

Jordan Cove Natural Gas Liquefaction and
Pacific Connector Gas Pipeline Project
Draft EIS

Attachment 1b to Appendix F9

Alignment Sheets for the Blue Ridge Variation

Pacific Connector Gas Pipeline

Coos Bay District – Bureau of Land Management

Prepared for:

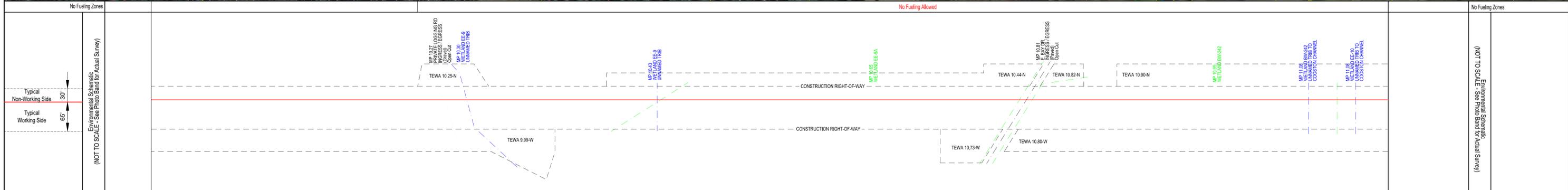
USDA Forest Service

Prepared by:

Stantec

March 2019

Legal Location	SEC 20, T25S, R12W	SEC 29, T25S, R12W								Legal Location
Ownership / Management	WEYERHAEUSER COMPANY 25S12W20100 CO-	MCNEEL, WAKELIN 25S12W291100 CO-	BRUNSCHMID, MARJORIE A.; ETAL 25S12W30501 CO-	AGRI PACIFIC RESOURCES, INC. 25S12W30500 CO-	AGRI PACIFIC RESOURCES, INC. 25S12W30D1501 CO-	KRONSTEINER, KAY A.; ETAL 25S12W30D508 CO-				Ownership / Management
Jurisdiction	COOS COUNTY									Jurisdiction
Federal Landuse Allocation										Federal Landuse Allocation
Landuse	42	14	42	422	43	31	14	21		Landuse
Wetland / Waterbody										Wetland / Waterbody
Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3	Unnamed Trib Unnamed Trib EE-9A BW-242 Unnamed Trib Unnamed Trib									Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3
Topsoil Salvage										Topsoil Salvage
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential										Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential
Environmental Survey Status (Wetlands & Cultural)										Environmental Survey Status (Wetlands & Cultural)



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

— 36-inch Proposed Pipeline	 Wetland	 Surveyed Unimproved Buffer
 Construction Right-of-Way	— Stream	 Access Road
 Temporary Construction Right-of-Way (Shown white on photography)	— Access Road	 Access Road Number
 Temporary Extra Work Area	 BMP Placement Determined by Environmental Inspector	 Drivable Berm or Straw Bales (STB)
 Uncleared Storage Area	 Silt Fence (SF)	 Safety Fence
 Tax Parcel Boundaries	 Construction Entrance Pad	

LANDUSE CATEGORIES

11- Residential
12- Commercial
13- Industrial
14- Transportation/Communications
17- Other Urban or Built-up Land
21- Cropland / Pastureland
31- Herbaceous Rangeland
32- Shrub / Brush Rangeland
33- Mixed Rangeland
41- Deciduous Forest Land
42- Evergreen Forest Land
421- Clearcut Forest
422- Regenerating Forest
43- Mixed Forest Land
51- Streams and Canals
54- Bays and Estuaries
61- Forested Wetlands
62- Nonforested Wetlands
76- Transitional Areas
77- Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

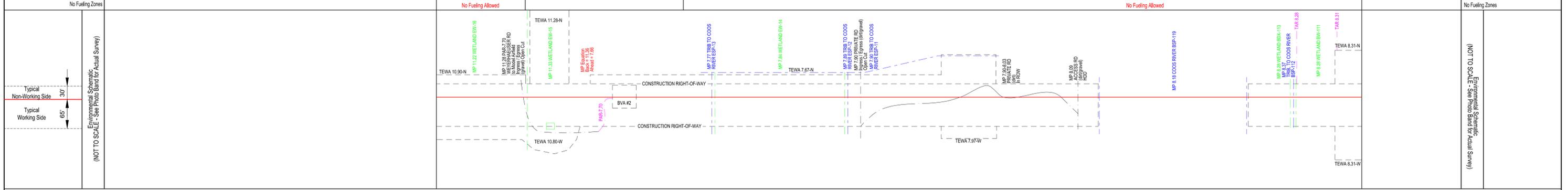
Scale: 1 inch = 200 feet

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 10.01 TO 11.15
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-007C	SHEET 7C OF 230

Legal Location		SEC 31, T25S, R12W	SEC 32, T25S, R12W	Legal Location
Ownership / Management		WEYERHAEUSER COMPANY 25S12W30700 CO-	WEYERHAEUSER COMPANY 25S12W31100 CO-	WEYERHAEUSER COMPANY 25S12W32300 CO-
Jurisdiction		COOS COUNTY		
Federal Landuse Allocation				
Landuse		21	33	51
Wetland / Waterbody		EW-16	EW-14	EW-11
Crossing Method / Instream Construction Window		Dry Open-Cut / Oct. 1 - Feb. 15	Dry-Open Cut / Oct. 1 - Feb. 15	HDD / Oct. 1 - Feb. 15 (see note 8)
Seasonal Construction Window (Biological)				
Topsoil Salvage				
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residences		HYDROSTATIC DISCHARGE BVA #2		
Environmental Survey Status (Wetlands & Cultural)				



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Temporary Construction Right-of-Way
- Temporary Extra Work Area
- Uncleared Storage Area
- Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
- Drivable Berm or Straw Bales
- Silt Fence
- Safety Fence
- Construction Entrance Pad

