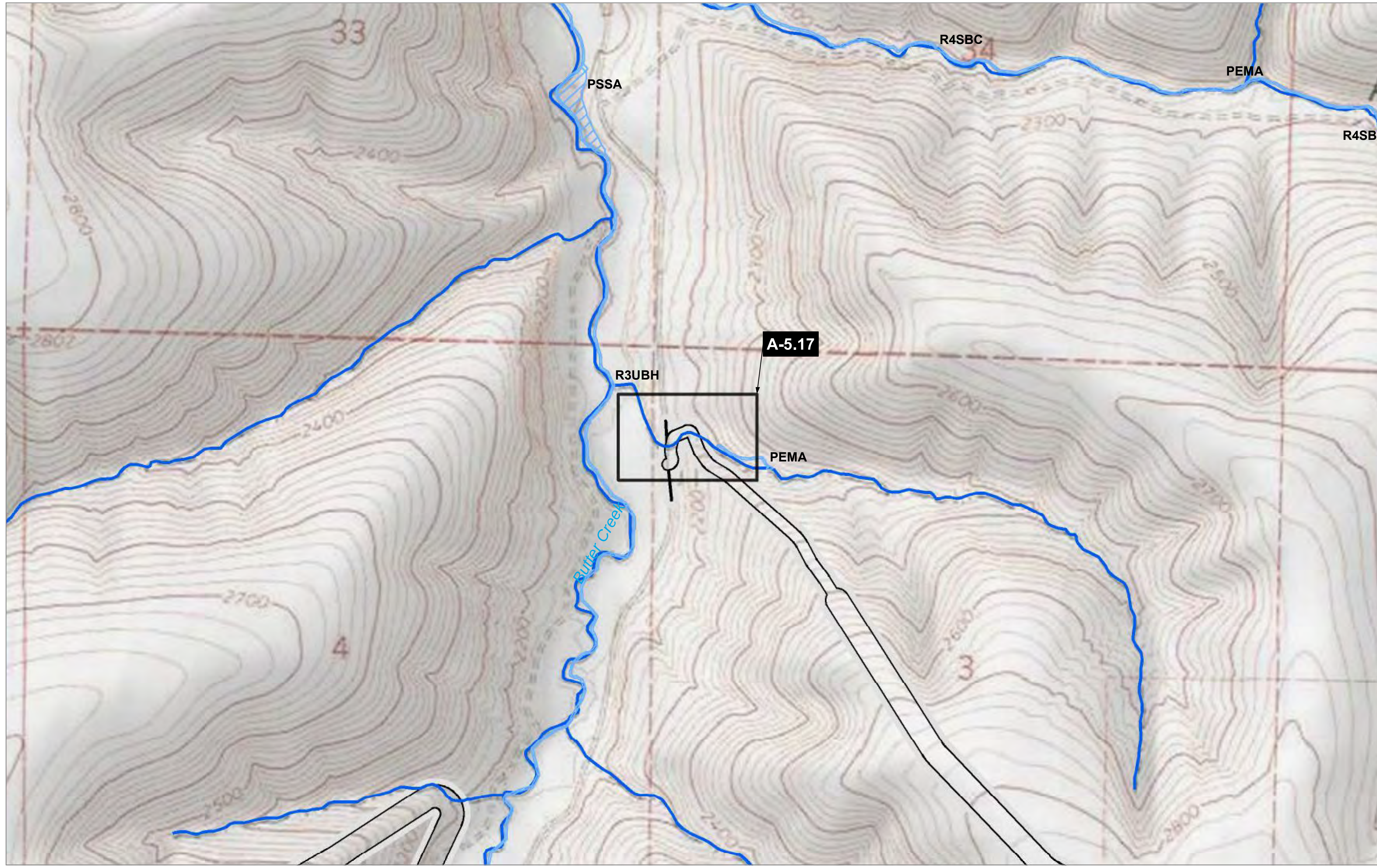
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.8

Wetland and Other Waters Delineation Report NWI and NHD

Umatilla County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

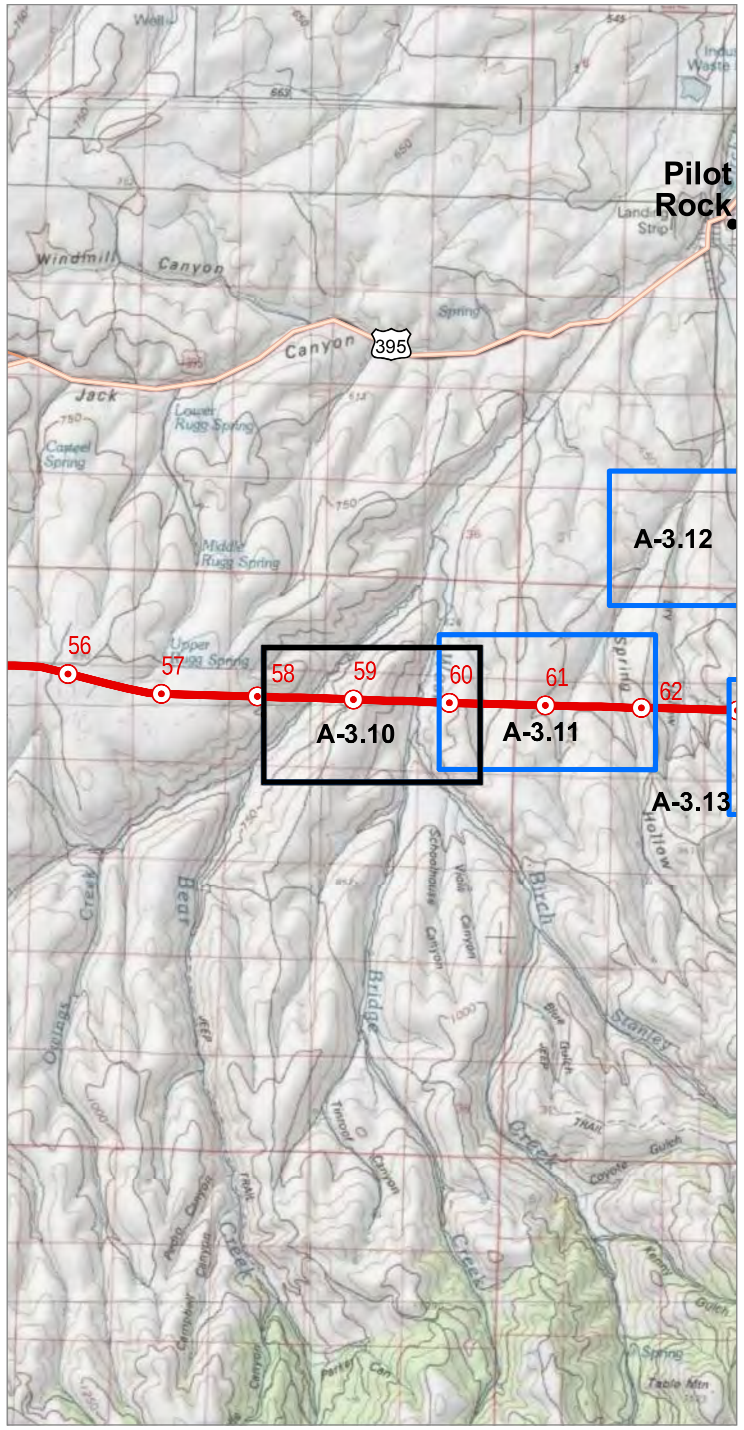
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

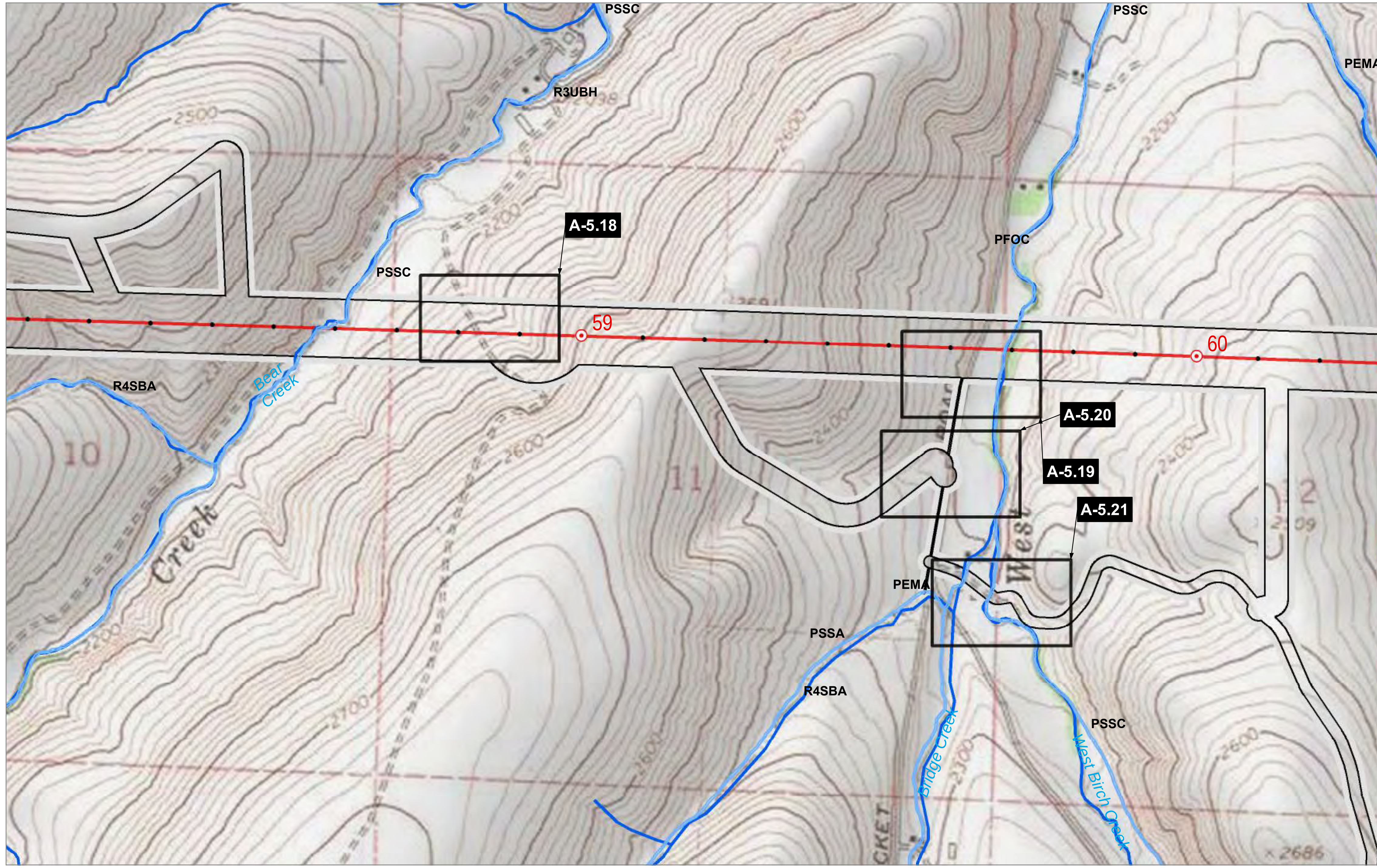
Project Features
- Site Boundary
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.9
Wetland and Other Waters Delineation Report
NWI and NHD
Umatilla County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

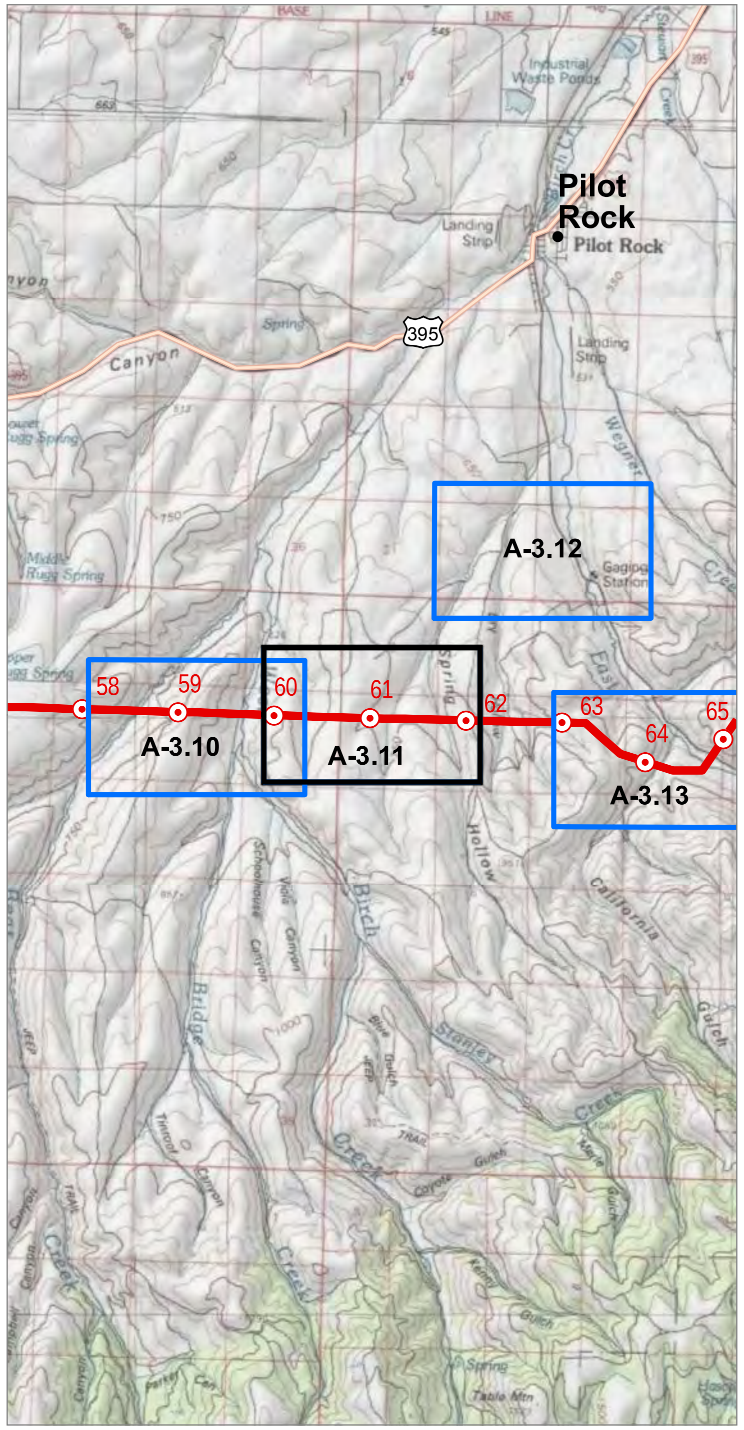
Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.10
Wetland and Other Waters Delineation Report NWI and NHD
Umatilla County



