**DEPARTMENT OF THE ARMY**
**U.S. ARMY CORPS OF ENGINEERS**
**BOISE REGULATORY OFFICE**
**720 EAST PARK BOULEVARD, SUITE 245**
**BOISE, IDAHO 83712-7757**

March 9, 2021

Regulatory Division

SUBJECT: NWW-2004-0600046, US-95 Thorn Creek Road to Moscow, KN 09294

Mr. Doral Hoff
Idaho Transportation Department, District 2
Post Office Box 837
Lewiston Id, 83843

Dear Mr. Hoff:

We have determined that the single and complete linear projects as proposed in your "US-95 Thorn Creek Road to Moscow" application dated September 29, 2020 are authorized in accordance with Department of Army (DA) **Nationwide Permit (NWP) No. 14: Linear Transportation Projects**. Table 1 below provides the location of the 13 single and complete linear projects. The project sites are located between mile post 337.67 and 344 of US-95. The project is located within Sections 5, 7, 8, 17, 18 of Township 38 North, Range 5 West, and Sections 19, 20, 29, 32 of Township 39 North, Range 5 West, with the center point of the alignment near latitude 46.676464° N and longitude -116.993836° W, in Latah County, near Moscow, Idaho. Please refer to File Number NWW-2004-0600046 in all future correspondence with our office regarding these projects.

The proposed project activities, impact areas, and quantities of native topsoil and rock fill placed below the ordinary high-water mark and in wetlands are listed in Tables 1, 2, and 3 of Appendix A, dated January 26, 2021. All work shall be completed in accordance to the attached drawings titled: *US-95, Thorncreek Road to Moscow, Latah County ITD Project No. DHP-NH-4110(156); Key No. 09294, sheets 1 through 34, dated August 2020.*

Table 1: US-95 Thorn Creek to Moscow single and complete project locations

| NWP 14 Site Number | Impacted Aquatic Resources | Separate and complete project center | |
|---|---|---|---|
| | | Latitude | Longitude |
| 1 | Tributary P, Thorn Creek, Wetland B1, Wetland 23A, Wetland 23B | 46.637119° | -117.000354° |
| 2 | Tributary Q | 46.649205° | -117.003647° |
| 3 | Wetland C1 | 46.650135° | -117.003372° |
| 4 | Tributary U, Wetland 29A | 46.657080° | -116.997250° |
| 5 | Tributary U, Wetland 29B | 46.657877° | -116.997018° |
| 6 | Tributary U | 46.662655° | -116.996228° |
| 7 | Tributary V | 46.666445° | -116.995536° |
| 8 | Tributary W | 46.668182° | -116.995308° |
| 9 | Tributary W | 46.676541° | -116.993765° |
| 10 | Tributary X | 46.682649° | -116.993516° |
| 11 | Wetland 35B | 46.683185° | -116.992663° |
| 12 | Wetland 35A | 46.684810° | -116.992364° |
| 13 | Tributary AA, Wetland 40B | 46.694887° | -116.993918° |

**AUTHORITY**

DA permit authorization is necessary because your project would involve the discharge of dredged and/or fill material into Waters of the U.S., including wetlands. This authorization is outlined in Section 404 of the Clean Water Act (33 U.S.C. 1344).

**PERMIT CONDITIONS**

You must comply with all regional, general, and special conditions for this verification letter to remain valid and to avoid possible enforcement actions. The regional and general permit conditions for *NWP No. 14: Linear Transportation Projects* are available

online at http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/. If you would prefer a hard copy of the regional and general conditions, please notify us and we will provide you a copy. In addition, you must also comply with the special conditions listed below.

The following Special Conditions include:

a. Permittee shall re-establish the surface water connection within Tributary P, Thorn Creek, and Tributary W (near station 181+31) prior to or concurrent with project impacts as described in sheet 8 and sheet 27 of the project drawings titled Thorn Cr. Rd. to Moscow, PH. 1, Latah, County, dated August 2020. Permittee shall notify the Corps Boise Regulatory Office in writing once the surface water connection is re-established. Special condition (a.) is applicable to sites 1 and 8.

b. Permittee shall submit proof of purchase for credits from the Valencia Wetland Trust Mitigation Bank located in Priest River, Idaho. Credit requirements for the separate and complete sites are listed in Table 3 of Appendix A. The proof of purchase shall be submitted to the Corps prior to starting work in waters of the U.S., including wetlands. Special condition (b.) is applicable to sites 1, 4, 8, 11, 12 and 13.

c. Permittee shall demarcate all wetland boundaries with flagging or fencing prior to construction. No fill material shall be placed in wetlands unless the wetland fill is specifically authorized and shown on the permit drawings. Special condition (c.) is applicable to sites 1, 3, 4, 5, 11, 12, and 13.

d. Permittee shall conduct work in the dry during low water conditions to reduce impacts to waters of the United States. Special condition (d.) is applicable to sites 1, 2, 4, 5, 6, 7, 8, 9, 10, and 13.

e. This Corps verification does not authorize you to take an endangered species, in particular Spalding's Catchfly (*Silene spaldingii*). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA); e.g. an ESA Section 10 permit or Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply.

   The U.S. Fish and Wildlife Service (USFWS) in their April 12, 2007 Letter of Concurrence agrees and reconfirmed on December 21, 2020 that the potential impacts of your project are not likely to adversely affect the listed species or their designated critical habitat.

Your authorization under this Corps Nationwide verification is conditional upon your compliance with the special conditions in this permit and following the construction procedures described in your application and Biological Assessment (BA).

Failure to comply with these conditions or variance of the construction procedures that result in a take of listed species under the ESA, would constitute an unauthorized take and non-compliance with your Corps permit. To ensure ESA compliance, any changes or deviation from your permit or the action as described in our BA may necessitate re-initiation of consultation with the USFWS. Special condition (e.) is applicable to all 13 project location sites.

f. The permittee is responsible for all work done by any contractor. Permittee shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization, including any Special Conditions listed above. Permittee shall also ensure these terms and conditions are incorporated into engineering plans and contract specifications. Special condition (f.) is applicable to all 13 project location sites.

**WATER QUALITY CERTIFICATION**

You must also comply with the conditions detailed in the Section 401 Water Quality Certification (WQC) issued by the Idaho Department of Environmental Quality (IDEQ) on March 3, 2017 for NWP 14 sites 2, 5, 6, 7, 9, & 10. For your review, a copy of this 401 WQC is available on the IDEQ's website at: http://www.deq.idaho.gov/media/60179758/nationwide-permits-2017-401-certification-0317.pdf. If you have any questions regarding the conditions set forth in the Water Quality Certification, please contact IDEQ directly at 208-799-4370, Lewiston Regional Office

You must also comply with the conditions detailed in the Section 401 Water Quality Certification (WQC) issued for NWP 14 sites 1, 3, 4, 8, & 11-13 on April 3, 2018, by the Idaho Department of Environmental Quality (IDEQ). If you have any questions regarding the water quality certificate and/or the conditions set forth, please contact IDEQ at (208) 553-6831.

**PRELIMINARY JURISDICTIONAL DETERMINATION**

Attached to this verification are two copies of the Preliminary Jurisdictional Determination (PJD) form showing that Waters of the United States, including wetlands, may be located within your project area. **Please sign both copies and return one to the Corps at the address in the letterhead above**. The other copy is for your records.

The Preliminary Jurisdictional Determination is a non-binding action and shall remain in effect, unless a request for an Approved Jurisdictional Determination or new

information supporting a revision is provided to this office. Please note that since this Jurisdictional Determination is preliminary, it is subject to change and therefore is not an appealable action under the Corps of Engineers Administrative Appeal Procedures (33 CFR 331). Enclosed you will find a *Notification of Administrative Appeal Options and Process and Request for Appeal* (RFA) *Form* for further clarification.

**COMPLIANCE CERTIFICATION**

Further, Nationwide Permit General Condition 30 (*Compliance Certification*) requires that every permittee who has received NWP verification must submit a signed certification regarding the completed work and any required mitigation. The enclosed Compliance Certification form is enclosed for your convenience and must be completed and returned to us.

**LIMITATIONS OF THIS VERIFICATION**

This letter of authorization does not convey any property rights, or any exclusive privileges and does not authorize any injury to property or excuse you from compliance with other Federal, State, or local statutes, ordinances, regulations, or requirements which may affect this work.

**EXPIRATION OF THIS VERIFICATION**

This verification is valid until **March 18, 2022**, unless the NWP is modified, suspended or revoked. If your project, as permitted under this NWP verification is changed and/or modified, you must contact our office prior to commencing any work activities. In the event you have not completed construction of your project by March 18, 2022, please contact us at least 60-days prior to this date. A new application and verification may be required.

**CUSTOMER SERVICE**

We actively use feedback to improve our delivery and provide you with the best possible service. Please take our online customer service survey to tell us how we are doing. Follow this link to take the survey: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. If you have questions or if you would like a paper copy of the survey, call our office at 208-433-4464. For more information about the Walla Walla District Regulatory program, visit us online at http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/.

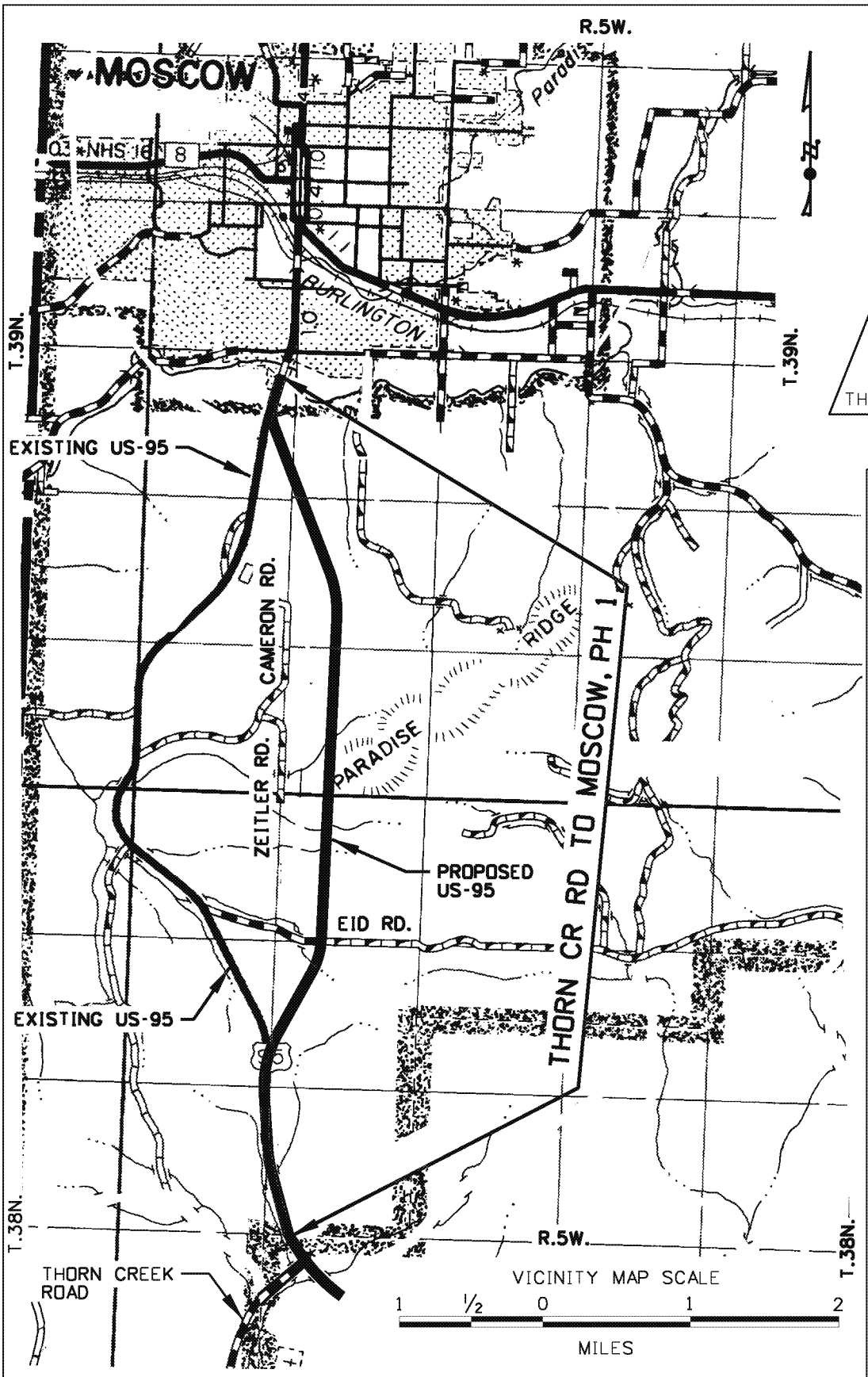
If you have any questions or need additional information about this permit, you can contact Shane Skaar at (208) 433-4478, by mail at the address in the letterhead, or email at shane.k.skaar@usace.army.mil. For informational purposes, a copy of this letter will be sent to Mr. Shawn Smith of the Idaho Transportation Department (ITD), Mr. Ken Helm of the ITD, Ms. Aimee Hill of the ITD, Mr. Brent Inghram of the Federal Highways Administration, Ms. Sujata Connell of the Idaho Department of Environmental Quality, Mr. Zach Swearingen of the Idaho Department of Fish and Game, Ms. Cara Christofferson of the U.S. Fish and Wildlife Service, and Ms. Ashley Brown of the Idaho State Historic Preservation Office.

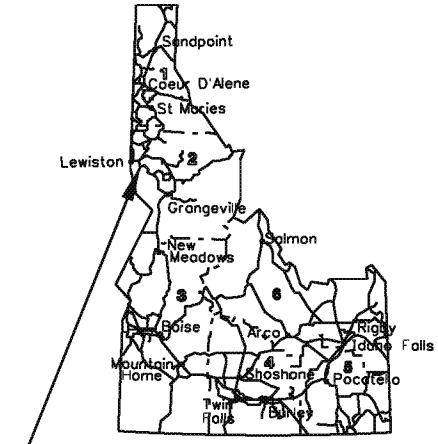
Sincerely,

Kelly J. Urbanek, Chief
Regulatory Division

Enclosures

1. Appendix A: Permitting tables 1-3, dated January 26, 2021
2. Thorn Creek Road to Moscow Wetland Delineation Review and Technical Report for Areas within the US-95 E-2 Alignment, (KN09294), dated September 22, 2020
3. Thorn Creek Road to Moscow Wetland Delineation of South Connector associated with the US-95 E-2 Alignment, (KN09294), dated September 21, 2020
4. Thorn Creek to Moscow Ordinary-High-Water-Mark Delineation, (KN09294), dated September 28, 2020
5. Request for Corps Jurisdictional Determination, Appendix 1, dated September 28, 2020
6. Preliminary Jurisdictional Determination Review area map, dated September 28, 2020
7. Preliminary Jurisdictional Determination Form
8. Notification of Administrative Appeal Options and Request for Appeal Form
9. Transfer of Nationwide Permit Form




DHP-NH-4110(156) US-95, THORN CR RD TO MOSCOW,PH 1

SEGMENT CODE 001540

## LEGEND

- SURFACE WATER FLOW
- PROPOSED FILL SLOPE
- PROPOSED CUT SLOPE
- EXISTING TRIBUTARY
- PROPOSED TRIBUTARY
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- RETAIN & PROTECT VEGETATION
- WETLAND AREA
- PERMANENT WETLAND IMPACT AREA
- TEMPORARY WETLAND IMPACT AREA
- PAC — PURCHASE ACCESS CONTROL
- T — TEMPORARY EASEMENT
- P/L — PROPERTY LINE
- R/W — EXISTING RIGHT-OF-WAY
- P — PERMANENT EASEMENT

ACRONYMS:

EMERGENT = (EM)
NOT TO SCALE = N.T.S.

NWW No.: 2004-0600046

LOCATION: US-95

PROPOSED PROJECT:
PROPOSED 4-LANE DIVIDED HIGHWAY FROM THORN CREEK ROAD TO MOSCOW

APPLICANT:
IDAHO TRANSPORTATION DEPARTMENT, DISTRICT 2

LAT/LONG: 46° 40'44"N/116° 59'45"W

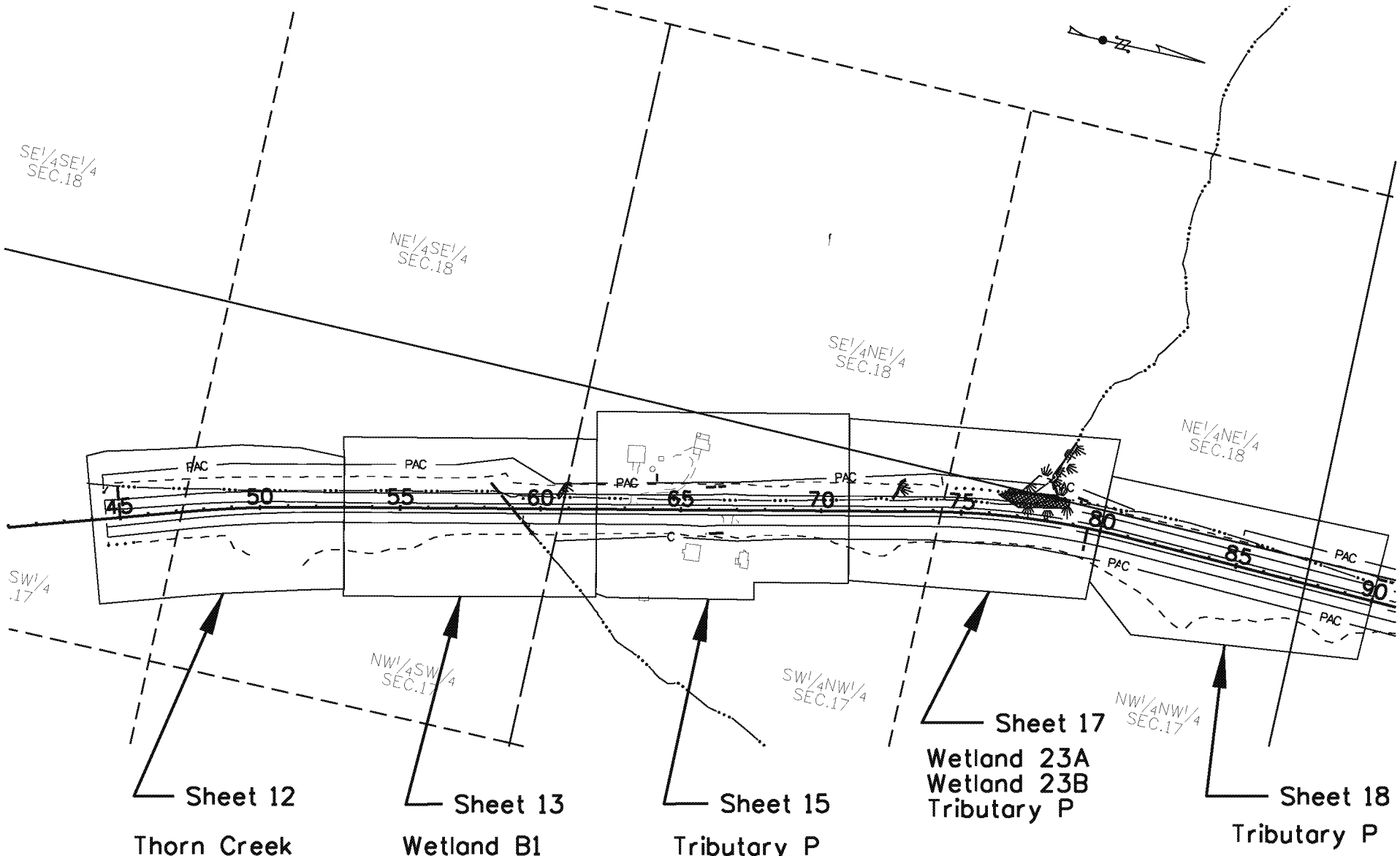
IN: THORN CREEK
NEAR/AT: MOSCOW
COUNTY: LATAH
STATE: IDAHO

ADJACENT PROPERTY OWNERS:
(SHOWN ON THE SHEETS)

PAGE 1 OF 34

09294_404_title.dgn

DATE: August 2020




IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 2 of 34 Date: AUGUST 2020

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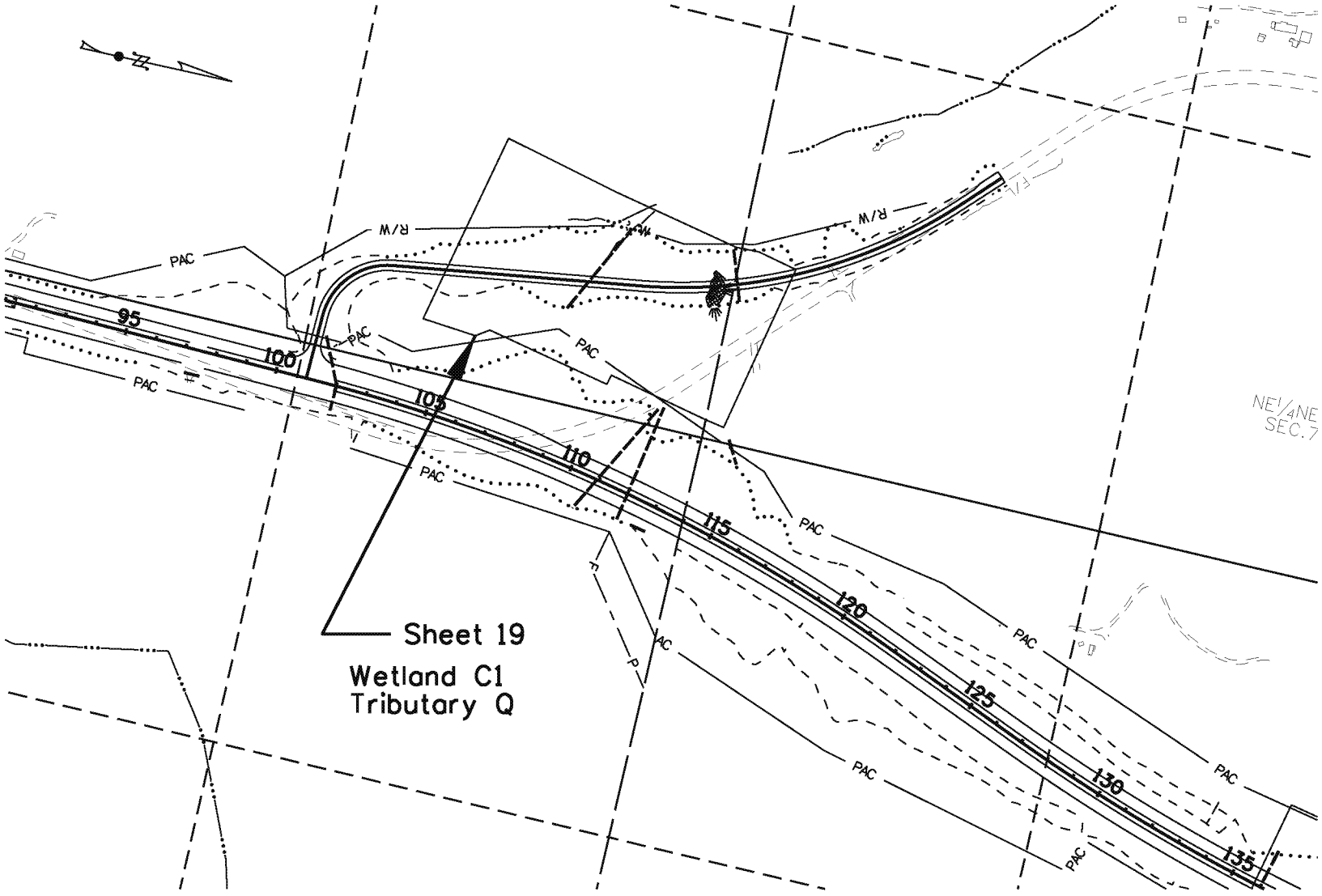



IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

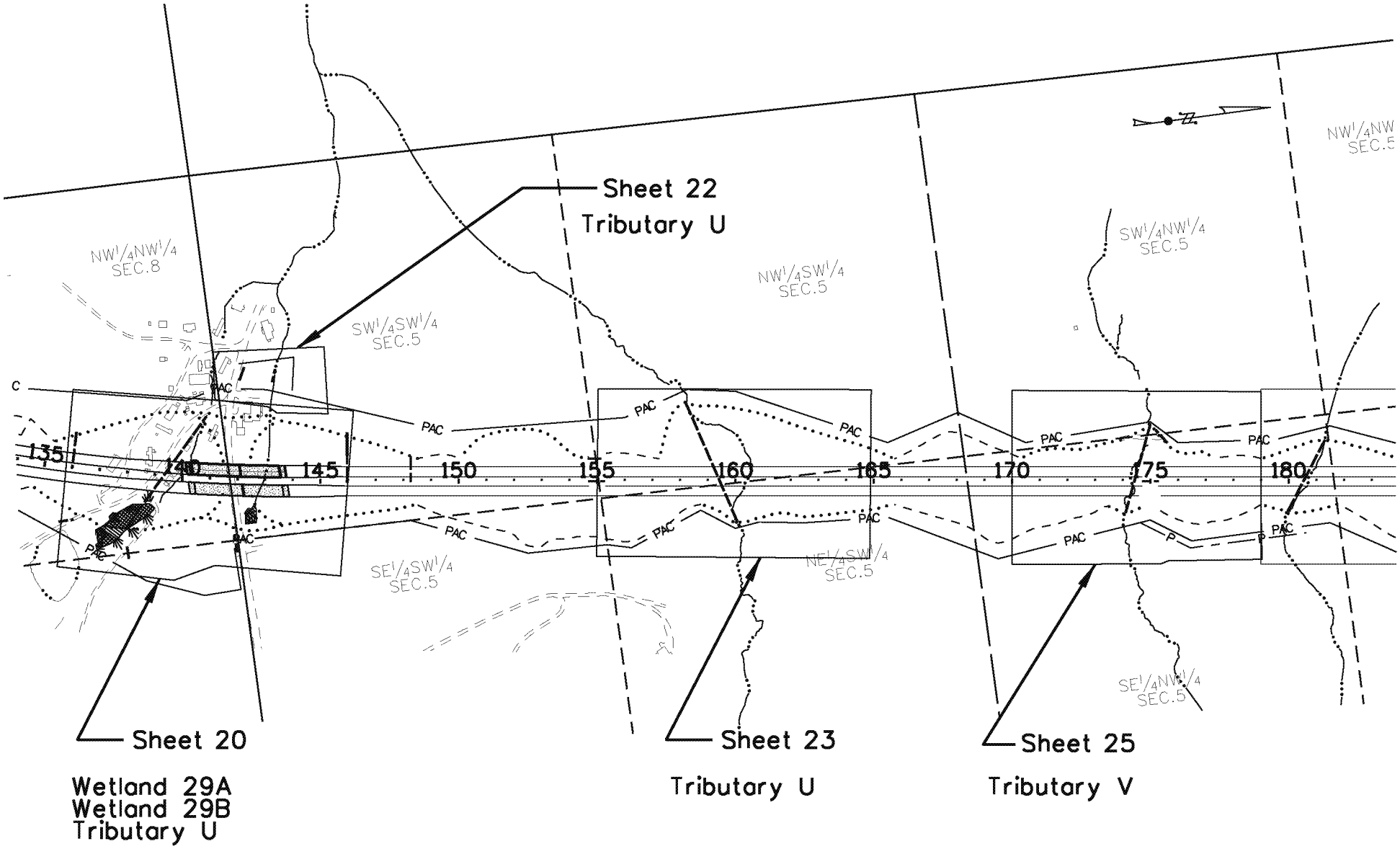
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