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

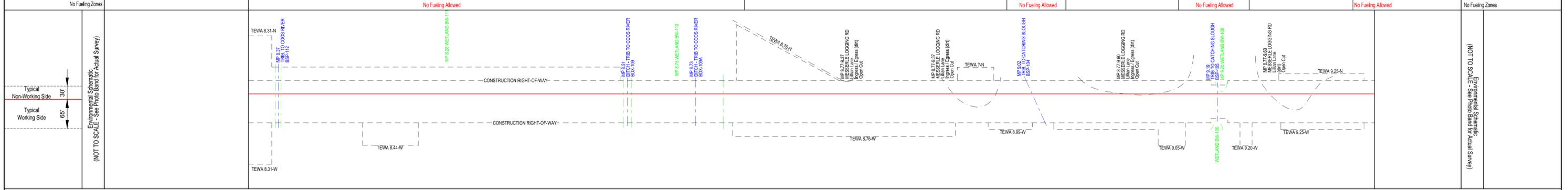
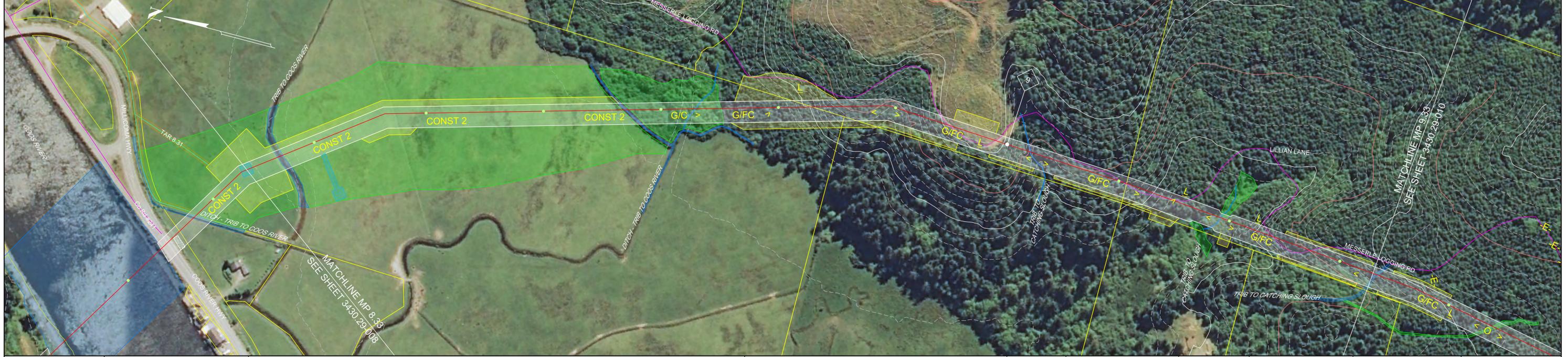
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 11.15 TO 8.33
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-008	SHEET 8 OF 230

Legal Location	SEC 32, T25S, R12W (Mineral Lease No.: 25898-0G)		SEC 5, T26S, R12W		Legal Location										
Ownership / Management	FRED MESSERLE & SONS, INC. 25S12W32100 CO-061.000	BPA TRANSMISSION LINES CO-061.001 TL	FRED MESSERLE & SONS, INC. 25S12W32100 CO-061.000	WEYERHAEUSER COMPANY 25S12W32300 CO-057.000	FRED MESSERLE & SONS, INC. 25S12W32400 CO-061.003	SOLOMON JOINT LIVING TRUST 26S12W05300 CO-063.000-AF01	FRED MESSERLE & SONS, INC. 26S12W05200 CO-063.000	Ownership / Management							
Jurisdiction	COOS COUNTY						Jurisdiction								
Federal Landuse Allocation							Federal Landuse Allocation								
Landuse	21	51	21	422	14	422	14	422	42	422	Landuse				
Wetland / Waterbody	Trib to Coos River		BW-111	Ditch - Trib to Coos River		BW-110	Trib to Coos River		Trib to Catching Slough		BW-106	Trib to Catching Slough		BW-108	Wetland / Waterbody
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Crossing Method / Instream Construction Window
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3		Seasonal Construction Window (Biological)
Topsoil Salvage	HYDROSTATIC DISCHARGE LOCATION						HYDROSTATIC DISCHARGE LOCATION						Topsoil Salvage		
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential													Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential		
Environmental Survey Status (Wetlands & Cultural)													Environmental Survey Status (Wetlands & Cultural)		



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Temporary Construction Right-of-Way (Shown white on photography)
- Temporary Extra Work Area
- Uncleared Storage Area
- Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
- Drivable Berm or Straw Bales
- Silt Fence (SF)
- Safety Fence
- Construction Entrance Pad
- Surveyed Underlaid Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

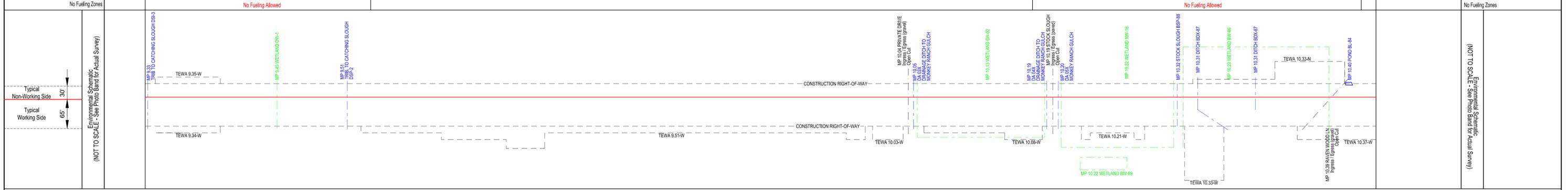
200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 8.33 TO 9.33
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-009	SHEET 9 OF 230

Legal Location	SEC 5, T26S, R12W (Mineral Lease No.: 25900-0G)		SEC 8, T26S, R12W (Mineral Lease No.: 25900-0G)				Legal Location			
Ownership / Management	FRED MESSERLE & SONS, INC. 26S12W05200 CO-083.000		STALCUP LIVING TRUST STALCUP, JEAN, TRUSTEE 26S12W051100 CO-		CO-070.000	SHELDON, MARK & MELODY 26S12W08500 CO-	SHELDON, MARK & MELODY 26S12W08800 CO-	RODE ALVIN & LU ANN HILL, JEFFREY L. 26S12W081100 CO-	Ownership / Management	
Jurisdiction	COOS COUNTY									
Federal Landuse Allocation										
Landuse	422		422		21		42		21	
Wetland / Waterbody	Trib to Catching Slough DW-1		Trib to Catching Slough		Trib to Stock Slough DA-02		Stock Slough NW-16		Stock Slough Ditch BW-86 Pond	
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15					
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3									
Topsoil Salvage										
Hydrostatic Test Source & Discharge / Absement Facilities / Residences										
Environmental Survey Status (Wetlands & Cultural)										



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales (STB)
 - Silt Fence (SF)
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

11-Residential
12-Commercial
13-Industrial
14-Transportation/Communications
17-Other Urban or Built-up Land
21-Cropland / Pastureland
31-Herbaceous Rangeland
32-Straw / Brush Rangeland
33-Mixed Rangeland
41-Deciduous Forest Land
42-Evergreen Forest Land
42.1-Clearcut Forest
42.2-Regenerating Forest
43-Mixed Forest Land
51-Streams and Canals
54-Bays and Estuaries
61-Forested Wetlands
62-Nonforested Wetlands
75-Transitional Areas
77-Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