0 2
Miles

Map Area

OREGON
PROJECT AREA

0 1,000
Feet

Project Features
Site Boundary
Proposed Route
Mileposts
Mile
Tenth-mile
Index Map Extent

Wetlands and Streams
National Hydrography Dataset
National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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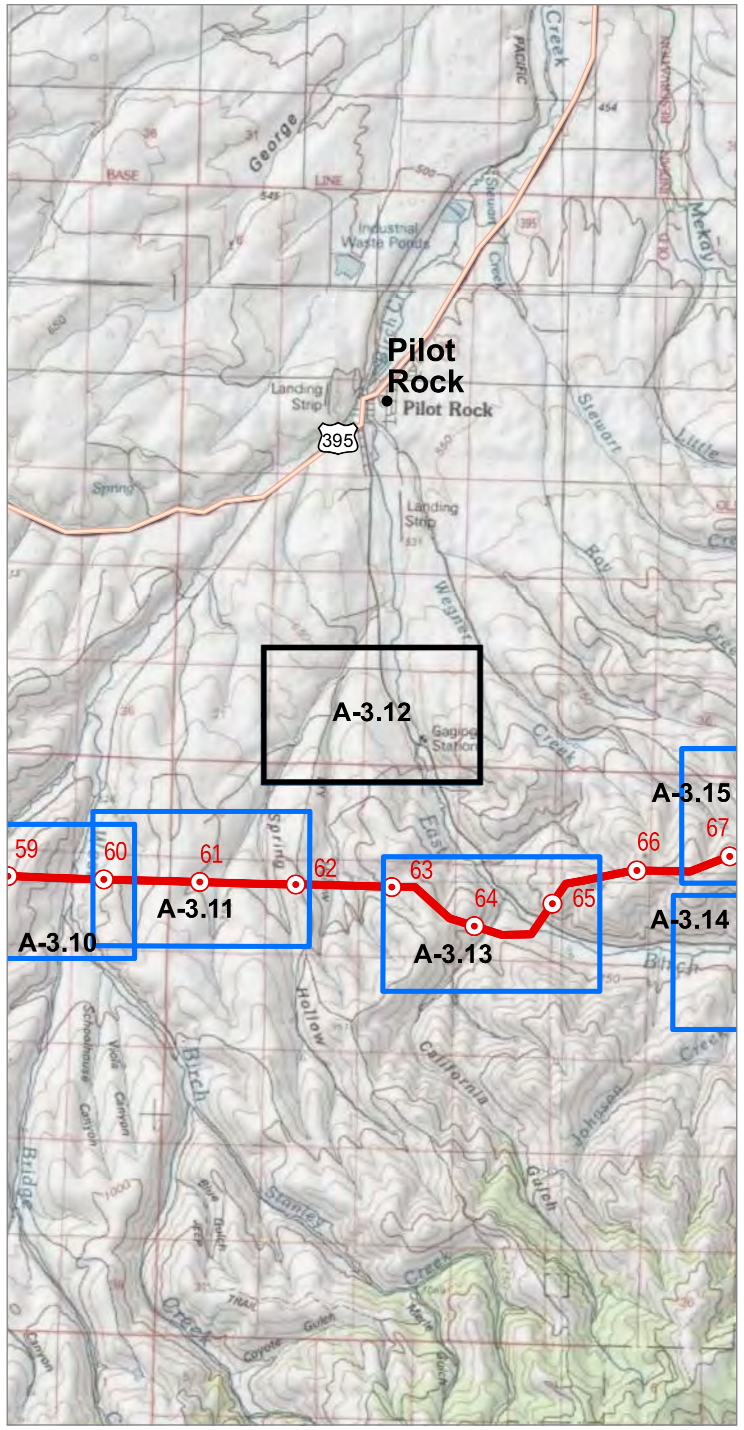
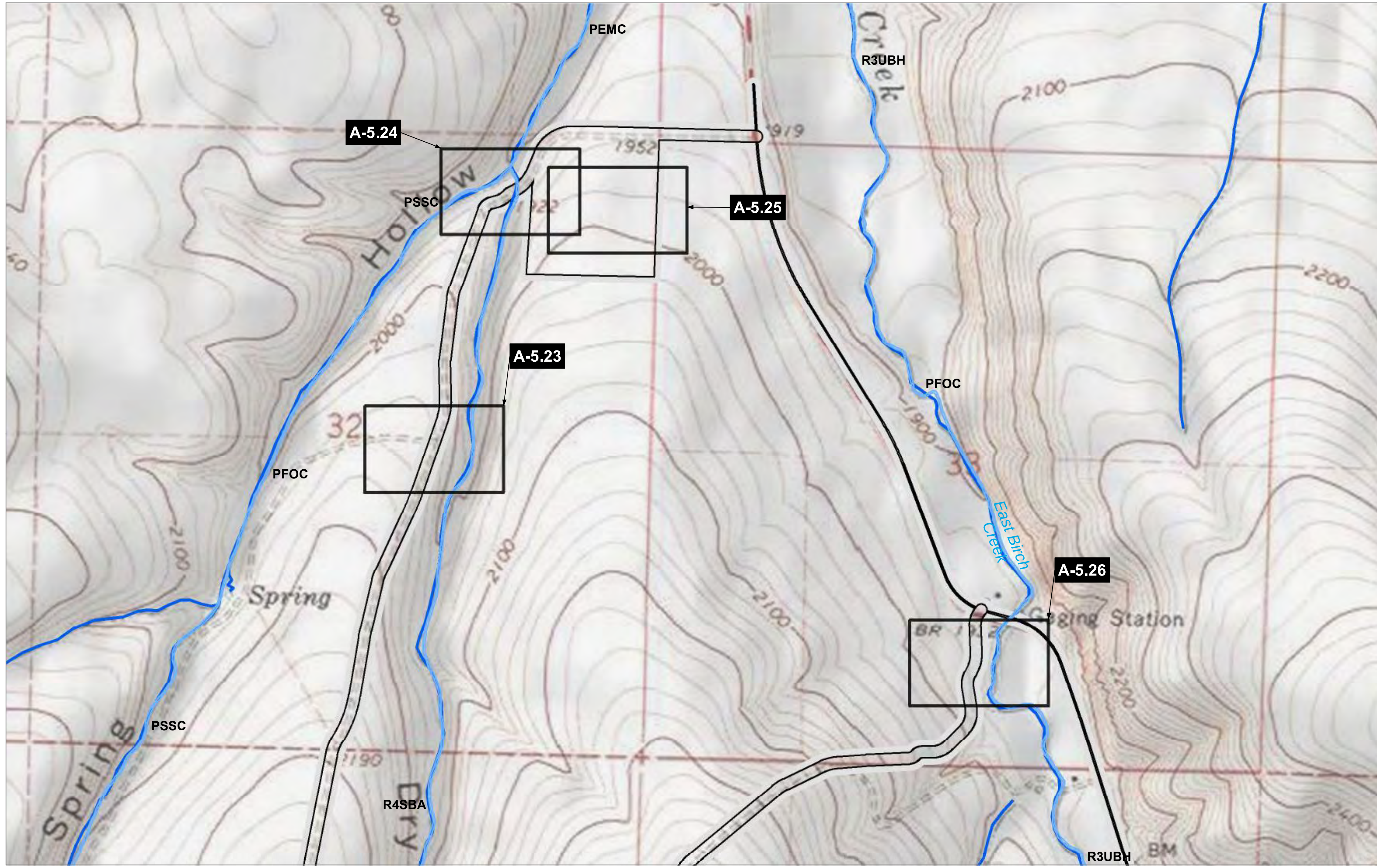
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.11

Wetland and Other Waters Delineation Report NWI and NHD

Umatilla County





0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

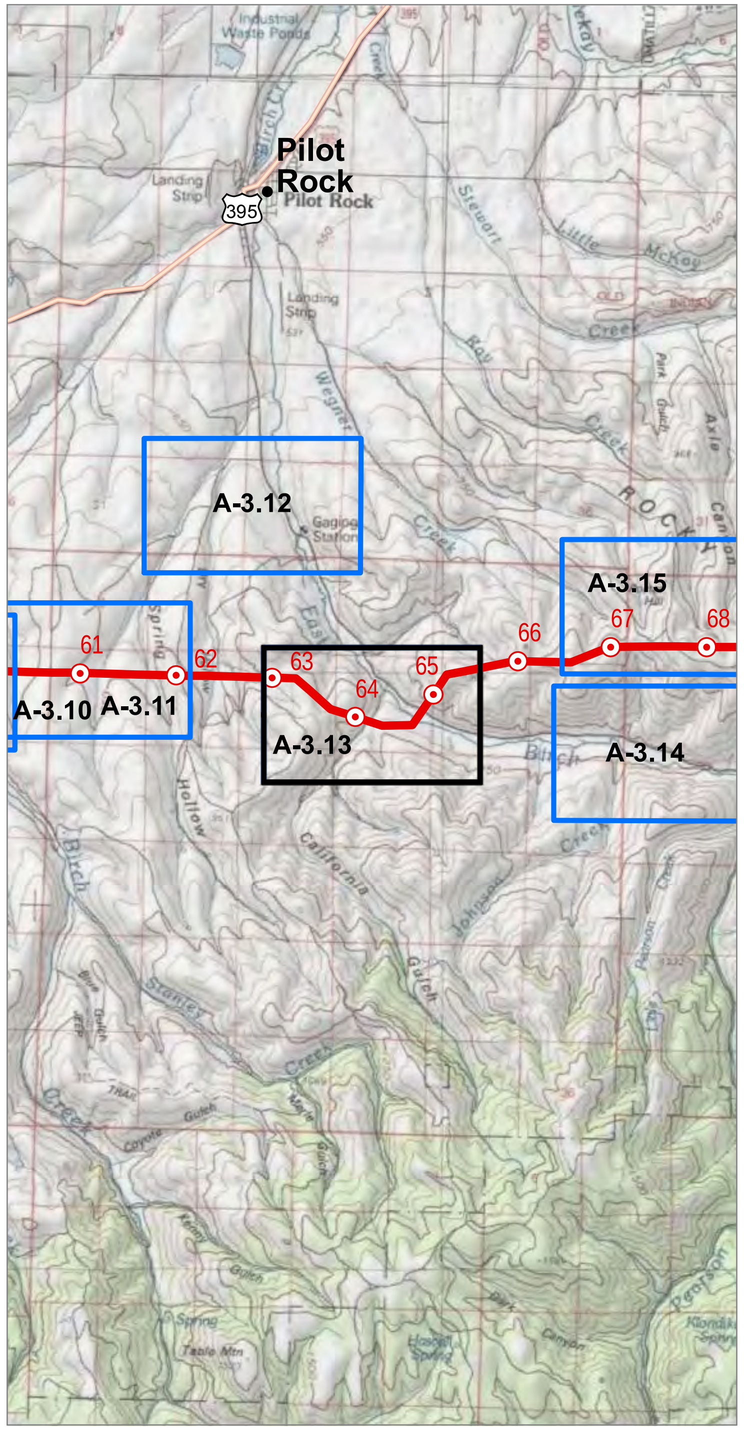
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