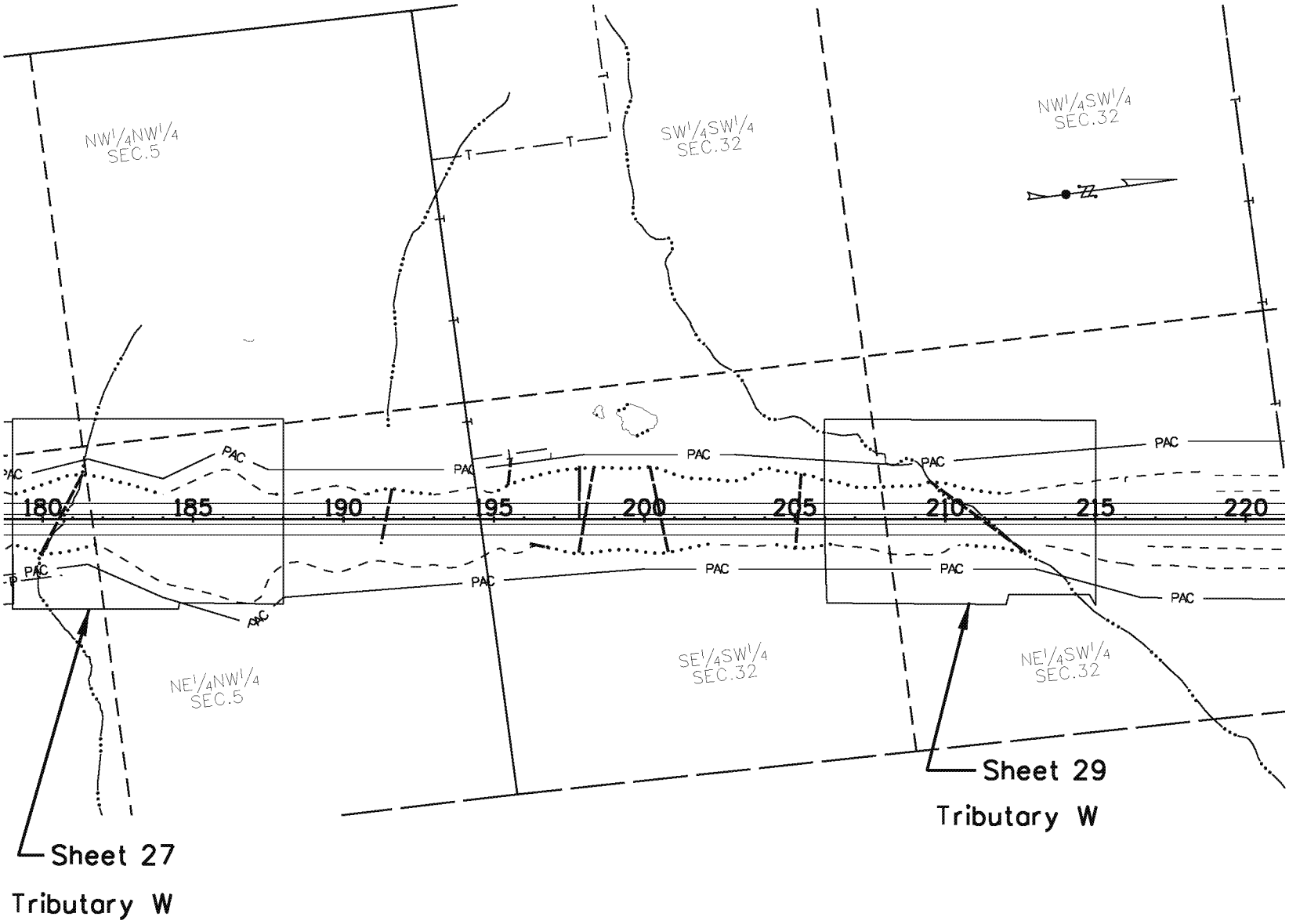
Location: US-95

Sheet 3 of 34 Date: AUGUST 2020

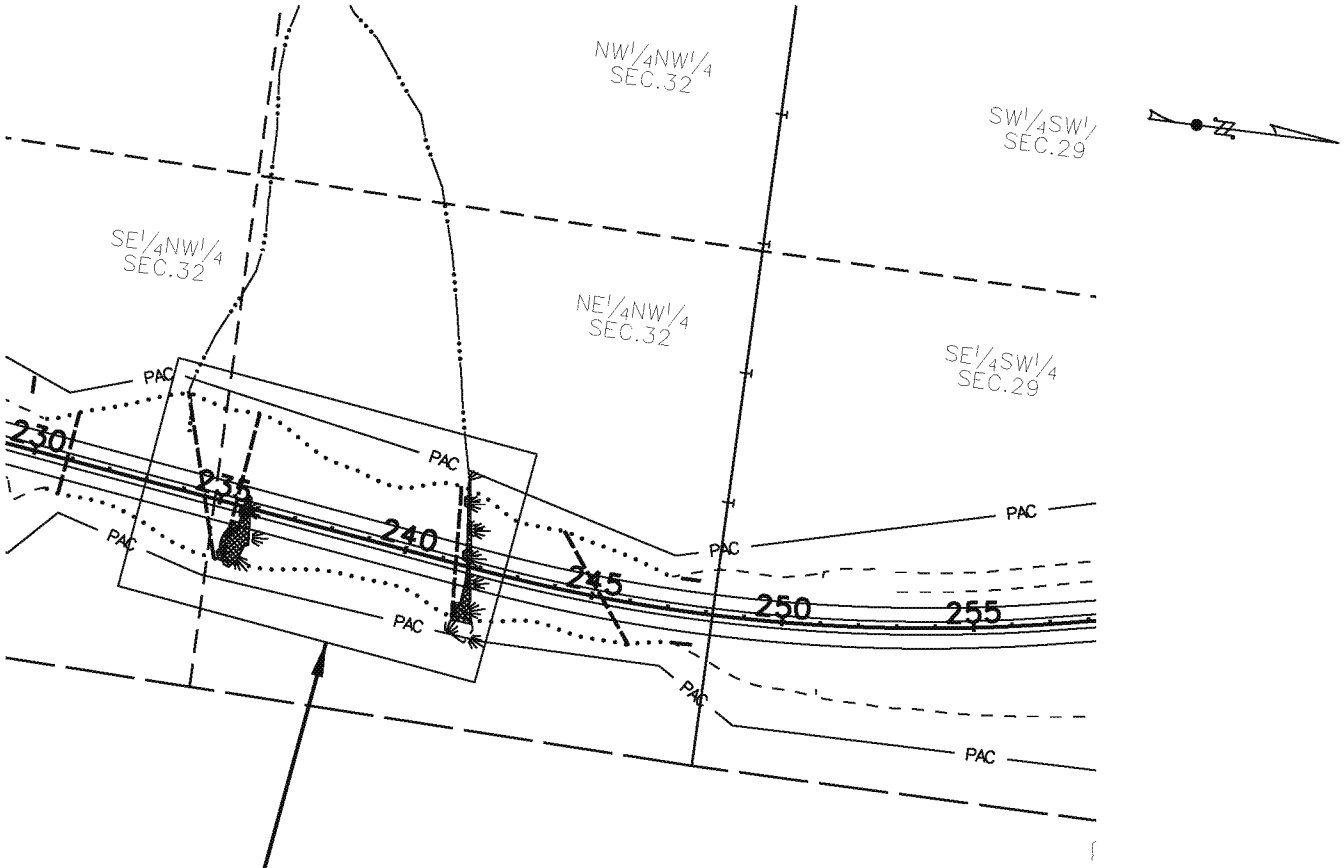
*09294_404 index_1a.DGN*




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 4 of 34 Date: AUGUST 2020 |
| | *09294_404 index_2.DGN* |



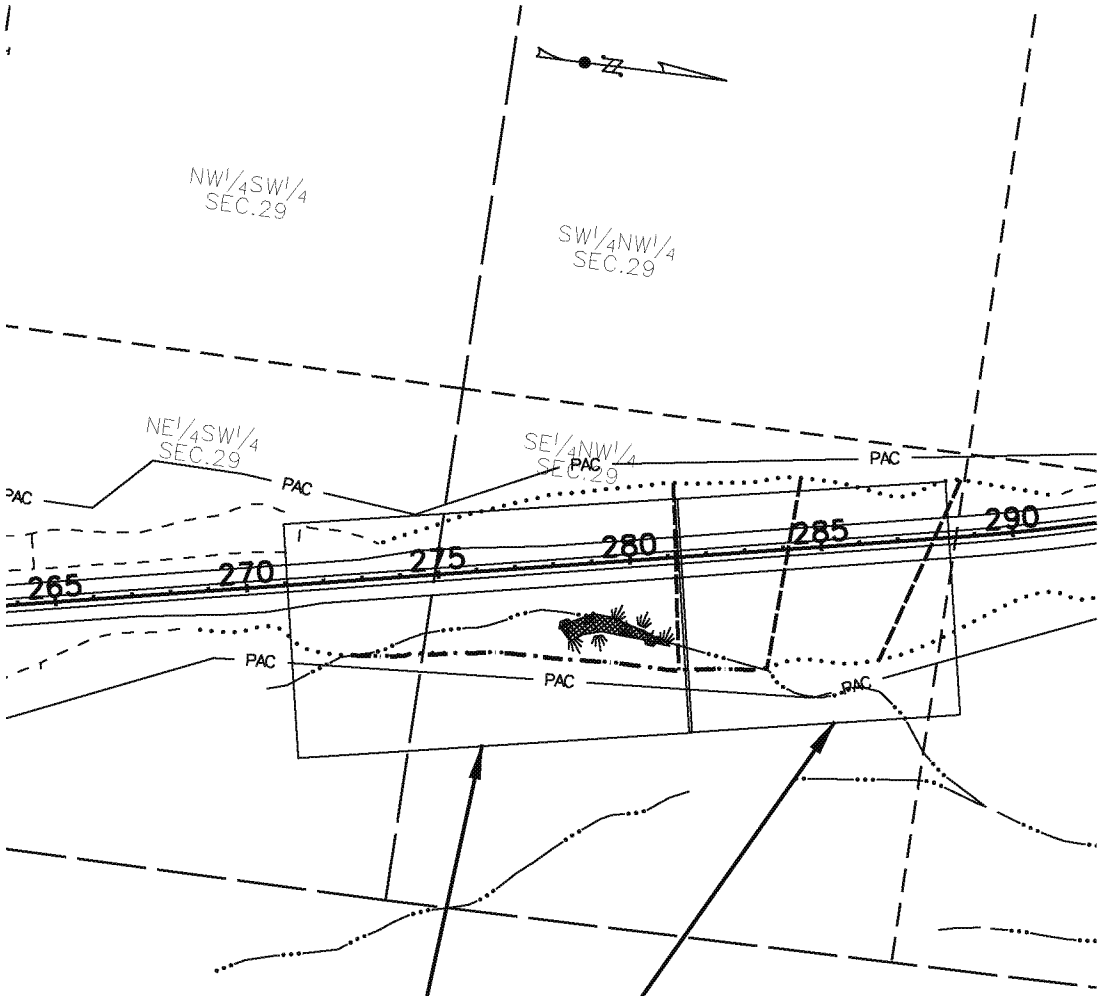

| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 5 of 34 Date: AUGUST 2020 |
| | *09294_404 index_3.DGN* |




Sheet 31

Wetland 35A
Wetland 35B
Tributary X

| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 6 of 34 Date: AUGUST 2020 |
| | *09294_404 index_4.DGN* |



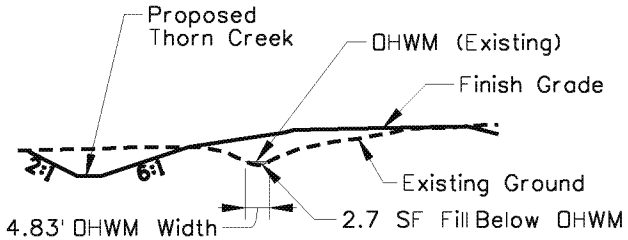

Sheet 33
Wetland 40B
Tributary AA

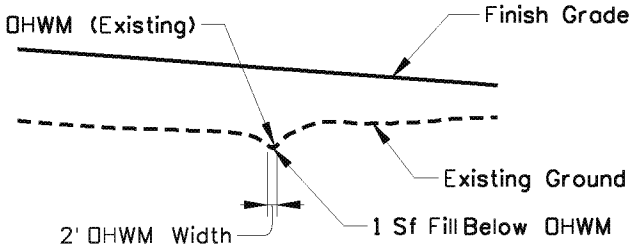
Sheet 34
Tributary AA

| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 7 of 34 Date: AUGUST 2020 |
| | *09294_404 index_5.DGN* |

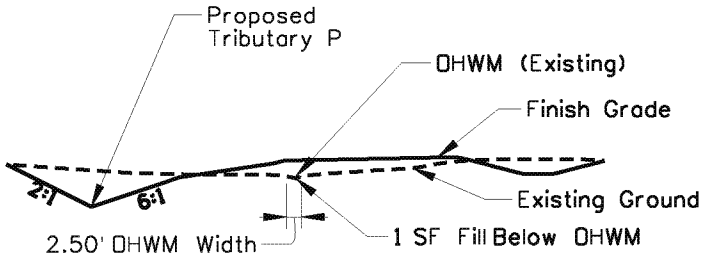
# TRIBUTARY TYPICALS
N.T.S.

| THORN CREEK - IMPACT TABLE<br>STATION 44+65 TO 59+38<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 1,574 FT |
| Tributary Replacement Length | 1,358 FT |
| Tributary Fill Below OHWM | 157 CY |
| Tributary OHWM Area | 0.175 AC (7,602 SF) |
| | |




| TRIBUTARY Q - IMPACT TABLE<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 150 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 6 CY |
| Tributary OHWM Area | 0.007 AC (300 SF) |
| | |




| TRIBUTARY P - IMPACT TABLE<br>STATION 59+35 TO 89+75<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 2,466 FT |
| Tributary Replacement Length | 2,531 |
| Tributary Fill Below OHWM | 91 CY |
| Tributary OHWM Area | 0.142 AC (6,165 SF) |
| | |

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

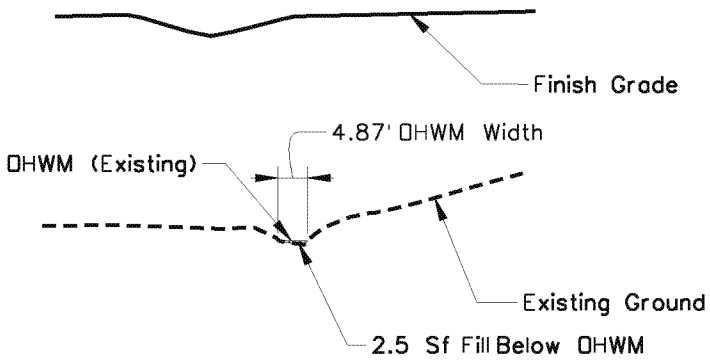
Location: US-95

Sheet 8 of 34 Date: AUGUST 2020

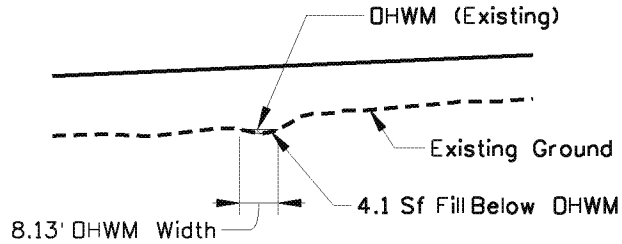
*Trib Typicals.DGN*

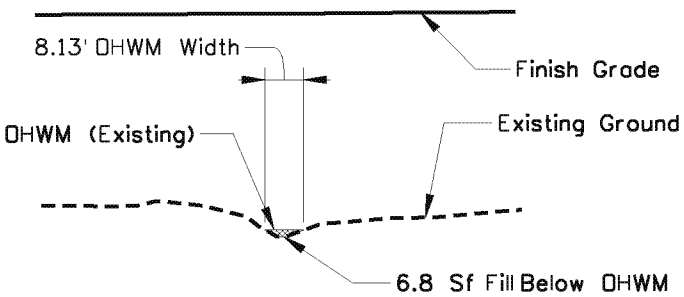
# TRIBUTARY TYPICALS
N.T.S.

| TRIBUTARY U - IMPACT TABLE STATION 138+86 TO 140+80 (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Tributary Impact Length | 376 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 35 CY |
| Tributary OHWM Area | 0.042 AC (1,831 SF) |
| | |

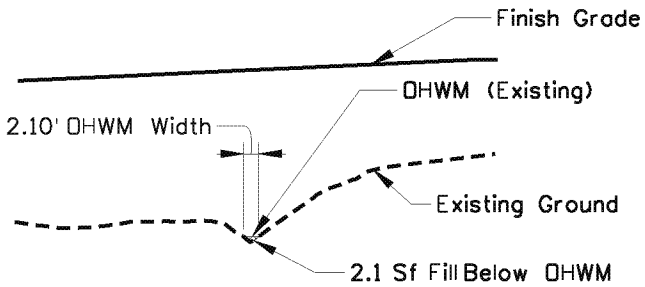



| TRIBUTARY U - IMPACT TABLE EID ROAD APPROACH (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Tributary Impact Length | 41 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 6 CY |
| Tributary OHWM Area | 0.008 AC (333 SF) |
| | |




| TRIBUTARY U - IMPACT TABLE STATION 142+63 TO 143+14 (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Tributary Impact Length | 318 FT |
| Tributary Replacement Length | 341 FT |
| Tributary Fill Below OHWM | 80 CY |
| Tributary OHWM Area | 0.059 AC (2,585 SF) |
| | |




| TRIBUTARY U - IMPACT TABLE STATION 158+19 TO 160+62 (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Tributary Impact Length | 611 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 48 CY |
| Tributary OHWM Area | 0.029 AC (1,283 SF) |
| | |

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

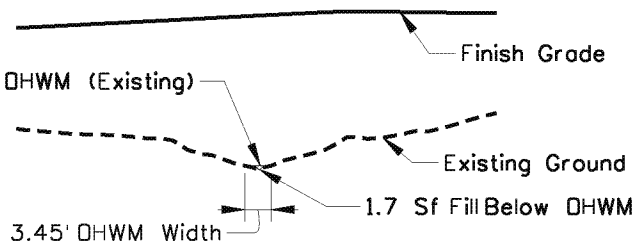
Location: US-95

Sheet 9 of 34 Date: AUGUST 2020

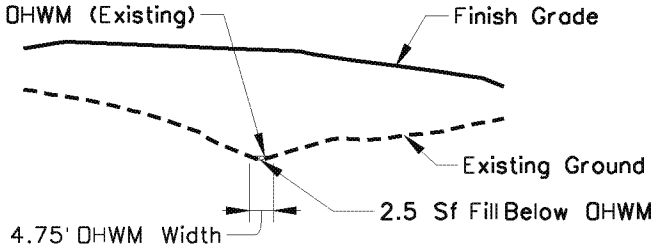
*Trib Typicals.DGN*

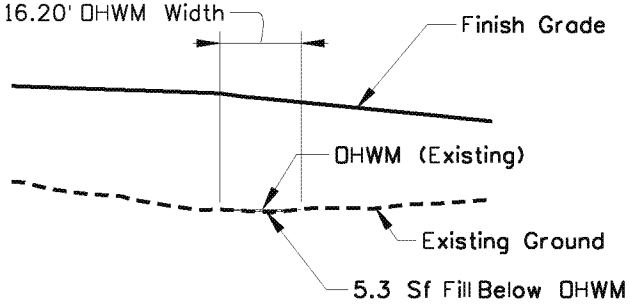
# TRIBUTARY TYPICALS
N.T.S.

| TRIBUTARY V - IMPACT TABLE<br>STATION 174+08 TO 174+97<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 317 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 20 CY |
| Tributary OHWM Area | 0.025 AC (1,094 SF) |
| | |




| TRIBUTARY W - IMPACT TABLE<br>STATION 209+52 TO 212+59<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 395 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 32 CY |
| Tributary OHWM Area | 0.043 AC (1,876 SF) |
| | |



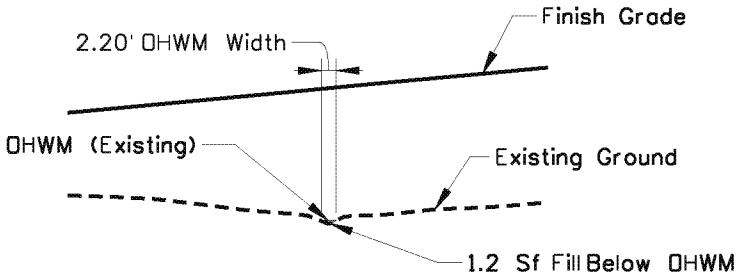

| TRIBUTARY W - IMPACT TABLE<br>STATION 179+91 TO 181+31<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 315 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 62 CY |
| Tributary OHWM Area | 0.117 AC (5,103 SF) |
| | |

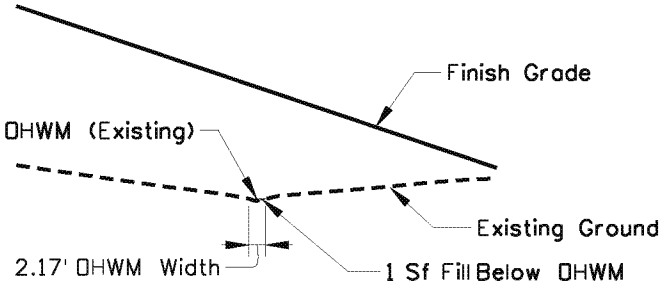
DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046
Applicant Name: Idaho Transportation Department, District 2
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
Project Number: DHP-NH-4110(156)
Location: US-95
Sheet 10 of 34 Date: AUGUST 2020
*Trib Typicals.DGN*

# TRIBUTARY TYPICALS
N.T.S.

| TRIBUTARY X - IMPACT TABLE<br>STATION 233+51 TO 233+76<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 102 FT |
| Tributary Replacement Length | 0 FT |
| Tributary Fill Below OHWM | 4 CY |
| Tributary OHWM Area | 0.005 AC (224 SF) |
| | |




| TRIBUTARY AA - IMPACT TABLE<br>STATION 272+66 TO 281+03<br>*(Does NOT include Existing or Proposed Pipe Culvert Lengths)* | |
|---|---|
| Tributary Impact Length | 1,110 FT |
| Tributary Replacement Length | 1,076 FT |
| Tributary Fill Below OHWM | 41 CY |
| Tributary OHWM Area | 0.055 AC (2,409 SF) |
| | |

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

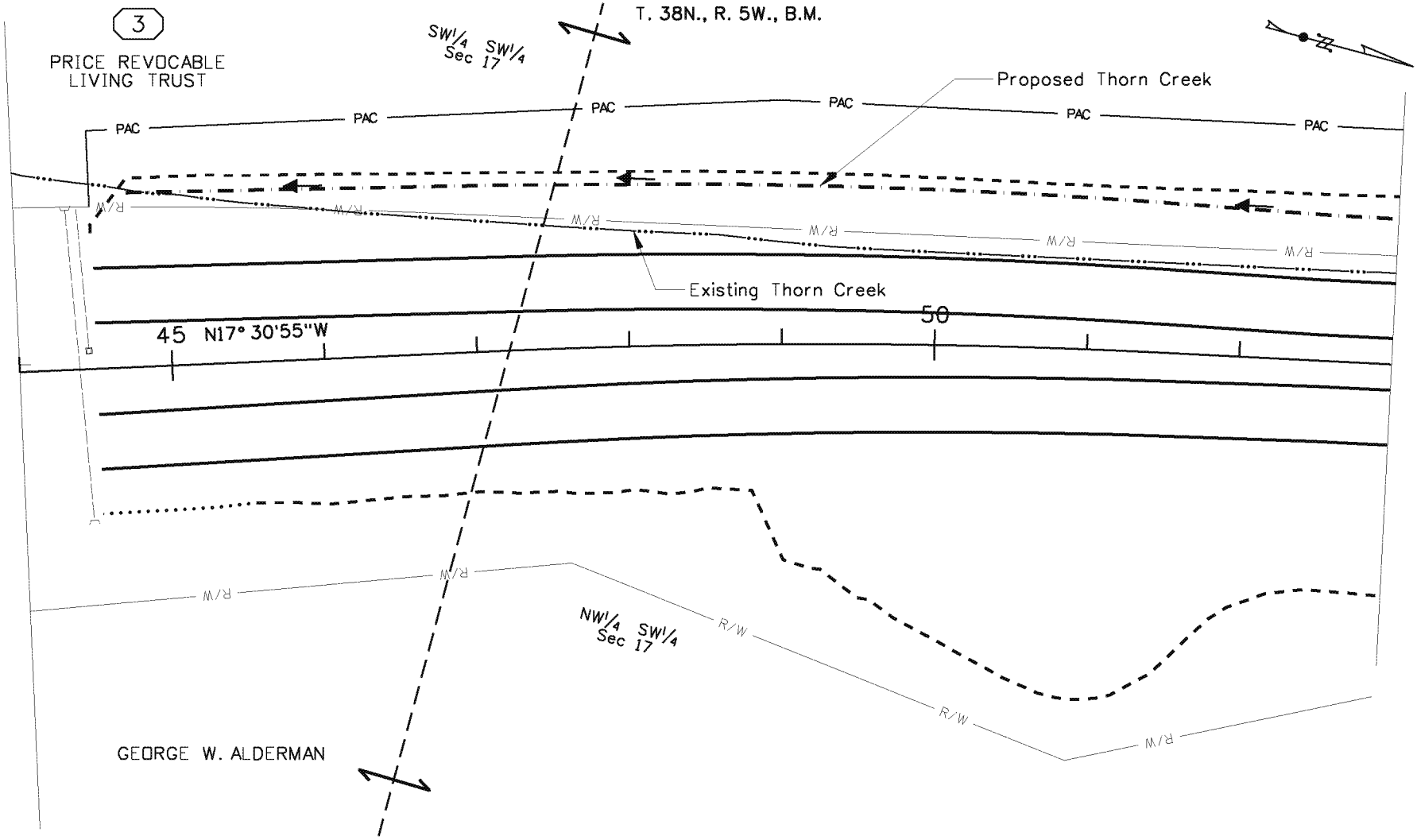
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

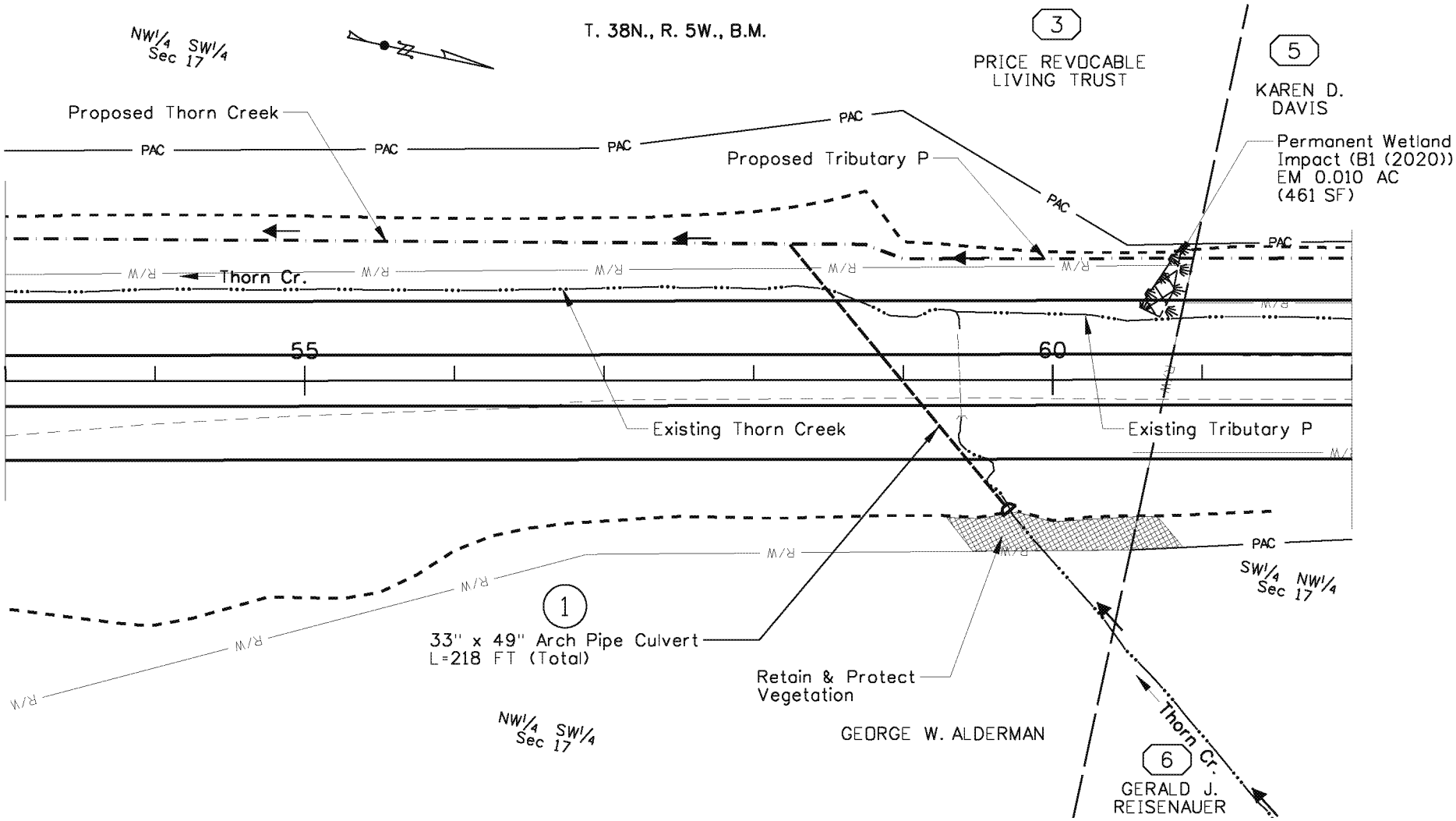
Location: US-95

Sheet 11 of 34 Date: AUGUST 2020

*Trib Typicals.DGN*




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 12 of 34 Date: AUGUST 2020 |
| | *09294_envi_1.DGN* |




SEE NEXT SHEET FOR CULVERT 1

| IMPACT TABLE - SHEET TOTALS (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Permanent Wetland Impact | 0.010 AC (461 SF) |
| Temporary Wetland Impact | 0 AC |
| Wetland Fill Impact | 10 CY |
| Wetland Excavation Impact | 1 CY |

