

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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

- Tenth-mile

#### Other Waters

- Field Survey Streams
- NANS Streams (NHD)

#### Wetland

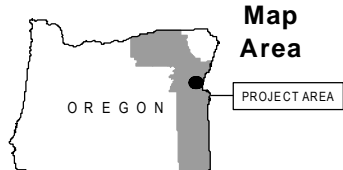
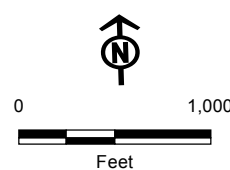
- NANS Wetland (NWI)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-97 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Baker County





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams

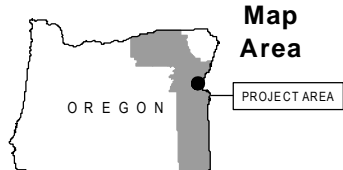
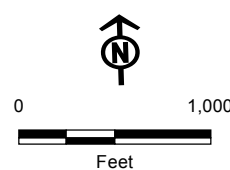
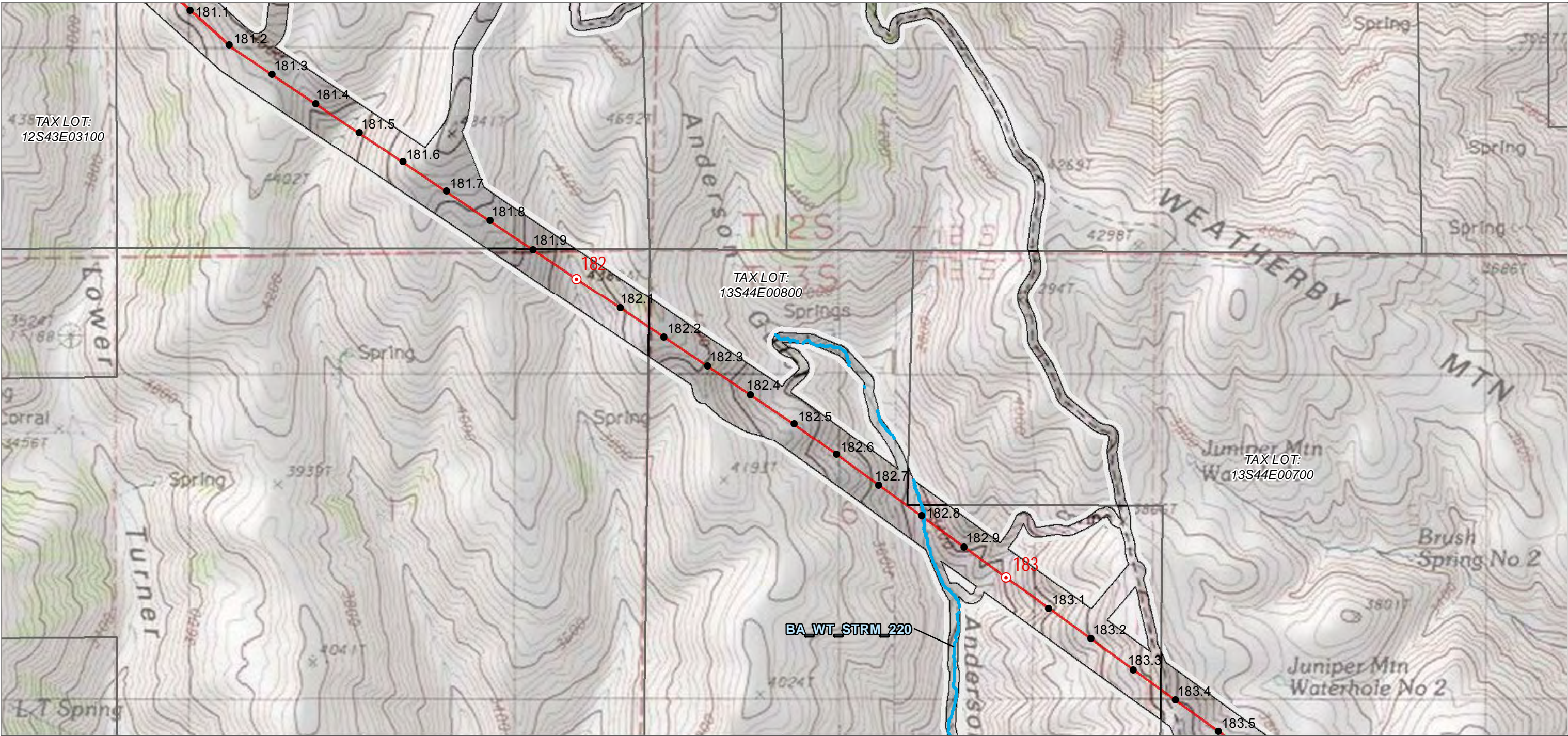
**IDAHO POWER**  
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Boardman to Hemingway  
Transmission Line Project

**Appendix C-98**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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

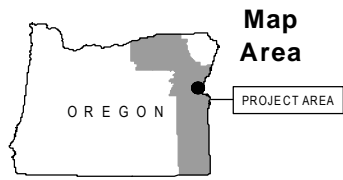
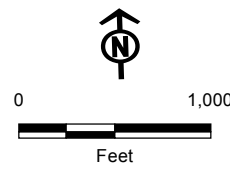
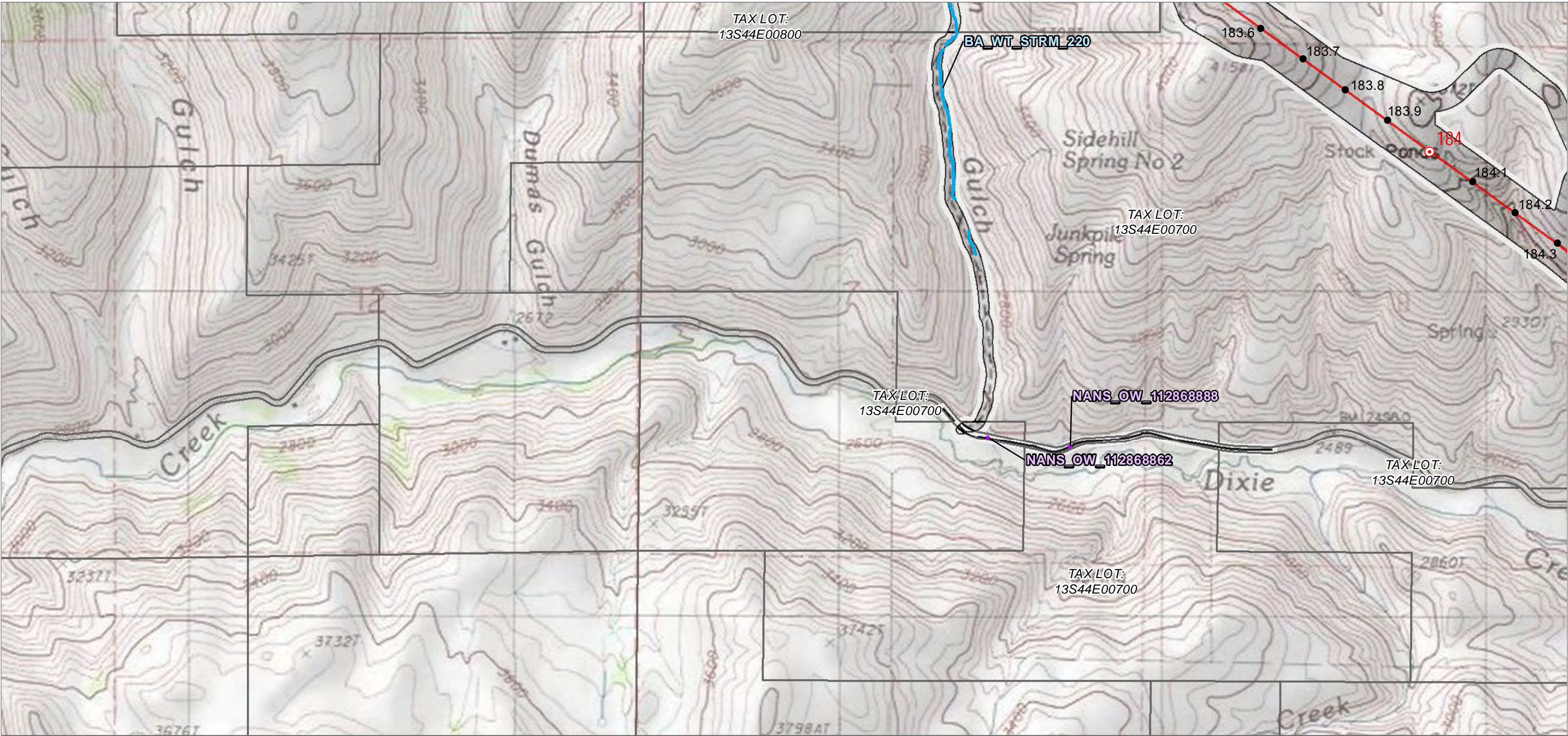




- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams

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



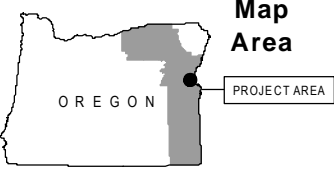
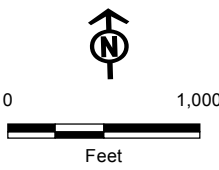


- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams
  - NANS Streams (NHD)

**Appendix C-100**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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





**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Railroads

**Mileposts**

- Mile
- Tenth-mile
- Transportation
- Interstates or Highways

**Other Waters**

- Field Survey Streams
- Wetland
- Field Survey Wetland
- NANS Wetland (NWI)

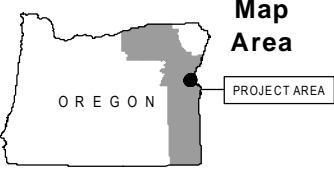
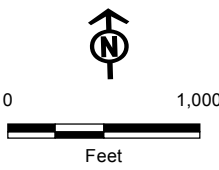
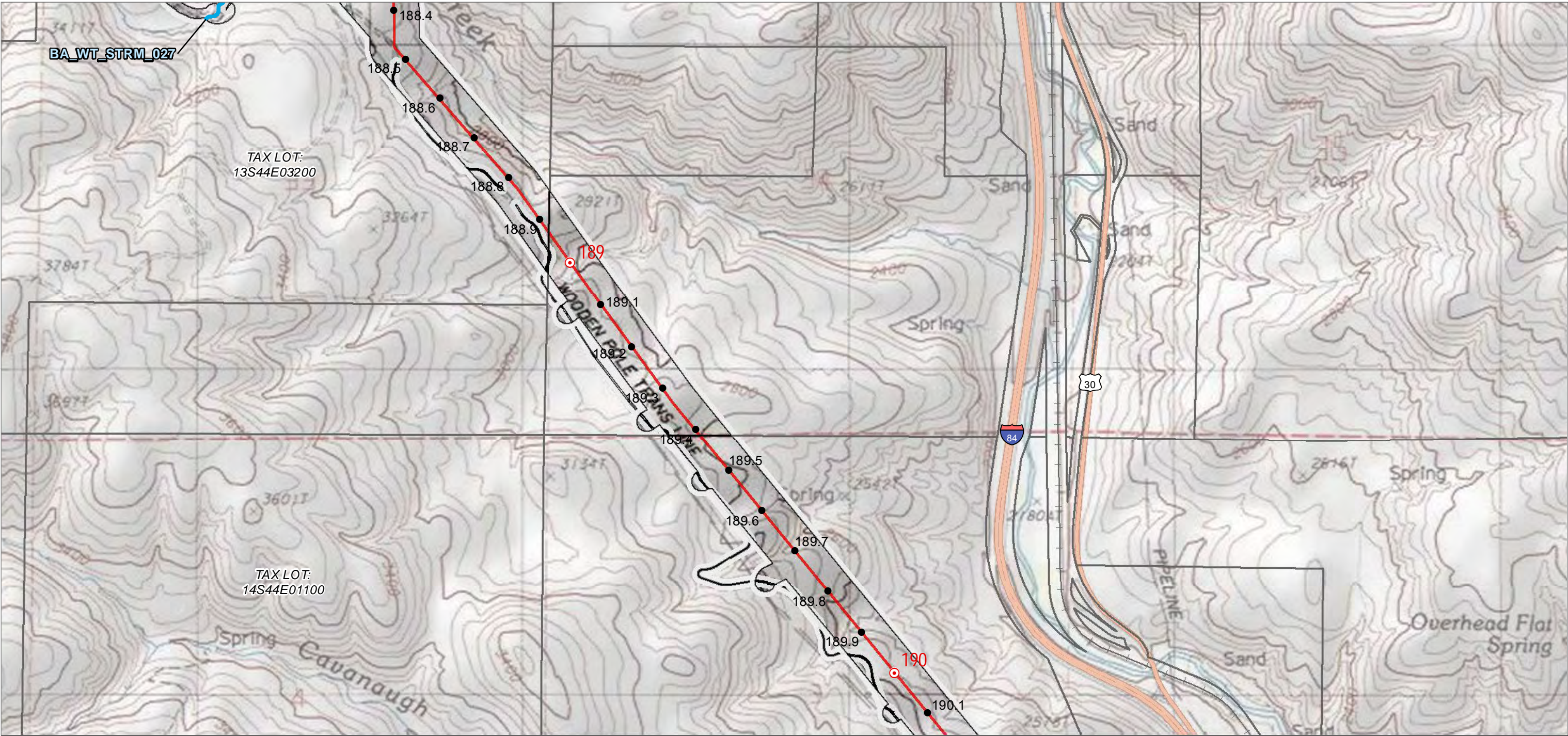


Boardman to Hemingway  
Transmission Line Project

**Appendix C-101**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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





**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Railroads

- Mileposts**
- Mile
  - Tenth-mile

**Transportation**

- Interstates or Highways

**Other Waters**

- Field Survey Streams

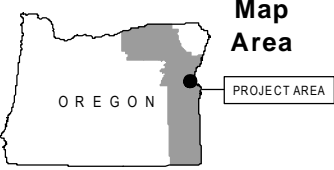
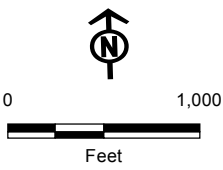


Boardman to Hemingway  
Transmission Line Project

**Appendix C-102**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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





**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Railroads

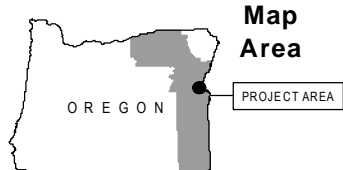
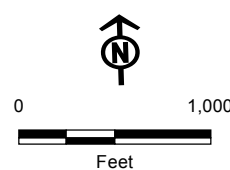
- Mileposts**
- Mile
  - Tenth-mile
- Transportation**
- Interstates or Highways

- Other Waters**
- Field Survey Streams
- Wetland**
- NANS Wetland (NWI)

**Appendix C-103**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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





**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

- Tenth-mile
- Transportation
- Interstates or Highways
- Other Waters
- NANS Streams (NHD)

**Wetland**

- NANS Wetland (NWI)



Boardman to Hemingway  
Transmission Line Project

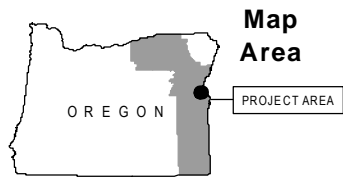
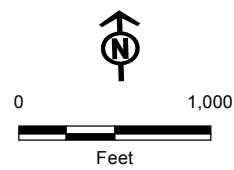
**Appendix C-104**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Baker County**

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









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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

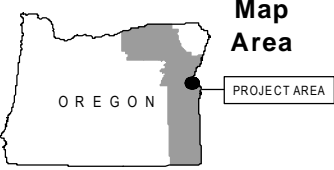
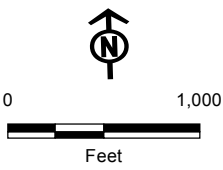
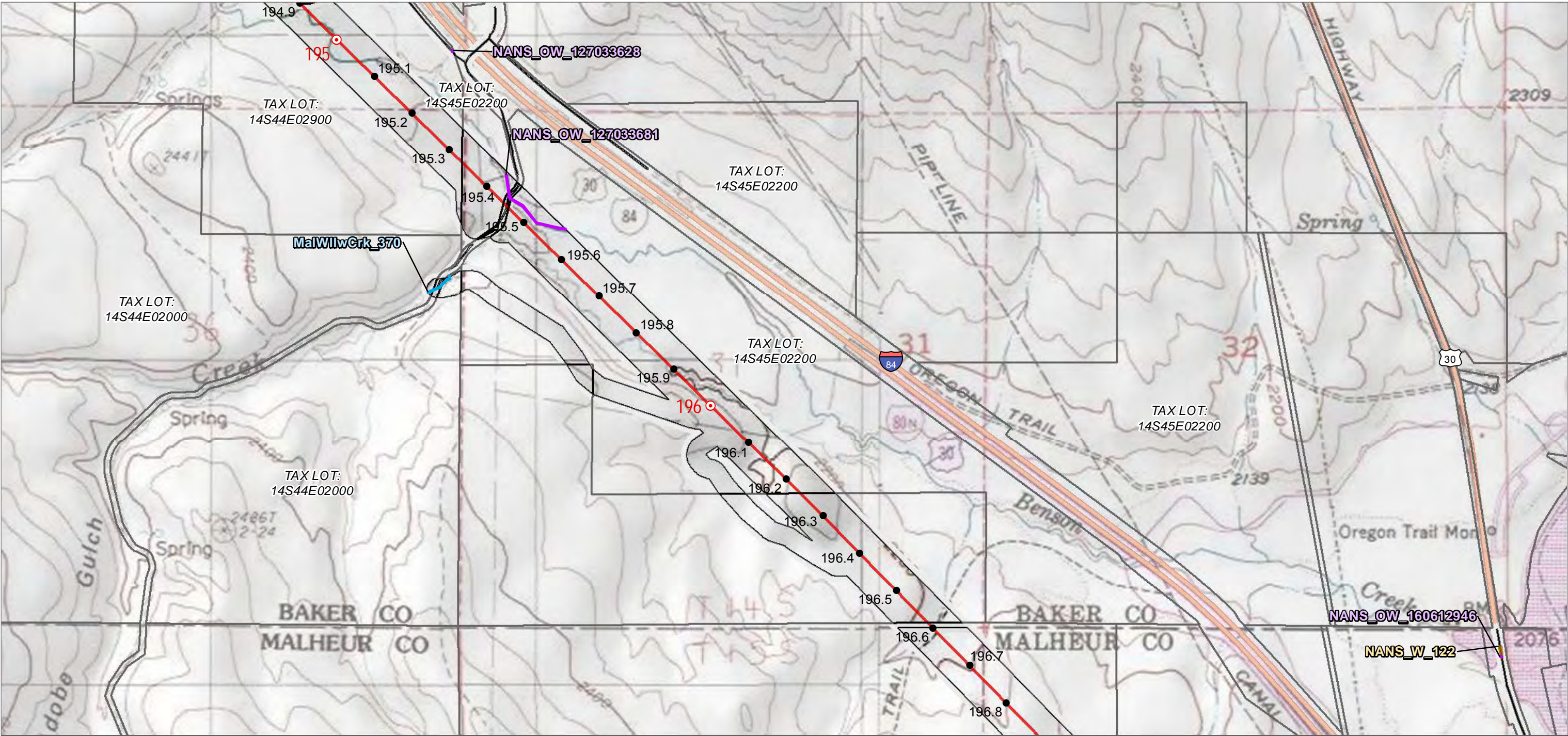
- Tenth-mile
- Transportation
- Interstates or Highways
- Other Waters
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-106 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Baker County





**Project Features**

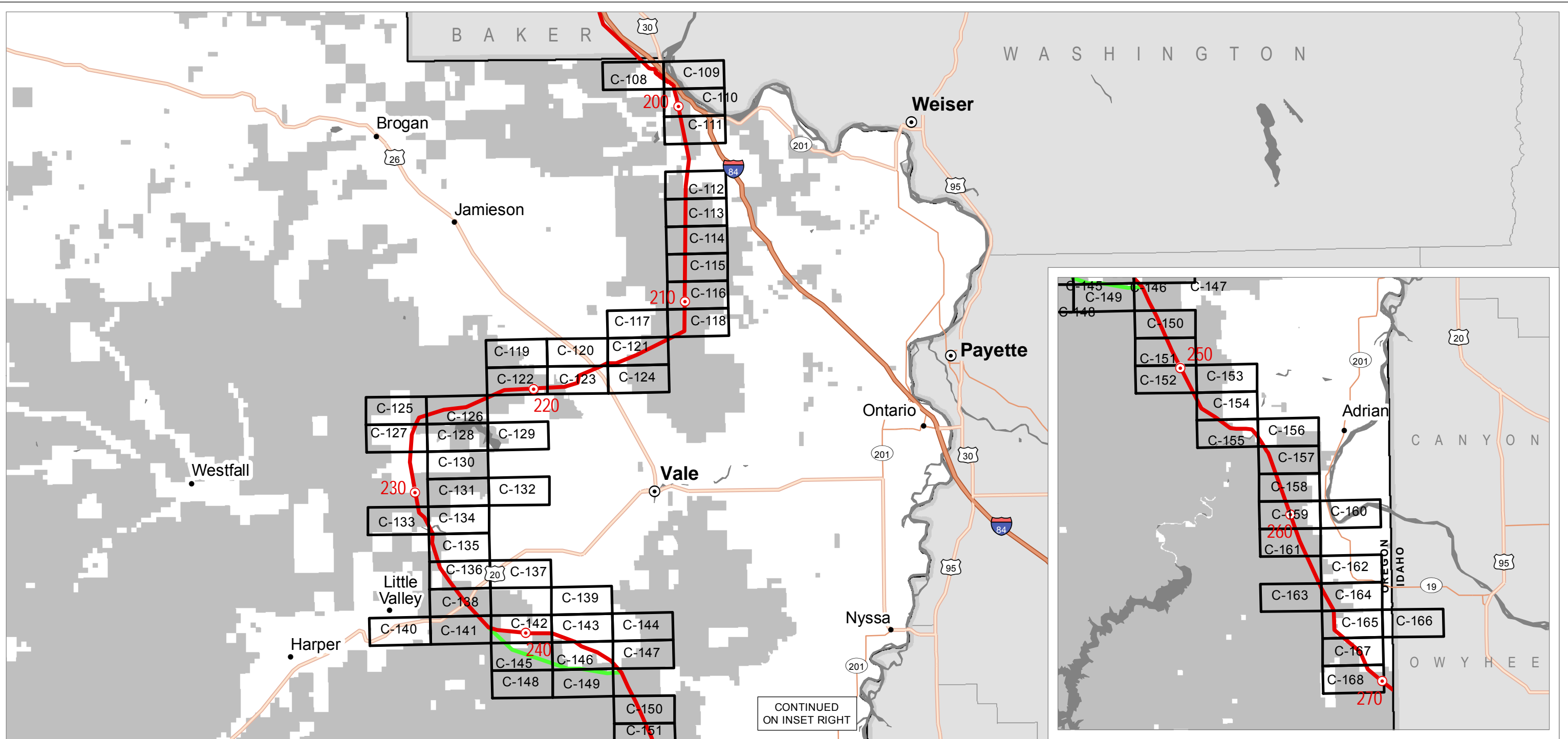
- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

- Tenth-mile
- Transportation
  - Interstates or Highways
- Other Waters
  - Field Survey Streams
  - NANS Streams (NHD)

- Wetland
  - NANS Wetland (NWI)

**Appendix C-107**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Baker County**





CONTINUED  
ON INSET RIGHT



**Project Features**

- Proposed Route
- Alternative
- ⊙ Ten Mile Marker

**Map Index**

- Map Tile (Map #)

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



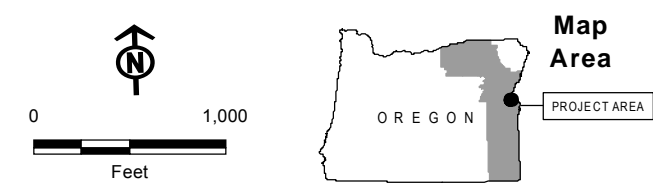
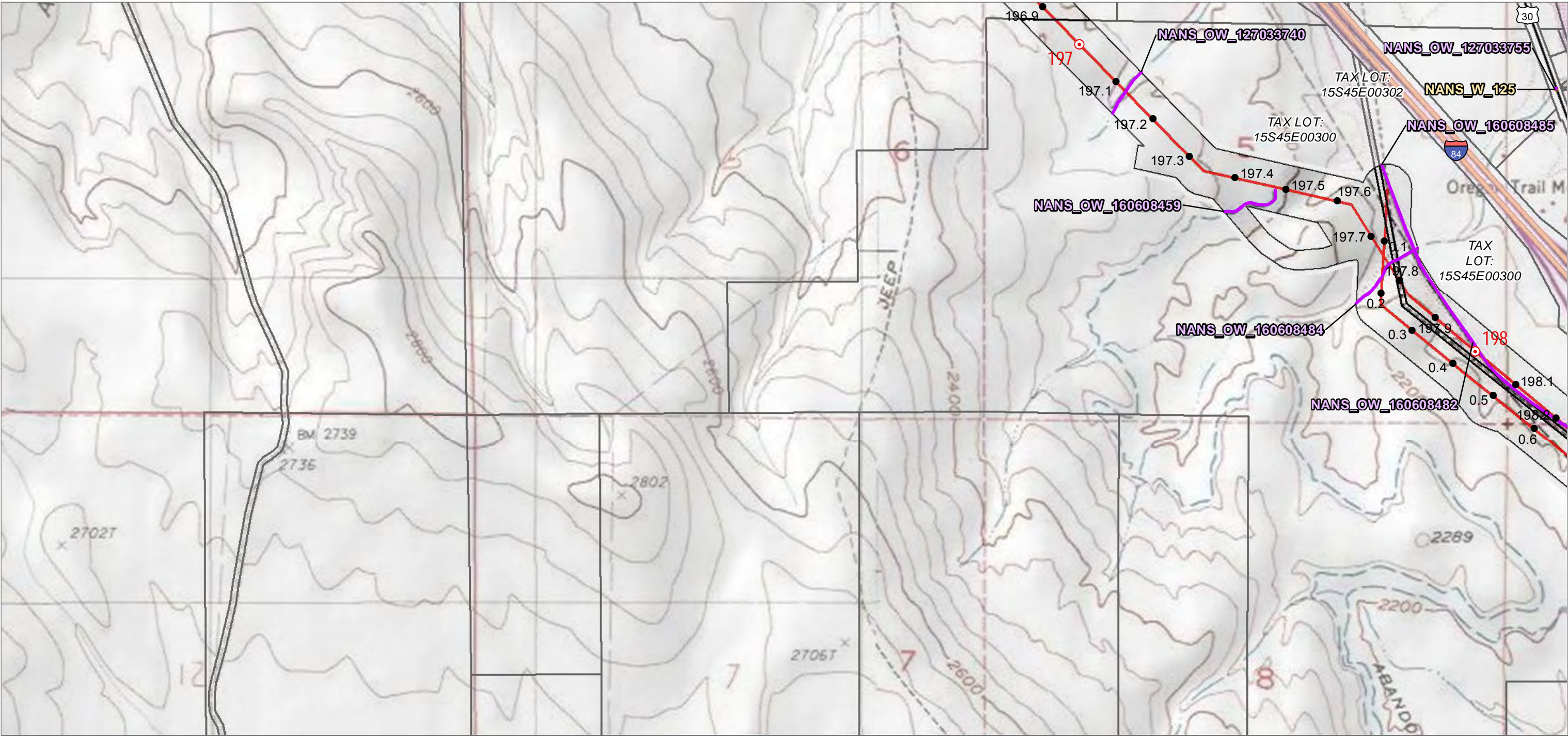
Boardman to Hemingway  
Transmission Line Project

**Appendix C  
Joint Permit Application  
Location Map**

Malheur County

Map Index





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Transportation**
- Interstates or Highways
- Other Waters**
- NANS Streams (NHD)
- Wetland**
- NANS Wetland (NWI)
- Tenth-mile**
- Tenth-mile

**Appendix C-108**

**Wetland and Other Waters**

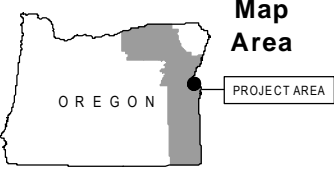
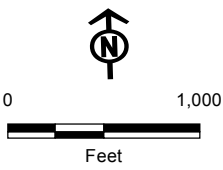
**Impact Sites, Tax Lots and Locations**

**Detail Maps**

**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





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

**Project Features**

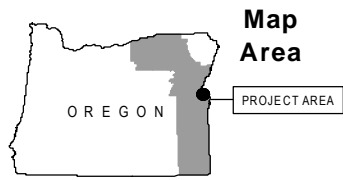
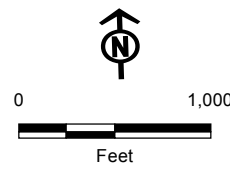
- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Railroads

- Mileposts**
- Mile
  - Tenth-mile
- Transportation**
- Interstates or Highways

- Other Waters**
- NANS Streams (NHD)
- Wetland**
- NANS Wetland (NWI)

**Appendix C-109**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Malheur County**





**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Railroads

**Mileposts**

- Mile
- Tenth-mile
- Interstates or Highways

**Other Waters**

- NANS Streams (NHD)
- NANS Wetland (NWI)



Boardman to Hemingway  
Transmission Line Project

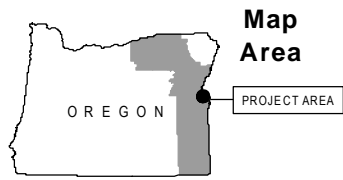
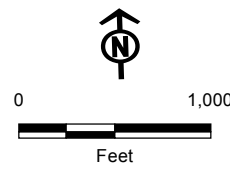
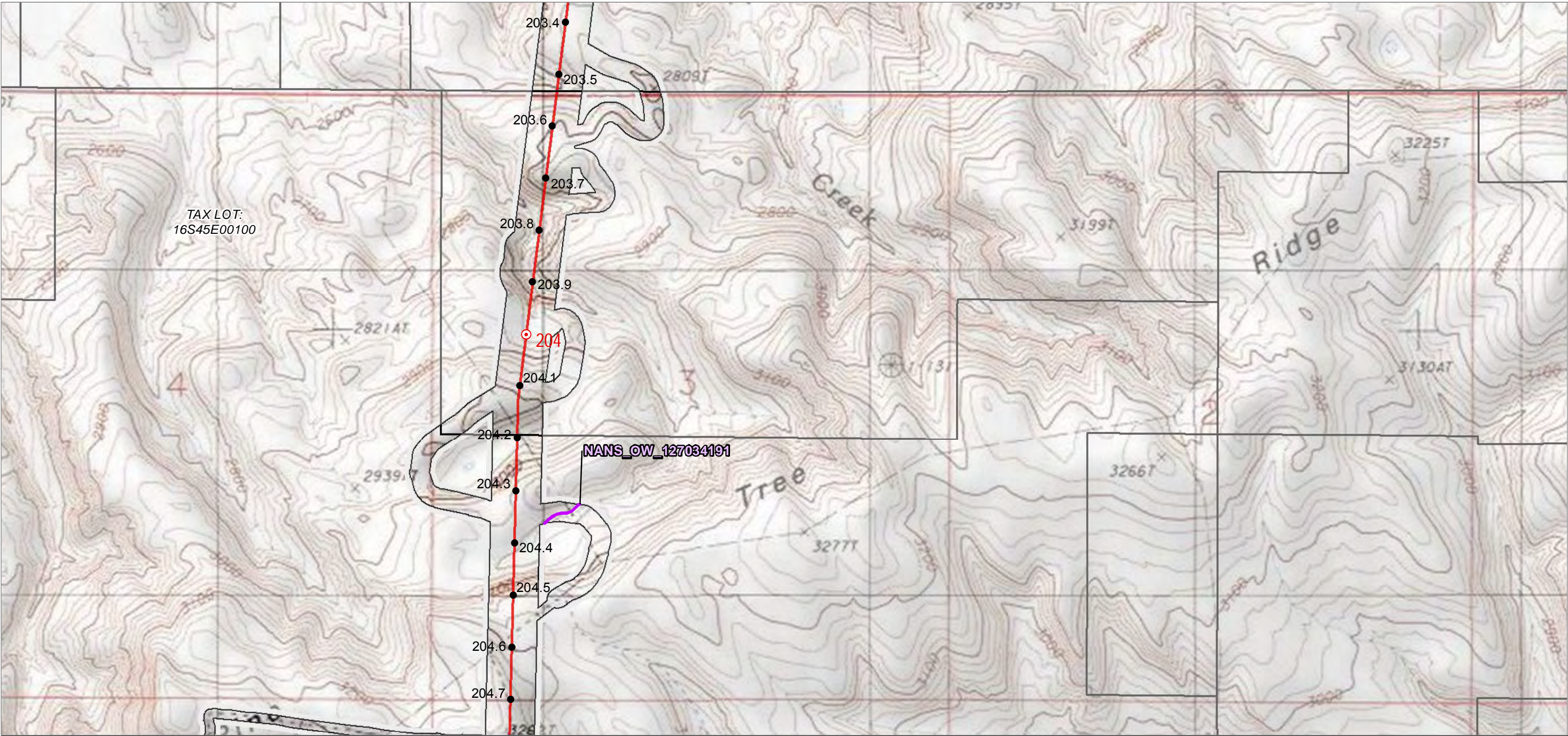
**Appendix C-110**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Malheur County**

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







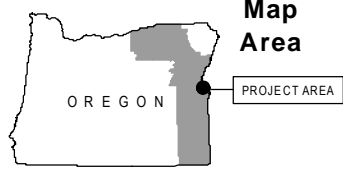
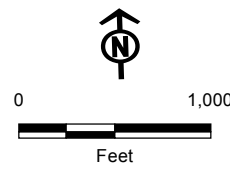


- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- NANS Streams (NHD)
- Legend**
- Tenth-mile

**Appendix C-112**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County

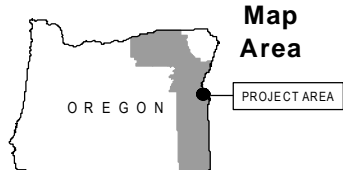
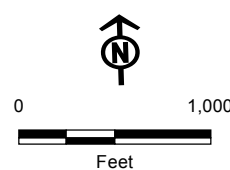
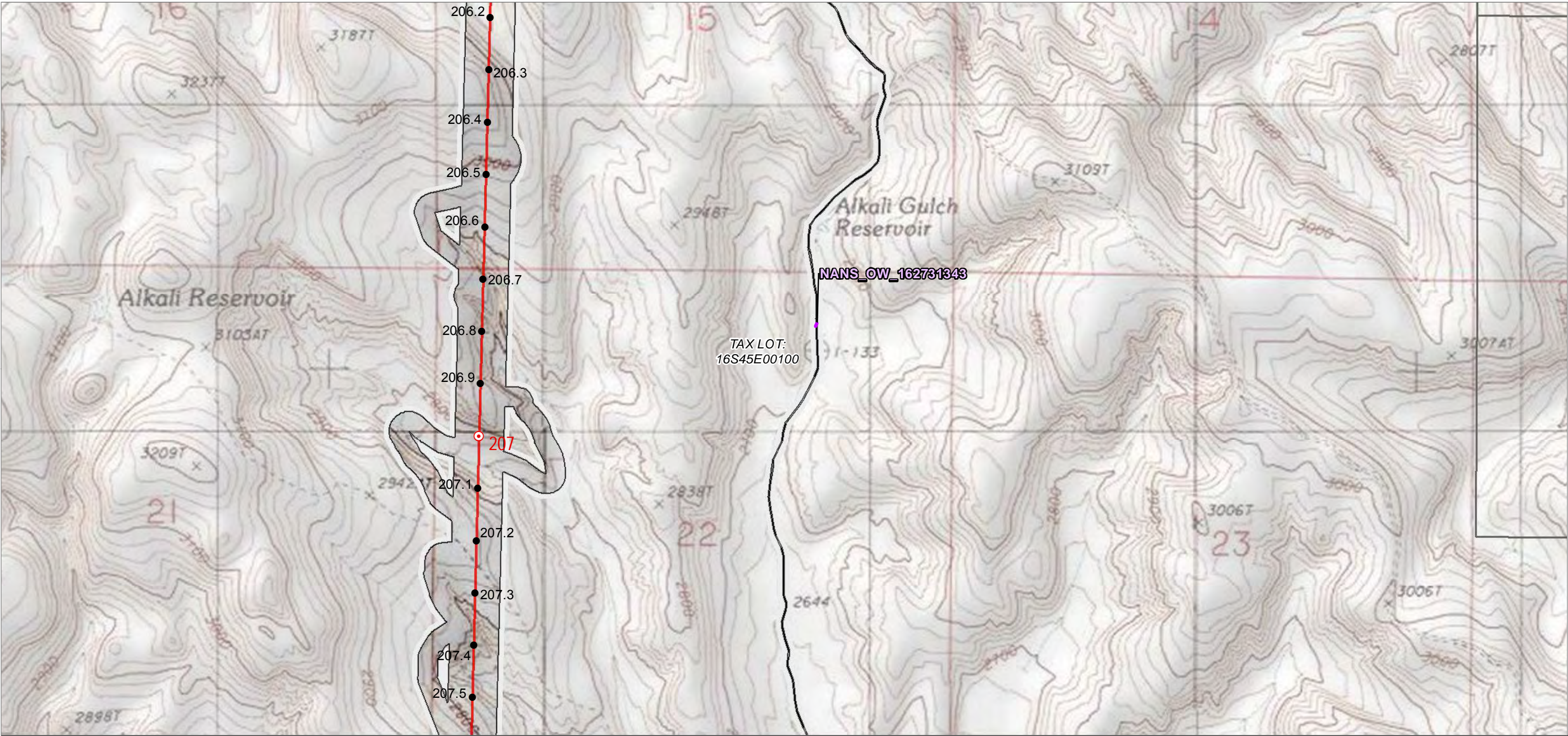
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- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams
  - NANS Streams (NHD)





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)

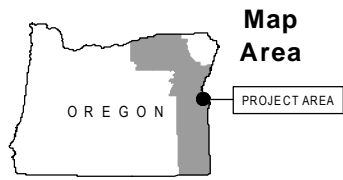
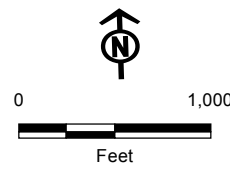
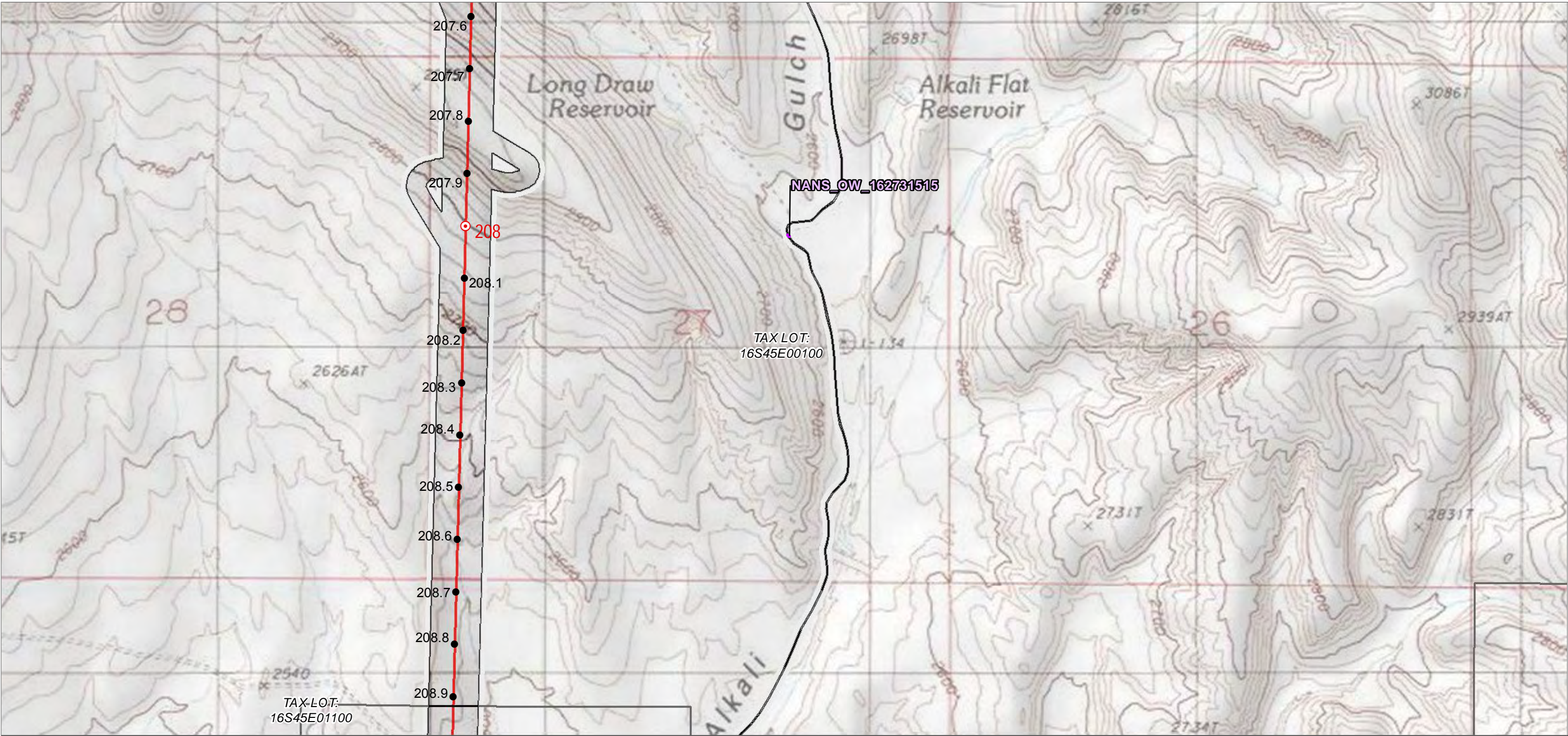
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Boardman to Hemingway  
Transmission Line Project

**Appendix C-114**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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



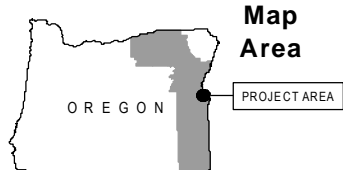
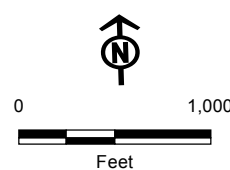
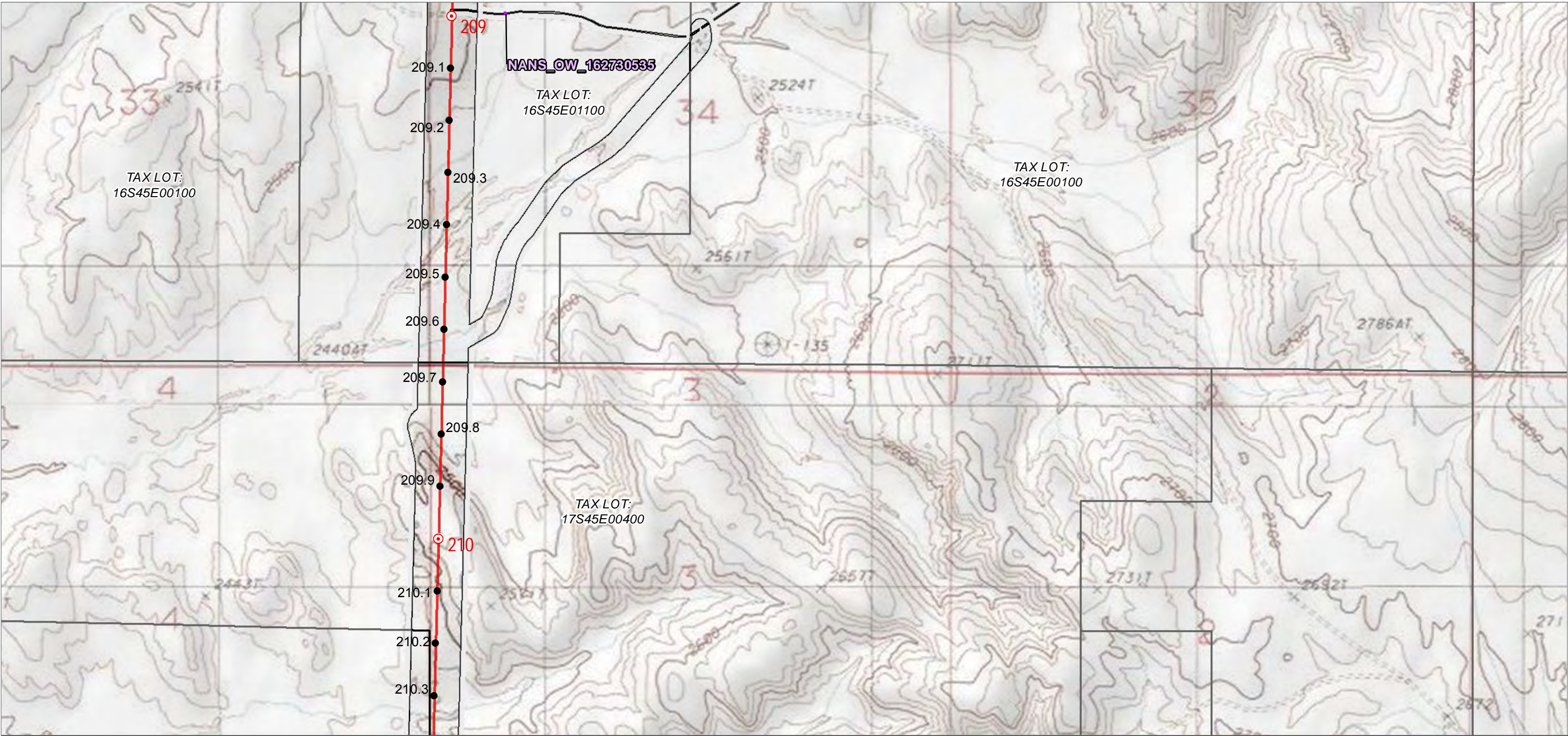


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- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)

**Appendix C-115**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County



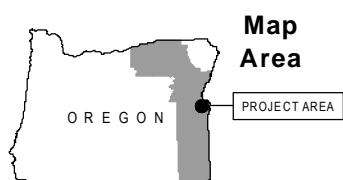
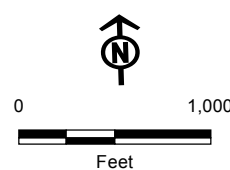


- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)

**Appendix C-116**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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





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

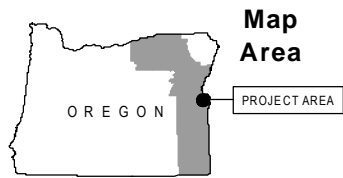
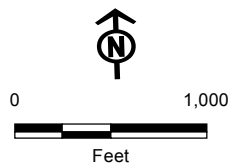
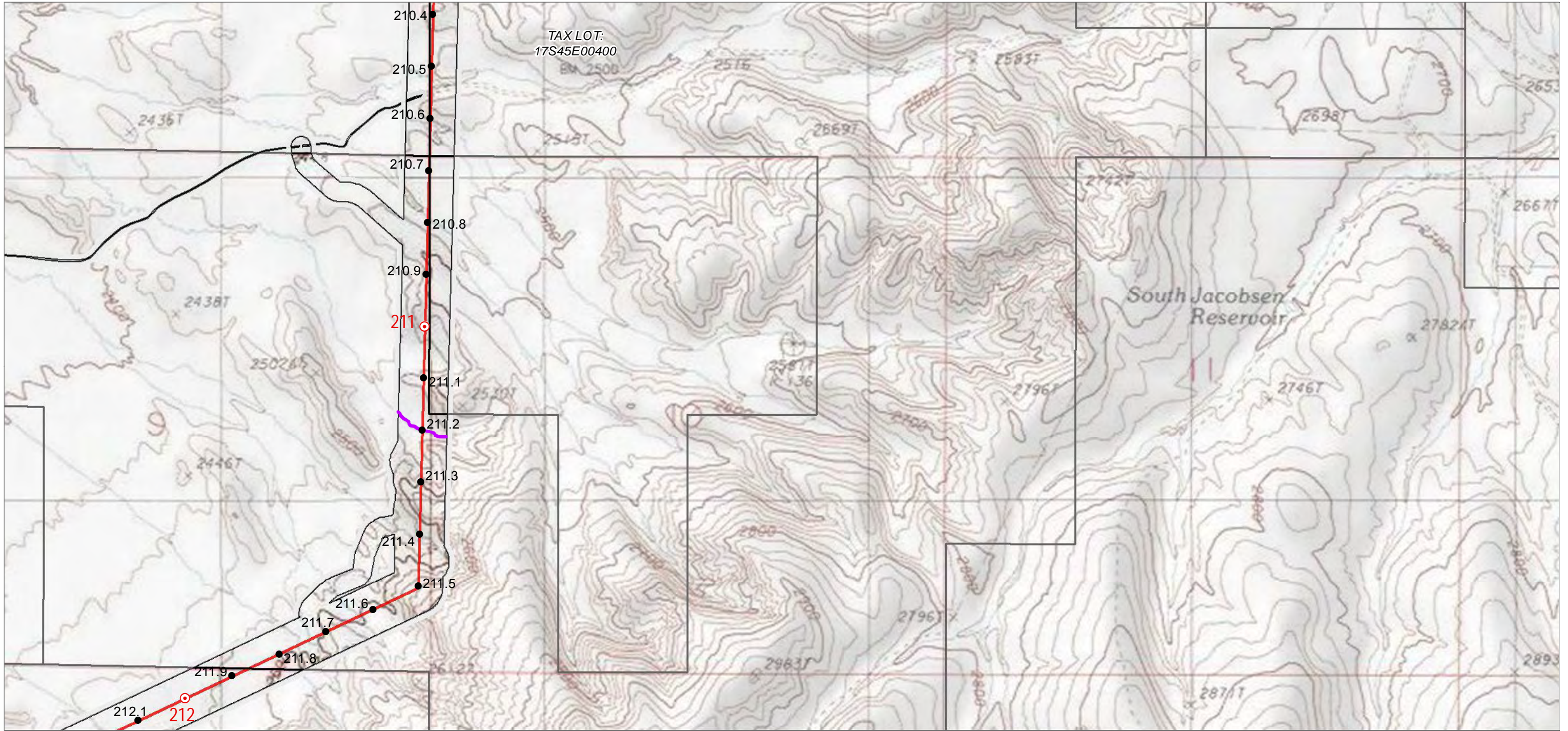
**Project Features**  
Other Waters  
NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

**Appendix C-117**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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

**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

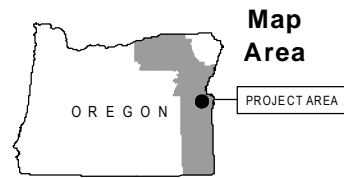
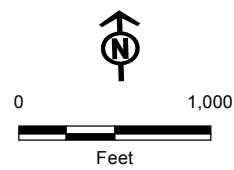
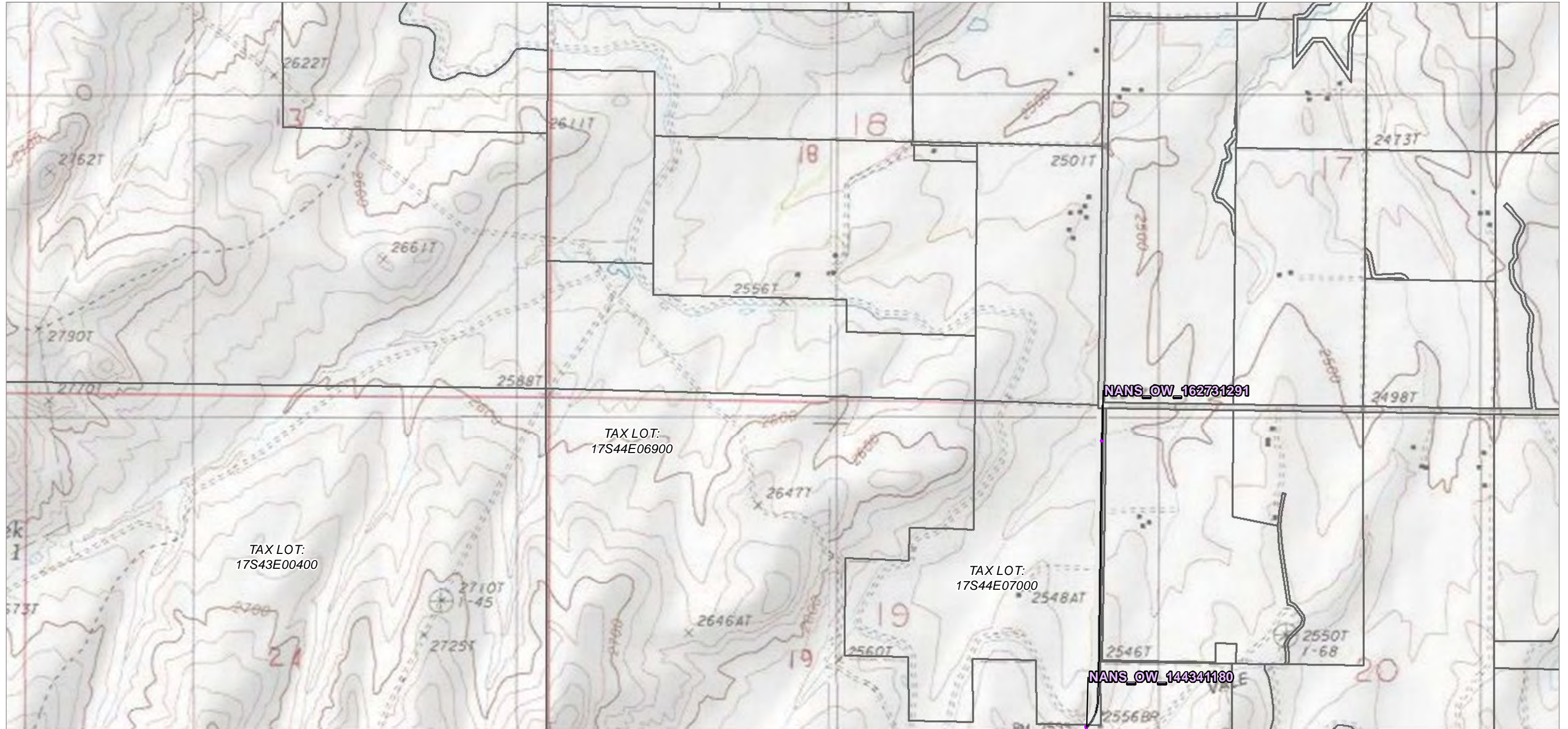
- Tenth-mile
- Other Waters**
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

**Appendix C-118**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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

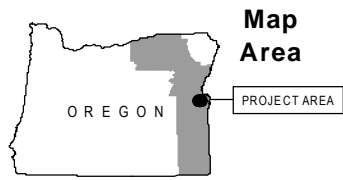
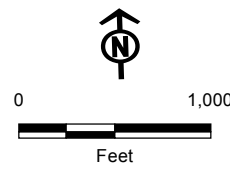
**Project Features**  
**Other Waters**  
 NANS Streams (NHD)



Boardman to Hemingway  
 Transmission Line Project


**Appendix C-119**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
 Malheur County





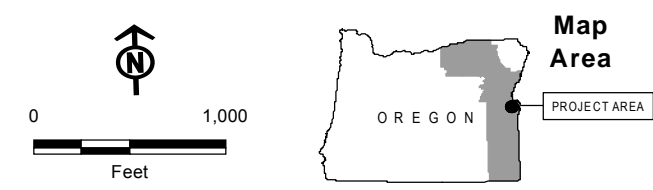
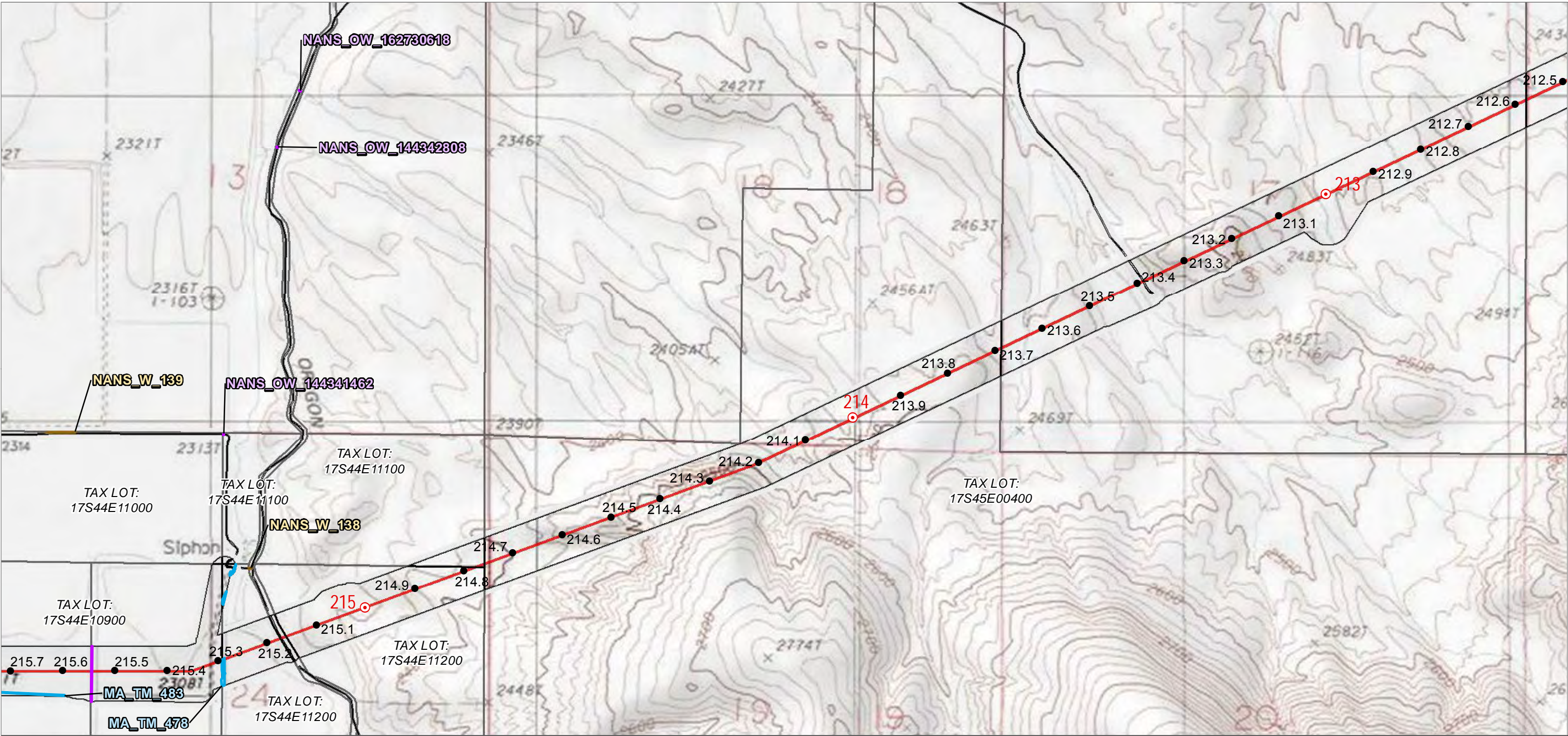
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo

- |                         |                         |
|-------------------------|-------------------------|
| <b>Project Features</b> |                         |
| Site Boundary           | ● Tenth-mile            |
| Proposed Route          | <b>Transportation</b>   |
| Route Centerline        | Interstates or Highways |
| Proposed Route          | <b>Other Waters</b>     |
| Mileposts               | NANS Streams (NHD)      |
| ○ Mile                  |                         |

 Boardman to Hemingway  
Transmission Line Project

**Appendix C-120**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County



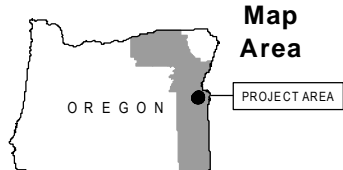
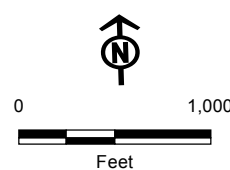
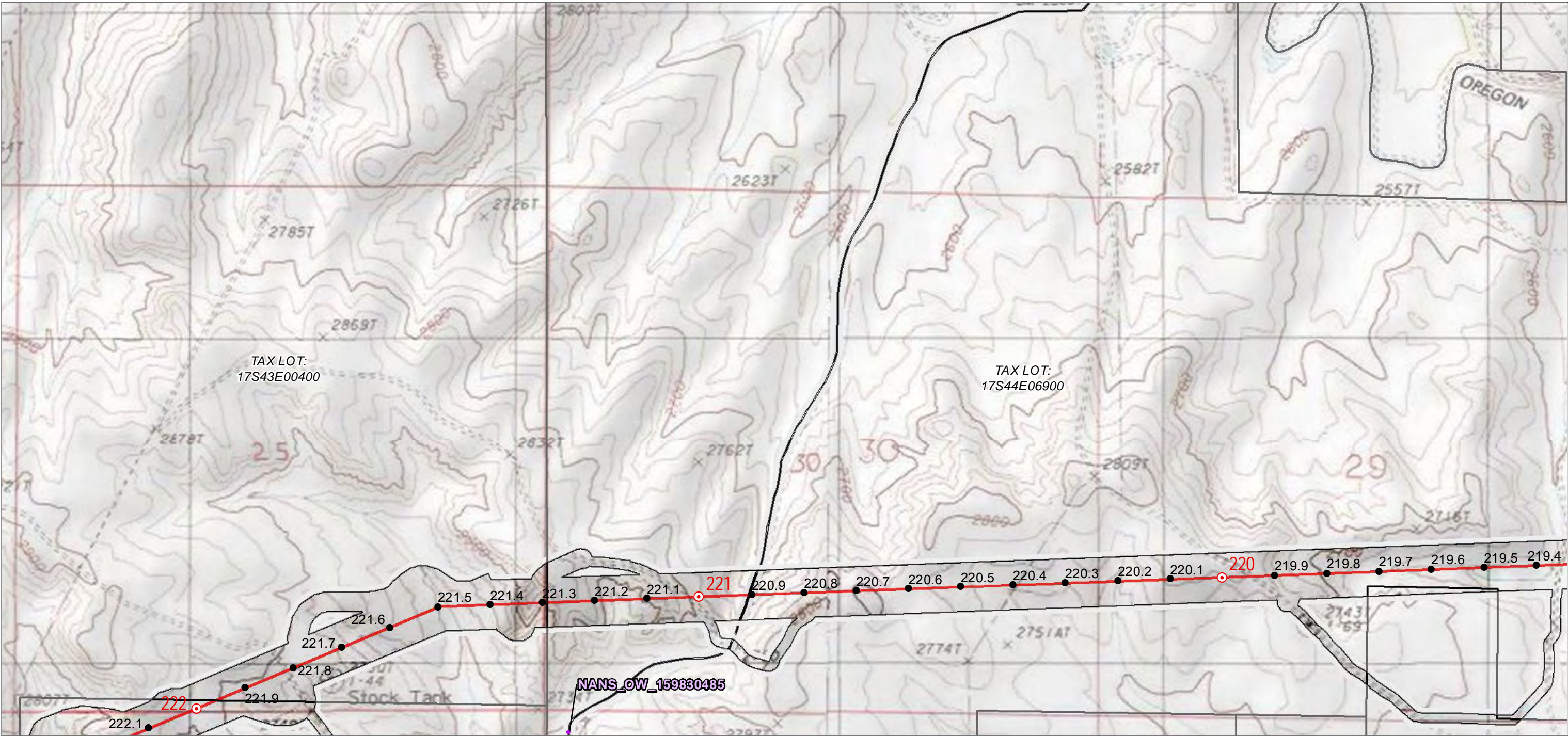


Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo

- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams
  - NANS Streams (NHD)
- Wetland**
- NANS Wetland (NWI)

**Appendix C-121**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)

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Boardman to Hemingway  
Transmission Line Project

**Appendix C-122**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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















Boardman to Hemingway  
Transmission Line Project

**Appendix C-125**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Malheur County**

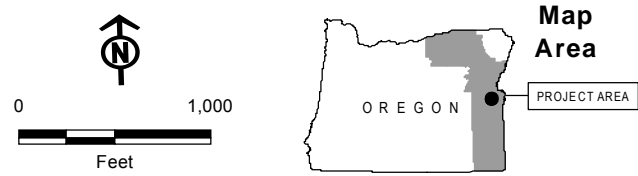
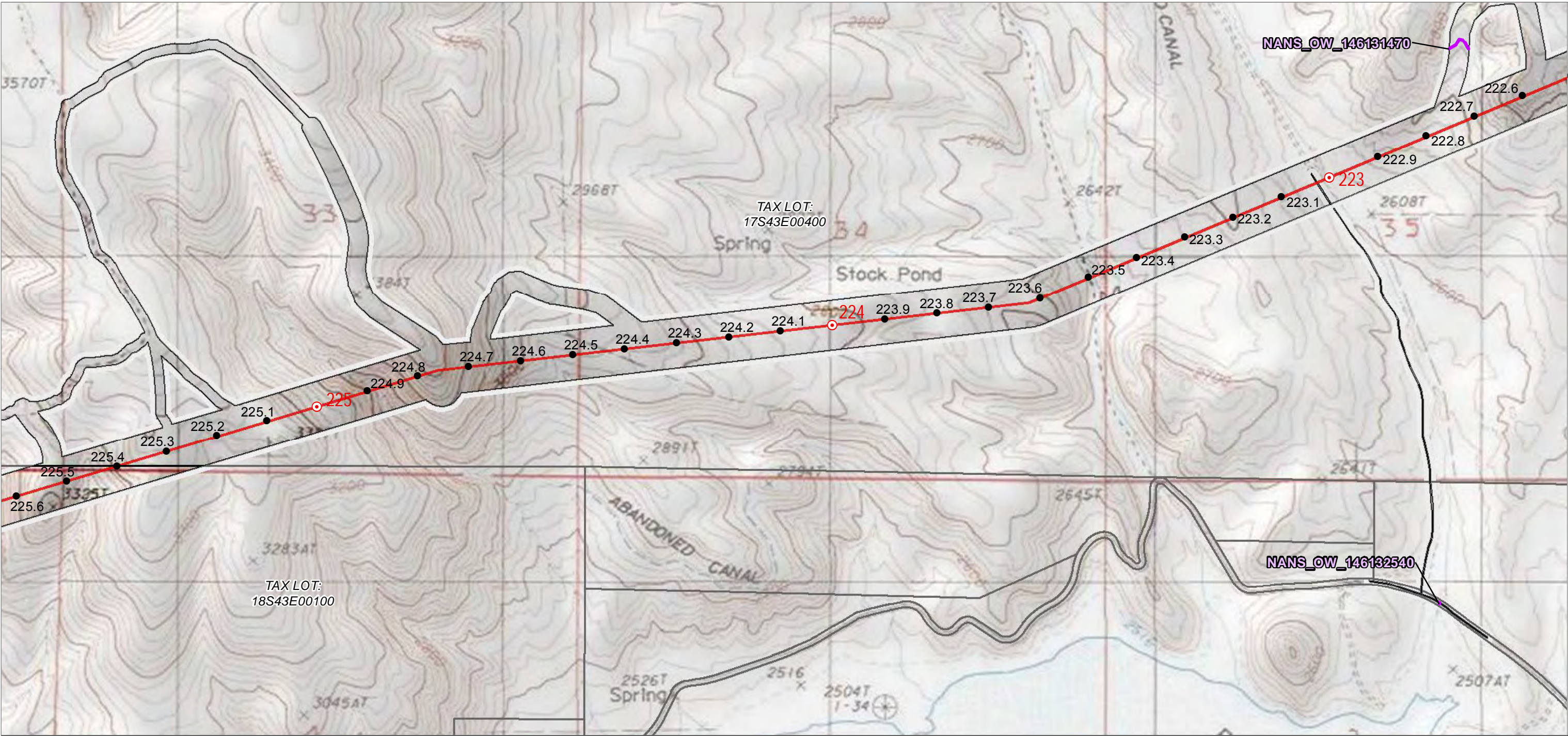
  
0 1,000  
Feet

  
OREGON  
PROJECT AREA

- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams

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





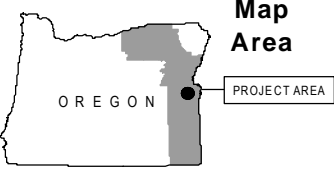
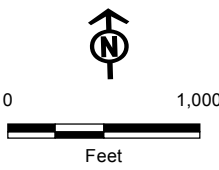
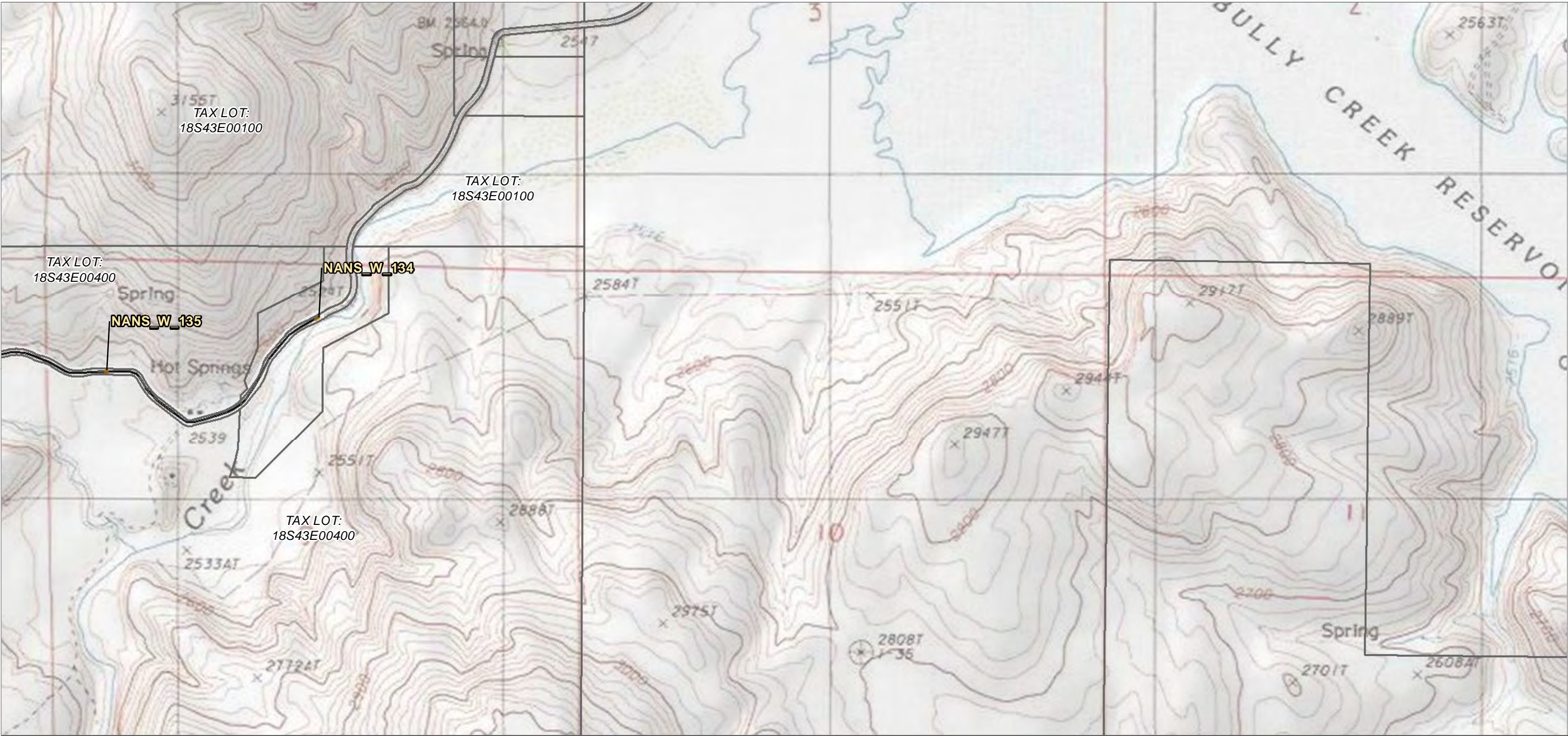
- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)


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










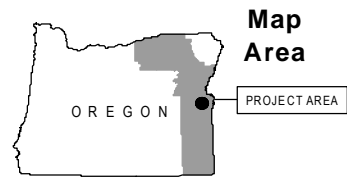
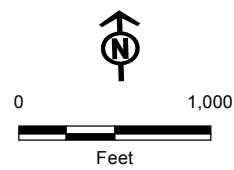
**Project Features**  
**Wetland**  
 NANS Wetland (NWI)

 Boardman to Hemingway  
Transmission Line Project

**Appendix C-128**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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





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

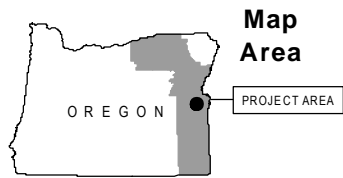
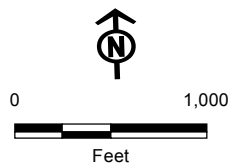
**Project Features**  
**Other Waters**  
 NANS Streams (NHD)



Boardman to Hemingway  
 Transmission Line Project

**Appendix C-129**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
 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

#### Project Features

Site Boundary

Proposed Route

Other Waters

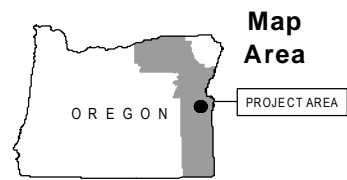
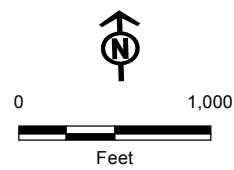
NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-130 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

#### Project Features

Site Boundary

Proposed Route

#### Other Waters

NANS Streams (NHD)



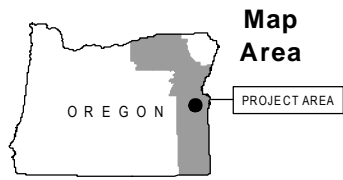
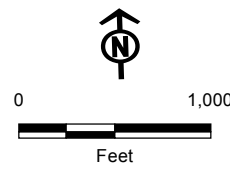
Boardman to Hemingway  
Transmission Line Project

## Appendix C-131 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

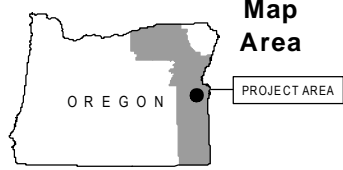
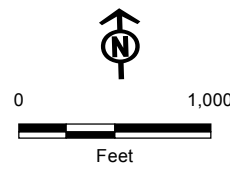
- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams

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Boardman to Hemingway  
Transmission Line Project

**Appendix C-133**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County



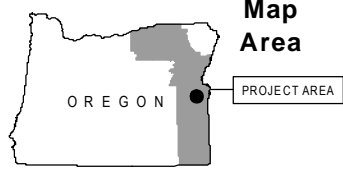
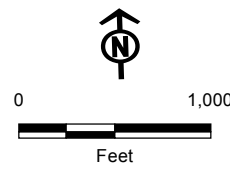
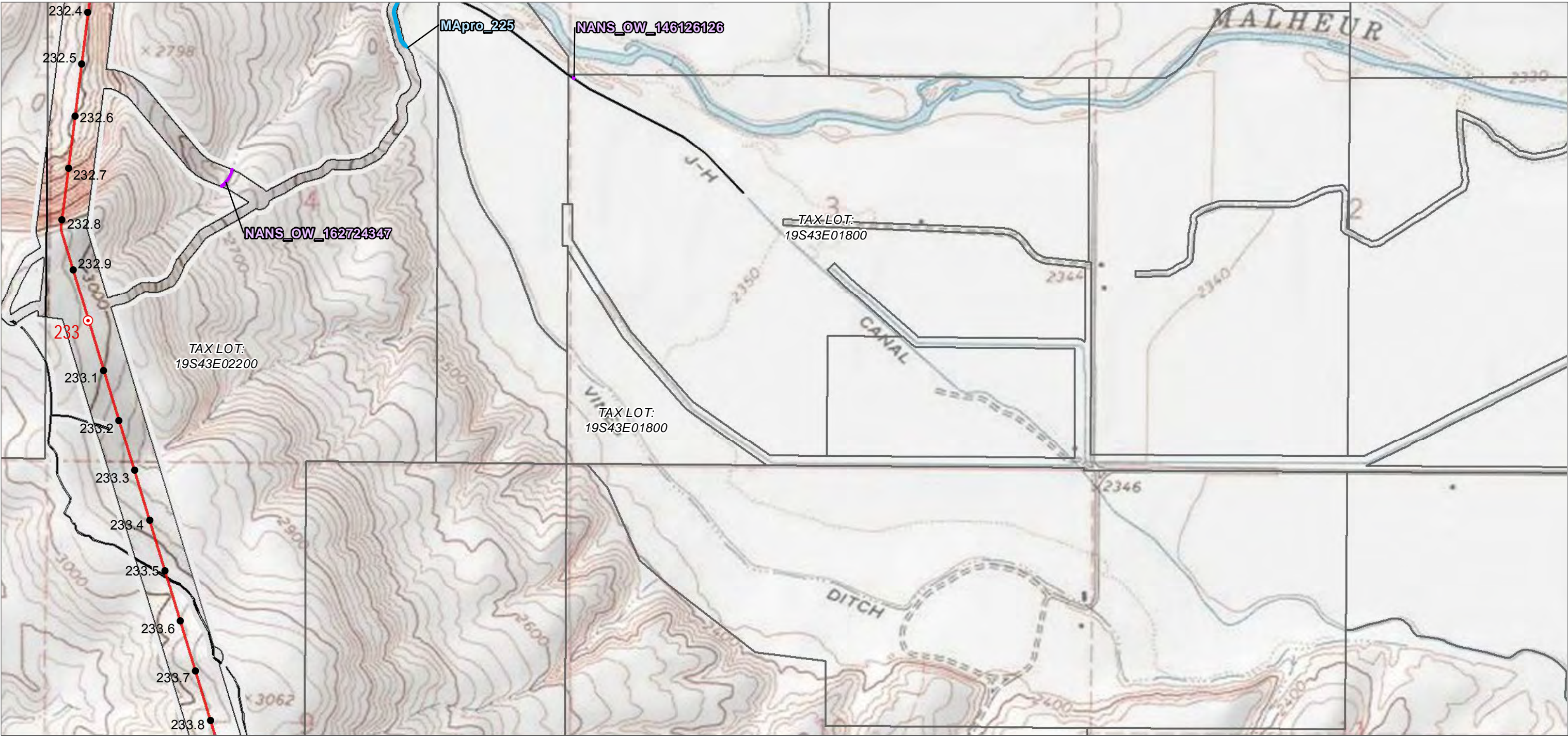


- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams
  - Wetland
  - NANS Wetland (NWI)

**Appendix C-134**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County

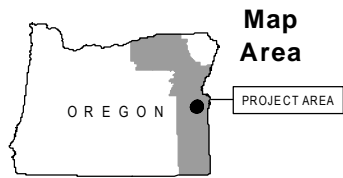
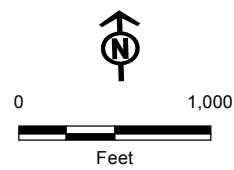
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams
  - NANS Streams (NHD)





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

**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

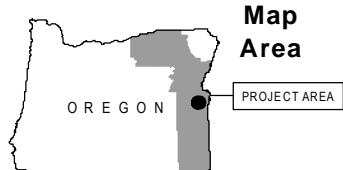
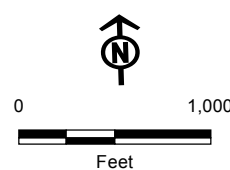
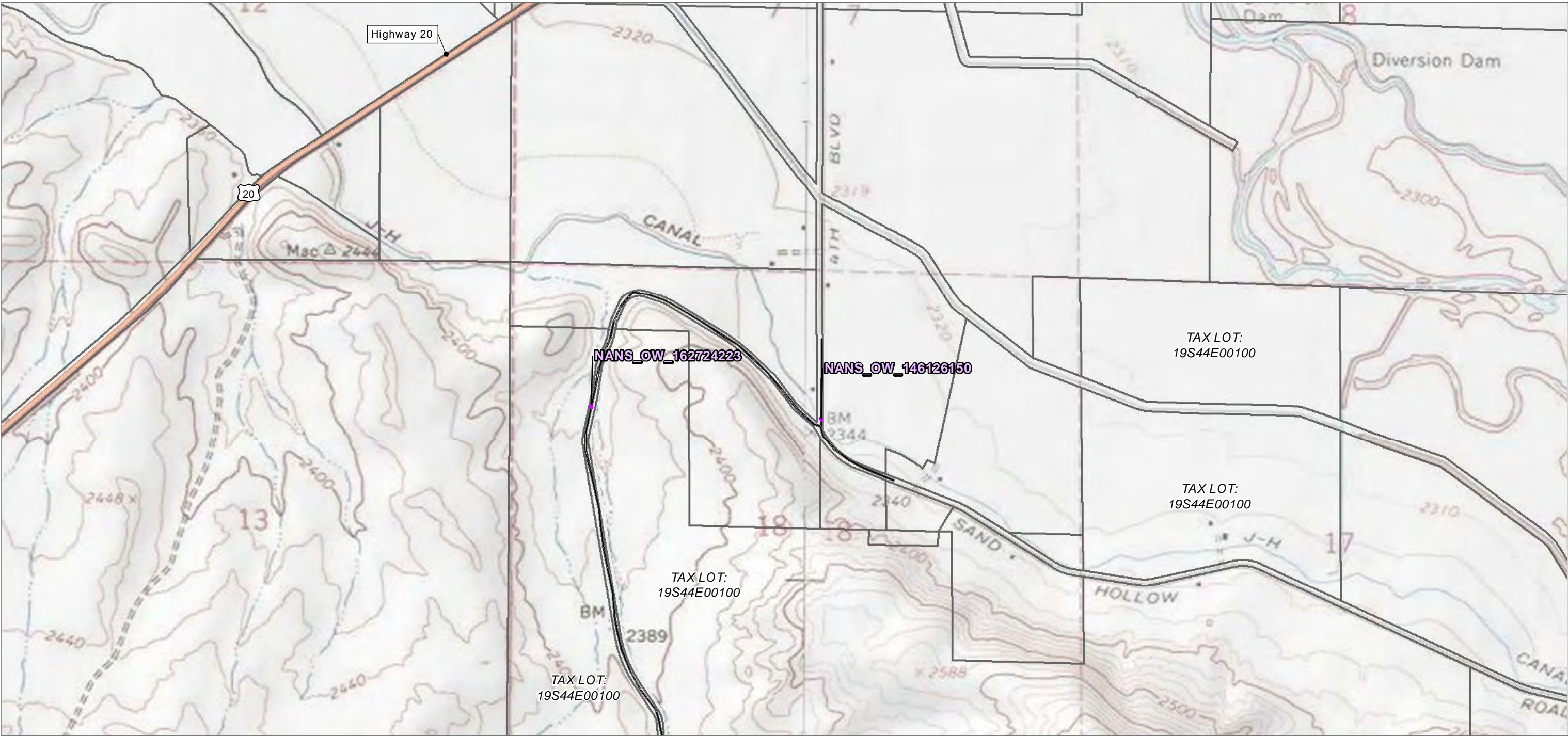
- Tenth-mile
- Transportation
- Interstates or Highways
- Other Waters
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

**Appendix C-136**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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

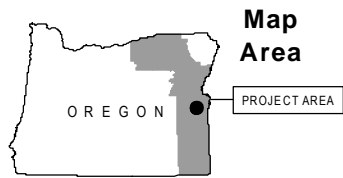
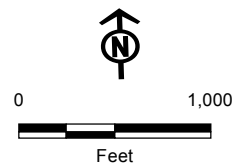
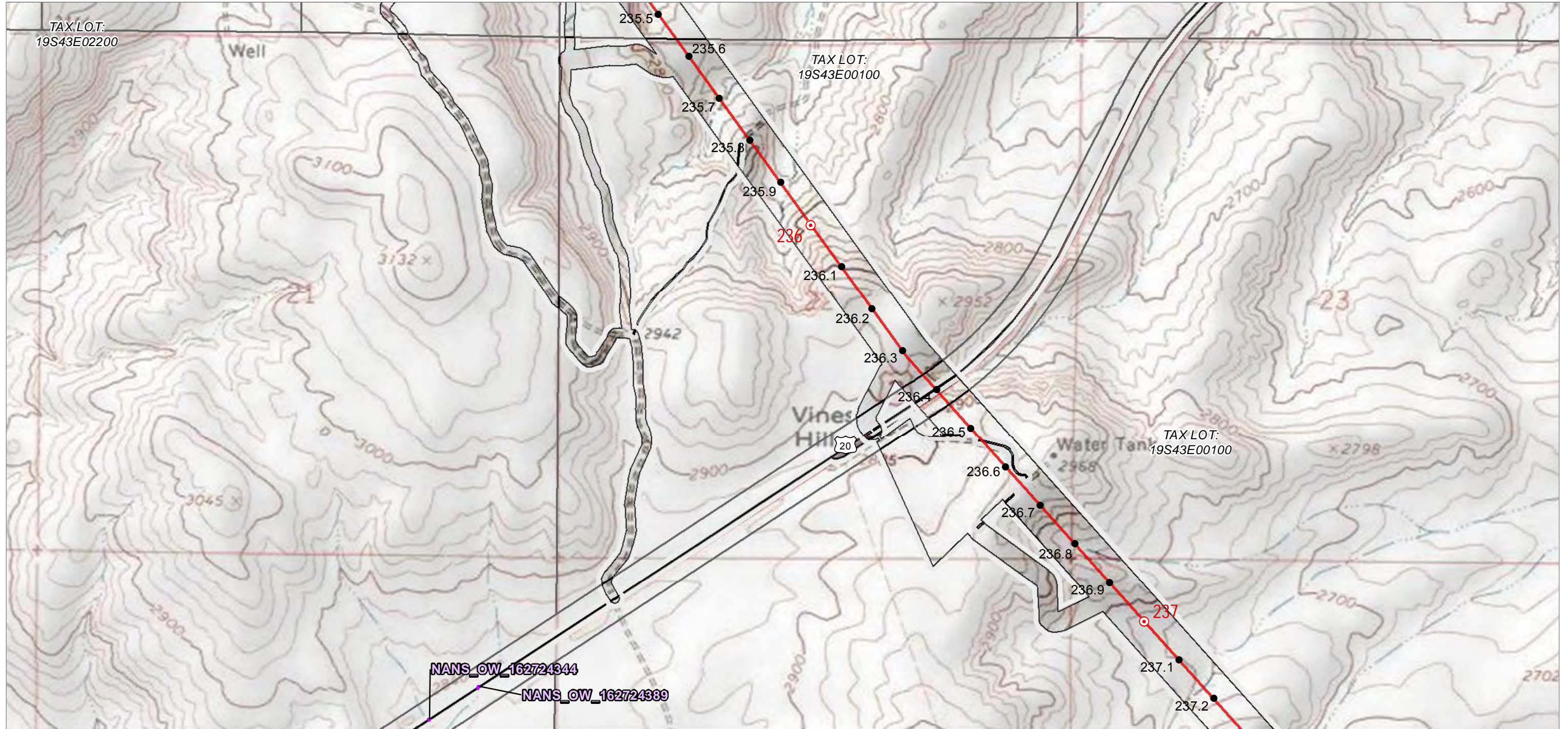
- Project Features**
- Transportation**
- Interstates or Highways
- Other Waters**
- NANS Streams (NHD)

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Boardman to Hemingway  
Transmission Line Project

**Appendix C-137**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

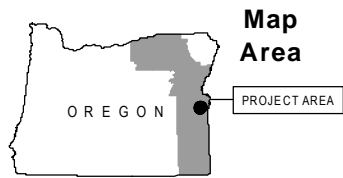
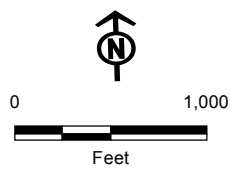
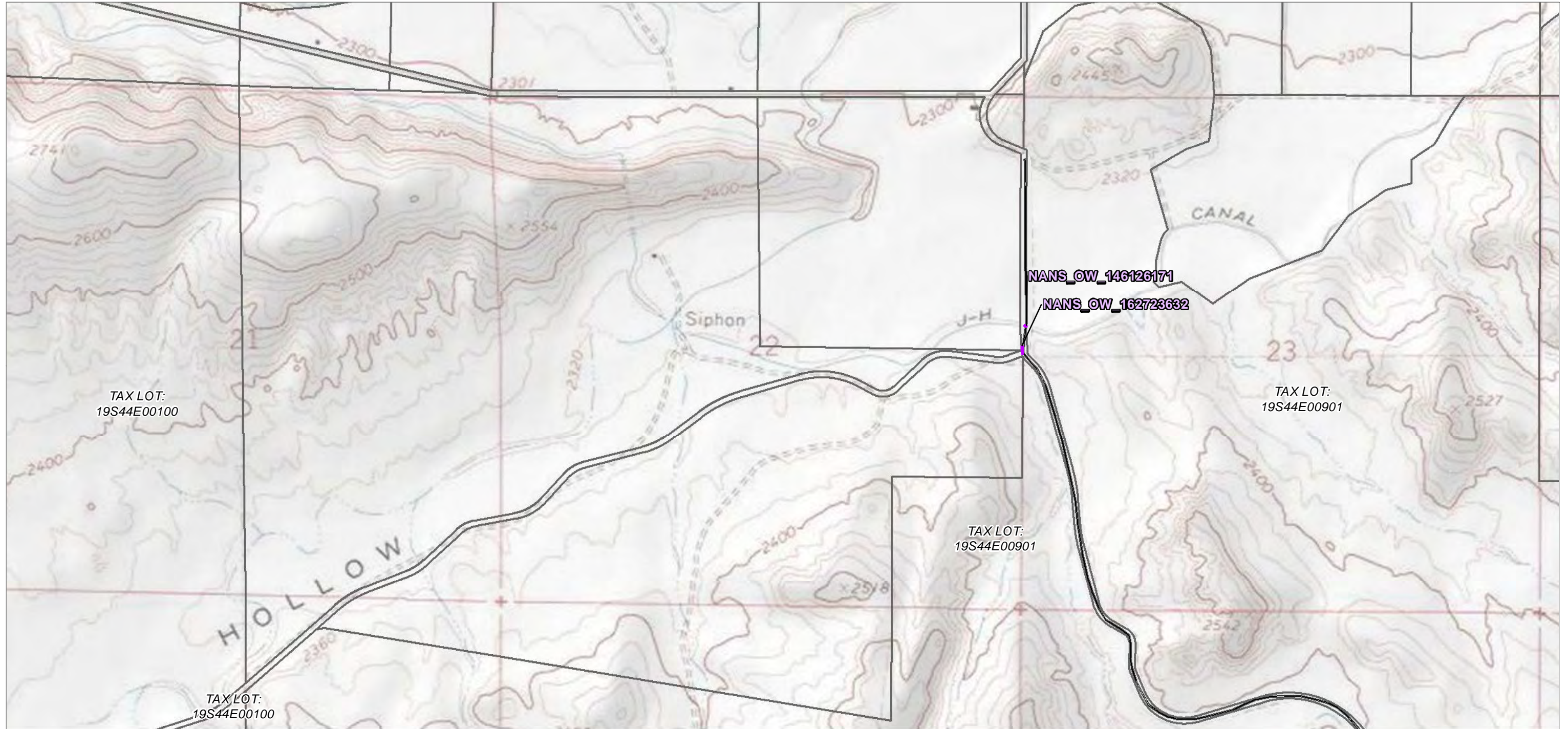
- Tenth-mile
- Transportation
- Interstates or Highways
- Other Waters
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-138 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County





Map  
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

Project Features

Other Waters

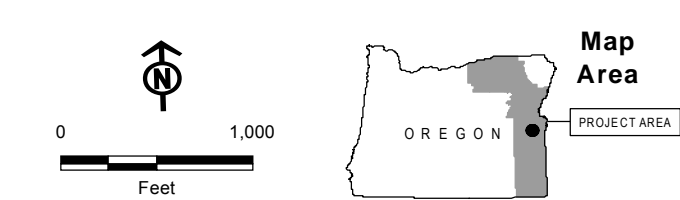
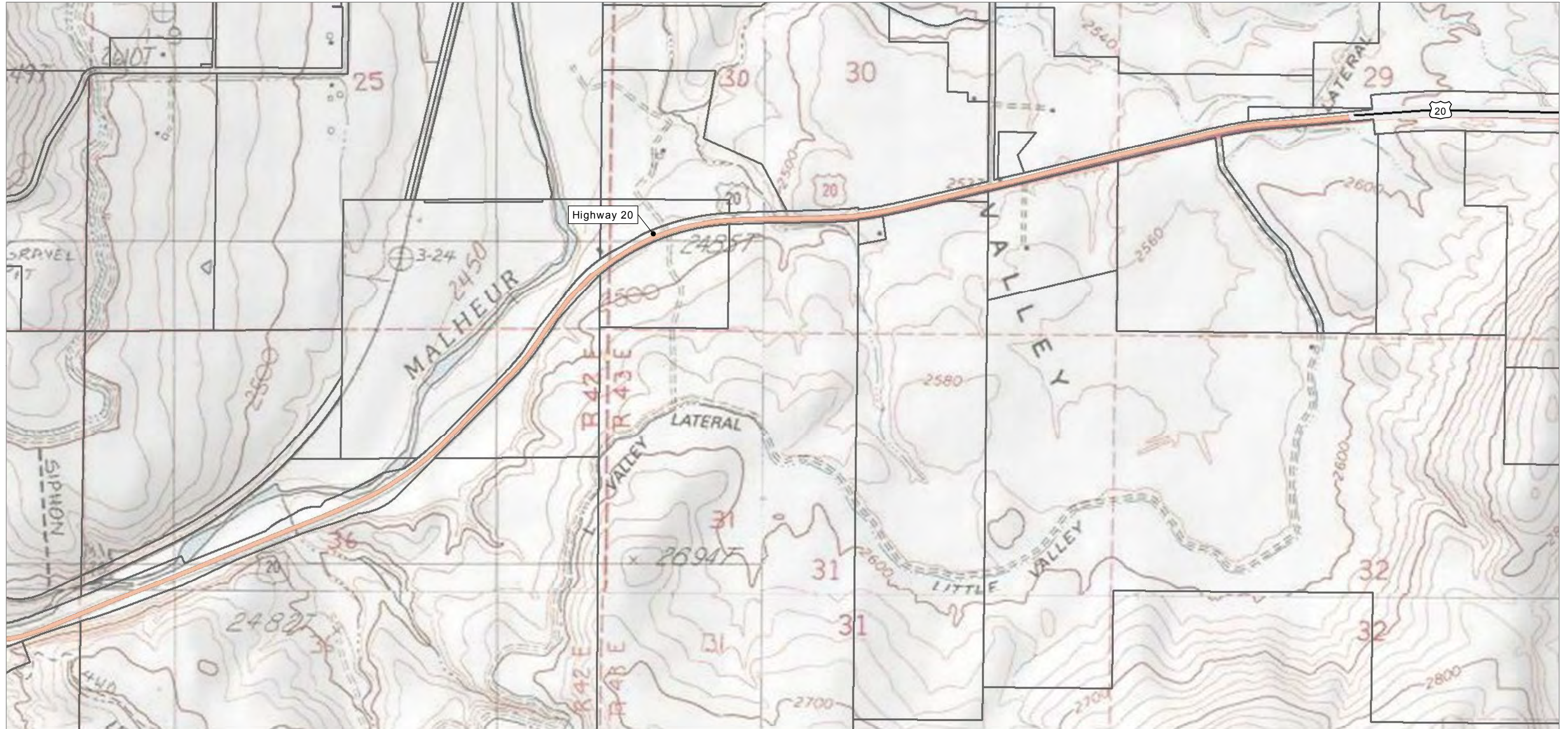
NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

**Appendix C-139**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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

December 2016

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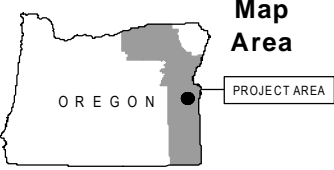
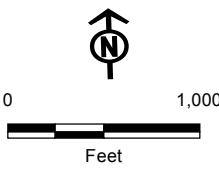
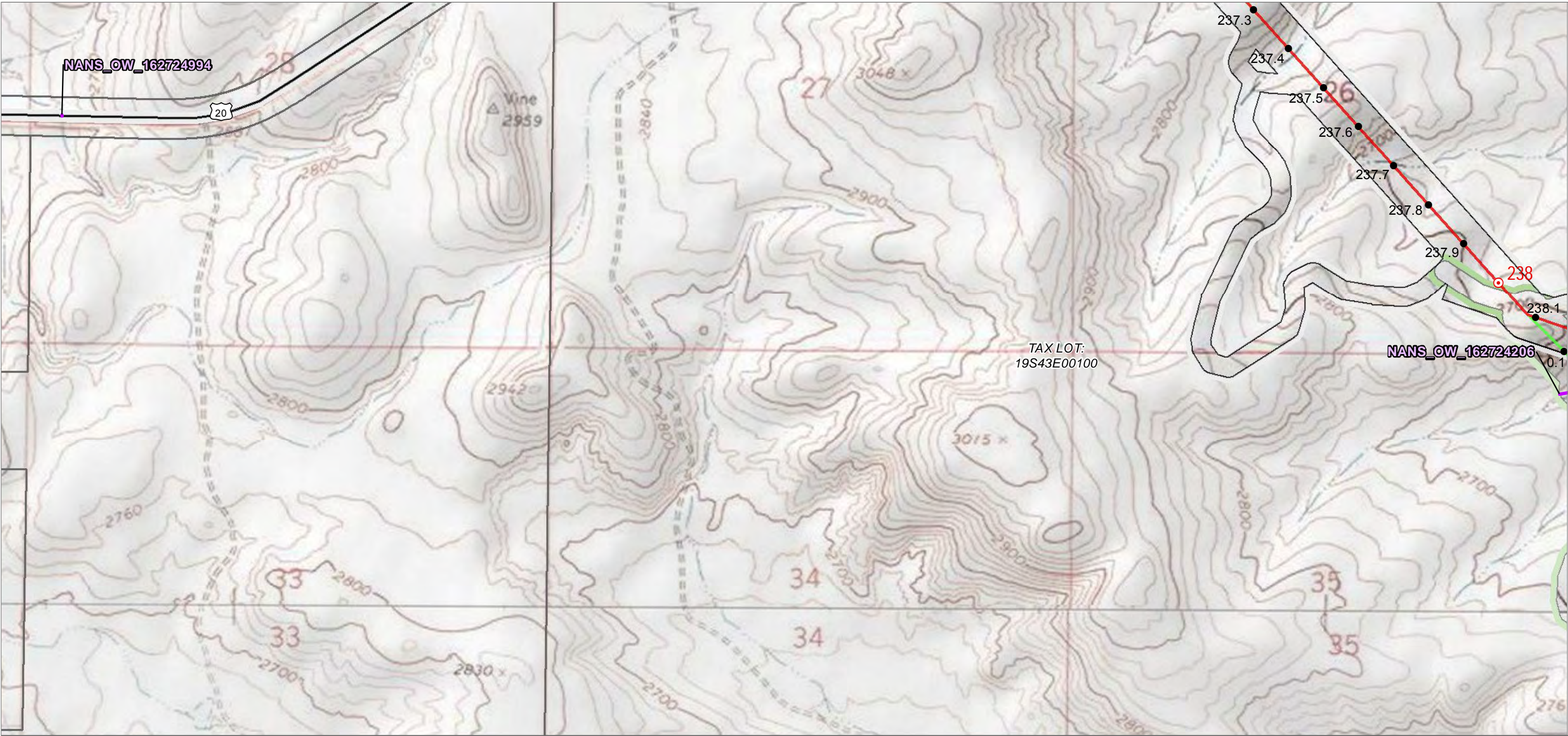
Boardman to Hemingway  
Transmission Line Project

## Appendix C-140

### Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County

**Project Features**  
**Transportation**  
Interstates or Highways





**Project Features**

- Site Boundary
- Proposed Route
- Alternative Route
- Route Centerline
- Proposed Route
- Alternative

- Mileposts
- Mile
- Tenth-mile
- Transportation
- Interstates or Highways

- Other Waters
- NANS Streams (NHD)

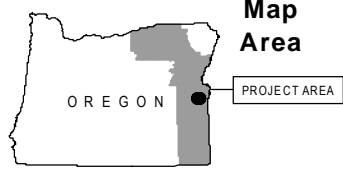
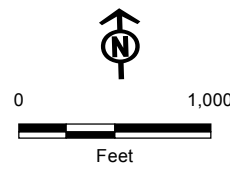
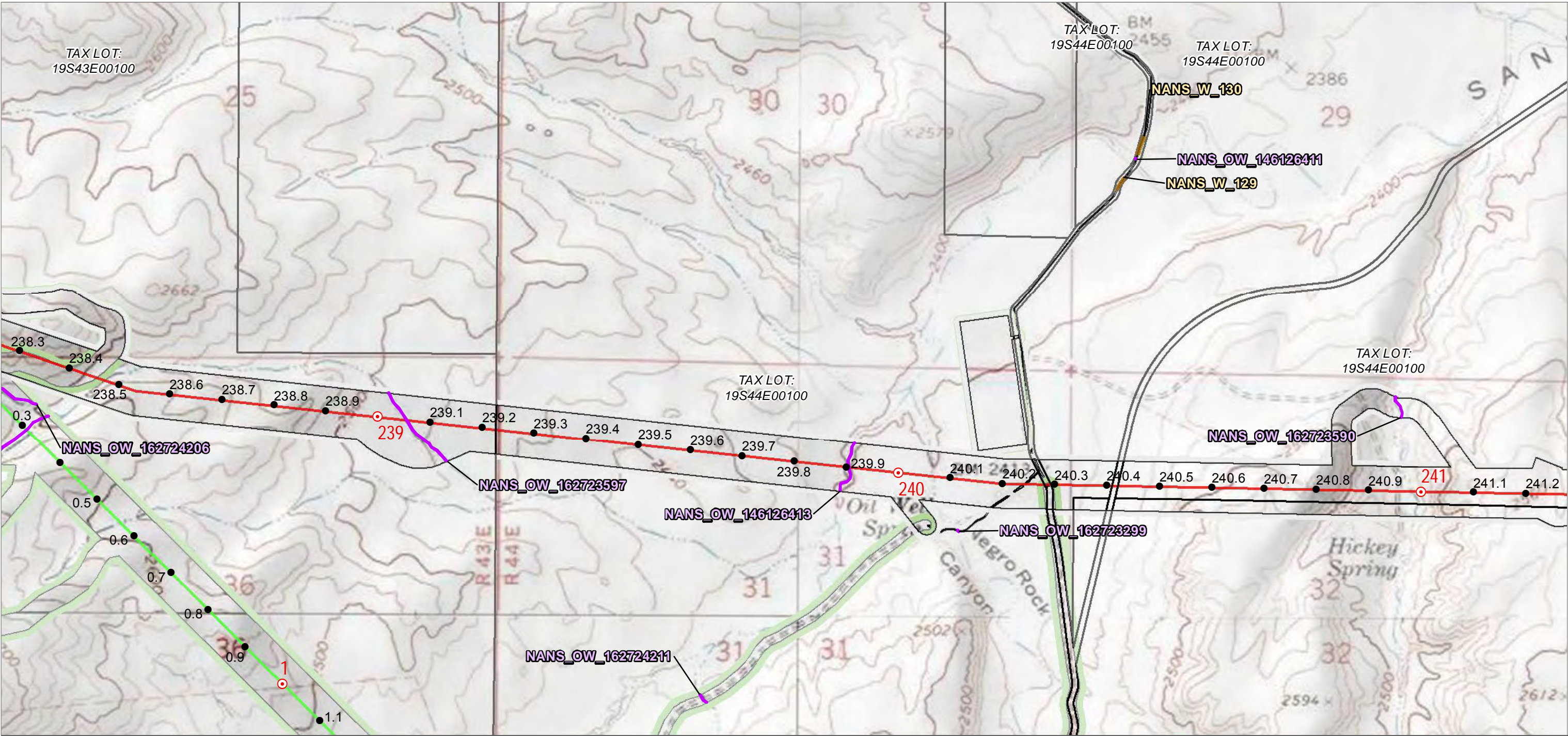


Boardman to Hemingway  
Transmission Line Project

**Appendix C-141**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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



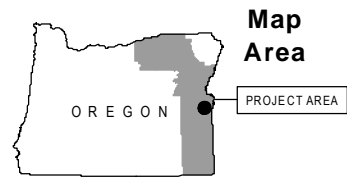
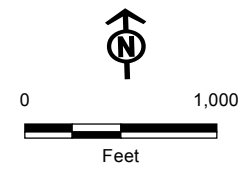
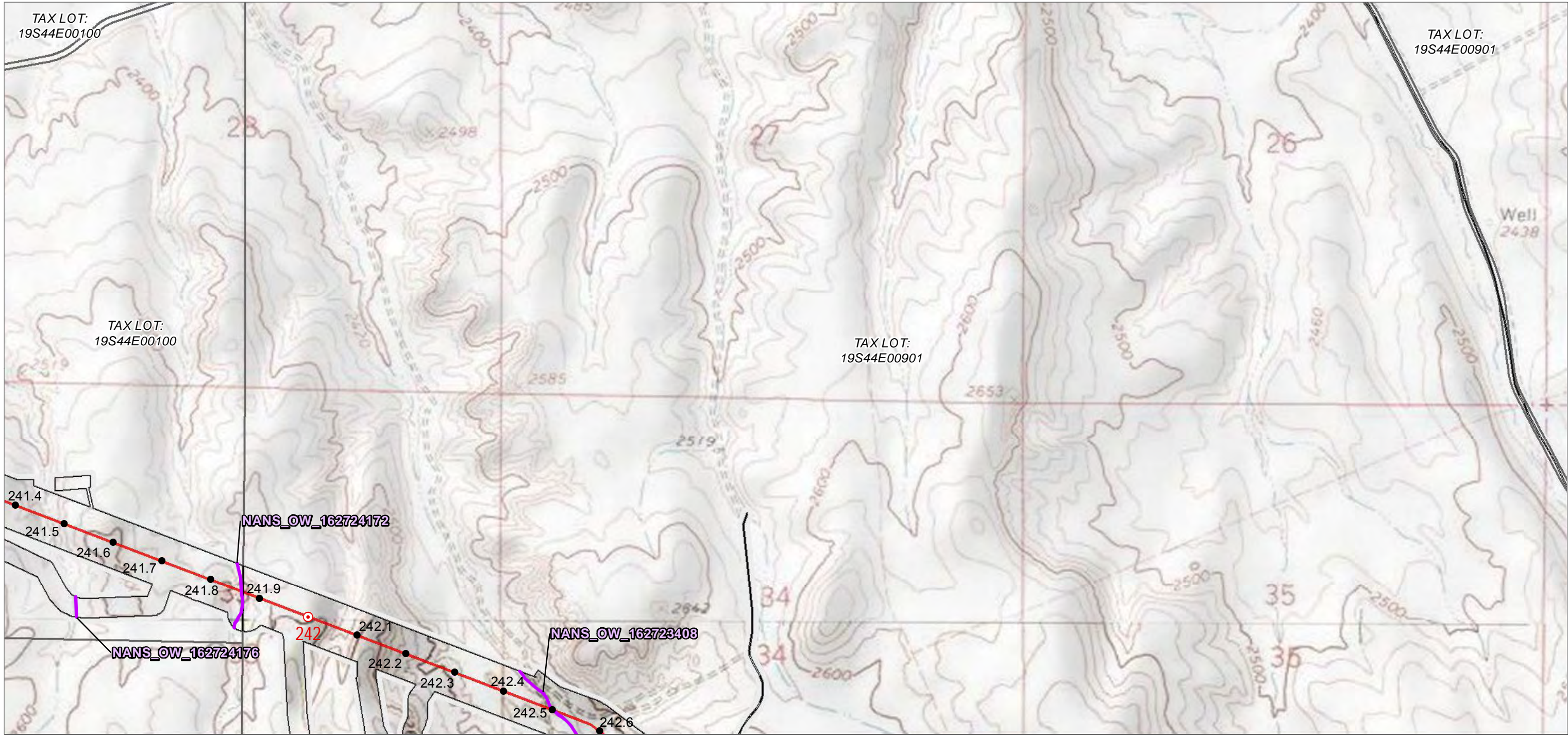


- Project Features**
- Site Boundary
  - Proposed Route
  - Alternative Route
  - Route Centerline
  - Proposed Route
  - Alternative

- Mileposts**
- Mile
  - Tenth-mile
- Other Waters**
- NANS Streams (NHD)

- Wetland**
- NANS Wetland (NWI)





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)

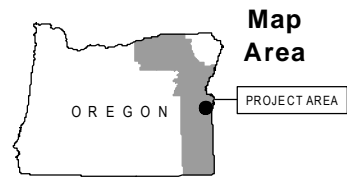
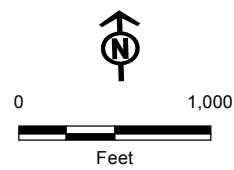
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Boardman to Hemingway  
Transmission Line Project

**Appendix C-143**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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





**Project Features**  
**Other Waters**  
 NANS Streams (NHD)

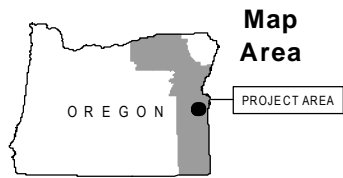
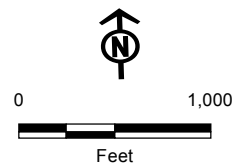
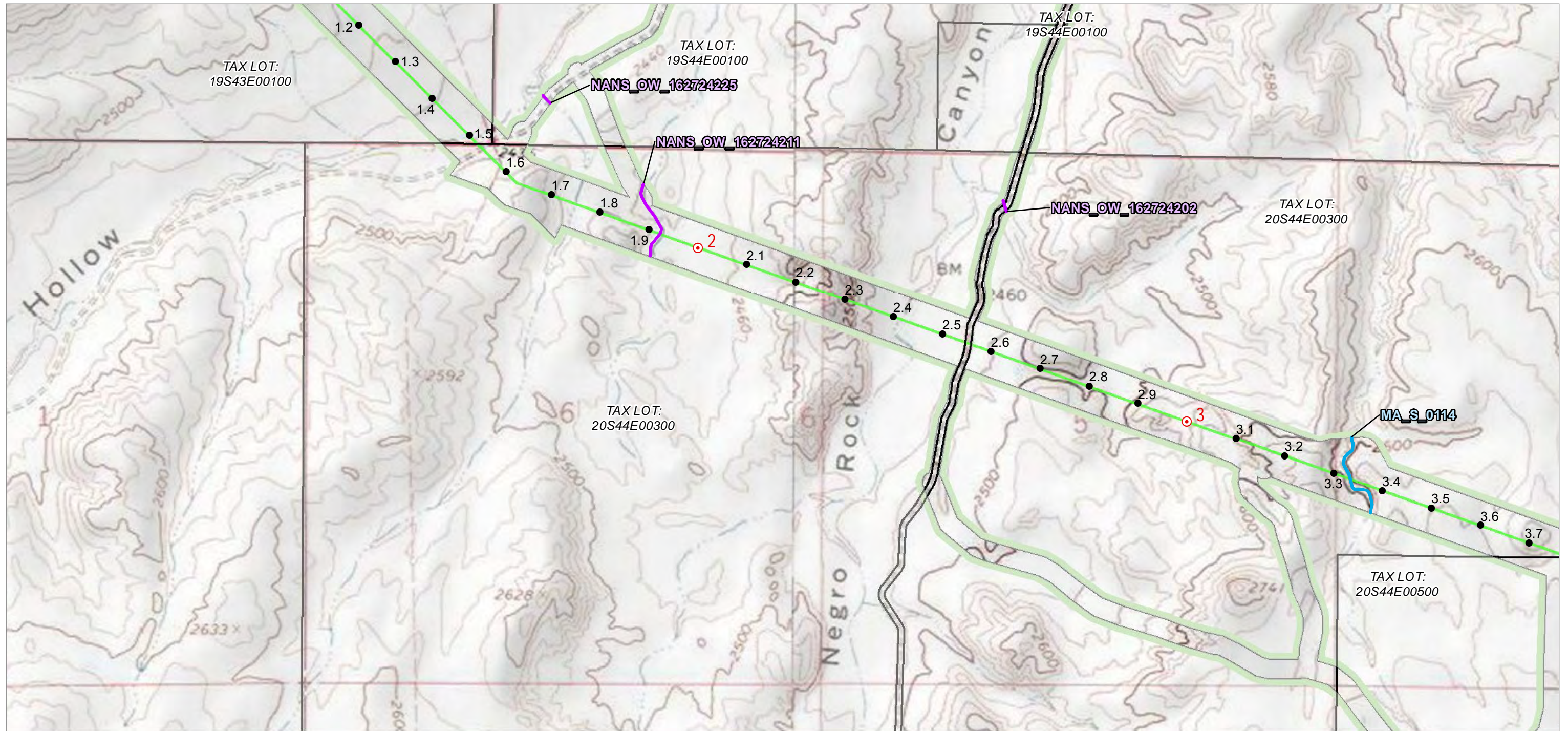


Boardman to Hemingway  
Transmission Line Project

**Appendix C-144**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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





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

#### Project Features

- Site Boundary
- Alternative Route
- Route Centerline
- Alternative
- Mileposts
- Mile

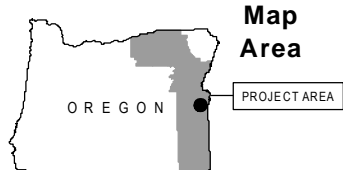
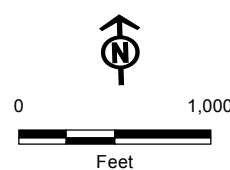
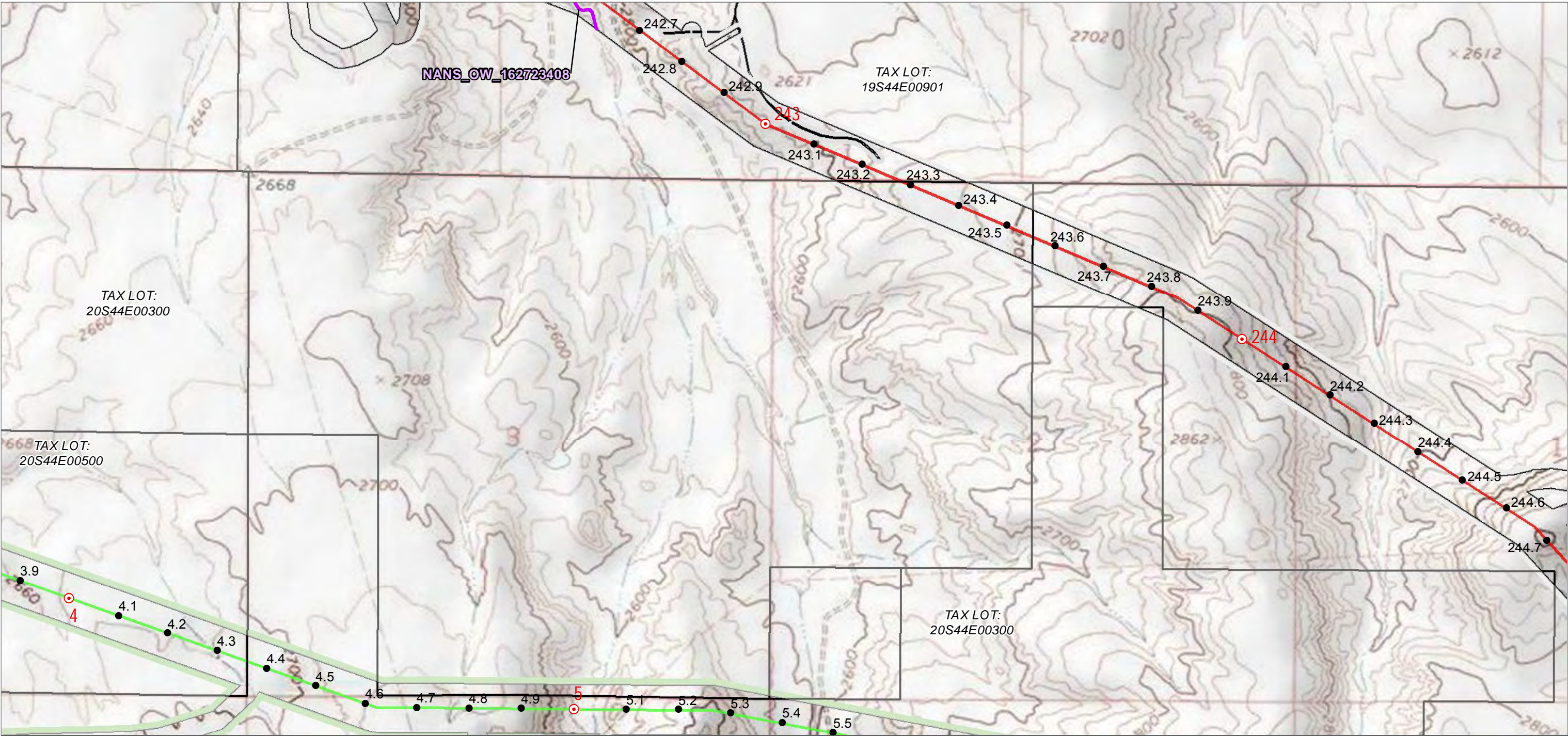
- Tenth-mile
- Other Waters
- Field Survey Streams
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-145 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County