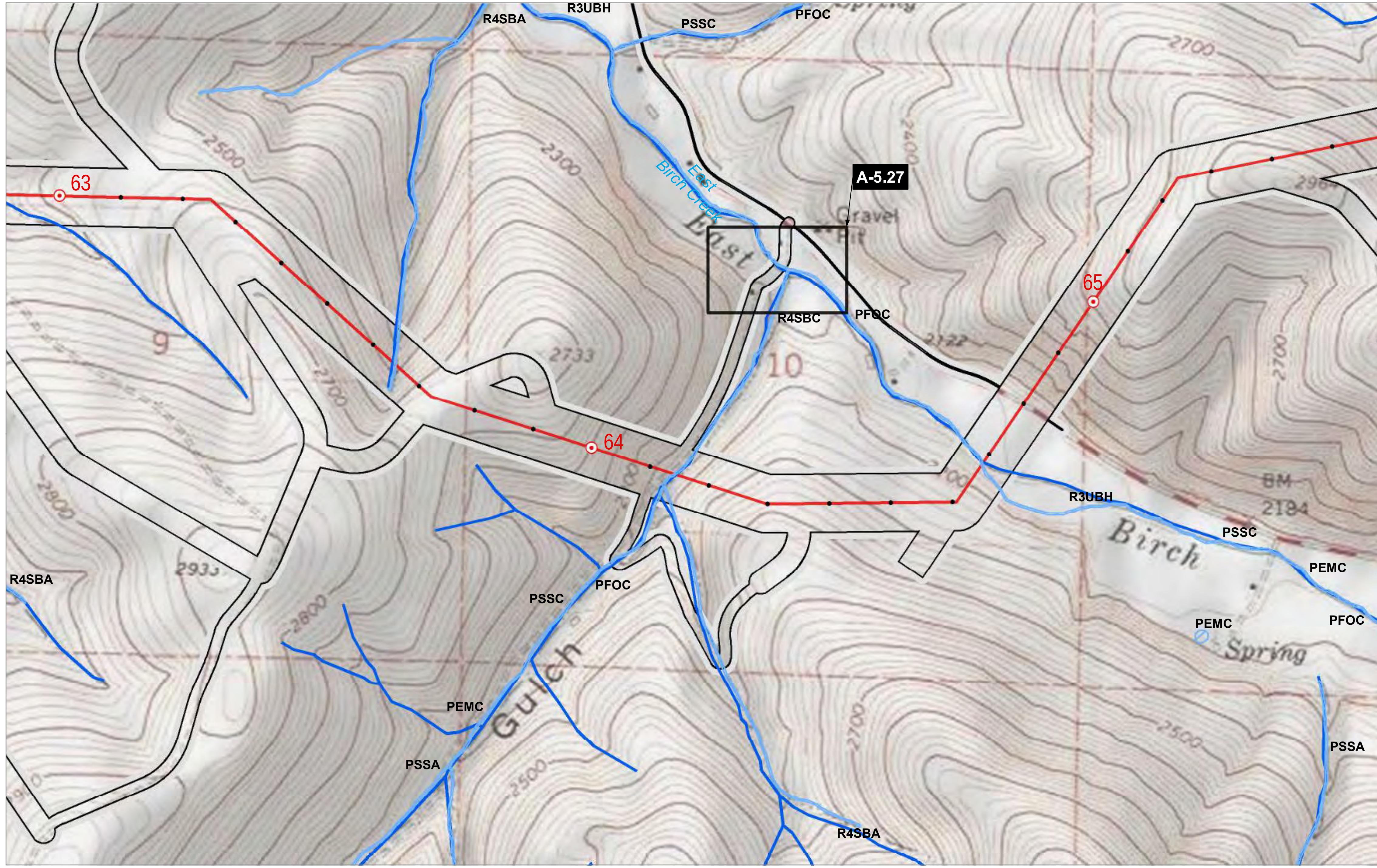
Project Features
- Site Boundary
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.12
Wetland and Other Waters Delineation Report
NWI and NHD
Umatilla County





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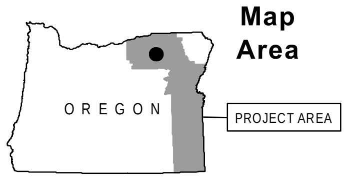


Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

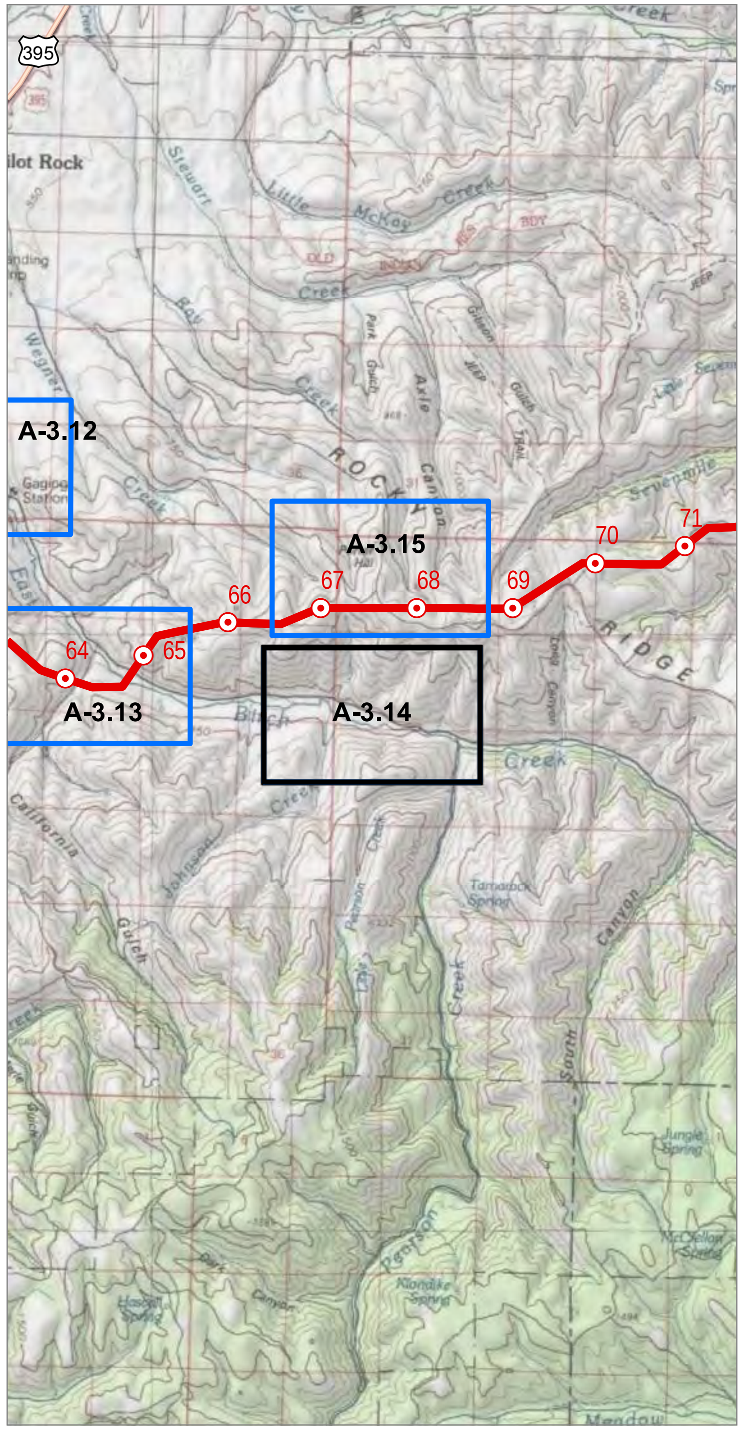
Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.13
Wetland and Other Waters Delineation Report
NWI and NHD
Umatilla County



0 2
Miles

Map Area

OREGON

PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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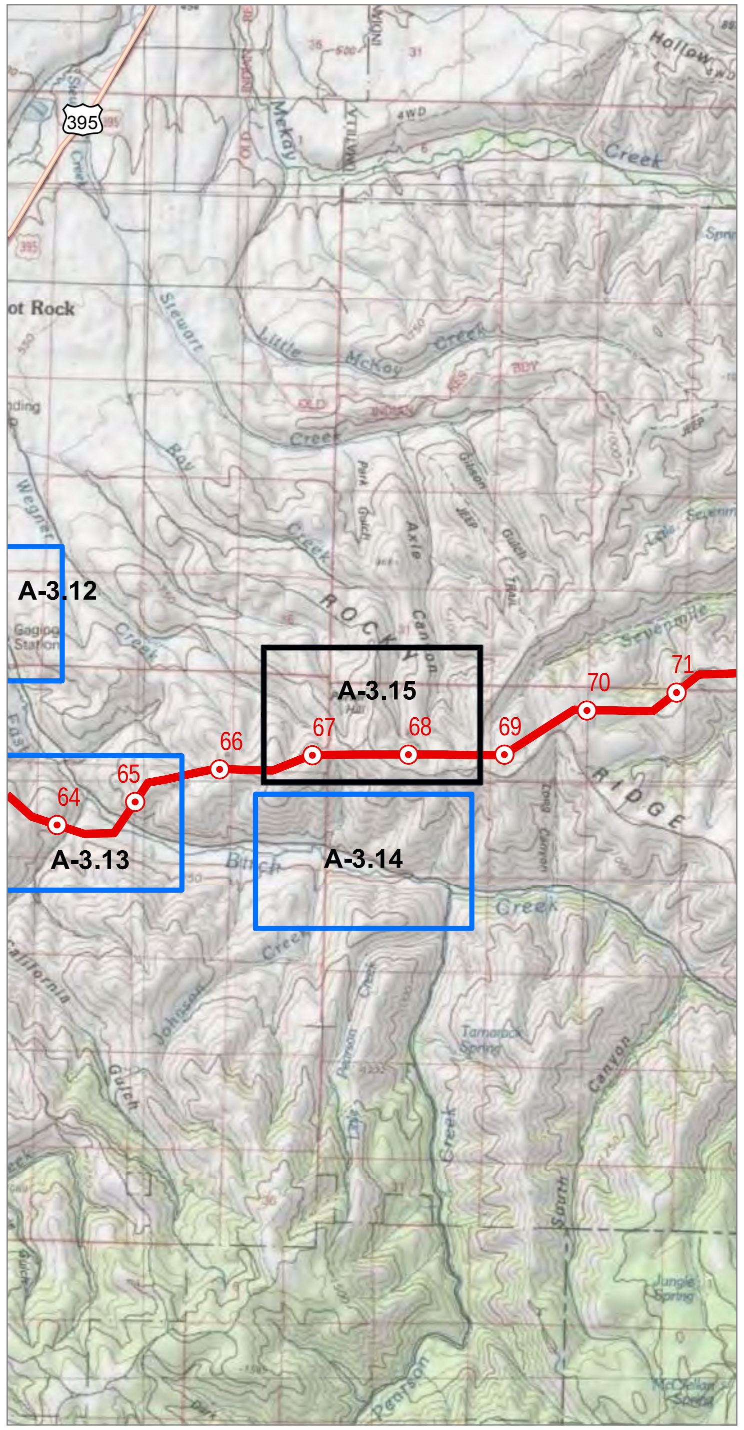
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.14
Wetland and Other Waters Delineation Report
NWI and NHD
Umatilla County



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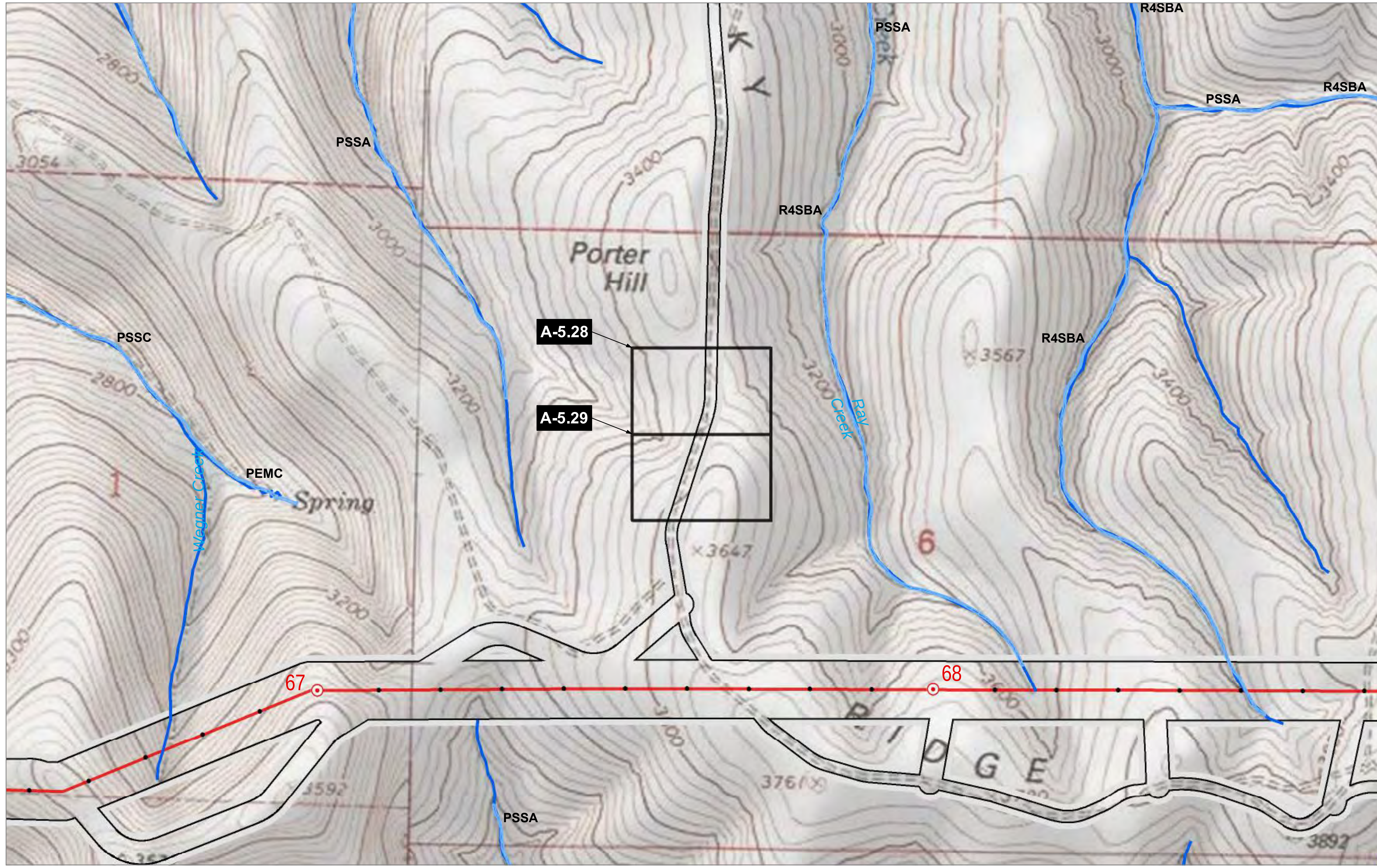