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 13 of 34 Date: AUGUST 2020

09294_envi_2.DGN

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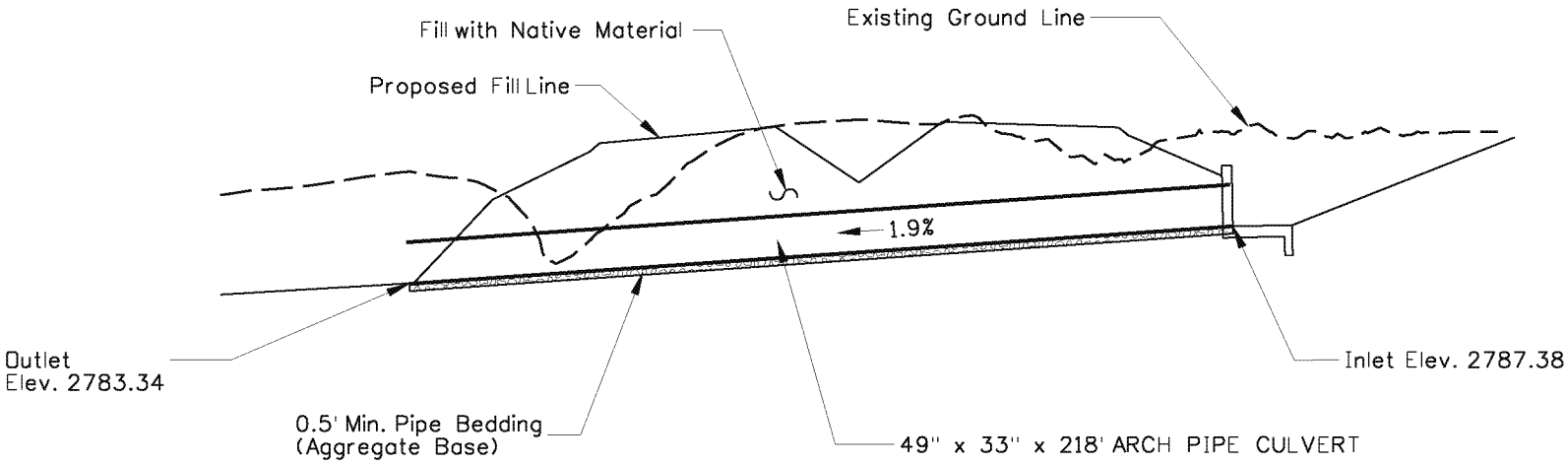
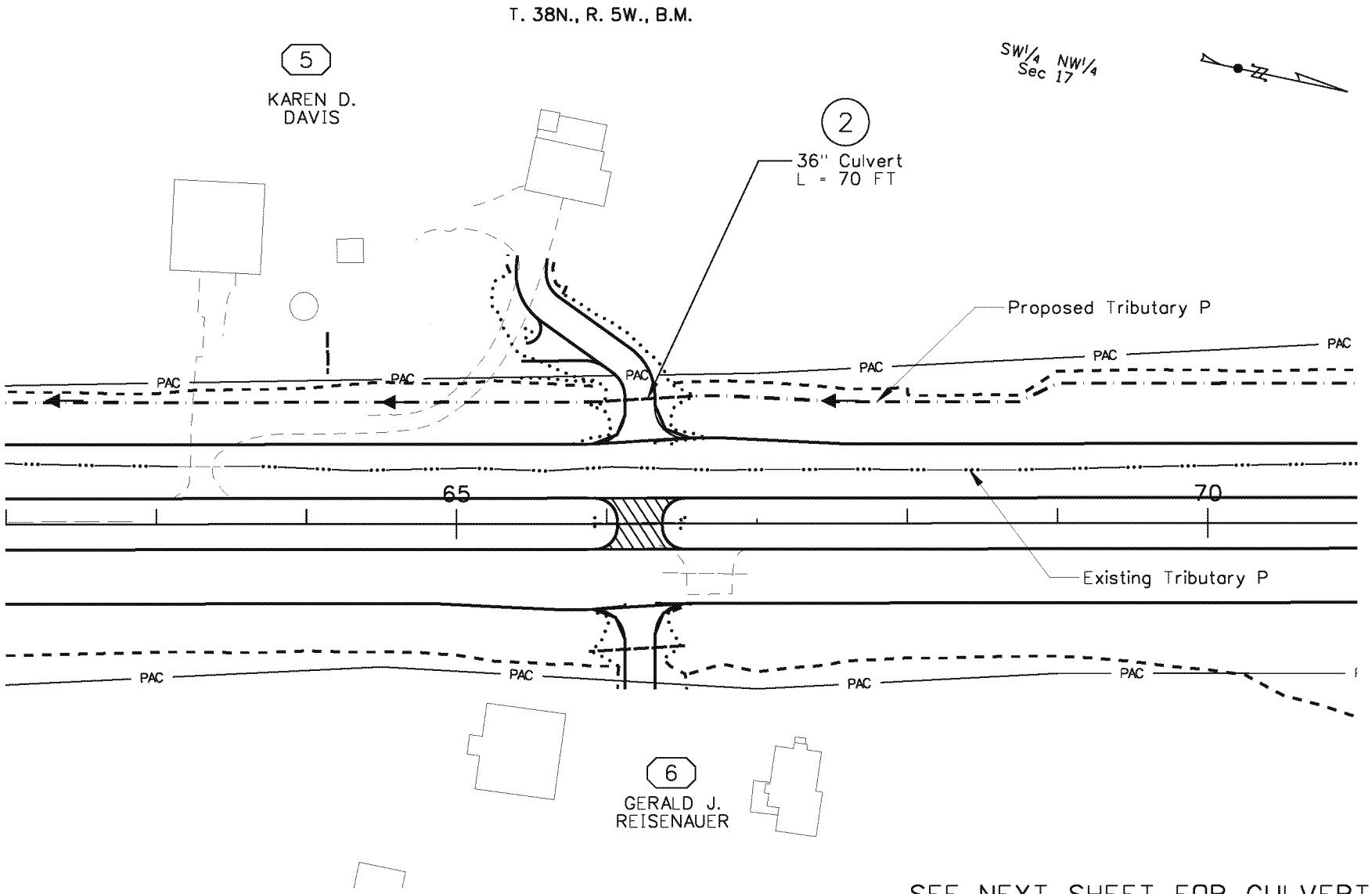
1




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 14 of 34 Date: AUGUST 2020 |
| | *09294_envi_2A.DGN* |

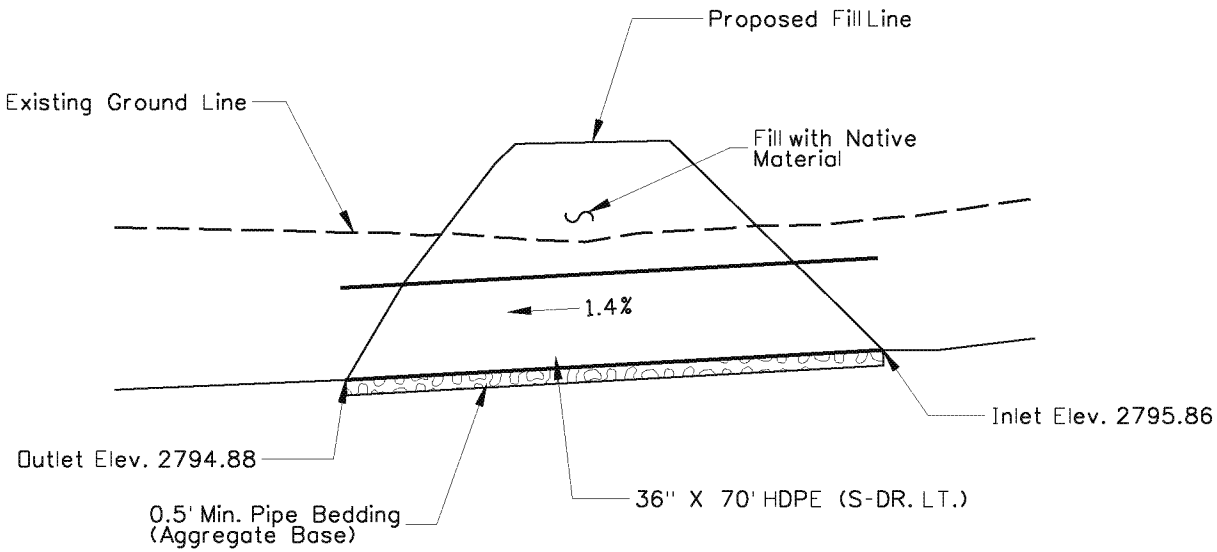



SEE NEXT SHEET FOR CULVERT 2

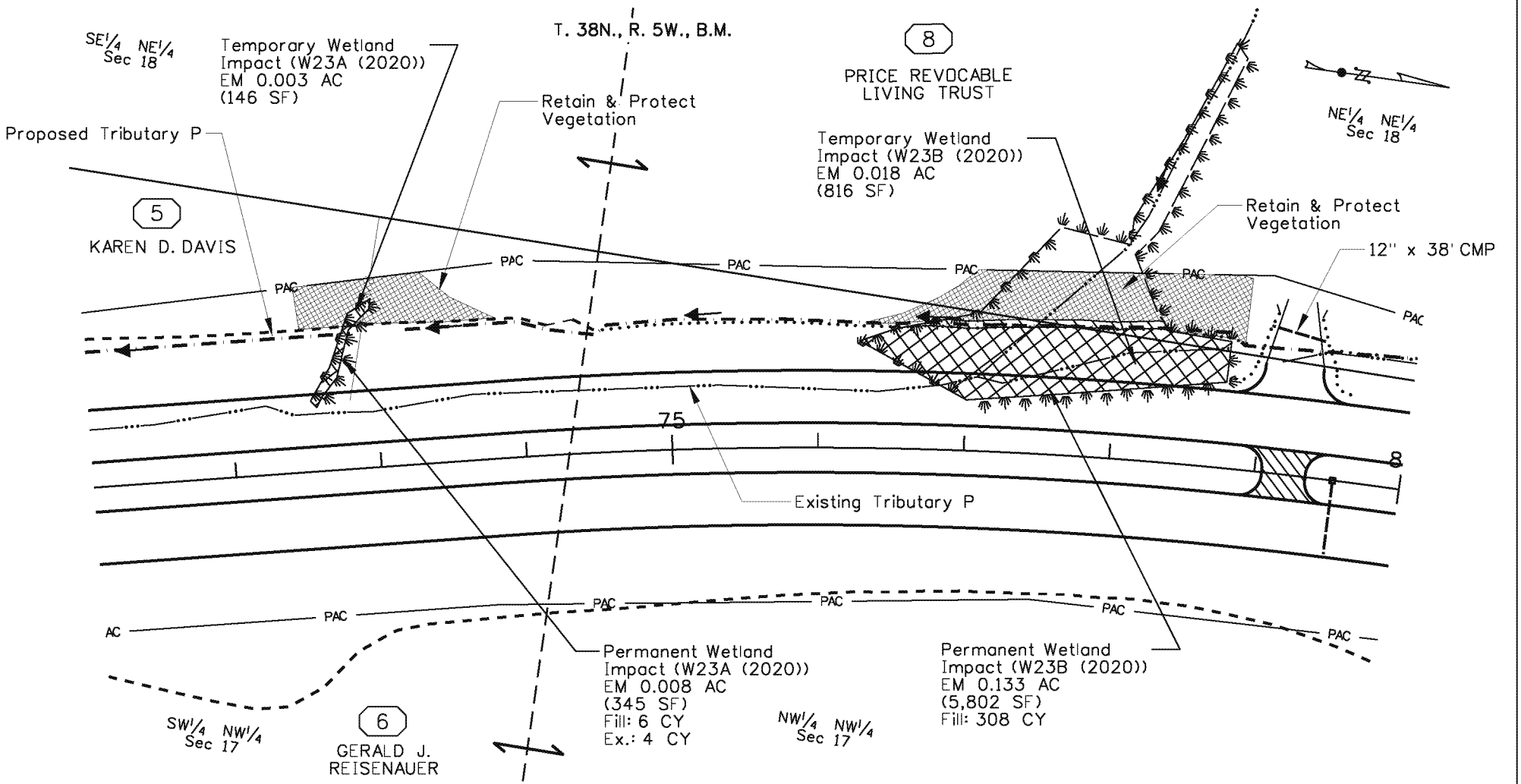
| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 15 of 34 Date: AUGUST 2020 |
| | *09294_envi_3.DGN* |

N.T.S.

2




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 16 of 34 Date: AUGUST 2020 |
| | *09294_envi_3A.DGN* |




SEE NEXT SHEET FOR SECTIONS

| IMPACT TABLE - SHEET TOTALS (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Permanent Wetland Impact | 0.141 AC (6,147 SF) |
| Temporary Wetland Impact | 0.021 AC (962 SF) |
| Wetland Fill Impact | 308 CY |
| Wetland Excavation Impact | 4 CY |

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

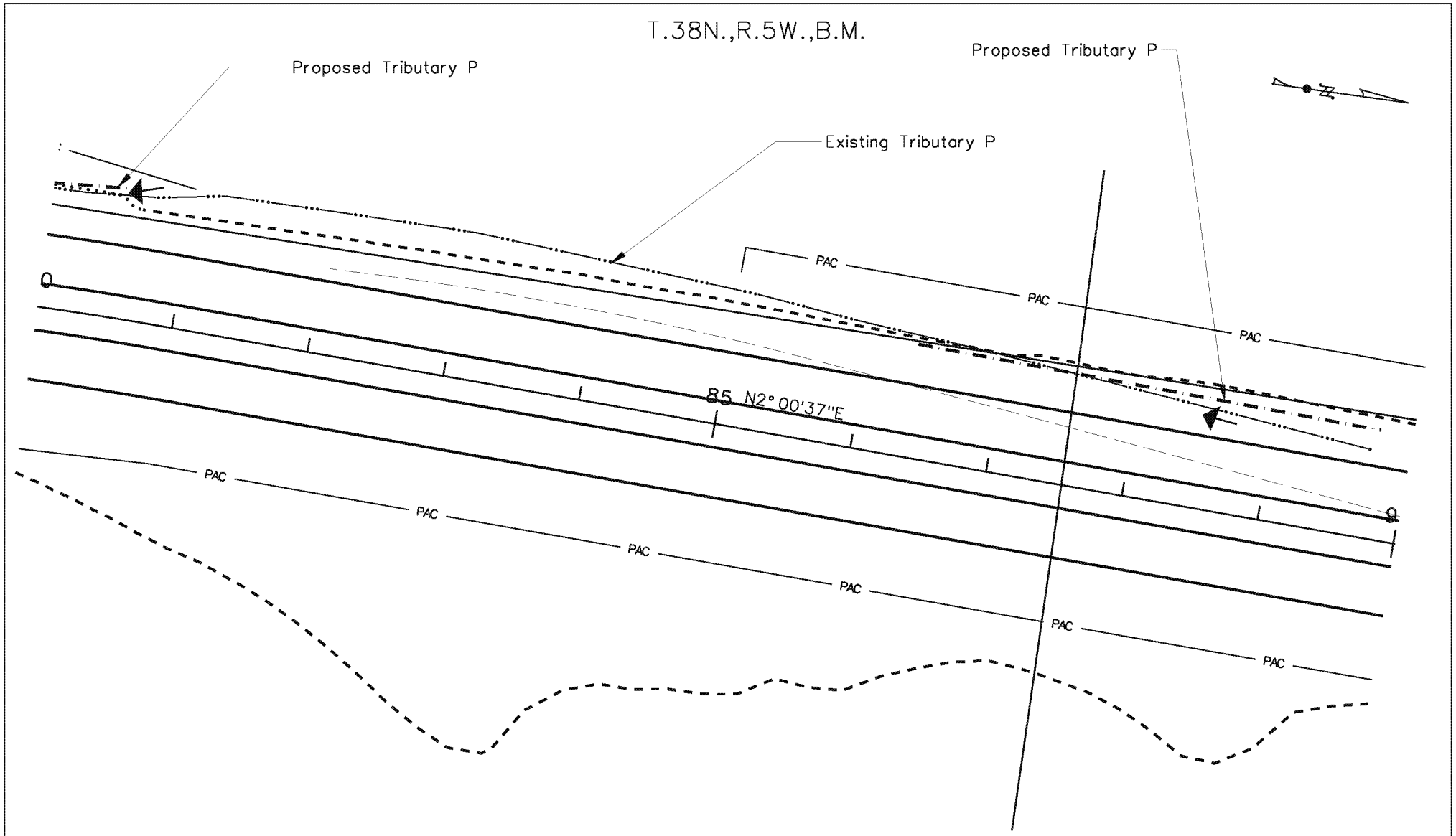
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 17 of 34 Date: AUGUST 2020

*09294_envi_4.DGN*




IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

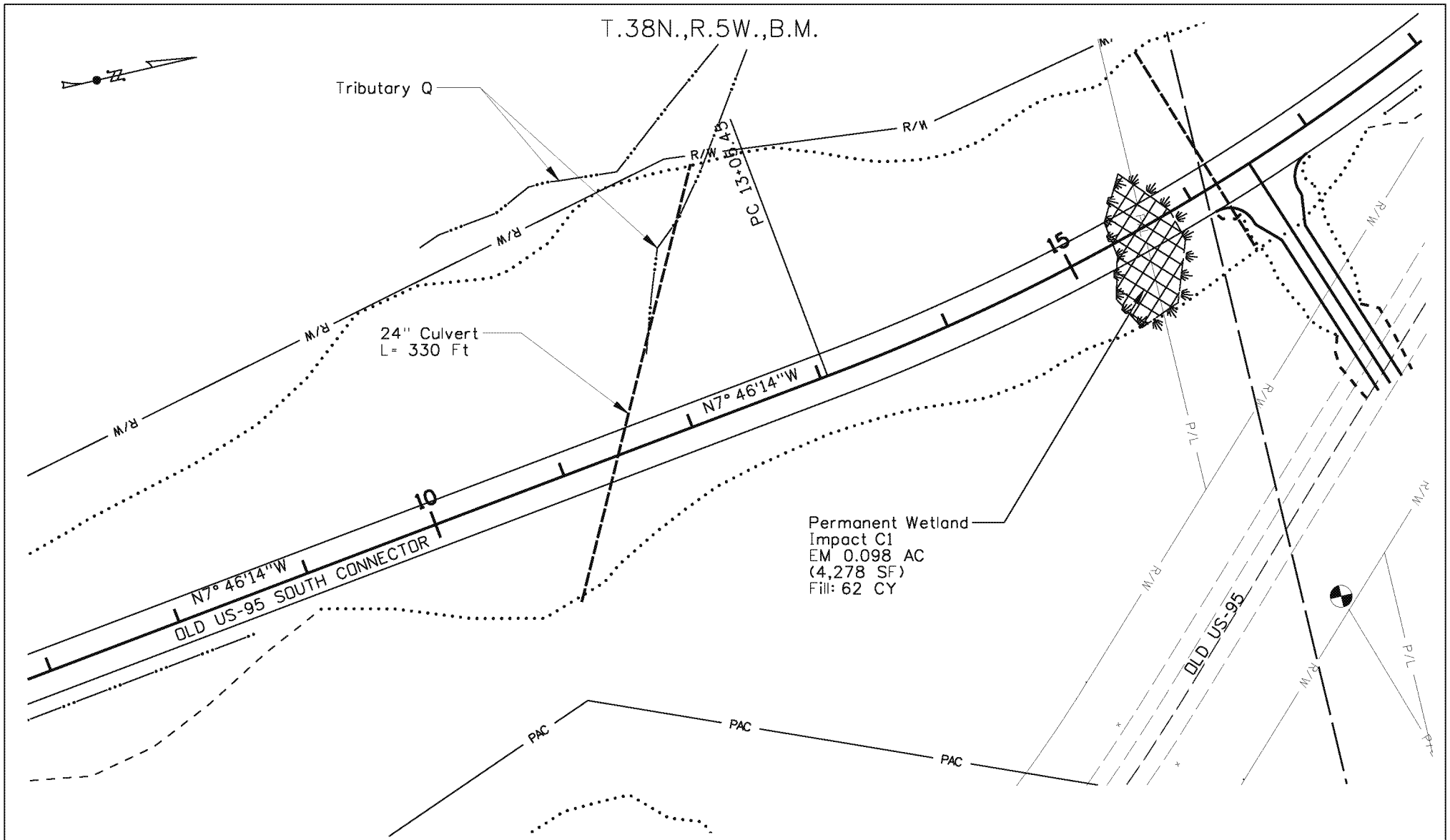
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 18 of 34 Date: AUGUST 2020

*09294_envi_5.DGN*




| IMPACT TABLE - SHEET TOTALS (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Permanent Wetland Impact | 0.098 AC (4,278) |
| Temporary Wetland Impact | 0 AC |
| Wetland Fill Impact | 62 CY |
| Wetland Excavation Impact | 0 CY |

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

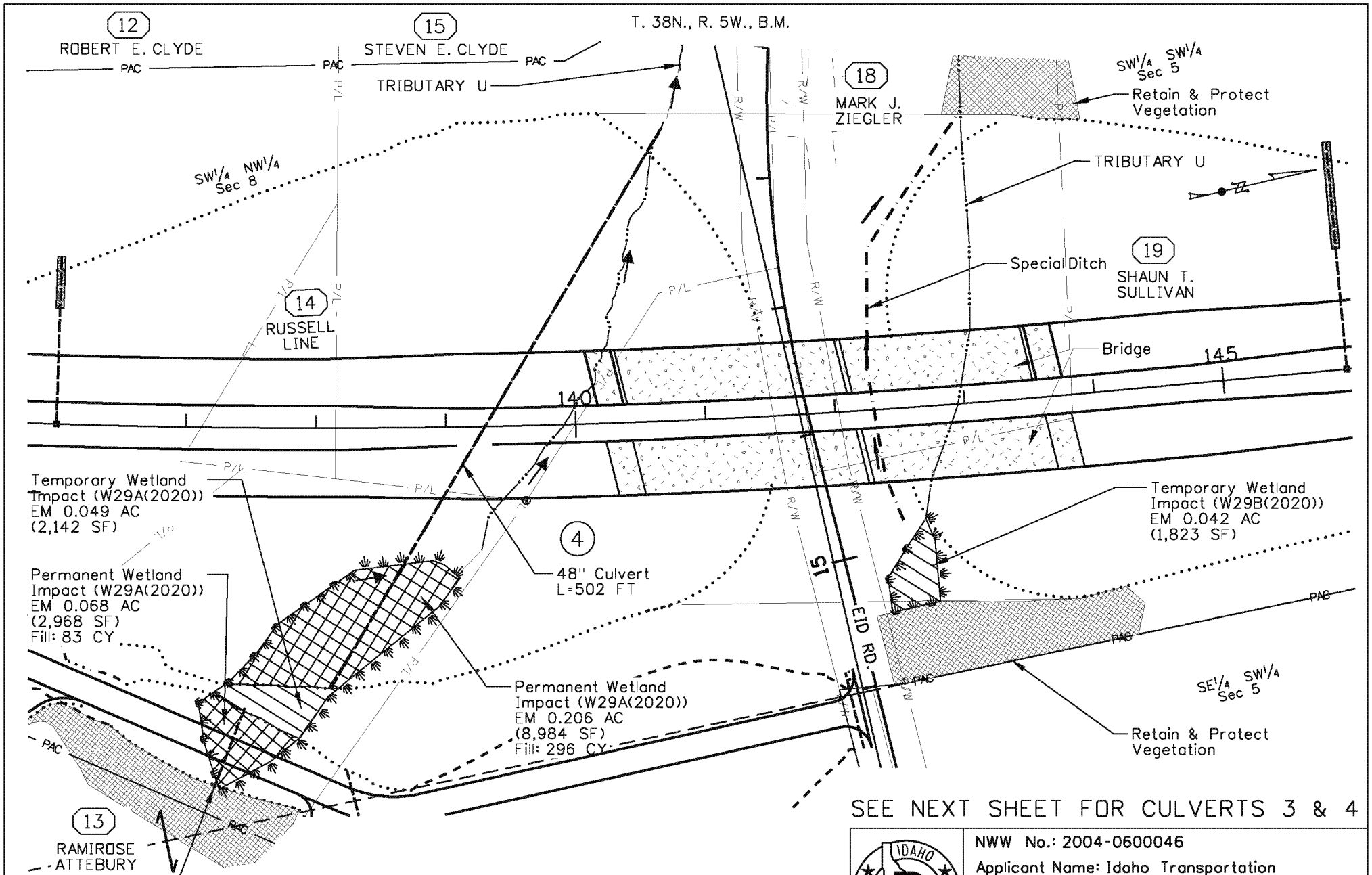
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 19 of 34 Date: AUGUST 2020

*09294_envi_6.DGN*




SEE NEXT SHEET FOR CULVERTS 3 & 4

| IMPACT TABLE - SHEET TOTALS (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Permanent Wetland Impact | 0.274 AC (11,952 SF) |
| Temporary Wetland Impact | 0.091 AC (3,965 SF) |
| Wetland Fill Impact | 379 CY |
| Wetland Excavation Impact | 133 CY |

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

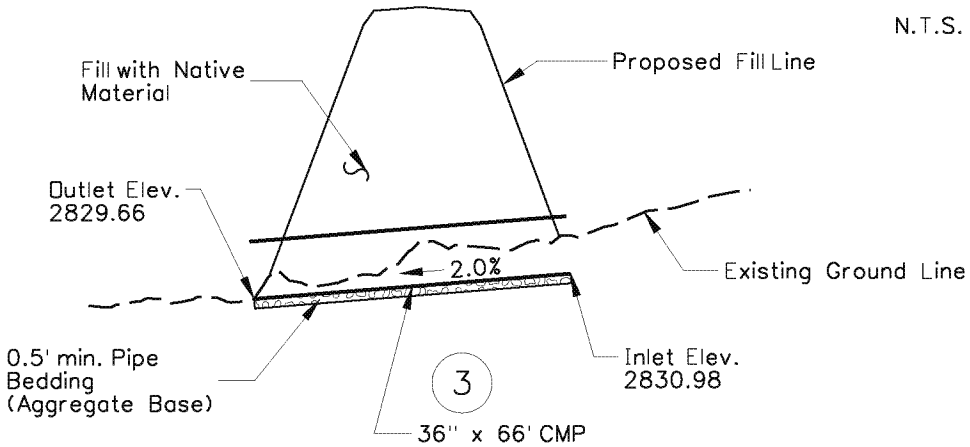
Project Number: DHP-NH-4110(156)

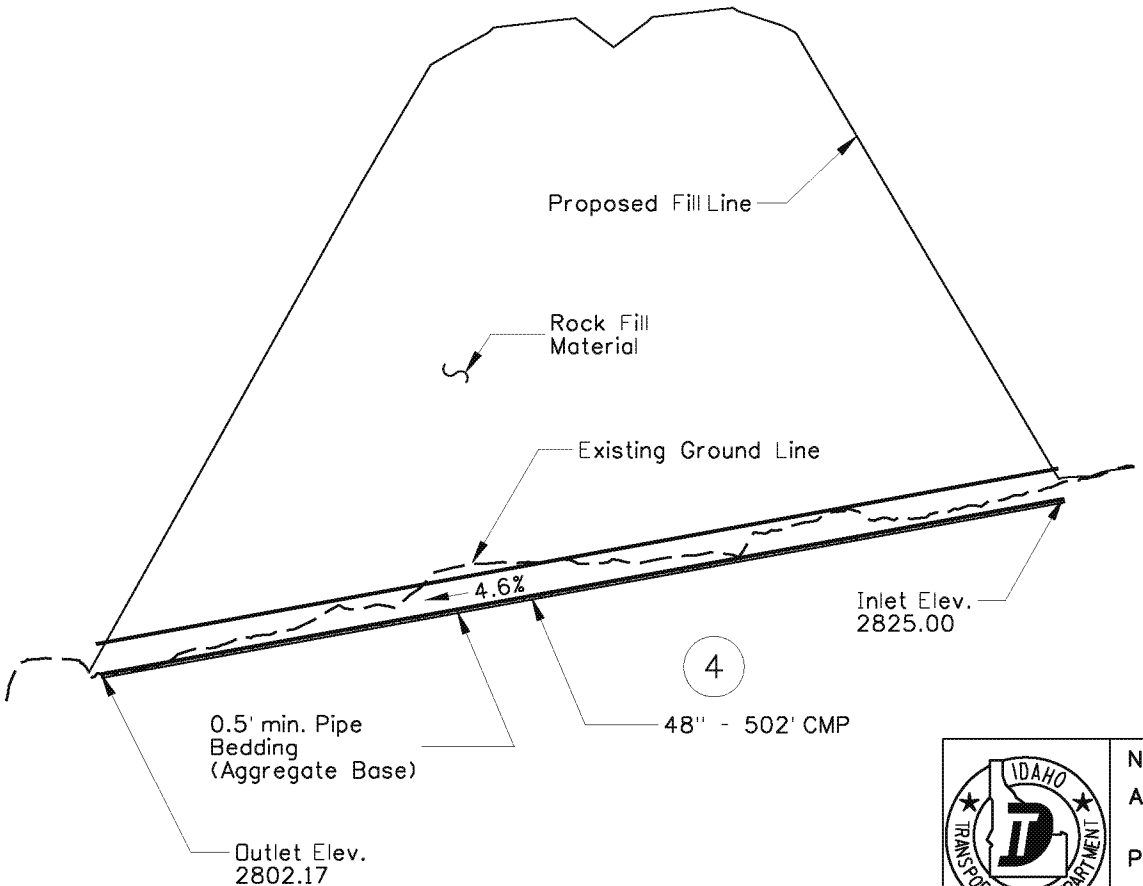
Location: US-95

Sheet 20 of 34 Date: AUGUST 2020

*09294_envi_11.DGN*

N.T.S.




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 21 of 34 Date: AUGUST 2020 |
| | *09294_envi_11A.DGN* |

T. 38N., R. 5W., B.M.

BEGIN FIELD APPROACH
STA. 141+94
OFFSET: 387' LT.

36" Culvert
L=48 FT (Total)

5

Tributary U

END FIELD APPROACH
STA. 144+30
OFFSET: 385' LT.

P/L

15
STEVEN E. CLYDE

SW1/4 SW1/4
Sec 5

Retain and Protect Vegetation

PAC

PAC

PAC

EID Rd.

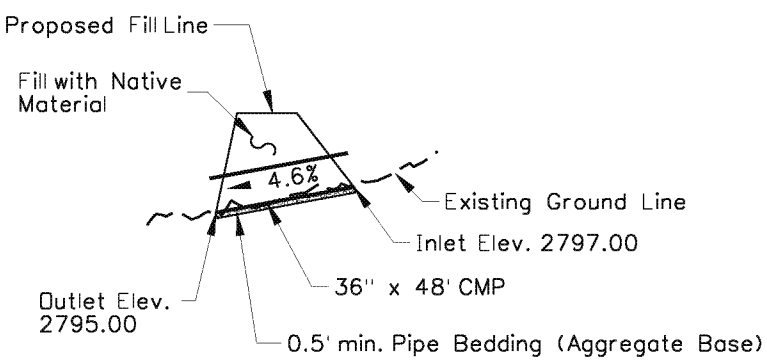
19
SHAUN T. SULLIVAN

141

145

N.T.S.