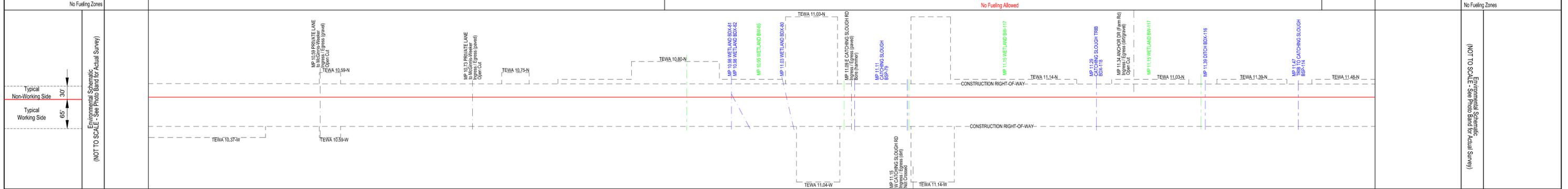
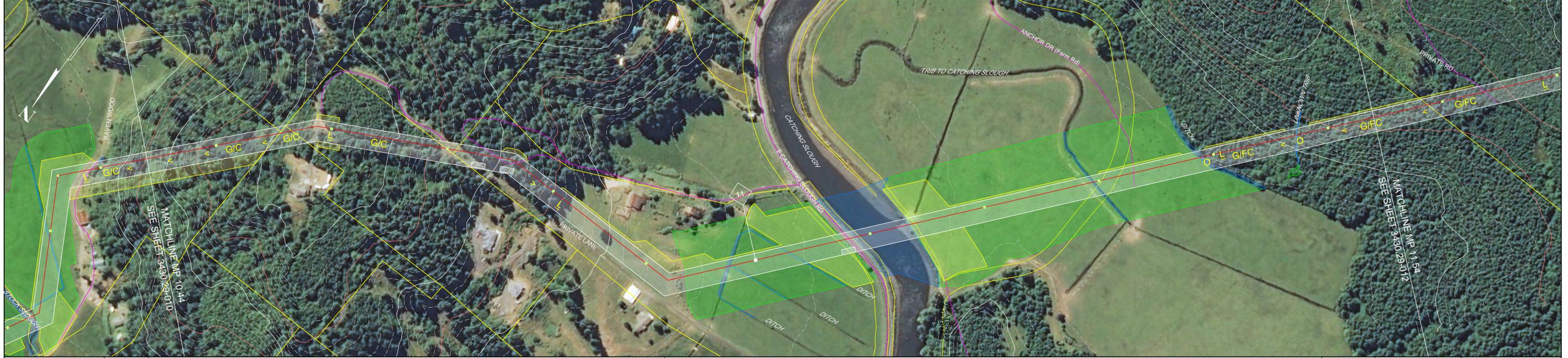
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 9.33 TO 10.44
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-010	SHEET 10 OF 230

Legal Location	SEC 8, T26S, R12W (Mineral Lease No.: 25900-0G)										SEC 7, T26S, R12W (Mineral Lease Nos.: 25900-0G & 25904-0G)										Legal Location						
Ownership / Management	HILL, JEFFREY L. 26S12W081100 CO-072.000		HILL, JEFFREY L. & GIDGETTE N. 26S12W08 1102 CO-073.000 WHEELER, LARRY & SHIRLEY 26S12W08B1400 CO-072.001		MCGINNIS, MICHAEL L. 26S12W08B1500 CO-074.000		CONNELL, GARY A. & BARBARA E. 26S12W081801 CO-075.000		WOYTUS, PAUL J. & YVONNE A. 26S12W081700 CO-077.000		CATCHING SLOUGH 26S12W08 CO-076-000 WC		WEST CATCHING SLOUGH RD 26S12W08 CO-080.000		FRED MESSERLE & SONS, INC. 26S12W07700 CO-081.000		ANCHOR DR 26S12W07 CO-081.100 RD		FRED MESSERLE & SONS, INC. 26S12W07700 CO-081.000		Ownership / Management						
Jurisdiction	COOS COUNTY																				Jurisdiction						
Federal Landuse Allocation																					Federal Landuse Allocation						
Landuse	42		422		14		422		14		42		421		21		51		21		51		21		422		Landuse
Wetland / Waterbody																					Wetland / Waterbody						
Crossing Method / Instream Construction Window / Seasonal Construction Window (biological) / See Table 3D-10, Resource Report 3																					Crossing Method / Instream Construction Window / Seasonal Construction Window (biological) / See Table 3D-10, Resource Report 3						
Topsoil Salvage																					Topsoil Salvage						
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential																					Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential						
Environmental Survey Status (Wetlands & Cultural)																					Environmental Survey Status (Wetlands & Cultural)						



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Temporary Construction Right-of-Way (Shown white on photography)
- Temporary Extra Work Area
- Uncleared Storage Area
- Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
- Drivable Berm or Straw Bales
- Silt Fence
- Safety Fence
- Construction Entrance Pad
- Surveyed Undermined Buffer

LANDUSE CATEGORIES

11-Residential
12-Commercial
13-Industrial
14-Transportation/Communications
17-Other Urban or Built-up Land
21-Cropland / Pastureland
31-Herbaceous Rangeland
32-Straw / Brush Rangeland
33-Mixed Rangeland
41-Deciduous Forest Land
42-Evergreen Forest Land
43-Clearcut Forest
44-Regenerating Forest
45-Mixed Forest Land
51-Streams and Canals
54-Bays and Estuaries
61-Forested Wetlands
62-Nonforested Wetlands
76-Transitional Areas
77-Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

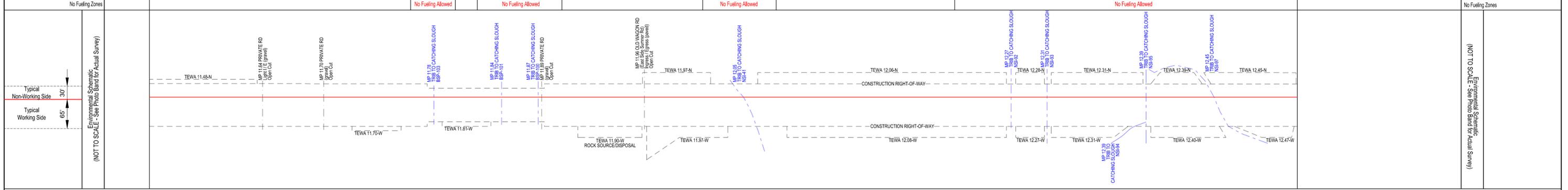
200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 10.44 TO 11.54
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-011	SHEET 11 OF 230