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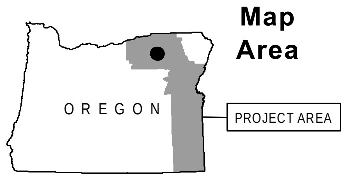
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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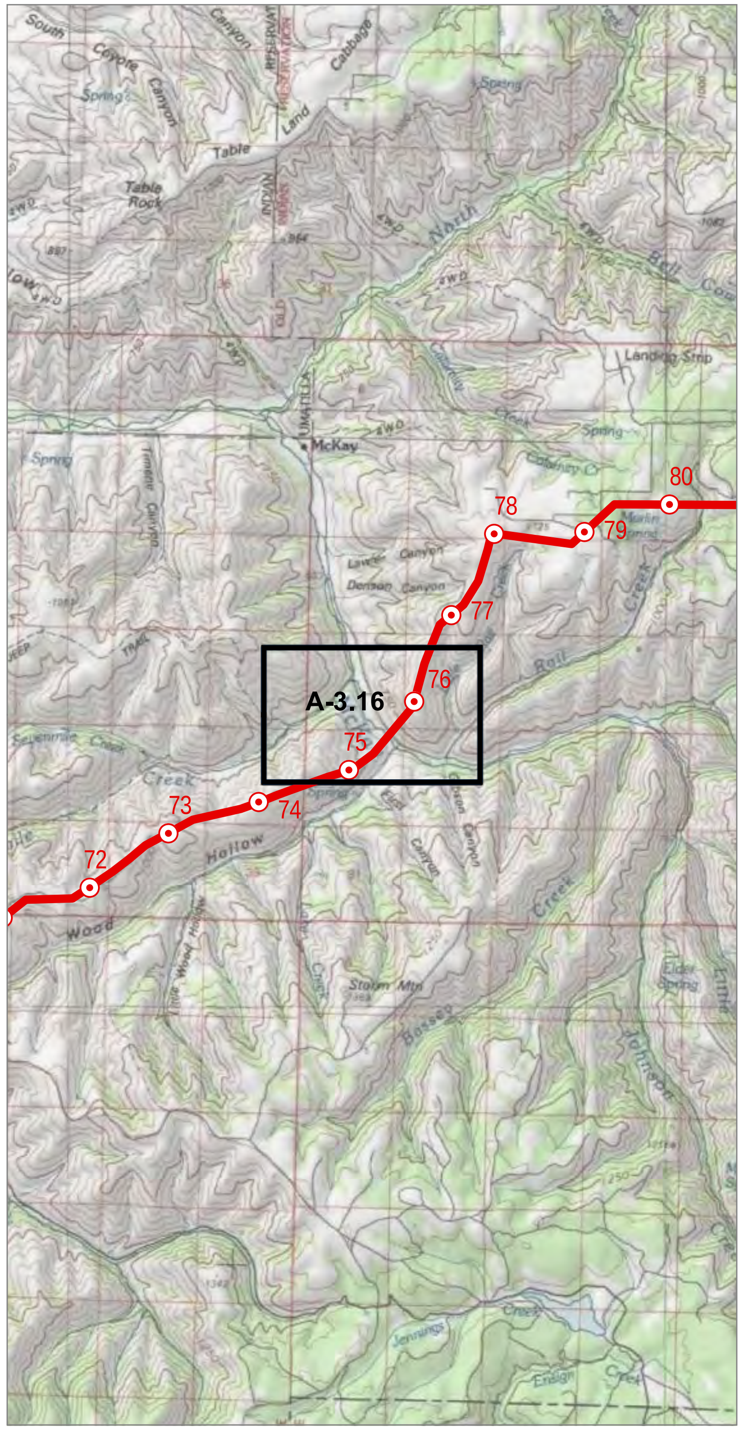
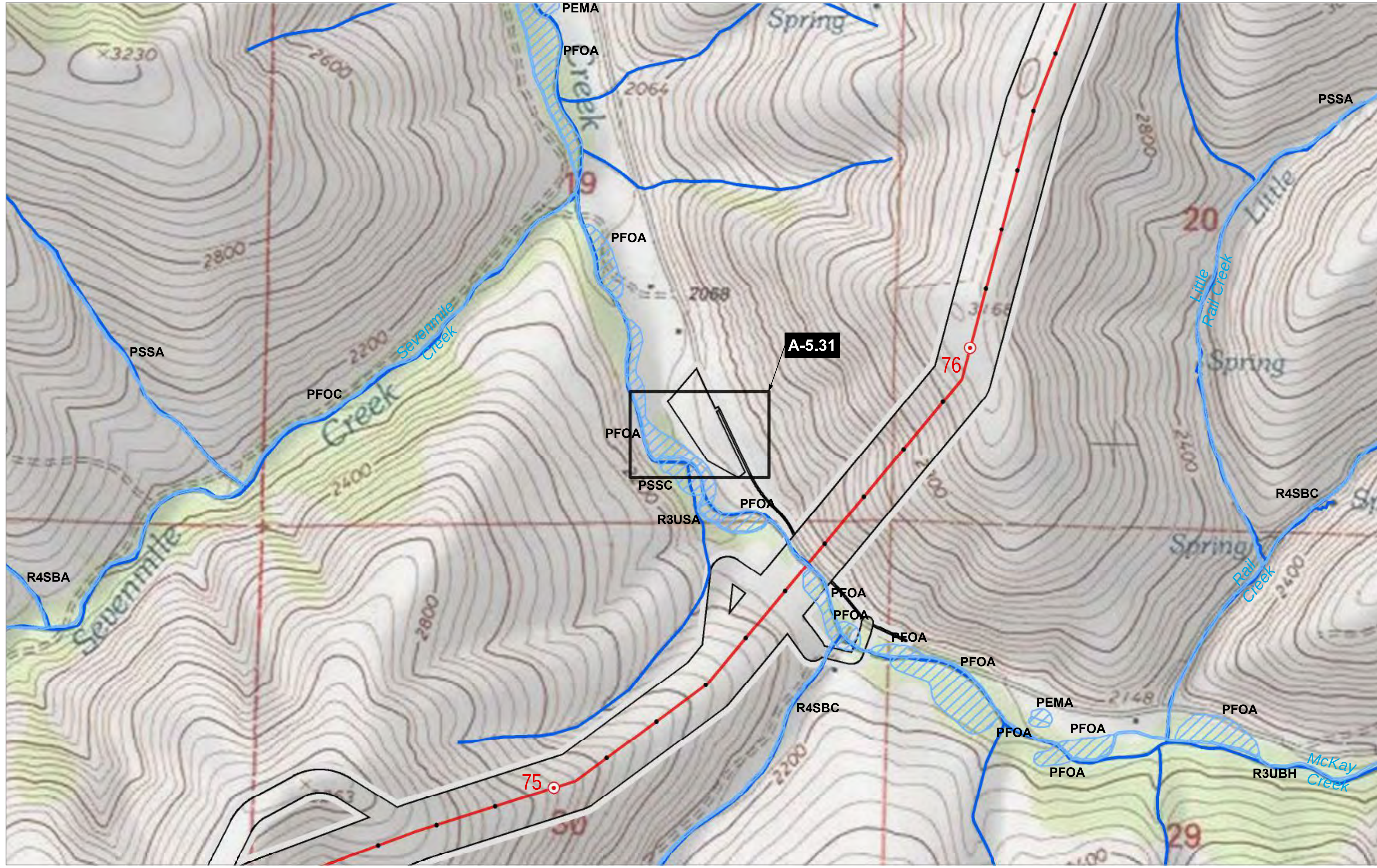
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.15
Wetland and Other Waters Delineation Report
NWI and NHD
Umatilla County





0 2
Miles

Map Area
OREGON
PROJECT AREA

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

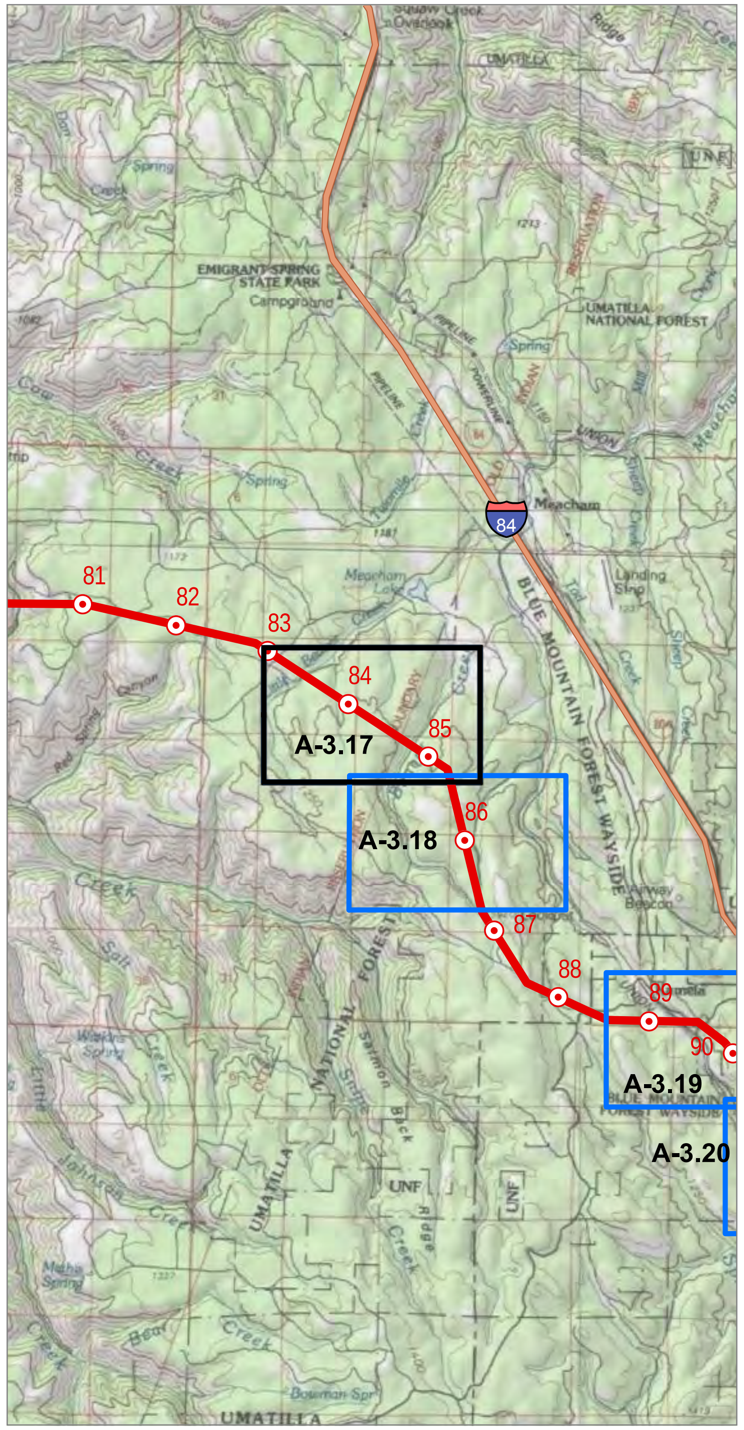
Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.16
Wetland and Other Waters Delineation Report NWI and NHD
Umatilla County



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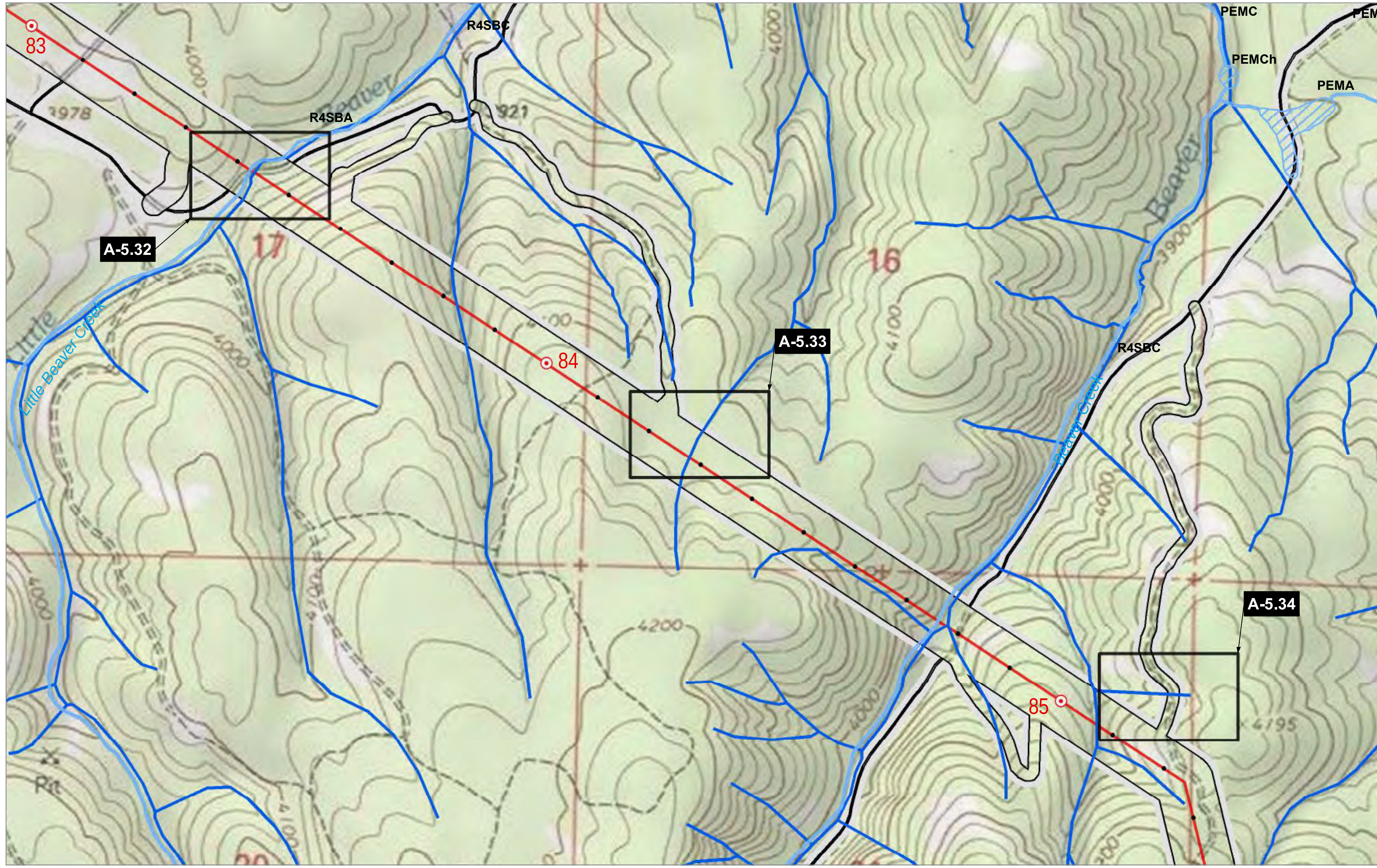