5




IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

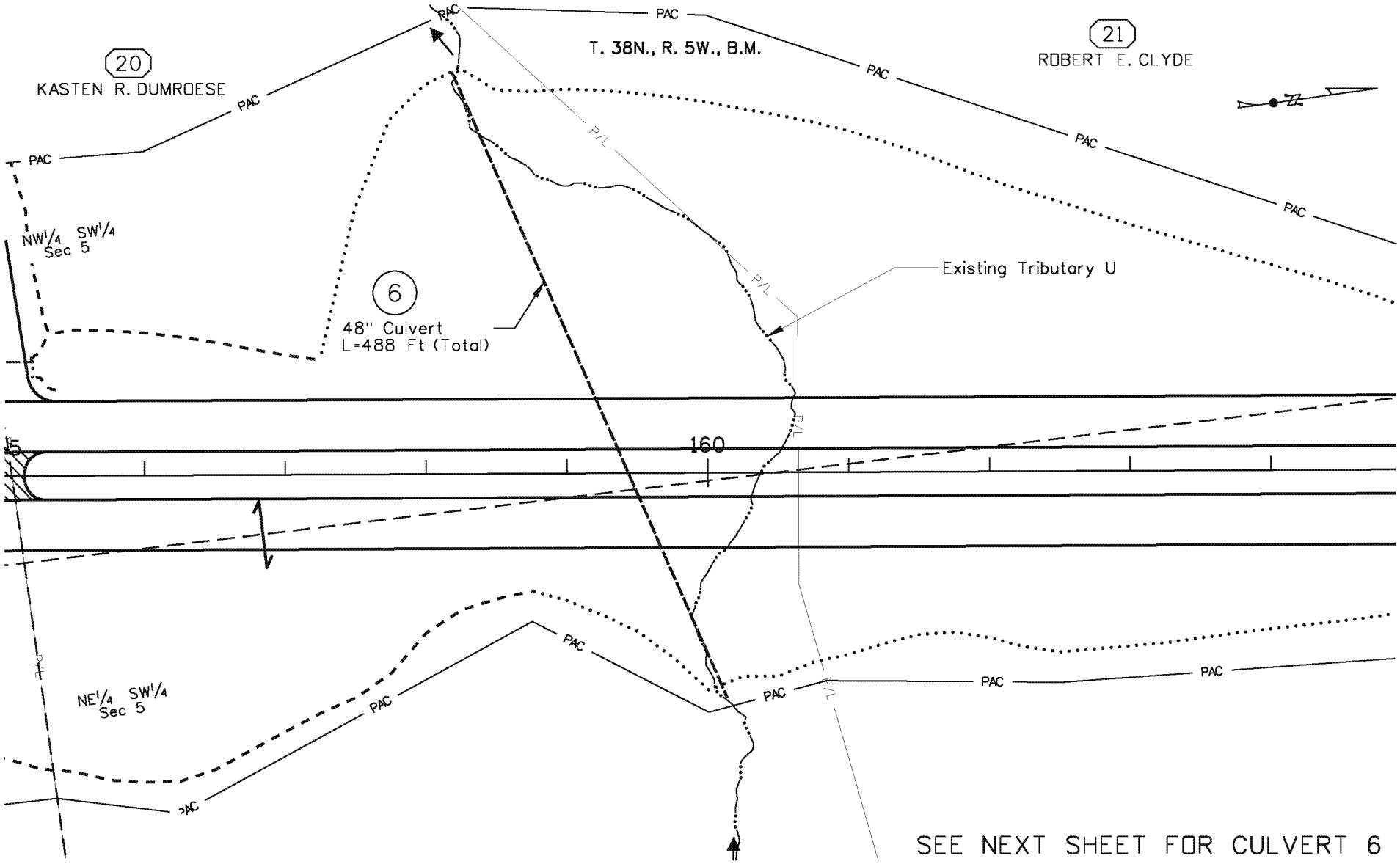
Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 22 of 34

Date: AUGUST 2020

*09294_envi_36.DGN*




SEE NEXT SHEET FOR CULVERT 6

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

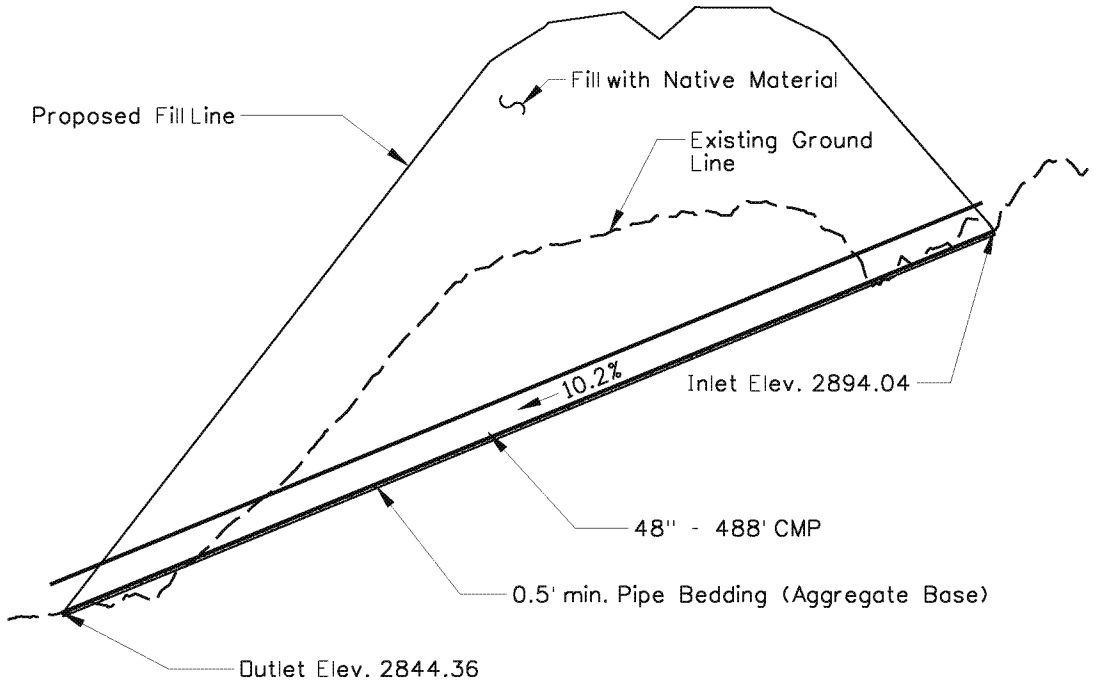
Location: US-95

Sheet 23 of 34 Date: AUGUST 2020

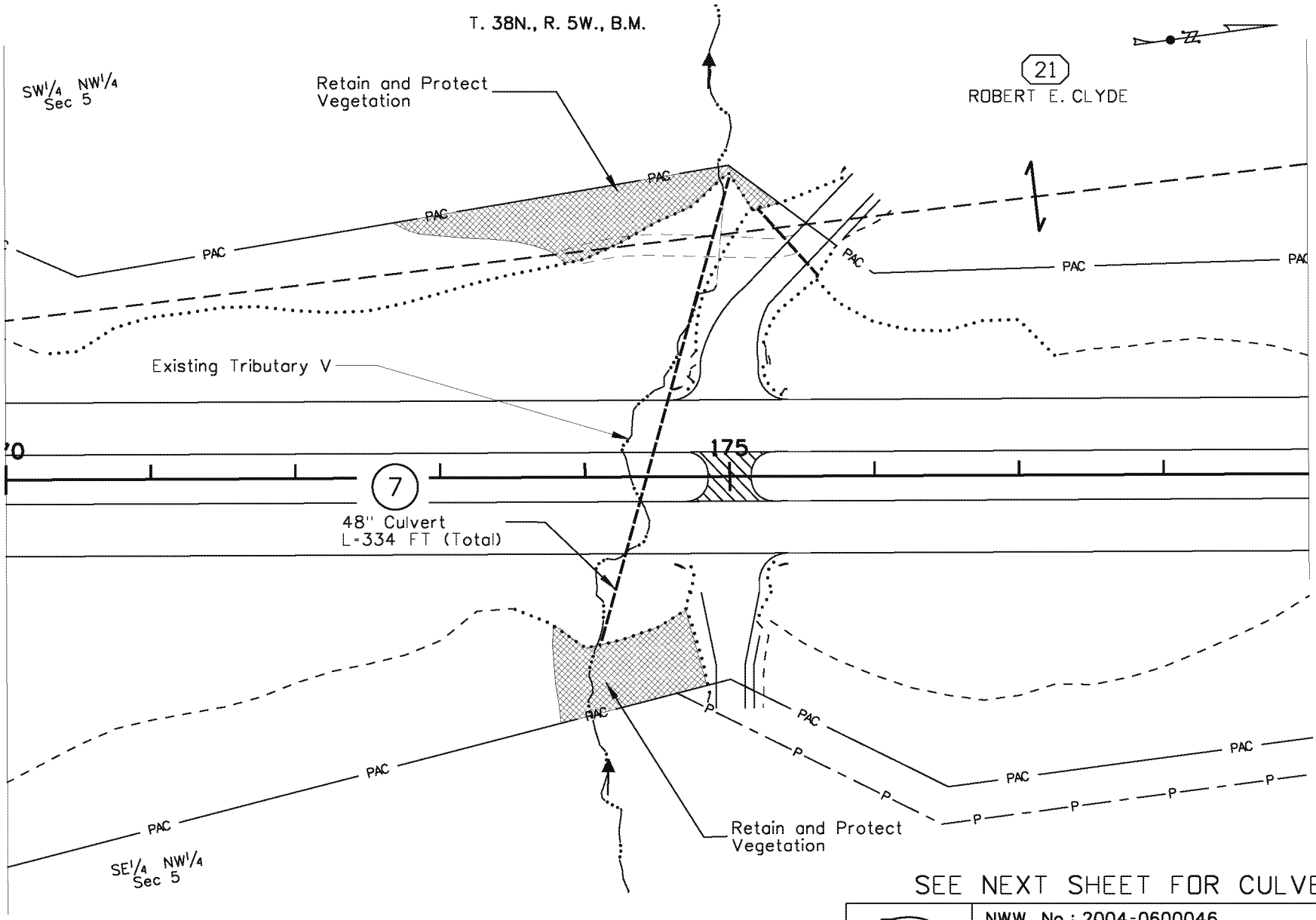
*09294_envi_13.DGN*

N.T.S.

6




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 24 of 34 Date: AUGUST 2020 |
| | *09294_envi_13A.DGN* |

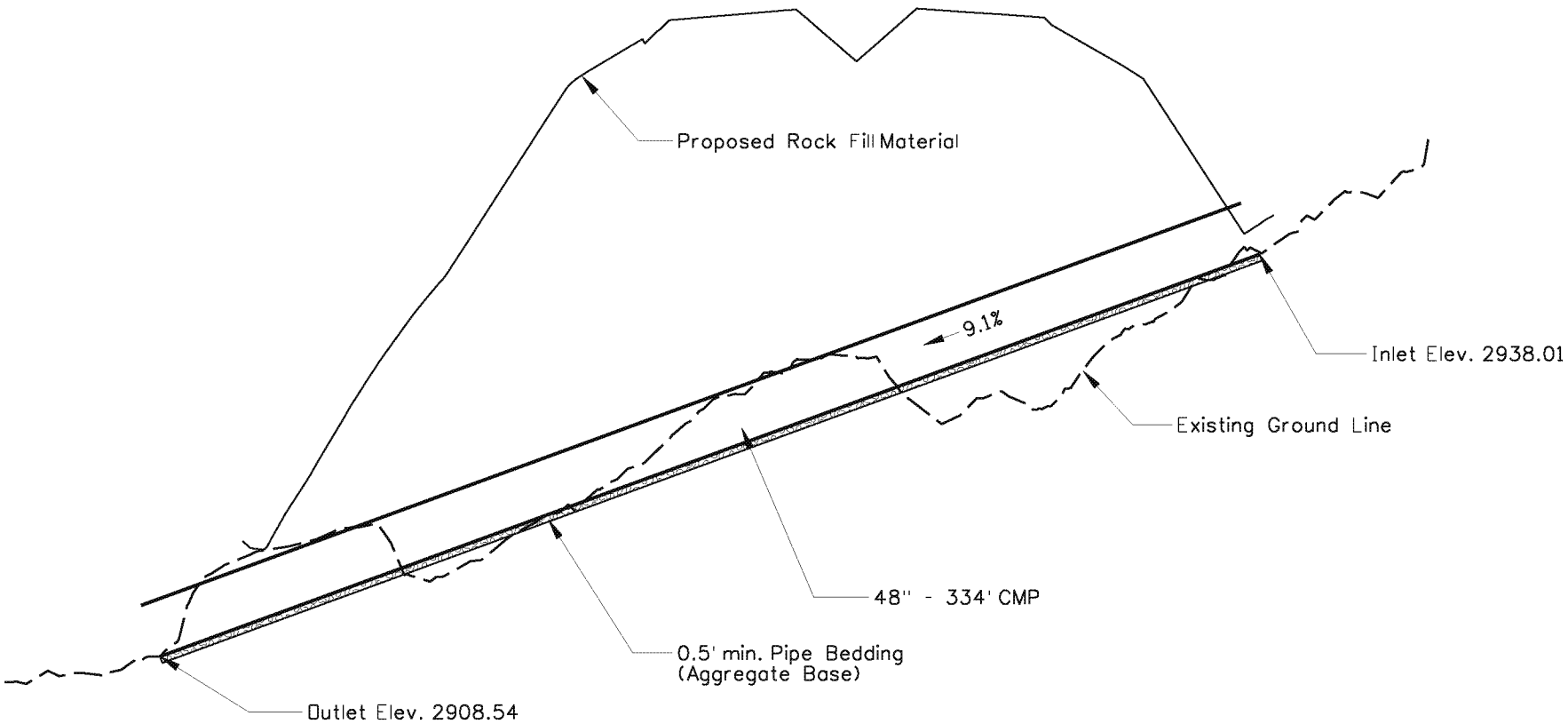



SEE NEXT SHEET FOR CULVERT 7

| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 25 of 34 Date: AUGUST 2020 |
| | *09294_envi_15.DGN* |

N.T.S.

7




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 26 of 34 Date: AUGUST 2020 |
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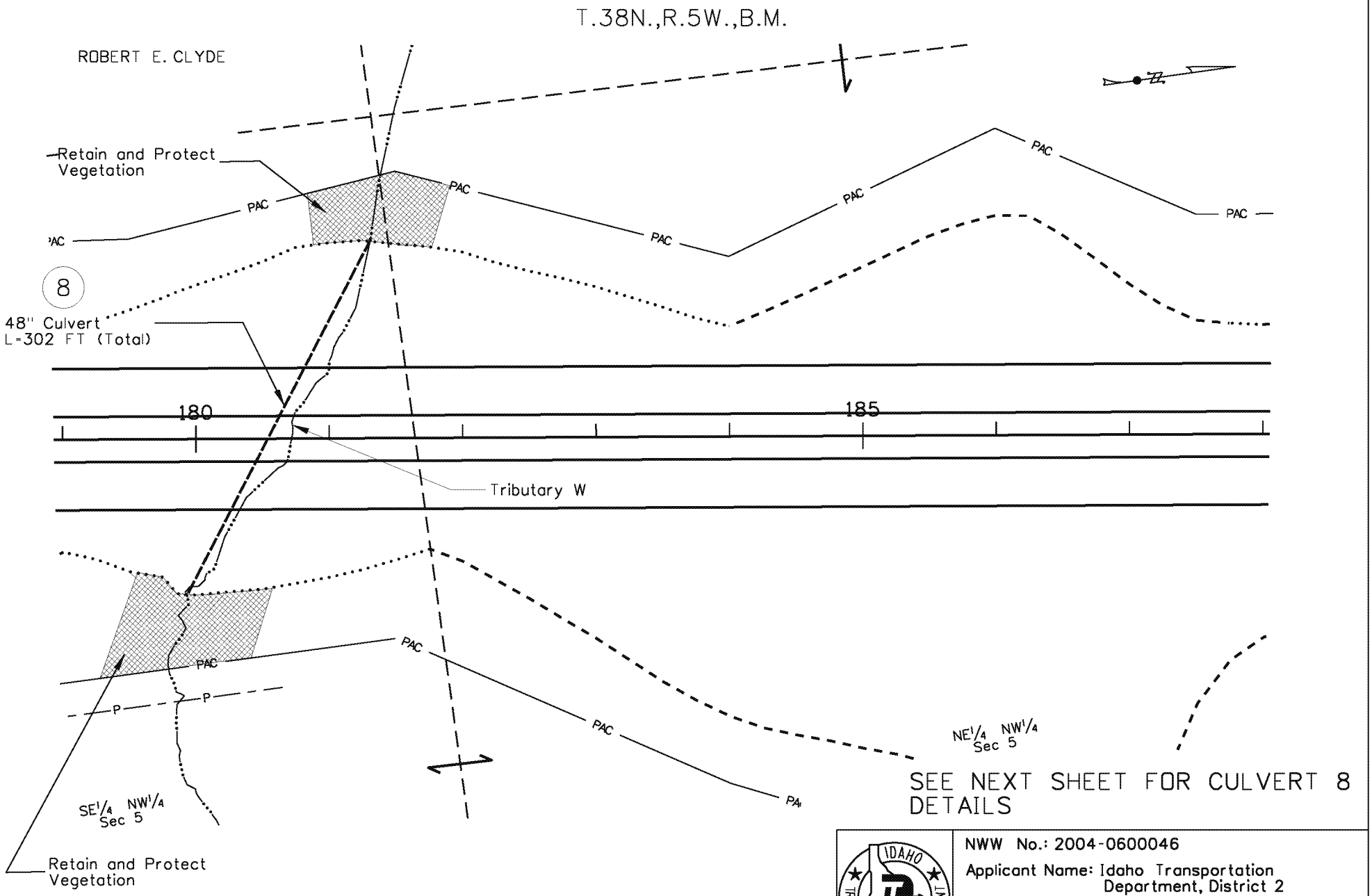
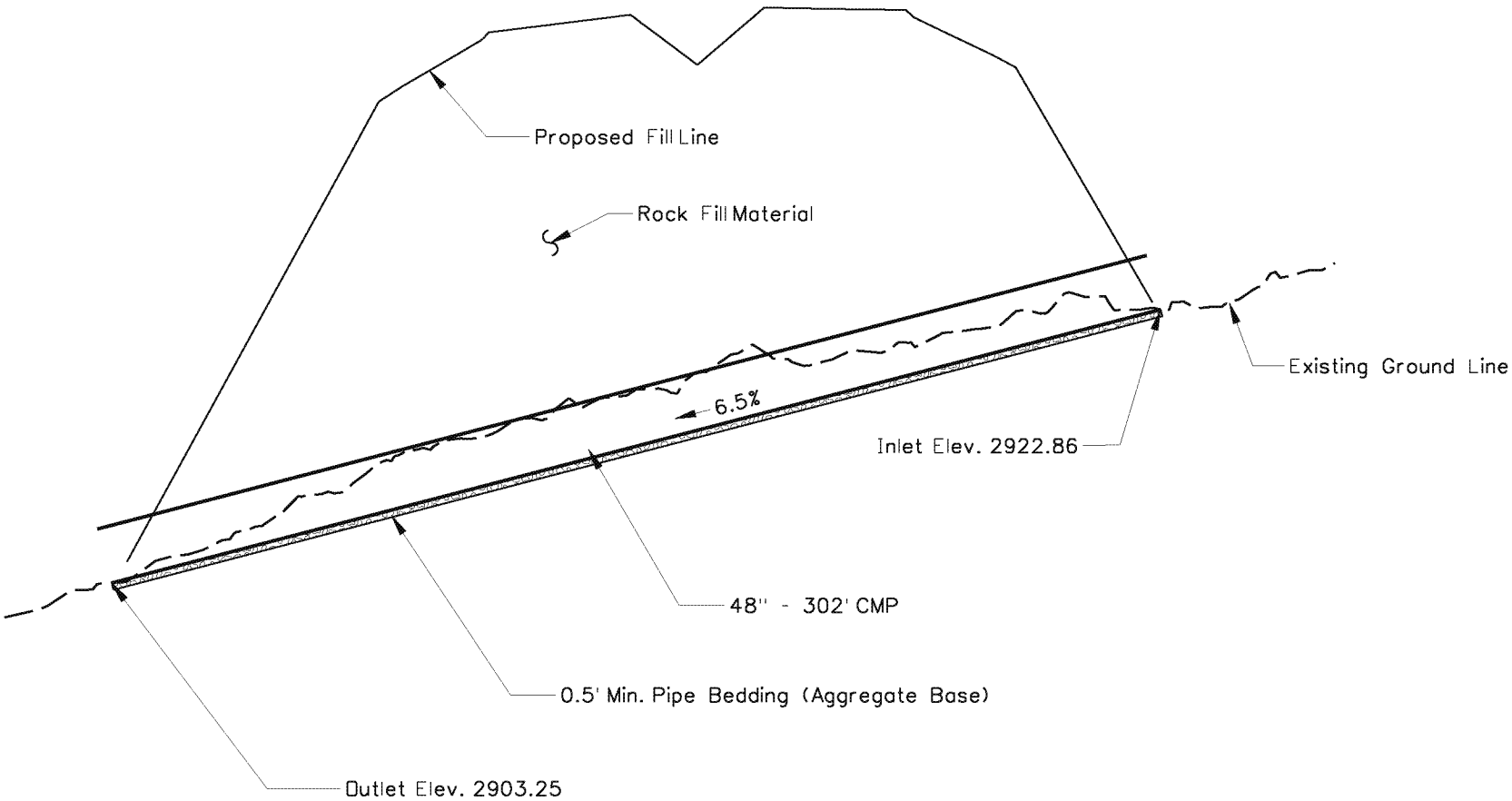



SEE NEXT SHEET FOR CULVERT 8 DETAILS

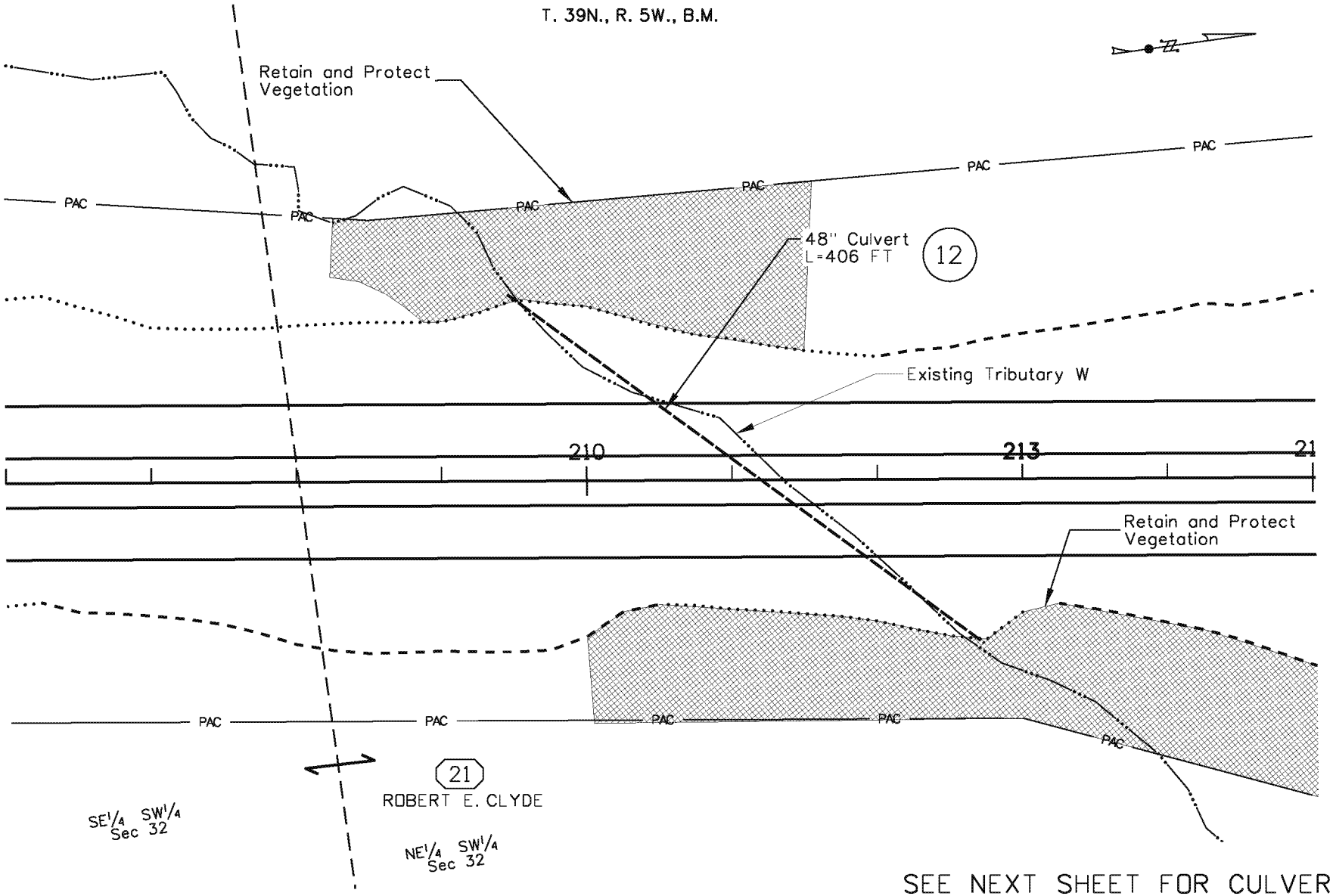
| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 27 of 34 Date: AUGUST 2020 |
| | *09294_envi_16.DGN* |

N.T.S.

8




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 28 of 34 Date: AUGUST 2020 |
| | *09294_envi_16A.DGN* |

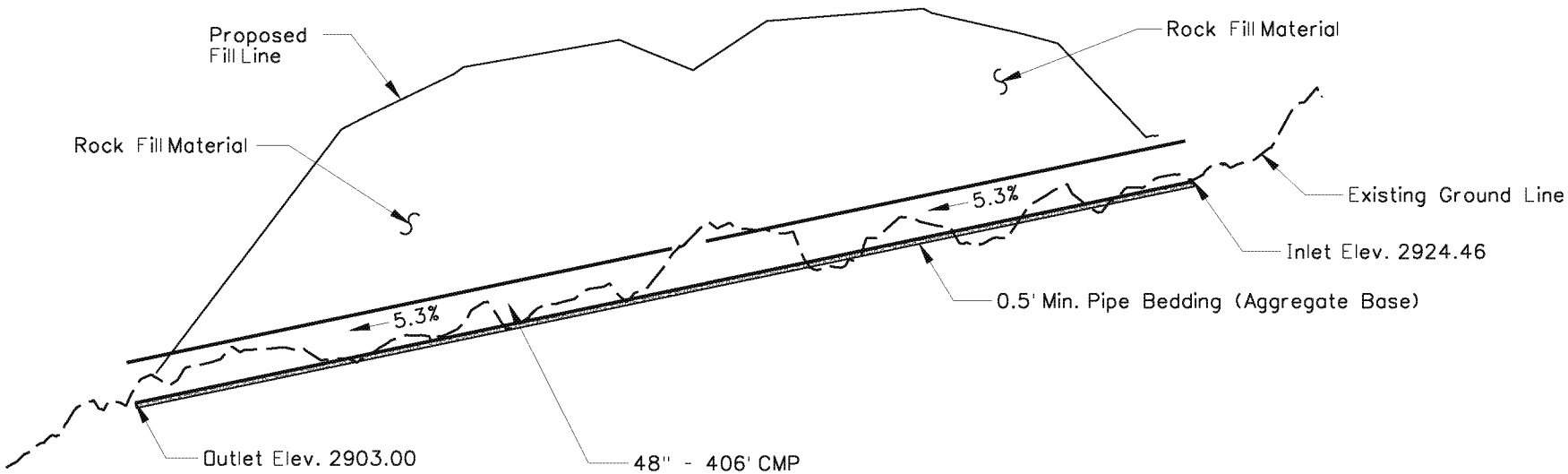



SEE NEXT SHEET FOR CULVERT 12

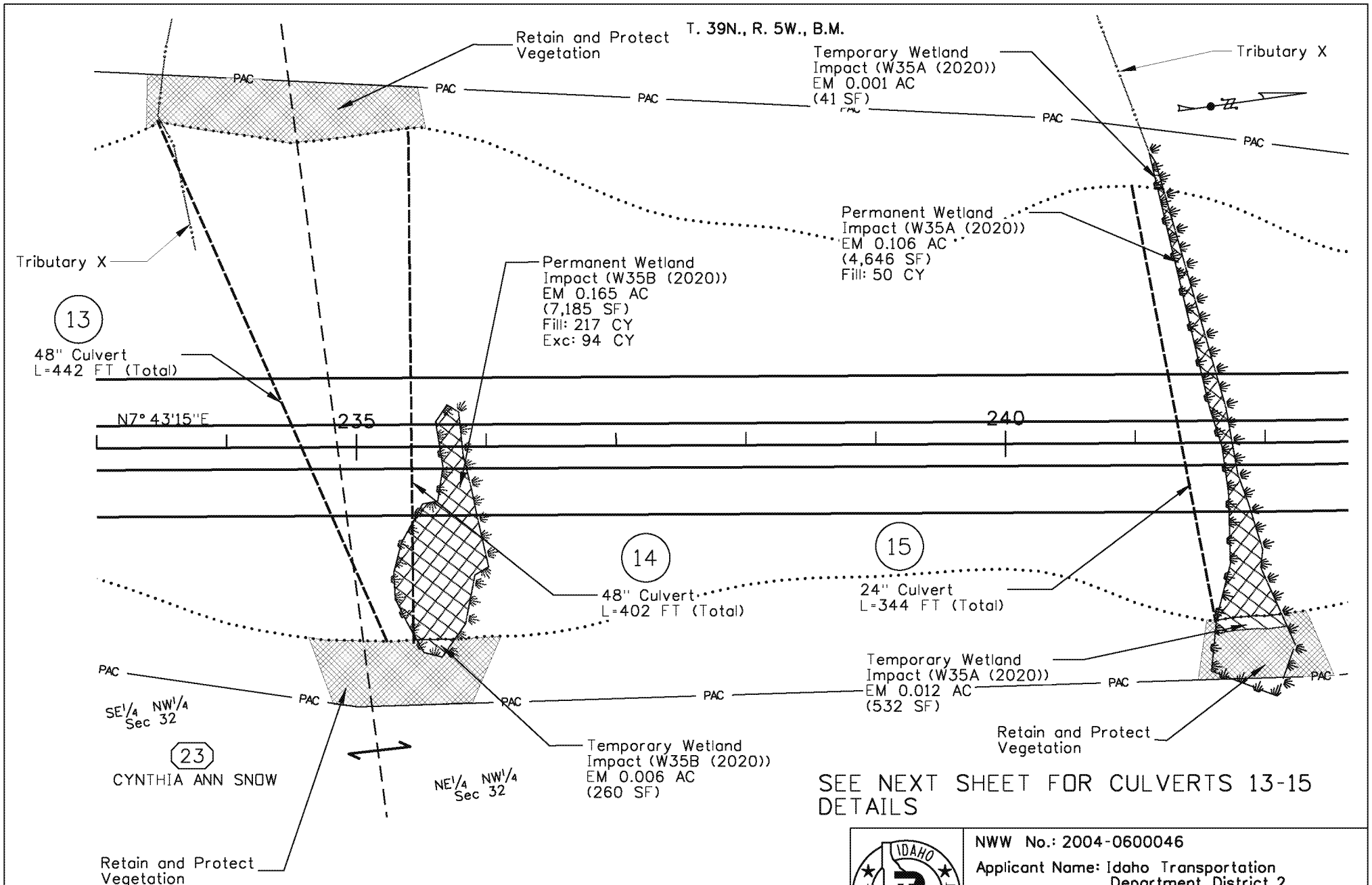
| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 29 of 34 Date: AUGUST 2020 |
| | *09294_envi_19.DGN* |

N.T.S.