Legal Location	SEC 7, T26S, R12W (Mineral Lease Nos.: 25900-OG & 25904-OG)										SEC 18, T26S, R12W										Legal Location																				
Ownership / Management	FRED MESSERLE & SONS, INC. 26S12W07700 CO-081.000					WRIGHT LOVING TRUST 26S12W18A100 CO-083.000					IRVINE, RICHARD A. & MARY A. 26S12W18B1900 CO-087.000					McGRIFF, DAVID L. & EMILY J. 26S12W18A201 CO-096.000					LOVELL, NOVA D. & ELLEN M. 26S12W18B1700 CO-089.000					MUENCHRATH, A. JOHN & MARY M. 26S12W19C103 CO-090.000					MAEYERS, DREDEGAR 26S12W19C300 CO-090.000					ROSEBURG RESOURCES CO. 26S12W18C200 CO-095.000					Ownership / Management
Jurisdiction	COOS COUNTY																				Jurisdiction																				
Federal Landuse Allocation																					Federal Landuse Allocation																				
Landuse	422	14	42	422	14	422	51	422	43	14	43	422	43	422	43	422	43	14	422	43	14	Landuse																			
Wetland / Waterbody	Tribes to Catching Slough																				Wetland / Waterbody																				
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15										Dry Open-Cut / July 1 - Sept. 15										Dry Open-Cut / July 1 - Sept. 15										Crossing Method / Instream Construction Window										
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3																				Seasonal Construction Window (Biological)																				
Topsoil Salvage	NONE																				Topsoil Salvage																				
Hydrostatic Test Source & Discharge / Aboveground Facilities (Residential)																					Hydrostatic Test Source & Discharge / Aboveground Facilities (Residential)																				
Environmental Survey Status (Wetlands & Cultural)	ACCESS DENIED										ACCESS DENIED										Environmental Survey Status (Wetlands & Cultural)																				



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales
 - Silt Fence
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
11-Residential						
12-Commercial						
13-Industrial						
14-Transportation/Communications						
17-Other Urban or Built-up Land						
21-Cropland / Pastureland						
31-Herbaceous Rangeland						
32-Shrub / Brush Rangeland						
33-Mixed Rangeland						
41-Deciduous Forest Land						
42-Evergreen Forest Land						
42-1-Clearcut Forest						
42-2-Regenerating Forest						
43-Mead Forest Land						
51-Streams and Canals						
54-Bays and Estuaries						
61-Forested Wetlands						
62-Nonforested Wetlands						
70-Transitional Areas						
77-Mixed Barren Land						

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

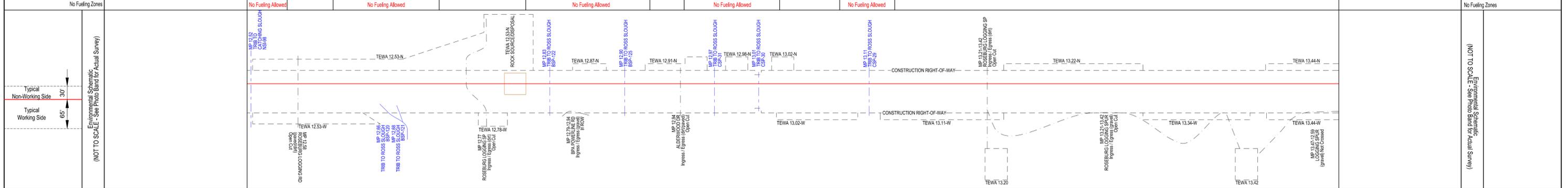
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 11.54 TO 12.52
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-012	SHEET 12 OF 230

Legal Location	SEC 18, T26S, R12W	SEC 19, T26S, R12W	Legal Location
Ownership / Management	ROSEBURG RESOURCES CO. 26S12W19C200 CO-095.000	ROSEBURG RESOURCES CO. 26S12W19C200 CO-096.000	RIVER BEND RESOURCES, CO. 26S12W19C200 CO-097.000
Jurisdiction	COOS COUNTY		
Federal Landuse Allocation			
Landuse	14	51	422
Wetland / Waterbody	Trib to Catching Slough	Trib to Ross Slough	Trib to Ross Slough
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15	Dry Open-Cut / July 1 - Sept. 15	Dry Open-Cut / July 1 - Sept. 15
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3		
Topsoil Salvage	NONE		
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential	HYDROSTATIC DISCHARGE		
Environmental Survey Status (Wetlands & Cultural)			



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales
 - Silt Fence (SF)
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undeveloped Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O.	NO.	CHK.	APP.
	Jan-2013	EE	Issued for FERC Pre-Filing				

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O.	NO.	CHK.	APP.
	Jan-2013	EE	Issued for FERC Pre-Filing				

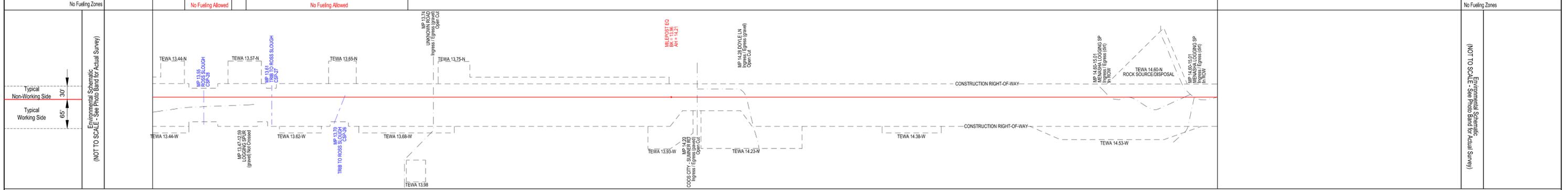
Scale: 1 inch = 200 feet

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 12.52 TO 13.76
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 13430.29-	13 SHEET OF 230

Legal Location	SEC 19, T26S, R12W		SEC 30, T26S, R12W		Legal Location						
Ownership / Management	RIVER BEND RESOURCES, CO. 26S12W0300 CO-097.000		McCAULEY, ROBERT H. & LINDA S. 26S12W03100 CO-096.000	KETCHUM, JIMMIE R. & CAROLYN E. 26S12W03100 CO-101.000	LONE ROCK TIMBERLAND CO. 26S12W030A500 CO-102.001	MENASHA FOREST PRODUCTS 26S12W031200 CO-103.00					
Jurisdiction	COOS COUNTY										
Federal Landuse Allocation											
Landuse	422	42	422	51	42	14	422	14	11	42	422
Wetland / Waterbody	Ross Slough		Trib to Ross Slough		Trib to Ross Slough						
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15						
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3										
Topsoil Salvage	NONE										
Hydrostatic Test Source & Discharge / Aboveground Facilities (Residential)	RESIDENTIAL - 3430.33-X-0013										
Environmental Survey Status (Wetlands & Cultural)											



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut during the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales
 - Silt Fence
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undeveloped Buffer

LANDUSE CATEGORIES

11-Residential
12-Commercial
13-Industrial
14-Transportation/Communications
17-Other Urban or Built-up Land
21-Cropland / Pastureland
31-Herbaceous Rangeland
32-Shrub / Brush Rangeland
33-Mixed Rangeland
41-Deciduous Forest Land
42-Evergreen Forest Land
42-1-Clearcut Forest
42-2-Regenerating Forest
43-Mixed Forest Land
51-Streams and Canals
54-Bays and Estuaries
61-Forested Wetlands
62-Nonforested Wetlands
70-Transitional Areas
77-Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