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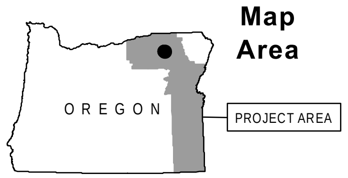
Feet



Map Area

Project Features

- Site Boundary
- Proposed Route

Mileposts

- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams

- National Hydrography Dataset
- National Wetland Inventory

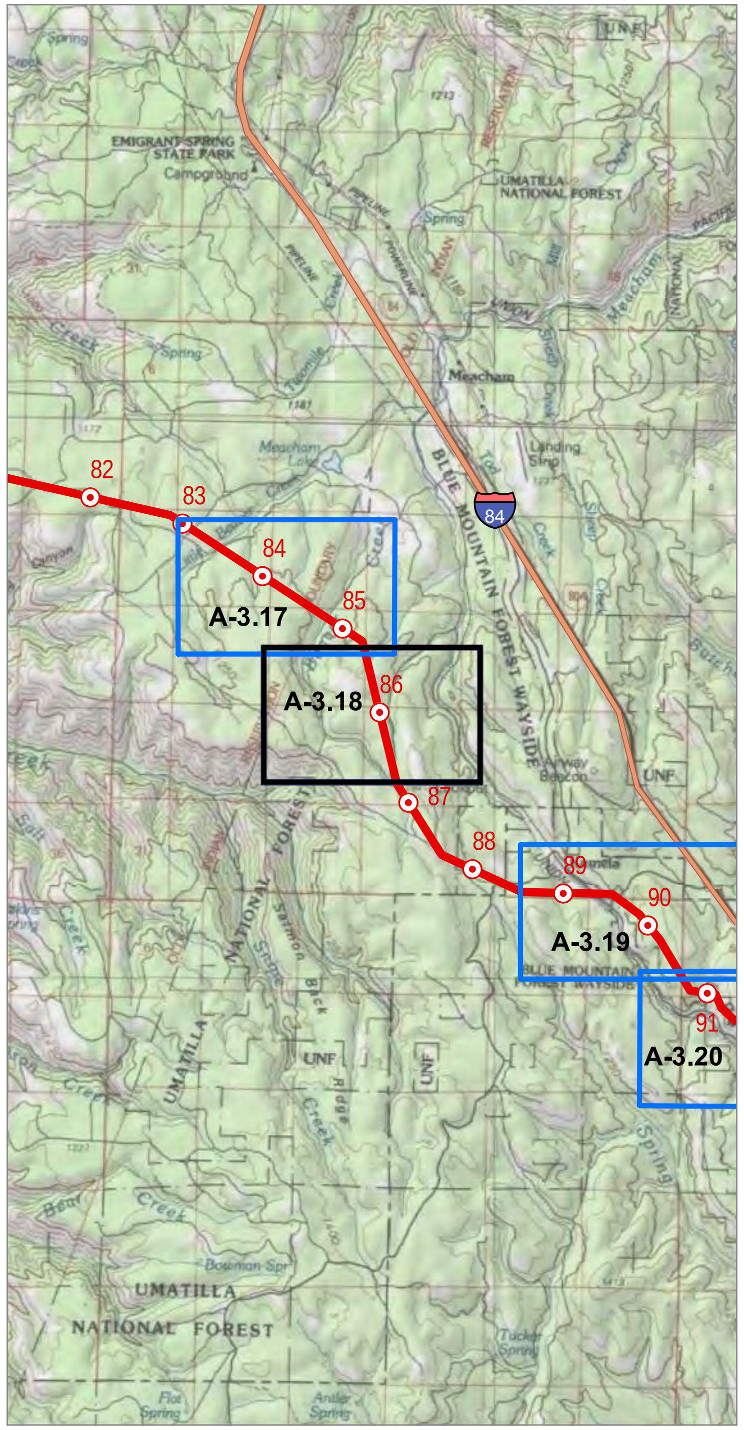
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

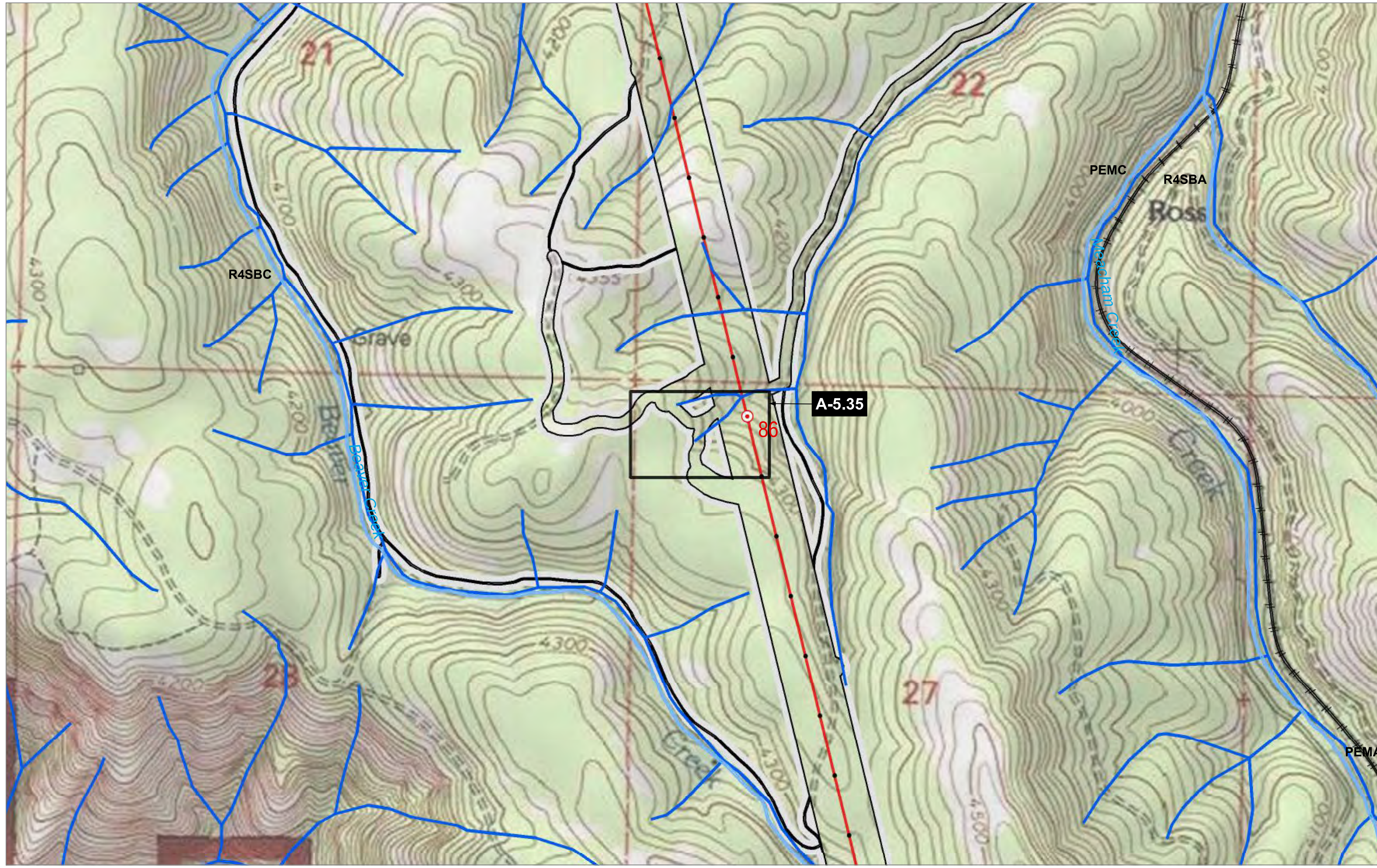
Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.17

Wetland and Other Waters Delineation Report
NWI and NHD
Umatilla County





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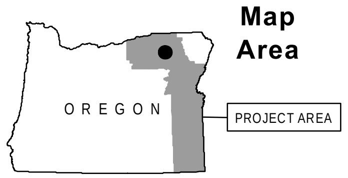

Map Area

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory
- Railroads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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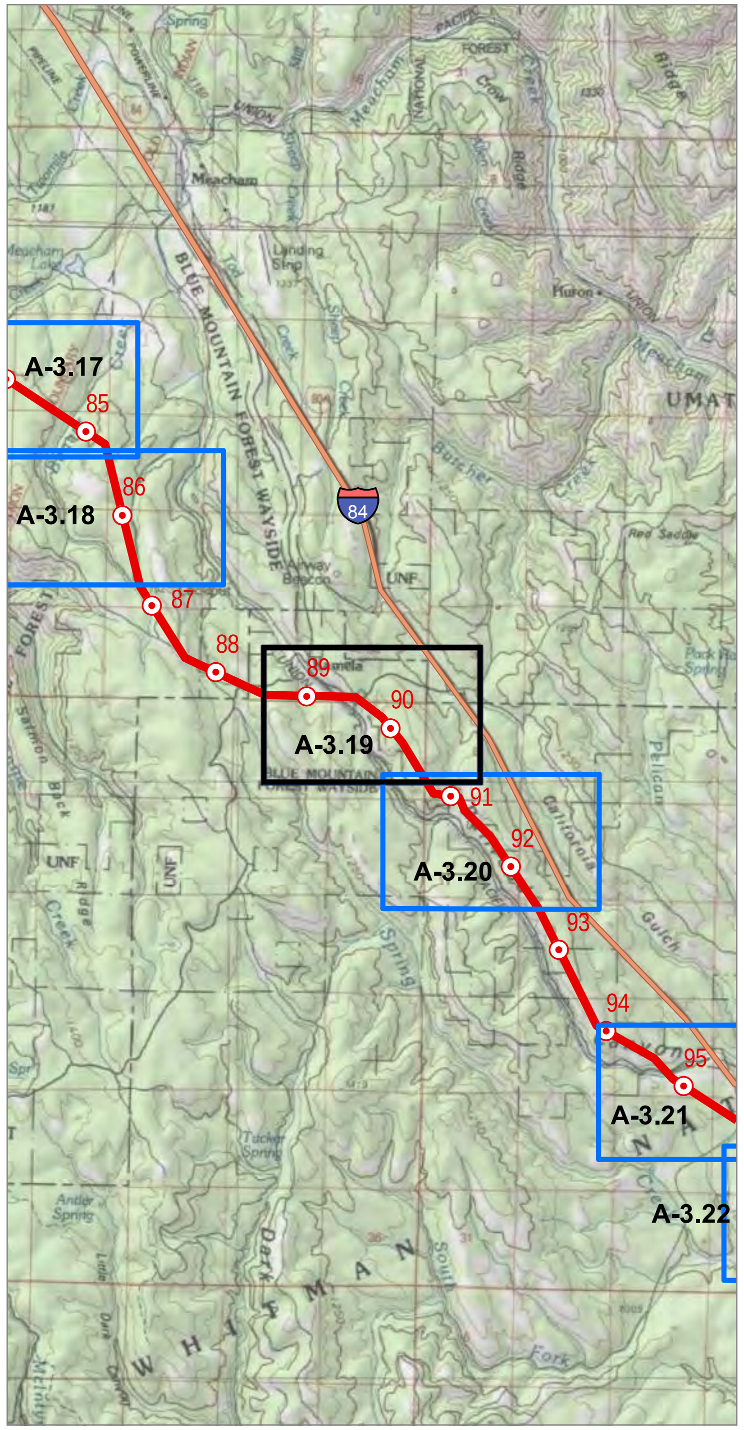
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.18