12




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| DISTRICT 2 Lewiston, ID | Location: US-95 |
| | Sheet 30 of 34 Date: AUGUST 2020 |
| | *09294_envi_19A.DGN* |




SEE NEXT SHEET FOR CULVERTS 13-15 DETAILS

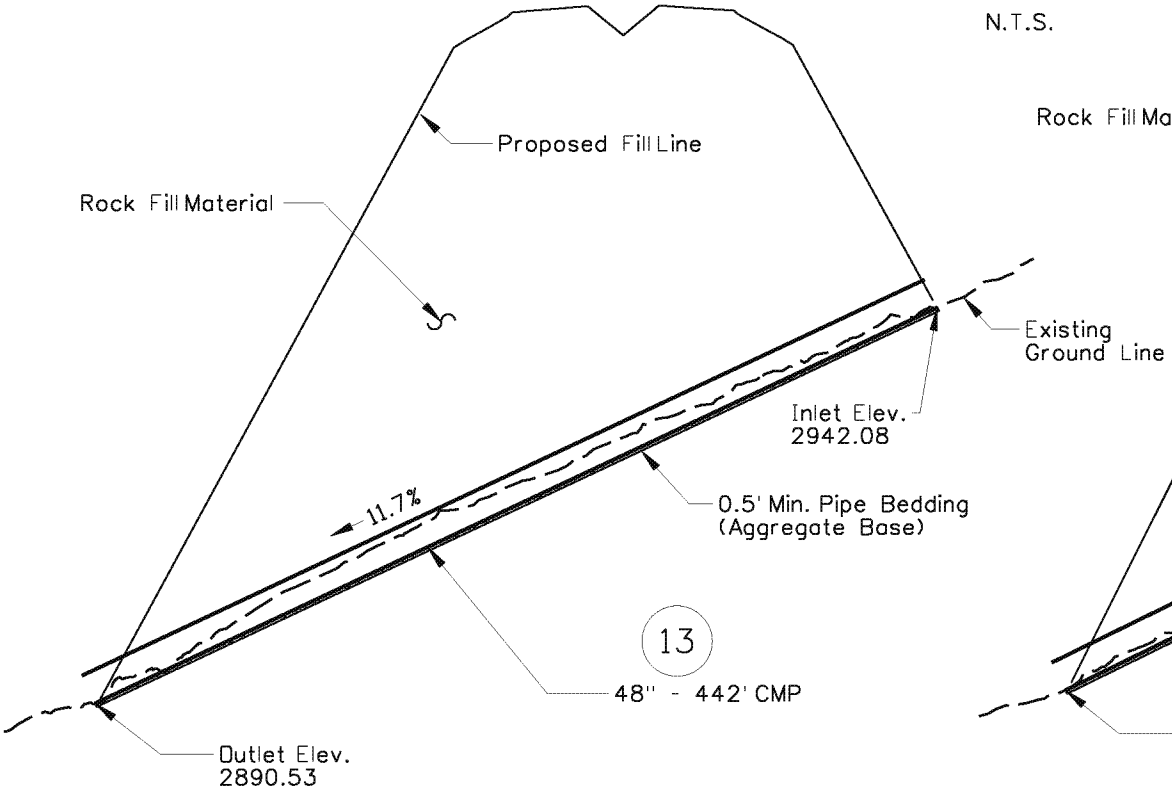
| IMPACT TABLE - SHEET TOTALS (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Permanent Wetland Impact | 0.271 AC (11,831 SF) |
| Temporary Wetland Impact | 0.019 AC (833 SF) |
| Wetland Fill Impact | 267 CY |
| Wetland Excavation Impact | 94 CY |

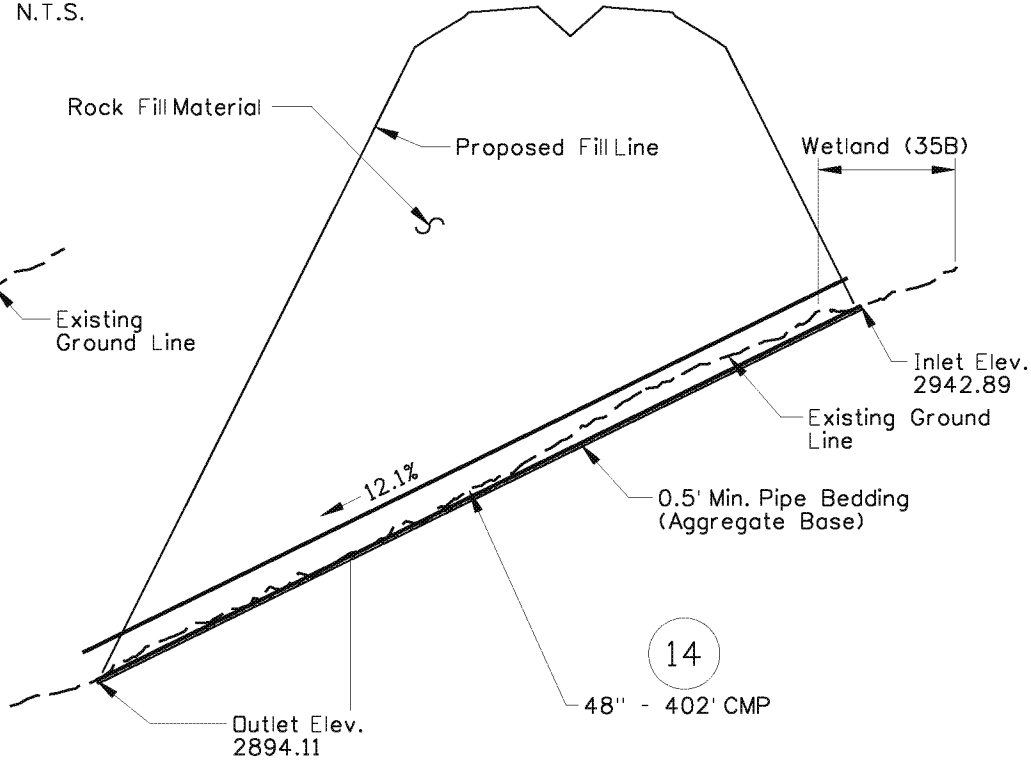
IDAHO TRANSPORTATION DEPARTMENT

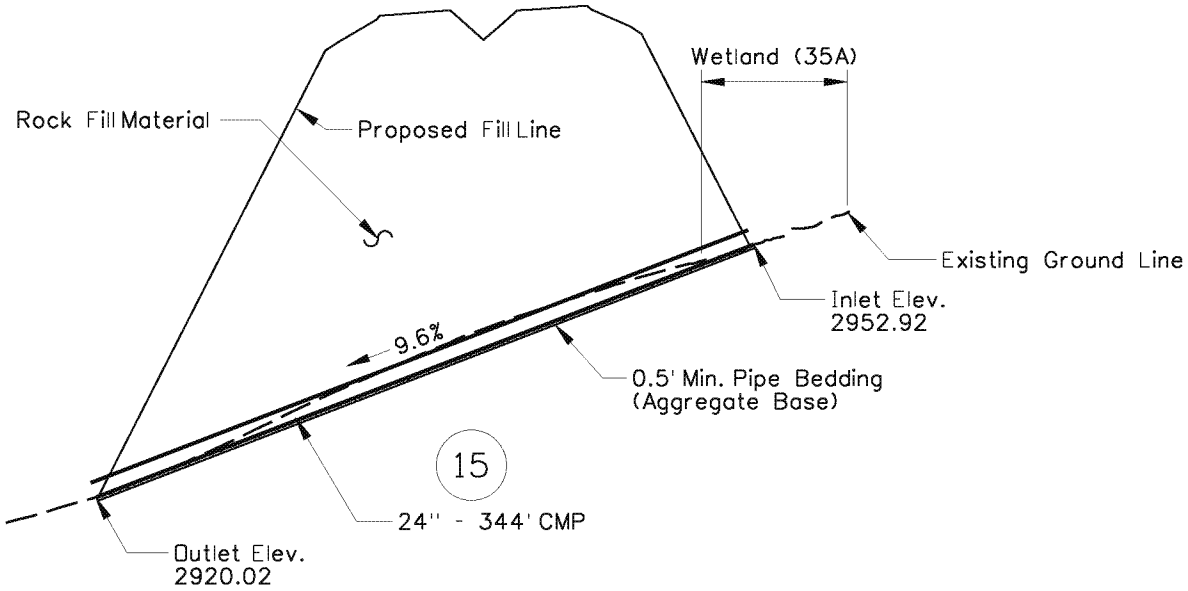
DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046
Applicant Name: Idaho Transportation Department, District 2
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
Project Number: DHP-NH-4110(156)
Location: US-95
Sheet 31 of 34 Date: AUGUST 2020
09294_envi_22.DGN

N.T.S.




DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

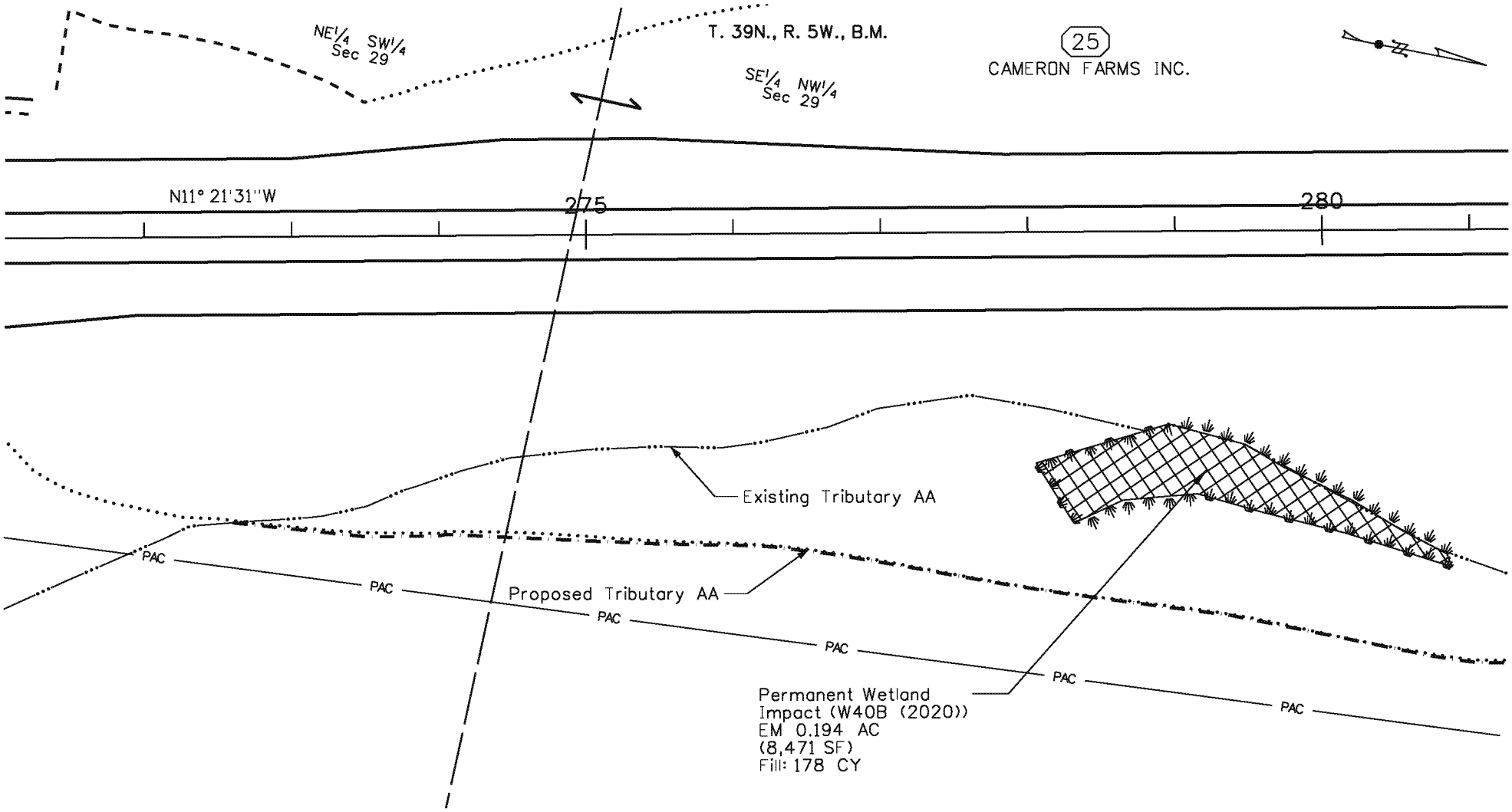
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 32 of 34 Date: AUGUST 2020

*09294_envi_22A.DGN*




| IMPACT TABLE - SHEET TOTALS (Does NOT include Existing or Proposed Pipe Culvert Lengths) | |
|---|---|
| Permanent Wetland Impact | 0.194 AC (8,471 SF) |
| Temporary Wetland Impact | N/A |
| Wetland Fill Impact | 178 CY |
| Wetland Excavation Impact | N/A |

IDAHO TRANSPORTATION DEPARTMENT

DISTRICT 2
Lewiston, ID

NWW No.: 2004-0600046

Applicant Name: Idaho Transportation Department, District 2

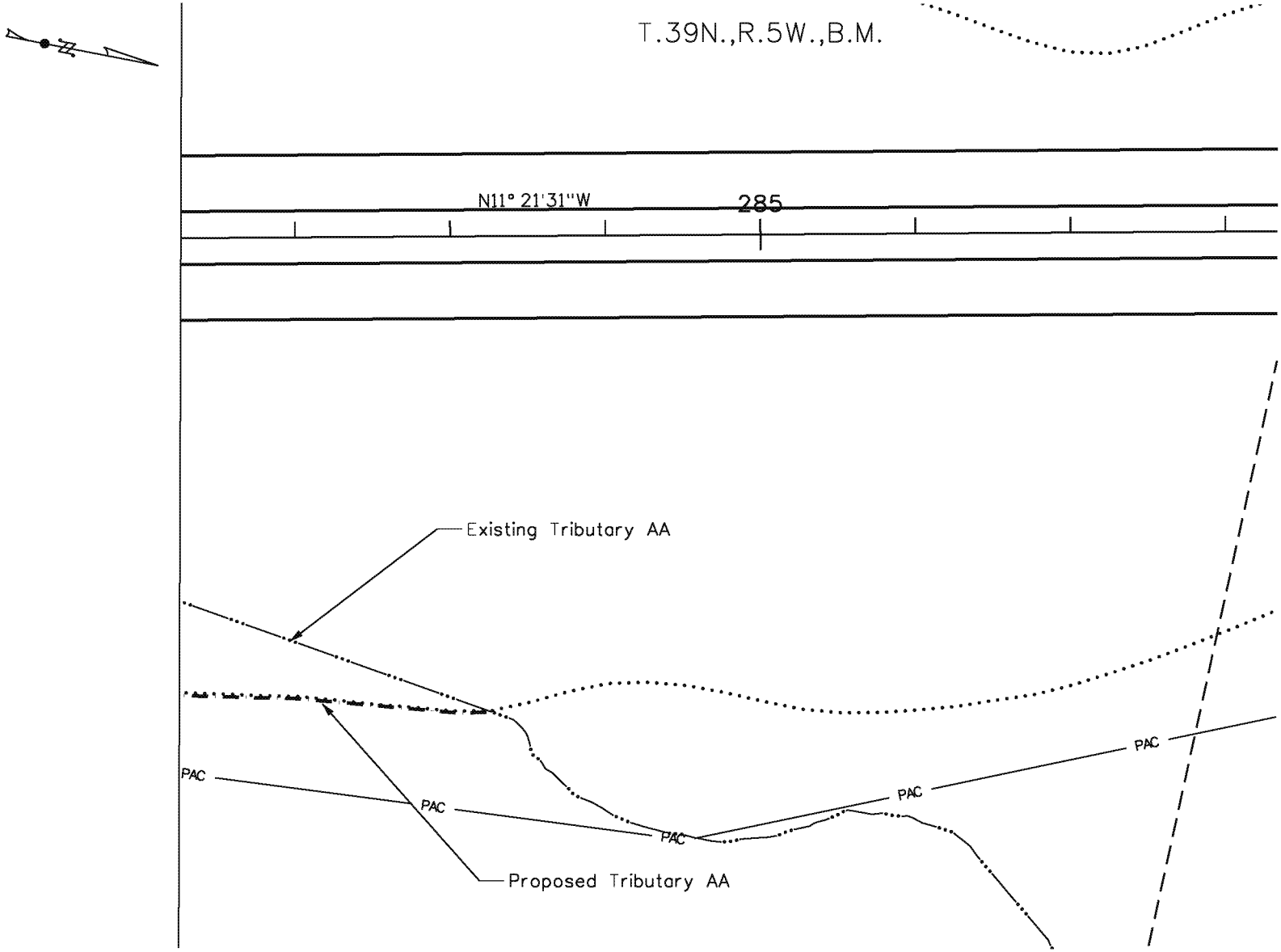
Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 33 of 34 Date: AUGUST 2020

*09294_envi_26.DGN*




| | |
|---|---|
| IDAHO TRANSPORTATION DEPARTMENT | NWW No.: 2004-0600046 |
| | Applicant Name: Idaho Transportation Department, District 2 |
| | Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County |
| | Project Number: DHP-NH-4110(156) |
| | Location: US-95 |
| DISTRICT 2 Lewiston, ID | Sheet 34 of 34 Date: AUGUST 2020 |
| | *09294_envi_27.DGN* |

# COMPLIANCE CERTIFICATION

US Army Corps of Engineers
Walla Walla District

Permit Number: NWW-2004-0600046

Name of Permittee: Idaho Transportation Department, District 2

Date of Issuance: March 9, 2021

Upon completion of the activity authorized by this permit and any mitigation required by the permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Walla Walla District
Boise Regulatory Office
720 East Park Boulevard, Suite 245
Boise, Idaho 83712-7757

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with all terms and conditions of this permit, the permit is subject to suspension, modification, or revocation and you are subject to an enforcement action by this office.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit. The required mitigation was also completed in accordance with the permit conditions.

_____ _____

*Signature of PERMITEE* *DATE*

# APPENDIX A – Permitting Tables 1 through 3, dated January 26, 2021

## Table 1 – Wetland impacts, fill quantities, and activity description.

| NWP 14 site number | Aquatic Resource ID | Drawing Sheet | Activity | Wetland Type | Distance to Water Body (linear feet)/ Water Body | Permanent Wetland losses (acres) | Permanent Native topsoil and rock fill quantities (cubic yards) | Temporary Native topsoil and rock fill Impacts (acres) | Temporary Native topsoil and rock fill quantities. (cubic yards) | Permanent excavation quantities (cubic yards) | Activity Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | B1 | 13 | Roadway widening | Emergent | 0/Trib P | 0.010 | 10 | 0.000 | 0 | 1.00 | Road Fill, widening existing roadway |
| 1 | 23A | 17 | Roadway widening | Emergent | 0/Trib P | 0.008 | 6 | 0.000 | 0 | 4.00 | Road Fill, widening existing roadway |
| 1 | 23B | 17 | Roadway widening | Emergent | 0/Trib P | 0.133 | 308 | 0.000 | 0 | 0.00 | Road Fill, widening existing roadway |
| 3 | C1 | 19 | New Alignment | Emergent | 260/Trib Q | 0.098 | 62 | 0.000 | 0 | 0 | Construction of new connector to existing US-95 |
| 4 | 29A | 20 | New Alignment | Emergent | 0/Trib U | 0.274 | 379 | 0.002 | 6.4 | 133.00 | Fill for new alignment and new approach east of alignment |
| 5 | 29B | 20 | New Alignment | Emergent | 0/Trib U | 0.000 | 0 | 0.000 | 0 | 0.00 | Temporary only, construction disturbance below Eid Rd Bridge. No temporary discharge of fill. |
| 11 | 35B | 31 | New Alignment | Emergent | 228/Trib X | 0.165 | 217 | 0.002 | 6.4 | 94.00 | Fill for new alignment |
| 12 | 35A | 31 | New Alignment | Emergent | 0/Trib X | 0.106 | 50 | 0.000 | 0 | 0.00 | Fill for new alignment |
| 13 | 40B | 33 | New Alignment | Emergent | 0/Trib AA | 0.194 | 178 | 0.000 | 0 | 0.00 | Fill for new alignment |

Table 2 – Tributary impacts, fill quantities, and activity description.

| NWP 14 site number | Tributary ID | Station - Start | Station - End | Sheet | Activity | Tributary Total loss, (Linear feet, not including existing pipe) | Tributary Total loss, (Acres, not including existing pipe) | Culvert Existing (Linear Feet) | Native Topsoil Fill Below OHWM (Cubic yards) | Tributary replacement Length (Linear feet, not including proposed pipe) | Proposed Pipe Length (Linear feet) | Activity Description | Temporary diversion dam fill impacts (acres) | Temporary diversion dam fill (Cubic yards) | Temporary diversion dam impact of fill + dewatered area (acres) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Thorn Creek | 44+65 | 59+38 | 12,13 | Roadway Widening | 1,574 | 0.175 | 56 | 157 | 1,358 | 218 | Culvert extensions and widening of existing roadway, both sides of US-95 | 0.006 | 12.8 | 0.181 |
| 1 | Trib P | 59+35 | 89+75 | 13,15,17,18 | Roadway Widening | 2,466 | 0.142 | 66 | 91 | 2,531 | 108 | Culvert extensions and widening of existing roadway, both sides of US-95 | 0.008 | 25.6 | 0.150 |
| 2 | Trib Q | Connector Stn 12 | - | 19 | New Alignment | 150 | 0.007 | 0 | 6 | 0 | 330 | Construction of new connector to existing US-95 | 0.001 | 6.4 | 0.008 |
| 4 | Trib U | 138+86 | 140+80 | 20 | New Alignment | 376 | 0.042 | 30 | 35 | 0 | 502 | 48" culvert for new alignment | 0.002 | 6.4 | 0.044 |
| 5 | Trib U | 142+63 | 143+14 | 20 | New Alignment | 318 | 0.059 | 0 | 80 | 341 | 0 | Tributary will be shifted south into new ditch inside bridge abutment | 0.00009 | 12.8 | 0.059 |
| 5 | Trib U | Eid Rd 141+94 | 144+30 | 22 | Approach Crossing on Eid Rd | 41 | 0.008 | 0 | 6 | 0 | 48 | Installation of 36" CMP at approach Crossing | 0.00009 | 12.8 | 0.008 |
| 6 | Trib U | 158+19 | 160+62 | 23 | New Alignment | 611 | 0.029 | 0 | 48 | 0 | 488 | 48" culvert for new alignment | 0.003 | 12.8 | 0.032 |
| 7 | Trib V | 174+08 | 174+97 | 25 | New Alignment | 317 | 0.025 | 0 | 32 | 0 | 334 | 48" culvert for new alignment | 0.007 | 12.8 | 0.032 |
| 8 | Trib W | 179+91 | 181+31 | 27 | New Alignment | 315 | 0.117 | 0 | 62 | 0 | 302 | 48" culvert for new alignment | 0.009 | 12.8 | 0.126 |
| 9 | Trib W | 209+52 | 212+59 | 29 | New Alignment | 395 | 0.043 | 0 | 32 | 0 | 406 | 48" culvert for new alignment | 0.004 | 12.8 | 0.047 |
| 10 | Trib X | 233+51 | 233+76 | 31 | New Alignment | 102 | 0.005 | 0 | 4 | 0 | 442 | 48" culvert for new alignment | 0.005 | 6.4 | 0.010 |
| 13 | Trib AA | 272+66 | 281+03 | 33,34 | New Alignment | 1,110 | 0.055 | 0 | 41 | 1,076 | 0 | Tributary will be shifted east into new ditch outside of new alignment fill | N/A | N/A | N/A |

Table 3 – NWP 14 site impacts, compensatory mitigation, & 401 individual water quality certificates.

| NWP14 site number | Permanent native topsoil and rock fill quantities (cubic yards) | Temporary Sandbag fill quantities (cubic yards) | Permanent loss of Wetland (acres) | Permanent loss of Tributary (acres) | Total permanent loss of WOUS (acres) | Temporary Wetland impacts (acres) | Temporary Tributary impacts (acres) | Corps required Wetland Credits | Corps required Tributary Credits | Total Corps required Mitigation Credits | Valencia Mitigation - Credits required | Individual 401 certification | Impacted aquatic resources |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 572 | 38.4 | 0.151 | 0.317 | 0.468 | 0 | 0.331 | 0.6191 | 0.9634 | 1.5825 | Yes | Yes | Wetlands (B1, 23A, 23B), Tributary(P, Thorn Creek) |
| 2 | 6 | 6.4 | 0 | 0.007 | 0.007 | 0 | 0.008 | 0 | 0 | 0 | N/A | N/A | Tributary(Q) |
| 3 | 62 | 0 | 0.098 | 0 | 0.098 | 0 | 0 | 0 | 0 | 0 | N/A | Yes | Wetlands (C1) |
| 4 | 414 | 12.8 | 0.274 | 0.042 | 0.316 | 0.002 | 0.044 | 1.1782 | 0 | 1.1782 | Yes | Yes | Wetlands (29A), Tributary(U) |
| 5 | 86 | 25.6 | 0 | 0.067 | 0.067 | 0 | 0.067 | 0 | 0 | 0 | N/A | N/A | Wetland (29B), Tributary(U) |
| 6 | 48 | 12.8 | 0 | 0.029 | 0.029 | 0 | 0.032 | 0 | 0 | 0 | N/A | N/A | Tributary(U) |
| 7 | 32 | 12.8 | 0 | 0.025 | 0.025 | 0 | 0.032 | 0 | 0 | 0 | N/A | N/A | Tributary(V) |
| 8 | 62 | 12.8 | 0 | 0.117 | 0.117 | 0 | 0.126 | 0 | 0.2457 | 0.2457 | Yes | Yes | Tributary(W) |
| 9 | 32 | 12.8 | 0 | 0.043 | 0.043 | 0 | 0.047 | 0 | 0 | 0 | N/A | N/A | Tributary(W) |
| 10 | 4 | 12.8 | 0 | 0.005 | 0.005 | 0 | 0.01 | 0 | 0 | 0 | N/A | N/A | Tributary(X) |
| 11 | 217 | 6.4 | 0.165 | 0 | 0.165 | 0.002 | 0 | 0.264 | 0 | 0.264 | Yes | Yes | Wetlands (35B) |
| 12 | 50 | 0 | 0.106 | 0 | 0.106 | 0 | 0 | 0.2226 | 0 | 0.2226 | Yes | Yes | Wetlands (35A) |
| 13 | 219 | 0 | 0.194 | 0.055 | 0.249 | 0 | 0 | 0.4074 | 0 | 0.4074 | Yes | Yes | Wetlands (40B), Tributary(AA) |

Resource Planning Unlimited, Inc.