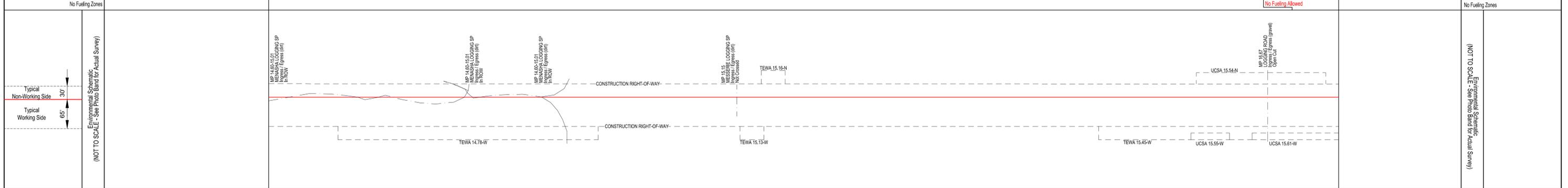
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 13.76 TO 14.70
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-014	SHEET 14 OF 230

Legal Location	SEC 30, T26S, R12W				SEC 32, T26S, R12W				Legal Location
Ownership / Management	MENASHA FOREST PRODUCTS 26S12W301200 CO-103.000		FRED MESSERLE 26S12W301400 CO-103.500	HILL, BONNIE M. 26S12W31A100 CO-105.400	FRED MESSERLE & SONS, INC. 26S12W32400 CO-106.500		DEE & TERRY WILLIS TRUST 26S12W32500 CO-106.600		Ownership / Management
Jurisdiction	COOS COUNTY								Jurisdiction
Federal Landuse Allocation									Federal Landuse Allocation
Landuse	422				43				Landuse
Wetland / Waterbody									Wetland / Waterbody
Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3	NONE								Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3
Topsoil Salvage									Topsoil Salvage
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential									Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential
Environmental Survey Status (Wetlands & Cultural)									Environmental Survey Status (Wetlands & Cultural)



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales (STB)
 - Silt Fence (SF)
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undeveloped Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD
12-Commercial						
13-Industrial						
14-Transportation/Communications						
17-Other Urban or Built-up Land						
21-Cropland / Pastureland						
31-Herbaceous Rangeland						
32-Straw / Brush Rangeland						
33-Mixed Rangeland						
41-Deciduous Forest Land						
42-Evergreen Forest Land						
43-Clearcut Forest						
44-Regenerating Forest						
45-Mixed Forest Land						
51-Streams and Canals						
54-Bays and Estuaries						
61-Forested Wetlands						
62-Nonforested Wetlands						
70-Transitional Areas						
77-Mixed Barren Land						

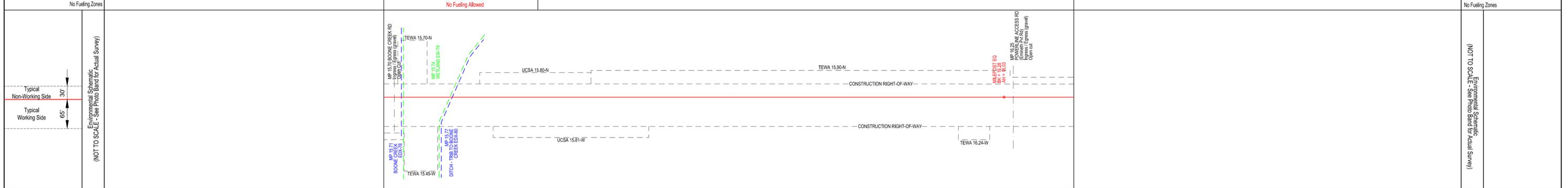
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 14.70 TO 15.69
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-015	SHEET 15 OF 230

Legal Location	SEC 32, T26S, R12W	SEC 31, T26S, R12W (Mineral Lease No.: 25900-OG)	Legal Location
Ownership / Management	BOONE CREEK RD DEE & TERRY WILLIS TRUST 26S12W3200 CO-106.600	PLUM CREEK TIMBERLANDS, L.P. 26S12W31700 CO-106.000	Ownership / Management
Jurisdiction	COOS COUNTY		Jurisdiction
Federal Landuse Allocation			Federal Landuse Allocation
Landuse	43	14	422
Wetland / Waterbody	Boone Creek EW-79 Ditch - Trib to Boone Creek		Wetland / Waterbody
Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3	Dry Open-Cut / July 1 - Sept 15		Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3
Topsoil Salvage		NONE	Topsoil Salvage
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential			Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential
Environmental Survey Status (Wetlands & Cultural)			Environmental Survey Status (Wetlands & Cultural)



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Temporary Construction Right-of-Way (Shown white on photography)
- Temporary Extra Work Area
- Uncleared Storage Area
- Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
- Drivable Berm or Straw Bales
- Silt Fence (SF)
- Safety Fence
- Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

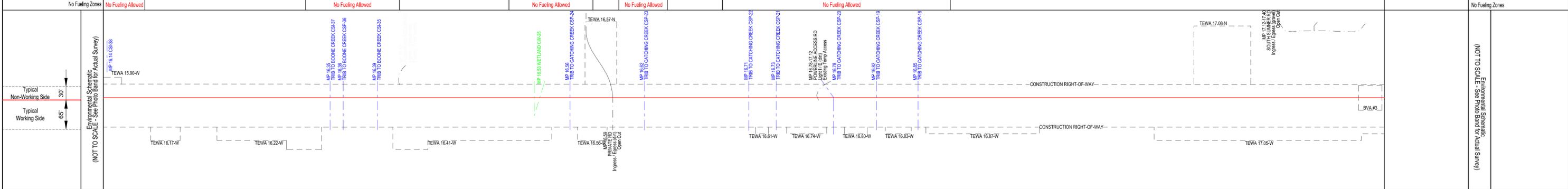
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 15.69 TO 16.10
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-016	SHEET 16 OF 230