Wetland and Other Waters Delineation Report NWI and NHD

Umatilla County



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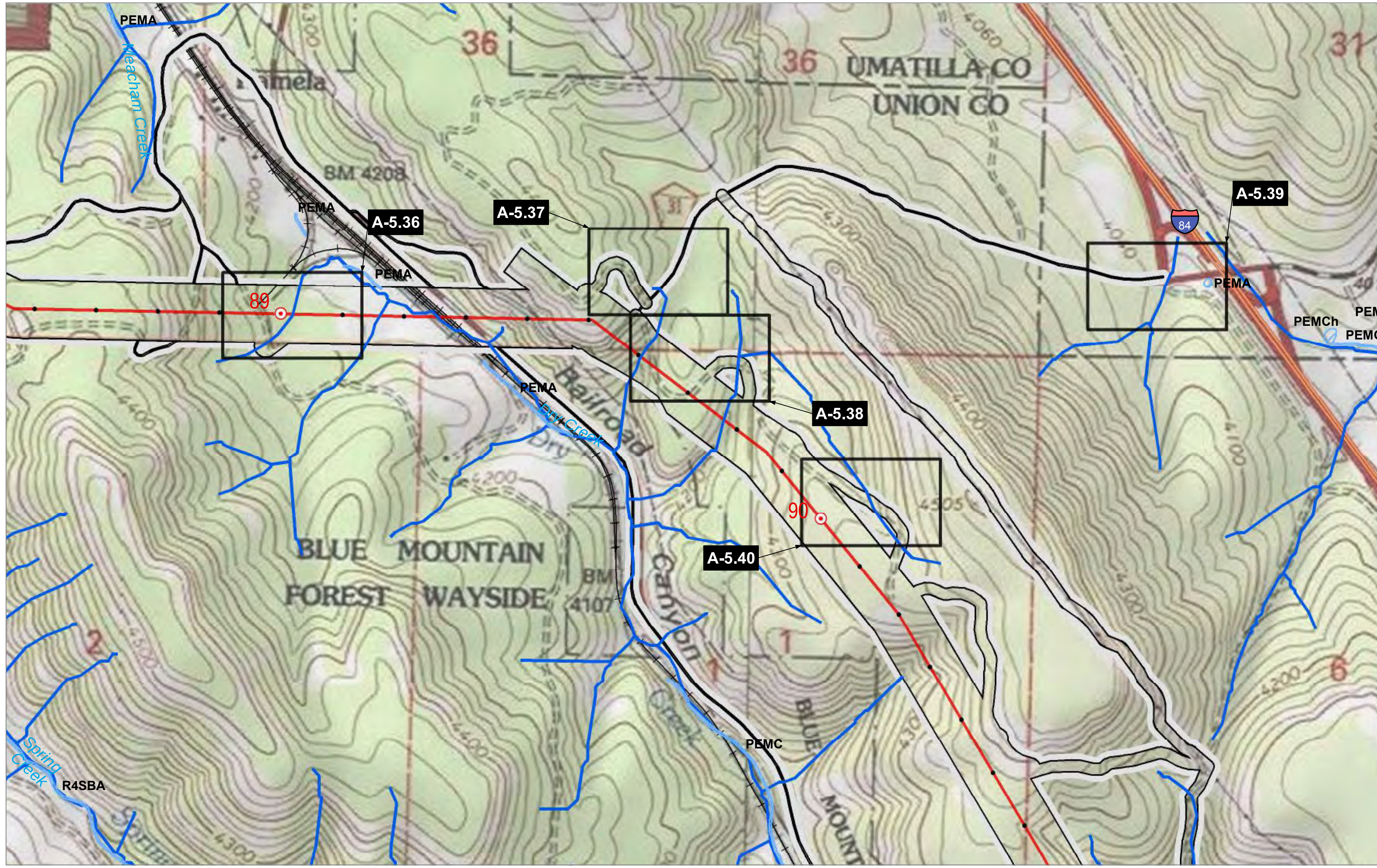
Miles



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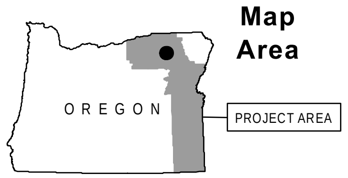
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Interstates or Highways
- Railroads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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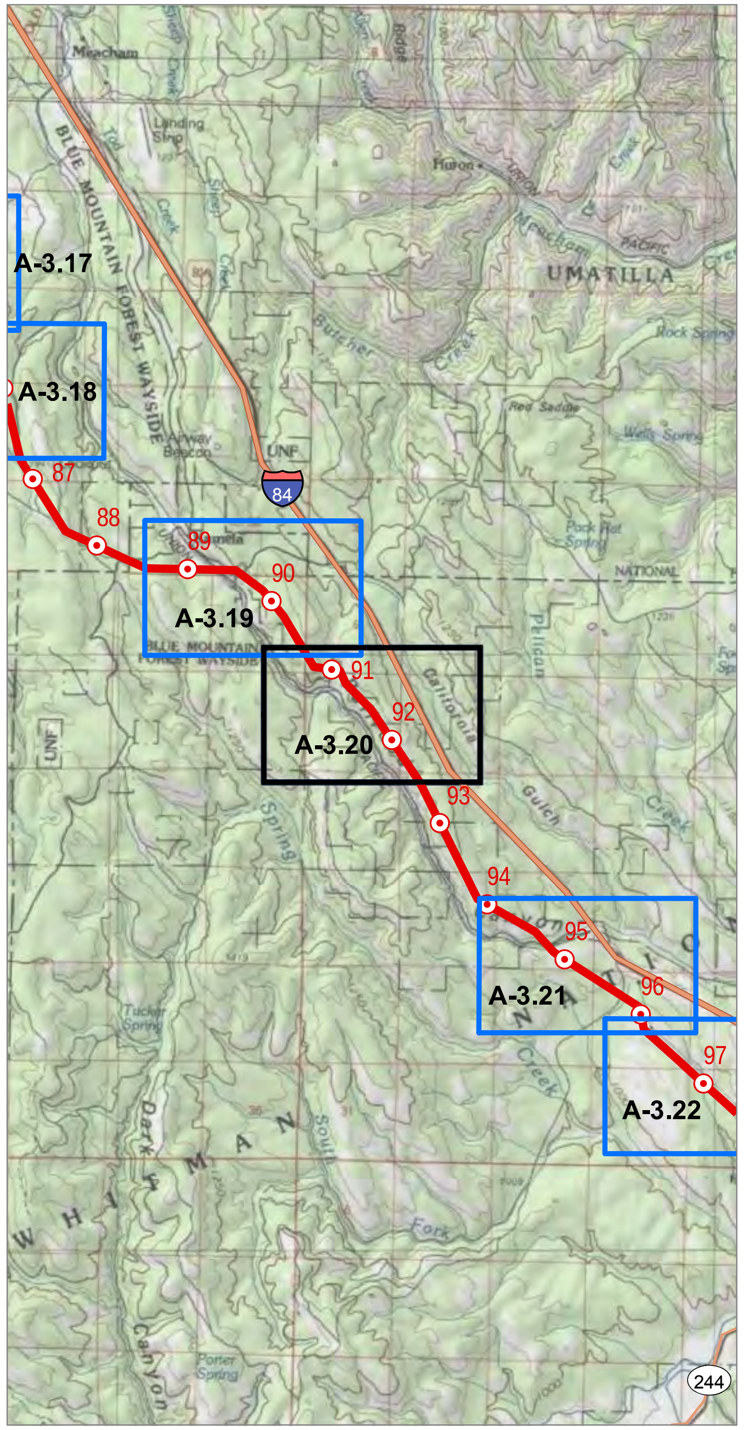
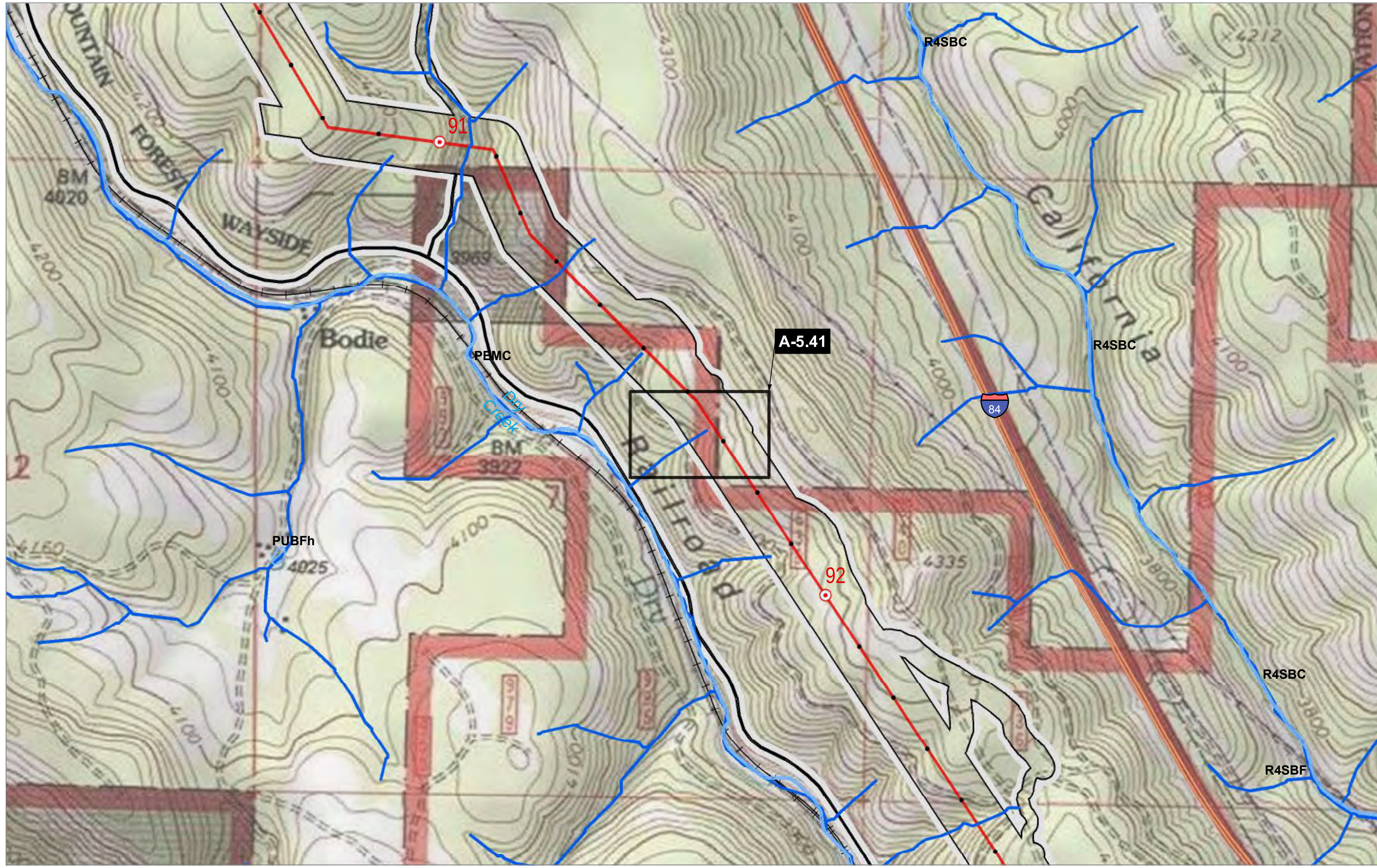
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.19

Wetland and Other Waters Delineation Report
NWI and NHD
Union County





0 2
Miles

0 1,000
Feet

Map Area

OREGON

PROJECT AREA

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Interstates or Highways
- Railroads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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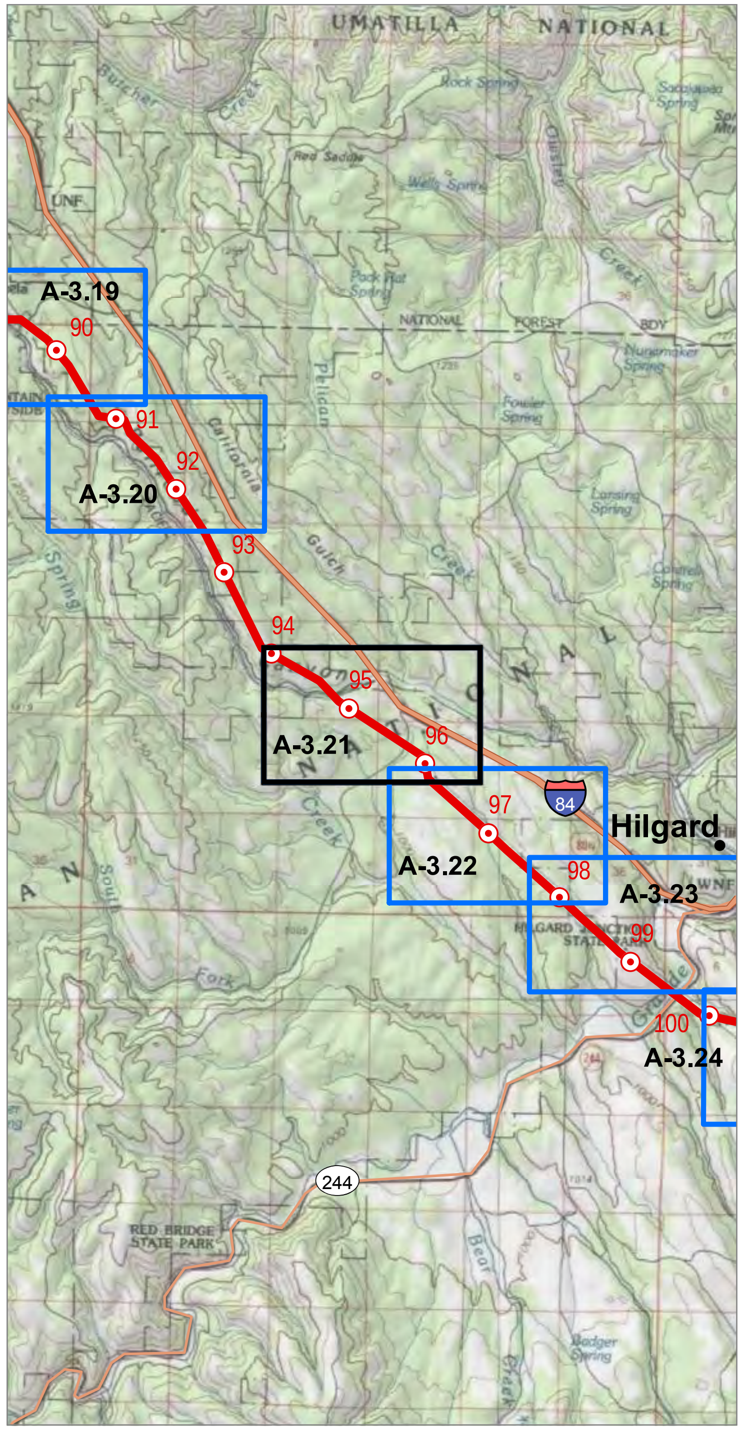
Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.20