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# MEMO

DATE: September 22, 2020

TO: Shawn Smith, District 2, Idaho Transportation Department (ITD)

FROM: Shelly Gilmore

RE: Thorn Creek Road to Moscow Wetland Delineation Review and Technical Report for Areas within the US-95 E-2 Alignment

## Background

In response to a request by the US Army Corps of Engineers (Corps) for additional data to support project information, a recent on-site project area review was conducted. The areas of concern were outlined in correspondence from the Corps[1] and included areas that did not have adequate field data points within the most current US-95 E-2 alignment to support wetland review. The resulting site review was conducted to determine the current status of the presence of wetlands and tributaries within the project area. The project area included the land intersected by the E-2 alignment (Google Earth kmz files of the cut and fill slopes involved in the roadway prism, along with previously mapped wetlands and tributaries, were provided April 21, 2020 by ITD).

As quality control, ITD survey department placed survey lathe in selected areas within the alignment prior to this site review, accompanied by kmz files of those survey points. A hand-held GPS (Garmin Montana) was used by this author to record those survey points in the field during the site visits. Those data points were provided to ITD along with the test sites and wetland delineation boundaries.

This project area review includes a summary of the findings, along with details about the current size and location of wetlands within the alignment. The review did not include areas outside of the alignment.

To stay consistent with previous evaluations in the project area, the Washington State Wetland Rating System for Eastern Washington was used to evaluate wetlands discussed (and included) in the June 2020 version 1 report.[2]

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[1] Email correspondence from Shane Skaar, CIV USARMY CENWW (US) to Ken Helm and Shawn Smith, Idaho Transportation Department on March 5, 2020, forwarded on March 13, 2020 to Shelly Gilmore, Resource Planning Unlimited, Inc.

[2] Hruby, T. 2014. Washington State Wetland Rating System for Eastern Washington. Washington State Department of Ecology Publication #14-06-030. October 2014 (rating form effective January 2015).



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Data files (Google Earth kmz files) of the wetlands, data test sites, changes to tributary locations, and ITD survey points accompanied the June 11, 2020 report, identified as Version 1. This version (Version 2) incorporates revisions as requested upon review of the June 2020 report by the Corps.[3]

## Project Review

Areas along previously mapped and identified Tributary P (mapped by the topographic survey as Thorn Creek) were evaluated to see if wetlands were supported above the ordinary high water mark (OHWM). **Test site B1**, located on the east side of the tributary, confirmed wetlands are not supported near the beginning of the project along Tributary P. The OHWM was identified by a debris line and flattened grasses. Cropland is managed to the edge of the tributary on the west side.

***Figure 1.*** Looking north along Tributary P.

**Test site B2** was located on the west side of Tributary P and did not confirm wetland presence above the OHWM. The tributary appears to be excavated and maintained in this area. The adjacent cropland appears to have been tiled out (as evident from the drain tile outlet shown in Figure 2 near the cross culvert of Thorn Creek under existing US-95).

***Figure 2.*** Tributary P near the cross culvert of Thorn Creek under existing US-95.

[3] Revisions requested by Shane Skaar, CIV USARMY CENWW (US) August 3, 2020 during a conference call with this author, Shawn Smith, ITD, Michelle Anderson, Anderson Environmental, and Shane Skaar.



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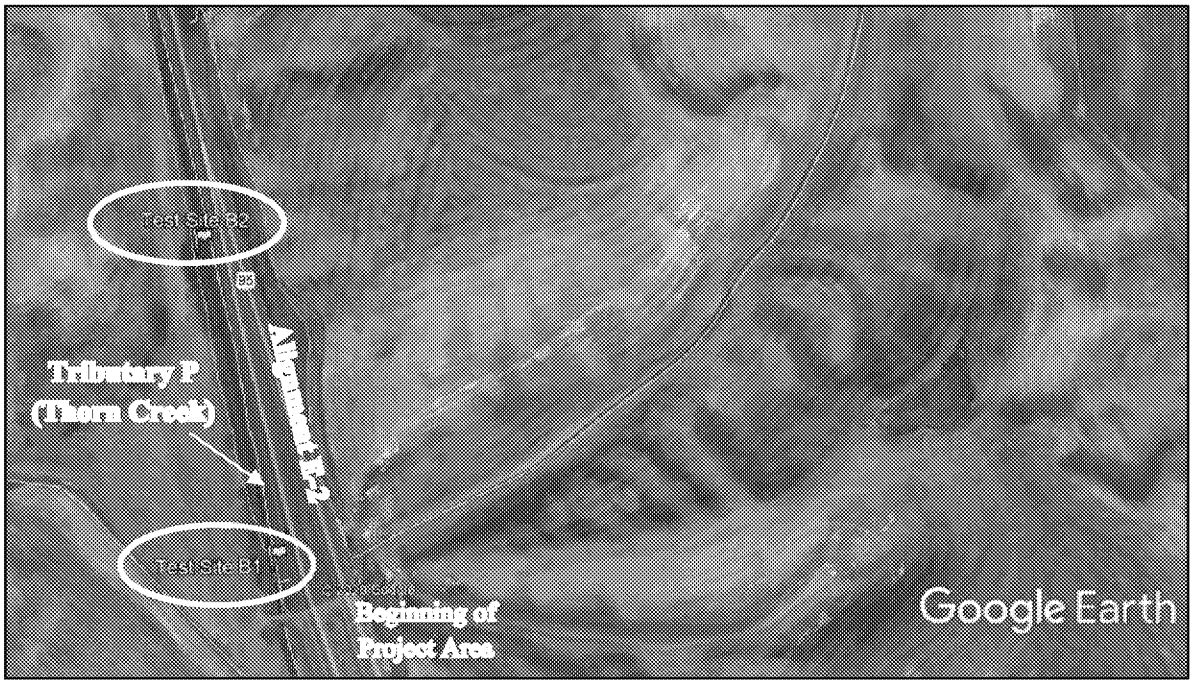
*Figure 3.* Location of Test Sites B1 and B2 near the beginning of the project area.




**Tests Sites B3 and B4** confirmed the presence of a Category III grass-dominated slope wetland along a small drainage pattern in the cropland (rating forms located in the appendix). Wetland presence has not been mapped in this location by previous reports or field reviews. The emergent wetland, referred to as **Wetland B1(2020)** is dominated by grasses and grass-like plants and extends upstream outside of the project area along a small east-flowing drainage pattern through croplands. The wetland is adjacent to Tributary P. Hayland borders the wetland on the north and cropland on the south side. Some snowberry, rose, and Canada thistle were present outside of the wetland boundaries on the north side.

*Figure 4.* Location of test sites B3 and B4 and Wetland B1(2020).

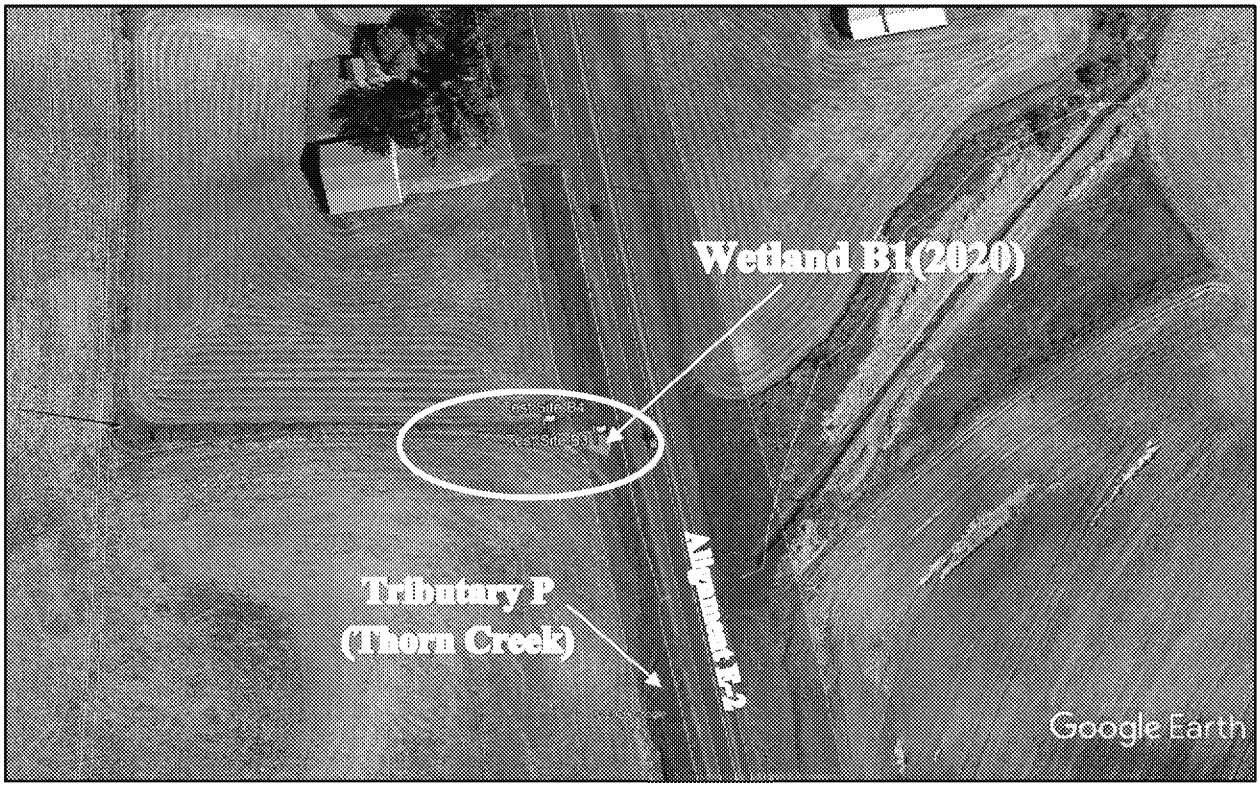


*Figure 5.* Test Site B3 in Wetland B1(2020).

**Test Site B5** was on the west side of Tributary P (upstream of the cross culvert carrying Thorn Creek as identified by the topographic map) in a grassy area. Tributary P in this area appears to be a roadside drainage ditch that is maintained (cleaned and channelized periodically). A small drainage pattern was visible in this area as evident by brighter colored and slightly more vigorous grass growth. Wetlands were not found to be supported in this location; it was observed that the surface water level in the tributary is too low in elevation to support prolonged soil saturation in the adjacent field.

*Figure 6.* Looking north along Tributary P near Test Site B5.

**Test Site B8** was located in a small drainage pattern on the west side of the main tributary. Wetlands were not found to be supported in this location. A field drain tile outlet was identified near this area.



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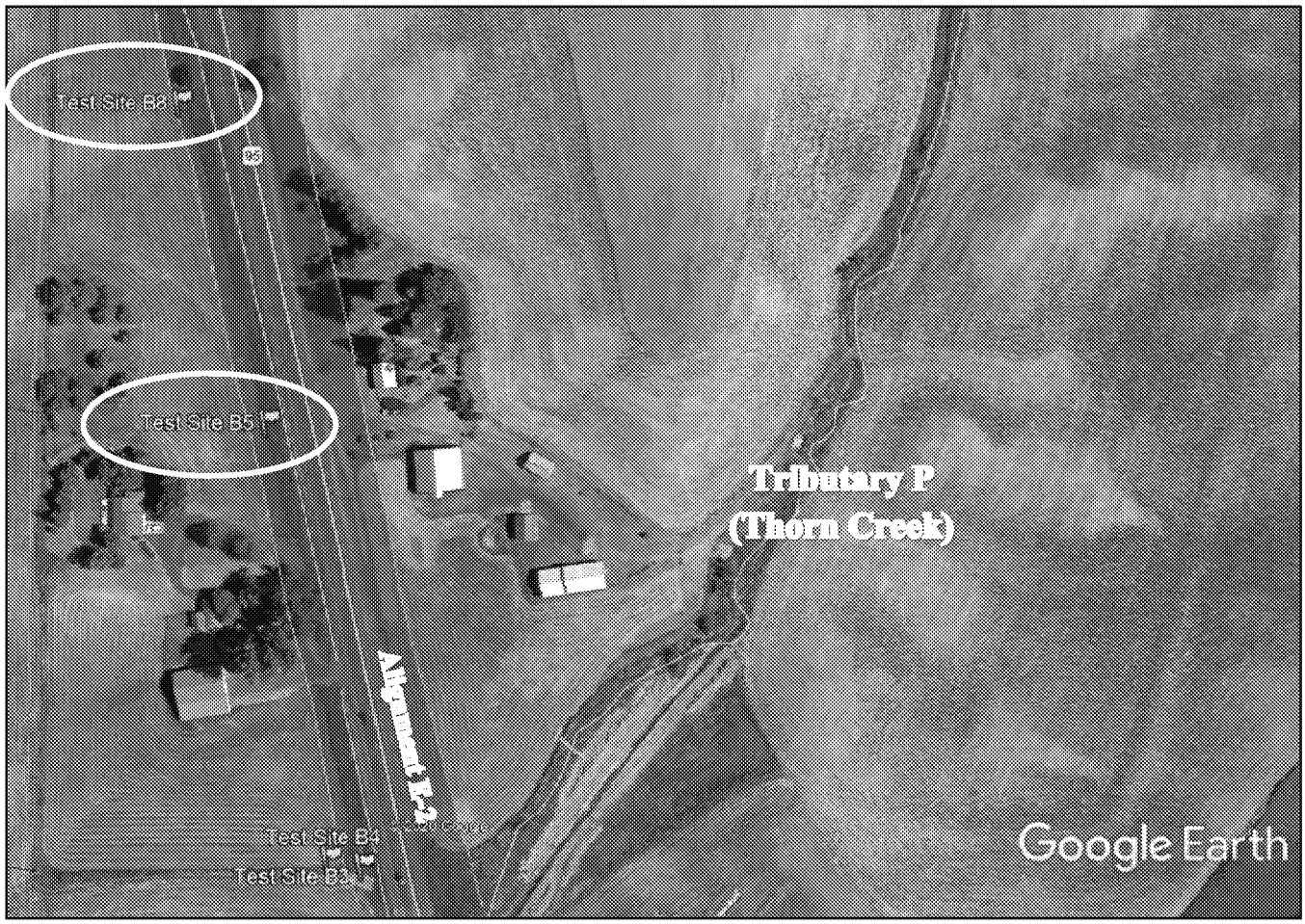
*Figure 7.* Location of Test Sites B5 and B8.




**Test Sites B6 and B7** were used to confirm the presence of a wetland in this area. The grass and grass-like plant dominated wetland was delineated. The emergent wetland, once mapped as the southern branch of Wetland 23, is smaller than the previously mapped wetland. The wetland is on the west side of the main tributary/drainage ditch. The Category III slope wetland is identified by this report as **Wetland 23A(2020)**.

**Test Sites B9 and B10** were also used to confirm the presence of wetlands. The grass and grass-like plant dominated wetland was delineated. The emergent wetland, once mapped as the northern branch of Wetland 23, is smaller than the previously mapped wetland. It appears that sediment has collected in this grassy low-gradient area and minimized the size of the previously mapped wetland. The wetland is on the west side of the main tributary/drainage ditch. The Category III slope wetland is identified by this report as **Wetland 23B(2020)**.

***Figure 8.*** Looking west at Wetland 23A(2020).

***Figure 9.*** Looking north (upstream) at tributary/drainage ditch from field access near Wetland 23B(2020).

*Figure 10.* Location of Test Sites B6 and B7 and Wetland 23A(2020).

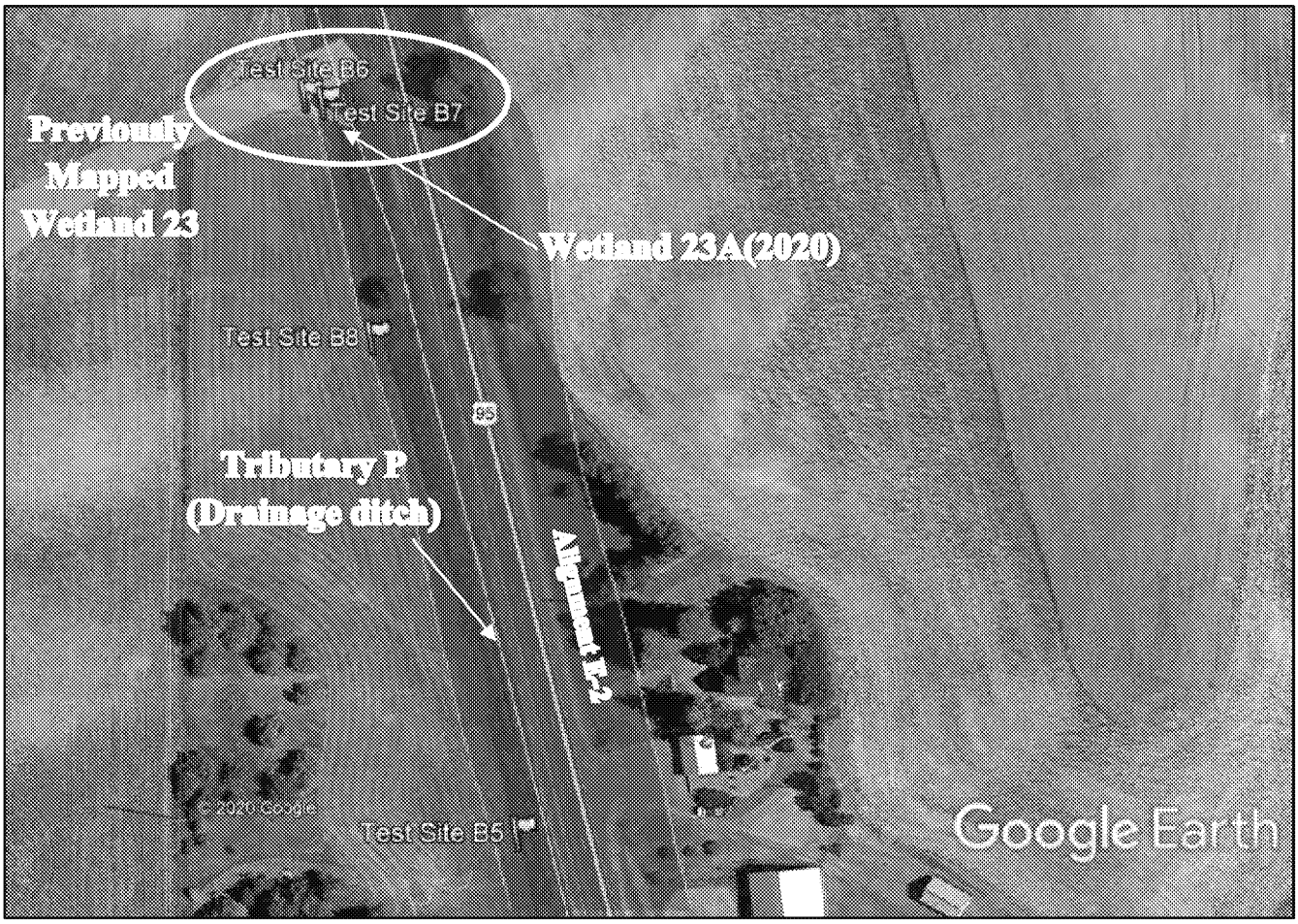
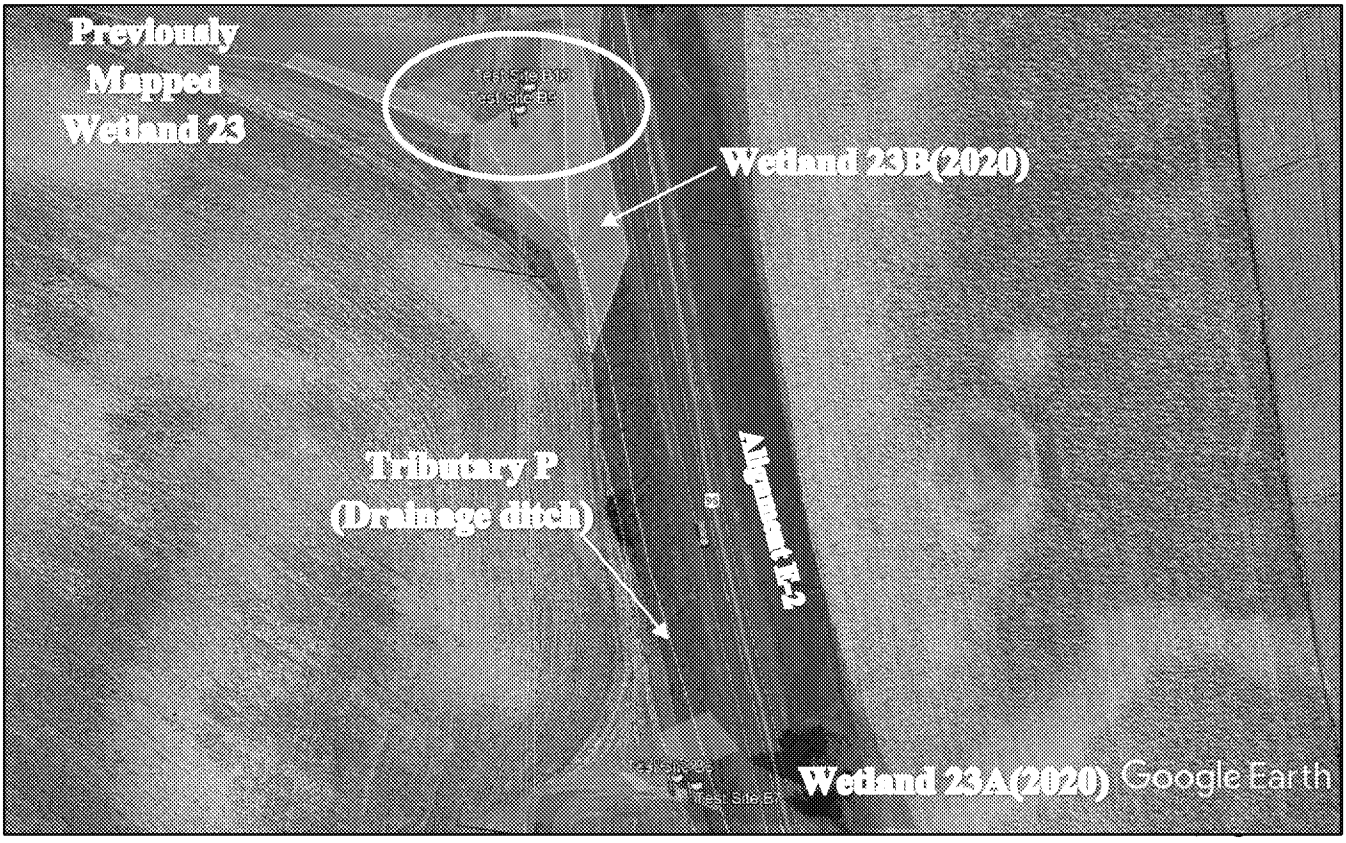



*Figure 11.* Location of Test Sites B9 and B10 and Wetland 23B(2020).



**Test Site B11** was located in an abandon farmstead area on the west side of the existing highway. Wetlands were not found to be supported in this location. A culvert under the property access looks to be partially plugged, and there was some saturation at about 16 inches from the top of the test pit. The overland flow from the site travels in a southerly direction to the tributary/drainage ditch. Soils do not appear to stay saturated into the growing season.

***Figure 12.*** Looking north along the existing highway at Test Site B11.

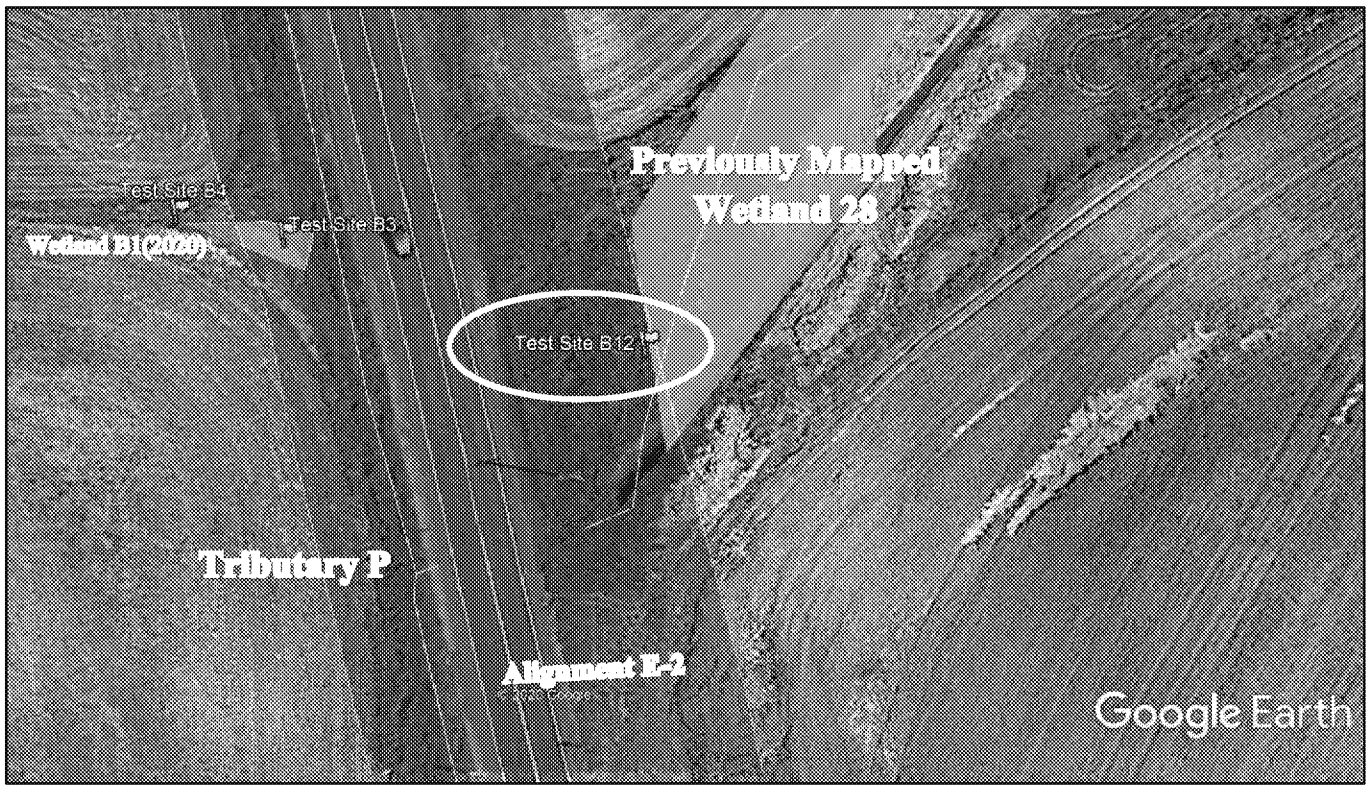
***Figure 13.*** Location of Test Site B11.

**Test Site B12** was located on the north side of Tributary P (mapped as Thorn Creek). The tributary has been cleaned out with the excavated material deposited on the north side of the channel. The surface water elevation is lower at OHWM and does not appear to support wetland characteristics adjacent to and above the OHWM. The OHWM was not very evident, although a scour line on the bank was evident. The south side of the tributary slopes up and away from the top of bank. The downstream end of the box culvert, which carries the tributary in a southwesterly direction, was channelized and appeared to be recently cleaned out. Wetlands were not found to be supported adjacent to the tributary within the alignment. The area was once mapped as **Wetland 28**.

***Figure 14.*** Discharge point at box culvert of the tributary (mapped as Thorn Creek).

***Figure 15.*** Looking upstream at the tributary near Test Site B12.

*Figure 16.* Location of Test Site B12.




**Test Site B13** was located below a cross culvert at the top of a drainage draw on the west side of the existing highway. The gradient in this area is steep and the site does not appear to allow soils to stay saturated into the growing season. Wetlands were not found to be supported in this location.

*Figure 17.* Looking southeast at Test Site B13.

*Figure 18.* Location of Test Site B13.

**Test Site B14** was located below a farm pond in a grassy area along between two access roadways on the south side of Eid Road. This test site was in a grassy area that was noticably more green with new growth than some of the other areas across the reed canarygrass field. The test site confirmed the presence of a Category III slope **Wetland 29A(2020)** (previously mapped Wetland 29). The emergent wetland is dominated by grasses and appears to receive its hydrology from the pond overflow or leakage. The wetland is confined by the landform on the west and east side where the toe of the road fill slopes up and away from the lower part of the field. The wetland drains through a culvert in an access roadway to previously mapped tributary, which is confined to its banks. **Test Site B15** verified the wetland/nonwetland boundary of Wetland 29A(2020).

**Test Site B16** was located on the north side of the tributary/drainage ditch below Wetland 29A(2020) on what looked like a small floodplain bench. Wetlands are not supported above the OHWM (as observed by a scour line on the right bank (looking downstream)). The gradient of the tributary/drainage ditch steepens downstream of this test site area, where the tributary flows through a culvert and becomes more channelized/downcut and streambanks become steeper. The tributary looks as if it has recently been cleaned out.

*Figure 19.* Location of Test Sites B14, B15, and B16, and Wetland 29A(2020).