- Project Features**
- Site Boundary
  - Proposed Route
  - Alternative Route
  - Route Centerline
  - Proposed Route
  - Alternative
- Mileposts**
- Mile
  - Tenth-mile
- Other Waters**
- NANS Streams (NHD)

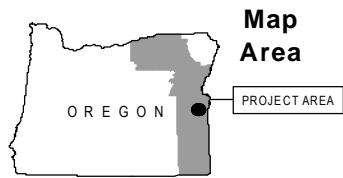
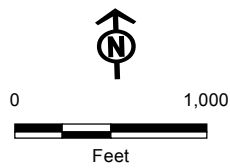
**Appendix C-146**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Malheur County**

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









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

#### Project Features

Site Boundary

Alternative Route

Other Waters

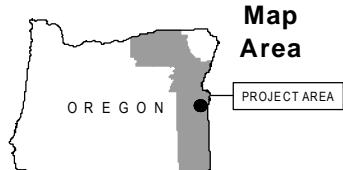
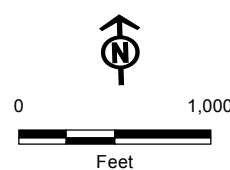
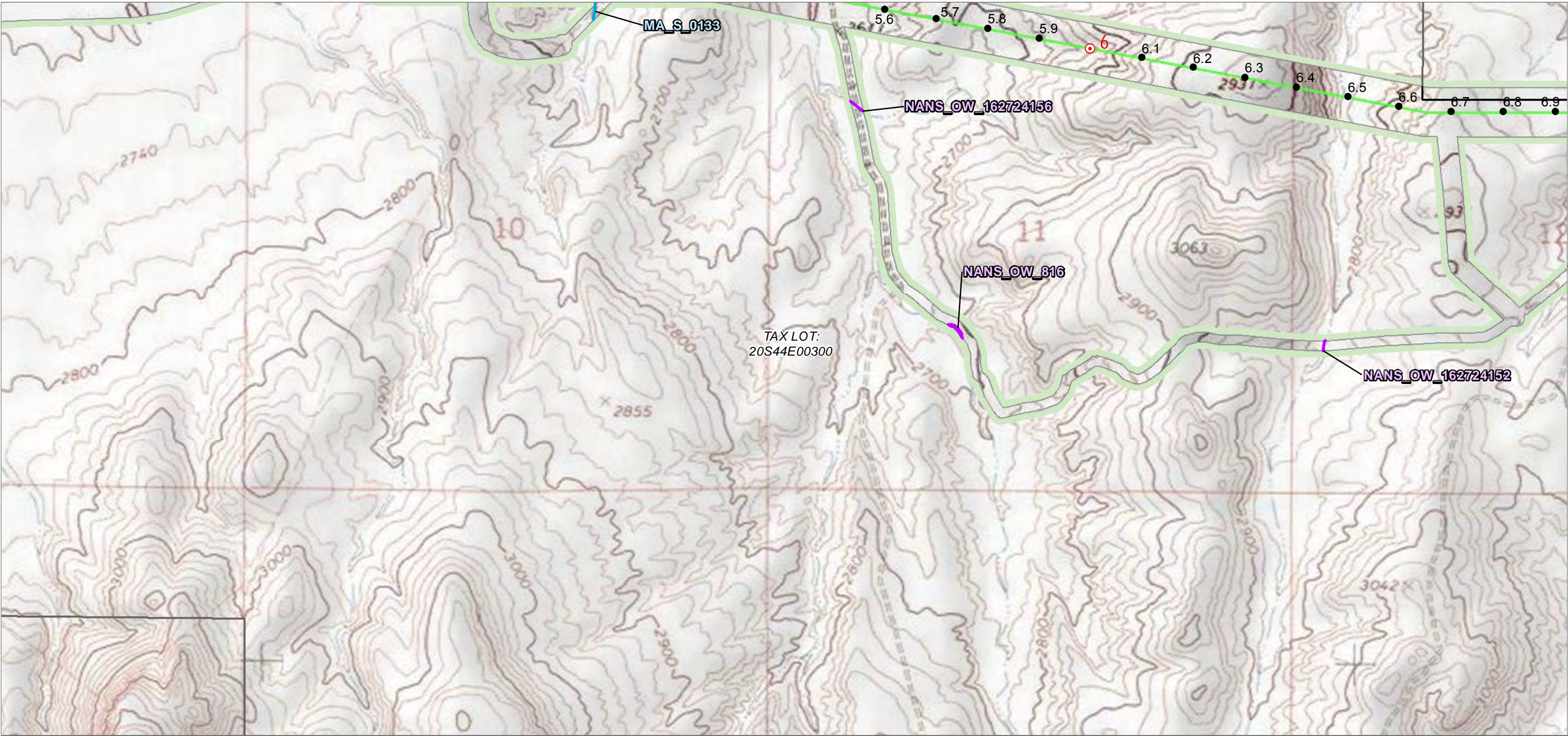
NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-148 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County





- Project Features**
- Site Boundary
  - Alternative Route
  - Route Centerline
  - Alternative
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams
  - NANS Streams (NHD)

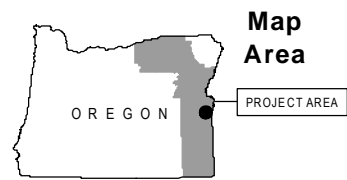
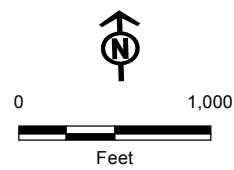
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Boardman to Hemingway  
Transmission Line Project

**Appendix C-149**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
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





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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

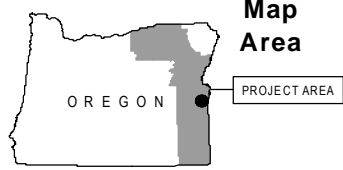
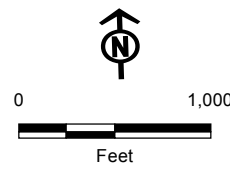
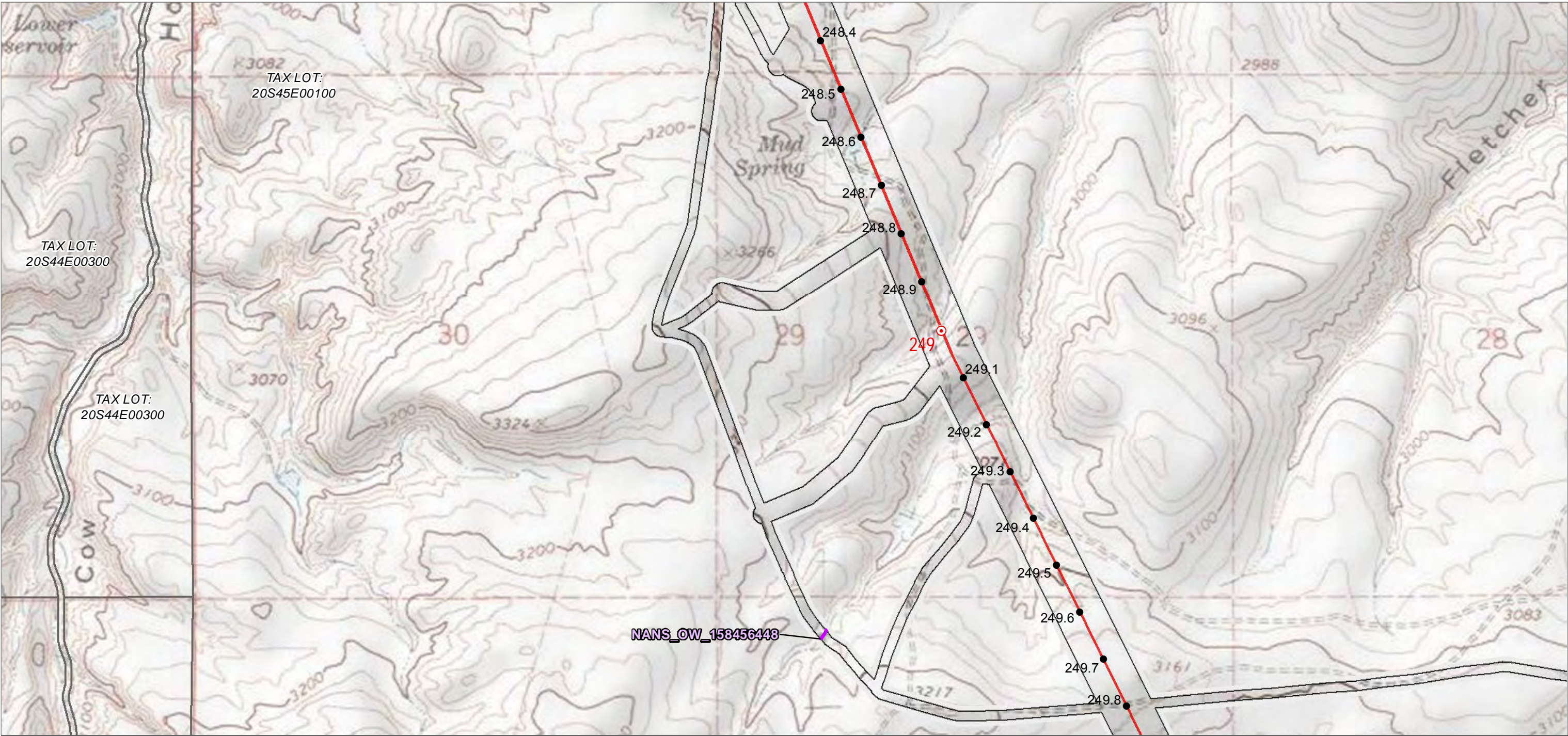
- Tenth-mile
- Other Waters
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-150 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - NANS Streams (NHD)





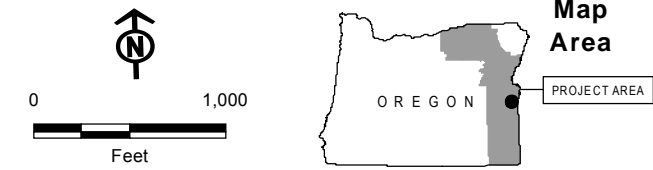
Boardman to Hemingway  
Transmission Line Project

**Appendix C-152**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**Malheur County**

**Project Features**

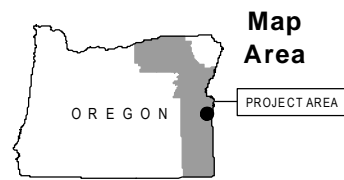
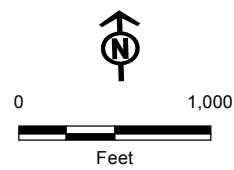
- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

- Tenth-mile
- Other Waters
- Field Survey Streams



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





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

#### Project Features

Site Boundary

Proposed Route

Other Waters

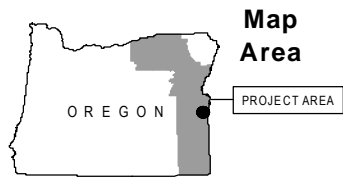
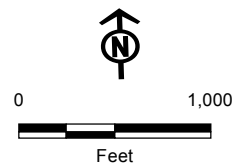
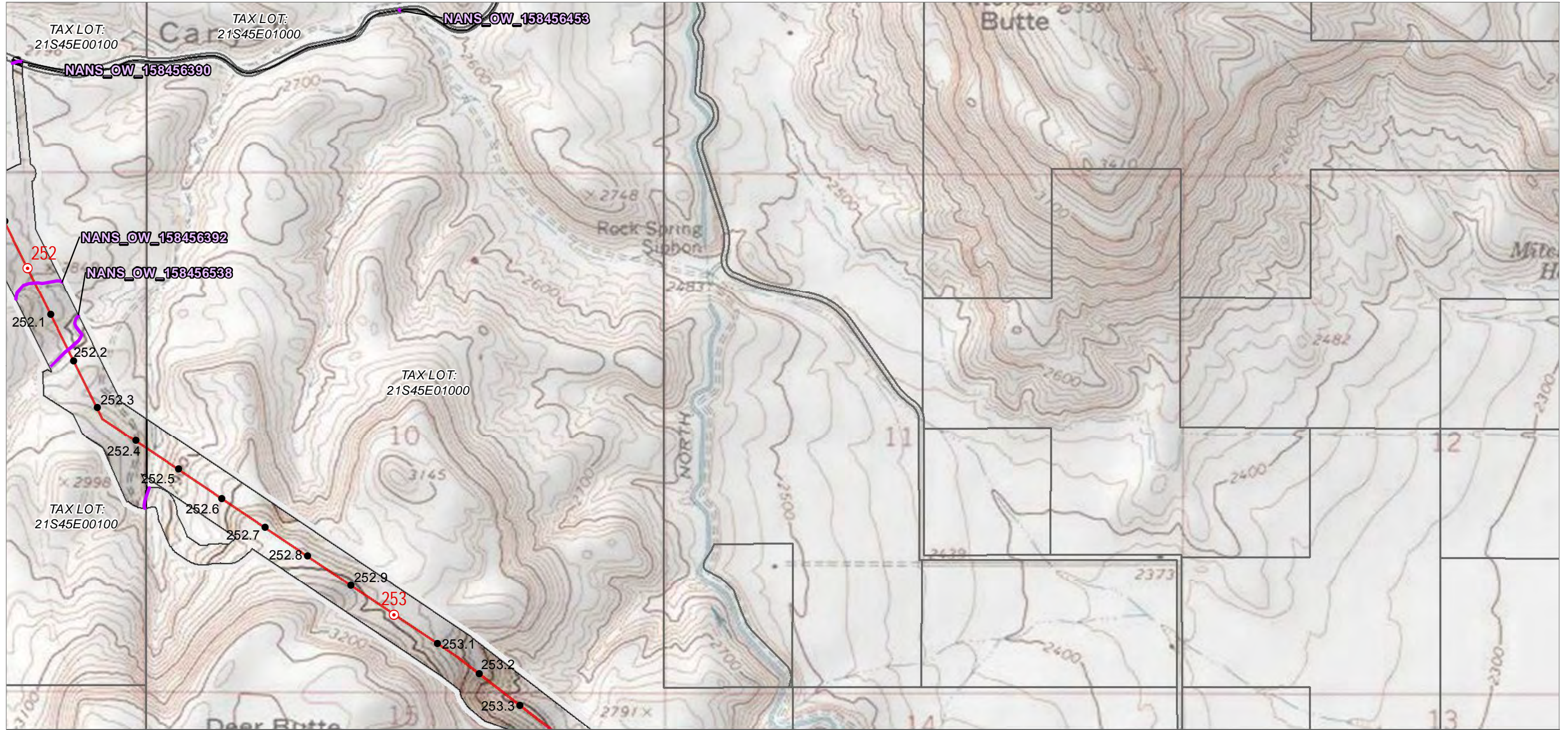
NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-153 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

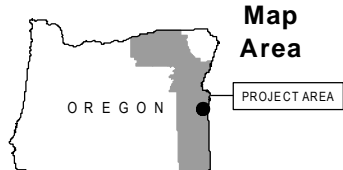
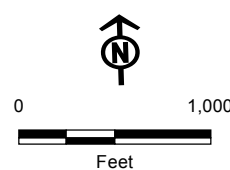
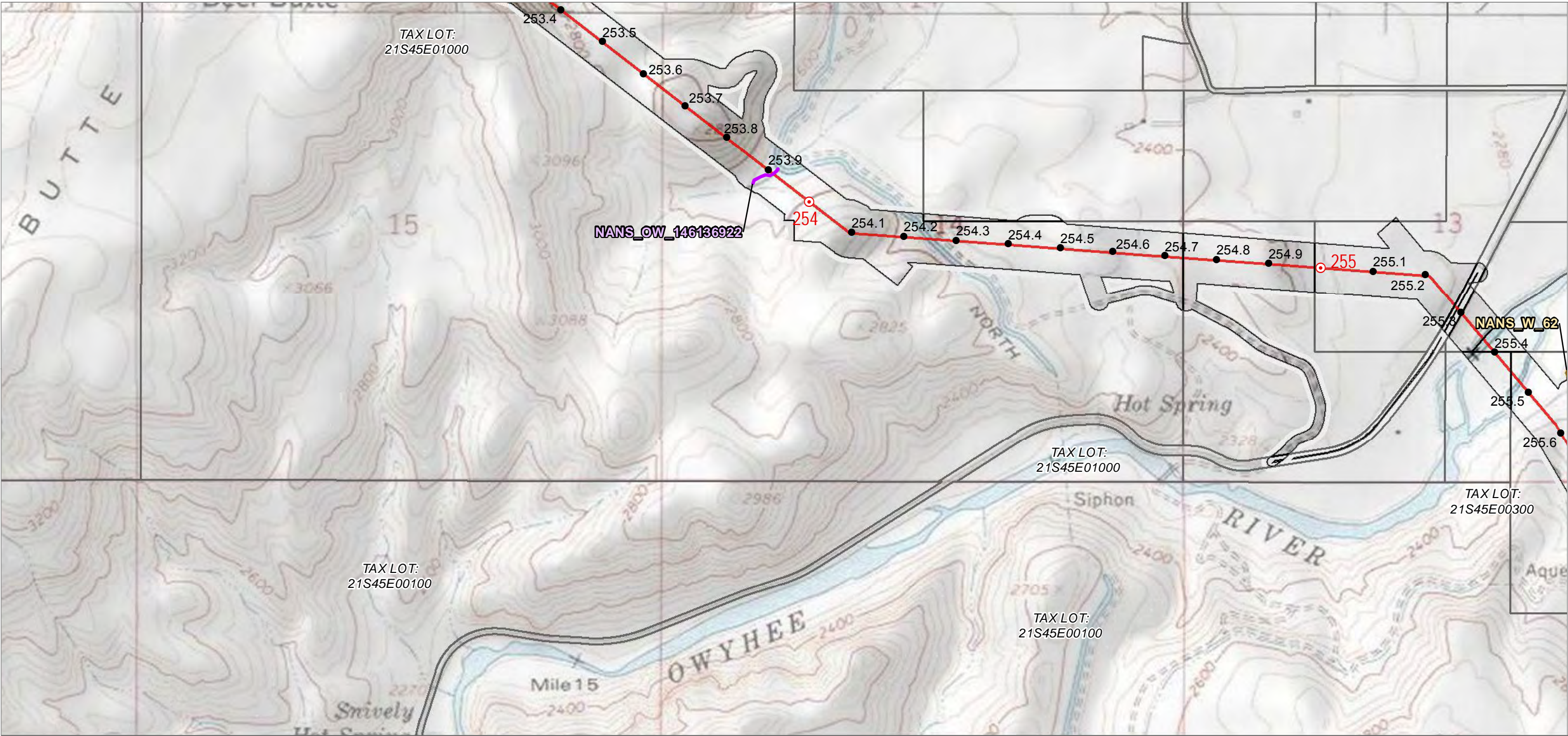
- Tenth-mile
- Other Waters
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-154 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- NANS Streams (NHD)
  - NANS Wetland (NWI)

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Transmission Line Project

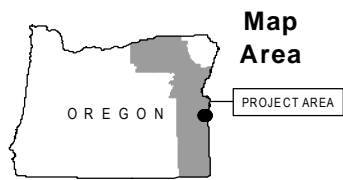
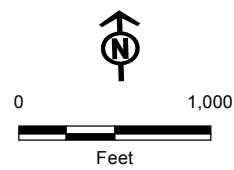
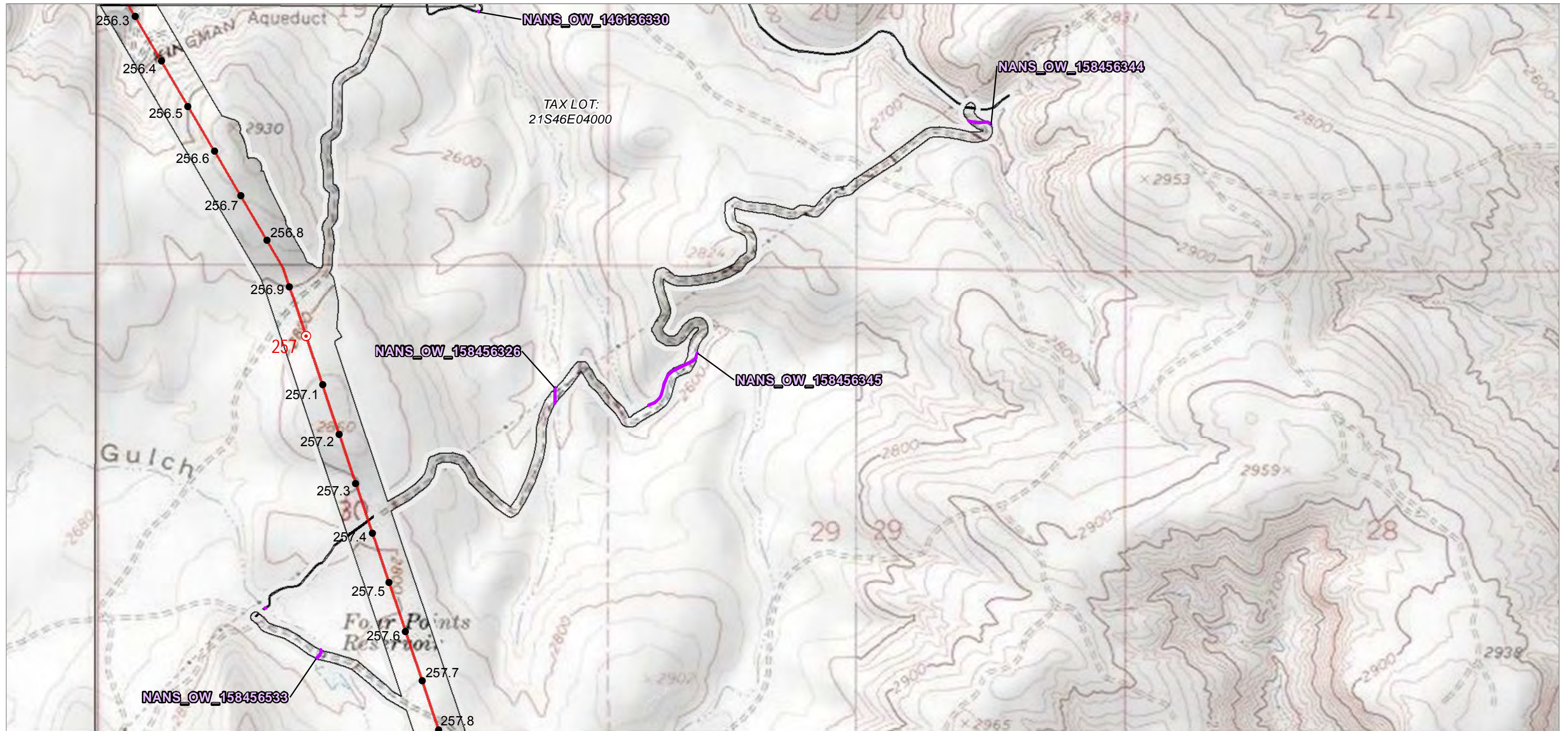
**Appendix C-155**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
Malheur County

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









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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

- Tenth-mile
- Other Waters**
- NANS Streams (NHD)

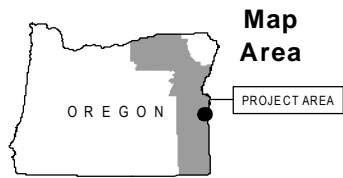
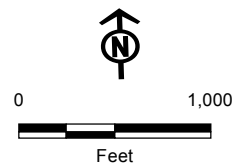
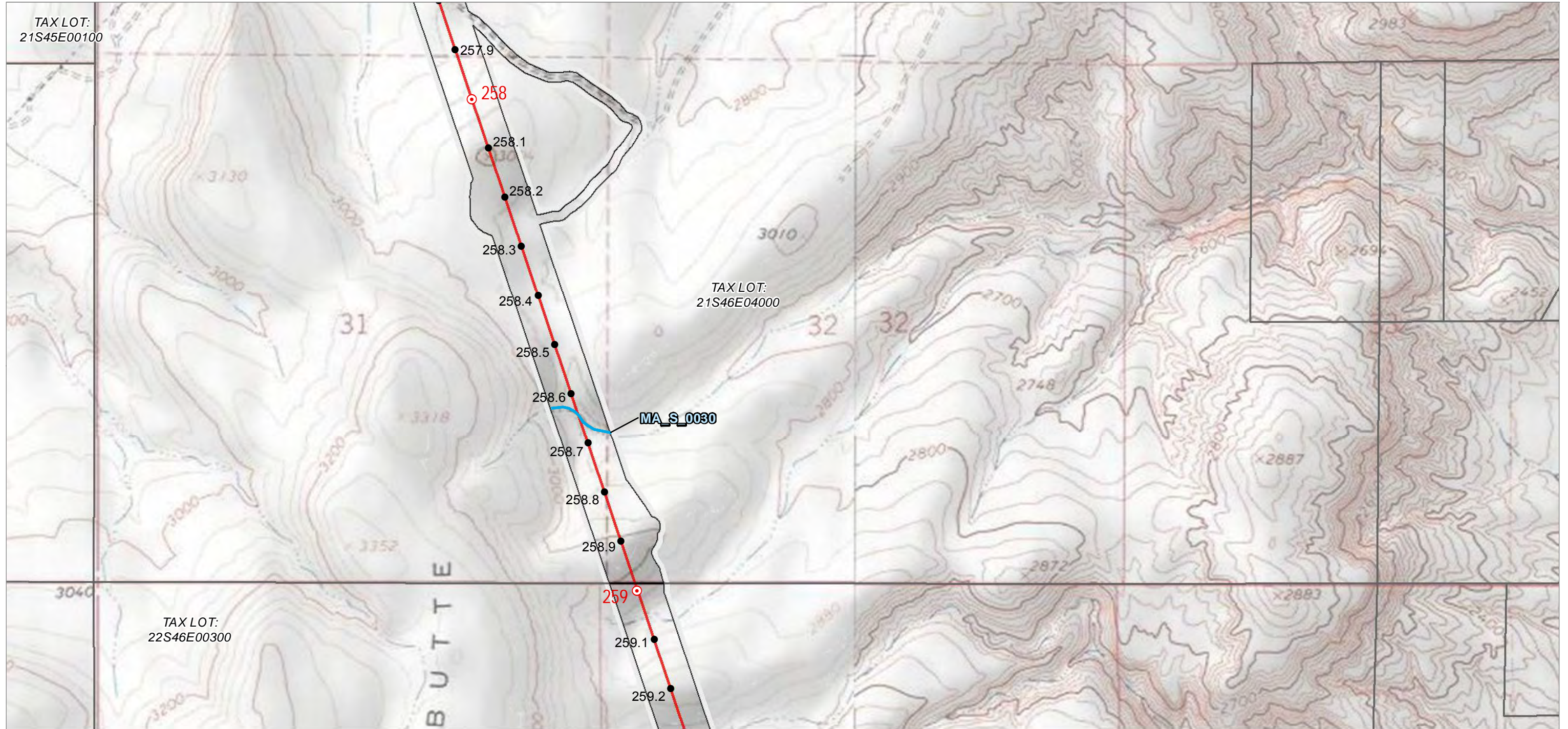


Boardman to Hemingway  
Transmission Line Project

## Appendix C-157

### Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

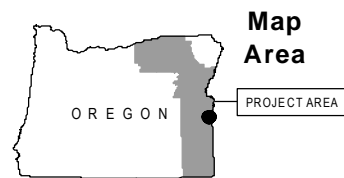
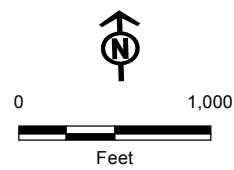
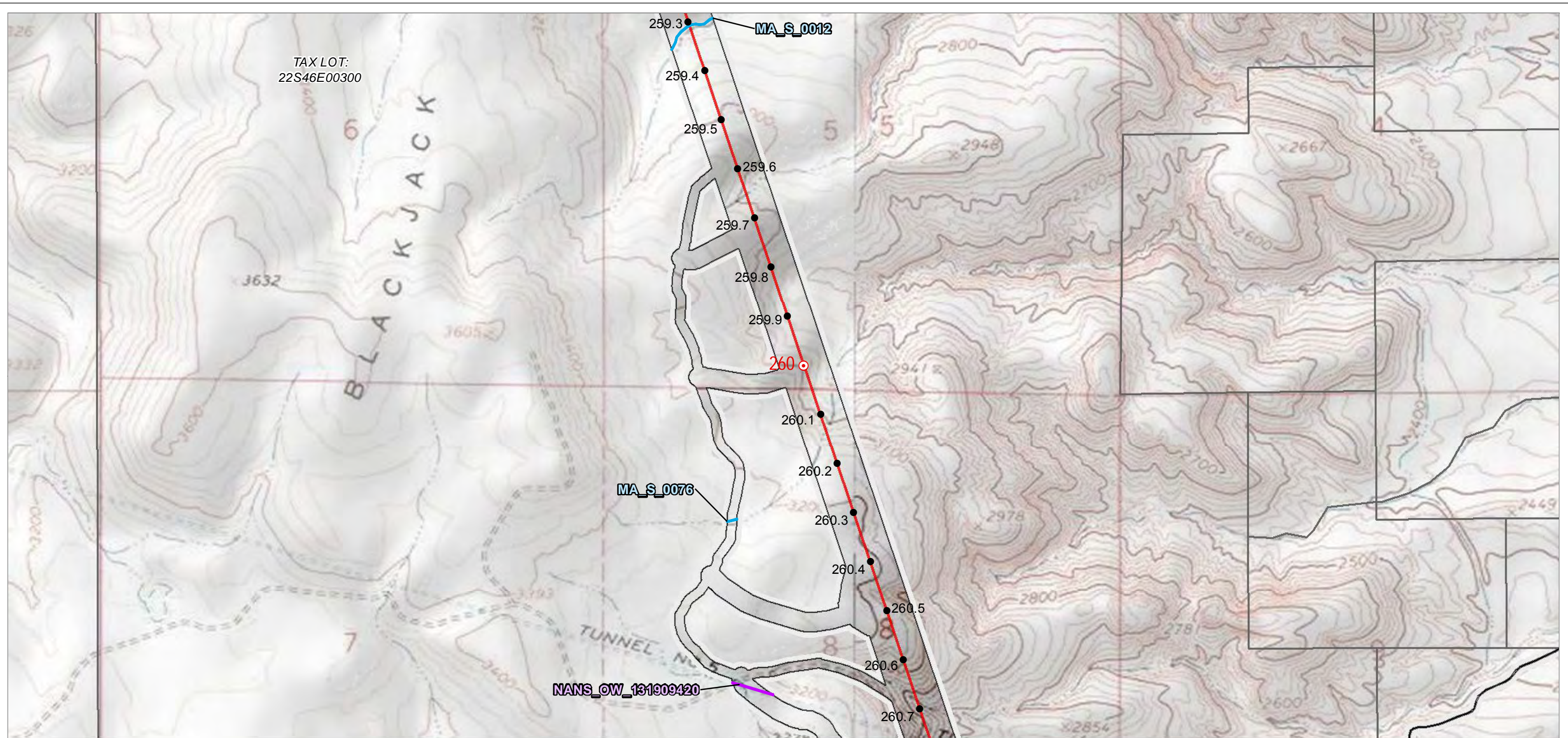
- Tenth-mile
- Other Waters
- Field Survey Streams



Boardman to Hemingway  
Transmission Line Project

## Appendix C-158 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

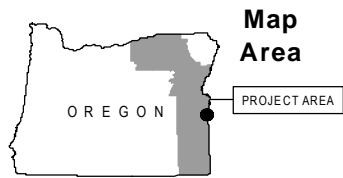
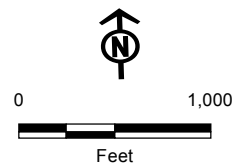
- Tenth-mile
- Other Waters
- Field Survey Streams
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-159 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

#### Project Features

Site Boundary

Proposed Route

#### Transportation

Other Major Roads

#### Wetland

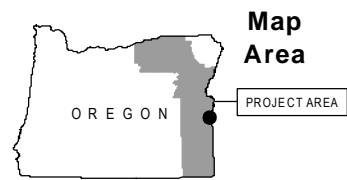
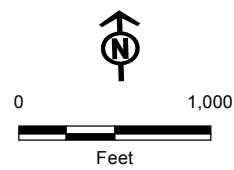
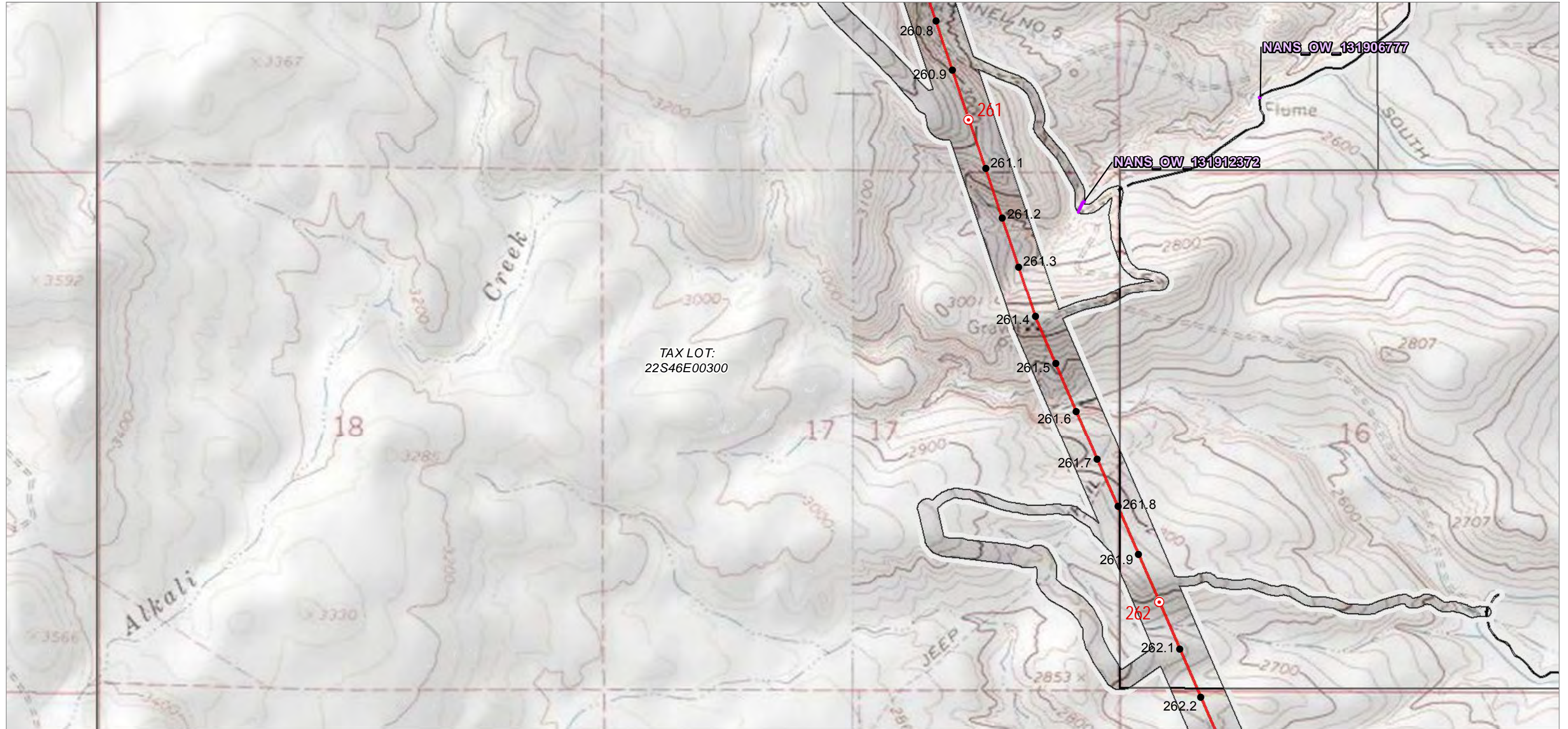
NANS Wetland (NWI)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-160 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

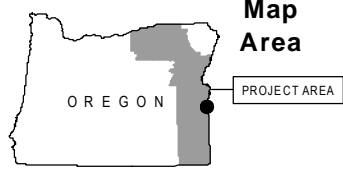
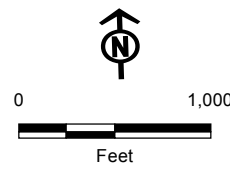
- Tenth-mile
- NANS Streams (NHD)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-161 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County



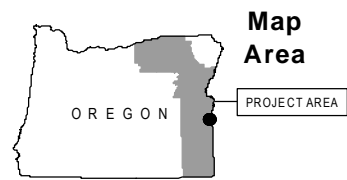
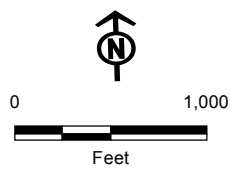


Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo

- Project Features**
- Site Boundary
  - Proposed Route
  - Other Major Roads
  - NANS Streams (NHD)
- Wetland**
- NANS Wetland (NWI)

**Appendix C-162**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Mileposts

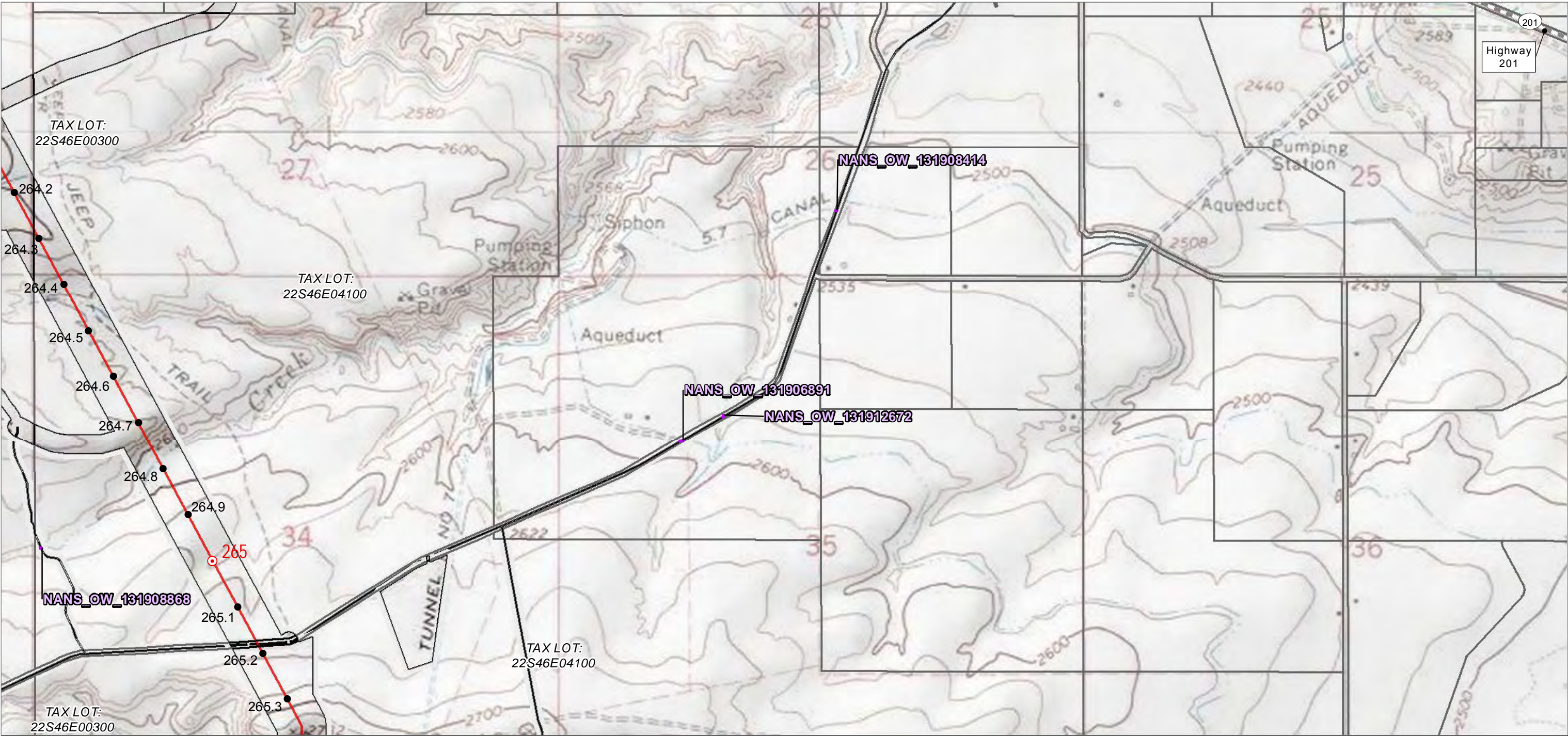
Tenth-mile



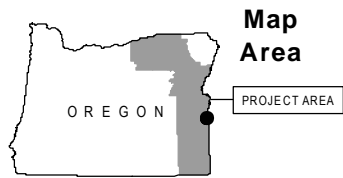
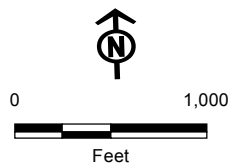
Boardman to Hemingway  
Transmission Line Project

## Appendix C-163 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps 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

**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Mile

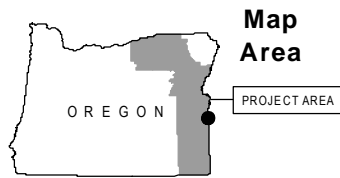
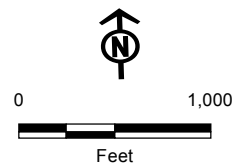
- Tenth-mile
- Other Waters
- Field Survey Streams
- NANS Streams (NHD)
- Wetland
- NANS Wetland (NWI)



Boardman to Hemingway  
Transmission Line Project

**Appendix C-165**  
**Wetland and Other Waters**  
**Impact Sites, Tax Lots and Locations**  
**Detail Maps**  
**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

#### Project Features

Site Boundary

Proposed Route

#### Wetland

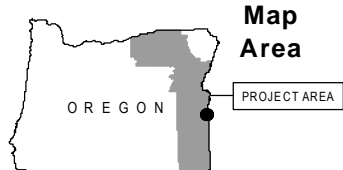
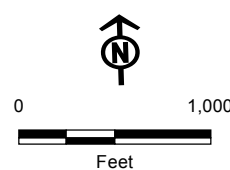
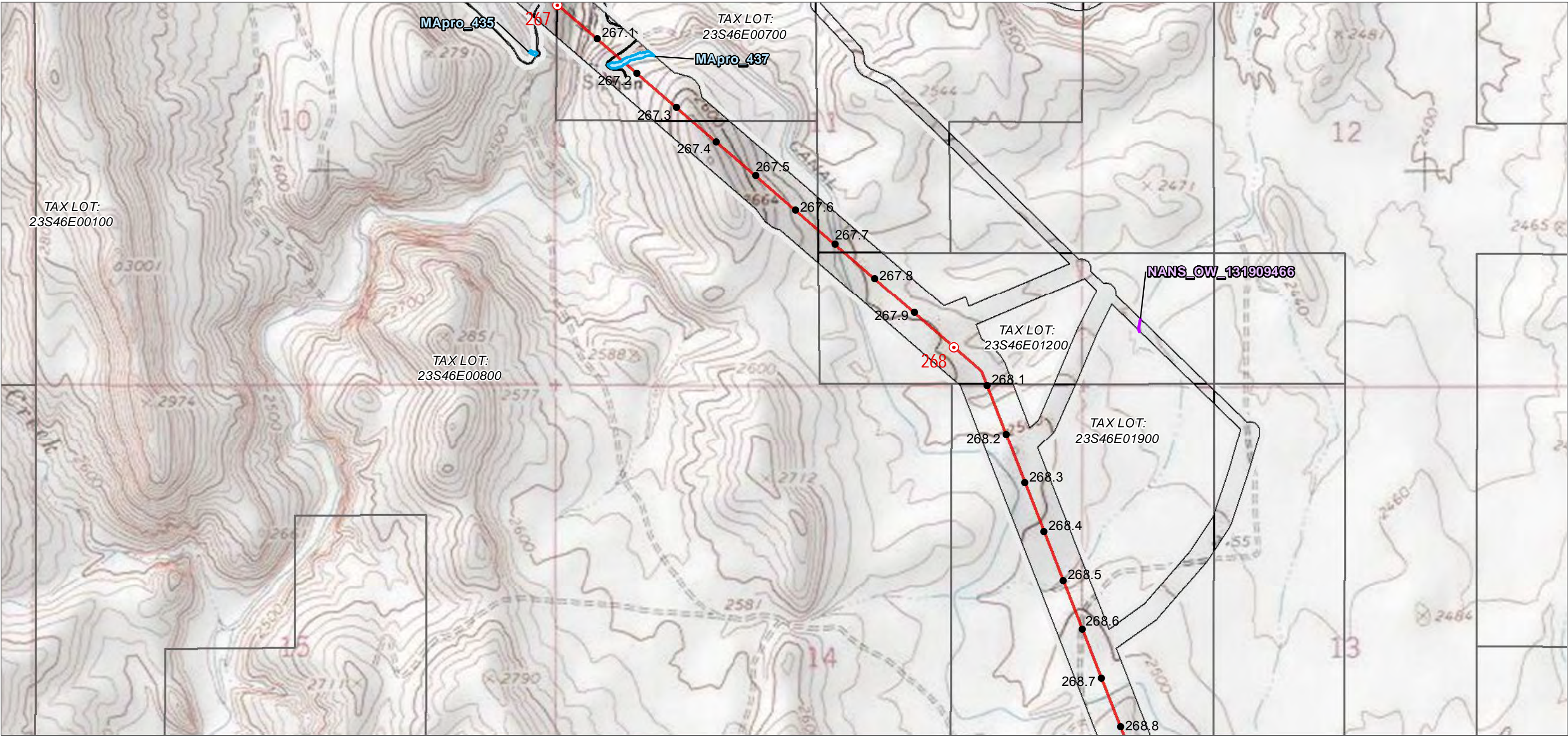
NANS Wetland (NW1)



Boardman to Hemingway  
Transmission Line Project

## Appendix C-166 Wetland and Other Waters Impact Sites, Tax Lots and Locations Detail Maps Malheur County

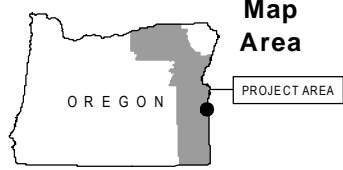
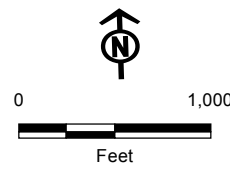
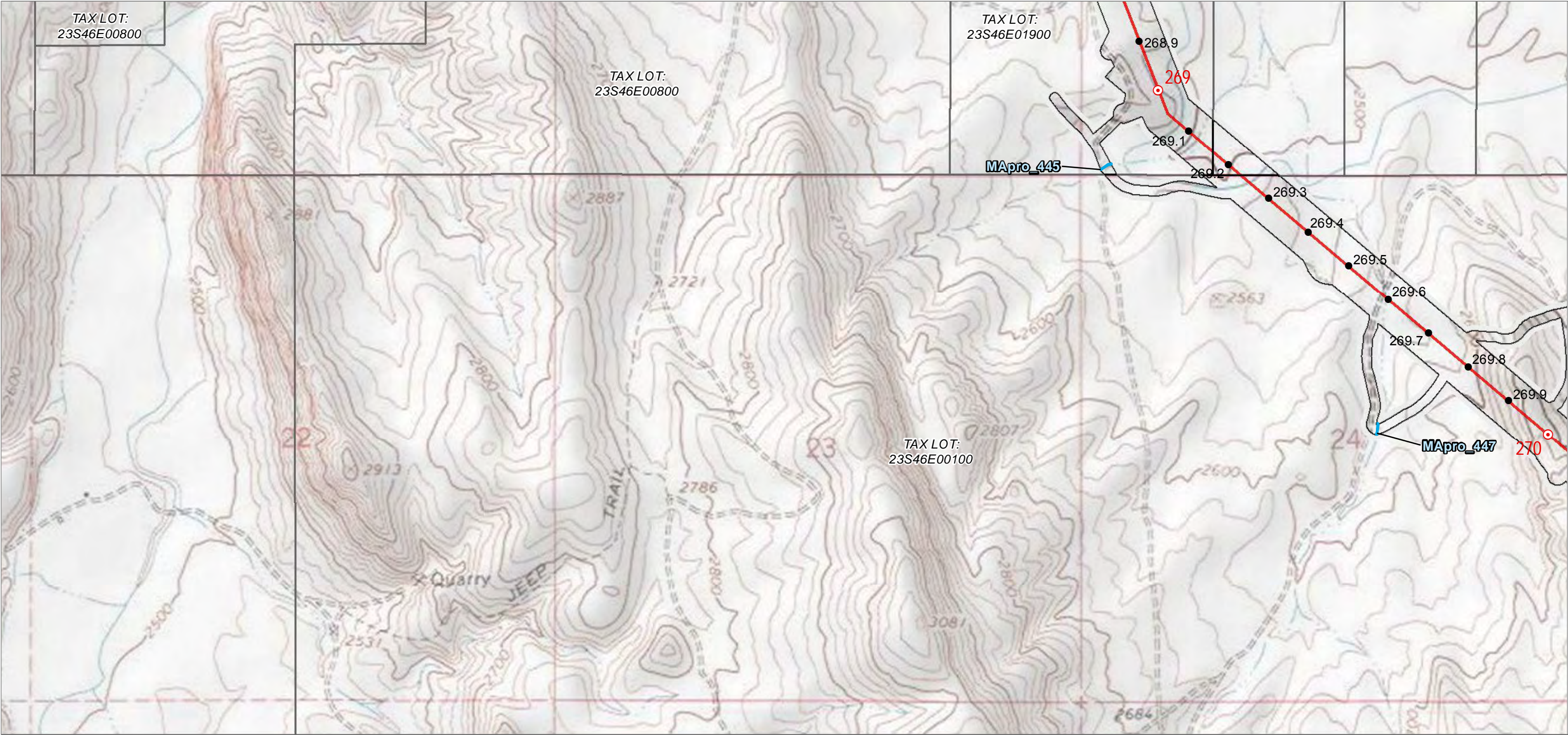




- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Tenth-mile
  - Other Waters
  - Field Survey Streams
  - NANS Streams (NHD)

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





- Project Features**
- Site Boundary
  - Proposed Route
  - Route Centerline
  - Proposed Route
  - Mileposts
  - Mile
- Other Waters**
- Tenth-mile
  - Field Survey Streams



## **Appendix D, Directions to the Site**

Maps identifying Removal-Fill sites are included as Figures C-1 through C-168 in Appendix C, above. These figures include roads and other landmarks to serve as directions to the Removal-Fill sites.

## **Appendix E, Wetland/Waterway**

Impact analysis indicates that the Project will cause permanent and temporary impacts in wetlands and other jurisdictional, non-wetland waters. Features proposed to be impacted are itemized in Appendices G and O below.

## **BLOCK 3 PROJECT PURPOSE, NEED, AND INDEPENDENT UTILITY**

### **Appendix F, Project Purpose, Need, and Independent Utility**

The Project is proposed for the following purposes:

1. To allow IPC to meet its obligations to serve its retail customers located in the states of Idaho and Oregon.
2. To comply with the requirements of the Federal Energy Regulatory Commission (FERC) that IPC construct adequate transmission infrastructure to provide service to wholesale customers in accordance with IPC's Open Access Transmission Tariff (OATT) (2008).
3. To provide a cost-effective resource which serves as a critical component of the Company's preferred resource portfolio presented in IPC's 2009, 2011, and 2013 Integrated Resource Plans (IRPs), which have been acknowledged by both the Idaho Public Utilities Commission (IPUC) and the Oregon Public Utility Commission (OPUC). The Project is also part of IPC's preferred portfolio in its 2015 IRP, which was approved by the IPUC and is pending before the OPUC.

The primary needs for the Project are:

1. To allow IPC to maintain reliable electric service pursuant to the standards set forth by the North American Electric Reliability Corporation (NERC) and implemented by the Western Electricity Coordinating Council (WECC).
2. To relieve congestion of the existing transmission system and enhance the reliable, efficient and cost-effective energy transfer capability between the Pacific Northwest and Intermountain regions.

In short, the Project will relieve existing congestion, alleviate reliability constraints, and provide additional capacity for the delivery of needed energy to IPC's service area by 2021 or later.

Further, with respect to the Project's independent utility, OAR 141-085-0510(43) defines "independent utility" as meaning "the project accomplishes its intended purpose without the need for additional phases or other projects requiring further Removal-Fill activities." Here, IPC intends that its Energy Facility Siting Council site certificate application—and the Removal-Fill Permit sought thereunder—will cover all phases of the construction, operation, and maintenance of the transmission line project and will cover all Removal-Fill activities related to the same. Because the Project will accomplish its intended purpose without additional phases or projects requiring further Removal-Fill activities, the Project will have the requisite independent utility.



## BLOCK 4 DESCRIPTION OF RESOURCES IN PROJECT AREA

### **Appendix G, Description of Resources: Wetlands and Waters Characteristics**

Delineated wetlands and other waters proposed for impact are described in tables G-1A and G-2A, respectively, below. Un-delineated National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), and desktop aerial photo-interpreted features with preliminary boundaries are described in Tables G-1B and Table G-2B. Ephemeral stream impacts, which are assumed to be jurisdictional only by the US Army Corps of Engineers (USACE) are described in Table G-3.