Legal Location	SEC 31, T26S, R12W (Mineral Lease No.: 25900-0G)		SEC 6, T27S, R12W				SEC 5, T27S, R12W		Legal Location													
Ownership / Management	PLUM CREEK TIMBERLANDS, L.P. 26S12N31700 CO-108.000		LONE ROCK TIMBERLANDS CO 27S12W0100 CO-110.000	STEVEN & CAROLE STALCUP 27S12W0200 CO-112.000	LONE ROCK TIMBERLANDS CO 27S12W0100 CO-110.000	MENASHA FOREST PRODUCTS CORP. 27S12W0300 CO-111.000	U.S.A. (C.B.W.R.G.L.) 27S12W05100 CO-113.000		Ownership / Management													
Jurisdiction	COOS COUNTY								Jurisdiction													
Federal Landuse Allocation							General Forest Management Area		Federal Landuse Allocation													
Landuse	42	422	51	422	42	14	42	14	42	421	422	51	42	51	42	51	422	General Forest Management Area	General Forest Management Area	Landuse		
Wetland / Waterbody	CSJ-38		Tribes to Boone Creek		CW-25		Tribes to Catching Creek												Wetland / Waterbody			
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15		Dry Open-Cut / July 1 - Sept. 15																Crossing Method / Instream Construction Window			
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3		See Table 3D-10, Resource Report 3																Seasonal Construction Window (Biological)			
Topsoil Salvage	NONE																		Topsoil Salvage			
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential																			BVA #3		Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential	
Environmental Survey Status (Wetlands & Cultural)																					Environmental Survey Status (Wetlands & Cultural)	



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut during the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Temporary Construction Right-of-Way (Shown white on photography)
- Temporary Extra Work Area
- Uncleared Storage Area
- Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
- Drivable Berm or Straw Bales (SFB)
- Silt Fence (SF)
- Safety Fence
- Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

11- Residential
12- Commercial
13- Industrial
14- Transportation/Communications
17- Other Urban or Built-up Land
21- Cropland / Pastureland
31- Herbaceous Rangeland
32- Shrub / Brush Rangeland
33- Mixed Rangeland
41- Deciduous Forest Land
42- Evergreen Forest Land
421- Clearcut Forest
422- Regenerating Forest
43- Mixed Forest Land
51- Streams and Canals
54- Bays and Estuaries
61- Forested Wetlands
62- Nonforested Wetlands
70- Transitional Areas
77- Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

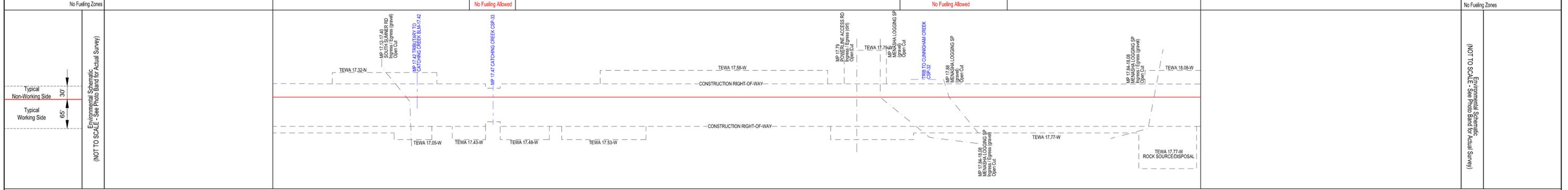
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 16.10 TO 17.26
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-017	SHEET 17 OF 230

Legal Location	SEC 6, T27S, R12W		SEC 8, T27S, R12W		Legal Location	
Ownership / Management	U.S.A.C.B.M.F.A.G.L.L. 27S12W05100 CO-113.000	MENASHA FOREST PRODUCTS 27S12W05300 CO-111.000	SOUTH SUMNER RD. CO-114.000 RD U.S.A.C.B.M.F.A.G.L.L. 27S12W05100 CO-113.000	ROSEBURG RESOURCES CO. 27S12W01700 CO-115.000	PACIFICORP 27S12W001600 CO-115.500	Ownership / Management
Jurisdiction	BLM - COOS DISTRICT	COOS COUNTY	BLM - COOS DISTRICT	COOS COUNTY	Jurisdiction	
Federal Landuse Allocation	GFMA		GFMA		Federal Landuse Allocation	
Landuse		422	42	422	42	Landuse
Wetland / Waterbody		Trib to Catching Creek Catching Creek		Trib to Cunningham Creek		Wetland / Waterbody
Crossing Method / Instream Construction Window		Dry Open-Cut / July 1 - Sept. 15	Dry Open-Cut / July 1 - Sept. 15			Crossing Method / Instream Construction Window
Seasonal Construction Window (Biological)						Seasonal Construction Window (Biological)
Topsoil Salvage			NONE			Topsoil Salvage
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residuals						Hydrostatic Test Source & Discharge / Aboveground Facilities / Residuals
Environmental Survey Status (Wetlands & Cultural)						Environmental Survey Status (Wetlands & Cultural)



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photograph)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales
 - Silt Fence (SF)
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

11- Residential
12- Commercial
13- Industrial
14- Transportation/Communications
17- Other Urban or Built-up Land
21- Cropland / Pastureland
31- Herbaceous Rangeland
32- Shrub / Brush Rangeland
33- Mixed Rangeland
41- Deciduous Forest Land
42- Evergreen Forest Land
421- Clearcut Forest
422- Regenerating Forest
43- Mixed Forest Land
51- Streams and Canals
54- Bays and Estuaries
61- Forested Wetlands
62- Nonforested Wetlands
70- Transitional Areas
77- Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

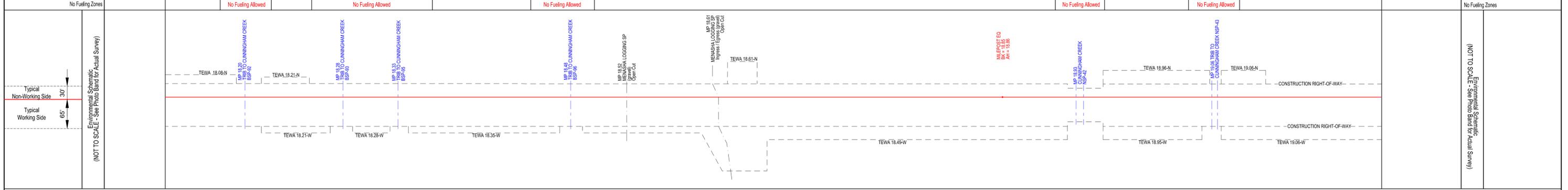
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 17.26 TO 18.13
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-018	SHEET 18 OF 230

Legal Location	SEC 8, T27S, R12W				SEC 17, T27S, R12W				SEC 16, T27S, R12W				Legal Location	
Ownership / Management	PACIFICORP 27S12W001600 CO-115.500				C.B.W.R.G.L. 27S12W00 2500 CO-117.500				COOS COUNTY SHEEP CO. 27S12W002400 CO-118.000				Ownership / Management	
Jurisdiction	COOS COUNTY								COOS COUNTY				Jurisdiction	
Federal Landuse Allocation	BLM - COOS DISTRICT								COOS COUNTY				Federal Landuse Allocation	
Landuse	422	421	422	42	14	42	422	421	422	43	422	51	422	Landuse
Wetland / Waterbody	Trib to Cunningham Creek				Trib to Cunningham Creek				Trib to Cunningham Creek				Wetland / Waterbody	
Crossing Method / Instream Construction Window	Dry Open-Cut / July 1 - Sept. 15				Dry Open-Cut / July 1 - Sept. 15				Dry Open-Cut / July 1 - Sept. 15				Crossing Method / Instream Construction Window	
Seasonal Construction Window (Biological)	See Table 3D-10, Resource Report 3				See Table 3D-10, Resource Report 3				See Table 3D-10, Resource Report 3				Seasonal Construction Window (Biological)	
Topsoil Salvage	NONE												Topsoil Salvage	
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential													Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential	
Environmental Survey Status (Wetlands & Cultural)	ACCESS DENIED												Environmental Survey Status (Wetlands & Cultural)	