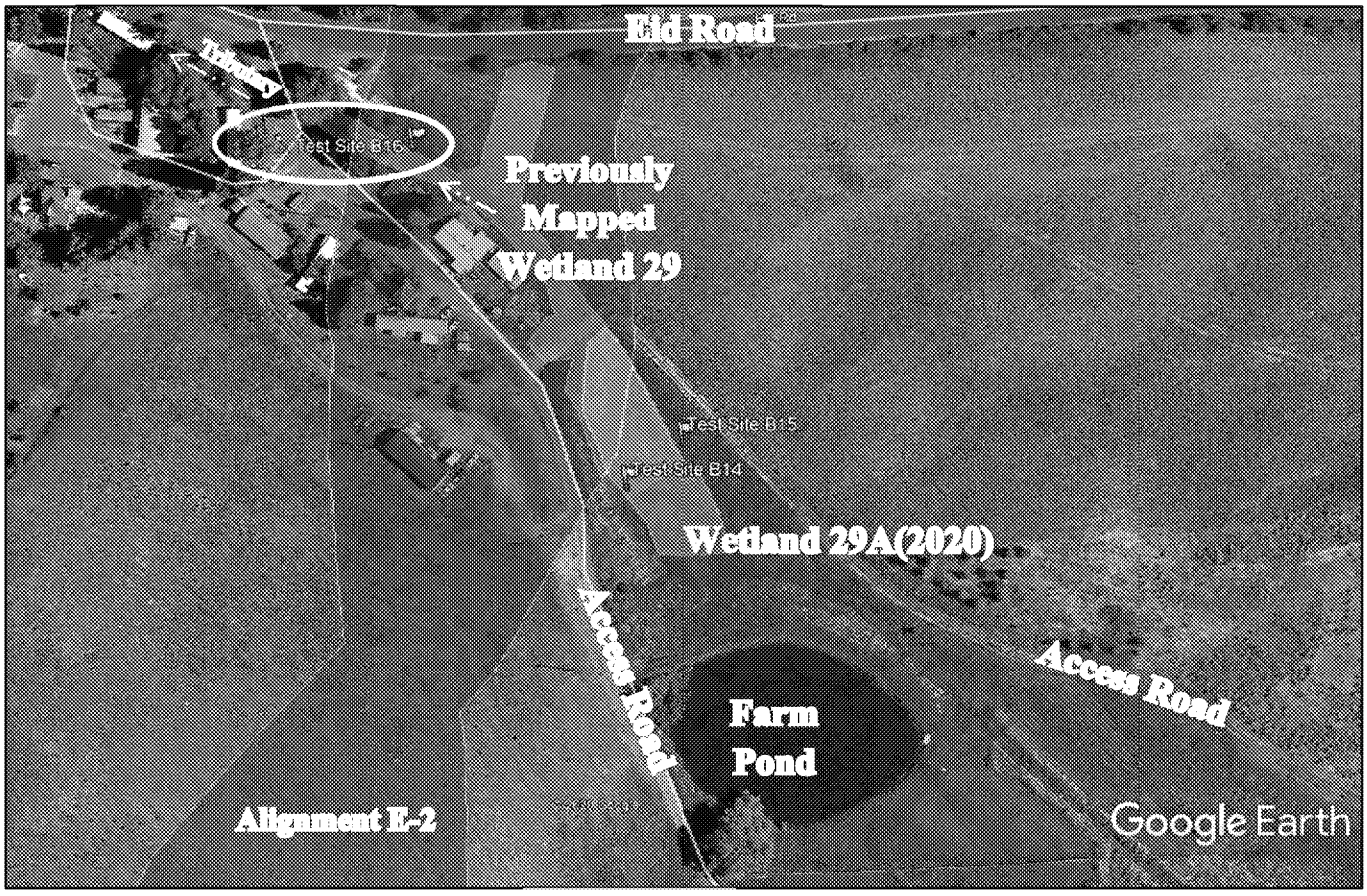
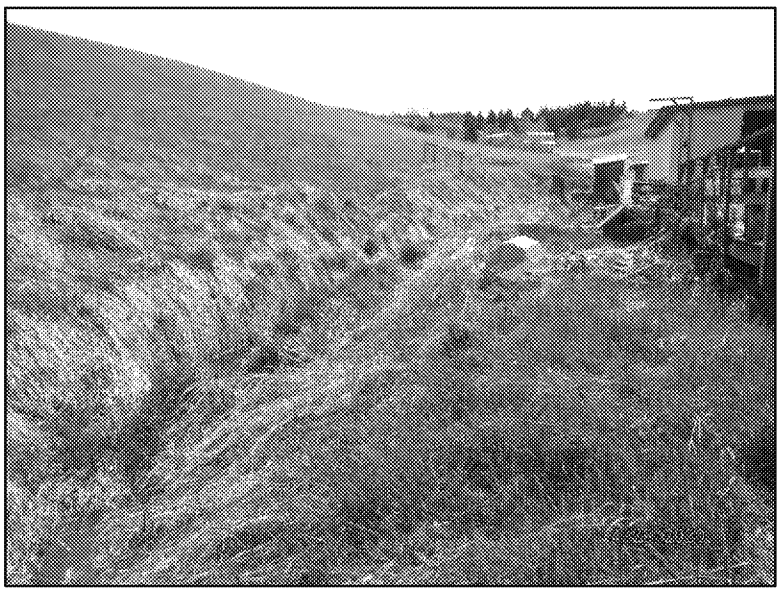



*Figure 20.* Looking southeast at Wetland 29A(2020).

*Figure 21.* Looking upstream along the tributary on the south side of Eid Road (downstream of Wetland 29A(2020).



**Test Site B17** was located in a wide grassy drainage pattern on the north side of Eid Road. The test site verified wetland presence of a grass-dominated wetland previously named Wetland 29, referred to in this report as a Category III slope **Wetland 29B(2020)**. The emergent wetland receives overland flow from grass covered uplands and roadside runoff; surface water flows to previously mapped Tributary U. **Test Site B18** defined the wetland/nonwetland boundaries where the vegetation changed slightly and the landform sloped up and away from the low area.

**Test Site B19** was downstream of the wetland on the south bank of the tributary, which had some scouring on the right bank (looking downstream) by a willow tree. The tributary is channelized and does not support wetlands above the OHWM below Wetland 29B(2020).

**Test Site B20** was on the north side of the tributary (downstream of Test Site B19) in what appeared to be a small floodplain area. Wetland presence was not confirmed at this test site.

*Figure 22.* Looking east (upslope) at Wetland 29B(2020), north of Eid Road.

*Figure 23.* Looking downstream at the tributary below Wetland 29B(2020).

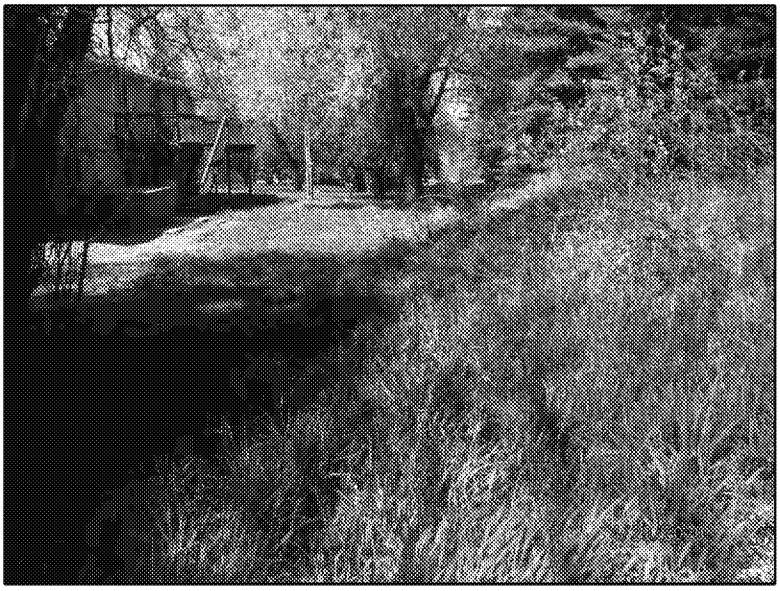
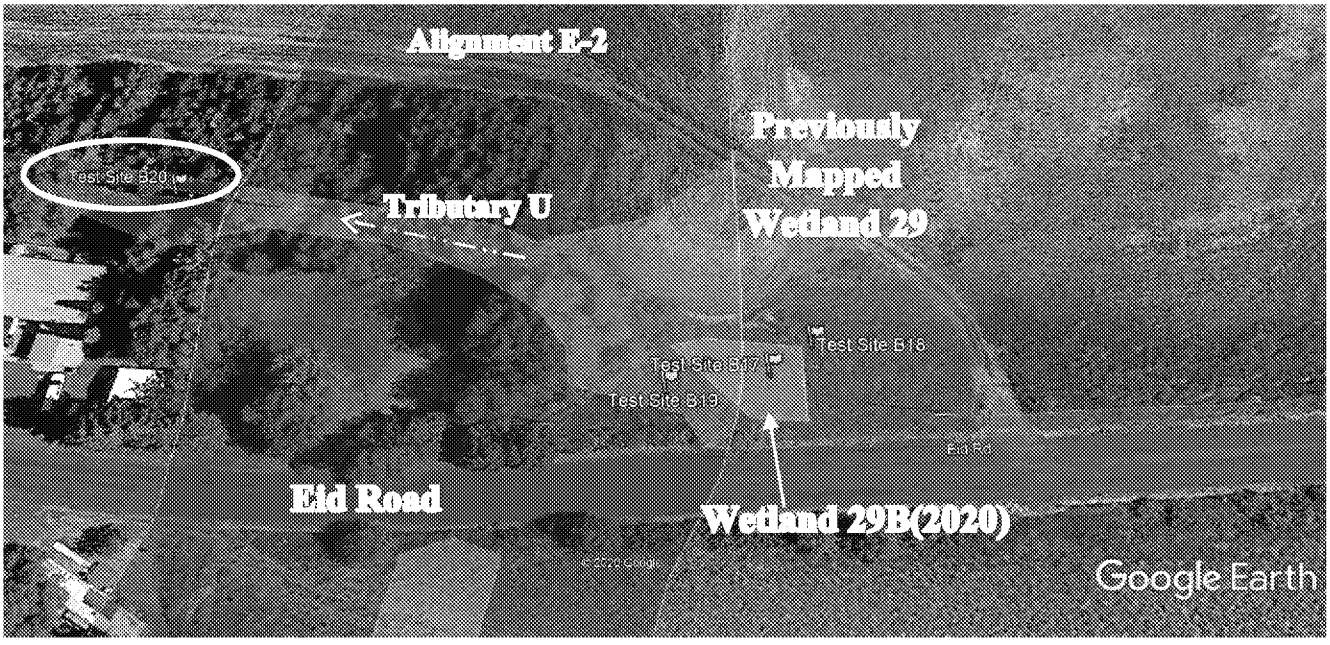


*Figure 24.* Location of Wetland 29B(2020) and Test Sites B17, B18, B19, and B20.



**Test Site B21** was located in the drainage draw above a farm pond and below a brushy area. The drainage draw was previously mapped as the northern branch of **Wetland 32**. The land appears to be built up with sedimentation. The area supports mullien and cow parsnip as well as reed canarygrass. The soils do not indicate that they stay saturated into the growing season. **Test Site B22** was located in the drainage pattern to the south of Test Site B21. The test site was dug in a small ditch bottom. The drainage pattern appears to have been drained possibly with drain tile with cropland encroaching in on the sides. The pond below the drainage draw was flowing a small amount of surface water at the time of this site visit, but no surface water (or saturated soils) were present in the drainage draw. Wetland 32 is no longer supported in this area.

***Figure 25.*** Location of Test Site B21, looking downslope.

***Figure 26.*** Location of Test Site B22, looking downslope.

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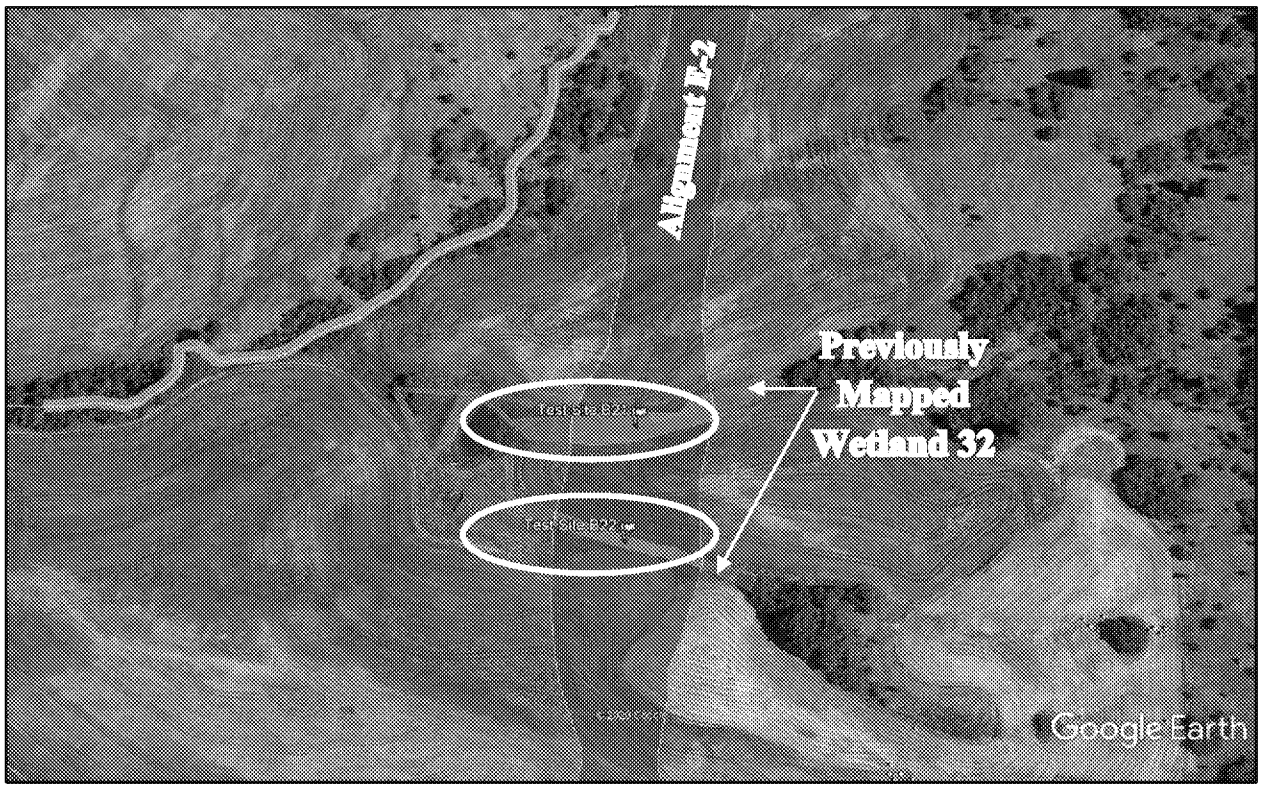
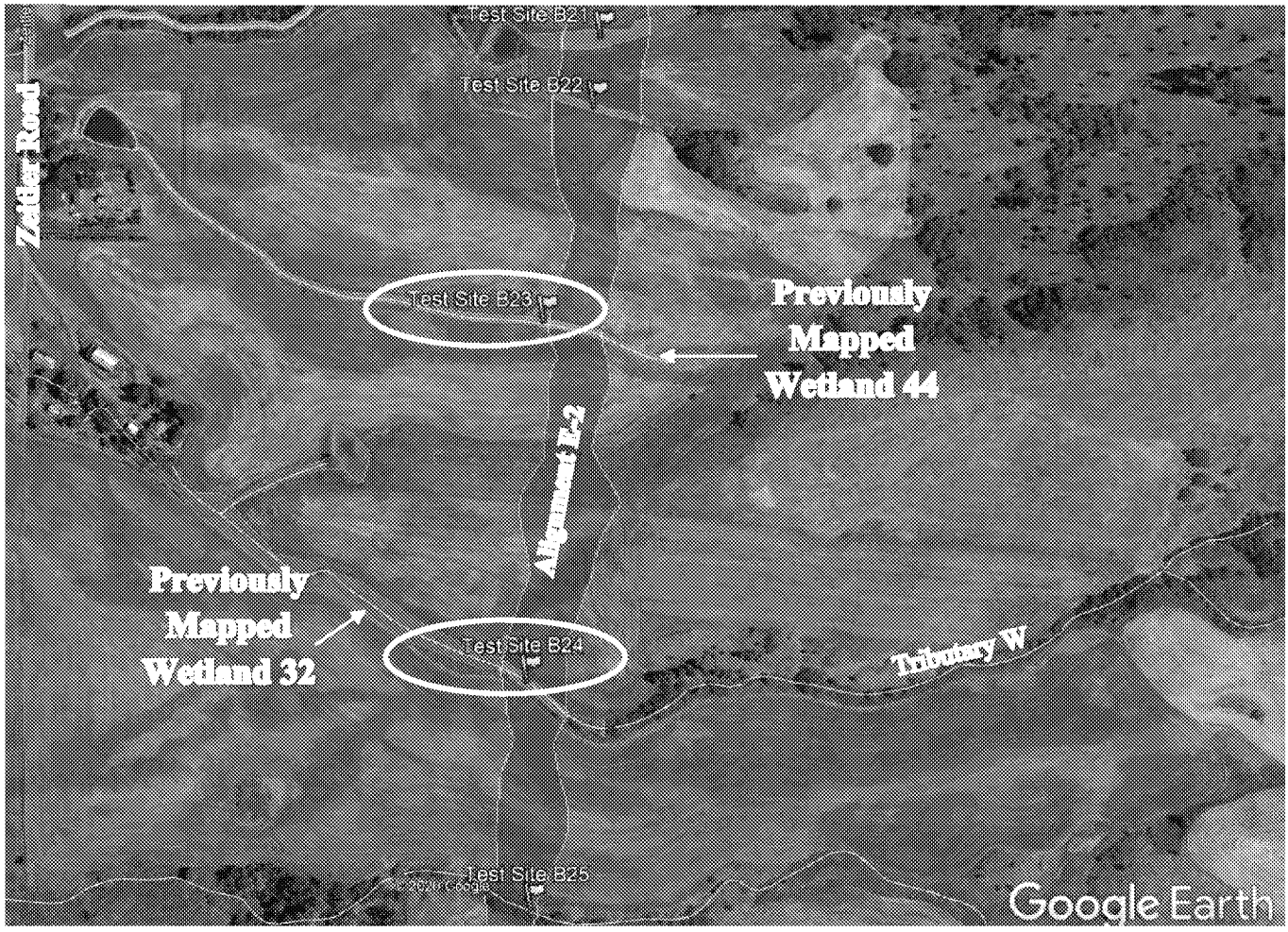
*Figure 27.* Location of Test Sites B21 and B22.




**Test Site B23** was located in near a drainage draw once mapped as **Wetland 44**. The drainage draw is now approximately 8 inches wide (approximately 6 inches deep) and a dry, scoured drainage ditch with exposed rocks. The draw is at a relatively steep gradient. Hydric soil characteristics in the small drainage pattern are supported, but thought to be relic soil characteristics, wetland hydrology was not supported. Wetland 44 is no longer supported within the alignment in this area.

*Figure 28.* Looking downstream at the drainage draw and Test Site B23.

*Figure 29.* Location of Test Sites B23 and B24.



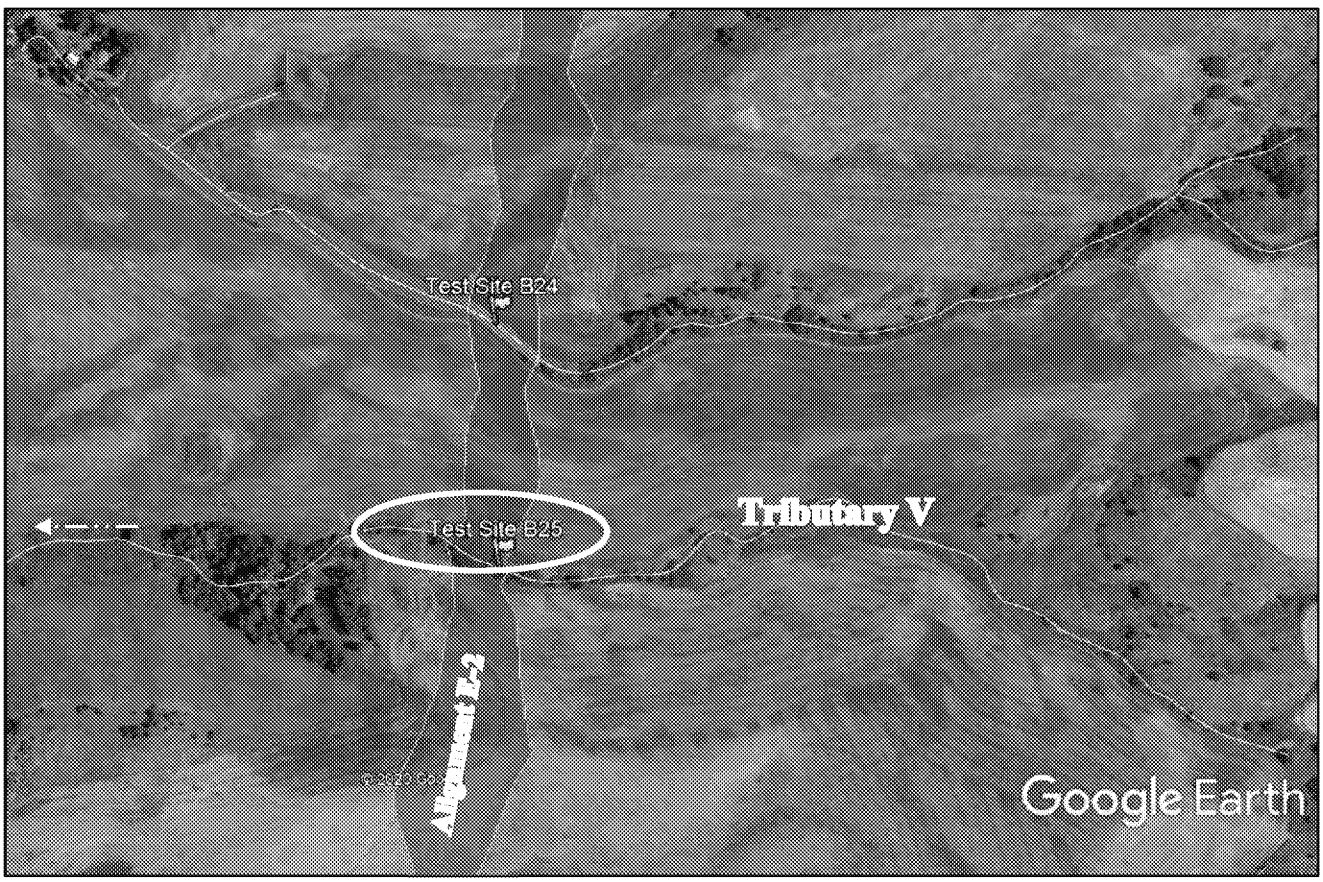

**Test Site B24** was located in a small drainage draw, which was previously mapped as the southern branch of **Wetland 32**. A small, narrow drainage ditch runs through the center of the drainage pattern, previously identified as Tributary W. Snowberry and roses were along the edge of the drainage pattern. Wetland 32 is no long supported in this area.

*Figure 30.* Looking downstream from Test Site B24. Tall grass (last year's growth in the picture) was determined to be tall or intermediate wheatgrass (no hydrophytic vegetation indicator status).

**Test Site B25** was located on the north side of a previously mapped tributary (Tributary V) to rule out wetland presence adjacent to the tributary within the alignment. Wetlands are not supported above the OHWM of the tributary. The tributary is deep with large, exposed rocks and on a relatively steep gradient. The test site (and western side of the alignment) is near (upstream) of a 36 inch culvert with a small amount of flowing water at the time of this site visit. The land at the top of the banks slopes up and away from the tributary. The tributary is relatively deep and soils above the OHWM do not appear to stay saturated into the growing season.

***Figure 31.*** Looking downstream at Tributary V from Test Site B25.

***Figure 32.*** Location of Test Site B25.

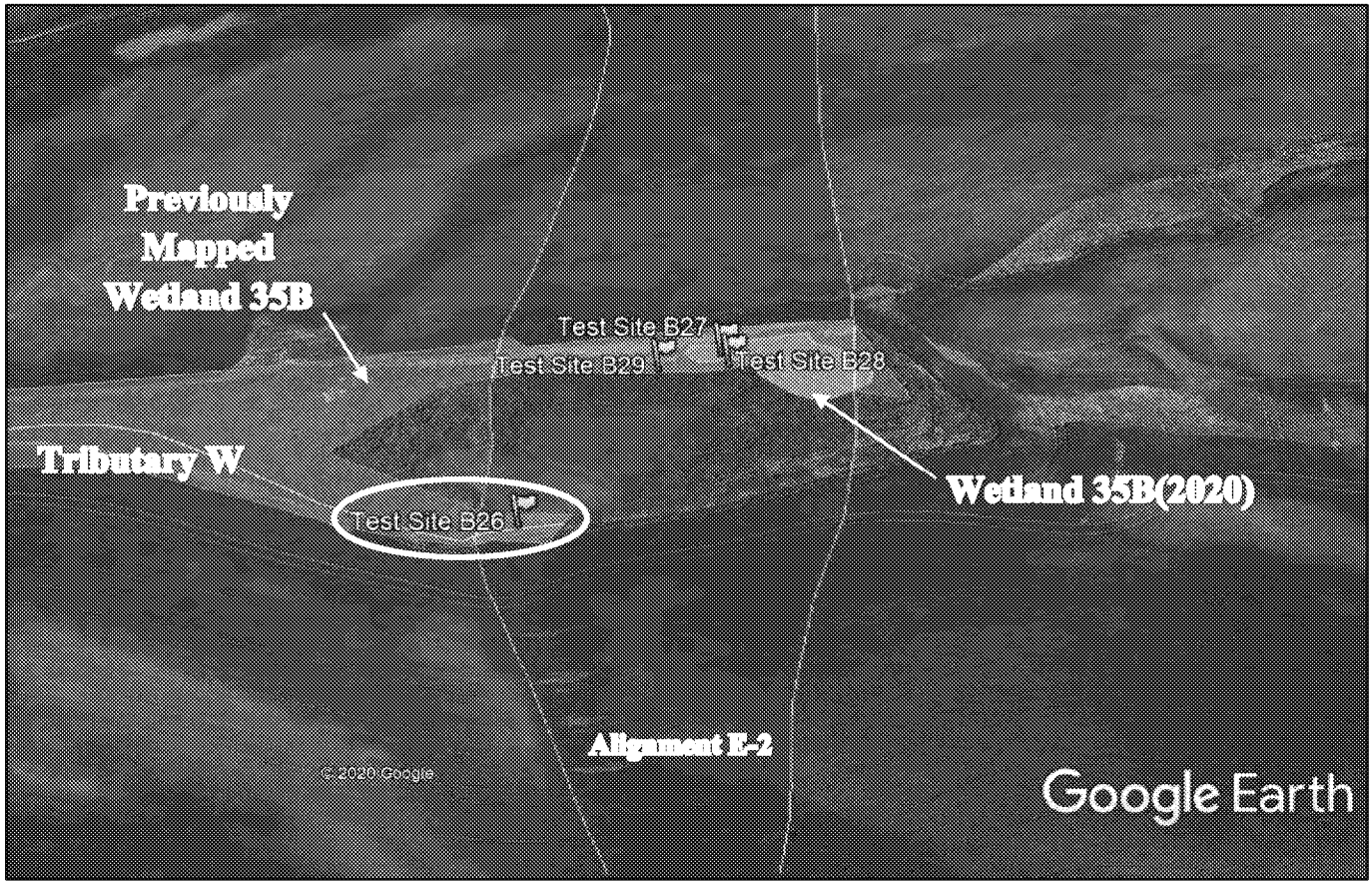


**Test Site B26** was located in the bottom of a drainage pattern at the edge of the cropland field previously mapped as the southern branch of Wetland 35B. The test site is mostly surrounded by planted winter wheat in the cropland. A mounded area (likely a rocky outcrop) to the north of the test site contained upland species including yarrow and cheatgrass. Weland hydrology is not supported at this site. A small scour area was present at this area, which was about 18" wide and 6" deep. The scoured pattern continued downstream outside of the boundary of the alignment. The land steepens up slope on both sides of the drainage pattern. Farming activities appear to have encroached into the rocky mound area, which may have narrowed the wetland area once observed here.

**Test Site B27** was located in the drainage pattern associated with the northern branch of the area previously mapped as Wetland 35B. The test site was located in a grassy drainage way surrounded by cropland planted to wheat. There was some standing water present. This test site determines support of wetland characteristics referred to as a Category III slope **Wetland 35B(2020)**. **Test Sites B28 and B29** support the wetland/nonwetland boundaries of Wetland 35B(2020). A mounded area (likely a rocky outcrop) dominated by upland vegetative species is located to the south of Wetland 35B(2020) and north of the drainage pattern described in Test Site B26. Wetland 35B(2020), an emergent wetland, is smaller than the previously mapped Wetland 35B, which is no longer supported as previously mapped. Overland flow from the wetland appears to travel downslope through a nonwetland grassy area and cropland; the cropland on the edge of the grassy area was in winter wheat with weed growth (scented mayweed). It is also assumed that the surface water from the wetland may find its way to the rocky substrate indicative of the rock outcrop as previously discussed. Surface water from Wetland 35B(2020) flows to a tributary network previously identified as Tributary W.

***Figure 33.*** Looking upslope at Wetland 35B(2020).

*Figure 34.* Location of Wetland 35B(2020) and Test Sites B26, B27, B28, and B29.