Table G-1A. Characteristics of Delineated Wetlands Proposed for Removal Fill Impacts

Feature ID	County	Map Tile Number	Milepost	Cowardin Class	HGM Class	Permanent Acres	Temporary Acres	Hydrology Source	HUC 6 Name	Dominant Plants
UM_W_0031	Umatilla	K-66	83.4	PEM	Riverine Flow Through	0.001	0	NA	170701 Middle Columbia	<i>Scirpus microcarpus</i> , <i>Equisetum fluviatile</i>
UN_LM_W_301	Union	K-181	119.5	PEM	Slope	0.002	0	Groundwater	170502 Middle Snake-Powder	<i>Typha latifolia</i> , <i>Carex nebrascensis</i> , <i>Epilobium ciliatum</i>
UN_LM_W_302	Union	K-181	119.4	PEM	Slope	0.001	0	Groundwater	170502 Middle Snake-Powder	<i>Schoenoplectus tabernaemontani</i> , <i>Juncus ensifolius</i> , <i>Nasturtium officinale</i> , <i>Mimulus guttatus</i> , <i>Epilobium ciliatum</i>
UN_MC_W_001	Union	K-147	115.3	PEM	Depressional	0.001	0	Groundwater	170601 Lower Snake	<i>Juncus balticus</i> , <i>Alopecurus pratensis</i>
UN_MC_W_018	Union	K-140	104	PEM	Slope	0.15	0.026	Groundwater	170601 Lower Snake	<i>Phleum pratense</i>
UN_MC_W_019	Union	K-141	104.3	PEM	Slope	0.01	0.089	Groundwater	170601 Lower Snake	<i>Juncus confusus</i> , <i>Carex nebrascensis</i>
UN_ML_W_004	Union	K-160	6.3	PEM	Depressional	0.003	0.003	Groundwater	170601 Lower Snake	<i>Juncus balticus</i>
UN_ML_W_005	Union	K-159	5.8	PEM	Slope	0.015	0	Groundwater	170601 Lower Snake	<i>Iris pseudacorus</i> , <i>Fragaria vesca</i> , <i>Carex pellita</i> , <i>Juncus balticus</i>
UN_ML_W_006	Union	K-159	5.6	PEM	Slope	0.041	0	NA	170601 Lower Snake	<i>Juncus balticus</i> , <i>Danthonia californica</i> , <i>Iris pseudacorus</i> , <i>Senecio hydrophiloides</i> , <i>Hordeum brachyantherum</i>



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	HGM Class	Permanent Acres	Temporary Acres	Hydrology Source	HUC 6 Name	Dominant Plants
UN_ML_W_015	Union	K-153	4.5	PEM	Riverine Flow Through	0.003	0.005	Groundwater	170601 Lower Snake	<i>Phleum pratense</i> , <i>Poa pratensis</i> , <i>Juncus balticus</i>
UN_W_0412	Union	K-123; K-124	100.3	PEM	Slope	0.436	0	NA	170601 Lower Snake	<i>Juncus acuminatus</i> , <i>Juncus balticus</i> , <i>Agrostis stolonifera</i> , <i>Scirpus pallidus</i> , <i>Eleocharis palustirs</i> , <i>Ranunculus acris</i>
UN_W_0419	Union	K-125	100.5	PEM	Slope	0.054	0	NA	170601 Lower Snake	<i>Crataegus douglasii</i> ; <i>Juncus effusus</i> var. <i>gracilis</i> ; <i>Phleum pratense</i>
BA_BR_W446	Baker	K-268	173.6	PEM	Riverine Flow Through	0.003	0.004	Groundwater	170502 Middle Snake-Powder	<i>Scirpus pungens</i> ; <i>Eleocharis palustris</i>
BA_BR_W455	Baker	K-260; K-261	171.2-171.3	PEM	Slope	0.015	0	Flooding	170502 Middle Snake-Powder	<i>Eleocharis palustris</i> , <i>Typha latifolia</i> , <i>Carex nebrascensis</i> , <i>Scirpus pungens</i>
BA_FL_W_011	Baker	K-234	149.3	PEM	Slope	0.006	0.002	Groundwater	170502 Middle Snake-Powder	<i>Polypogon monspeliensis</i> , <i>Poa fendleriana</i>
BA_FL_W_012	Baker	K-236	150.9	PEM	Slope	0.008	0.011	Flooding	170502 Middle Snake-Powder	<i>Hordeum jubatum</i> ,
BA_WT_W_010	Baker	K-269	174	PEM	Slope	0.002	<0.001	Groundwater	170502 Middle Snake-Powder	<i>Polypogon monspeliensis</i> , <i>Juncus bufonius</i> , <i>Veronica americana</i>
BA_WT_W_013	Baker	K-290	187.7	PEM	Slope	<0.001	0	Groundwater	170502 Middle Snake-Powder	<i>Juncus bufonius</i> , <i>Hordeum jubatum</i>
BA_WT_W_202	Baker	K-274	173.8	PEM	Riverine Flow Through	0.003	0.005	NA	170502 Middle Snake-Powder	<i>Juncus balticus</i> , <i>Eleocharis palustris</i>



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	HGM Class	Permanent Acres	Temporary Acres	Hydrology Source	HUC 6 Name	Dominant Plants
BA_WT_W_204	Baker	K-274	174	PEM	Slope	0.015	0.022	Groundwater	170502 Middle Snake-Powder	<i>Iris missouriensis</i> , <i>Rumex crispus</i> , <i>Juncus balticus</i>
BA_WT_W_206	Baker	K-273	174.2	PEM	Riverine Flow Through	0.006	0.007	Groundwater	170502 Middle Snake-Powder	<i>Juncus balticus</i>
BA_WT_W_300	Baker	K-250	166.1	PEM	Slope	0.002	0	Groundwater	170502 Middle Snake-Powder	<i>Alopecurus arundinaceus</i> , <i>Carex nebrascensis</i> , <i>Cirsium arvense</i>
					Total	0.778	0.175			



**Table G-1B.** Characteristics of Wetlands (Not Accessed/Not Delineated) Proposed for Removal Fill Impacts

Feature ID	County	Map Tile Number	Milepost	Cowardin Class	HGM Class	Permanent Acres	Temporary Acres	Hydrology Source	HUC 6 Name	Dominant Plants
NANS_W_104	Morrow	K-21	41.2	PEM	NA	0	0.131	NA	170701 Middle Columbia	TBD
NANS_W_105	Morrow	K-21	41.1-41.2	PEM	NA	0.009	0.09	NA	170701 Middle Columbia	TBD
NANS_W_117	Morrow	K-1	1.8	PEM	NA	0.005	0	NA	170701 Middle Columbia	TBD
NANS_W_118	Morrow	K-2	2.1-2.2	PEM	NA	0.008	0.237	NA	170701 Middle Columbia	TBD
NANS_W_119	Morrow	K-3	2.3	PEM	NA	0	0.078	NA	170701 Middle Columbia	TBD
NANS_W_151	Morrow	K-16	27.8	PEM	NA	0.008	0	NA	170701 Middle Columbia	TBD
NANS_W_108	Umatilla	K-48	70.1	PEM	NA	0	0.004	NA	170701 Middle Columbia	TBD
NANS_W_109	Umatilla	K-48	70.1	PEM	NA	<0.001	0.005	NA	170701 Middle Columbia	TBD
NANS_W_112	Umatilla	K-50	73.1	PEM	NA	0.001	0.002	NA	170701 Middle Columbia	TBD
NANS_W_115	Umatilla	K-47	69.9	PEM	NA	0	0.114	NA	170701 Middle Columbia	TBD
NANS_W_152	Umatilla	K-34	59.6	PEM	NA	0.006	0	NA	170701 Middle Columbia	TBD
NANS_W_153	Umatilla	K-37	63.2	PFO	NA	0.006	0	NA	170701 Middle Columbia	TBD
NANS_W_154	Umatilla	K-39	63.9	PSS	NA	0.005	0	NA	170701 Middle Columbia	TBD
NANS_W_161	Umatilla	K-70	84.8	PEM	NA	0.151	0	NA	170701 Middle Columbia	TBD
NANS_W_162	Umatilla	K-68; K-69	84.8	PEM	NA	0.102	0	NA	170701 Middle Columbia	TBD
NANS_W_164	Umatilla	K-89	88.1	PEM	NA	0.006	0	NA	170601 Lower Snake	TBD
NANS_W_165	Umatilla	K-60	84.3	PEM	NA	0.006	0	NA	170701 Middle Columbia	TBD
NANS_W_166	Umatilla	K-57	84.2	PEM	NA	0.012	0	NA	170701 Middle Columbia	TBD
NANS_W_167	Umatilla	K-54; K-55	83	PEM	NA	0.005	0	NA	170701 Middle Columbia	TBD
NANS_W_168	Umatilla	K-56	83.3	PEM	NA	0.005	0	NA	170701 Middle Columbia	TBD
NANS_W_18	Umatilla	K-35	61.2	PEM	NA	0.003	0.002	NA	170701 Middle Columbia	TBD
NANS_W_22	Umatilla	K-44	65.9	PEM	NA	0.007	0.008	NA	170701 Middle Columbia	TBD
NANS_W_68	Umatilla	K-42	64.1	PFO	NA	0.011	0.001	NA	170701 Middle Columbia	TBD
NANS_W_85	Umatilla	K-50	73.1	PEM	NA	0.004	0.01	NA	170701 Middle Columbia	TBD
NANS_W_86	Umatilla	K-50	73.1	PEM	NA	0.004	0.006	NA	170701 Middle Columbia	TBD
NANS_W_87	Umatilla	K-50	73.1	PEM	NA	0.008	0.01	NA	170701 Middle Columbia	TBD
NANS_W_89	Umatilla	K-49	72.3	PEM	NA	0.01	0.01	NA	170701 Middle Columbia	TBD
NANS_W_96	Umatilla	K-48	70.1	PEM	NA	0	0.001	NA	170701 Middle Columbia	TBD
NANS_W_98	Umatilla	K-47	70	PEM	NA	0	0.002	NA	170701 Middle Columbia	TBD
NANS_W_99	Umatilla	K-47	70	PEM	NA	0.012	0.016	NA	170701 Middle Columbia	TBD
NANS_W_155	Union	K-156	3.9	PEM	NA	0.006	0	NA	170601 Lower Snake	TBD
NANS_W_156	Union	K-154	2.8	PEM	NA	0.005	0	NA	170601 Lower Snake	TBD
NANS_W_157	Union	K-157	4.4- 5	PFO	NA	0.024	0	NA	170601 Lower Snake	TBD
NANS_W_158	Union	K-155	3.3	PSS	NA	0.005	0	NA	170601 Lower Snake	TBD
NANS_W_159	Union	K-161	6.6	PSS	NA	0.008	0	NA	170601 Lower Snake	TBD
NANS_W_160	Union	K-157	4.3	PUS	NA	0.01	0	NA	170601 Lower Snake	TBD
NANS_W_163	Union	K-114	94.9	PEM	NA	0.009	0	NA	170601 Lower Snake	TBD



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	HGM Class	Permanent Acres	Temporary Acres	Hydrology Source	HUC 6 Name	Dominant Plants
NANS_W_169	Union	K-126	100.7	PFO	NA	0.006	0	NA	170601 Lower Snake	TBD
NANS_W_170	Union	K-122	99.1	PSS	NA	0.012	0	NA	170601 Lower Snake	TBD
NANS_W_175	Union	K-151	116.1	PEM	NA	0.026	0	NA	170601 Lower Snake	TBD
NANS_W_176	Union	K-149	115.8	PEM	NA	0.041	0	NA	170601 Lower Snake	TBD
NANS_W_177	Union	K-182	119.6	PEM	NA	0.144	0	NA	170601 Lower Snake	TBD
NANS_W_179	Union	K-146	112.7	PEM	NA	0.004	0	NA	170601 Lower Snake	TBD
NANS_W_180	Union	K-145	110.9	PEM	NA	0.05	0	NA	170601 Lower Snake	TBD
NANS_W_26	Union	K-189	126.1	PUS	NA	0.016	0.002	NA	170502 Middle Snake-Powder	TBD
NANS_W_28	Union	K-149	115.8	PSS	NA	0.011	0	NA	170601 Lower Snake	TBD
NANS_W_51	Union	K-139	103.6	PAB	NA	0.029	0.004	NA	170601 Lower Snake	TBD
NANS_W_55	Union	K-142	104.8	PEM	NA	0.016	0.002	NA	170601 Lower Snake	TBD
NANS_W_80	Union	K-91	89.2	PEM	NA	0.08	0.331	NA	170601 Lower Snake	TBD
NANS_W_120	Baker	K-290	187.7	PEM	NA	0.005	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_121	Baker	K-292	190.8	PFO	NA	0.005	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_124	Baker	K-296	192.7	PEM	NA	0.005	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_127	Baker	K-295	192.6	PSS	NA	0.004	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_147	Baker	K-261	171.3	PEM	NA	0.029	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_148	Baker	K-278	178.8	PSS	NA	0.006	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_149	Baker	K-264	174.3	PEM	NA	0.008	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_150	Baker	K-265	174.3	PEM	NA	0.072	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_171	Baker	K-199	131.4	PEM	NA	0.002	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_172	Baker	K-201	133.1	PEM	NA	0.004	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_173	Baker	K-202	133	PEM	NA	0.005	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_181	Baker	K-228; K-229	0.3	PEM	NA	0.162	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_182	Baker	K-244	160.7	PEM	NA	0.006	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_185	Baker	K-241	159.9	PEM	NA	0.006	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_187	Baker	K-248	165	PFO	NA	0.009	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_36	Baker	K-217; K-218	142.5	PSS	NA	0	25.202	NA	170502 Middle Snake-Powder	TBD
NANS_W_37	Baker	K-223	145.7	PUS	NA	0	0.055	NA	170502 Middle Snake-Powder	TBD
NANS_W_75	Baker	K-239; K-240	159.8-159.9	PEM	NA	0.057	0.006	NA	170502 Middle Snake-Powder	TBD
NANS_W_03	Malheur	K-421	255.9	PEM	NA	0.005	0.001	NA	170501 Middle Snake-Boise	TBD
NANS_W_11	Malheur	K-340	216.4	PEM	NA	0	0.454	NA	170501 Middle Snake-Boise	TBD
NANS_W_122	Malheur	K-301	0	L1UB	NA	0.033	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_123	Malheur	K-314	200.8	PEM	NA	0.003	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_125	Malheur	K-302	0	PFO	NA	0.003	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_126	Malheur	K-309	198.5	PFO	NA	0.052	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_128	Malheur	K-318	201.2	PEM	NA	0.009	0	NA	170502 Middle Snake-Powder	TBD
NANS_W_129	Malheur	K-389	240.4	PEM	NA	0.043	0	NA	170501 Middle Snake-Boise	TBD



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	HGM Class	Permanent Acres	Temporary Acres	Hydrology Source	HUC 6 Name	Dominant Plants
NANS_W_130	Malheur	K-389	240.4	PEM	NA	0.061	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_131	Malheur	K-369	232.2	PEM	NA	0.005	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_132	Malheur	K-371	231.8	PSS	NA	0.375	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_133	Malheur	K-372; K-233; K-375	232	PSS	NA	0.166	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_134	Malheur	K-363	225.4	L1UB	NA	<0.001	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_135	Malheur	K-362	226.8	PEM	NA	0.005	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_136	Malheur	K-348	218.1	PEM	NA	0.007	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_137	Malheur	K-347	217.4	PEM	NA	0.006	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_138	Malheur	K-333	215.2	PEM	NA	0.005	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_139	Malheur	K-335	215.6	PEM	NA	0.036	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_140	Malheur	K-346	217.4	PEM	NA	0.003	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_141	Malheur	K-445	266.8	PEM	NA	0.006	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_142	Malheur	K-435	260.9	PEM	NA	0.026	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_143	Malheur	K-450	268.1	PEM	NA	0.002	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_144	Malheur	K-450	268.1	PEM	NA	0.009	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_145	Malheur	K-437	263.6	PSS	NA	0.049	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_146	Malheur	K-436	262.9	PSS	NA	0.038	0	NA	170501 Middle Snake-Boise	TBD
NANS_W_61	Malheur	K-422	255.8	PEM	NA	0.005	0.006	NA	170501 Middle Snake-Boise	TBD
NANS_W_62	Malheur	K-420	255.5	PEM	NA	0.008	0.001	NA	170501 Middle Snake-Boise	TBD
NANS_W_91	Malheur	K-448	268	PFO	NA	0.034	0.005	NA	170501 Middle Snake-Boise	TBD
NANS_W_92	Malheur	K-449	268	PEM	NA	0.007	0.001	NA	170501 Middle Snake-Boise	TBD
					Total	2.284	26.797			



Table G-2A. Characteristics of Delineated Other Waters Proposed for Removal or Fill Impacts

Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
MO_SW_STRM_300	Morrow	K-18	34.2	R3	0.007*	0.008*	Groundwater	Perennial	Yes	Middle Columbia	170701	25-75% native &/ or affect by disturbance	Stable but incised	Fines, Gravel, Cobble	<i>Phalaris arundinacea</i> , <i>Echinochloa crusgalli</i> , <i>Scirpus microcarpus</i>
UM_S_0145	Umatilla	K-66	83.4	R3	<0.001*	0	Groundwater	Perennial	Anadromous	Middle Columbia	170701	> 75% cover native spp, good condition	Stable but incised	Fines, Gravel	<i>Calamagratís canadensis</i>
UM_S_0146	Umatilla	K-65	83.7	R4	<0.001	0	Groundwater	Intermittent	Unknown	Middle Columbia	170701	> 75% cover native spp, good condition	Stable but incised	Gravel, Cobble	<i>Rubus parvoflorus</i>
UM_S_0146b	Umatilla	K-65	83.7	R4	0.002	0	Groundwater	Intermittent	Unknown	Middle Columbia	170701	> 75% cover native spp, good condition	Stable	Fines, Gravel	<i>Epilobium ciliatum</i> , <i>Ranunculus</i> sp.
UM_SW_STRM_004	Umatilla	K-34	59.7	R3	0.013*	0.015*	Groundwater	Perennial	Anadromous	Middle Columbia	170701	25-75% native &/ or affect by disturbance	Stable	Cobble	<i>Populous species</i> , <i>Urtica dioica</i>
UM_SW_STRM_008	Umatilla	K-24	37	R3	0	0.015*	Groundwater	Perennial	Yes	Middle Columbia	170701	25-75% native &/ or affect by disturbance	Head cut, Incised	Gravel, Cobble	<i>Phalaris arundinacea</i> , <i>Salix species</i> , <i>Conium maculatum</i>
UM_SW_STRM_011	Umatilla	K-41	64.1	R3	0.006*	0.003*	Groundwater	Perennial	Anadromous	Middle Columbia	170701	25-75% native &/ or affect by disturbance	Stable	Cobble, Gravel	<i>Populous species</i> , <i>Sambucus racemosa</i> , <i>Rosa woodsii</i> , <i>Crataegus douglasii</i>
UM_SW_STRM_013	Umatilla	K-40	64.2	R3	0.011*	0.002*	Groundwater	Perennial	Anadromous	Middle Columbia	170701	25-75% native &/ or affect by disturbance	Stable	Cobble, Gravel, Boulder/bedrock	<i>Populous species</i> , <i>Urtica dioica</i> , <i>Phalaris arundinacea</i>
UN_MC_STRM_001	Union	K-117	97	R4	0.002	0.002	Groundwater	Intermittent	No	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable but incised	Cobble, Gravel, Gravel	<i>Danthonia decumbens</i> , <i>Juncus terinius</i> , <i>Iris missouriensis</i>
UN_MC_STRM_005	Union	K-120	98.4	R4	0.004	0.001	Groundwater	Intermittent	No	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable but incised	Cobble, Gravel, Gravel	<i>Poa pratensis</i> , <i>Carex microptera</i> , <i>Symphoricarpos albus</i> , <i>Iris missouriensis</i>
UN_MC_STRM_006	Union	K-120	98.4	R4	0.001	<0.001	Groundwater	Intermittent	No	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable but incised	Cobble, Gravel, Gravel	<i>Monardella odoratissima</i> , <i>Polygonum douglasii</i> , <i>Navarretia intertexta</i>
UN_MC_STRM_011	Union	K-147	115.3	R4	<0.001	0	Groundwater	Intermittent	Unknown	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable but some sedimentation	Gravel, Cobble	<i>Crataegus douglasii</i>
UN_MC_STRM_300	Union	K-152	116.3	R3	<0.001	<0.001	Groundwater	Perennial	Unknown	Lower Snake	170601	25-75% native &/ or affect by disturbance	Incised, Mass Wasting	Fines, Sand, Gravel	<i>Crataegus douglasii</i> , <i>Salix lutea</i>
UN_MC_STRM_301	Union	K-145	110.9	R4	0.001	<0.001	Groundwater	Intermittent	No	Lower Snake	170601	> 75% cover native spp, good condition	Stable	Sand, Gravel, Cobble	<i>Crataegus douglasii</i> , <i>Salix scouleriana</i> , <i>Cornus alba</i> , <i>Acer glabrum</i>



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
UN_ML_STRM_014	Union	K-158	5.3	R3	0.001	0	Groundwater	Perennial	Unknown	Lower Snake	170601	> 75% cover native spp, good condition	Stable	Boulder/bedrock, Cobble, Gravel	<i>Juncus confusus</i>
UN_ML_STRM_015	Union	K-158	5.2	R3	0.016*	0	Groundwater	Perennial	Anadromous	Lower Snake	170601	> 75% cover native spp, good condition	Stable	Boulder/bedrock, Cobble, Fines	<i>Carex species, Pinus ponderosa</i>
UN_ML_STRM_300	Union	K-167	12.8	R3	0.002*	0.003*	Groundwater	Perennial	Yes	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable	Fines, Boulder/bedrock, Gravel	<i>Abies grandis, Acer circinatum, Symphoricarpos albus</i>
UN_ML_STRM_305	Union	K-177	16.4	R3	0.018*	0	Groundwater	Perennial	Yes	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable but incised	Sand, Gravel, Cobble	<i>Alnus incana, Cornus alba, Abies grandis, Symphoricarpos albus</i>
UN_S_0005	Union	K-112	94.7	R3	<0.001*	0	Groundwater	Perennial	Anadromous	Lower Snake	170601	> 75% cover native spp, good condition	Stable	Fines, Gravel, Cobble	<i>Cornus sericea, Rosa woodsii</i>
UN_S_0030	Union	K-127	100.8	R3	0.007*	0	Groundwater	Perennial	Anadromous	Lower Snake	170601	25-75% native &/ or affect by disturbance	Stable	Cobble, Gravel, Sand	<i>Salix exigua, Alopecurus pratensis, Bromus inermis</i>
BA_FL_008	Baker	K-236	150.9	R4	<0.001	0.001	Groundwater	Intermittent	Unknown	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Stable	Fines	<i>Hordeum jubatum</i>
BA_FL_STRM_021	Baker	K-220	144.4	R4	0.003	0	Groundwater	Intermittent	No	Middle Snake-Powder	170502	< 25% native &/ or significant disturbance	Stable but some sedimentation	Fines	<i>Alopecurus pratensis</i>
BA_FL_STRM_023	Baker	K-235	149.1	R3	0.002	0.001	Groundwater	Perennial	No	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Sedimentation	Fines, Sand	<i>Artemisia tridentata, Achillea millefolium</i>
BA_FL_STRM_024	Baker	K-231	150.2	R4	0	0.004	Groundwater	Intermittent	No	Middle Snake-Powder	170502	< 25% native &/ or significant disturbance	Stable	Fines, Sand, Gravel	<i>Alopecurus pratensis</i>
BA_S_0053	Baker	K-292	190.7	R3	0.015*	0	Groundwater	Perennial	Yes	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Incised but stable with past headcut	Sand, Gravel, Cobble	<i>Rhus trilobata, Mimulus guttatus, Nasturtium officinale</i>
BA_WT_STRM_017	Baker	K-269	174	R3	0.006	<0.001	Groundwater	Perennial	No	Middle Snake-Powder	170502	> 75% cover native spp, good condition	Stable	Fines, Sand, Gravel	<i>Mimulus guttatus, Cornus alba, Nasturtium officinale</i>
BA_WT_STRM_020	Baker	K-267	173.9	R4	0.002*	<0.001*	Groundwater	Intermittent	Yes	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Stable	Cobble, Gravel, Sand	<i>Bromus tectorum</i>
BA_WT_STRM_027	Baker	K-291	188.4	R3	0.005*	0.007*	Groundwater	Perennial	Yes	Middle Snake-Powder	170502	> 75% cover native spp, good condition	Stable	Boulder/bedrock, Gravel, Sand	<i>Juncus confusus</i>



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
BA_WT_STRM_028	Baker	K-293	190.7	R3	0.002*	0	Groundwater	Perennial	Yes	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Stable but past headcutting	Sand, Gravel, Cobble	<i>Rhus trilobata</i> , <i>Mimulus guttatus</i> , <i>Nasturtium officinale</i>
BA_WT_STRM_029	Baker	K-294	191.2	R4	0.001	0.002	Groundwater	Intermittent	No	Middle Snake-Powder	170502	< 25% native &/ or significant disturbance	Stable	Cobble, Gravel	<i>Poa bulbosa</i> , <i>Dipsacus fullonum</i>
BA_WT_STRM_211	Baker	K-274	173.8	R4	0.001	0.001	Groundwater	Intermittent	Unknown	Middle Snake-Powder	170502	> 75% cover native spp, good condition	Stable	Fines, Gravel, Cobble	<i>Maiathemum stellatum</i>
BA_WT_STRM_213	Baker	K-274	173.9	R4	0.001	0.001	Groundwater	Intermittent	No	Middle Snake-Powder	170502	> 75% cover native spp, good condition	Stable	Gravel, Cobble	<i>Juniperus occidentalis</i> , <i>Pseudotsuga menziesii</i>
BA_WT_STRM_214	Baker	K-272	173.9	R4	0.001	<0.001	Groundwater	Intermittent	No	Middle Snake-Powder	170502	> 75% cover native spp, good condition	Stable	Fines, Cobble	<i>Eleocharis palustris</i>
BA_WT_STRM_215	Baker	K-275; K-276; K-277	177.5	R3	0.007	0.001	Groundwater	Perennial	No	Middle Snake-Powder	170502	> 75% cover native spp, good condition	Stable but incised	Fines, Cobble	<i>Acer glabrum</i> , <i>Populus tremuloides</i>
BA_WT_STRM_225	Baker	K-256	170.6	R3	0.002	0.002	Groundwater	Perennial	No	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Stable	Fines	<i>Rumex crispus</i> , <i>Pseudoroegenaria spicata</i> , <i>Artemisia tridentata</i>
BA_WT_STRM_301	Baker	K-249	165.5	R3	0.002	0	Groundwater	Perennial	Unknown	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Stable but some sedimentation	Fines, Sand	<i>Cornus alba</i> , <i>Sambucus nigra</i> , <i>Alnus incana</i>
BA_WT_STRM_302	Baker	K-249	165.4	R3	0.002*	0	Groundwater	Perennial	Yes	Middle Snake-Powder	170502	25-75% native &/ or affect by disturbance	Stable but incised	Fines, Sand, Gravel	<i>Salix bebbiana</i> , <i>Phalaris arundinacea</i> , <i>Salix amygdaloides</i>
MA_S_0053	Malheur	K-445	266.8	R4	0.001	0	Groundwater	Intermittent	No	Middle Snake-Boise	170501	25-75% native &/ or affect by disturbance	Stable but incised, with past headcut	Sand, Gravel, Cobble	<i>Rhus trilobata</i> , <i>Mimulus guttatus</i> , <i>Nasturtium officinale</i>
MA_S_0154	Malheur	K-373	232.3	R4	0.008	0	Groundwater	Intermittent	No	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Stable	Fines, Sand, Gravel	<i>Elaeagnus angustifolia</i> , <i>Phalaris arundinacea</i> , <i>Hordeum jubatum</i>
MA_S_0182	Malheur	K-370	231.6	R4	0.026	0	Groundwater	Intermittent	No	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Stable	Fines, Boulder/bedrock	<i>Artemisia tridentata</i>
MA_TM_005	Malheur	K-357	226.3	R4	0.001	<0.001	Groundwater	Intermittent	Unknown	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Stable but incised	Fines	<i>Cardaria draba</i>
MA_TM_454	Malheur	K-350	218.2	R4	0.002	0	Groundwater	Intermittent	Unknown	Middle Snake-Boise	170501	25-75% native &/ or affect by disturbance	Stable	Fines	<i>Eleocharis palustris</i> , <i>Solidago canadensis</i> , <i>Schoenoplectus tabernaemontani</i>



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
MA_TM_465	Malheur	K-345	217.2	R4	0	<0.001	Groundwater	Intermittent	Unknown	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Sedimentation	Fines, Gravel, Cobble	<i>Bromus tectorum</i>
MA_TM_478	Malheur	K-333	215.2	R4	0.002	0	Groundwater	Intermittent	No	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Incised	Fines, Gravel, Sand	<i>Typha latifolia, Phalaris arundinacea, Rosa woodsii</i>
MApro_225	Malheur	K-377	232.4	R4	0	0.004	Groundwater	Intermittent	No	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Stable	Fines, Sand	<i>Phalaris arundinacea, Euthamia occidentalis</i>
MApro_435	Malheur	K-446	267	R4	<0.001	0	Groundwater	Intermittent	No	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Stable	Fines	<i>Rumex salicifolius</i>
MApro_437	Malheur	K-446	267.2	R4	0.002	0	Groundwater	Intermittent	No	Middle Snake-Boise	170501	< 25% native &/ or significant disturbance	Stable	Fines	<i>Rumex salicifolius</i>
MA_TM_452	Malheur	K-348	218.1	R3	0.004	0	Groundwater	Perennial	Unknown	Middle Snake-Boise	170501	25-75% native &/ or affect by disturbance	Artificially realigned, Stable	Fines	<i>Eleocharis palustris, Typha latifolia, Rumex crispus</i>
				Total	0.196	0.081									

\* Project impacts currently listed at streams with fish presence will be avoided after final design, before the project is completed.



**Table G-2B.** Characteristics of Other Waters (Not Accessed/Not Delineated) Proposed for Removal or Fill Impacts

Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
NANS_OW_145365444	Morrow	K-10	14.9	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_152904366	Morrow	K-12	20.5	TBD	0.001	0.002	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_152904546	Morrow	K-11	15.1	TBD	0.005	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_152906926	Morrow	K-8; K-9	14.2-14.4	TBD	0.002	0.039	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621028	Morrow	K-15	26.7	TBD	0.001	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621034	Morrow	K-13	25.6	TBD	0.001	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621220	Morrow	K-14	26.2	TBD	0.001	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621268	Morrow	K-23	47.4	TBD	0.003	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621288	Morrow	K-22	45.1	TBD	0.002	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621738	Morrow	K-17	33.6	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160622166	Morrow	K-16	27.9	TBD	0.002	0	TBD	Perennial	Yes	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160622634	Morrow	K-16	27.8	TBD	0.002	0	TBD	Intermittent	Yes	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_167136394	Morrow	K-7	3.1	TBD	0.002	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_167136395	Morrow	K-6	3	TBD	0.002	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_167136396	Morrow	K-5	2.8	TBD	0.002	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_167136398	Morrow	K-4	2.3; 12.2	TBD	0.009	<0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_1F24254E	Umatilla	K-52	80.7	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_7F6298CB	Umatilla	K-55	83.2	TBD	0.003	0	TBD	Perennial	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_8E7B1EBC	Umatilla	K-54	83	TBD	0.005	0	TBD	Perennial	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_145365523	Umatilla	K-39	63.9	TBD	0.001	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_145365948	Umatilla	K-44	65.9	TBD	0.003	0.003	TBD	Intermittent	Yes	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_145366346	Umatilla	K-26	49.9	TBD	0.002	0	TBD	Perennial	Yes	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_145367254	Umatilla	K-42	64.1	TBD	0.002	<0.001	TBD	Perennial	Anadromous	Middle Columbia	170701	TBD	TBD	TBD	TBD



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
NANS_OW_145367720	Umatilla	K-64	83.7	TBD	0.002	0	TBD	Perennial	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_145367778	Umatilla	K-82	84.8	TBD	0.004	0	TBD	Perennial	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_145367832	Umatilla	K-79	85.9	TBD	0.002	<0.001	TBD	Perennial	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160620715	Umatilla	K-27	52.6	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160620752	Umatilla	K-29; K-30	53.5; 54.0	TBD	0.009	0.004	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621491	Umatilla	K-24	36.9	TBD	0.003	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160621909	Umatilla	K-28	53.2	TBD	0.001	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160622367	Umatilla	K-28	53.2	TBD	0.044	0.005	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160622394	Umatilla	K-25	47.5	TBD	0.002	0.002	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630009	Umatilla	K-77	85.3	TBD	0.003	0.001	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630010	Umatilla	K-76	85.2	TBD	0.002	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630019	Umatilla	K-55; K-56	83.2	TBD	0.006	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630031	Umatilla	K-58; K-59	84.6	TBD	0.006	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630032	Umatilla	K-88	87.1	TBD	0.002	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630039	Umatilla	K-57	84.3	TBD	0.004	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630041	Umatilla	K-78	85.6	TBD	0.002	<0.001	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630259	Umatilla	K-80	86	TBD	0.01	0.009	TBD	Perennial	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630269	Umatilla	K-85	86.3	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630274	Umatilla	K-69	84.8	TBD	0.003	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630276	Umatilla	K-85	86.2	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630286	Umatilla	K-85	86.2	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630291	Umatilla	K-60	84.2	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630293	Umatilla	K-72	84.8	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630305	Umatilla	K-84	86.1	TBD	0.005	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
NANS_OW_160630306	Umatilla	K-74	84.9	TBD	0.005	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630309	Umatilla	K-83	85.8	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630311	Umatilla	K-83	85.7	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630315	Umatilla	K-61	84	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630321	Umatilla	K-81	84.8	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630352	Umatilla	K-63	83.8	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630366	Umatilla	K-67	84.1	TBD	0.005	0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630515	Umatilla	K-75	85.2-83.3	TBD	0.013	0.081	TBD	Perennial	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630625	Umatilla	K-60	84.3	TBD	0.002	0	TBD	Perennial	Anadromous	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630696	Umatilla	K-76	85.2	TBD	0.003	0	TBD	Perennial	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630713	Umatilla	K-57	84.2	TBD	0.004	0	TBD	Perennial	Anadromous	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630733	Umatilla	K-84	86.1	TBD	0.004	0	TBD	Perennial	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630819	Umatilla	K-73	84.8	TBD	0.004	0	TBD	Perennial	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630848	Umatilla	K-71	84.8	TBD	0.002	0	TBD	Perennial	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630885	Umatilla	K-62	83.8	TBD	0.003	0	TBD	Perennial	Anadromous	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630894	Umatilla	K-86	86.9-87	TBD	0.073	0.001	TBD	Perennial	Anadromous	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160630920	Umatilla	K-53	82.6	TBD	0.002	0	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631202	Umatilla	K-51	75.5	TBD	0.017	0.002	TBD	Perennial	Yes	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631236	Umatilla	K-51	75.5	TBD	0.002	<0.001	TBD	Intermittent	Yes	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631462	Umatilla	K-38	63.2	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631504	Umatilla	K-35	61.2	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631595	Umatilla	K-33	57	TBD	0	0.035	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631666	Umatilla	K-43	64.3	TBD	0.01	0.001	TBD	Intermittent	Unknown	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631674	Umatilla	K-31	55	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD



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NANS_OW_160631692	Umatilla	K-32	56.4	TBD	0.004	0.002	TBD	Intermittent	No	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_160631790	Umatilla	K-37	63.2	TBD	0.001	0	TBD	Perennial	Anadromous	Middle Columbia	170701	TBD	TBD	TBD	TBD
NANS_OW_109317495	Union	K-94	90	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109317655	Union	K-95	90.3	TBD	0.002	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109317923	Union	K-96	90.8	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318015	Union	K-101	91.2	TBD	0.002	0	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318181	Union	K-102	91.5	TBD	0.002	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318241	Union	K-103	91.7	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318361	Union	K-104	91.8	TBD	0.002	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318511	Union	K-104	91.9	TBD	0.01	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318683	Union	K-105	92.3	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318777	Union	K-105	92.4	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109318935	Union	K-106	92.6	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109319641	Union	K-110	93.8	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109319883	Union	K-109; K-111	93.9; 94.2	TBD	0.004	<0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109319909	Union	K-113	94.7	TBD	0.004	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109320319	Union	K-115	95.5	TBD	0.003	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109322453	Union	K-119	98.1	TBD	0.003	<0.001	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109323479	Union	K-132	0.8	TBD	0.002	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109324161	Union	K-128	99.6	TBD	0.002	0	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109324275	Union	K-137	102.3	TBD	0.002	<0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109324277	Union	K-137	102.1	TBD	0.002	0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109324431	Union	K-135	1.9	TBD	0.004	<0.001	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325251	Union	K-154	2.8	TBD	0.003	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD



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NANS_OW_109325279	Union	K-135	1.8	TBD	0.004	0.001	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325311	Union	K-142	104.8	TBD	0.006	0.001	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325525	Union	K-156	3.8	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325685	Union	K-157	4.4	TBD	0.002	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325751	Union	K-156	3.9	TBD	0.002	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325763	Union	K-161	6.6	TBD	0.002	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109325939	Union	K-143	106.8	TBD	0.002	0	TBD	Perennial	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109326955	Union	K-144	107.2	TBD	0.005	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109327141	Union	K-162	10.1	TBD	0.002	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109327743	Union	K-163; K-164	10.8; 11-11.1	TBD	0.038	0.008	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109328415	Union	K-146	112.7	TBD	0.002	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109329261	Union	K-168	114.1	TBD	0.002	0	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109329377	Union	K-169	15.3	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109329861	Union	K-173	15	TBD	0.002	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109330151	Union	K-148	115.6	TBD	0.004	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109330263	Union	K-174	15.4	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109330287	Union	K-150	116	TBD	0.002	0	TBD	Intermittent	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109330399	Union	K-150; K-152	116; 116.4	TBD	0.03	0	TBD	Intermittent	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109330871	Union	K-178	16.9	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_109331429	Union	K-152	116.5	TBD	0.002	0	TBD	Intermittent	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_112935147	Union	K-179; K-180	118.6	TBD	0.004	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112935185	Union	K-183	119.9	TBD	0.002	<0.001	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD



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NANS_OW_112935729	Union	K-188	124.1	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112936335	Union	K-192	126.2	TBD	0.005	0.001	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112936337	Union	K-192	126.4	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112936437	Union	K-194; K-195	126.5-126.7	TBD	0.005	<0.001	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112936455	Union	K-190	126.4-126.5	TBD	0.002	0.043	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112936487	Union	K-196	126.9	TBD	0.002	0	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160026237	Union	K-130	100	TBD	0.009	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026464	Union	K-116	96.1	TBD	0	0.037	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026502	Union	K-114	94.9	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026630	Union	K-108	93.3	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026671	Union	K-107	92.8	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026739	Union	K-101	91.3	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026751	Union	K-101	90.9	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026866	Union	K-93	89.8	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026869	Union	K-97	90.1	TBD	0.002	<0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026877	Union	K-92	89.7	TBD	0.001	0	TBD	Intermittent	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160026951	Union	K-92	89.7	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160027351	Union	K-122	99.2	TBD	0.002	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160027377	Union	K-128	99.6-99.8	TBD	0.026	<0.001	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160027389	Union	K-121	99.1	TBD	0.02	0.004	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160028130	Union	K-129	99.8	TBD	0.004	0	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD



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NANS_OW_160028421	Union	K-114	95	TBD	0.003	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160028467	Union	K-131	100.3	TBD	0.002	<0.001	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160028497	Union	K-92	89.7	TBD	0.003	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160028498	Union	K-92	89.7	TBD	0.002	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160028535	Union	K-93	89.8	TBD	0.019	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160030623	Union	K-172	15.1	TBD	0.002	0	TBD	Intermittent	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160030655	Union	K-165	12.2	TBD	0.003	<0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160030657	Union	K-166	12.4	TBD	0.004	0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160030712	Union	K-138	102.7	TBD	0.002	<0.001	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160030717	Union	K-157	4.4	TBD	0.003	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160030761	Union	K-127	100.6	TBD	0.004	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160031548	Union	K-155	3.3	TBD	0.002	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160032104	Union	K-157	4.4	TBD	0.003	0	TBD	Perennial	Anadromous	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160032203	Union	K-175	16	TBD	0.011	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160032318	Union	K-171	15.2	TBD	0.002	0	TBD	Perennial	No	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160032329	Union	K-161	6.7	TBD	0.002	0	TBD	Intermittent	Unknown	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160032433	Union	K-175; K-176	16.1-16.2	TBD	0.045	0	TBD	Perennial	Yes	Lower Snake	170601	TBD	TBD	TBD	TBD
NANS_OW_160559766	Union	K-191	126.6	TBD	0.007	0.029	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160559774	Union	K-197; K-198	127.1-127.4	TBD	0.004	0.046	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160559777	Union	K-196	126.9	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160559782	Union	K-193	126.4	TBD	0.003	<0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160559783	Union	K-194	126.5	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD



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NANS_OW_112857470	Baker	K-238	159.3	R4	0.002	0	Groundwater	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112857578	Baker	K-239; K-241	159.8-159.9	TBD	0.032	0.004	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112857756	Baker	K-243	160.3	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112857806	Baker	K-244	160.8	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112857922	Baker	K-245	161.3	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112858528	Baker	K-249	165.3	TBD	0.001	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112858530	Baker	K-248	165	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112859680	Baker	K-252	168.7	TBD	0.004	<0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112859752	Baker	K-252	168.7	TBD	0.009	0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112859912	Baker	K-253	169.1	TBD	0.003	<0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112860772	Baker	K-258	170.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112861154	Baker	K-262	171.4	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112861558	Baker	K-263	174.2	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112861560	Baker	K-264	174.3	TBD	0.001	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112861670	Baker	K-266	174.3	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112861708	Baker	K-259	171.4	TBD	0.002	0.003	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112862186	Baker	K-265	174.3	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD



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NANS_OW_112862662	Baker	K-262; K-271	171.6; 172.9	TBD	0.018	0.003	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112862680	Baker	K-270	173.4	TBD	0.002	0.002	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112865936	Baker	K-278	178.8	TBD	0.002	0	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112866106	Baker	K-279	178.7	TBD	0.003	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112866870	Baker	K-280	178.7	TBD	0.004	0.002	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112868862	Baker	K-288	183.6	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112868888	Baker	K-288	183.8	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112869774	Baker	K-295	192.6	TBD	0.002	0	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112869810	Baker	K-297	192.8	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112869816	Baker	K-296	192.7	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112938793	Baker	K-199	131.4	TBD	0.003	0	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112939663	Baker	K-202	133	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112939759	Baker	K-201	133.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112940887	Baker	K-203	133.3	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112941139	Baker	K-207; K-209	135.1	TBD	0.004	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112941407	Baker	K-208	135	TBD	0.006	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112943637	Baker	K-212	139	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
NANS_OW_112944499	Baker	K-214; K-215	140.1-140.3	TBD	0.005	<0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112944717	Baker	K-216	140.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112945637	Baker	K-219	142.6	TBD	0.002	0	TBD	Perennial	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947391	Baker	K-221; K-222	145.5-145.6	TBD	0.002	0.044	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947399	Baker	K-223	145.7	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947411	Baker	K-223	145.7	TBD	0	0.005	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947525	Baker	K-225; K-226	146.3	TBD	0.007	0.029	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947751	Baker	K-223; K-224; K-225	145.8-146.2	TBD	0.009	0.02	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947947	Baker	K-226; K-229	146.6	TBD	0.017	0.02	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112947973	Baker	K-229	0.8	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112948241	Baker	K-230	0.85	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112948537	Baker	K-232	149.9	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_112948619	Baker	K-233	149.3	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033621	Baker	K-298	195	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033628	Baker	K-298	195.2	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033681	Baker	K-299	195.4	TBD	0.003	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160559681	Baker	K-199	131.4	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD



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NANS_OW_127033740	Malheur	K-303	197.1	TBD	0.002	0.011	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033755	Malheur	K-302	0	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033915	Malheur	K-311	200.3	TBD	0.001	0.001	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033935	Malheur	K-312	200.5	TBD	0.003	<0.001	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033979	Malheur	K-315	201	TBD	0.006	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127033980	Malheur	K-313; K-316; K-317	200.9-201.1	TBD	0.048	0.007	TBD	Intermittent	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127034004	Malheur	K-314	200.8	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127034059	Malheur	K-319	201.7	TBD	0.004	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127034124	Malheur	K-320	202	TBD	0.007	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127034191	Malheur	K-321	204.3	TBD	0.005	0.009	TBD	Intermittent	Unknown	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_127034245	Malheur	K-323	205.8	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_131906777	Malheur	K-434	261.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131906891	Malheur	K-441	265.2	TBD	0.004	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131908414	Malheur	K-442	265	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131908868	Malheur	K-440	264.8	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131909420	Malheur	K-432	260.6	TBD	0.005	0.007	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131909430	Malheur	K-438	263.7	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD



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NANS_OW_131909450	Malheur	K-439	264.4	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131909460	Malheur	K-447	267.9	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131909466	Malheur	K-451	268.1	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131911505	Malheur	K-443	265.6	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131912372	Malheur	K-433	261.2	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131912672	Malheur	K-441	265.2	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_131912674	Malheur	K-444	266	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144341180	Malheur	K-352	220.2	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144341452	Malheur	K-339	216.1	TBD	0	0.039	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144341453	Malheur	K-336	216	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144341456	Malheur	K-343	216.1	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144341462	Malheur	K-332	215.1	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144341464	Malheur	K-337	215.5	TBD	0.002	<0.001	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144342126	Malheur	K-327	212.8	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_144342808	Malheur	K-331	214.9	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146126126	Malheur	K-378	232.4	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146126139	Malheur	K-369	232.2	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD



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NANS_OW_146126150	Malheur	K-384	239.5	TBD	0.003	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146126171	Malheur	K-394	242.5	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146126411	Malheur	K-389	240.4	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146126413	Malheur	K-387	239.9	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146127958	Malheur	K-368	232	TBD	0.002	0.002	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146131470	Malheur	K-355	222.7	TBD	0.003	0.004	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146132517	Malheur	K-360	227.1	TBD	0.003	<0.001	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146132534	Malheur	K-361	226.9	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146132540	Malheur	K-356	223.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146132584	Malheur	K-359	227	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146136317	Malheur	K-424	256.2	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146136330	Malheur	K-425	256.6	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_146136922	Malheur	K-419	253.9	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456326	Malheur	K-427	257.3	TBD	0.003	<0.001	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456344	Malheur	K-423; K-426	256.5; 257	TBD	0.006	0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456345	Malheur	K-427	257.3	TBD	0.003	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456380	Malheur	K-411	251.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD



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NANS_OW_158456389	Malheur	K-418	252.5	TBD	0.002	0.007	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456390	Malheur	K-415	251.6	TBD	0.005	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456392	Malheur	K-416	252	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456401	Malheur	K-409	248.3	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456415	Malheur	K-408	6.9	TBD	0.002	0.002	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456417	Malheur	K-396	245.2	TBD	0.005	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456448	Malheur	K-410	249.4	TBD	0.002	0.002	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456453	Malheur	K-414	251.9	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456510	Malheur	K-397	7.39	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456533	Malheur	K-428	257.5; 257.6	TBD	0.004	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_158456538	Malheur	K-417	252.2	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_159830417	Malheur	K-359	226.9	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_159830420	Malheur	K-358	226.9	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_159830485	Malheur	K-353	221.3	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_160608459	Malheur	K-305	197.4- 197.5	TBD	0.002	0.017	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160608482	Malheur	K-307; K-308; K-309	198-198.5	TBD	0.011	0.178	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160608484	Malheur	K-306	197.8	TBD	0.003	0.001	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD



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NANS_OW_160608485	Malheur	K-304	0	TBD	0	0.031	TBD	Intermittent	No	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_160612946	Malheur	K-301	0	TBD	0.002	0	TBD	Perennial	Yes	Middle Snake-Powder	170502	TBD	TBD	TBD	TBD
NANS_OW_162723299	Malheur	K-388	240.1	TBD	0.002	0	TBD	Perennial	No	Middle Snake-Boise	170502	TBD	TBD	TBD	TBD
NANS_OW_162723408	Malheur	K-393	242.5	TBD	0.003	0.005	TBD	Intermittent	No	Middle Snake-Boise	170502	TBD	TBD	TBD	TBD
NANS_OW_162723589	Malheur	K-403	3.8	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162723590	Malheur	K-390	241	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162723597	Malheur	K-386	239.1	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162723632	Malheur	K-394	242.5	TBD	0.009	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724150	Malheur	K-395	244.5	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724152	Malheur	K-407	6.5	TBD	0.002	0.002	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724156	Malheur	K-405	5.6	TBD	0.003	0.004	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724172	Malheur	K-392	241.9	TBD	0.002	0.004	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724176	Malheur	K-391	241.6	TBD	0.002	0.003	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724202	Malheur	K-401	2.5	TBD	0.002	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724206	Malheur	K-385	0.2	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724211	Malheur	K-399; K-400	239.7	TBD	0.004	0.005	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724223	Malheur	K-383	237	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD



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NANS_OW_162724225	Malheur	K-398	1.6	TBD	0.002	0.002	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724261	Malheur	K-385	0.3	TBD	0.002	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724262	Malheur	K-382	236.1	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724299	Malheur	K-364	230.2	TBD	0.003	0.003	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724333	Malheur	K-365; K-366; K-367	229.6; 230.1	TBD	0.044	0.061	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724344	Malheur	K-381	236.3	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724347	Malheur	K-376	232.7	TBD	0.002	0.003	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724370	Malheur	K-379	236	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724389	Malheur	K-381	236.3	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162724994	Malheur	K-380	236.1	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730535	Malheur	K-326	209	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730565	Malheur	K-328	211.2	TBD	0.002	0.003	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730612	Malheur	K-334	215.1	TBD	0	0.02	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730618	Malheur	K-331	214.8	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730653	Malheur	K-342	216.7	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730676	Malheur	K-347	217.4	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162730678	Malheur	K-349	217.7	TBD	0	0.008	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD



Feature ID	County	Map Tile Number	Milepost	Cowardin Class	Permanent Acres	Temporary Acres	Hydrology Source	Flow Duration	Fish Presence	HUC 6 Name	HUC 6 Code	Channel Condition	Channel Bank Condition	Stream Substrate	Riparian Vegetation Composition
NANS_OW_162730694	Malheur	K-347	218.1	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731110	Malheur	K-346	217.4	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731190	Malheur	K-342	216.7	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731246	Malheur	K-344	216.3	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731291	Malheur	K-351	220.2	TBD	0.002	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731343	Malheur	K-324	206.8	TBD	0.005	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731515	Malheur	K-325	208	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731555	Malheur	K-329; K-330	213.7	TBD	0.027	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731677	Malheur	K-341	216.7	TBD	0.002	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162731678	Malheur	K-341	216.7	TBD	0.003	0	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_162734905	Malheur	K-335; K-338	215.8	TBD	0.002	0.002	TBD	Intermittent	Unknown	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_166772724	Malheur	K-354	222.4	TBD	0.003	0	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
NANS_OW_816	Malheur	K-406	5.9	TBD	0	<0.001	TBD	Intermittent	No	Middle Snake-Boise	170501	TBD	TBD	TBD	TBD
				Total	1.356	1.014									



Table G-3. Characteristics of Other Waters (Ephemeral Streams) Proposed for Removal or Fill Impacts

Feature ID	County	Map Tile Number	Milepost	Permanent Acres	Temporary Acres	Fish Presence <sup>1</sup>	HUC 6 Name
MO_SW_STRM_001	Morrow	K-19	34.1	0	0.003	Unknown	Middle Columbia
MO_SW_STRM_301	Morrow	K-20	34.8	<0.001	0.001	No	Middle Columbia
UM_AS_STRM_300	Umatilla	K-90	90	0.001	0	Unknown	Lower Snake
UM_S_0066	Umatilla	K-73	84.8	0.002	0	No	Middle Columbia
UM_SW_STRM_002	Umatilla	K-45	67.6	0	0.008	Unknown	Middle Columbia
UM_SW_STRM_009	Umatilla	K-35	61	0.004	0.003	Unknown	Middle Columbia
UM_SW_STRM_010	Umatilla	K-36	62.4	0.005	0.001	No	Middle Columbia
UM_SW_STRM_016	Umatilla	K-46	67.5	0	0.154	Unknown	Middle Columbia
UN_LM_STRM_209	Union	K-187	122	0.002	0.001	No	Middle Snake-Powder
UN_LM_STRM_226	Union	K-187	122.1	0.003	<0.001	No	Middle Snake-Powder
UN_LM_STRM_227	Union	K-187	122.2	0.001	<0.001	No	Middle Snake-Powder
UN_LM_STRM_228	Union	K-187	122	0.001	<0.001	No	Middle Snake-Powder
UN_LM_STRM_300	Union	K-185	121	0.004	0.004	No	Middle Snake-Powder
UN_LM_STRM_301	Union	K-184	120.6	0.001	0.001	Unknown	Middle Snake-Powder
UN_MC_STRM_002	Union	K-118	97.1	0.001	<0.001	No	Lower Snake
UN_MC_STRM_003	Union	K-118	97.1	0.002	<0.001	No	Lower Snake
UN_MC_STRM_004	Union	K-118	97.2	0.001	<0.001	No	Lower Snake
UN_ML_STRM_007	Union	K-133, K-134	2-2.1	0.004	0.029	No	Lower Snake
UN_ML_STRM_013	Union	K-159	5.5	0.002	0	Unknown	Lower Snake
UN_ML_STRM_030	Union	K-159	5.6	0.004	0	Unknown	Lower Snake
UN_ML_STRM_301	Union	K-170	14.9	0.007	0	No	Lower Snake
UN_ML_STRM_306	Union	K-177	16.5	0.002	0	Yes	Lower Snake
UN_S_0021	Union	K-98, K-98	90.7, 91.1	0.001	0.001	No	Lower Snake
UN_S_0043	Union	K-136	3.1	<0.001	<0.001	Unknown	Lower Snake
BA_BR_029	Baker	K-257	169.8	0.001	<0.001	No	Middle Snake-Powder
BA_BR_400	Baker	K-247	164.8	0.002	0	Unknown	Middle Snake-Powder
BA_BR_416	Baker	K-251	167.3	0.001	0.001	No	Middle Snake-Powder
BA_BR_461	Baker	K-254	169.6, 169.7	0.001	0.008	No	Middle Snake-Powder
BA_FL_035	Baker	K-237	156.1	<0.001	<0.001	No	Middle Snake-Powder
BA_FL_040	Baker	K-237	156.2	0	<0.001	No	Middle Snake-Powder
BA_FL_STRM_308	Baker	K-248	164.9	0.002	0	Yes	Middle Snake-Powder
BA_FL_STRM_310	Baker	K-242	160.8	0.004	0	No	Middle Snake-Powder
BA_LM_STRM_200	Baker	K-206	133.8	0.003	0	No	Middle Snake-Powder
BA_LM_STRM_202	Baker	K-204	133.6	0	0.005*	No	Middle Snake-Powder
BA_LM_STRM_203	Baker	K-205	133.7	0.001	0	No	Middle Snake-Powder
BA_LM_STRM_205	Baker	K-211	136.9	0.001	<0.001	No	Middle Snake-Powder
BA_LM_STRM_206	Baker	K-210	135.7	0.004	0.012	No	Middle Snake-Powder
BA_LM_STRM_208	Baker	K-213	139	0.001	<0.001	No	Middle Snake-Powder



Feature ID	County	Map Tile Number	Milepost	Permanent Acres	Temporary Acres	Fish Presence <sup>1</sup>	HUC 6 Name
BA_S_0010	Baker	K-200	132.6	0.001	<0.001	No	Middle Snake-Powder
BA_WT_STRM_026	Baker	K-289	187.4	<0.001	0	No	Middle Snake-Powder
BA_WT_STRM_219	Baker	K-280	178.7, 178.8	0.003	0.006	Unknown	Middle Snake-Powder
BA_WT_STRM_220	Baker	K-282; K-283; K-285; K-287	182.8	0.030	0.024	No	Middle Snake-Powder
BA_WT_STRM_224	Baker	K-257	169.9	0.002	<0.001	No	Middle Snake-Powder
BA_WT_STRM_226	Baker	K-255	170.4	0.001	0.001	No	Middle Snake-Powder
BA_WT_STRM_303	Baker	K-249	165.4	0.001	0	No	Middle Snake-Powder
BA_WT_STRM_305	Baker	K-246	164.2	0	<0.001	No	Middle Snake-Powder
BA_WT_STRM_307	Baker	K-281	179.4	0.001	0.002	Unknown	Middle Snake-Powder
BA_WT_STRM_308	Baker	K-281	179.6	0.001	0.002	Unknown	Middle Snake-Powder
MalWillwCrk_370	Malheur	K-300	195.5	0.003	0.003	No	Middle Snake-Powder
MA_S_0012	Malheur	K-430	259.3	0.001	<0.001	No	Middle Snake-Boise
MA_S_0016	Malheur	K-412	251	0.001	0.022	No	Middle Snake-Boise
MA_S_0030	Malheur	K-429	258.6	0.002	0.001	No	Middle Snake-Boise
MA_S_0061	Malheur	K-413	251.2	0.001	0.001	No	Middle Snake-Boise
MA_S_0076	Malheur	K-431	260.2	0.001	0.001	No	Middle Snake-Boise
MA_S_0114	Malheur	K-402	3.3	0.002	0.003	No	Middle Snake-Boise
MA_S_0133	Malheur	K-404	5	0.002	0.002	No	Middle Snake-Boise
MA_TM_405	Malheur	K-322	205.2	0.002	<0.001	No	Middle Snake-Powder
MA_TM_483	Malheur	K-338	215.8	0.017	<0.001	Unknown	Middle Snake-Boise
MApro_445	Malheur	K-452	269.1	0.002	0.001	No	Middle Snake-Boise
MApro_447	Malheur	K-453	269.7	0.002	<0.001	No	Middle Snake-Boise
			Total	0.145	0.301		

<sup>1</sup> Project impacts currently listed at streams with fish presence will be avoided after final design, before the project is completed.  
\*Temporary impacts listed for stream BA\_LM\_STRM\_202 will likely be avoided after final design for the project is completed.



## **Appendix H, State Listed Species**

Exhibit Q of the ASC provides expanded information about threatened and endangered species that may be present in the Project site (Site Boundary). A summary of state listed species potentially within the Site Boundary is provided in Table H-1. Data from the following sources were reviewed, and used to help develop threatened and endangered species information:

- Oregon Biodiversity Information Center (ORBIC);
- StreamNet;
- Oregon Department of Fish and Wildlife (ODFW);
- Oregon Department of Agriculture;
- U.S. Department of Agriculture, Forest Service;
- Bureau of Land Management;
- Geographic Biotic Observation (GeoBOB) database;
- ODFW native fish status report; and
- National Oceanic and Atmospheric Administration Fisheries Division.



**Table H-1.** State Listed Threatened and Endangered Species Potentially Present within the Project Site (Site Boundary)

Common Name Scientific Name	State Status	Present in Wetlands or Other Waters	Documented Use of Exhibit Q Analysis Area (Site Boundary +0.5 mile) <sup>1</sup>
<b>WILDLIFE</b>			
Wolverine <i>Gulo gulo</i>	T	No	No records in existing databases. Not found during surveys.
Washington Ground Squirrel <i>Urocyon washingtoni</i>	E	No <sup>2</sup>	Multiple records in existing databases, mostly along the Boardman Bombing Range; three active colonies identified in the analyses area during surveys.
<b>FISH</b>			
Bull Trout <i>Salvelinus confluentus</i>	SC	Yes; but not impacted waters.	ORBIC record in the Grande Ronde River and its tributaries. Current literature states that this species does occur in the streams or drainages within the analysis area.
Middle Columbia River Steelhead <i>Oncorhynchus mykiss</i>	SC (summer run)	Yes; but not impacted waters.	ORBIC record in Birch Creek and its tributary, Stewart Creek, and in Meacham Creek and its tributaries. Current literature states that this species does occur in the streams or drainages within the analysis area.
Snake River Basin Steelhead <i>Oncorhynchus mykiss</i>	SV	Yes; but not impacted waters.	ORBIC record in Ladd Creek, Rock Creek and its tributaries, Dry Creek and its tributaries, and Whiskey Creek; all of which are tributaries to the Grande Ronde River. Current literature states that this species does occur in the streams or drainages within the analysis area.
Snake River Chinook (Spring/Summer Run) <i>Oncorhynchus tshawytscha</i>	T	Yes; but not impacted waters.	ORBIC record in the Grande Ronde River. Current literature states that this species does occur in the streams or drainages within the analysis area.
<b>PLANTS</b>			
Cronquist's Stickseed <i>Hackelia cronquistii</i>	T	No	Eleven occurrences within the analysis area in Malheur County, based on BLM and ORBIC databases, as well as observations from 2012, 2013, and 2016 field surveys. Estimated 877 acres and 9,833 individuals within the analysis area.
Cusick's Lupine <i>Lupinus lepidus</i> var. <i>cusickii</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is 24 miles away from the analysis area.
Davis' peppergrass <i>Lepidium davisii</i>	T	No	No existing database records or survey observations within the analysis area. Closest known occurrence is over 49 miles away from the analysis area.



Common Name Scientific Name	State Status	Present in Wetlands or Other Waters	Documented Use of Exhibit Q Analysis Area (Site Boundary +0.5 mile) <sup>1</sup>
Golden Buckwheat <i>Eriogonum chrysops</i>	T	No	No existing database records or survey observations within the analysis area. Closest known occurrence is over 30 miles away from the analysis area.
Grimy ivesia <i>Ivesia rhypara</i> var. <i>rhypara</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 5 miles away from the analysis area.
Howell's Spectacular Thelypody <i>Thelypodium howellii</i> ssp. <i>spectabilis</i>	E	No	One ORBIC occurrence in Union County within the analysis area. Not found during surveys. Estimated 40 acres and 1,000 individuals within the analysis area.
Laurence's Milk-Vetch <i>Astragalus collinus</i> var. <i>laurentii</i>	T	No	Three occurrences within the analysis area in Morrow and Umatilla counties, based on ORBIC database and observations from 2016 surveys in Umatilla County. Estimated 3 acres and 61 individuals within the analysis area.
Macfarlane's four-o'clock <i>Mirabilis macfarlanei</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 5 miles away from the analysis area.
Malheur Valley Fiddleneck <i>Amsinckia carinata</i>	T	No	No existing database records or survey observations within the analysis area. Closest known occurrence is 8 miles away from the analysis area.
Mulford's Milk-Vetch <i>Astragalus mulfordiae</i>	E	No	Two occurrences within the analysis area in Malheur county, based on BLM and ORBIC databases and observations from 2016 surveys. Estimated 173 acres and 4,753 individuals within the analysis area.
Northern Wormwood <i>Artemisia campestris</i> var. <i>wormskioldii</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 5 miles away from the analysis area.
Oregon Semaphore Grass <i>Pleuropogon oregonus</i>	T	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 0.2 miles away from the analysis area.
Owyhee clover <i>Trifolium owyheense</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 5 miles away from the analysis area.
Packard's Mentzelia <i>Mentzelia packardiae</i>	T	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 20 miles away from the analysis area.
Red-Fruited Lomatium <i>Lomatium erythrocarpum</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 13 miles away from the analysis area.
Smooth Mentzelia <i>Mentzelia mollis</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrences is 0.2 mile away from the analysis area (ORBIC 2016).