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut during the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Temporary Construction Right-of-Way (Shown white on photography)
- Temporary Extra Work Area
- Uncleared Storage Area
- Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
- Drivable Berm or Straw Bales
- Silt Fence
- Safety Fence
- Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

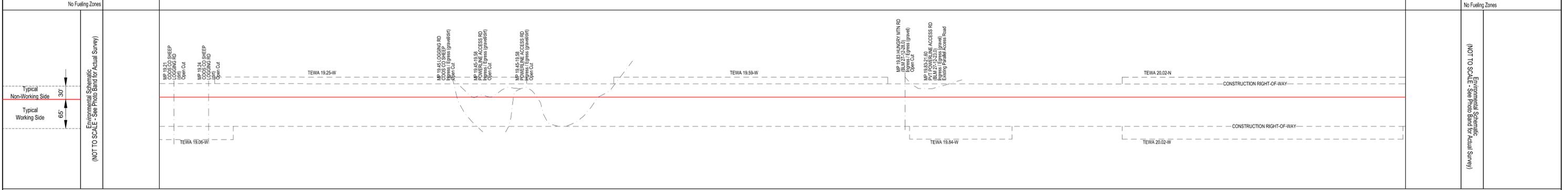
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 18.13 TO 19.20
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-019	SHEET 19 OF 230

Legal Location	SEC 16, T27S, R12W										SEC 15, T27S, R12W										Legal Location	
Ownership / Management	COOS COUNTY SHEEP CO. 27S12W02400 CO-118.000										U.S.A.(C.B.W.R.G.L.) 27S12W02200 CO-118.000										Ownership / Management	
Jurisdiction	COOS COUNTY																				Jurisdiction	
Federal Landuse Allocation	BLM - COOS DISTRICT																				Federal Landuse Allocation	
Landuse	422	14	421	422	14	422	14	422	421	422	14	422	14	421	422	421	421	42	422	422	RR	Landuse
Wetland / Waterbody																					Wetland / Waterbody	
Crossing Method / Instream Construction Window	NONE																				Crossing Method / Instream Construction Window	
Seasonal Construction Window (Biological)																					Seasonal Construction Window (Biological)	
Topsoil Salvage																					Topsoil Salvage	
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential																					Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential	
Environmental Survey Status (Wetlands & Cultural)	ACCESS DENIED																				Environmental Survey Status (Wetlands & Cultural)	



DRAFT

- NOTES:**
- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
 - In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
 - In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
 - Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
 - If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
 - Right-of-way grading or vegetation clearing as necessary.
 - Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
 - Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales (STB)
 - Silt Fence (SF)
 - Safety Fence
 - Construction Entrance Pad
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O.	NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing				
12-Commercial							
13-Industrial							
14-Transportation/Communications							
17-Other Urban or Built-up Land							
21-Cropland / Pastureland							
31-Herbaceous Rangeland							
32-Straw / Brush Rangeland							
33-Mixed Rangeland							
41-Deciduous Forest Land							
42-Evergreen Forest Land							
42.1-Clearcut Forest							
42.2-Regenerating Forest							
43-Mead Forest Land							
51-Streams and Canals							
54-Bays and Estuaries							
61-Forested Wetlands							
62-Nonforested Wetlands							
75-Transitional Areas							
77-Mixed Barren Land							

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O.	NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing				

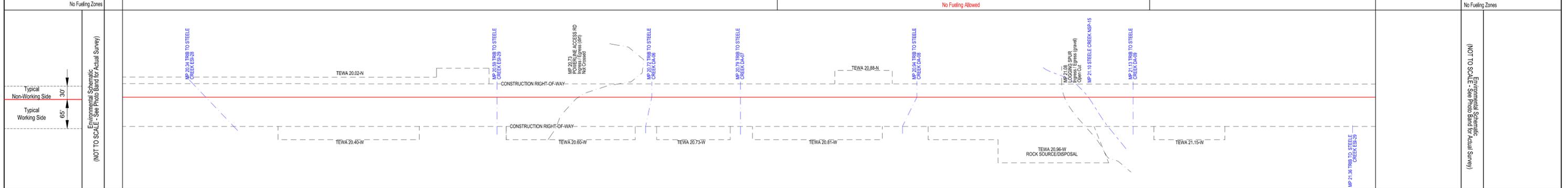
200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 19.20 TO 20.26
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-020	SHEET 20 OF 230

Legal Location	SEC 15, T27S, R12W	SEC 22, T27S, R12W	SEC 23, T27S, R12W	Legal Location
Ownership / Management	U.S.A.(C.B.W.R.G.L.) 27S12W02300 CO-119.000	COOS COUNTY SHEEP CO. 27S12W22100 CO-120.000	U.S.A.(C.B.W.R.G.L.) 27S12W23200 CO-121.000	Ownership / Management
Jurisdiction	BLM - COOS DISTRICT	COOS COUNTY	BLM - COOS DISTRICT	Jurisdiction
Federal Landuse Allocation	Riparian Reserve General Forest Management Area		General Forest Management Area Riparian Reserve	Federal Landuse Allocation
Landuse	422 51 422 51 422 42 422 42 422 42	42	422 51 422 51 422 422 422 422 422	Landuse
Wetland / Waterbody	Trib to Steele Creek	Trib to Steele Creek	Steele Creek Trib to Steele Creek	Wetland / Waterbody
Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3	Dry Open-Cut / July 1 - Sept. 15	Dry Open-Cut / July 1 - Sept. 15	Dry Open-Cut / July 1 - Sept. 15	Crossing Method / Instream Construction Window / Seasonal Construction Window (Biological) / See Table 3D-10, Resource Report 3
Topsoil Salvage		NONE		Topsoil Salvage
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential			HYDROSTATIC DISCHARGE	Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential
Environmental Survey Status (Wetlands & Cultural)		ACCESS DENIED		Environmental Survey Status (Wetlands & Cultural)



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut are flowing at the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

- 36-inch Proposed Pipeline
- Construction Right-of-Way
 - Temporary Construction Right-of-Way (Shown white on photography)
 - Temporary Extra Work Area
 - Uncleared Storage Area
 - Tax Parcel Boundaries
- Wetland
- Stream
- Access Road
- Access Road Number
- BMP Placement Determined by Environmental Inspector
 - Drivable Berm or Straw Bales (STB)
 - Silt Fence (SF)
 - Safety Fence
 - Construction Entrance Pad (DB)
- Surveyed Undisturbed Buffer