Wetland and Other Waters Delineation Report
NWI and NHD
Union County



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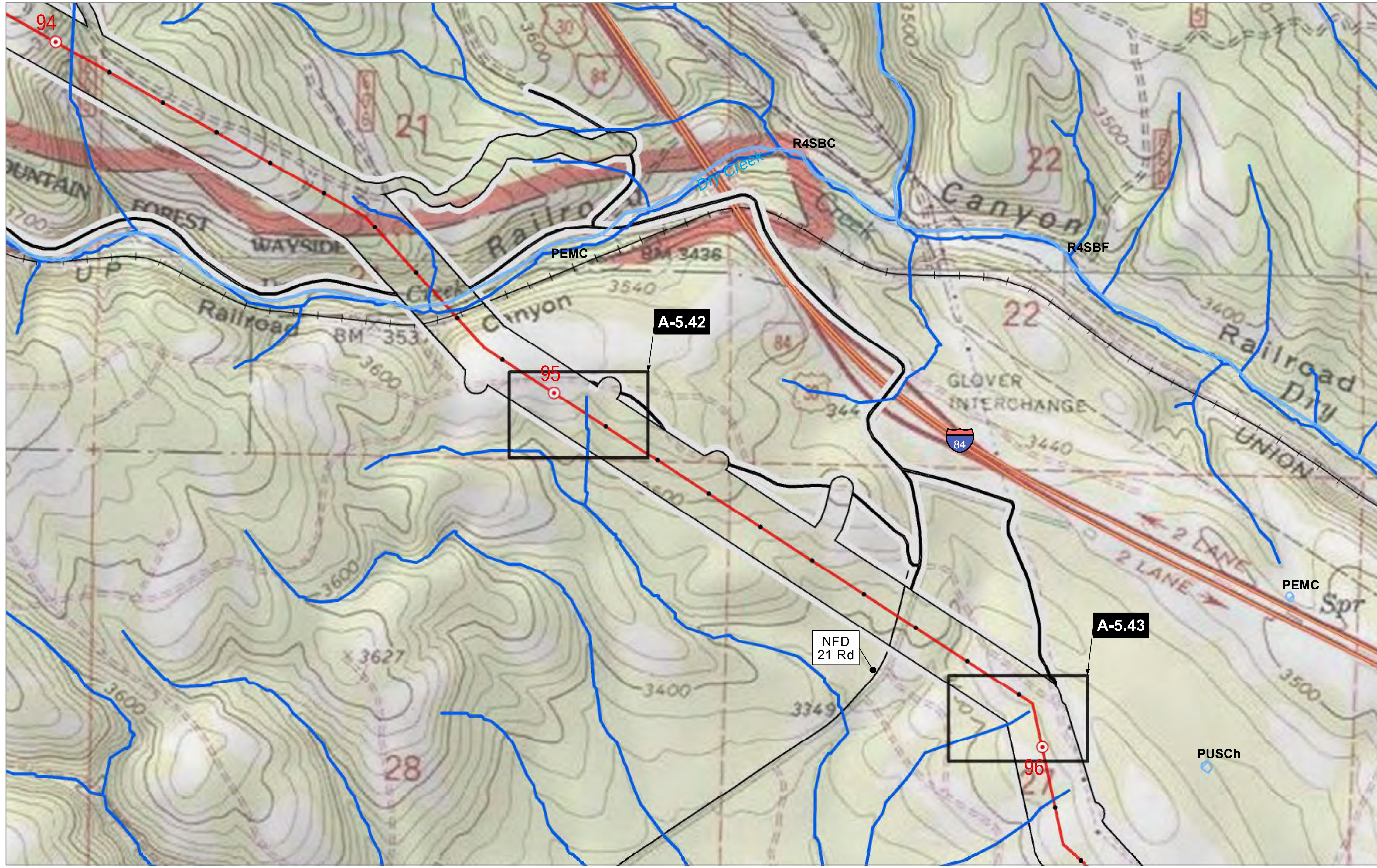

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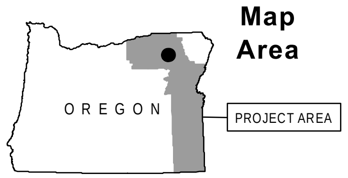
Feet



Map Area

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads

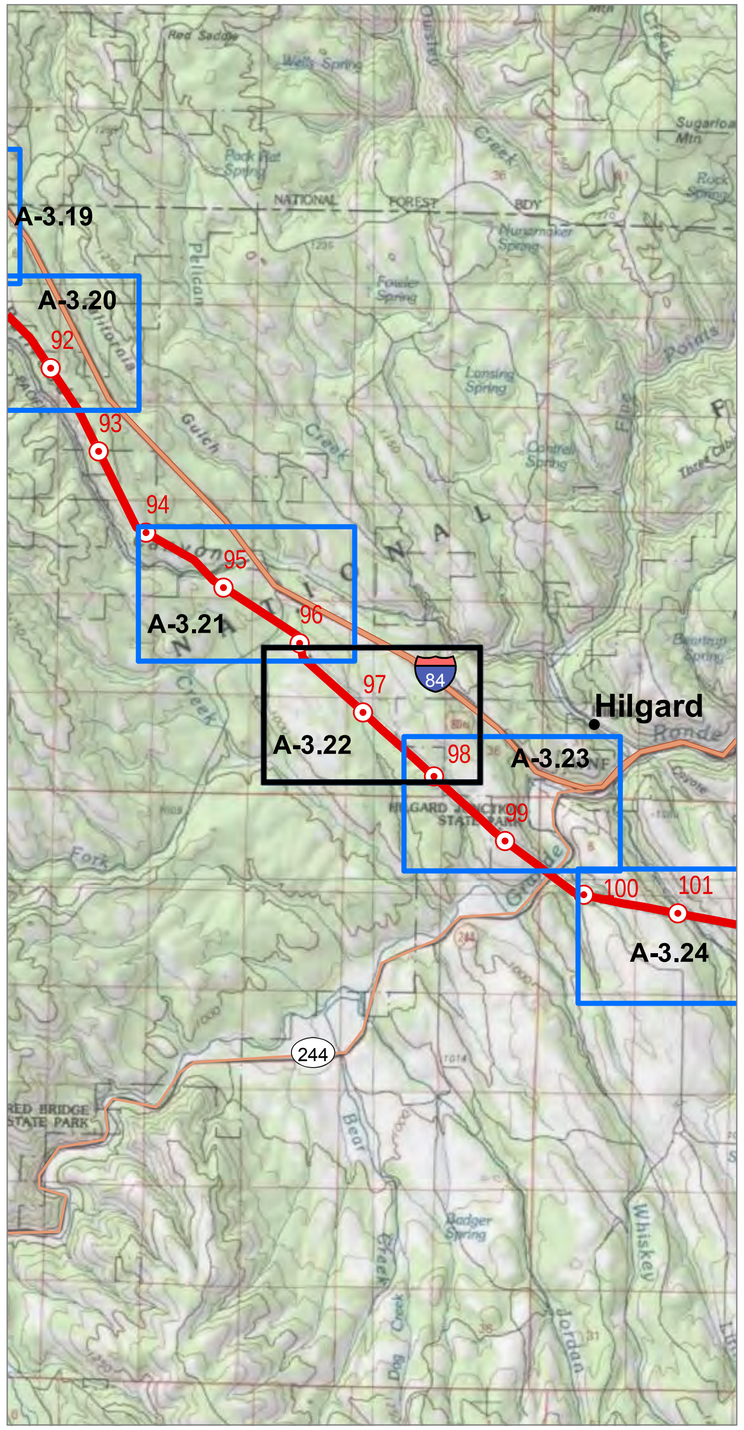
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

Boardman to Hemingway Transmission Line Project
Application for Site Certificate

Figure A-3.21

Wetland and Other Waters Delineation Report
NWI and NHD
Union County



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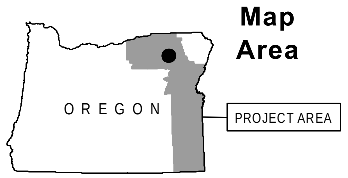
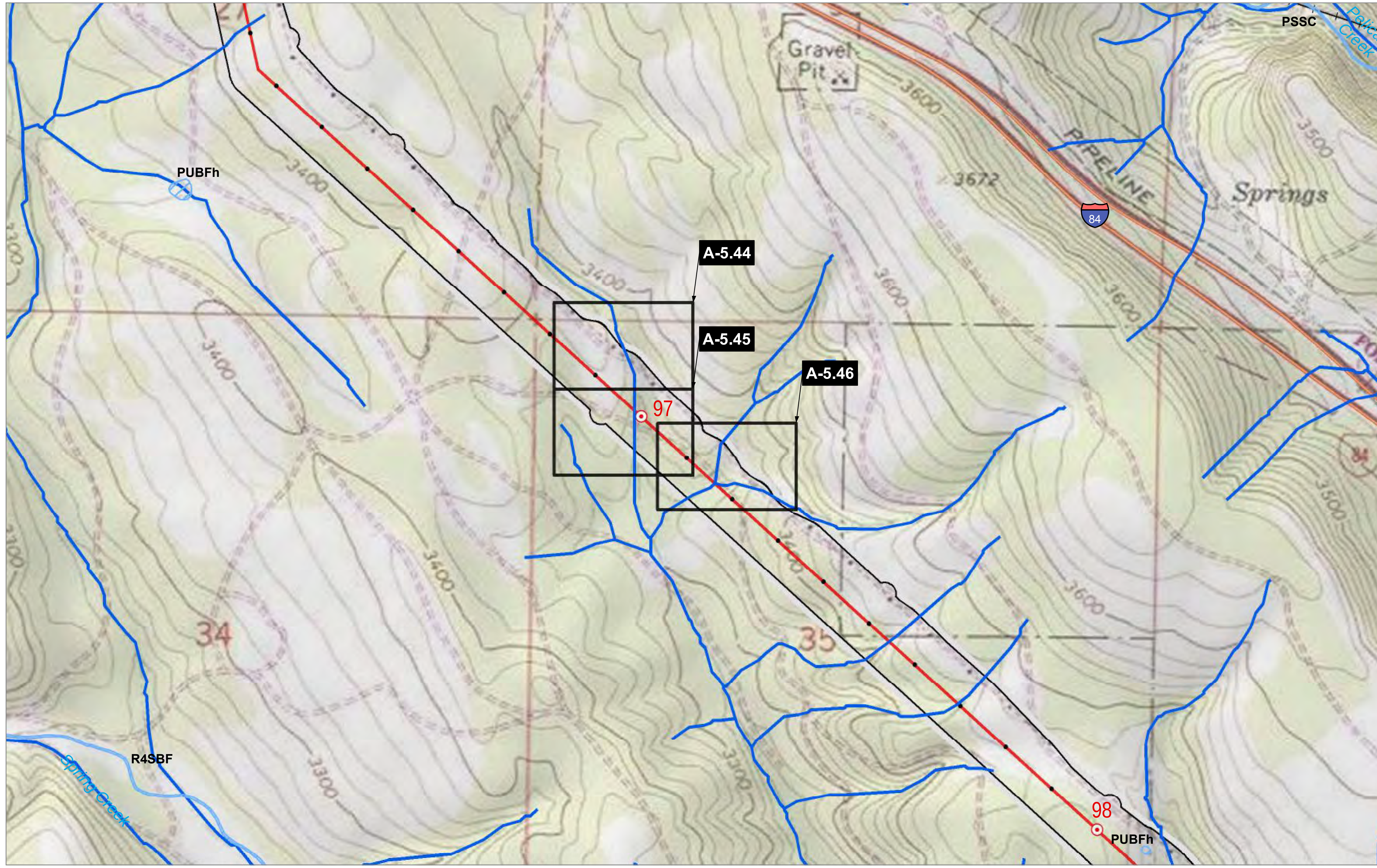


Map Area



0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

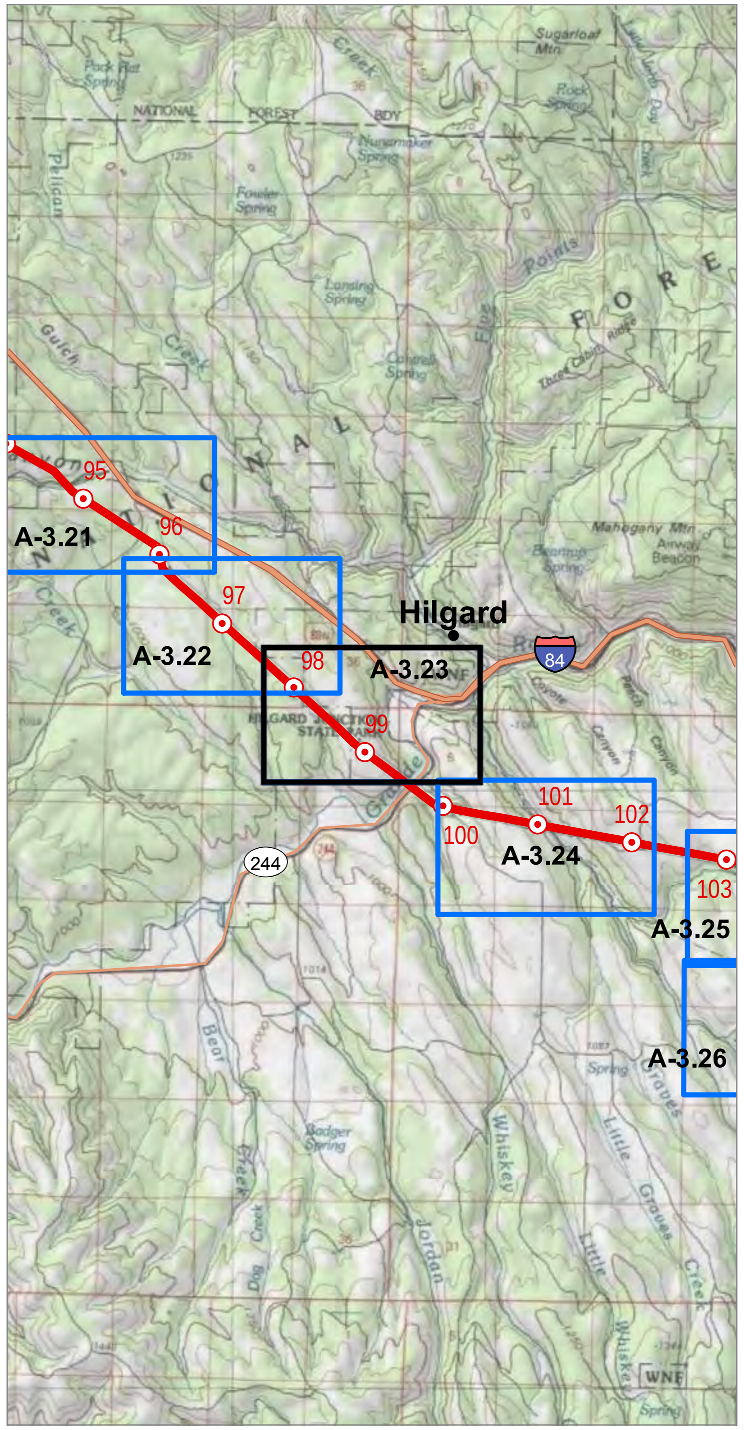
Other Features
- Interstates or Highways
- Railroads