Common Name Scientific Name	State Status	Present in Wetlands or Other Waters	Documented Use of Exhibit Q Analysis Area (Site Boundary +0.5 mile) <sup>1</sup>
Snake River Goldenweed <i>Pyrrocoma radiata</i>	E	No	Four occurrences within the analysis area in Baker County, based on BLM and ORBIC databases, as well as observations from 2012, 2013, and 2016 field surveys. Estimated 500 acres and 12,155 individuals within the analysis area.
Spalding's catchfly <i>Silene spaldingii</i>	E	No	No existing database records or survey observations within the analysis area. Closest known occurrence is greater than 5 miles away from the analysis area.
Sterile Milk-Vetch (a.k.a. Cusick's Milk-vetch) <i>Astragalus cusickii</i> var. <i>sterilis</i>	T	No	No existing database records or survey observations within the analysis area. Closest known occurrence is 4.9 miles away from the analysis area (ORBIC 2016).

T – Threatened; E – Endangered; C – Candidate for listing; PT – Potential Candidate; SC – State Sensitive Critical; SV – State Sensitive Vulnerable

<sup>1</sup> Based on results of Project-specific surveys, as well as the databases discussed in Section 3.2 (e.g., 2016 ORBIC, BLM, or USFS data). The number of occurrences for plants within the analysis area were identified based on a 0.62-mile separation distance (NatureServe 2004).

<sup>2</sup> Based on colony boundaries. 785-foot-wide buffers of some colonies overlap wetlands.



## BLOCK 5 PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

### Appendix I, Alternatives Analysis

Through IPC's 2015 Integrated Resource Plan (IRP) — which forecasts load growth in IPC's service — IPC evaluated the Project portfolio as one of nine alternative portfolios. The Project portfolio represents the lowest-cost resource that will ensure that IPC is able to meet growing load and maintain its system in a safe, reliable, and economic manner, and was selected on the basis of extensive cost analysis performed as part of the IRP process.

IPC is fully engaged in a comprehensive evaluation of resources on the 270.-mile long Proposed Route. This effort includes planning for avoidance and minimization of impacts to numerous resources including but not limited to waters of the state, threatened and endangered species, agricultural land, visual resources, and NHPA Section 106 resources. Selection of the final route and final micro-siting of Project facilities must strike a balance that optimizes minimal impacts to all resources.

This alternatives analysis is ongoing. IPC is committed to achieving minimal impact to all resources, to the greatest extent possible while preserving the feasibility of accomplishing the project in terms of cost, logistics and technology.

The results of the 2011-2013 wetland delineation surveys were used to modify the location of proposed facilities to avoid or minimize impacts to stream, river, and wetland resources along the Proposed Route. The results of subsequent wetland surveys may be analyzed during the final engineering design for additional opportunities for avoidance and minimization.

In 2013, Exhibit J, total impacts to wetlands and other waters, both temporary and permanent, totaled 4.29 acres. In 2014, data analysis for a meeting with USACE in Boise indicated a total impact (again, wetlands and other waters, temporary and permanent) of 3.44 acres. (Impact totals listed above for 2013 and 2014 also included estimated permanent and temporary impacts for some wetlands and streams which had not been field delineated but were estimated from mapped NWI and NHD features). Analysis of the 2015 design indicated total permanent and temporary impact to all delineated water features of 0.351 acres. Total estimated permanent and temporary impact to all not yet field-delineated water features was 0.971 acres. In 2016, total impacts to delineated wetlands and other waters, both temporary and permanent, totaled 1.659 acres. Total estimated permanent and temporary impact to all not yet field-delineated wetlands and other waters was 6.207 acres. One potential wetland site (based on NWI mapping) that was not accessed in 2016 is a 25.202-acre potential temporary impact.

Table I-1 documents avoidance and minimization efforts that have occurred on some wetlands and waters. This information is not exhaustive; other avoidance and minimization actions have been taken that are not recorded here.



**Table I-1.** Morrow County Avoidance and Minimization

Feature	Feature Type	Route	Mile	Impact Status	Review Date	Avoidance or Minimization Action
NANS_OW_152 902001	Other Waters	Proposed Route	0.8	Avoided	2014-04-14	No longer using Boardman Canal Rd.

**Table I-2.** Umatilla County Avoidance and Minimization

Feature	Feature Type	Route	Mile	Impact Status	Review Date	Avoidance or Minimization Action
UMpro_064	Other Waters	Proposed Route	79.7	Avoided	2014-02-26	Removed redundant overland travel roads in ROW between structure's 383 and 385. Shifted work area for structure 385 east and trimmed to wetland. New access road was trimmed to avoid water feature.
UMpro_064	Other Waters	Proposed Route	79.7	Avoided	2013-04-24	Shifted roadway approach slightly to avoid crossing buffer structure 405.
UM_S_0143	Other Waters	Proposed Route	80.7	Avoided	2014-02-26	Will limit road disturbance as much as possible to avoid impacts.
UM_S_0059	Other Waters	Proposed Route	81.4	Avoided	2014-03-13	Eliminated redundant overland travel.
NANS_OW_160 630046	Other Waters	Proposed Route	81.7	Avoided	2013-04-24	Design modified to avoid impact.
NANS_OW_160 630032	Other Waters	Proposed Route	83.2	Minimized	2014-02-26	Eliminated redundant overland travel road in ROW between structures 397 and 398. Road type changed to minimize impact as much as possible.
NANS_OW_160 630032	Other Waters	Proposed Route	83.2	Minimized	2014-03-13	Trimmed work area; eliminated redundant overland travel between structures in ROW.
UM_G_122	Other Waters	Proposed Route	84	Avoided	2013-04-25	Design modified to avoid impact.



**Table I-3.** Union County Avoidance and Minimization

<b>Feature</b>	<b>Feature Type</b>	<b>Route</b>	<b>Mile</b>	<b>Impact Status</b>	<b>Review Date</b>	<b>Avoidance or Minimization Action</b>
UN_G_104	Other Waters	Proposed Route	110.2	Avoided	2013-05-13	Shifted tower location; previously trimmed work area and changed access to avoid wetlands.



**Table I-4.** Baker County Avoidance and Minimization

<b>Feature</b>	<b>Feature Type</b>	<b>Route</b>	<b>Mile</b>	<b>Impact Status</b>	<b>Review Date</b>	<b>Avoidance or Minimization Action</b>
BA_S_0010	Other Waters	Proposed Route	128.3	Avoided	2014-04-16	Reworked roads to use existing ephemeral crossing and minimize channel impacts.
BA_FL_035	Other Waters	Proposed Route	150.8	Minimized	2014-03-19	Will limit road disturbance as much as possible to avoid impacts.
NANS_OW_1128 57470	Other Waters	Proposed Route	153.9	Avoided	2014-03-19	Trimmed work area and overland travel site.
NANS_W_38	Wetland	Proposed Route	158.3	Avoided	2014-04-14	Added overland travel on one side and trimmed on the other side to avoid wetlands.
NANS_W_38	Wetland	Proposed Route	158.3	Avoided	2014-03-19	Trimmed remaining road stub to avoid waters/wetland impacts.
BA_TM_218	Other Waters	Proposed Route	190.9	Avoided	2014-03-26	Eliminated crossing in favor of established crossing on Benson Creek Rd to the west.



**Table I-5. Malheur County Avoidance and Minimization**

<b>Feature</b>	<b>Feature Type</b>	<b>Route</b>	<b>Mile</b>	<b>Impact Status</b>	<b>Review Date</b>	<b>Avoidance or Minimization Action</b>
MA_G_290	Other Waters	Double Mountain	0.2	Minimized	date not recorded	Trimmed work area to minimize impact as much as possible.
MA_G_299	Other Waters	Double Mountain	2.5	Minimized	date not recorded	Will limit road disturbance as much as possible to avoid impacts.
MA_TM_465	Other Waters	Proposed Route	212.2	Minimized	2014-06-02	Moved road to in-between water features.
MA_TM_033	Other Waters	Proposed Route	216.4	Avoided	2014-04-11	Trimmed work areas, overland travel sites and reworked road to avoid crossing.
NANS_OW_14613 2542MA_TM_018	Other Waters	Proposed Route	218.3	Avoided	2014-03-28	Eliminated stream crossing.
NANS_OW_15982 9758	Other Waters	Proposed Route	224.1	Avoided	date not recorded	Trimmed structure work area; reworked roads to avoid water feature.
NANS_OW_15982 9758	Other Waters	Proposed Route	224.1	Avoided	date not recorded	Trimmed structure work area; reworked roads to avoid water feature.
NANS_OW_16272 4379	Other Waters	Proposed Route	225.4	Avoided	date not recorded	Reworked roads.
Malpro_573	Wetland	Proposed Route	226.9	Avoided	2014-03-31	Structure previously shifted; Trimmed work area to avoid impact.
NANS_W_162723 597	Other Waters	Proposed Route	234	Minimized	2014-06-02	Reduced structure work area and moved access road to reduce impact to resource.
MA12_1643	Other Waters	Proposed Route	236.4	Minimized	2014-06-02	Moved road south to a better stream crossing point within the Site Boundary.
MA_S_0035	Other Waters	Proposed Route	240.3	Avoided	2014-04-01	Eliminated crossing.
MA_S_0082	Other	Proposed Route	243.1	Avoided	2014-04-01	Eliminated redundant overland travel



<b>Feature</b>	<b>Feature Type</b>	<b>Route</b>	<b>Mile</b>	<b>Impact Status</b>	<b>Review Date</b>	<b>Avoidance or Minimization Action</b>
	Waters					in ROW with crossing.
MA_S_0038	Other Waters	Proposed Route	243.9	Avoided	2014-04-01	Will limit road disturbance as much as possible to avoid impacts.
MA_G_256	Other Waters	Proposed Route	259.2	Avoided	2014-04-02	Removed redundant overland travel in ROW.
MA_G_256	Other Waters	Proposed Route	259.2	Avoided	2014-04-02	Trimmed overland travel; removed overland travel in ROW.
MA_G_277	Wetland	Proposed Route	262.9	Avoided	2013-04-25	Eliminated overland travel site and reclassified bladed road to overland travel.



## BLOCK 6 PROJECT DESCRIPTION

### Appendix J Summary of Overall Project Work

The following description of how the Project will be constructed is extracted and summarized from the Exhibit B Project Description of the ASC and from the draft Plan of Development prepared for the Bureau of Land Management.

#### Access Roads

The Project will require vehicular access during construction of each transmission structure, communication station site, as well as temporary facilities including multi-use areas and pulling and tensioning sites. As described in Exhibit B, Attachment B-5, Road Classification Guide and Access Control Plan, access roads included in the Site Boundary include:

- New roads (primitive, and bladed); and
- Existing roads requiring substantial modification.

Existing roads that will be used for construction and operation of the Project but will not require substantial modification are not “related and supporting facilities” and, therefore, are not included in the Site Boundary. See Exhibit B, Attachment B-5, Table B-12 for a summary of the access road classifications.

**New Primitive Roads.** New primitive roads are characterized as follows:

- Created by direct vehicle travel over native material and existing vegetation.
- Disturbance may include clearing of large woody vegetation and other obstructions to ensure safe vehicle operation.
- Will generally be present on the landscape as two-track roads leaving no disturbance beyond the edge of the travel surface.
- May require intermittent maintenance work to support continued safe vehicle passage during construction.
- Typical construction disturbance is 16 feet wide. The operational width is 10 feet. The Site Boundary for a new primitive road will be 200 feet wide (100 feet each side of centerline).

**New Bladed Roads.** New bladed roads are characterized as follows:

- Construction of new road prism across side slope over 8 percent or over rough and uneven terrain.
- Typical construction disturbance is 16 feet wide, but can be up to 35 feet wide as dictated by terrain and soil conditions. The operational width is 14 feet. The Site Boundary for a new bladed road will be 200 feet wide (100 feet each side of centerline).

**Existing Roads – Substantial Modification.** Existing roads that will require substantial modification are characterized as follows:

- Typical construction disturbance is 16 feet wide, but can be up to 30 feet wide when road modification exceeds 70 percent. The operational width is 14 feet. The Site Boundary for a substantial modification existing road will be 100 feet wide (50 feet each side of centerline)



After construction is completed, any new roads developed for the Project connecting to multi-use areas will be removed and restored to preconstruction conditions, unless the landowner requests otherwise. Roads developed for pulling and tensioning sites will be permanent because they will also provide access to structures for operations and maintenance. Both categories of access roads are shown on maps in Exhibit C of the ASC, Project Location, Attachment C-2.

### **Multi-use Areas**

Construction of the Project will begin with the establishment of multi-use areas. The multi-use areas will serve as field offices; reporting locations for workers; parking space for vehicles and equipment; and sites for material delivery and storage, fabrication assembly of towers, cross arms and other hardware, concrete batch plants, and stations for equipment maintenance. Multi-use areas, each of which is about 30 acres in size, will be located approximately every 15 miles along the corridor.

Helicopter operations may be staged from multi-use areas. Project construction activities potentially facilitated by helicopters may include delivery of construction laborers, equipment, and materials to structure sites; structure placement; hardware installation; and wire stringing operations. Helicopters may also be used to support the administration and management of the Project by IPC, the Construction Contractor, or both. Where construction access by truck is not practical due to steep terrain, all-terrain vehicle trails may be utilized to support maintenance activities. The use of helicopter construction methods for this Project will not change the length of the access road system required for operating the Project because vehicle access is required to each tower site regardless of the construction method employed.

Multi-use areas will be fenced and their gates locked. Security guards will be stationed where needed. In some cases, the multi-use area may need to be scraped by a bulldozer and a temporary layer of rock laid to provide an all-weather surface. Unless otherwise directed by the landowner, the rock will be removed from the multi-use area upon completion and the area will be restored.

### **Pulling and Tensioning Sites**

Pulling and tensioning sites (299) will be required approximately every 1.5 to 2 miles along the ROW and at angle points greater than 30 degrees and will require approximately 5 acres at each end of the wire section to accommodate required equipment. Equipment at sites required for pulling and tensioning activities will include tractors and trailers with spooled reels that hold the conductors and trucks with the tensioning equipment.

Four pulling and tensioning Sites are designated as light-duty fly yards. Light-duty fly yards are similar to the multi-use areas but are smaller in size. All of the equipment and activities that occur at a multi-use area may also occur at a light-duty fly yard. The exception would be that, no oil and gas or explosive storage would occur and no batch plants would be located at the light-duty fly yards.

### **Typical Site Preparation**

Individual structure work areas will be cleared as necessary to install the transmission line structures and to facilitate access for future operation and maintenance activities. As necessary, the blading of individual structure work areas will be done using a bulldozer to blade only the minimum required area, and to the extent practical, blading of native plant communities will be minimized. For all structure types, the structure work area will be cleared of vegetation only to the extent necessary and any removed topsoil will be stockpiled and stabilized to limit erosion.



At each single-circuit 500-kV structure location, an area approximately 250 feet by 250 feet will be needed for construction laydown, structure assembly, and erection, depending on slope. This area will provide a safe working space for placing equipment, vehicles, and materials. Upon completion of construction, areas not needed for normal transmission line maintenance, including fire and personnel safety clearance areas, will be graded to blend as near as possible with the natural contours, then revegetated as required.

Additional equipment may be required if solid rock is encountered at a structure location. Rock-hauling, hammering, or blasting may be required to remove the rock. Excess rock that is too large in size or volume to be spread at the individual structure sites will be hauled away and disposed of at approved landfills or at a location specified by the landowner or land-management agency.

### **Structure Foundations**

The 500-kV single-circuit lattice steel structures each require four foundations, one on each of the four corners of the lattice towers. The foundation style, diameter, and depth will be determined during final design and are dependent on structure loading conditions and the type of soil or rock present at each specific site. The preliminary design indicates the foundations for the single-circuit tangent lattice towers will be composed of steel-reinforced concrete drilled piers with a typical diameter of 4 feet and a depth of approximately 15 feet.

For the 500-kV H-frame structures, each tangent structure will require two foundations, one for each pole that comprises the H-frame structure. Angle and dead-end structures will use a three-pole structure, each with its own foundation. They will be steel-reinforced drilled piers with a typical diameter of 6 to 8 feet and a depth of approximately 25 to 40 feet.

## **Appendix K Work in Waters and Wetlands**

The proposed project crosses both wetlands and streams. There are a number of different construction methods that could potentially be used for any given crossing. Presented below is a brief description of the available construction methods applicable to the Project. This information is not exhaustive; other construction methods may be used that are not recorded here.

The primary impacts to wetlands and streams will be from improving existing access roads, and constructing new roads and new towers structures. Impacts may include site grading and placing geotextile separation fabric and crushed rock fill, and compaction for surface stabilization. Structures used at streams crossings such as rail car bridges or timber matting would span the stream above the ordinary high water mark and will be removed following construction. No de-watering of streams is anticipated during construction. There will be no direct effects (removal or fill) during the Project's operation, and roads will be constructed using best management practices to prevent erosion and subsequent sedimentation in waters during the operational life of the Project.

Impact site location topographic maps are provided in Appendix C above. Site plan drawings depicting permanent and temporary impacts to wetlands and waters are provided in Figures K-1 – K-453, below.

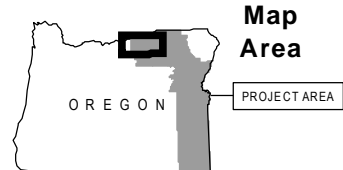
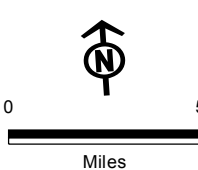
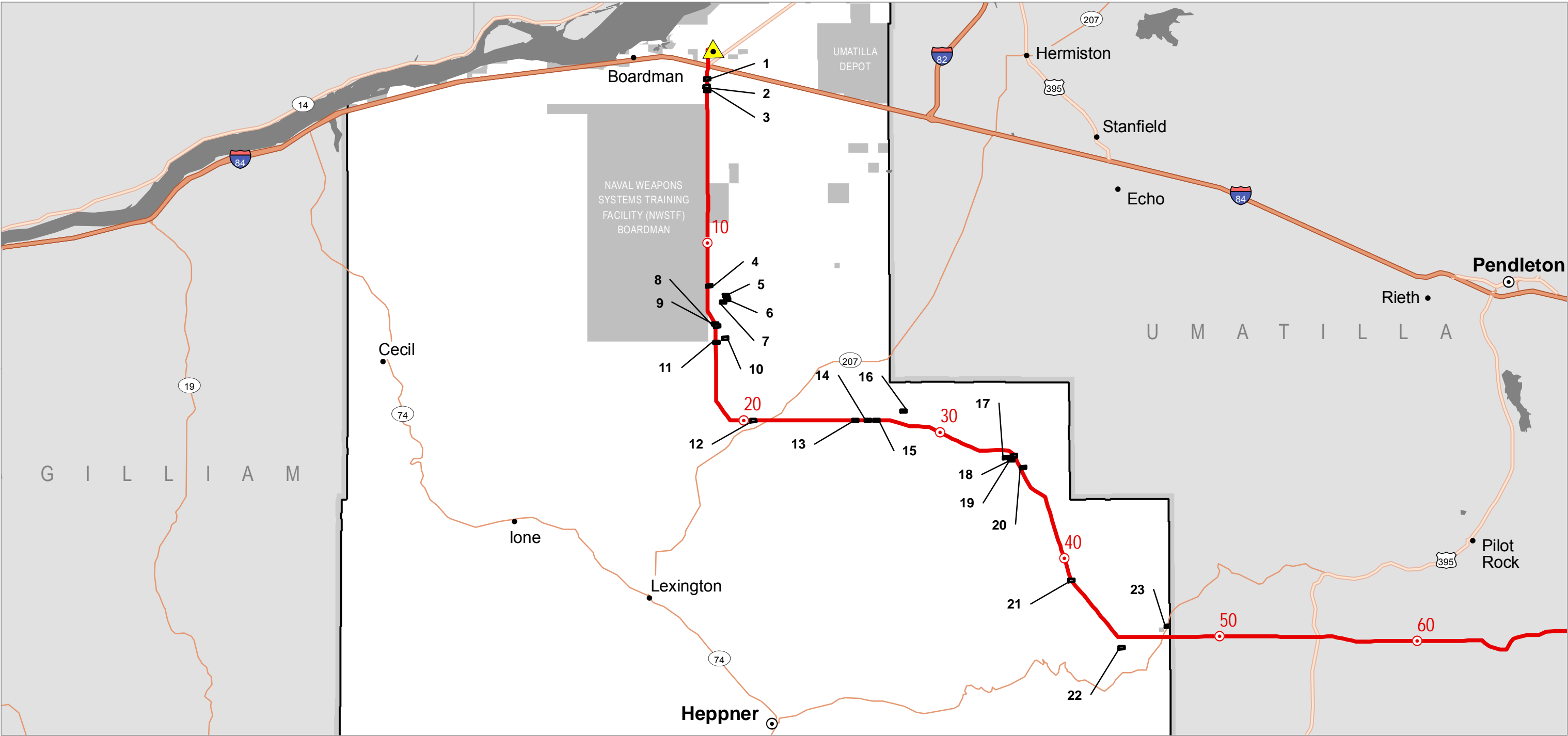
Figures K-454 through K-456, below illustrate typical site plans, cross sections, and dimensions for road crossings, and related permanent and temporary impacts in wetlands and other waters, and construction BMPs. Construction work at road crossings of fish bearing streams will not be performed below the ordinary high water mark.



The best available environmental practices pertinent to each construction methodology or environmental protection measures will be employed. These practices include, but are not necessarily limited to the following:

- Prior to initial construction activities wetland and stream boundaries will be clearly marked with high visible flagging, signs, and/or construction fencing to delineate the limits of work in and near sensitive water resources.
- A storm water pollution prevention plan (SWPPP) and erosion and sediment control plan (ECSP) will be created and implemented to cover construction related ground disturbing activities associated with this project. The SWPPP and ECSP will specify best management practices (BMPs) that will be implemented in order to minimize sediment and other pollutants from impacting waters of the WOS/WOUS.
- Stream crossings and in-water work will follow preferred work periods outlined in the ODFW Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources (2008). Crossings will be reviewed with ODFW and follow the Fish Passage Plans and Designs document for this Project (Tetra Tech 2015).
- Temporary and permanent BMPs will be used to control erosion, sediment and other pollutants associated with construction related activities. BMPs will be installed and maintained until disturbed areas meet final stabilization criteria.
- Temporary impacts to wetlands and other non-wetland waters will be rectified within 24-months from the date the impact occurred (see Site Rehabilitation Plan in Appendix S), and as specified in conditions of the Removal-Fill Permit.
- Temporary impact areas will be returned to their original contour, mulched, and replanted with native plants appropriate for the site location.
- During O&M activities IPC will use existing stream crossings or new, permanent crossings that were approved as part of the Project, and IPC will not create additional crossings without prior agency permitting and approval.





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

- Map Index**
- Map Tile (Map #)

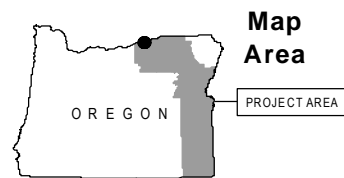
**IDAHO POWER**  
An IDACORP Company

Boardman to Hemingway  
Transmission Line Project

**Appendix K**  
**Joint Permit Application**  
**Location Map**  
Morrow County  
**Map Index**

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





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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

Mileposts

Tenth-mile

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

##### Transportation

Other Major Roads

Rivers, Streams, and Canals

##### Wetland

NANS Wetland (NWI)

Wetland Impact Type

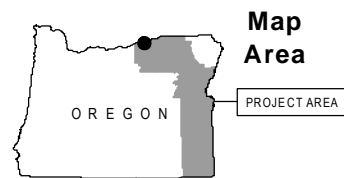
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-1 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

#### Transportation

Other Major Roads

Rivers, Streams, and Canals

#### Wetland

NANS Wetland (NWI)

Wetland Impact Type

Temporary

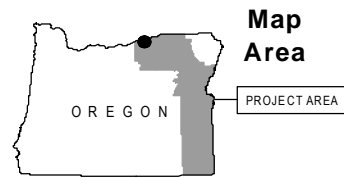
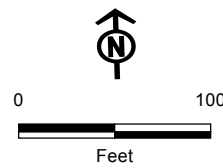
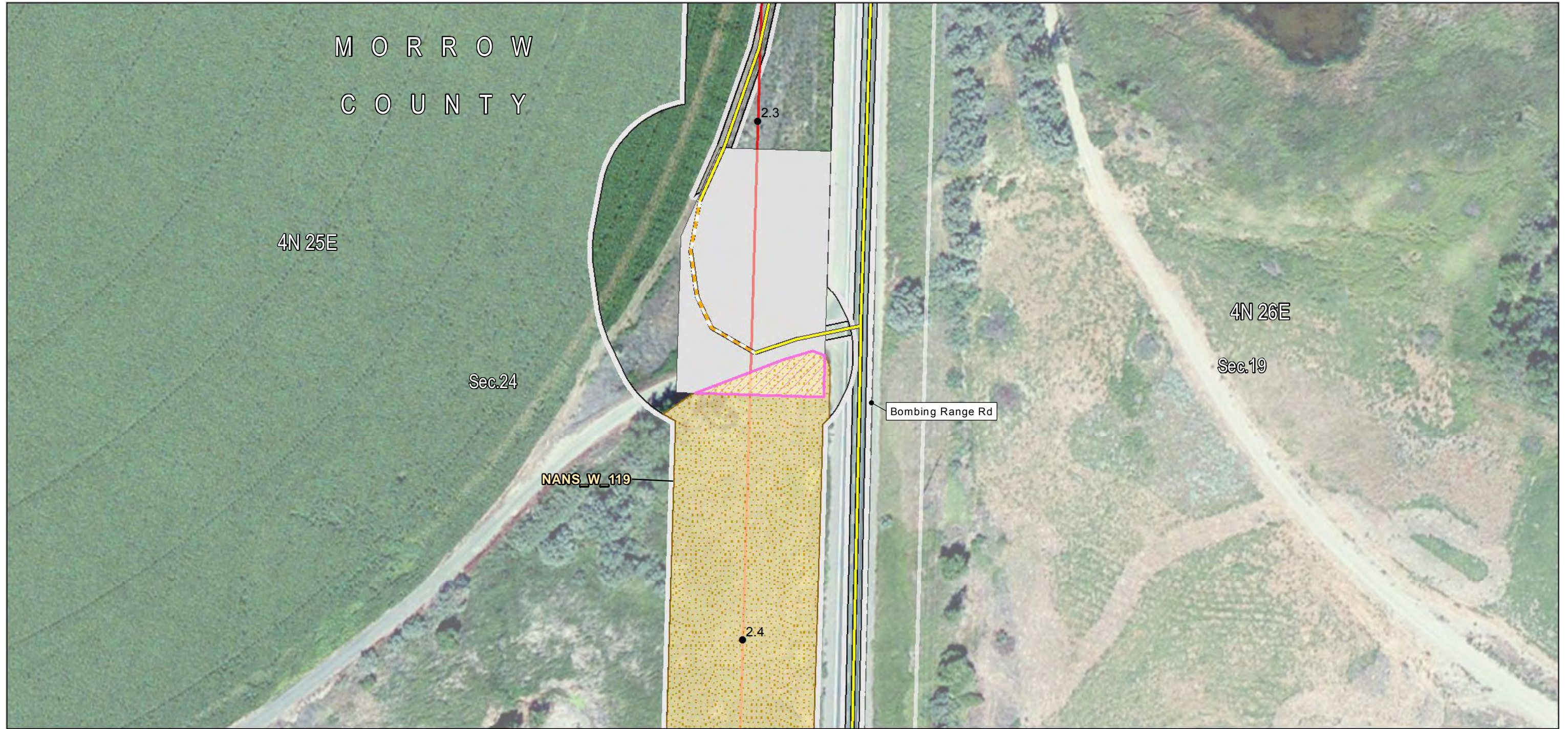
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-2 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

#### Transportation

Other Major Roads

Rivers, Streams, and Canals

#### Wetland

NANS Wetland (NWI)

Wetland Impact Type

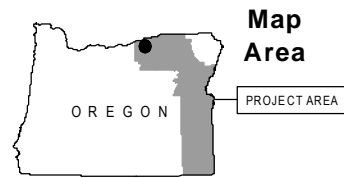
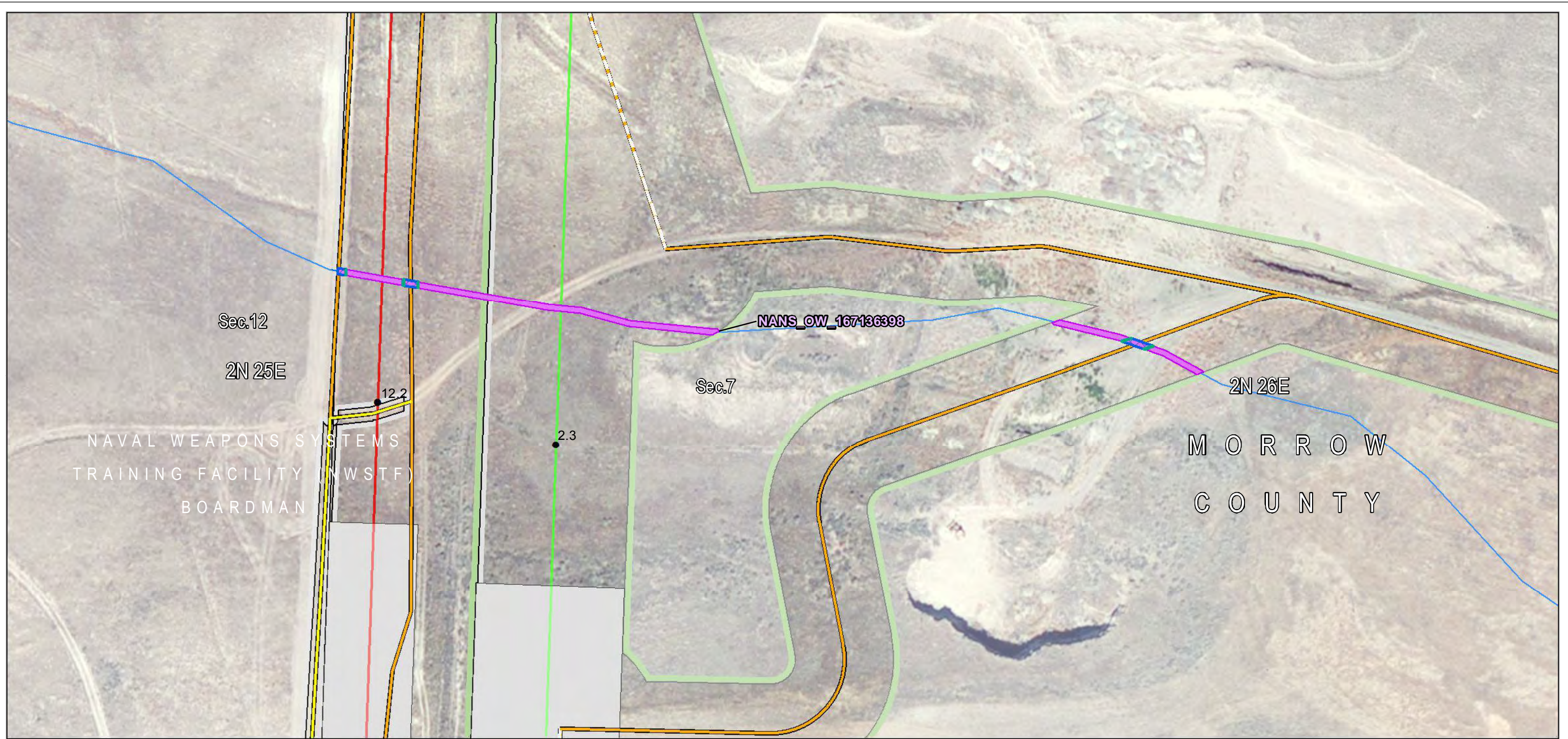
Temporary



Boardman to Hemingway  
Transmission Line Project

**Attachment K-3**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

- Proposed Route
- Alternative Route
- Route Centerline
- Proposed Route
- Alternative

##### Work Areas

- Structure Work Area

##### Mileposts

- Tenth-mile

##### Construction Access

- Existing Road, No Substantial Modification, 0-20% Improvements

- Existing Road, Substantial Modification, 21-70% Improvements
- New Road, Primitive

- Rivers, Streams, and Canals

##### Other Waters

- NANS Streams (NHD)

##### Stream Impact Type

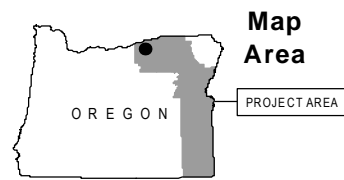
- Temporary
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-4**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

##### Transportation

Other Major Roads

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

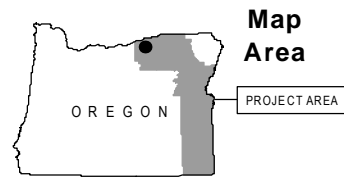
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Boardman to Hemingway  
Transmission Line Project

## Attachment K-5 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

##### Transportation

Other Major Roads  
Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

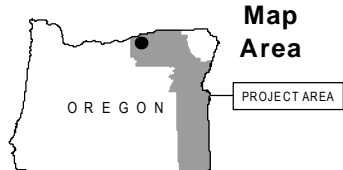
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Boardman to Hemingway  
Transmission Line Project

## Attachment K-6 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

- Project Features**
- Construction Access
  - Existing Road, No Substantial Modification, 0-20% Improvements
  - Rivers, Streams, and Canals
- Other Waters**
- NANS Streams (NHD)

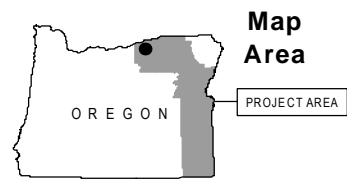
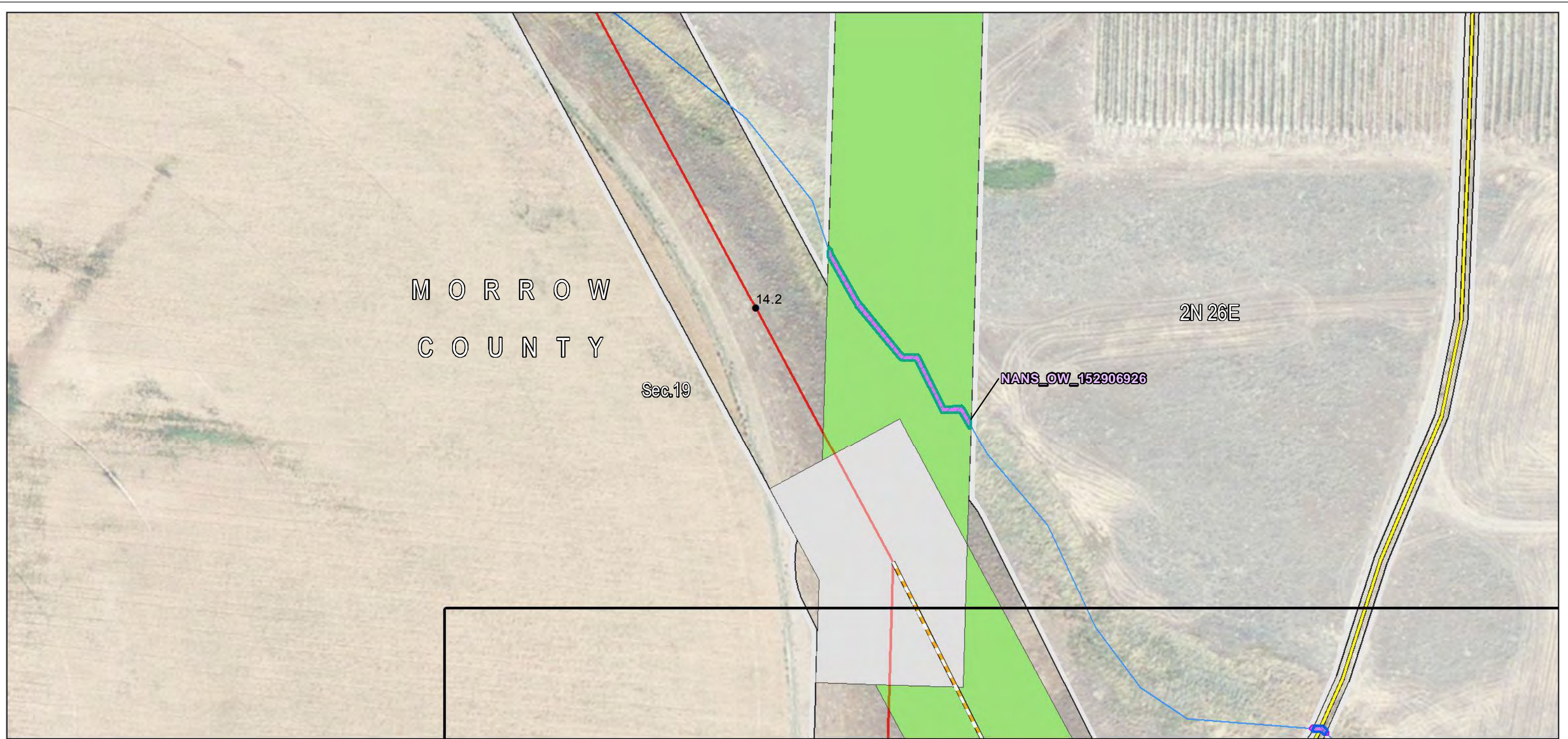
- Stream Impact Type**
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-7**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

Rivers, Streams, and Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

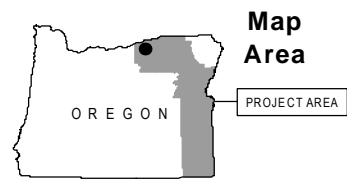
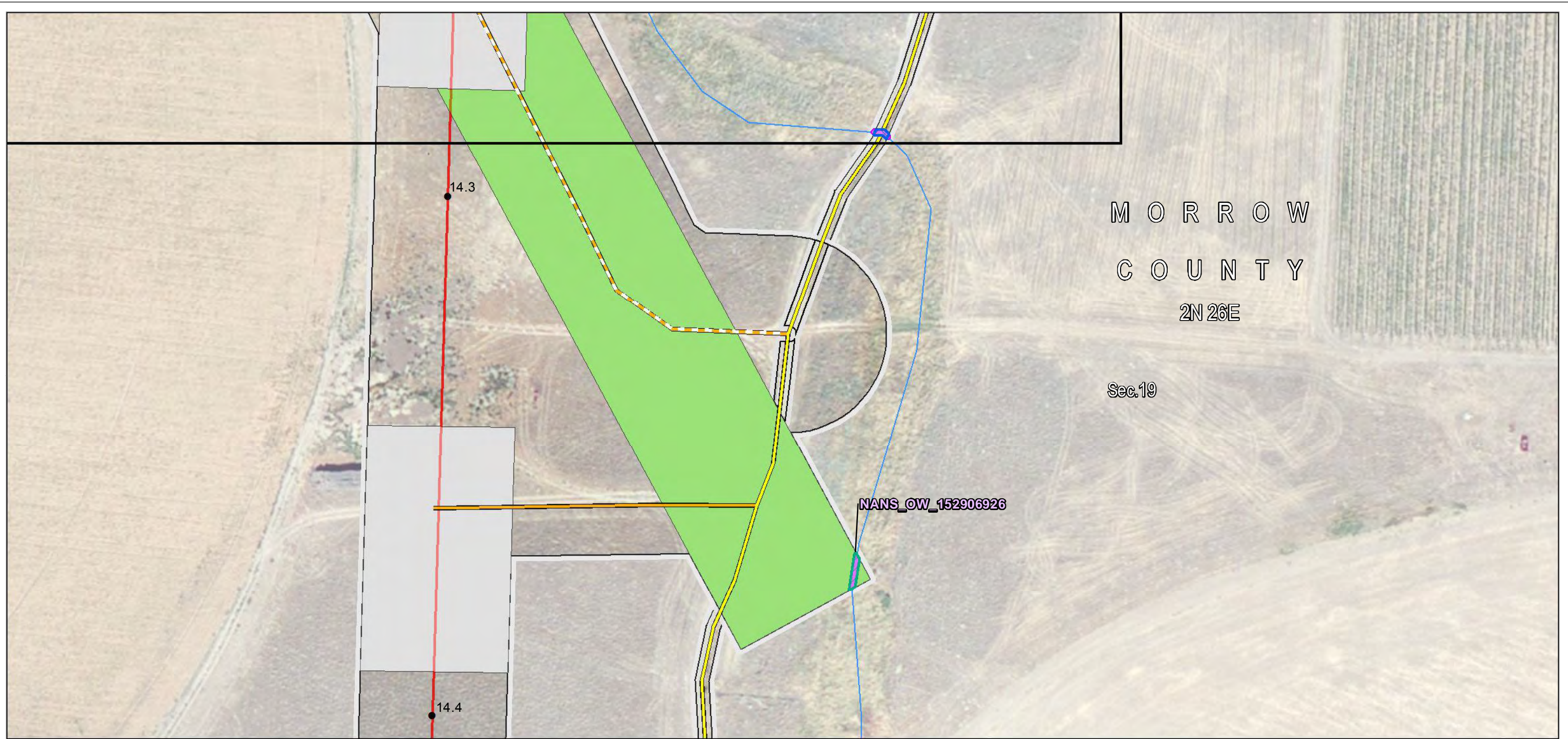
Permanent



Boardman to Hemingway Transmission Line Project

### Attachment K-8 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

##### Work Areas

Pulling and Tensioning

Structure Work Area

##### Mileposts

Tenth-mile

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 21-70% Improvements

New Road, Primitive

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Temporary

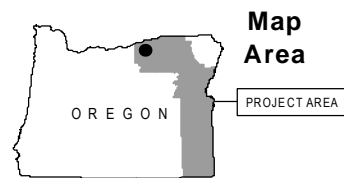
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Boardman to Hemingway  
Transmission Line Project

## Attachment K-9 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

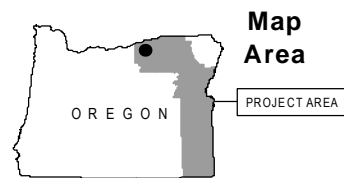
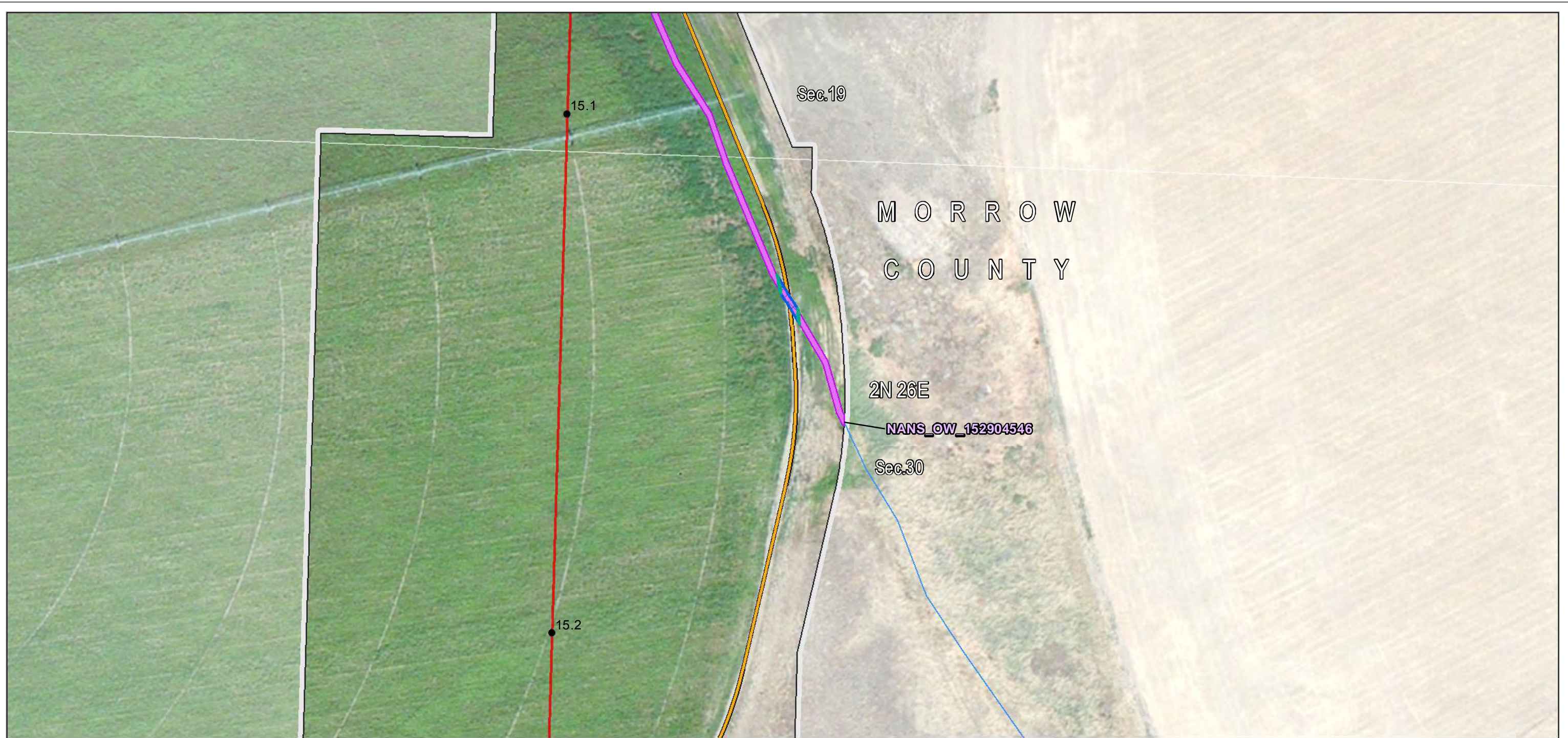
Permanent



Boardman to Hemingway  
Transmission Line Project

### Attachment K-10 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Mileposts
- Tenth-mile

- Construction Access
- Existing Road, Substantial Modification, 21-70% Improvements
- Rivers, Streams, and Canals

#### Other Waters

- NANS Streams (NHD)

#### Stream Impact Type

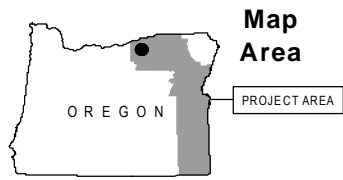
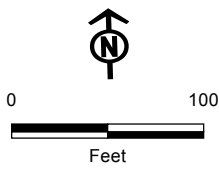
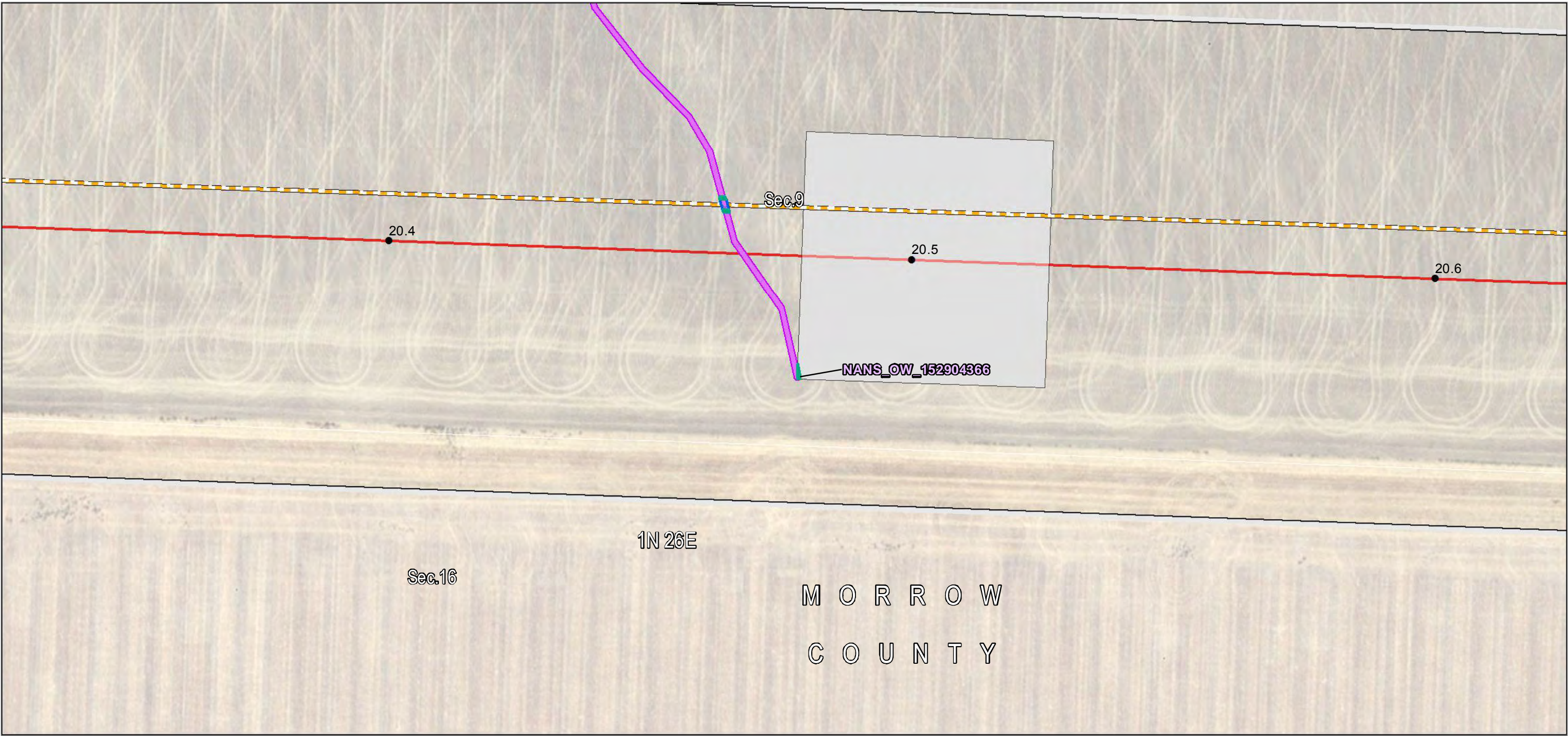
- Temporary
- Permanent



Boardman to Hemingway  
Transmission Line Project

### Attachment K-11 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

**Site Boundary**

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

**Mileposts**

Tenth-mile

Construction Access

New Road, Primitive

Rivers, Streams, and Canals

**Other Waters**

NANS Streams (NHD)

Stream Impact Type

Temporary

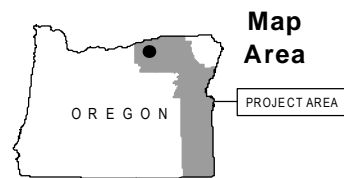
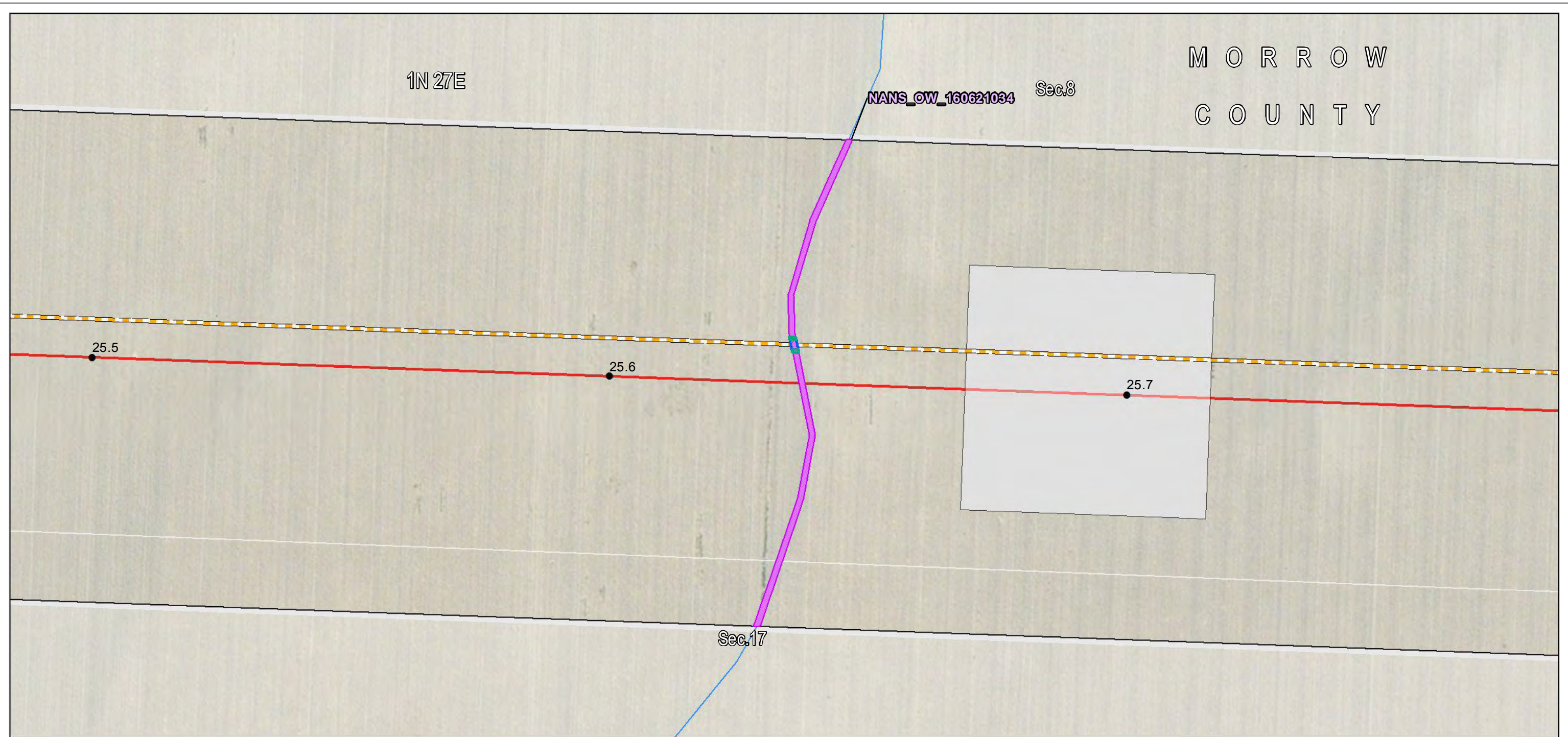
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-12**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Tenth-mile

Construction Access

New Road, Primitive

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

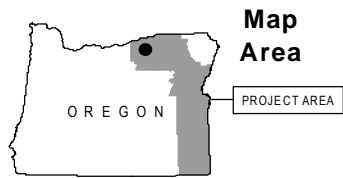
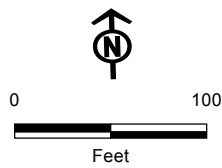
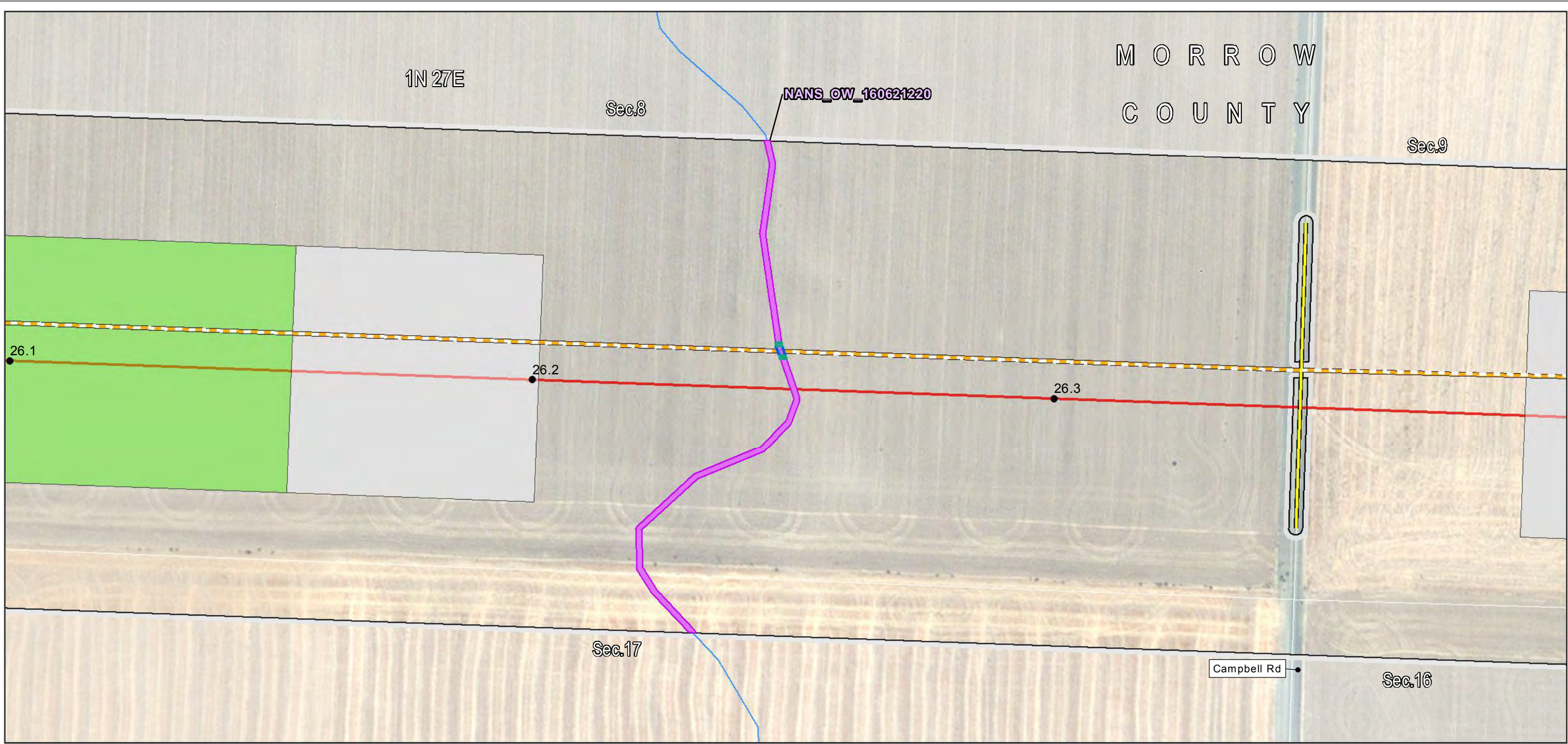
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Boardman to Hemingway  
Transmission Line Project