LANDUSE CATEGORIES

NO.	DATE	BY	DESCRIPTION	W.O.	NO.	CHK.	APP.
11-Residential	Jan-2013	EE	Issued for FERC Pre-Filing				
12-Commercial							
13-Industrial							
14-Transportation/Communications							
17-Other Urban or Built-up Land							
21-Cropland / Pastureland							
31-Herbaceous Rangeland							
32-Straw / Brush Rangeland							
33-Mixed Rangeland							
41-Deciduous Forest Land							
42-Evergreen Forest Land							
42.1-Clearcut Forest							
42.2-Regenerating Forest							
43-Mixed Forest Land							
51-Streams and Canals							
54-Bays and Estuaries							
61-Forested Wetlands							
62-Nonforested Wetlands							
76-Transitional Areas							
77-Mixed Barren Land							

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O.	NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing				

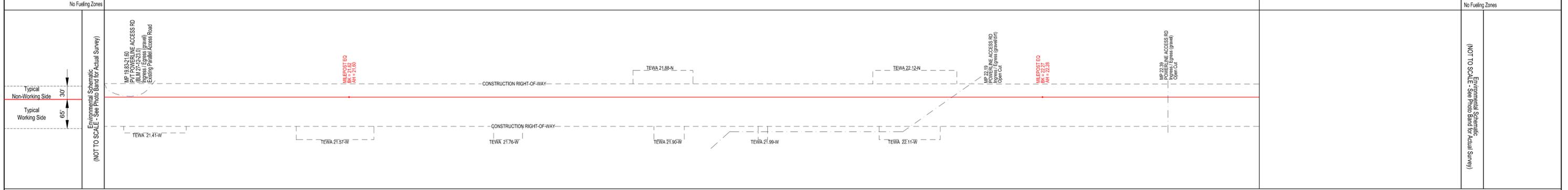
Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 20.26 TO 21.37
COOS COUNTY, OREGON**

Pacific Connector
GAS PIPELINE

DRAWN BY: JUST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JUST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-021	SHEET 21 OF 230

Legal Location	SEC 23, T27S, R12W				SEC 24, T27S, R12W				Legal Location	
Ownership / Management	U.S.A. (C.B.W.R.G.L.) 27S12W23200 CO-121.000	COOS COUNTY SHEEP CO. 27S12W23100 CO-122.000	COOS COUNTY SHEEP CO. 27S12W23100 CO-122.000	EPA TRANS. LINE 27S12W23100 CO-123.001 TL	HELLEN TREE FARM, INC. 27S12W23300 CO-123.000	EPA TRANS. LINE 27S12W23300 CO-123.001 TL	HELEN TREE FARM, INC. 27S12W23300 CO-123.000	BREUER, JOHN D & KARA L 27S12W24C1500 CO-124.000	Ownership / Management	
Jurisdiction	BLM - COOS DISTRICT								Jurisdiction	
Federal Landuse Allocation	General Forest Management Area								Federal Landuse Allocation	
Landuse	422				42				422	421
Wetland / Waterbody									Wetland / Waterbody	
Crossing Method / Instream Construction Window									Crossing Method / Instream Construction Window	
Seasonal Construction Window (Biological)									Seasonal Construction Window (Biological)	
See Table 3D-10, Resource Report 3									See Table 3D-10, Resource Report 3	
Topsoil Salvage	NONE								Topsoil Salvage	
Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential									Hydrostatic Test Source & Discharge / Aboveground Facilities / Residential	
Environmental Survey Status (Wetlands & Cultural)	ACCESS DENIED								ACCESS DENIED	Environmental Survey Status (Wetlands & Cultural)



DRAFT

NOTES:

- In wetlands cut vegetation off at ground level, leaving existing root systems in place and remove the vegetation from the wetland for disposal.
- In wetlands limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the construction right-of-way.
- In wetlands segregate the top one foot of topsoil from the trench line, except in areas where standing water or saturated soils are present.
- Topsoil will be stripped from the trench line and spoil storage area only in croplands, hayfields, pastures and residential areas. Topsoil may be imported in residential areas as necessary to assure adequate reclamation.
- If streams proposed to be open cut during the time of construction, they will be crossed using a dry open cut method (i.e., flume, dam & pump, etc.). If streams proposed to be dry open cut are not flowing at the time of construction, they will be open cut.
- Right-of-way grading or vegetation clearing as necessary.
- Seed mixes in the ECRP or according to landowner agreements or as directed by E.I.
- Pacific Connector understands that fisheries' construction windows only apply to those waterbodies flowing at the time of construction and that the windows do not apply to HDD crossings.

LEGEND

— 36-inch Proposed Pipeline	Wetland	Stream	Surveyed Undisturbed Buffer
Temporary Construction Right-of-Way (Shown white on photography)	Access Road	Silt Fence (SF)	Safety Fence
Temporary Extra Work Area	Access Road Number	Drivable Berm or Straw Bales (STB)	Construction Entrance Pad
Uncleared Storage Area	BMP Placement Determined by Environmental Inspector		
Tax Parcel Boundaries	Silt Fence (SF)	Safety Fence	Construction Entrance Pad

LANDUSE CATEGORIES

11-Residential
12-Commercial
13-Industrial
14-Transportation/Communications
15-Other Urban or Built-up Land
21-Cropland / Pastureland
31-Herbaceous Rangeland
32-Straw / Brush Rangeland
33-Mixed Rangeland
41-Deciduous Forest Land
42-Evergreen Forest Land
43-Clearcut Forest
44-Regenerating Forest
45-Mixed Forest Land
51-Streams and Canals
54-Bays and Estuaries
61-Forested Wetlands
62-Nonforested Wetlands
70-Transitional Areas
77-Mixed Barren Land

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	Jan-2013	EE	Issued for FERC Pre-Filing		DD	DD

Scale: 200 0 200 400 600 FEET

**NORTHWEST PIPELINE GP
S. SEATTLE DELIVERY LATERAL EXPANSION PROJECT
16-INCH PROPOSED PIPELINE REPLACEMENT
ENVIRONMENTAL ALIGNMENT
SPREAD #1
MP 21.37 TO 22.50
COOS COUNTY, OREGON**

DRAWN BY: JST	DATE: JAN-2013	ISSUED FOR BID:	24x36 SCALE: 1 Inch = 200 Feet
CHECKED BY: JST	DATE: JAN-2013	ISSUED FOR CONSTRUCTION:	11x17 SCALE: 1 Inch = 450 Feet
APPROVED BY: EE	DATE: JAN-2013	DRAWING NUMBER: 3430.29-022	SHEET 22 OF 230