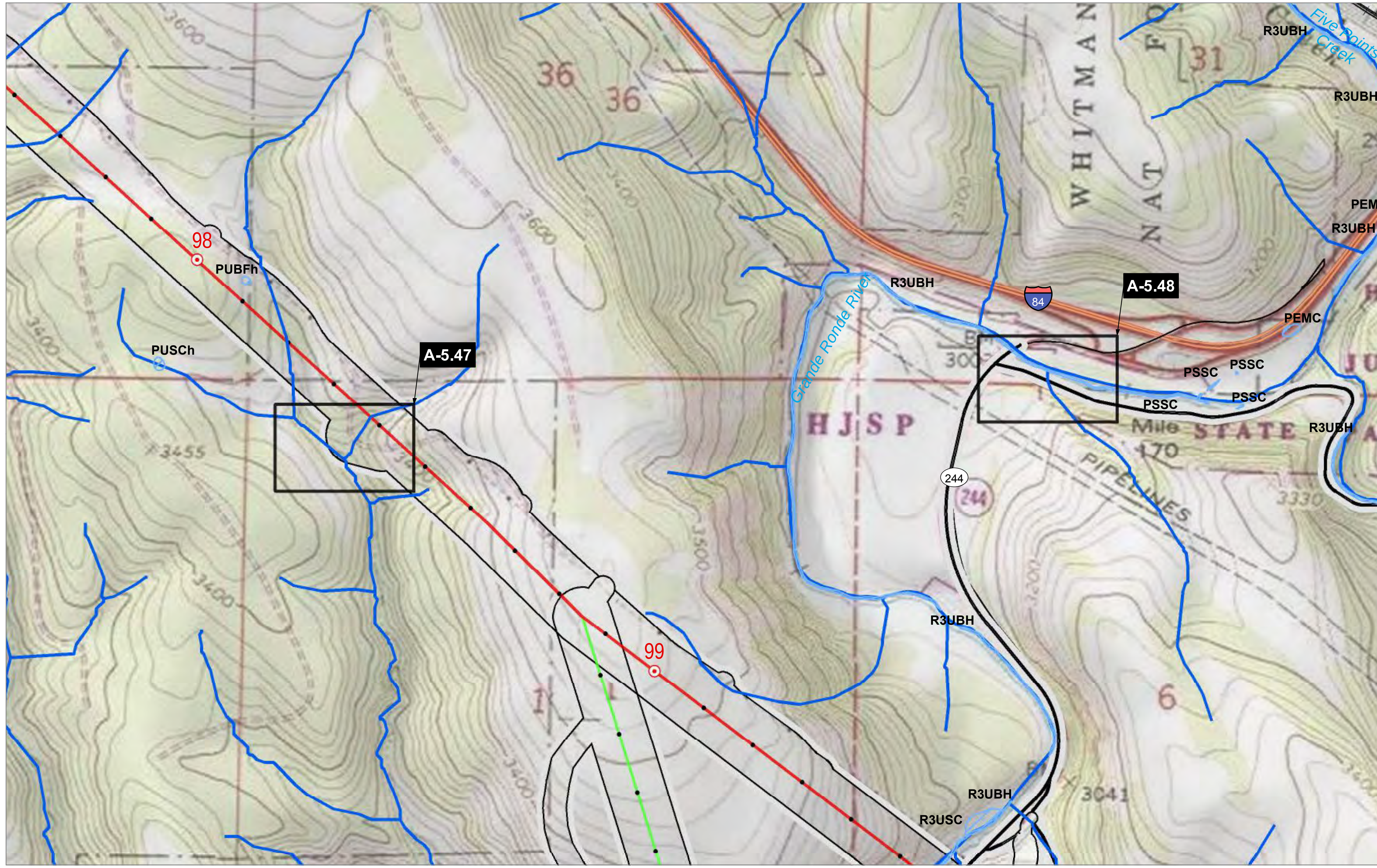
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.22
Wetland and Other Waters Delineation Report
NWI and NHD
Union County

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011





0 2
Miles

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Other Features
- Interstates or Highways
- Other Major Roads
- Railroads

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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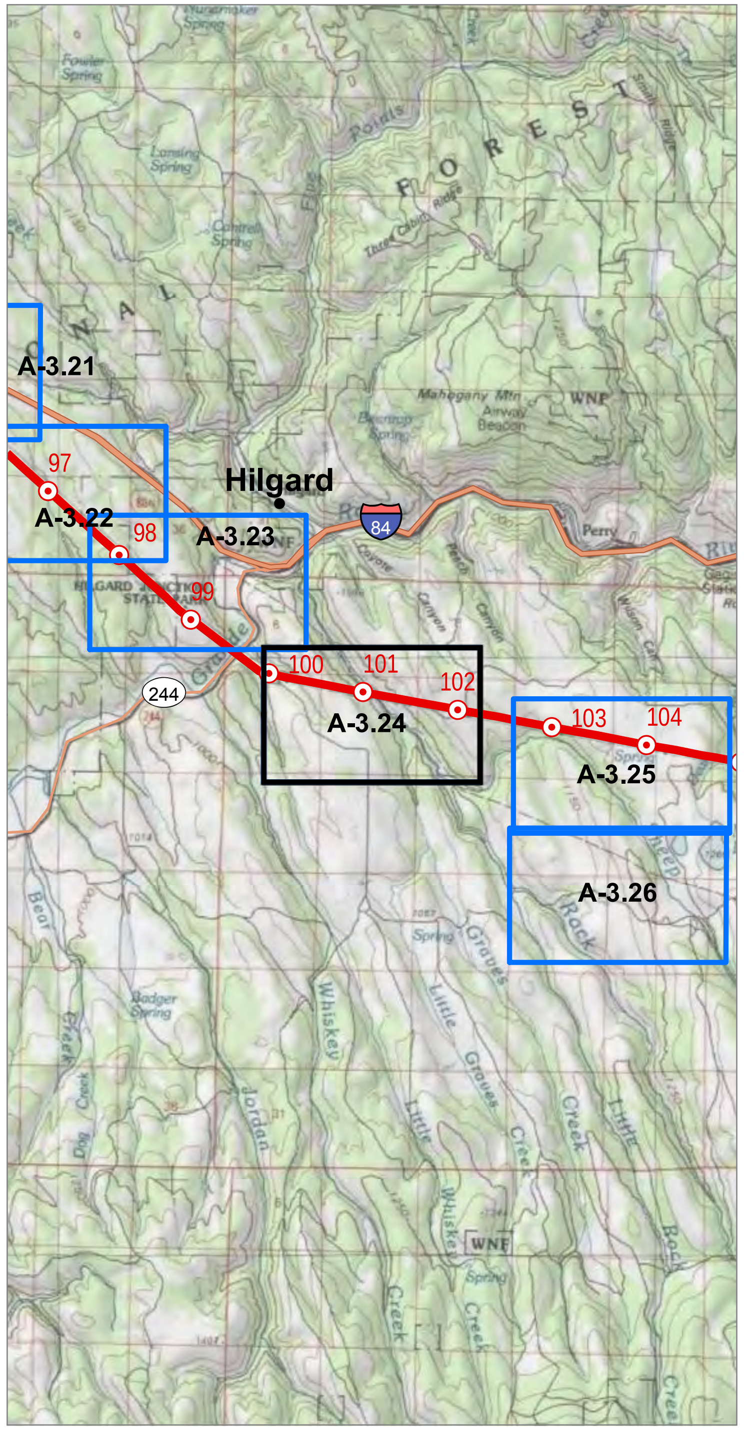
Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.23
Wetland and Other Waters Delineation Report
NWI and NHD
Union County



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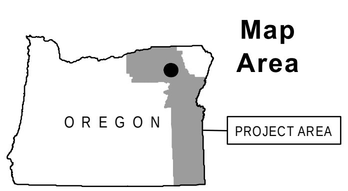

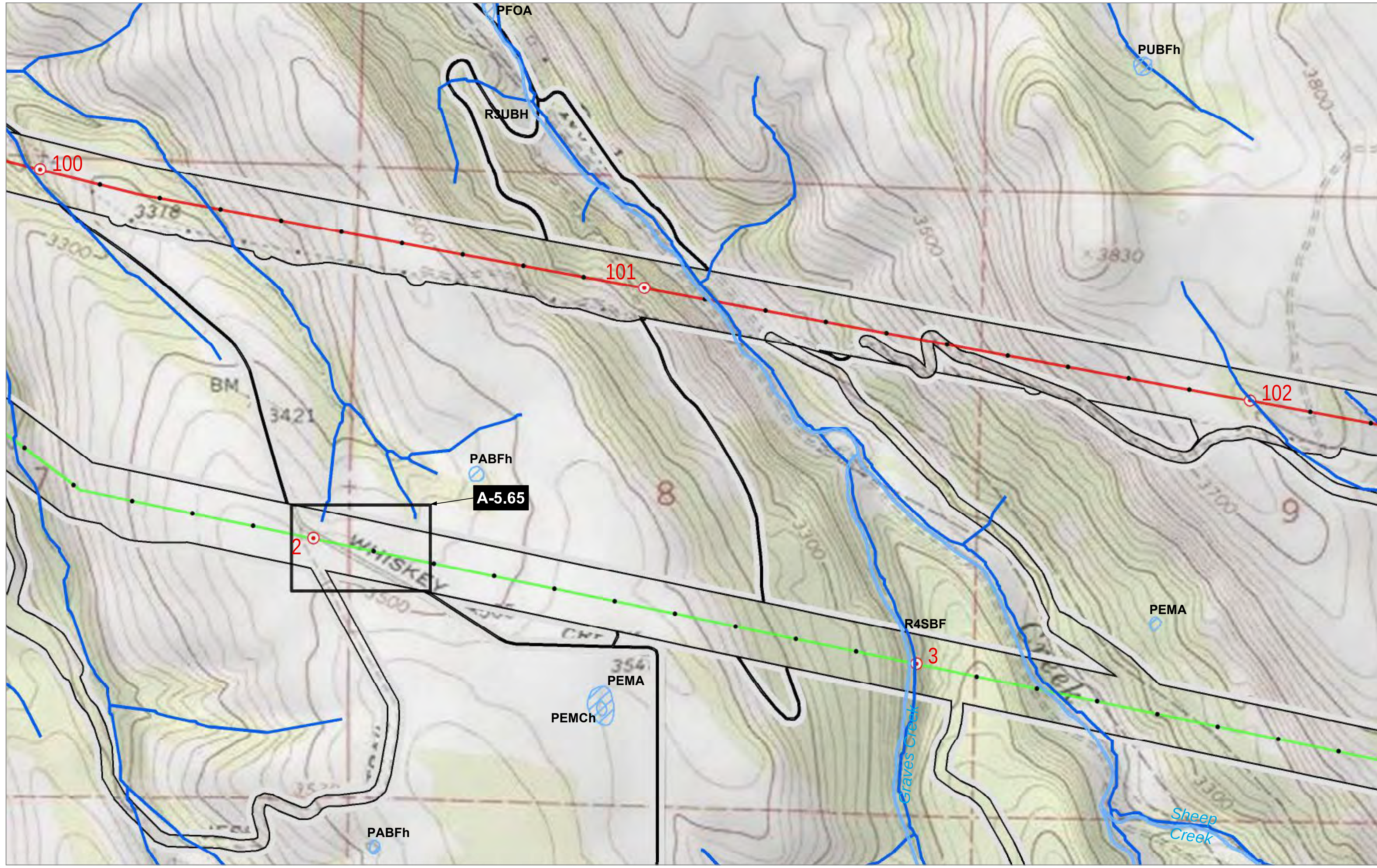

0 1,000
Feet

Project Features
- Site Boundary
- Proposed Route
- Alternative

Mileposts
- Mile
- Tenth-mile
- Index Map Extent

Wetlands and Streams
- National Hydrography Dataset
- National Wetland Inventory

Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEyes, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Image Source: National Agricultural Imagery Program 2016

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011

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Boardman to Hemingway
Transmission Line Project
Application for Site Certificate

Figure A-3.24

Wetland and Other Waters Delineation Report NWI and NHD

Union County