### Attachment K-13 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

Rivers, Streams, and Canals

NANS Streams (NHD)

Stream Impact Type

Temporary

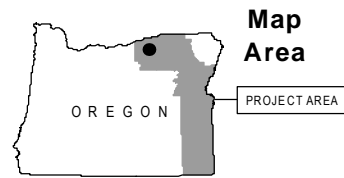
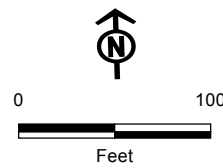
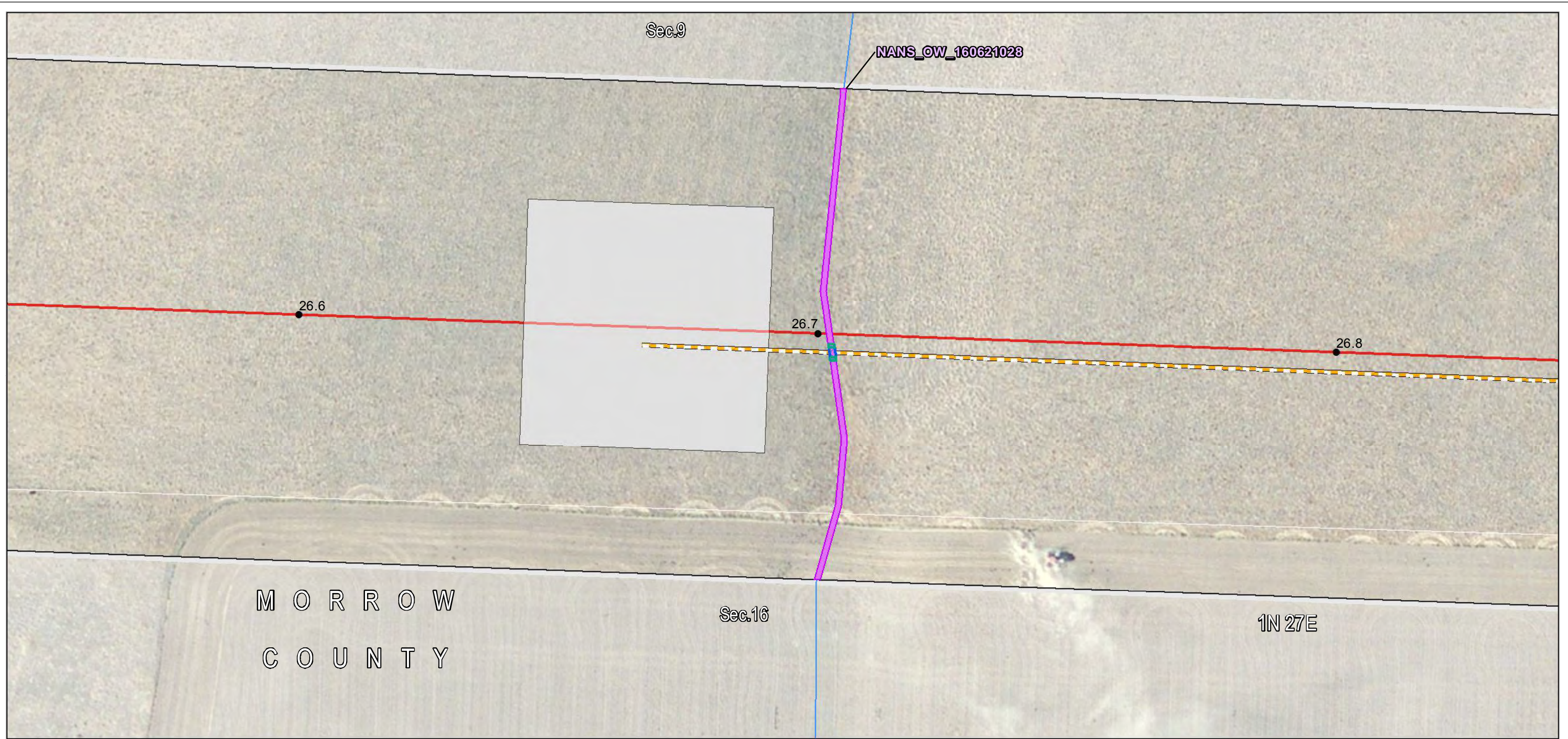
Permanent



Boardman to Hemingway Transmission Line Project

### Attachment K-14 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

##### Mileposts

Tenth-mile

Construction Access

New Road, Primitive

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

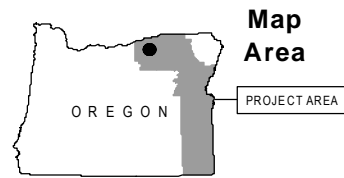
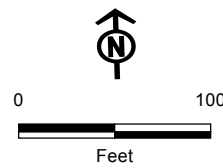
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-15 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

- Site Boundary
- Proposed Route
- Work Areas
- Multi-Use Area
- Construction Access

- Existing Road, No Substantial Modification, 0-20% Improvements

- Existing Road, Substantial Modification, 21-70% Improvements

#### Transportation

- Other Major Roads
- Rivers, Streams, and Canals

#### Other Waters

- NANS Streams (NHD)

#### Stream Impact Type

- Permanent

#### Wetland

- NANS Wetland (NWI)

#### Wetland Impact Type

- Permanent



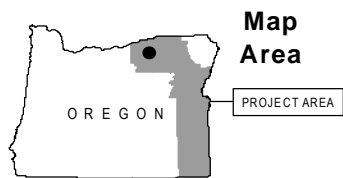
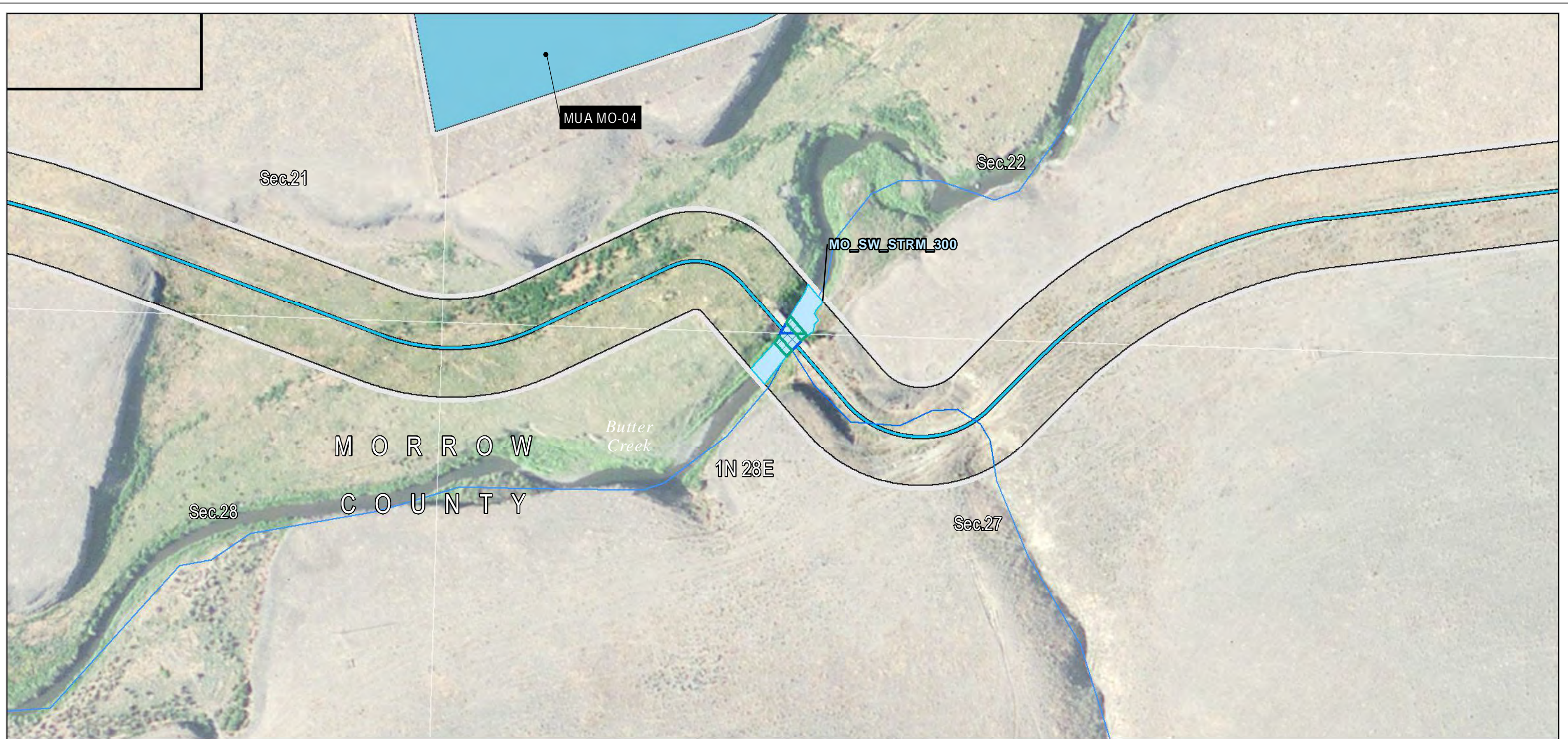
Boardman to Hemingway  
Transmission Line Project

## Attachment K-16 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Work Areas

Multi-Use Area

Construction Access

Existing Road, Substantial  
Modification, 71-100%  
Improvements

Rivers, Streams, and  
Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

Temporary

Permanent



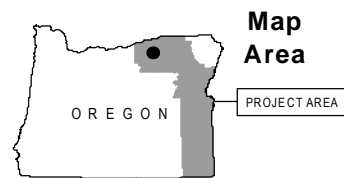
Boardman to Hemingway  
Transmission Line Project

### Attachment K-18 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

##### Work Areas

Structure Work Area

##### Mileposts

Tenth-mile

##### Construction Access

Existing Road, Substantial Modification, 71-100% Improvements

New Road, Primitive

Rivers, Streams, and Canals

##### Other Waters

Field Survey Streams

##### Stream Impact Type

Temporary

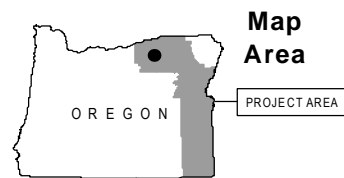
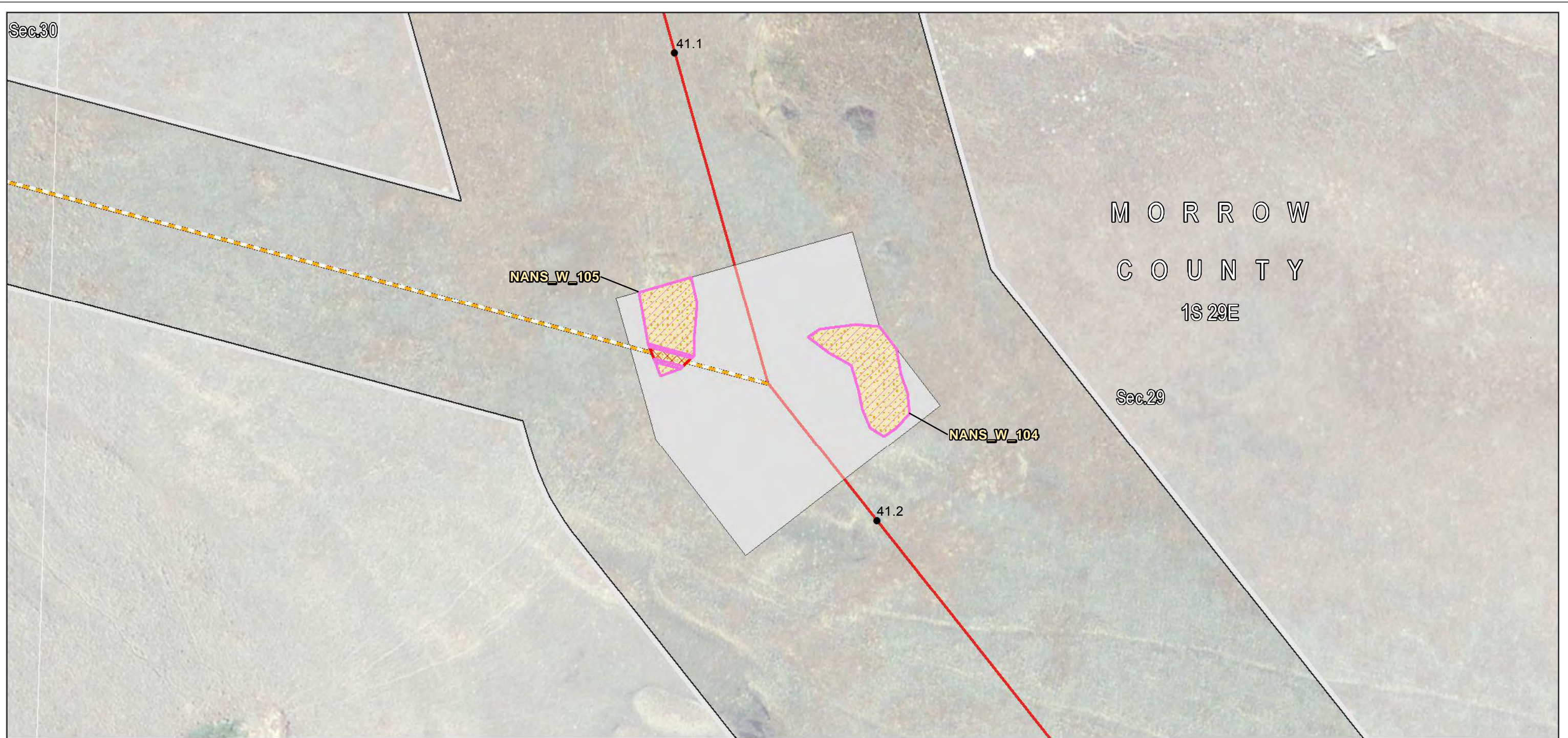
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Boardman to Hemingway  
Transmission Line Project

## Attachment K-20 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Work Areas
- Structure Work Area

#### Mileposts

- Tenth-mile
- Construction Access
- New Road, Primitive
- Rivers, Streams, and Canals

#### Wetland

- NANS Wetland (NWI)
- Wetland Impact Type
- Temporary
- Permanent



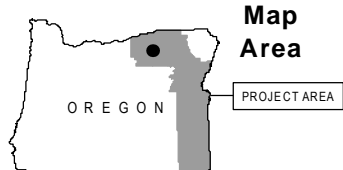
Boardman to Hemingway  
Transmission Line Project

### Attachment K-21 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

- Site Boundary
- Proposed Route
- Construction Access
- Existing Road, No Substantial Modification, 0-20% Improvements
- Existing Road, Substantial Modification, 71-100% Improvements

**Transportation**

- Other Major Roads
- Rivers, Streams, and Canals

**Other Waters**

- NANS Streams (NHD)

**Stream Impact Type**

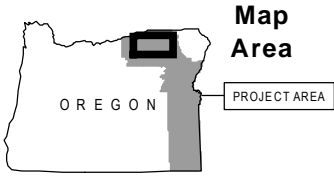
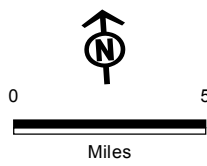
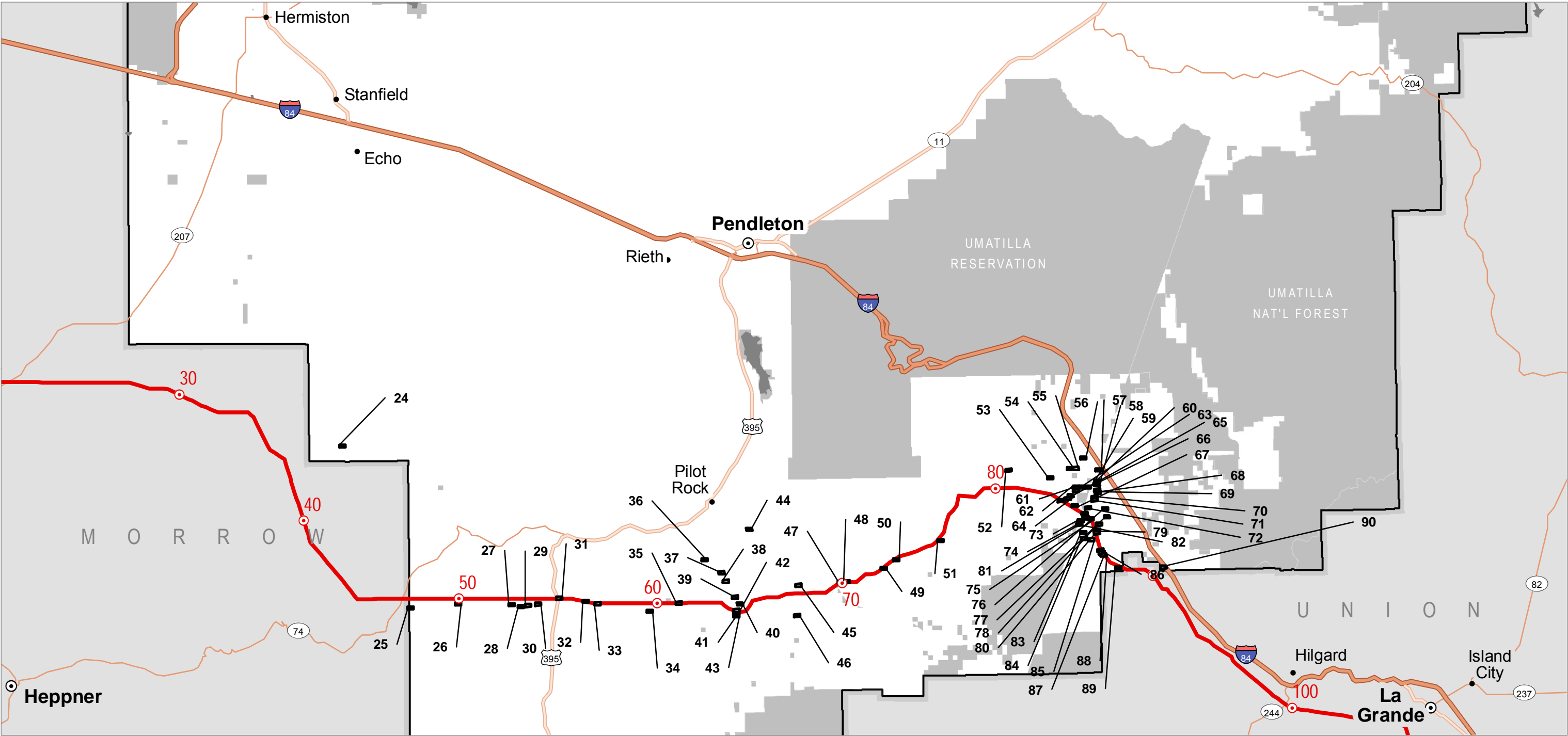
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-23**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
Morrow County





- Project Features**
- Proposed Route
  - Ten Mile Marker

- Map Index**
- Map Tile (Map #)

**IDAHO POWER**  
An IDACORP Company

Boardman to Hemingway  
Transmission Line Project

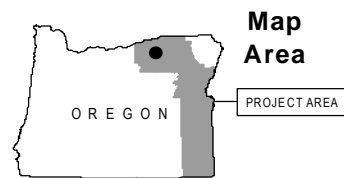
Source(s): BLM, IPC, ODFW, ODOT, NPS, USDA, USFS, USGS, Ventyx, Esri, DigitalGlobe, GeoEys, Earthstar Geographics, CNES/Airbus DS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo

**Appendix K**  
**Joint Permit Application**  
**Location Map**

Umatilla County

**Map Index**





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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Work Areas

Multi-Use Area

Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

#### Transportation

Other Major Roads

Rivers, Streams, and  
Canals

#### Other Waters

Field Survey Streams

NANS Streams (NHD)

#### Stream Impact Type

Temporary

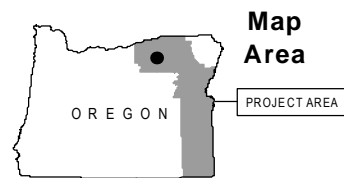
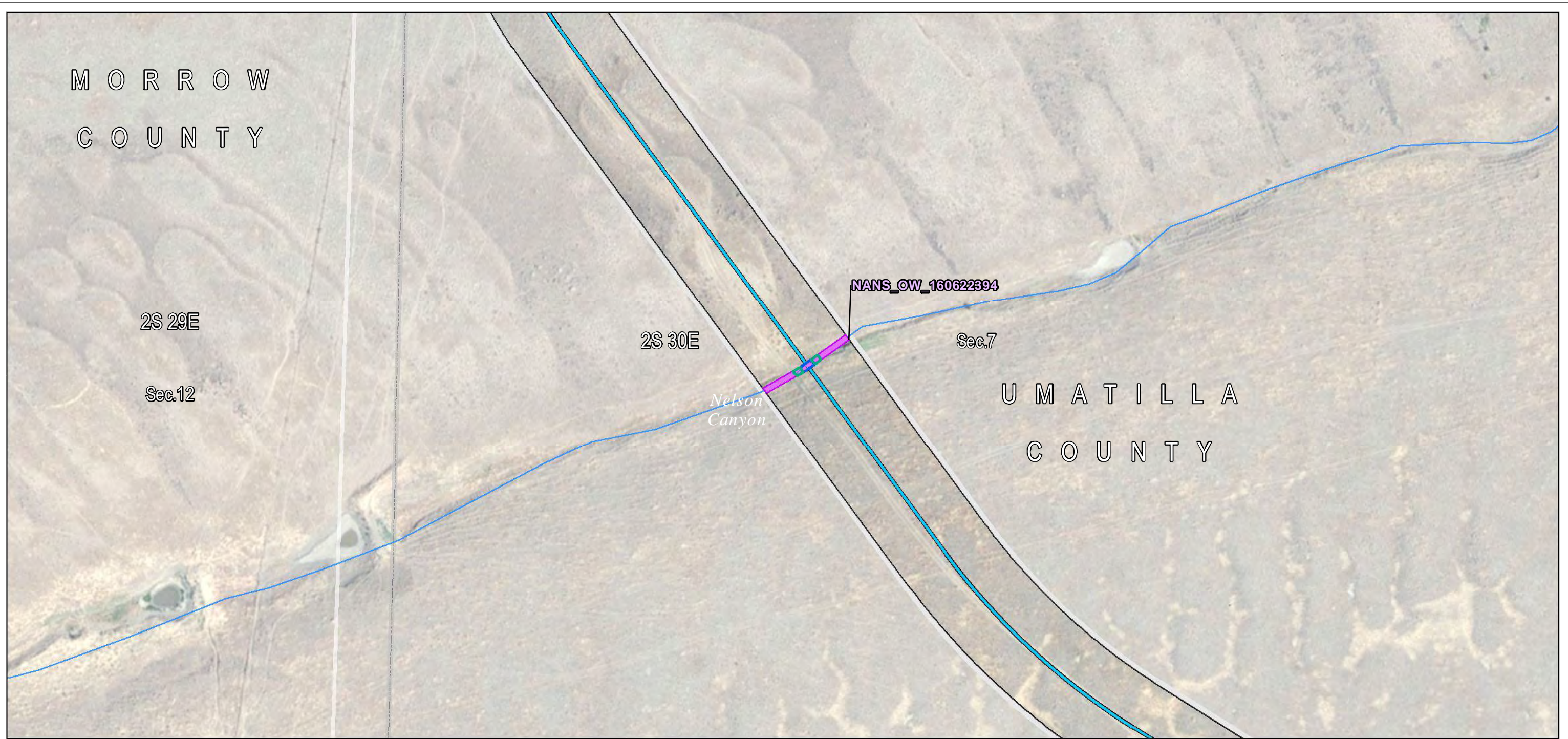
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-24**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 71-100% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

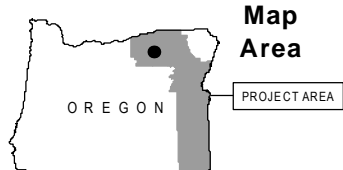
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-25**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

- Site Boundary
- Proposed Route
- Construction Access
- Existing Road, No Substantial Modification, 0-20% Improvements
- Existing Road, Substantial Modification, 71-100% Improvements

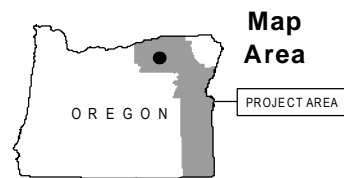
- Rivers, Streams, and Canals
- NANS Streams (NHD)
- Stream Impact Type
- Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-26**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-27**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
Umatilla County



# U M A T I L L A C O U N T Y

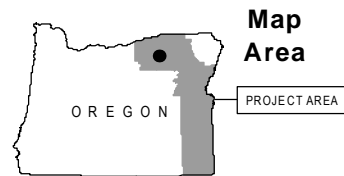
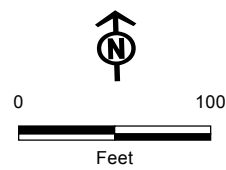
2S 30E

Sec.12

NANS\_OW\_160621909

NANS\_OW\_160622367

*Rancheree  
Canyon*



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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

## Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial  
Modification, 21-70%  
Improvements

Rivers, Streams, and  
Canals

## Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

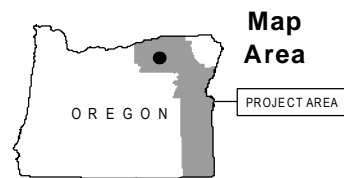
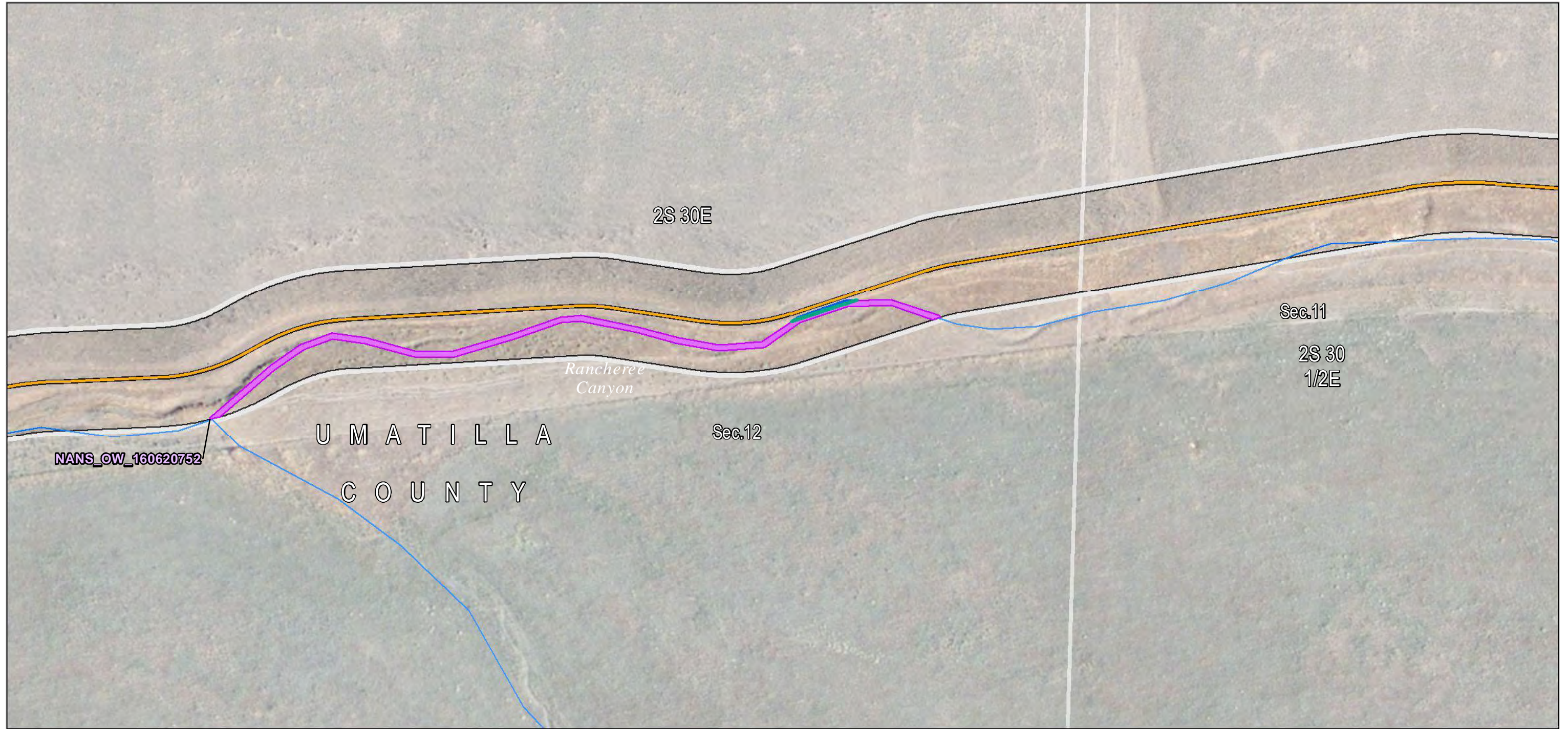
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-28**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

Permanent



Boardman to Hemingway  
Transmission Line Project

### Attachment K-29 Wetland and Other Waters Joint Permit Application Detail Maps Umatilla County

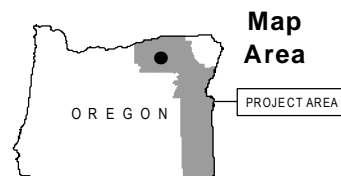
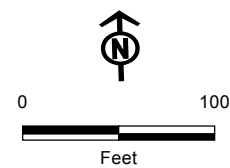


2S 30  
1/2E

U M A T I L L A  
C O U N T Y  
Sec.12

NANS\_OW\_160620752

Rancheree  
Canyon



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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial  
Modification, 21-70%  
Improvements

Rivers, Streams, and  
Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

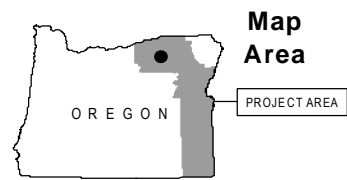
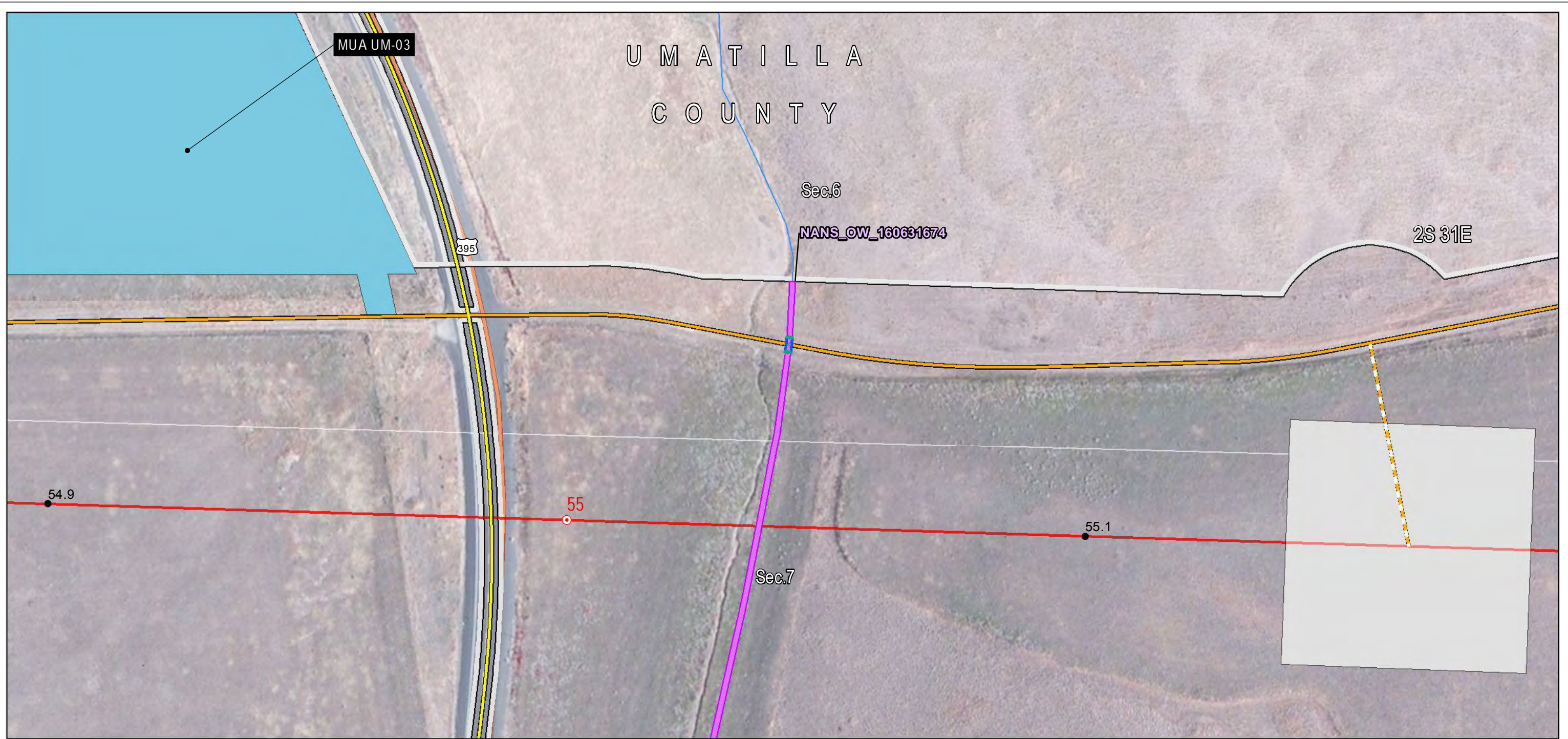
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-30**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

- Site Boundary
  - Proposed Route
- Route Centerline
  - Proposed Route
- Work Areas
  - Multi-Use Area
  - Structure Work Area

- Mileposts
  - Mile
  - Tenth-mile

- Construction Access
  - Existing Road, No Substantial Modification, 0-20% Improvements

- Existing Road, Substantial Modification, 21-70% Improvements
  -
- New Road, Primitive
  -
- Transportation
  - Interstates or Highways
  - Rivers, Streams, and Canals

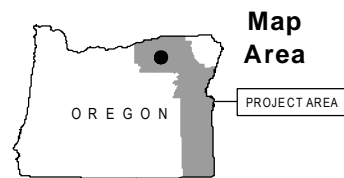
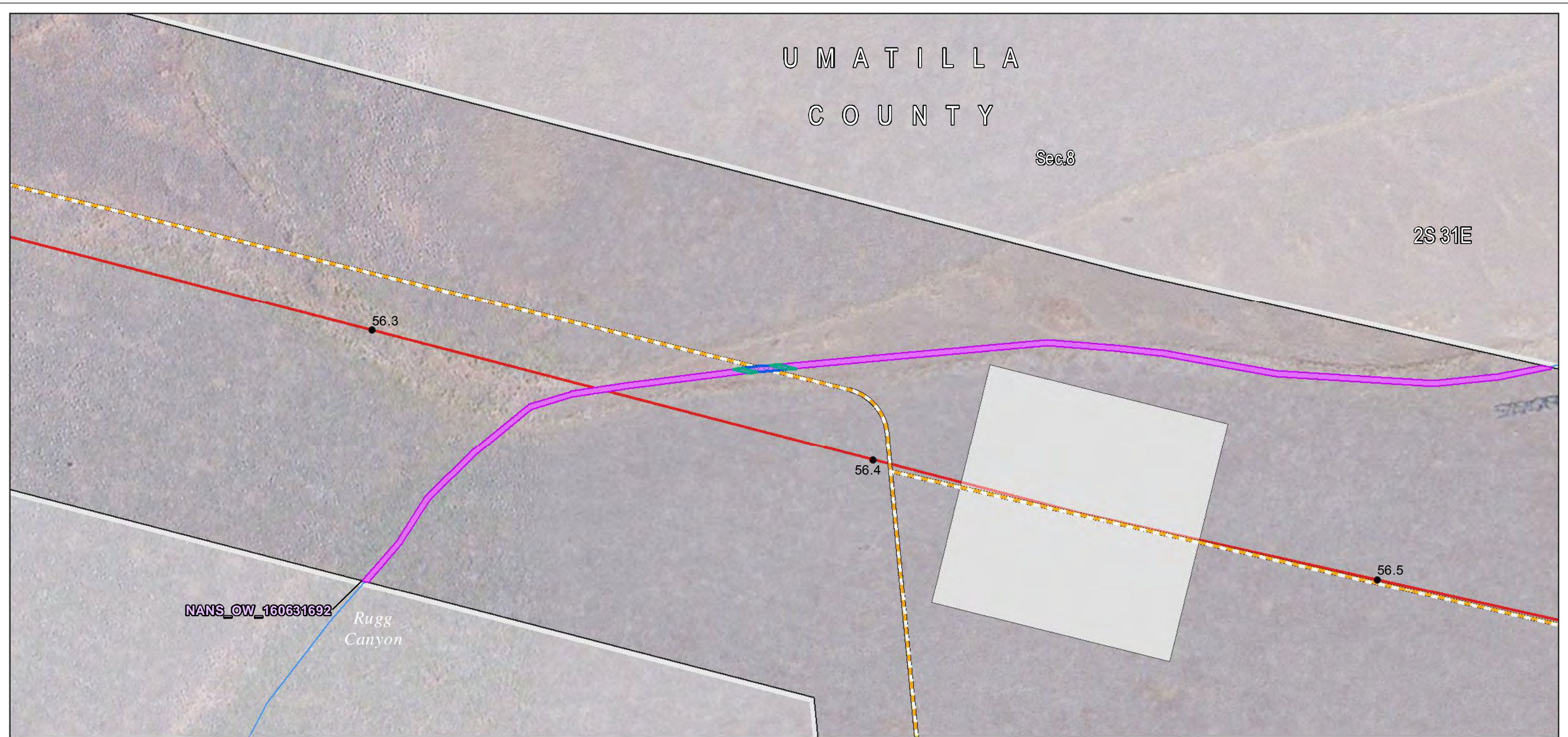
- Other Waters
  - NANS Streams (NHD)
- Stream Impact Type
  - Temporary
  - Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-31**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Tenth-mile

Construction Access

New Road, Primitive

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

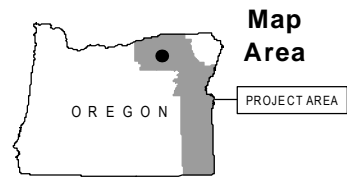
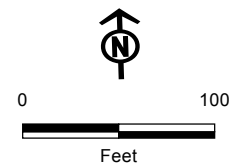
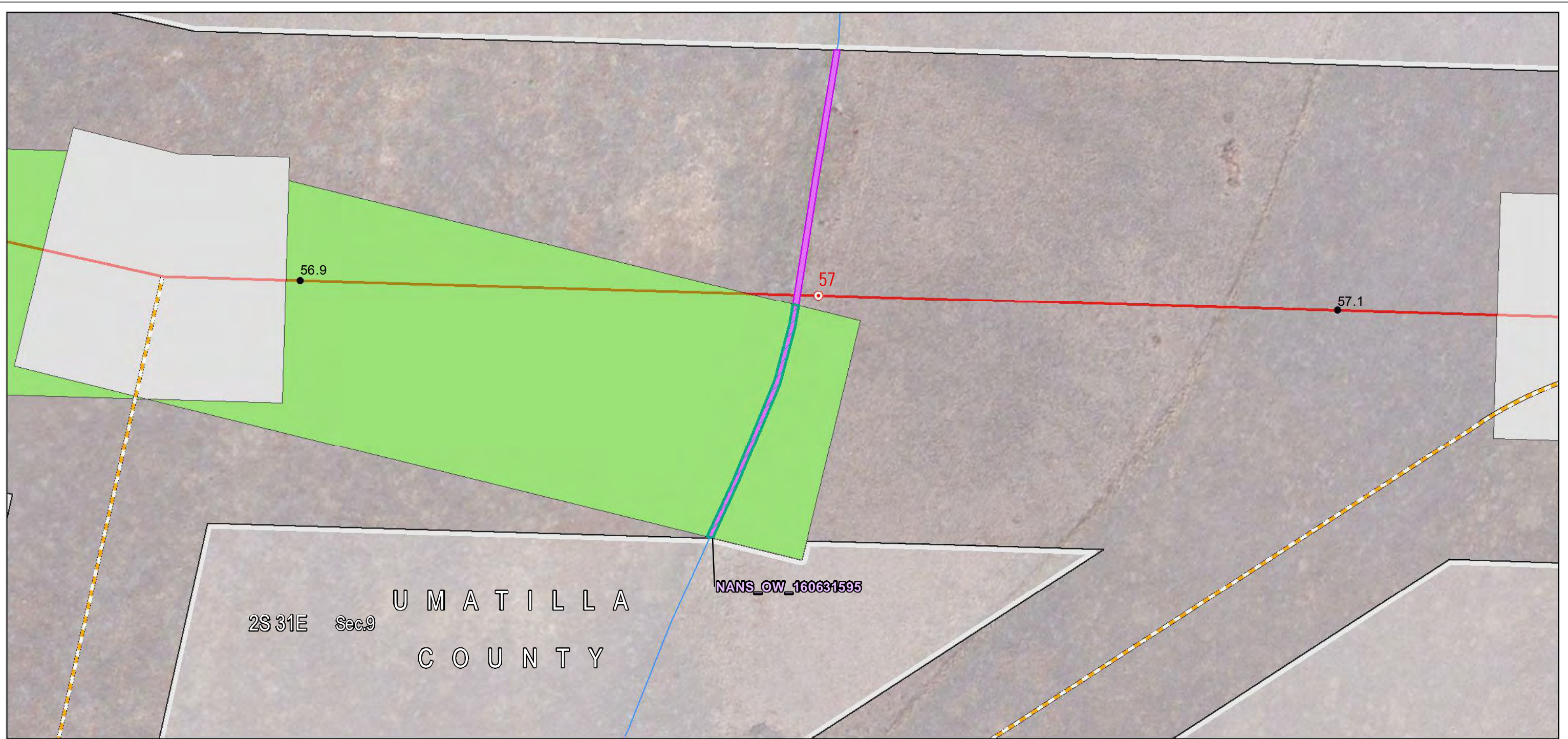
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-32**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**Umatilla County**





#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Work Areas
- Pulling and Tensioning
- Structure Work Area

- Mileposts
- Mile
- Tenth-mile
- Construction Access
- New Road, Primitive
- Rivers, Streams, and Canals

#### Other Waters

- NANS Streams (NHD)
- Stream Impact Type
- Temporary

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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

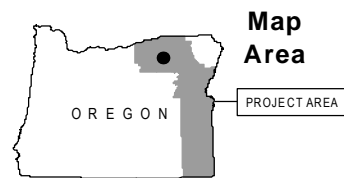
December 2016



Boardman to Hemingway  
Transmission Line Project

### Attachment K-33 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 71-100% Improvements

Rivers, Streams, and Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

Temporary

Permanent

#### Wetland

NANS Wetland (NWI)

Wetland Impact Type

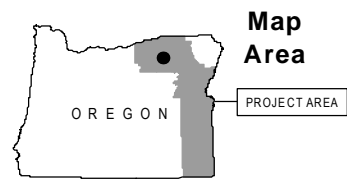
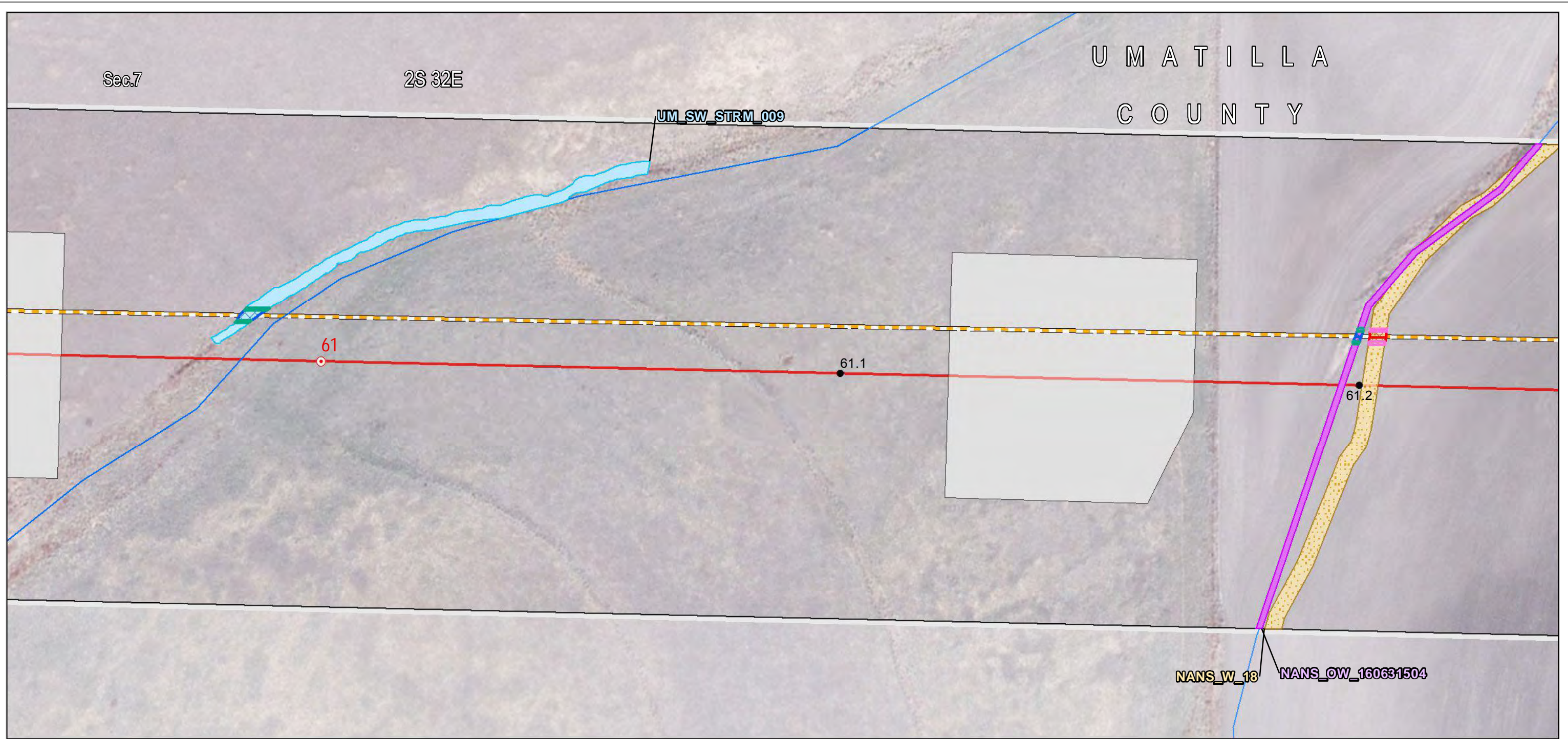
Permanent



Boardman to Hemingway Transmission Line Project

### Attachment K-34 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

##### Mileposts

Mile

Tenth-mile

Construction Access

New Road, Primitive

Rivers, Streams, and Canals

##### Other Waters

Field Survey Streams

NANS Streams (NHD)

Stream Impact Type

Temporary

Permanent

##### Wetland

NANS Wetland (NWI)

Wetland Impact Type

Temporary

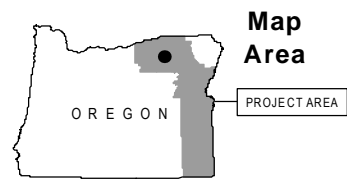
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-35**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Work Areas

Multi-Use Area

Construction Access

Existing Road, Substantial  
Modification, 21-70%  
Improvements

Rivers, Streams, and  
Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

Temporary

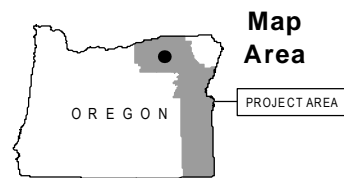
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-36**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 71-100% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Permanent

#### Wetland

NANS Wetland (NWI)

Wetland Impact Type

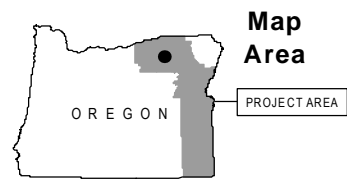
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Boardman to Hemingway  
Transmission Line Project

### Attachment K-37 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

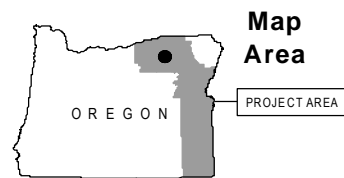
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-38**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Permanent

##### Wetland

NANS Wetland (NWI)

##### Wetland Impact Type

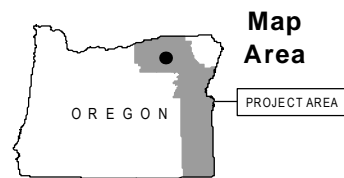
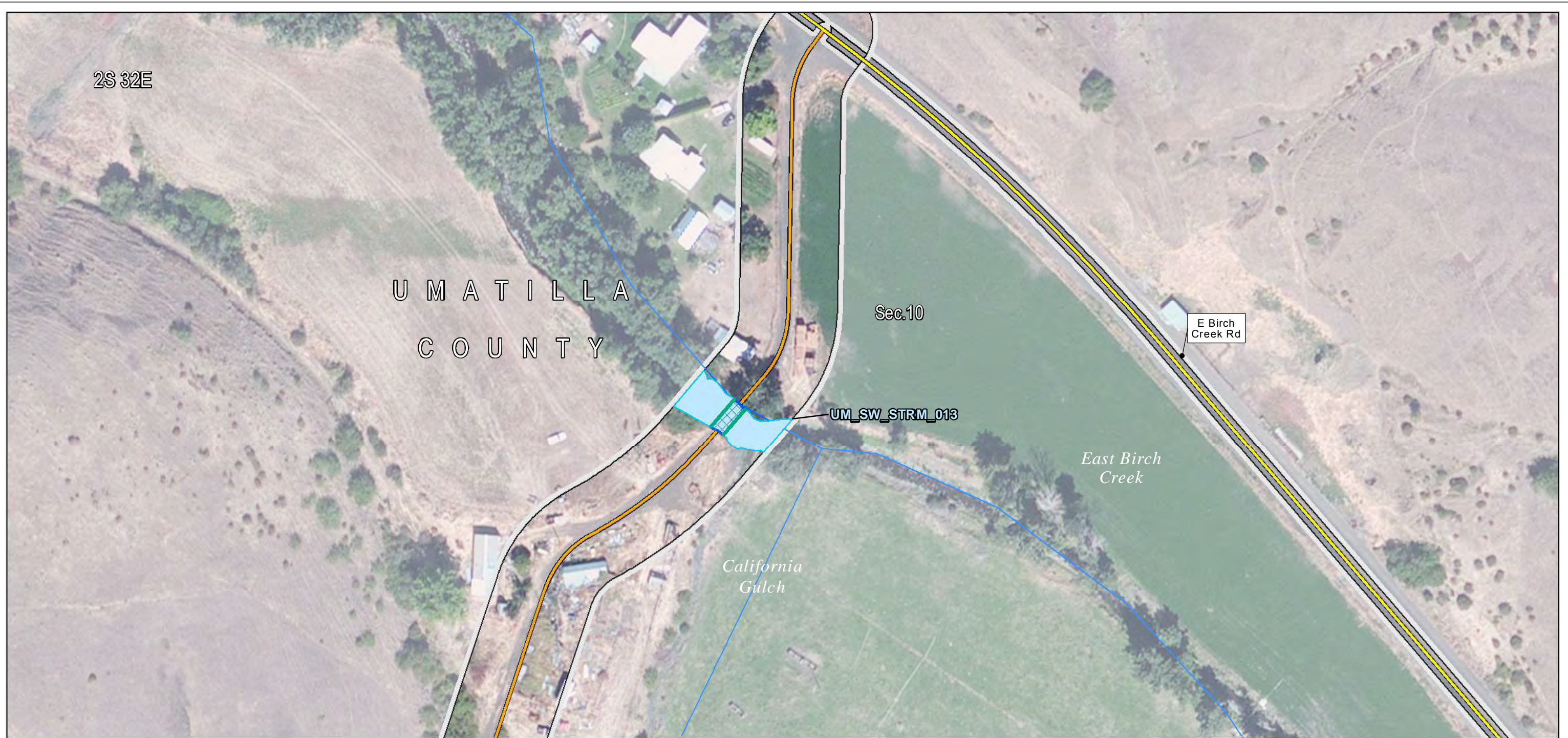
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-39 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

Temporary

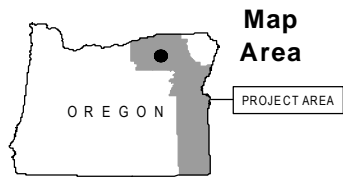
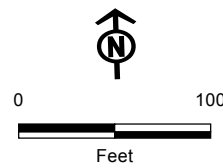
Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-40**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

##### Work Areas

Structure Work Area

##### Mileposts

Mile

Tenth-mile

##### Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

##### Other Waters

Field Survey Streams

##### Stream Impact Type

Temporary

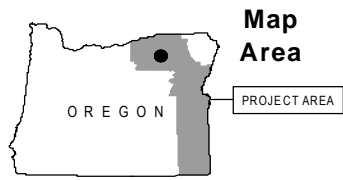
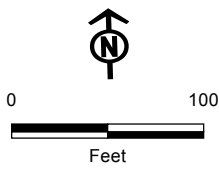
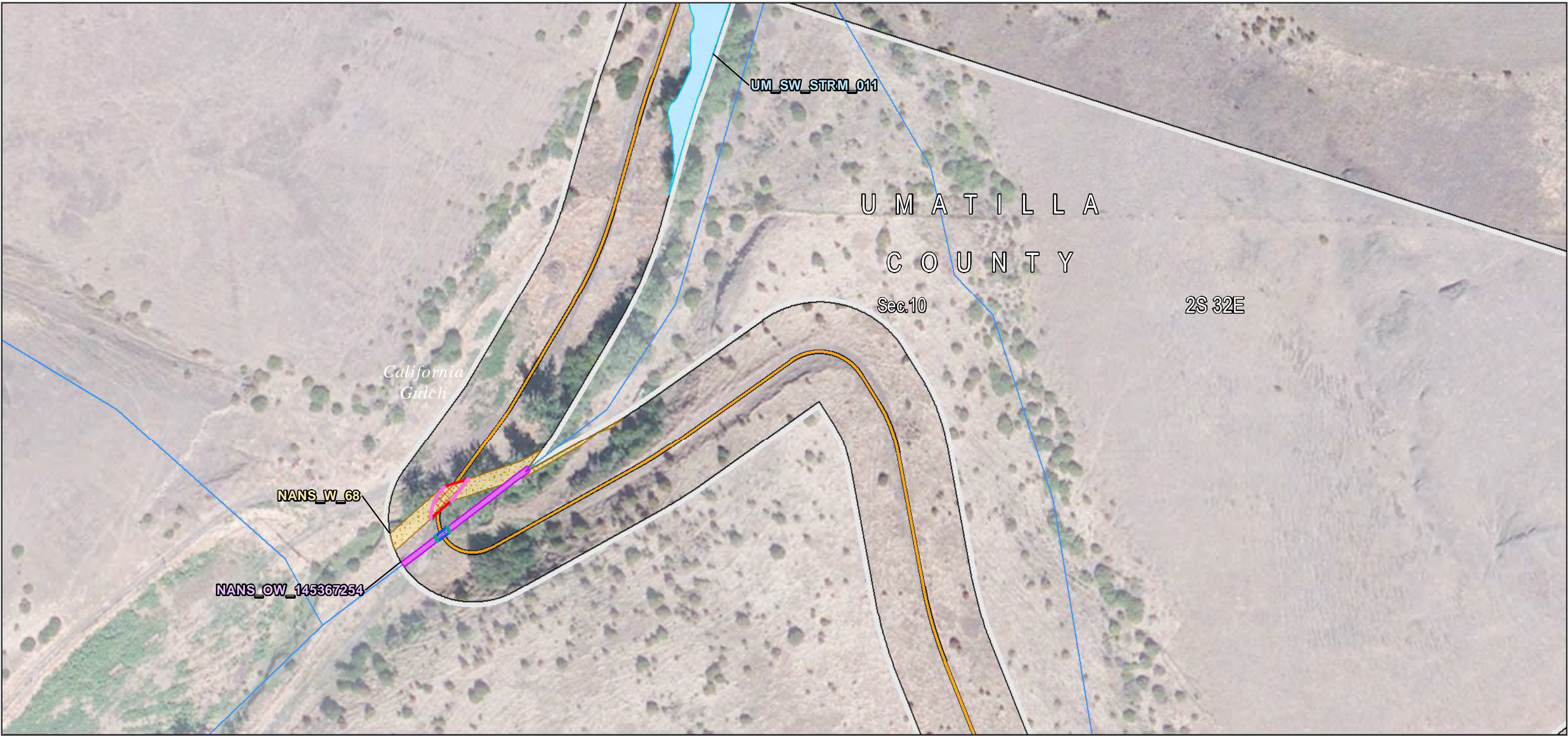
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-41**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

- Site Boundary
- Proposed Route
- Work Areas
- Structure Work Area
- Construction Access
- Existing Road, Substantial Modification, 21-70% Improvements

- Rivers, Streams, and Canals
- Field Survey Streams
- NANS Streams (NHD)
- Stream Impact Type
- Temporary

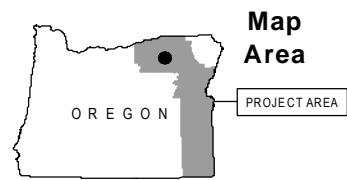
- Permanent
- Wetland
- NANS Wetland (NWI)
- Wetland Impact Type
- Temporary
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-42**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

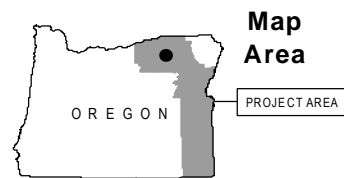
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-43**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

- Site Boundary
- Proposed Route
- Construction Access
- Existing Road, Substantial Modification, 71-100% Improvements
- Rivers, Streams, and Canals

#### Other Waters

- NANS Streams (NHD)
- Stream Impact Type
- Temporary
- Permanent

#### Wetland

- NANS Wetland (NWI)

#### Wetland Impact Type

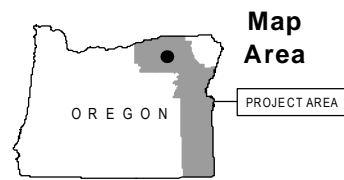
- Temporary
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-44**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 71-100% Improvements

Rivers, Streams, and Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

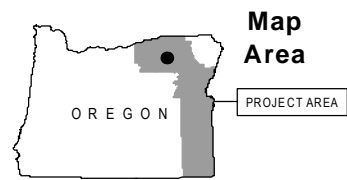
Temporary



Boardman to Hemingway  
Transmission Line Project

**Attachment K-45**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

Site Boundary

Proposed Route

Work Areas

Multi-Use Area

Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

Rivers, Streams, and  
Canals

**Other Waters**

Field Survey Streams

Stream Impact Type

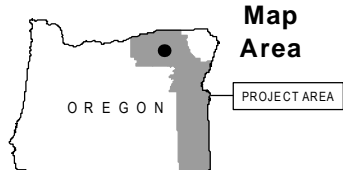
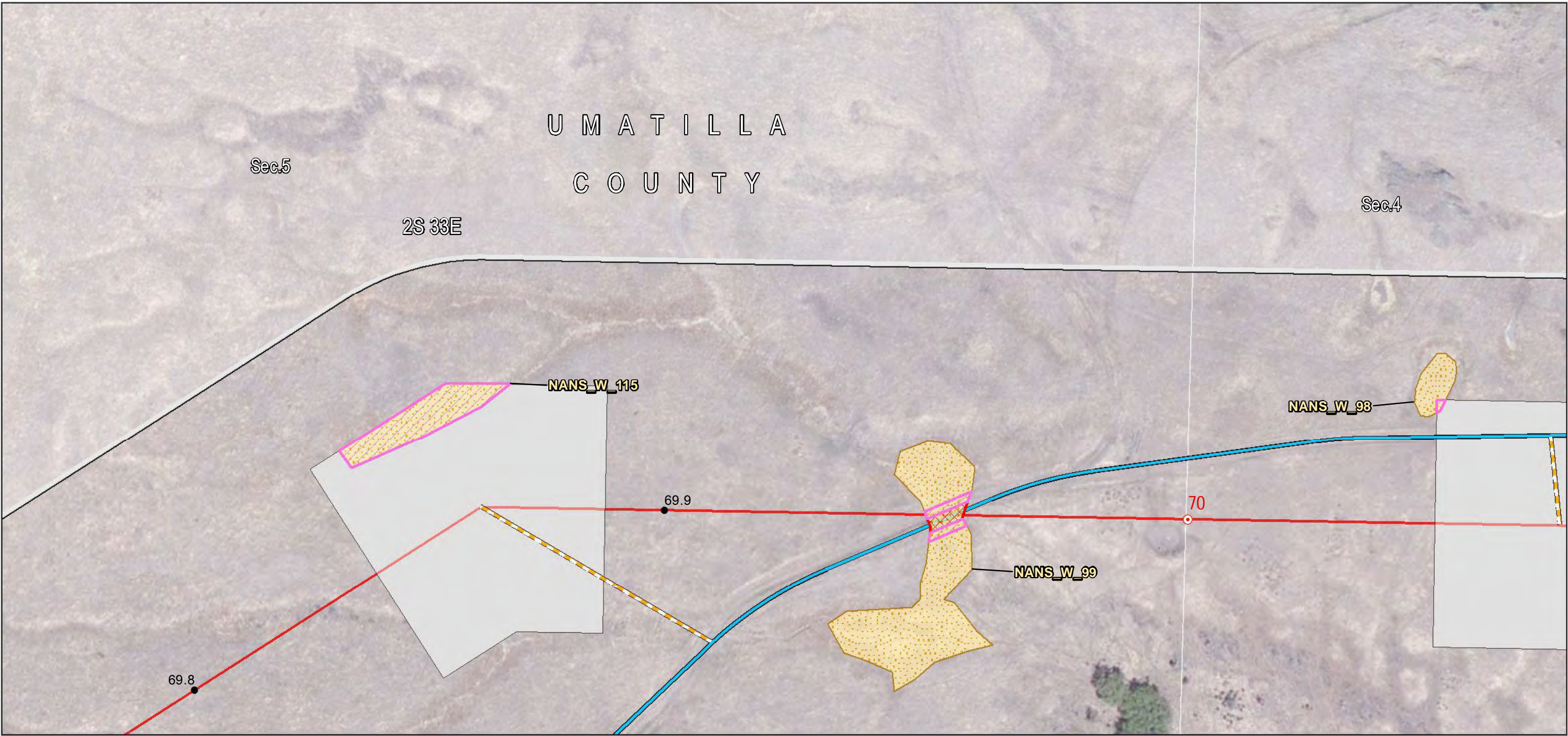
Temporary



Boardman to Hemingway  
Transmission Line Project

**Attachment K-46**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Work Areas
- Structure Work Area

**Mileposts**

- Mile
- Tenth-mile
- Construction Access
- Existing Road, Substantial Modification, 71-100% Improvements
- New Road, Primitive

**Rivers, Streams, and Canals**

- NANS Wetland (NWI)
- Wetland Impact Type
- Temporary
- Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-47**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
 Umatilla County



# UMATILLA COUNTY

2S 33E

Sec.4

NANS\_W\_109

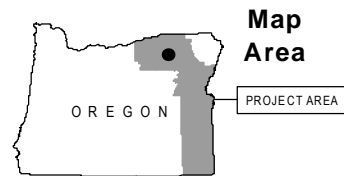
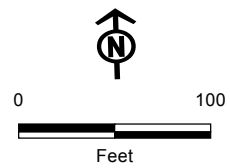
NANS\_W\_103

NANS\_W\_96

70.1

70.2

70.3



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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

## Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, Substantial  
Modification, 71-100%  
Improvements

New Road, Primitive

Rivers, Streams, and  
Canals

Wetland

NANS Wetland (NWI)

Wetland Impact Type

Temporary

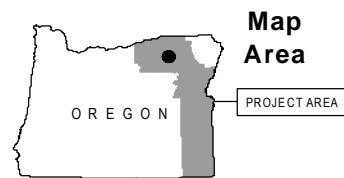
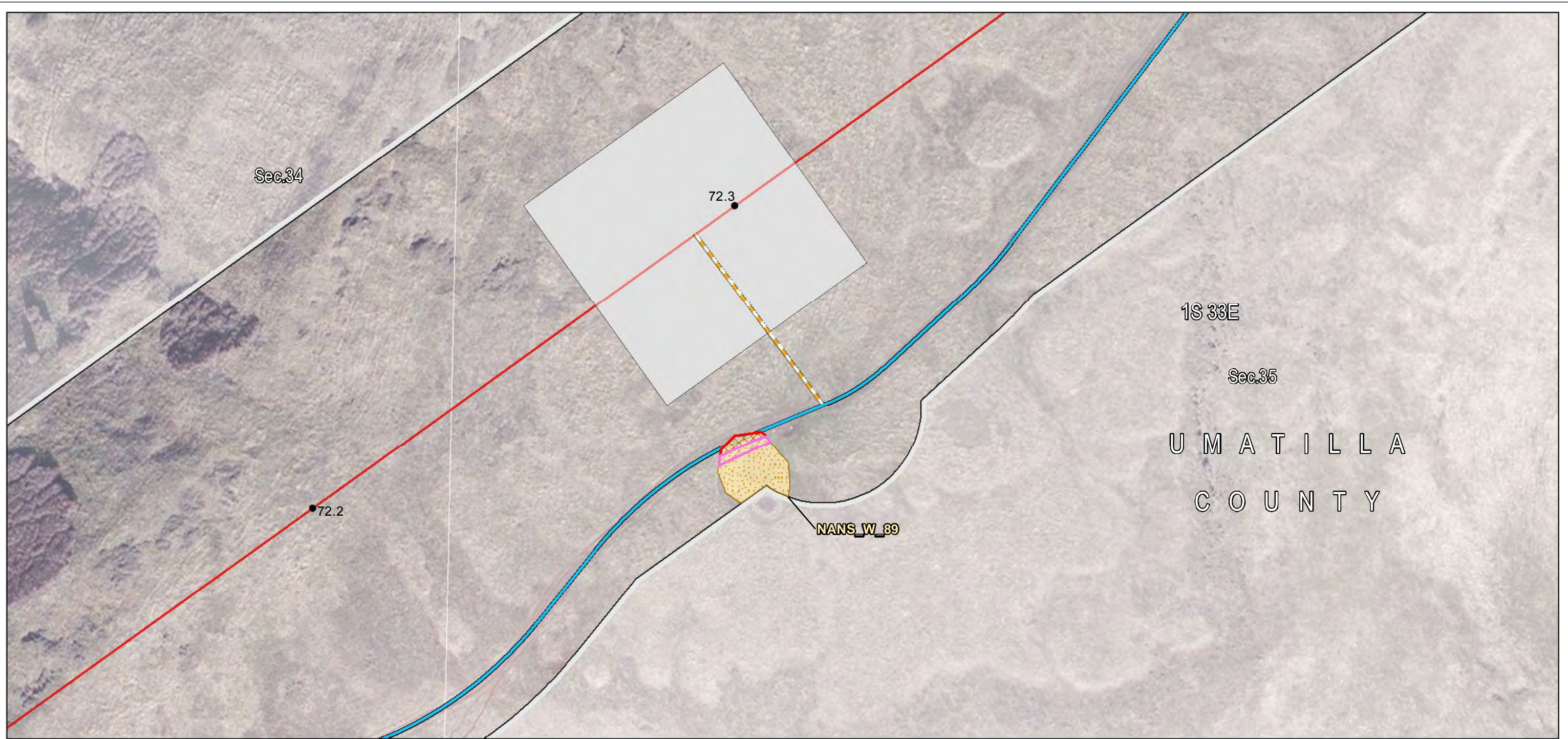
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-48**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

##### Mileposts

Tenth-mile

##### Construction Access

Existing Road, Substantial

Modification, 71-100%

Improvements

New Road, Primitive

Rivers, Streams, and Canals

##### Wetland

NANS Wetland (NWI)

Wetland Impact Type

Temporary

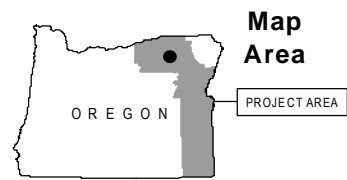
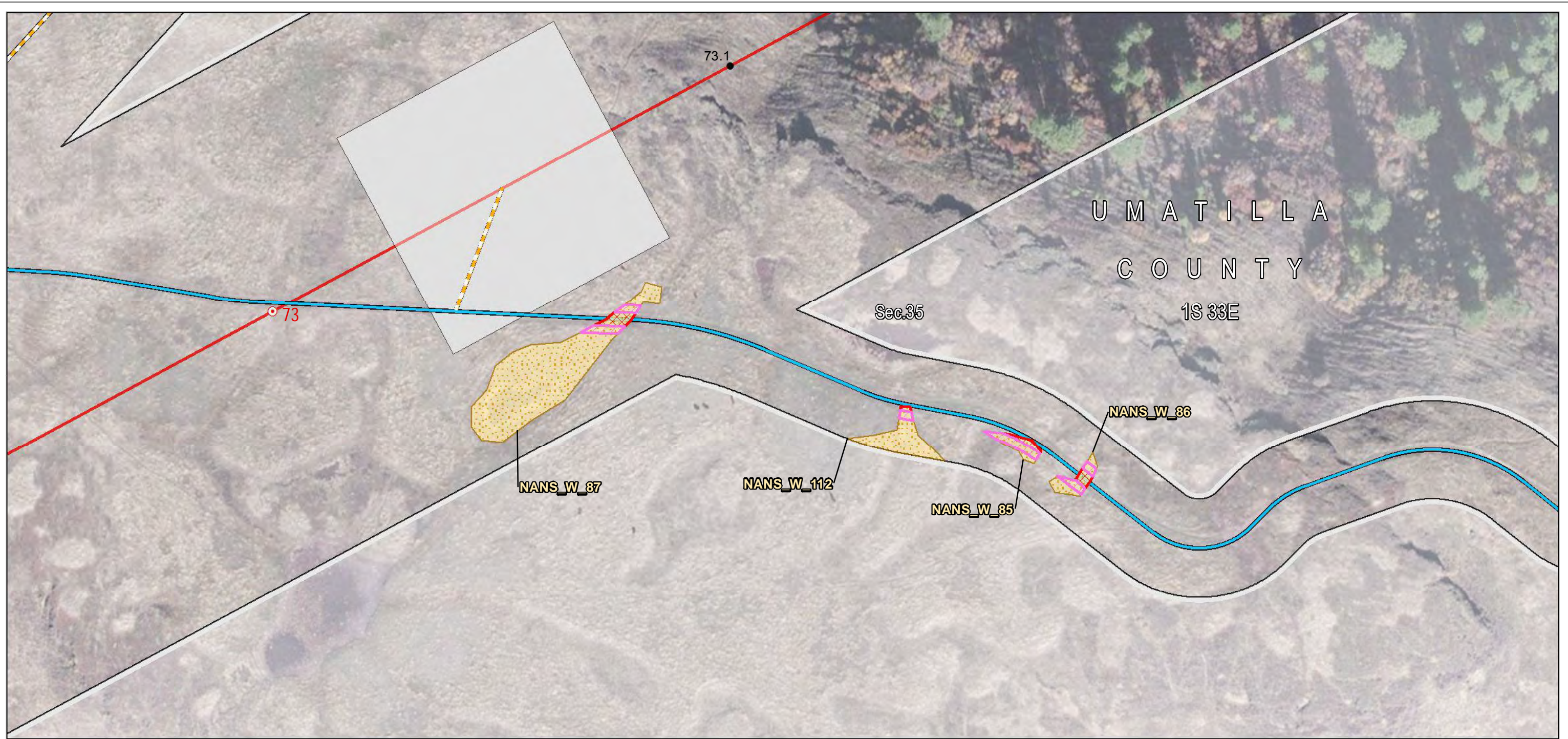
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-49 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Mile

Tenth-mile

Construction Access

Existing Road, Substantial Modification, 71-100% Improvements

New Road, Primitive

Rivers, Streams, and Canals

Wetland

NANS Wetland (NWI)

Wetland Impact Type

Temporary

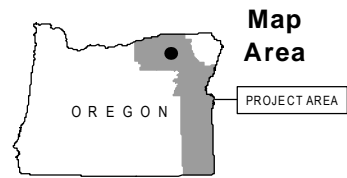
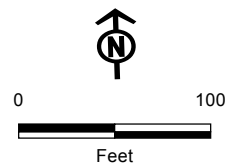
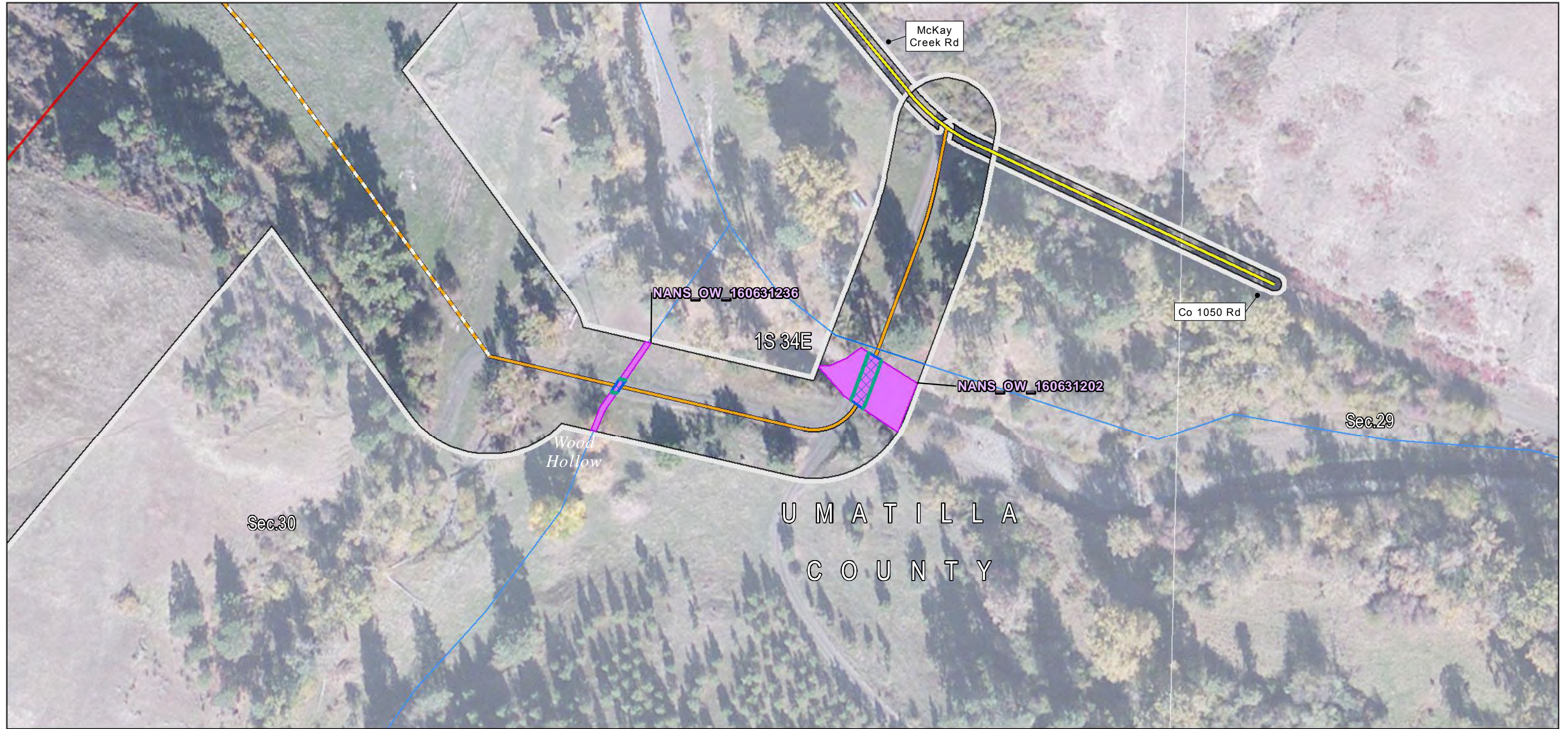
Permanent



Boardman to Hemingway  
Transmission Line Project

### Attachment K-50 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 21-70% Improvements

New Road, Primitive

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

#### Stream Impact Type

Temporary

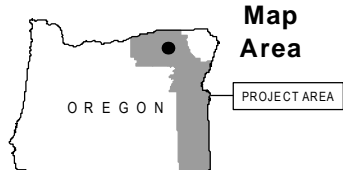
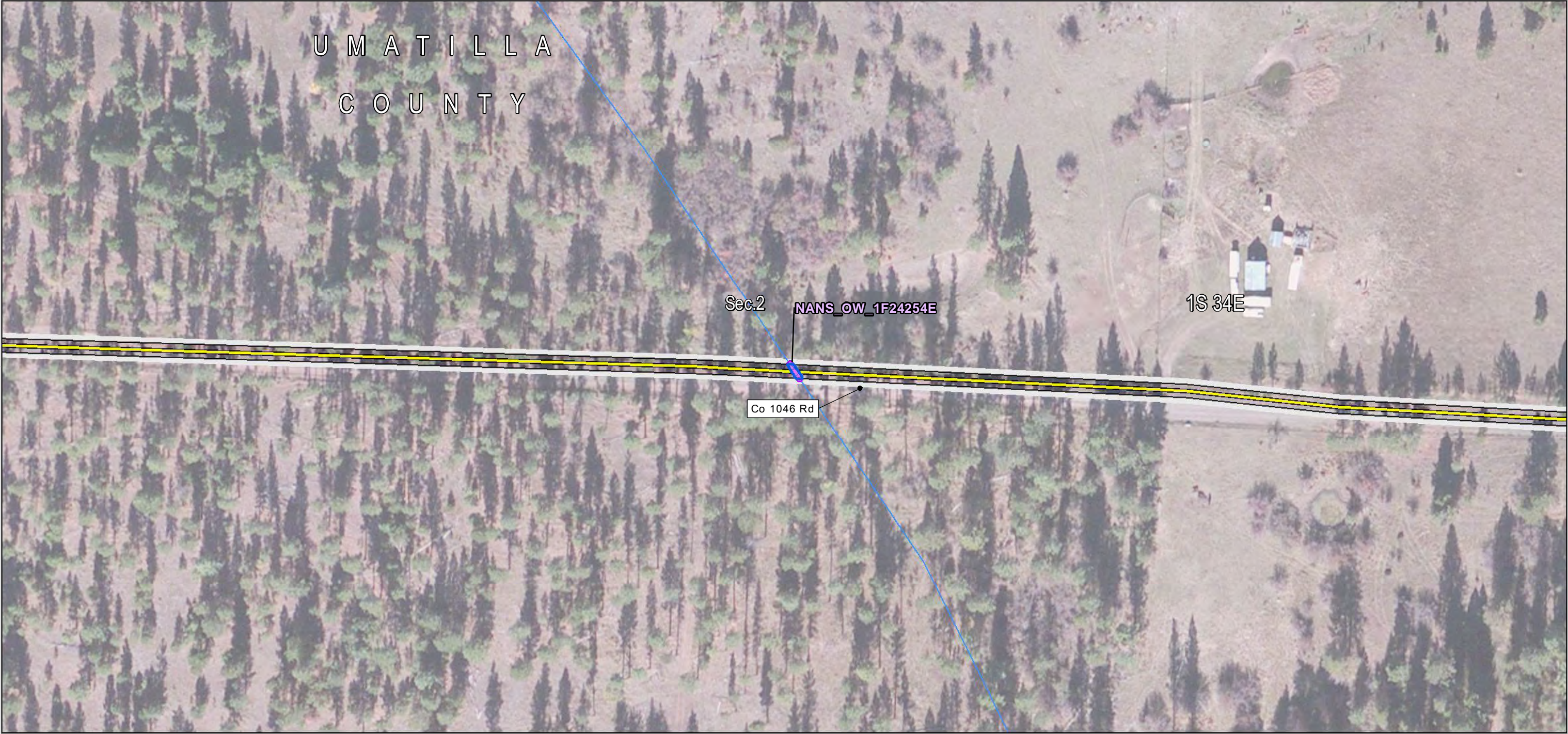
Permanent



Boardman to Hemingway Transmission Line Project

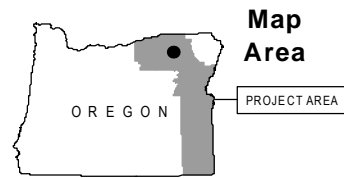
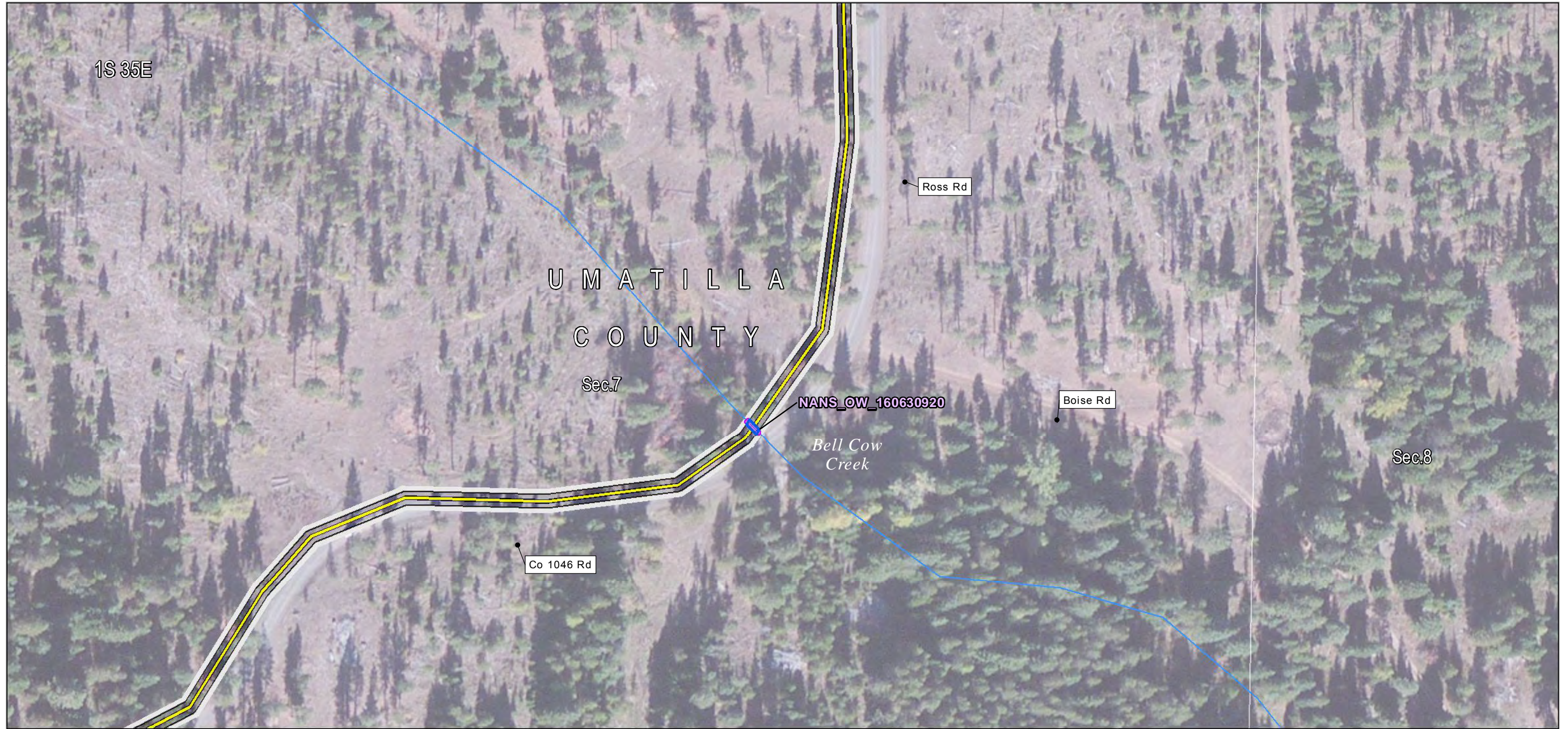
**Attachment K-51**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
Umatilla County





- Project Features**
- Construction Access
    - Existing Road, No Substantial Modification, 0-20% Improvements
    - Rivers, Streams, and Canals
  - Stream Impact Type
    - Permanent
- Other Waters**
- NANS Streams (NHD)





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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

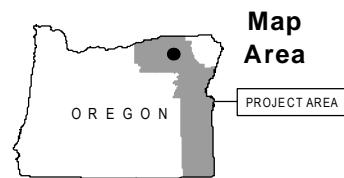
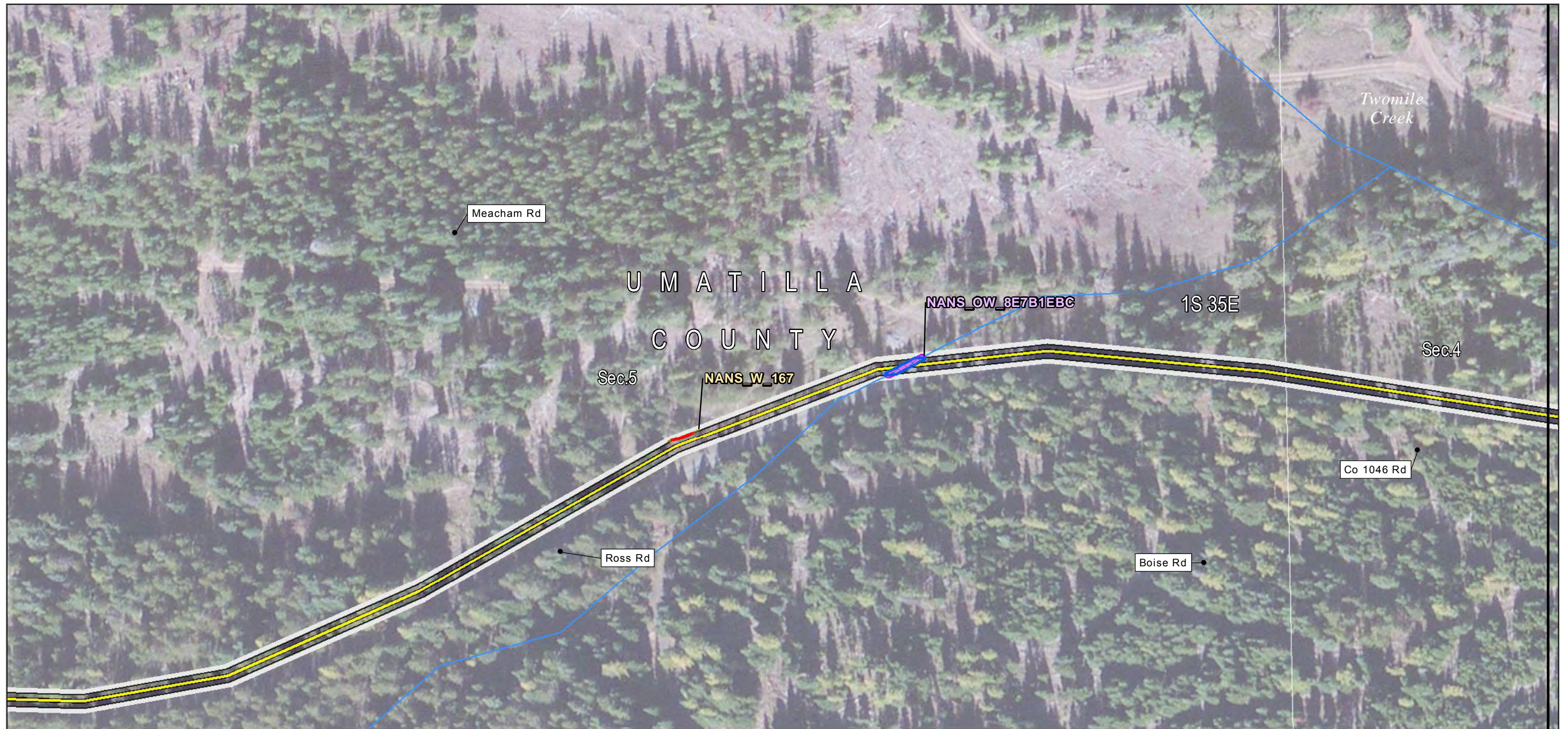
Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-53**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Permanent

##### Wetland

NANS Wetland (NWI)

##### Wetland Impact Type

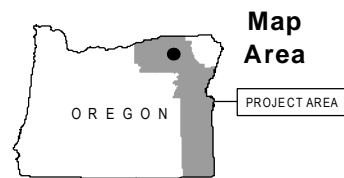
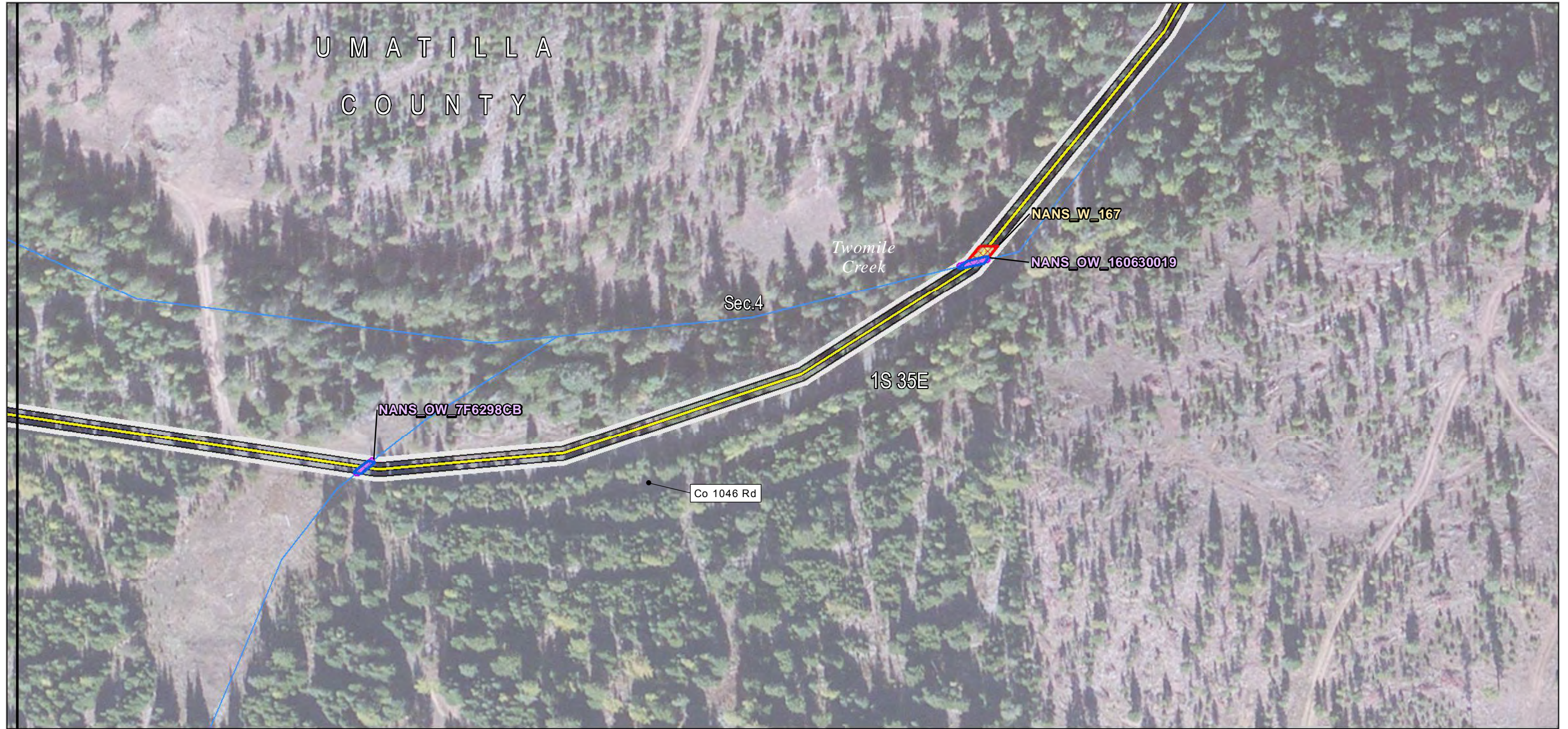
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-54 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Permanent

##### Wetland

NANS Wetland (NWI)

##### Wetland Impact Type

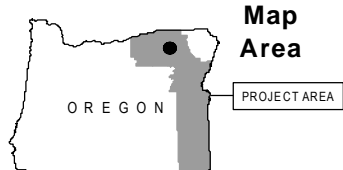
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-55**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

**Construction Access**

- Existing Road, No Substantial Modification, 0-20% Improvements
- Rivers, Streams, and Canals

**Other Waters**

- NANS Streams (NHD)

**Stream Impact Type**

- Permanent

**Wetland**

- NANS Wetland (NWI)

**Wetland Impact Type**

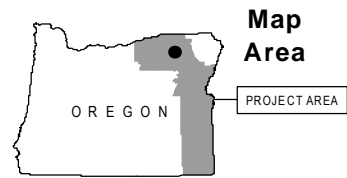
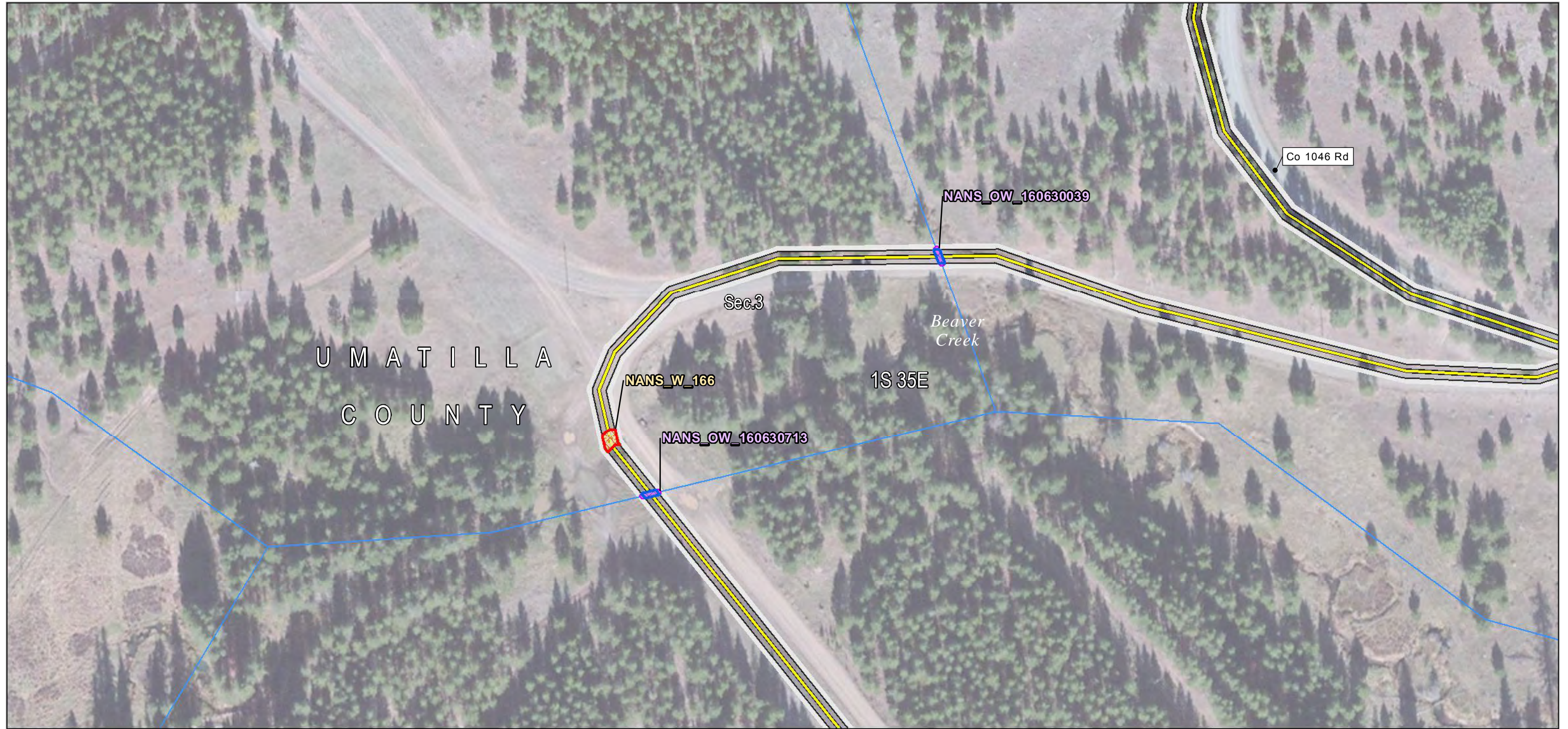
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-56**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Permanent

##### Wetland

NANS Wetland (NWI)

##### Wetland Impact Type

Permanent

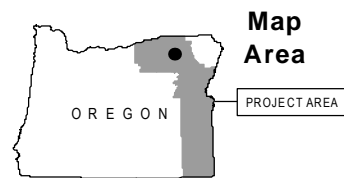
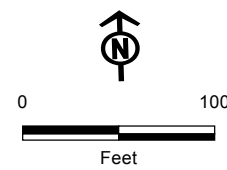


Boardman to Hemingway Transmission Line Project

## Attachment K-57 Wetland and Other Waters Joint Permit Application Detail Maps Umatilla County



# 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

## Project Features

### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

### Other Waters

NANS Streams (NHD)

### Stream Impact Type

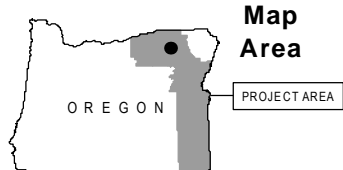
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-58**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

- Project Features**
- Construction Access
    - Existing Road, No Substantial Modification, 0-20% Improvements
    - Rivers, Streams, and Canals
  - Other Waters**
    - NANS Streams (NHD)

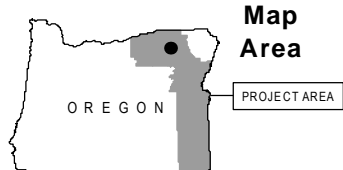
- Stream Impact Type**
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-59**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

**Construction Access**

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

**Other Waters**

NANS Streams (NHD)

**Stream Impact Type**

Permanent

**Wetland**

NANS Wetland (NWI)

**Wetland Impact Type**

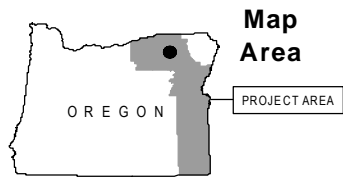
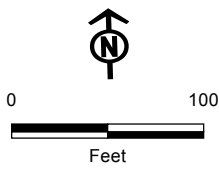
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-60**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

- Project Features**

Construction Access

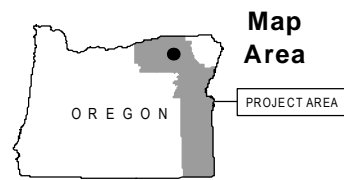
  - Existing Road, No Substantial Modification, 0-20% Improvements
  - Rivers, Streams, and Canals

**Other Waters**

  - NANS Streams (NHD)
- Stream Impact Type**

  - Permanent





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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

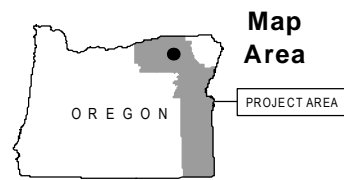
Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-62**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

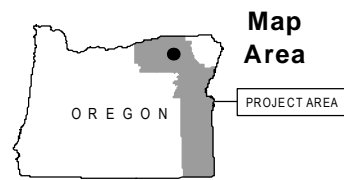
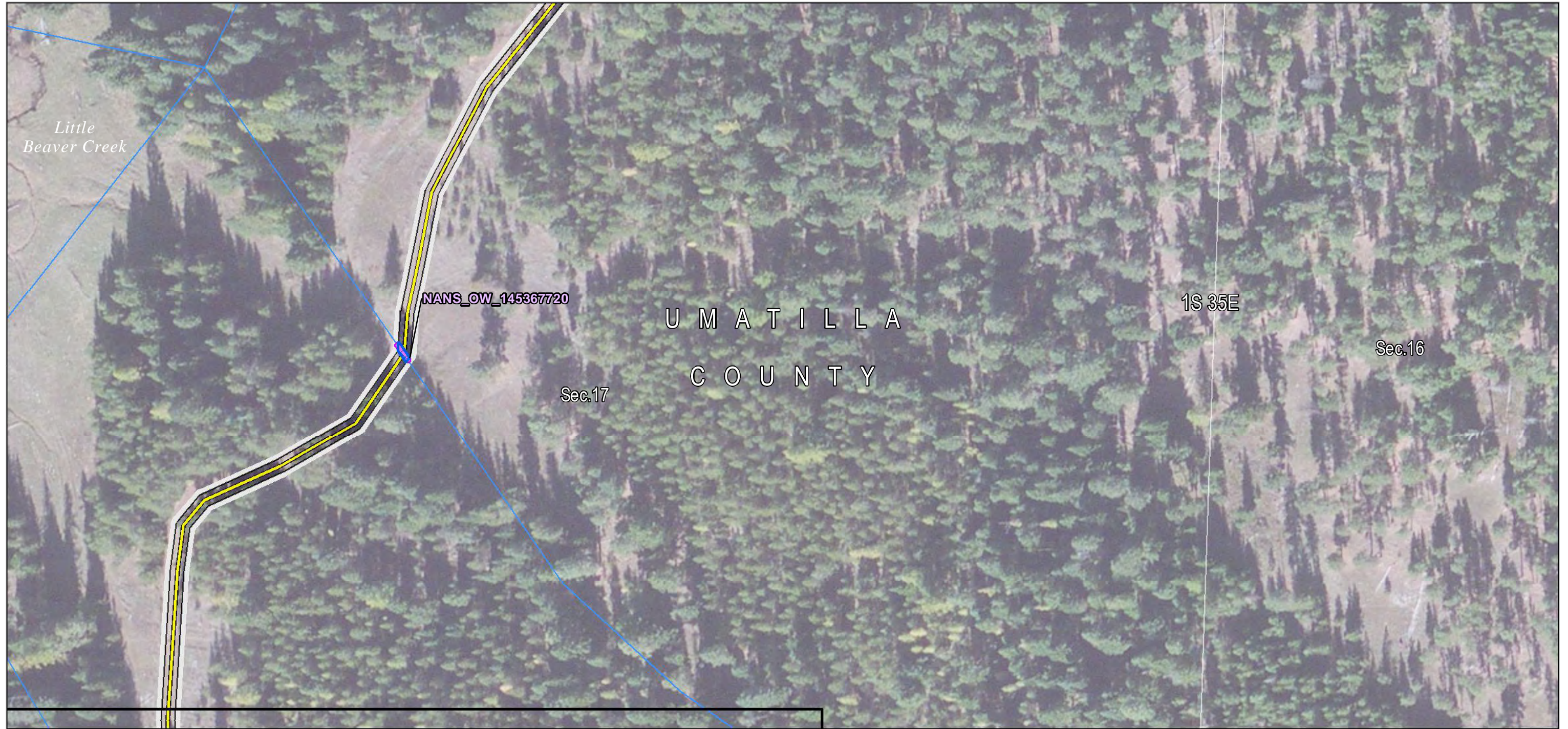
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-63**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

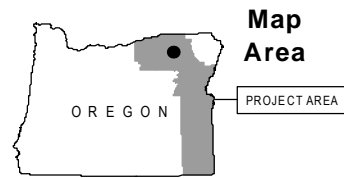
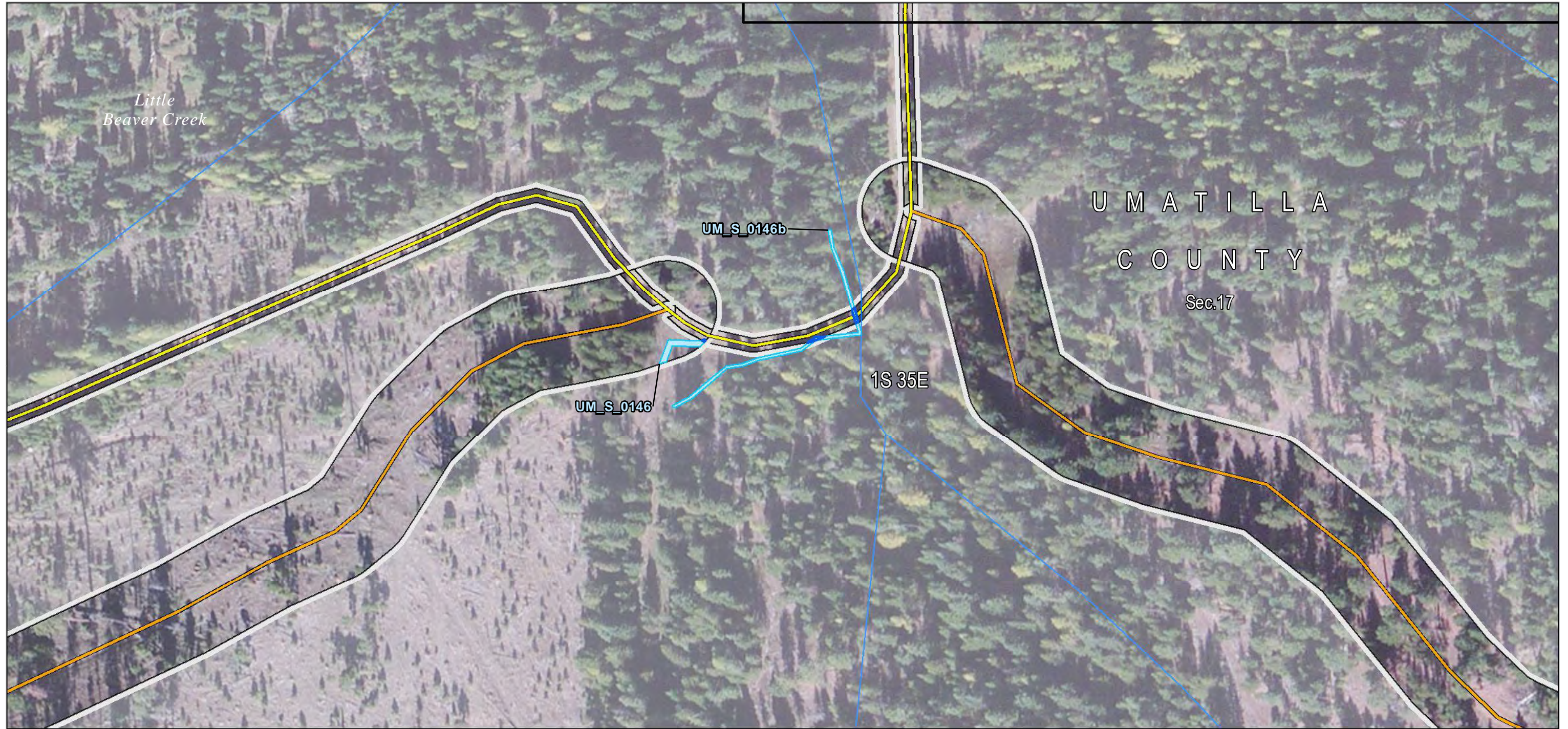
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-64**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

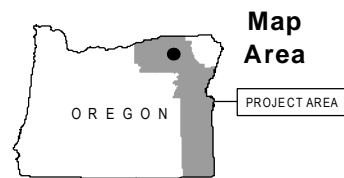
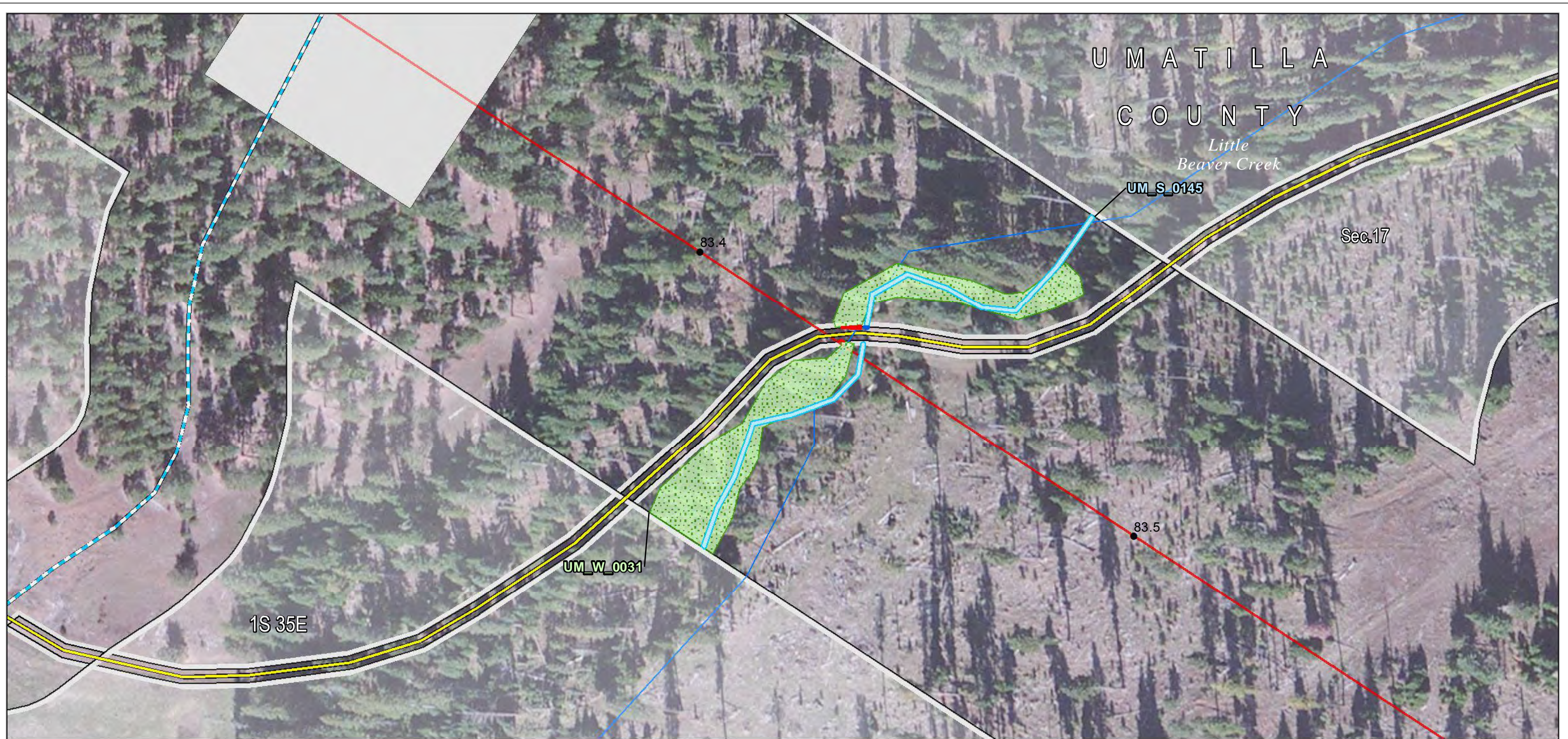
Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-65**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Bladed

Rivers, Streams, and Canals

Other Waters

Field Survey Streams

Stream Impact Type

Permanent

Wetland

Field Survey Wetland

Wetland Impact Type

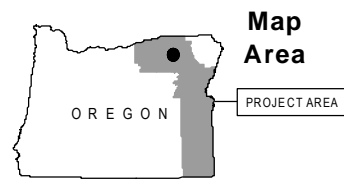
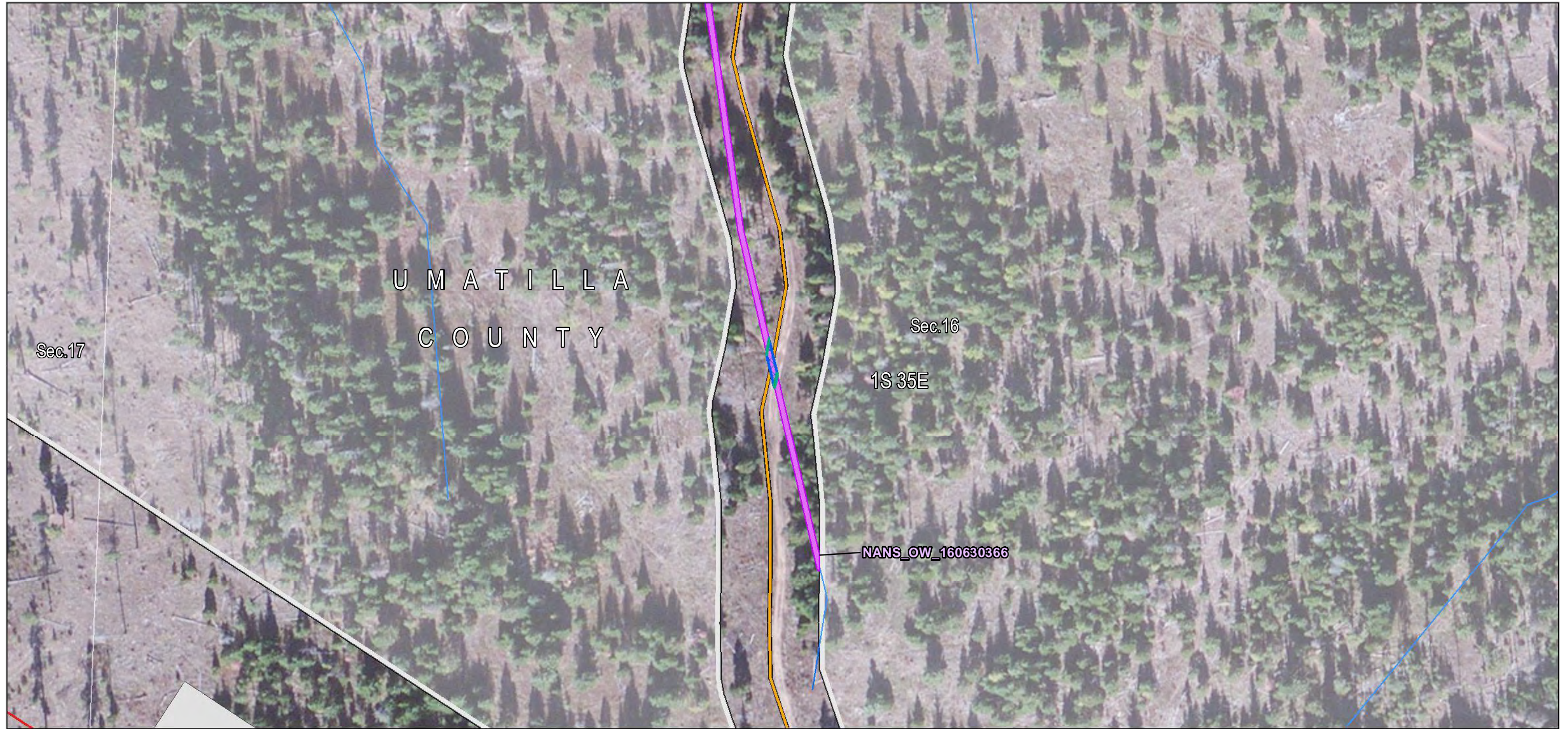
Permanent



Boardman to Hemingway Transmission Line Project

## Attachment K-66 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

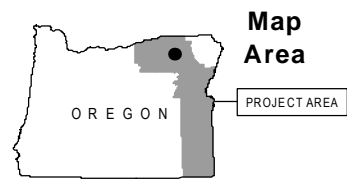
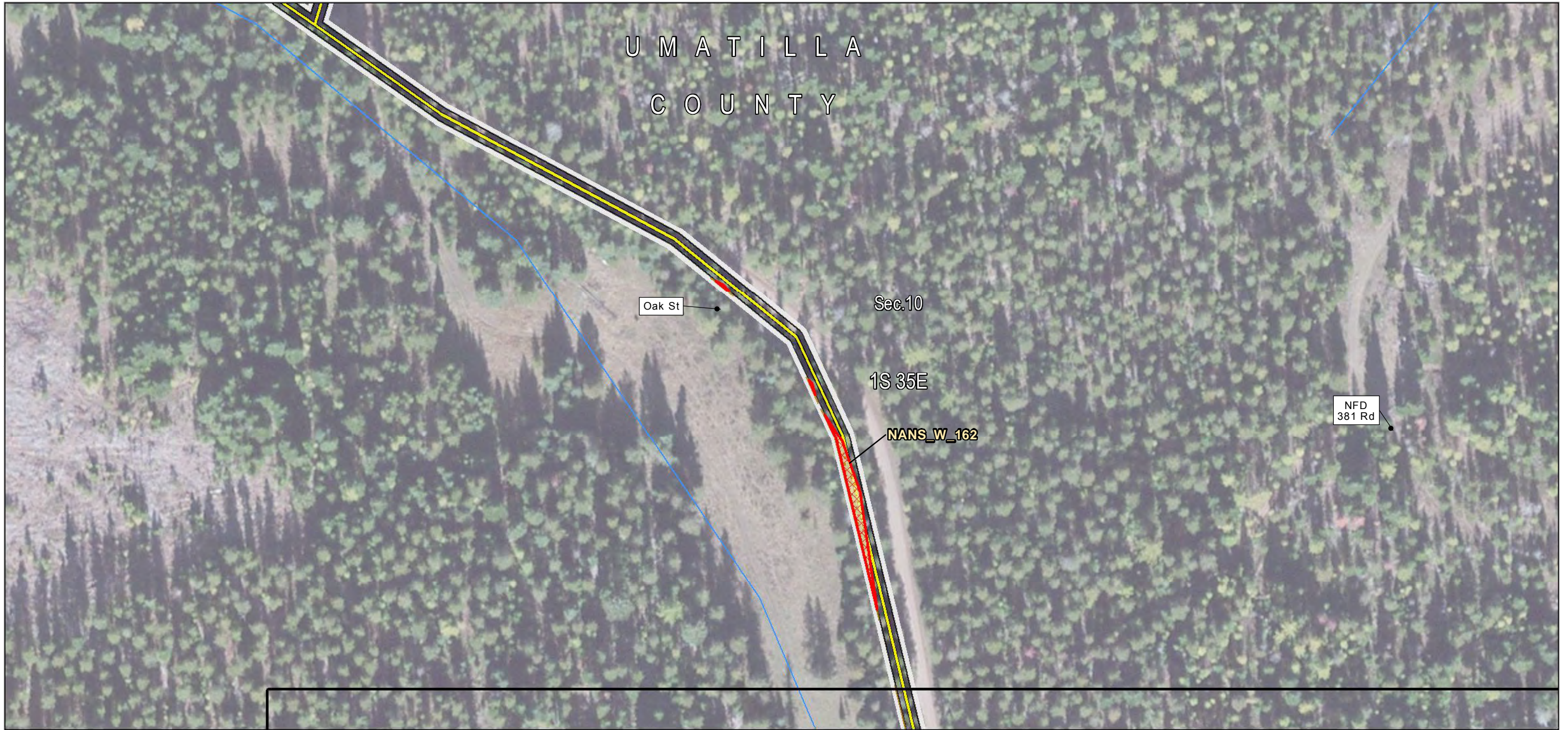
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-67**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

- Existing Road, No Substantial Modification, 0-20% Improvements
- Rivers, Streams, and Canals

##### Wetland

- NANS Wetland (NWI)

##### Wetland Impact Type

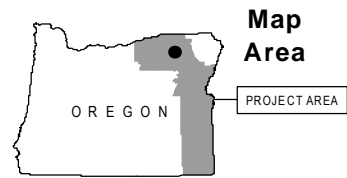
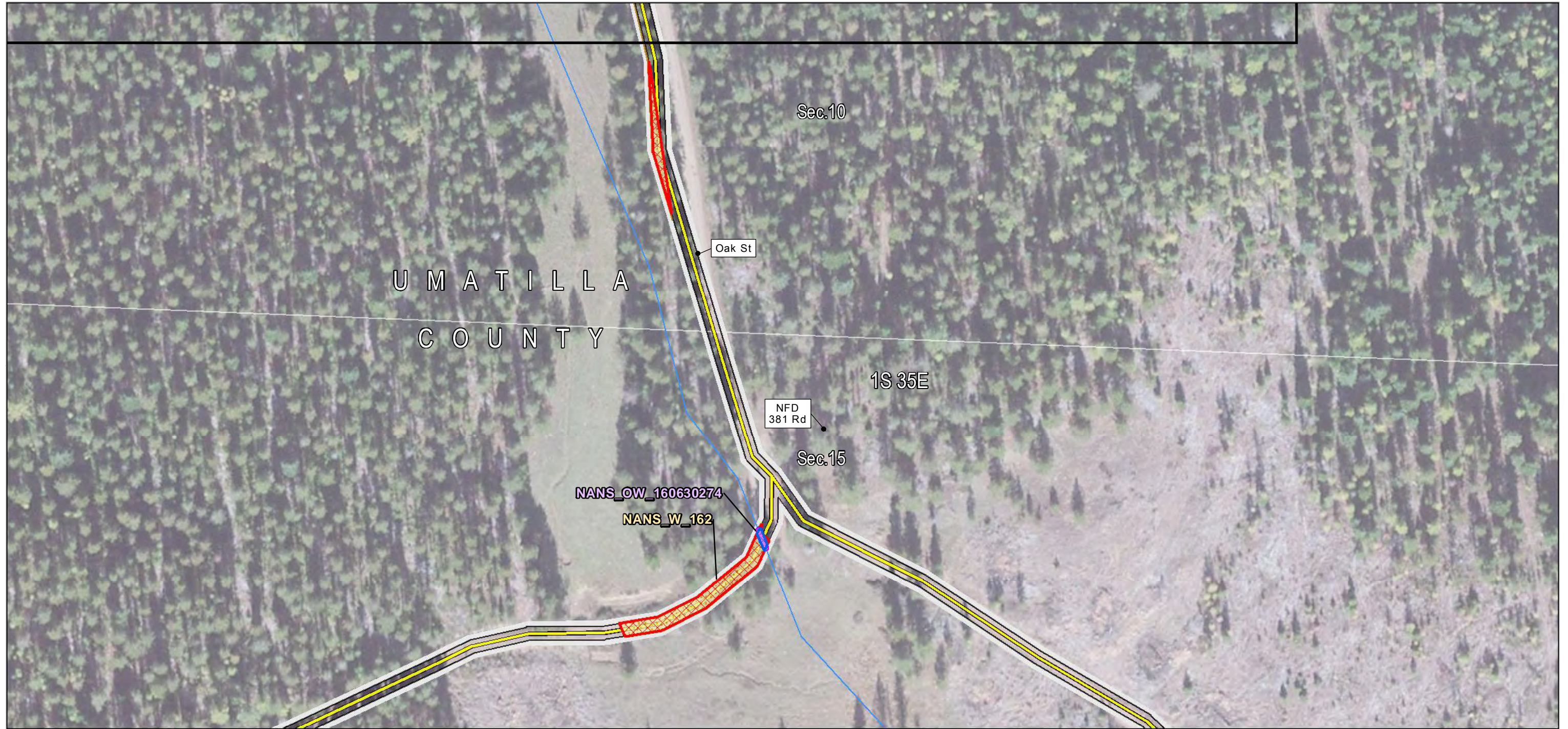
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-68**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Permanent

##### Wetland

NANS Wetland (NWI)

##### Wetland Impact Type

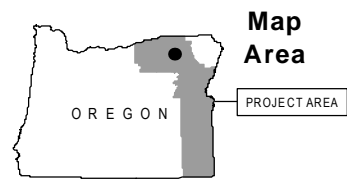
Permanent



Boardman to Hemingway Transmission Line Project

## Attachment K-69 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

- Existing Road, No Substantial Modification, 0-20% Improvements
- Rivers, Streams, and Canals

##### Wetland

- NANS Wetland (NWI)

##### Wetland Impact Type

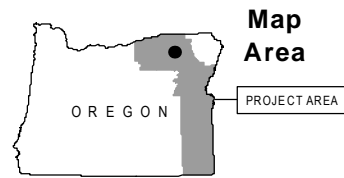
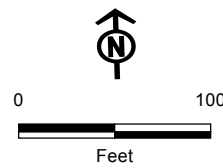
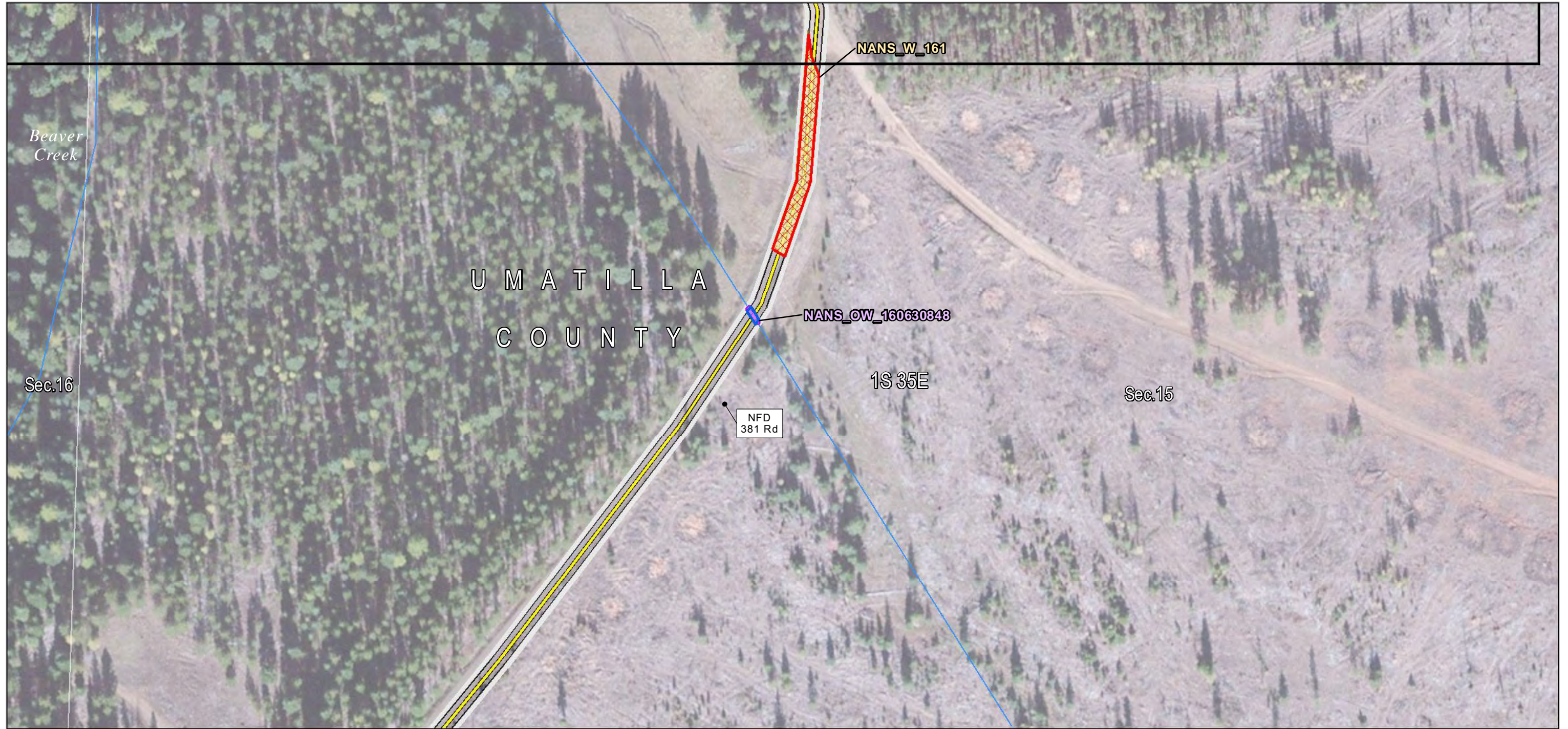
- Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-70**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

Permanent

##### Wetland

NANS Wetland (NWI)

##### Wetland Impact Type

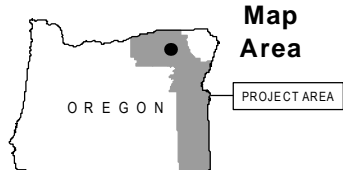
Permanent



Boardman to Hemingway Transmission Line Project

## Attachment K-71 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

- Site Boundary
- Proposed Route
- Construction Access
- Existing Road, No Substantial Modification, 0-20% Improvements
- Existing Road, Substantial Modification, 21-70% Improvements

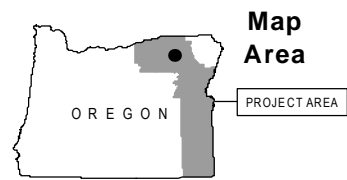
- Rivers, Streams, and Canals
- NANS Streams (NHD)
- Stream Impact Type
- Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-72**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

- Proposed Route
- Route Centerline

- Proposed Route

##### Work Areas

- Structure Work Area

##### Mileposts

- Tenth-mile

##### Construction Access

- Existing Road, No Substantial Modification, 0-20% Improvements
- Existing Road, Substantial Modification, 21-70% Improvements

- New Road, Bladed

- Rivers, Streams, and Canals

##### Other Waters

- Field Survey Streams
- NANS Streams (NHD)

##### Stream Impact Type

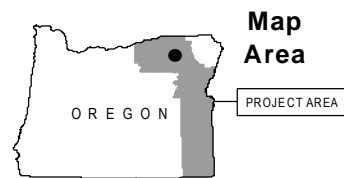
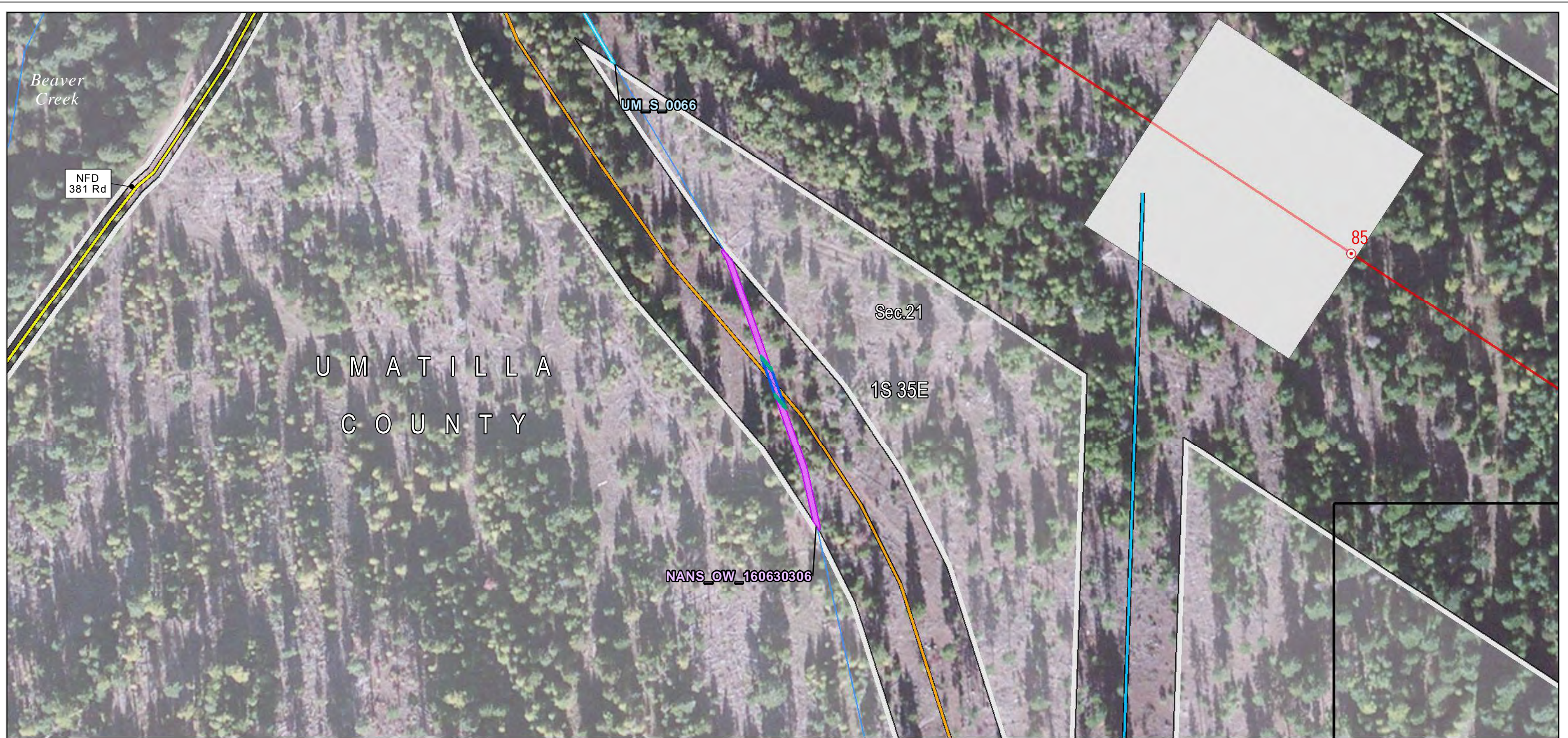
- Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-73 Wetland and Other Waters Joint Permit Application Detail Maps Umatilla County





**Project Features**

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Work Areas
- Structure Work Area

**Mileposts**

- Mile
- Construction Access
- Existing Road, No Substantial Modification, 0-20% Improvements
- Existing Road, Substantial Modification, 21-70% Improvements

- Existing Road, Substantial Modification, 71-100% Improvements
- Rivers, Streams, and Canals

**Other Waters**

- Field Survey Streams
- NANS Streams (NHD)

**Stream Impact Type**

- Temporary
- Permanent

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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

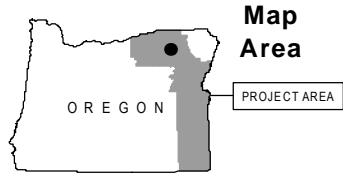
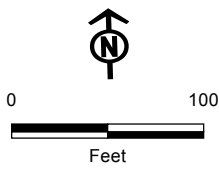
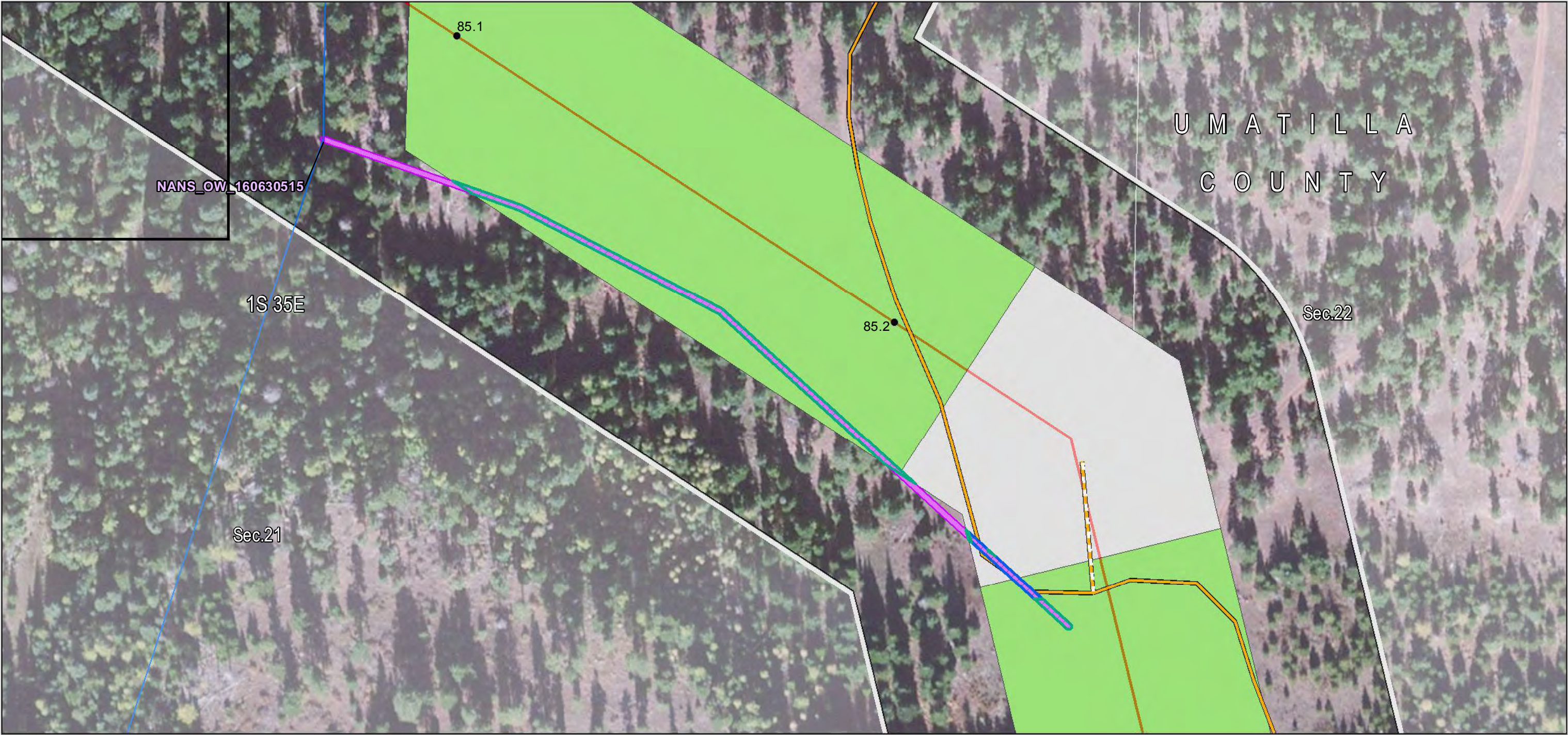
December 2016



Boardman to Hemingway  
Transmission Line Project

**Attachment K-74**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

New Road, Primitive

Rivers, Streams, and Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

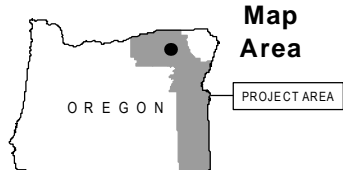
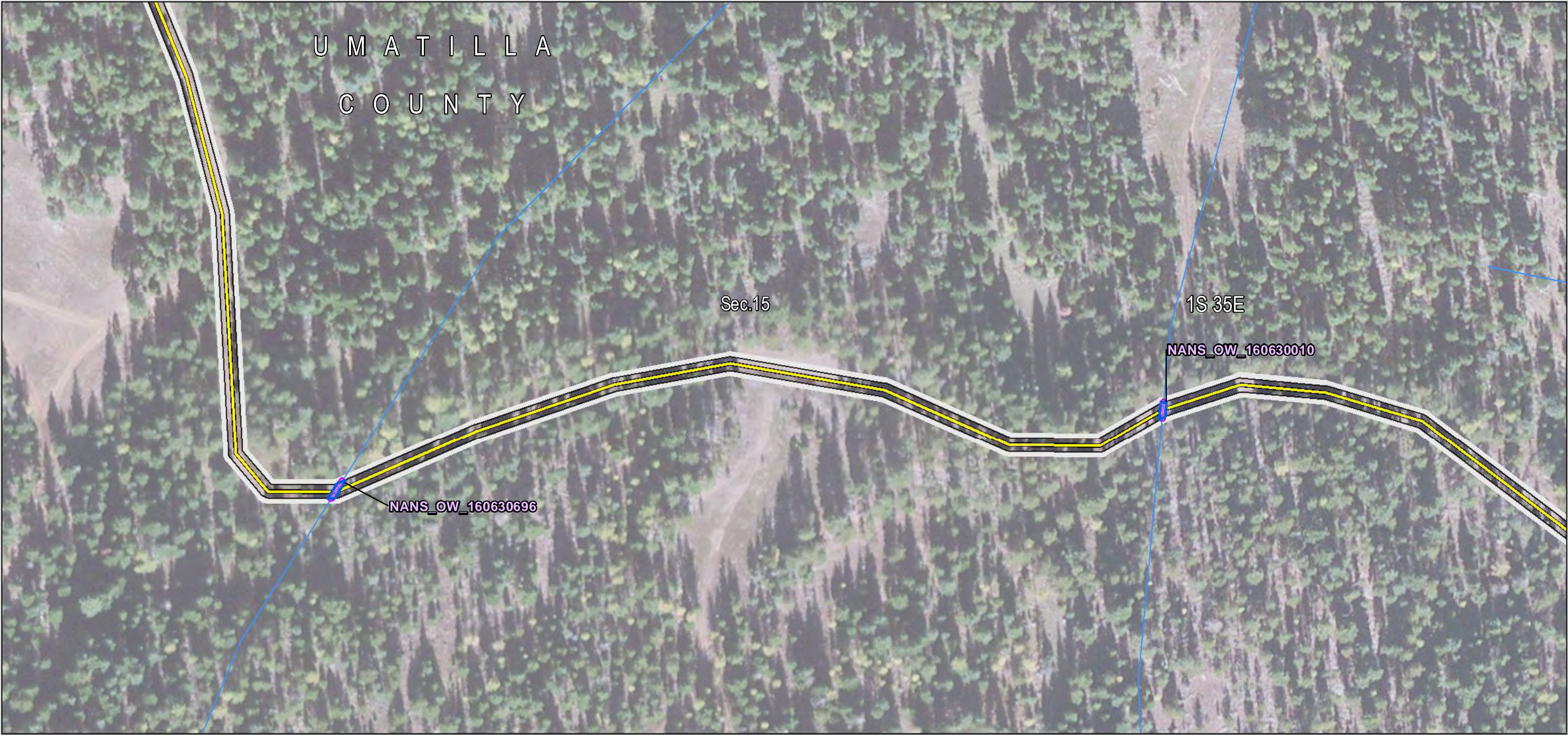
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-75**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
Umatilla County





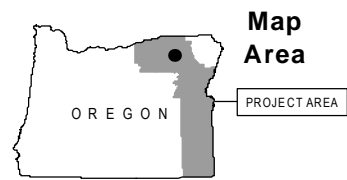
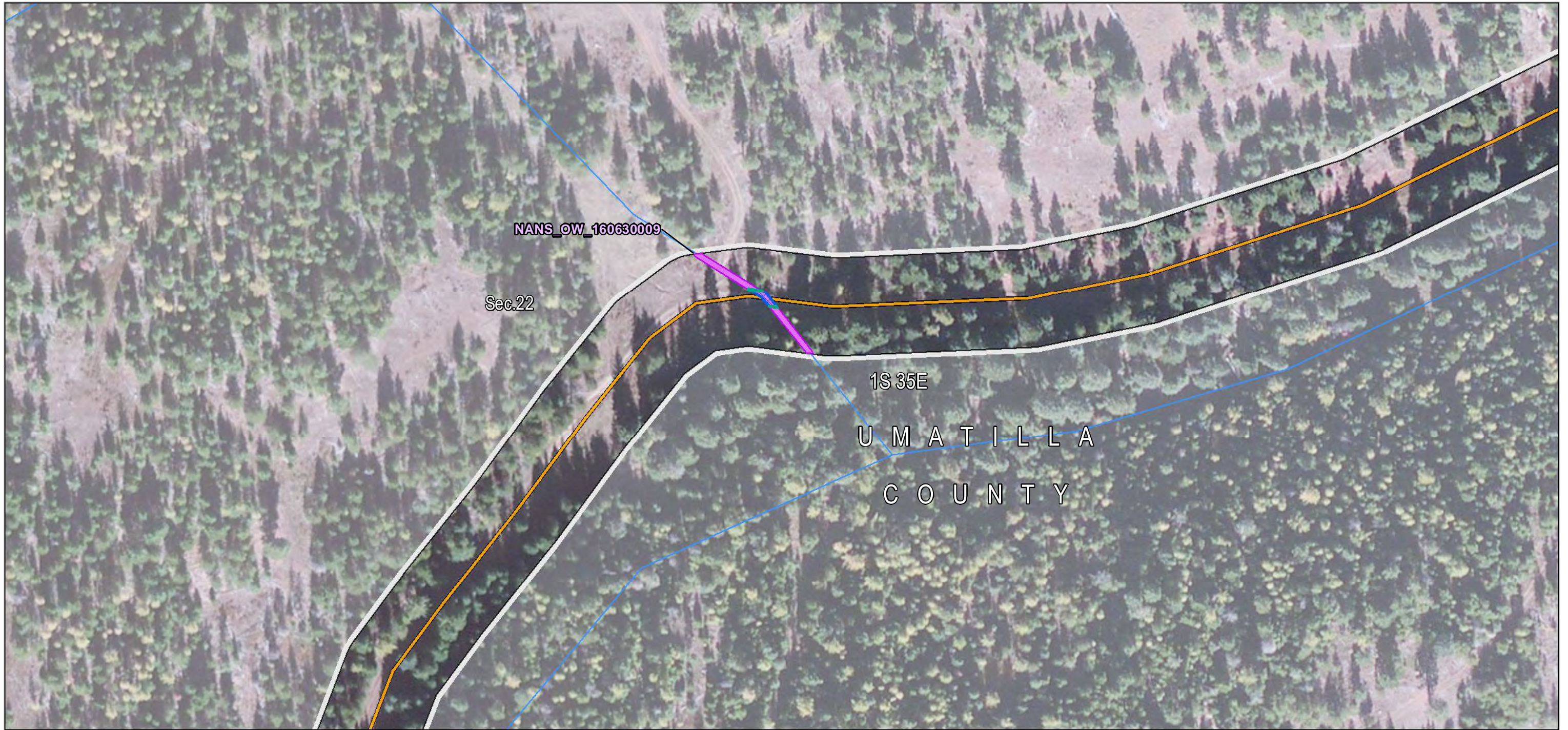
- Project Features**
- Construction Access
  - Existing Road, No Substantial Modification, 0-20% Improvements
  - Rivers, Streams, and Canals
- Other Waters**
- NANS Streams (NHD)

- Stream Impact Type**
- Permanent

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

Notes: Elevation contour lines are not available at this time and will be added at a later date.





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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

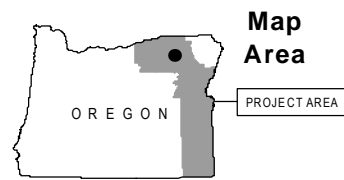
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-77**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

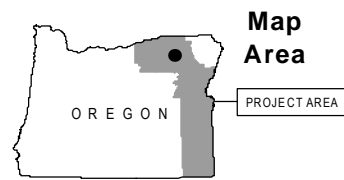
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-78**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

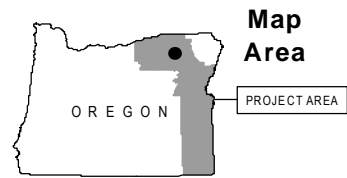
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-79**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

- Site Boundary
- Proposed Route
- Route Centerline
- Proposed Route
- Work Areas
- Structure Work Area

#### Mileposts

- Mile
- Tenth-mile

#### Construction Access

- Existing Road, No Substantial Modification, 0-20% Improvements

- Existing Road, Substantial Modification, 21-70% Improvements

- Existing Road, Substantial Modification, 71-100% Improvements

- New Road, Bladed
- Rivers, Streams, and Canals

#### Other Waters

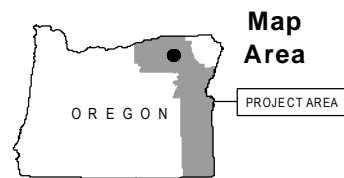
- NANS Streams (NHD)
- Stream Impact Type
- Temporary
- Permanent



Boardman to Hemingway  
Transmission Line Project

### Attachment K-80 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

Rivers, Streams, and  
Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

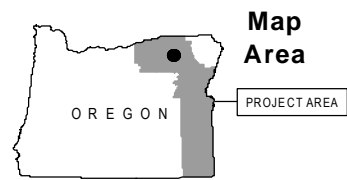
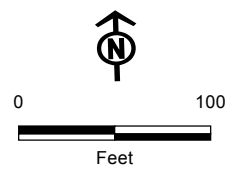
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-81**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

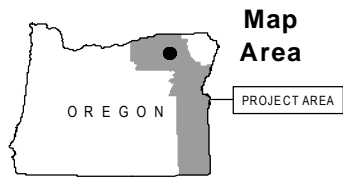
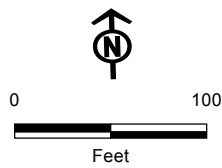
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-82**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

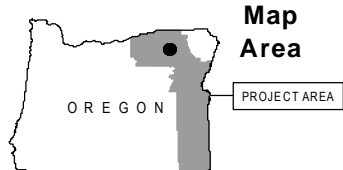
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-83**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

- Project Features**
- Construction Access
  - Existing Road, No Substantial Modification, 0-20% Improvements
  - Rivers, Streams, and Canals
- Other Waters**
- NANS Streams (NHD)

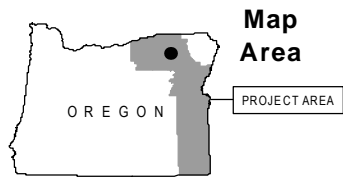
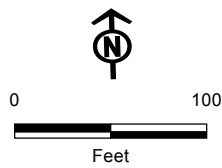
- Stream Impact Type**
- Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-84**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

##### Other Waters

NANS Streams (NHD)

##### Stream Impact Type

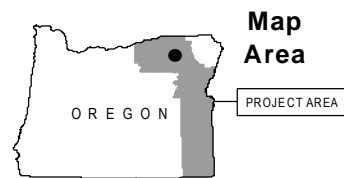
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-85**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

Rivers, Streams, and Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

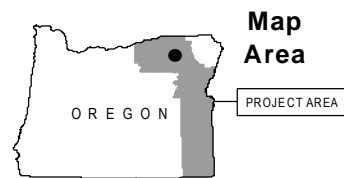
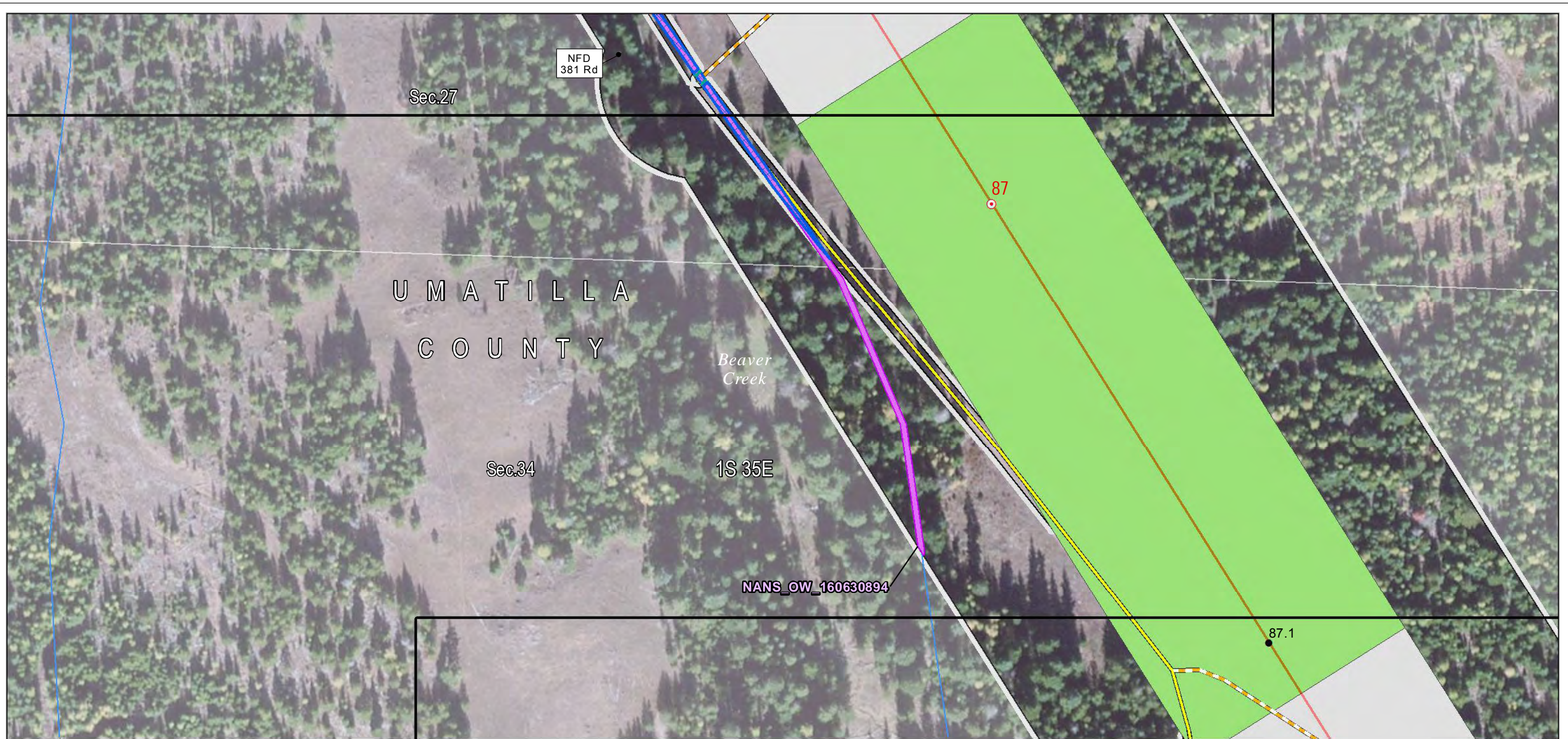
Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-86**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Mile

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

Rivers, Streams, and Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

Temporary

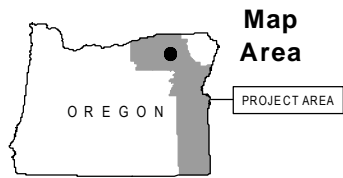
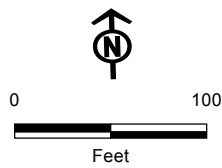
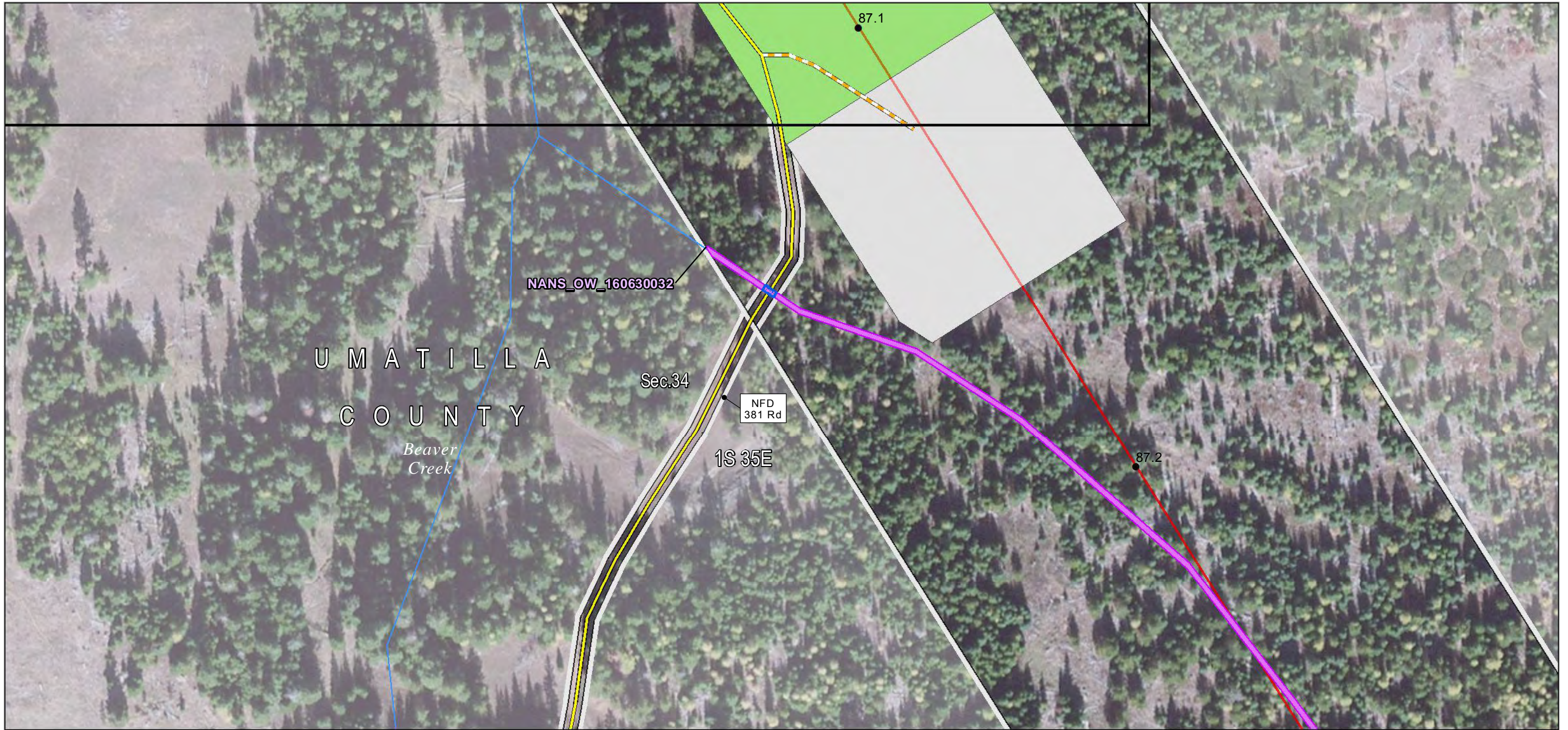
Permanent



Boardman to Hemingway Transmission Line Project

### Attachment K-87 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Tenth-mile

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

New Road, Primitive

Rivers, Streams, and Canals

Other Waters

NANS Streams (NHD)

Stream Impact Type

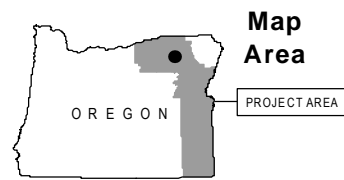
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-88**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Structure Work Area

##### Mileposts

Tenth-mile

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Existing Road, Substantial Modification, 21-70% Improvements

Rivers, Streams, and Canals

##### Wetland

NANS Wetland (NWI)

Wetland Impact Type

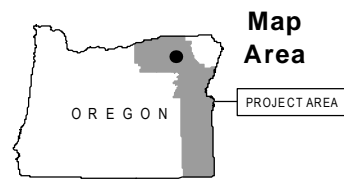
Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-89 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

##### Transportation

Interstates or Highways  
Rivers, Streams, and Canals

##### Other Waters

Field Survey Streams

##### Stream Impact Type

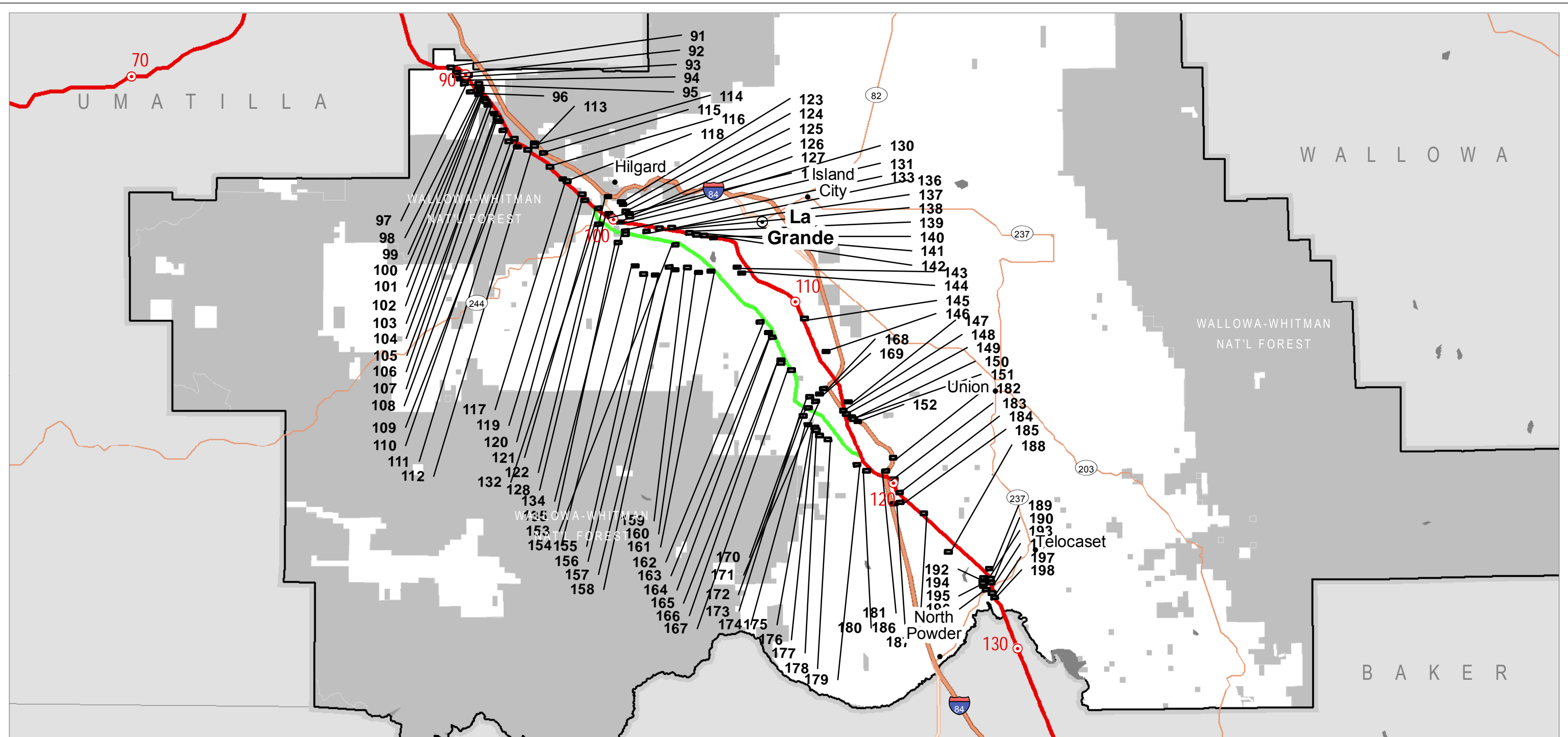
Permanent




Boardman to Hemingway  
Transmission Line Project

**Attachment K-90**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
**Umatilla County**





- |  |   |
|--|---|
| <b>Project Features</b>                            | <b>Map Index</b>  |
| <span style="color: red;">—</span> Proposed Route  | <span style="border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Map Tile (Map #) |
| <span style="color: green;">—</span> Alternative   |   |
| <span style="color: red;">⊙</span> Ten Mile Marker |   |


 Boardman to Hemingway  
Transmission Line Project

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

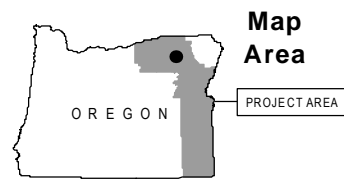
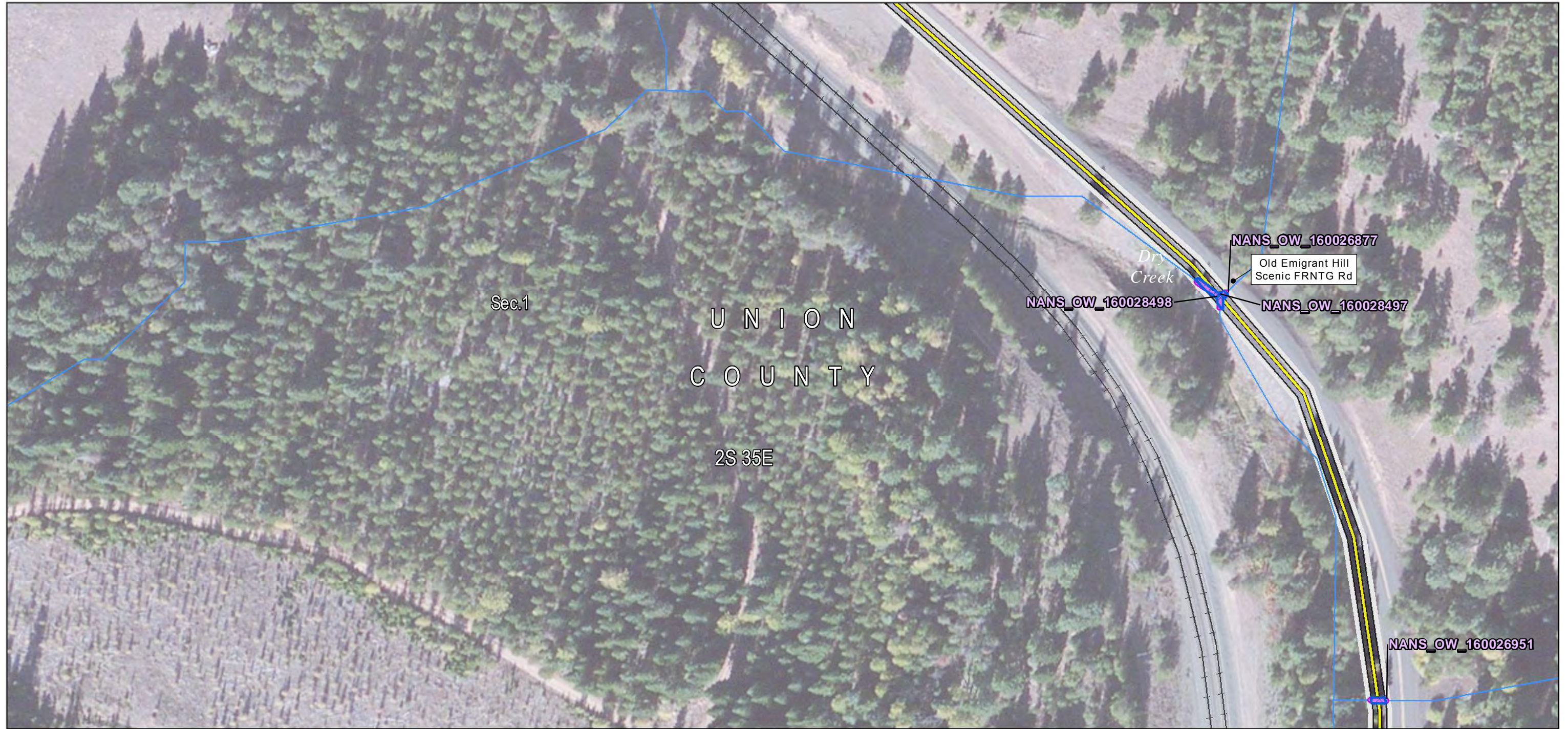
**Appendix K**  
**Joint Permit Application**  
**Location Map**  
 Union County

Map Index









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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

— Railroads

Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

Rivers, Streams, and  
Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

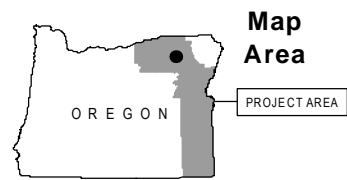
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-92**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

— Railroads

Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

Rivers, Streams, and  
Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

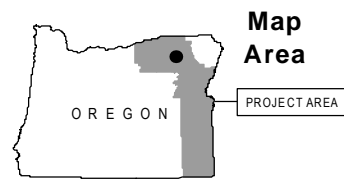
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-93**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

—+— Railroads

Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

Rivers, Streams, and  
Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

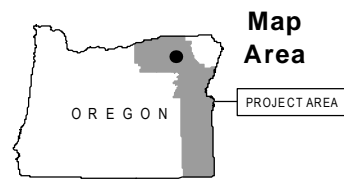
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-94**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

— Railroads

Construction Access

Existing Road, No  
Substantial Modification, 0-  
20% Improvements

Rivers, Streams, and  
Canals

#### Other Waters

NANS Streams (NHD)

Stream Impact Type

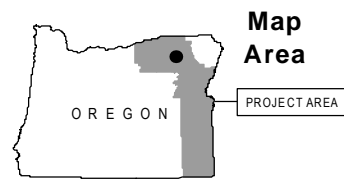
Permanent



Boardman to Hemingway  
Transmission Line Project

### Attachment K-95 Wetland and Other Waters Joint Permit Application Detail Maps 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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

**Project Features**

—+— Railroads

Construction Access

Existing Road, No Substantial Modification, 0-20% Improvements

Rivers, Streams, and Canals

**Other Waters**

NANS Streams (NHD)

Stream Impact Type

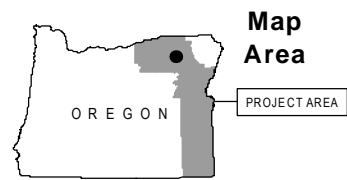
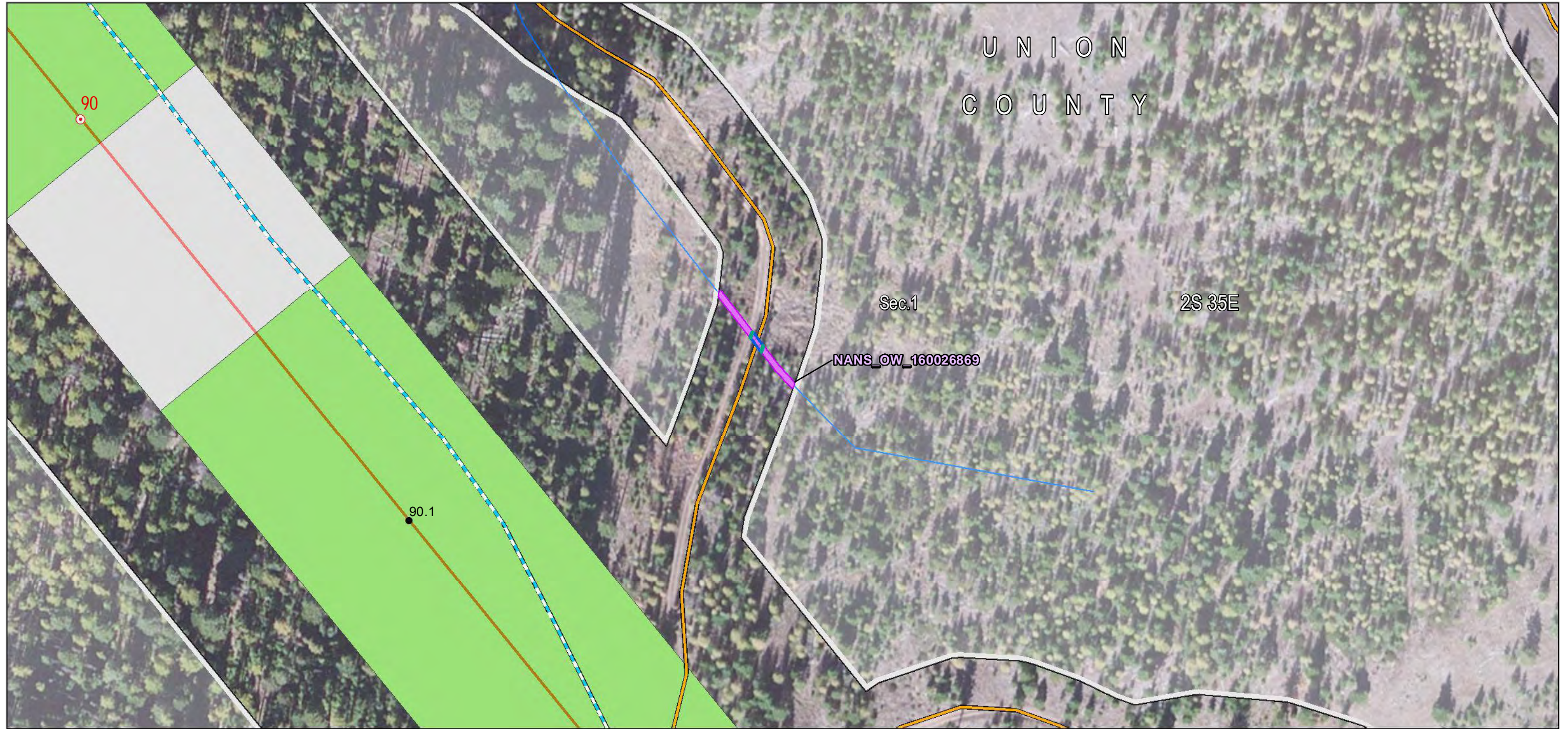
Permanent



Boardman to Hemingway Transmission Line Project

**Attachment K-96  
Wetland and Other Waters  
Joint Permit Application  
Detail Maps  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Route Centerline

Proposed Route

Work Areas

Pulling and Tensioning

Structure Work Area

Mileposts

Mile

Tenth-mile

Construction Access

Existing Road, Substantial

Modification, 21-70%

Improvements

New Road, Bladed

Rivers, Streams, and Canals

NANS Streams (NHD)

Stream Impact Type

Temporary

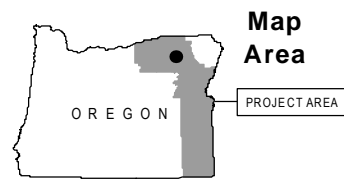
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-97**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

Site Boundary

Proposed Route

Construction Access

Existing Road, Substantial Modification, 21-70% Improvements

Existing Road, Substantial Modification, 71-100% Improvements

Rivers, Streams, and Canals

#### Other Waters

Field Survey Streams

Stream Impact Type

Temporary

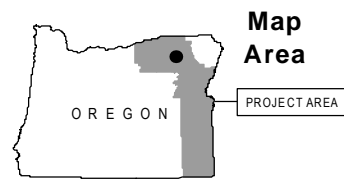
Permanent



Boardman to Hemingway  
Transmission Line Project

**Attachment K-98**  
**Wetland and Other Waters**  
**Joint Permit Application**  
**Detail Maps**  
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

Notes: Elevation contour lines are not available at this time and will be added at a later date.

December 2016

#### Project Features

##### Site Boundary

Proposed Route

##### Construction Access

Existing Road, Substantial Modification, 71-100% Improvements

Rivers, Streams, and Canals

##### Other Waters

Field Survey Streams

##### Stream Impact Type

Temporary

Permanent



Boardman to Hemingway  
Transmission Line Project

## Attachment K-99 Wetland and Other Waters Joint Permit Application Detail Maps Union County