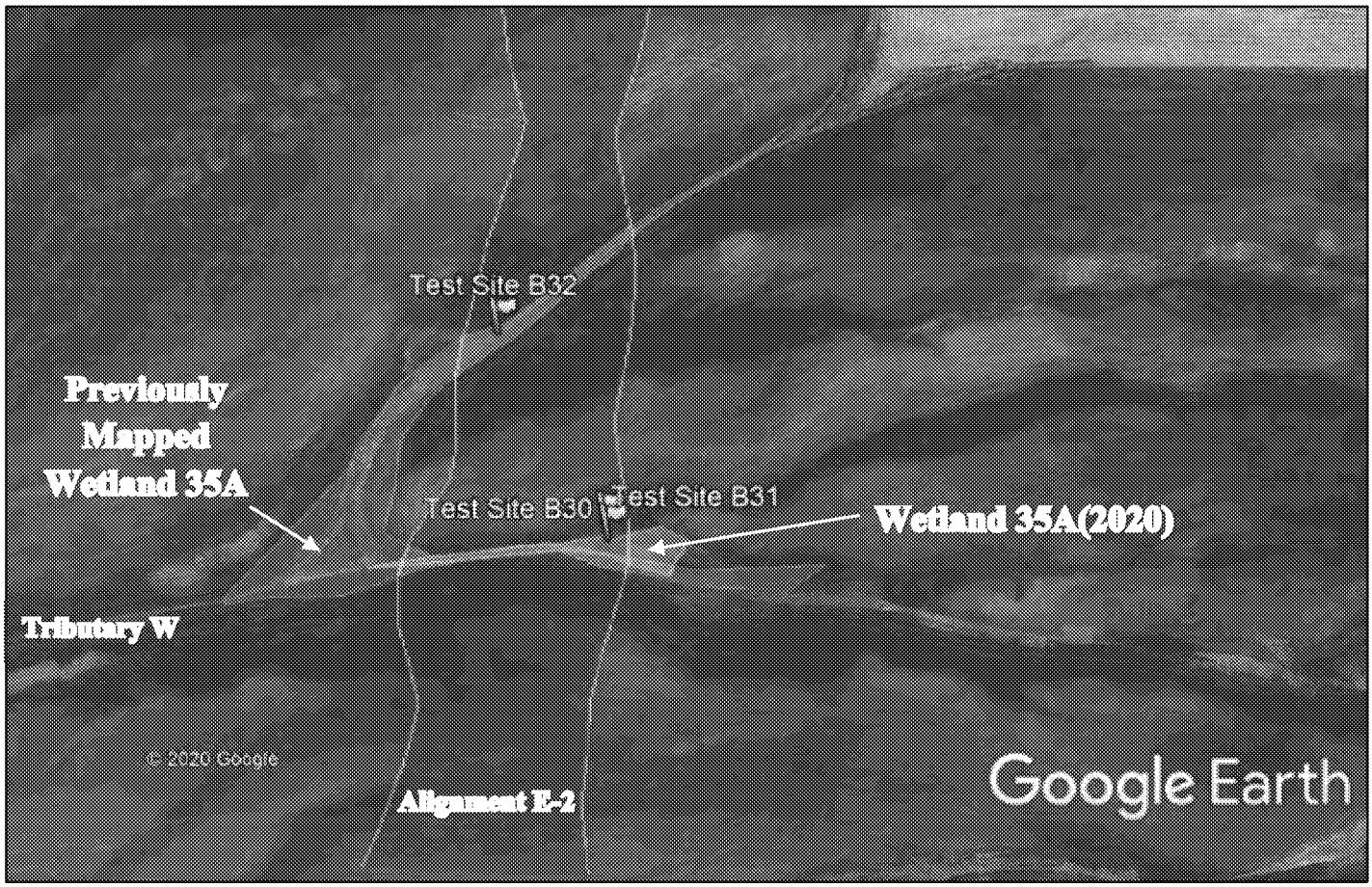

**Test Site B30** was located in a farmed field near a drainage pattern. The site is an agriculturally managed plant community (planted to winter wheat). The wetland area presented soils wet to the surface during the site visit, which defined the boundaries of the wetland. Judging from other test sites in the project area, if the field had not been managed for weed growth and planted to a crop, it would likely support reed canarygrass or meadow foxtail (both FACW wetland indicator status). The site would best be described as a farmed wetland. A small amount of surface water was flowing in the narrow wetland at the time of this site visit, and appears to be coming from a hillside seep. The wetland had previously been mapped as the southern branch of Wetland 35A, with boundaries re-delineated and now referred to as Category IV slope **Wetland 35A(2020)**. **Test Site B31** confirmed the wetland/nonwetland boundary of Wetland 35A(2020), which extends up and downslope of the E-2 alignment.

**Test Site B32** was located in a farmed field drainage pattern where a scoured ditch appears to carry surface water flow (the ditch was approximately 12 inches wide and 4 inches deep with relatively steep side slopes along the ditch). The previously mapped northern branch of Wetland 35A is no longer supported in the area as farming practices have appeared to shape the land in such a way that the wetland features are now better described as a tributary.

***Figure 35.*** Looking upslope at Test Site B32, previously mapped as the northern branch of Wetland 35A.

***Figure 36.*** Looking north at Wetland 35A(2020).

*Figure 37.* Location of Wetland 35A(2020) and Test Sites B30, B31, and B32.



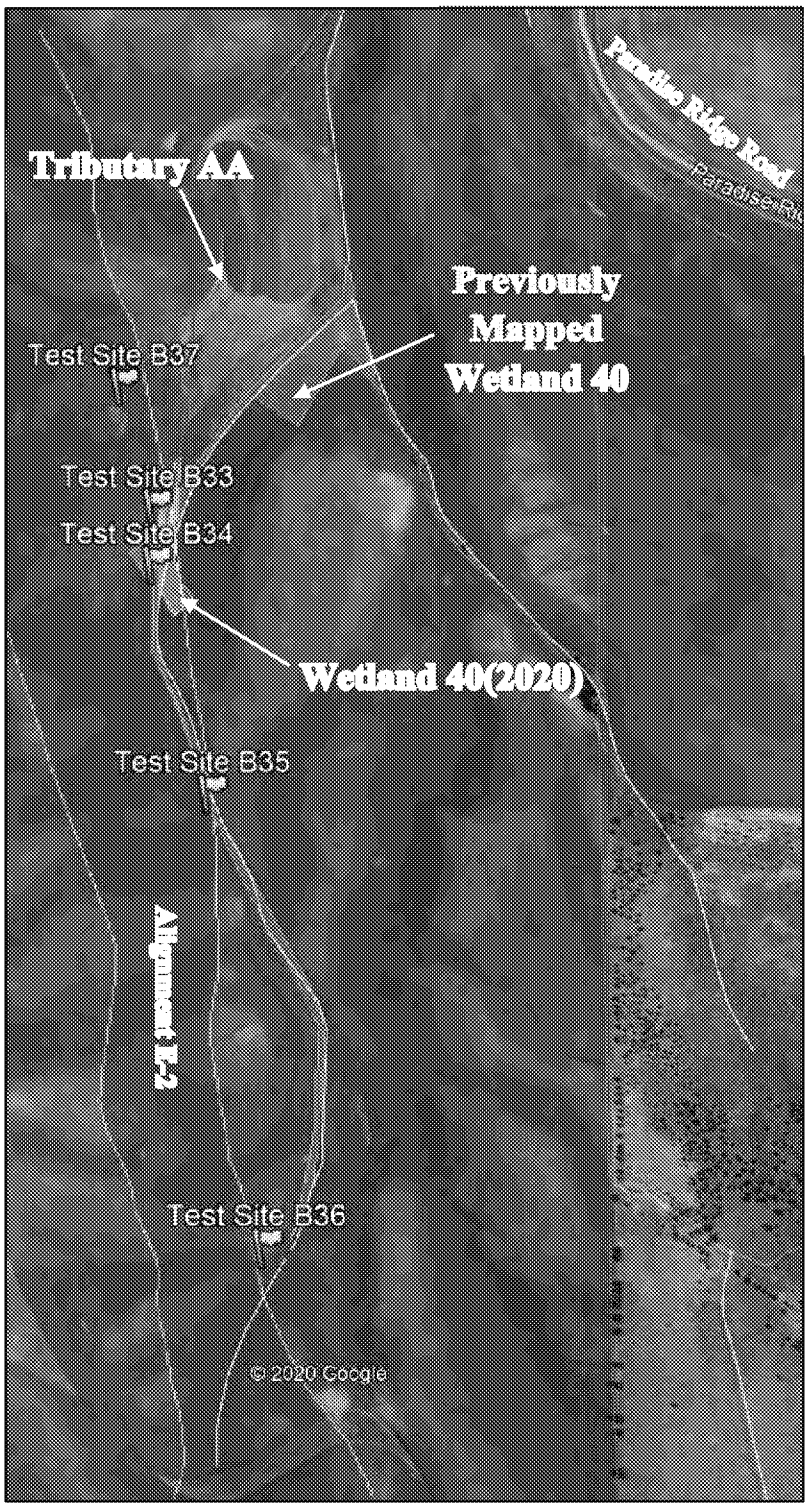

**Test Site B33** was located in a farm field; the grasses have been sprayed out and crops planted in the adjacent field. The area looks to have been chiseled or plowed through. The test site confirms wetland presence in an area previously mapped as Wetland 40, re-delineated and referred to as Category IV slope **Wetland 40(2020)**. The emergent wetland can best be described as a farmed wetland. Wetland/nonwetland boundaries were determined with **Test Site B34** (observances in vegetation changes and soil saturation). The wetland extends downstream just out of the alignment prism into previously identified Tributary AA, although the tributary has been excavated into a different drainage pattern than previously mapped (current tributary location was mapped with GPS points in the field). A farmed drainage ditch/tributary flows in a northerly direction to the wetland and is approximately 12 inches wide and 3 inches deep; the ditch is excavated and scoured. **Test Site B35** indicates the previously mapped Wetland 40 does not extend upslope along the ditch/tributary. The ditch/tributary in this area is channelized and approximately 18 to 24 inches deep and 12 inches wide. **Test Site B36** is near the previously identified head of the ditch/tributary, although no tributary or wetland is present within the alignment in this upslope region.

**Test Site B37** was located in an area of the farm field where it appeared that some of the planted crop had been drowned out. There appears to be a small hillside seep in this area, although wetlands were not determined to be supported.

***Figure 38.*** Looking upstream from Wetland 40(2020).

***Figure 39.*** Looking downslope from Test Site B36.

*Figure 40.* Location of Wetland 40(2020) and Test Sites B33, B34, B35, B36, and B37.




**The following figures display current wetland location within the project area.**

*Figure 41.* General location of wetlands within the E-2 alignment.

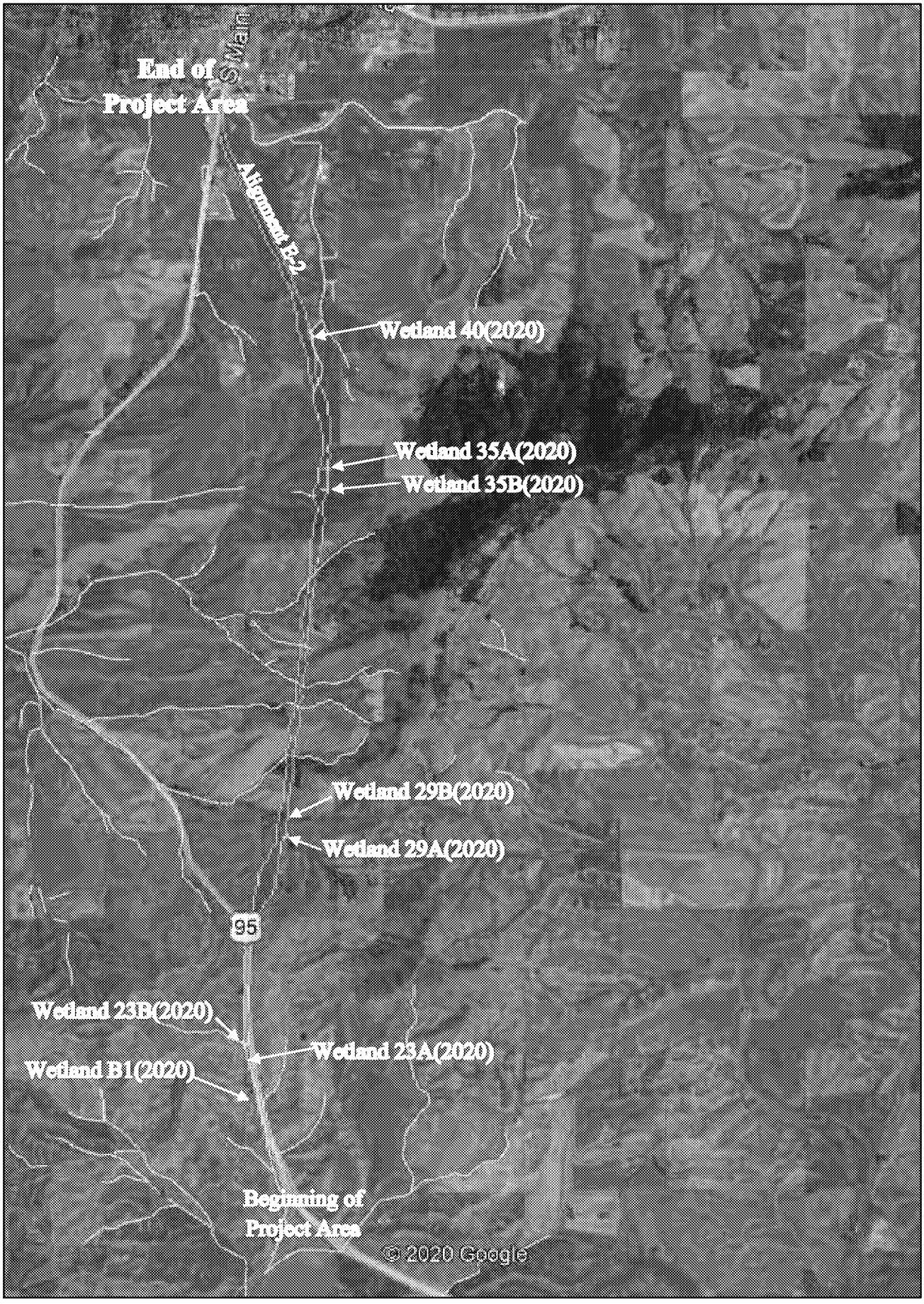


*Figure 42.* Location of Wetland B1(2020), Wetland 23A(2020), Wetland 23B(2020).

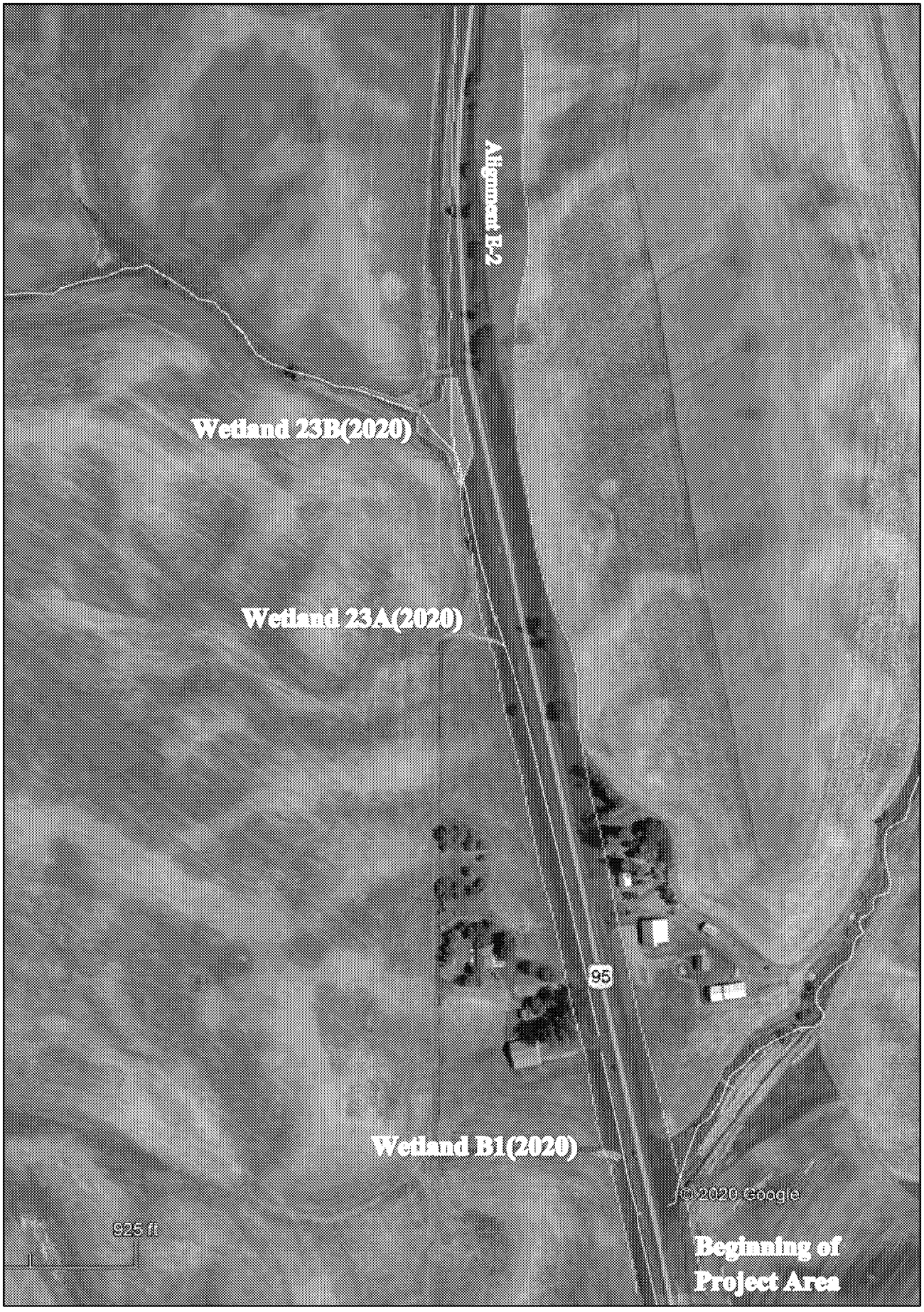


*Figure 43.* Location of Wetland 29A(2020) and Wetland 29B(2020).

*Figure 44.* Location of Wetland 35A(2020) and Wetland 35B(2020).

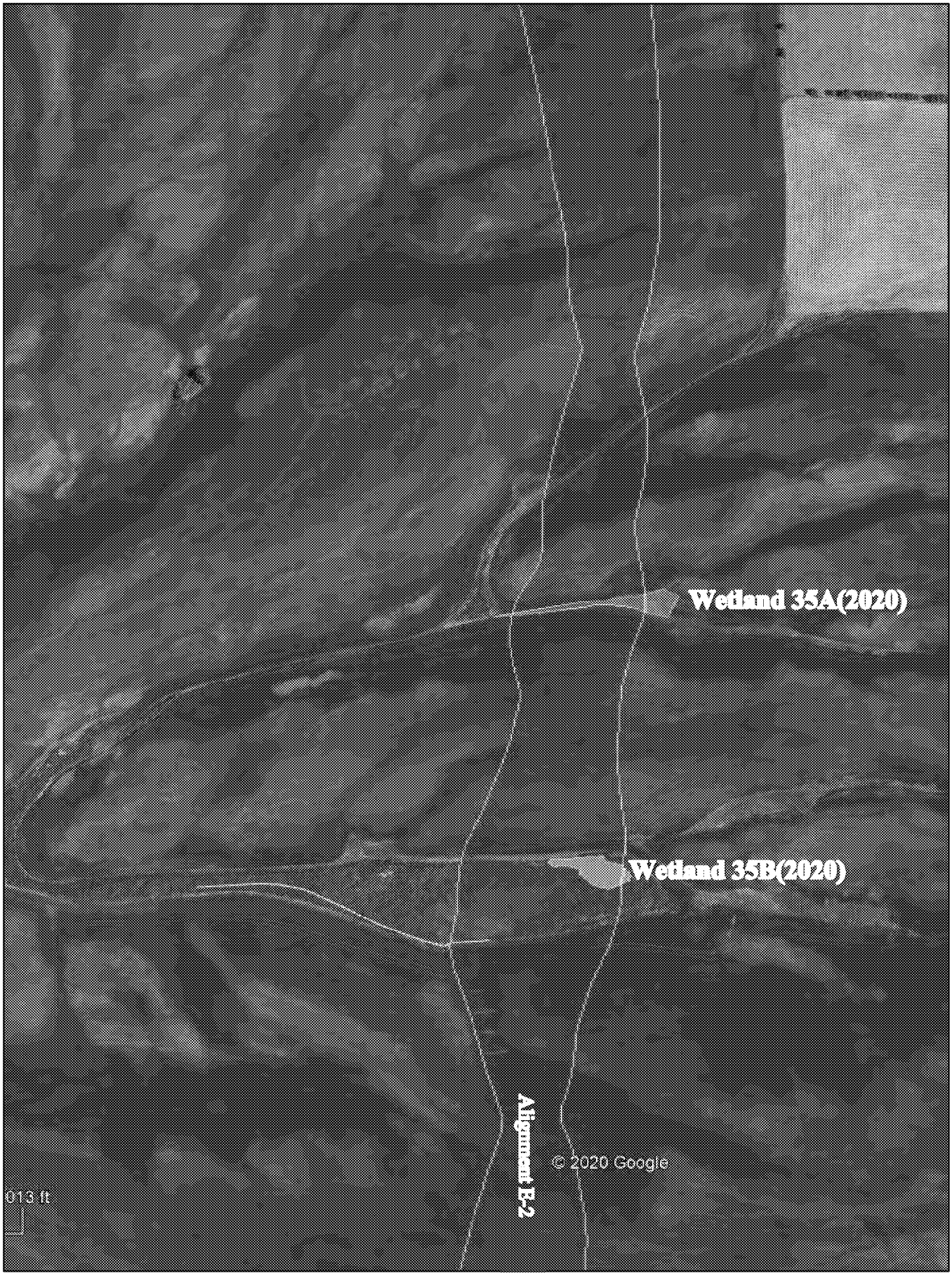
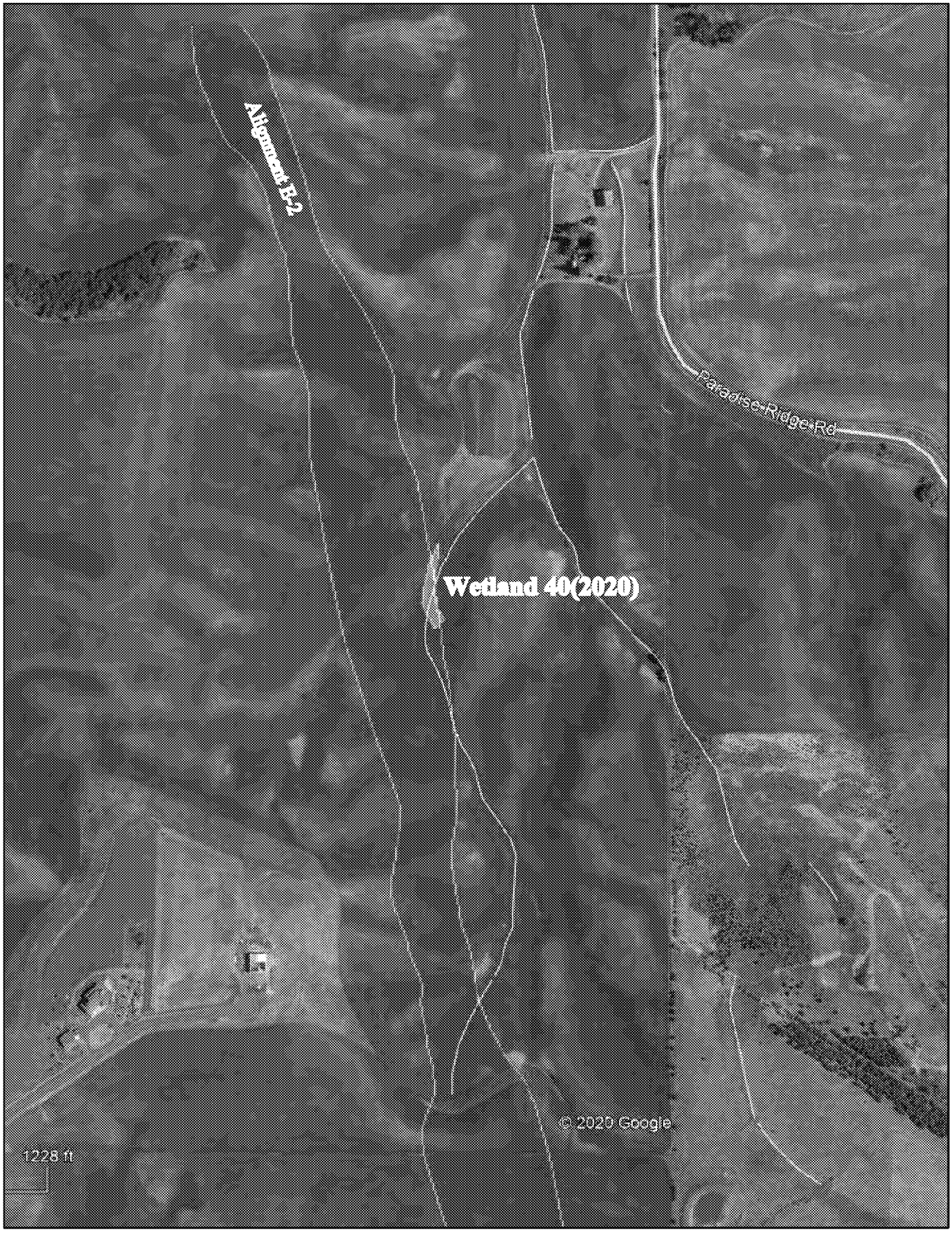


*Figure 45.* Location of Wetland 40(2020).



(Wetland rating forms provided in the June 2020 version 1 report).

***Appendix***

- Data test sheets

Resource Planning Unlimited, Inc.

Shelly Gilmore · 1406 East F Street·Moscow ID 83843 · (208) 883-1806 · rpu@turbonet.com

DATE: September 21, 2020

TO: Shawn Smith, District 2, Idaho Transportation Department (ITD)

FROM: Shelly Gilmore

RE: Thorn Creek Road to Moscow Wetland Delineation of South Connector associated with the US-95 E-2 Alignment

## 1.0 BACKGROUND

Shelly Gilmore, Resource Planning Unlimited, Inc. performed the recognizance work, field inventory, and report writing. The work was requested and authorized by Shawn Smith with the Idaho Transportation Department (ITD), Lewiston, Idaho. ITD provided the project area boundaries.

## 2.0 PROJECT AREA

The project area includes the project limits of the planned south connector, which is designed to connect existing US Highway 95 to the future US-95 E-2 alignment. The legal description of the project area is defined as: Township 38N, Range 5W, Section 7.

## 3.0 SOURCE MATERIALS AND METHODS

Wetland delineation was performed using the Regional Supplement to Corps of Engineers Wetland Delineation Manual: Arid West Region.[1] Field work was performed September 9, 2020.

## 4.0 EXISTING SITE CHARACTERISTICS

The topography of the surrounding area is characterized by gentle rolling hills, primarily in annually cropped farmland. The watershed drains to the South Fork Palouse River through a series of tributaries.

The current US Fish and Wildlife Service National Wetlands Inventory (NWI)[2] for wetlands was reviewed. Riverine wetlands are mapped along an intermittent tributary (identified on the

[1] Arid West Regional Supplement to the Corps of Engineers Wetland Delineation Manual. Environmental Laboratory - US Army Corps of Engineers, Vicksburg, MS. ERDC/EL TR-08-28. September 2008 (as updated).

[2] US Fish and Wildlife Service National Wetlands Inventory wetland mapper accessed 09/16/2020 at http://www.fws.gov/wetlands/Data/Mapper.html



ED_014065B_00000027-00075

topographic map). The tributary was previously identified in Thorn Creek Road to Moscow wetland studies as Tributary Q.

## 5.0 DELINEATION OF WETLANDS AND WATERS OF THE UNITED STATES

Test sites and wetland/nonwetland boundaries were mapped on-site with a handheld GPS unit, with data provided to ITD. Data sheets are included in the appendix.

**Wetland C1** is an emergent wetland in an annually cropped agricultural field. The field had been planted to spring peas and harvested this fall. A small area on the field's northern side was sparsely vegetated, had a cracked soil surface, and farm equipment tire tracks presumably left from when the soils were saturated in the spring of the year. Some scented mayweed was present in the wetland boundaries. Test sites (C1 and C2) were used to verify wetland boundaries. Because the soils within the wetland boundaries were not saturated during this field visit, which was performed during the dry period of the growing season, the wetland area was determined to be the area where a spring crop did not survive, and the non-wetland area was based on the survival of the spring pea crop and its chaff, which was still present in the field.

Surface water from Wetland C1 appears to flow in a northwesterly direction through an ephemeral ditch to a grassy drainage way, which then carries surface water flow in a westerly direction to a relatively deep tributary. A small (approximately 10 inches wide) scour area was present in the cropland field and appeared to be ephemeral and caused by rain events and overland flow. The surface water from the wetland would connect downstream to the South Fork Palouse River via a network of drainage ways, culverts, and tributaries.

A tributary was identified within the project area, identified as **Tributary C-1**. The tributary is positioned at the head of a mapped intermittent tributary identified on the topographic map and flows in a northerly direction. The watershed contributing to the tributary is approximately 37 acres in size (as measured from a topographic map). There was head-cut scour at the beginning (upstream end) of the tributary. A small scour line near the bottom of the tributary was used to define the ordinary high water mark (OHWM). This scour line was approximately 2 feet wide (as measured perpendicular to the predicted flow of water); no surface water was flowing at the time of the site visit, nor was the bottom of the tributary wet or damp.

Another tributary was identified just outside of the project area, identified as **Tributary C-2**. The tributary is not identified on the topographic map. There was head-cut scour at the beginning (upstream end) of the tributary. Flowing in a northerly direction, Tributary C-2 connects downstream to Tributary C-1. The watershed contributing to the tributary is collectively the same area as identified in Tributary C-1. A small scour line near the bottom of the tributary was used to define the OHWM. This scour line was approximately 1 foot wide; no surface water was flowing at the time of the site visit, nor was the bottom of the tributary wet or damp.

A series of test sites (C3, C4, C5, and C6) were used to verify that wetlands were not supported in neighboring drainage patterns or along the identified tributaries.



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FIGURE 1. General project location map.

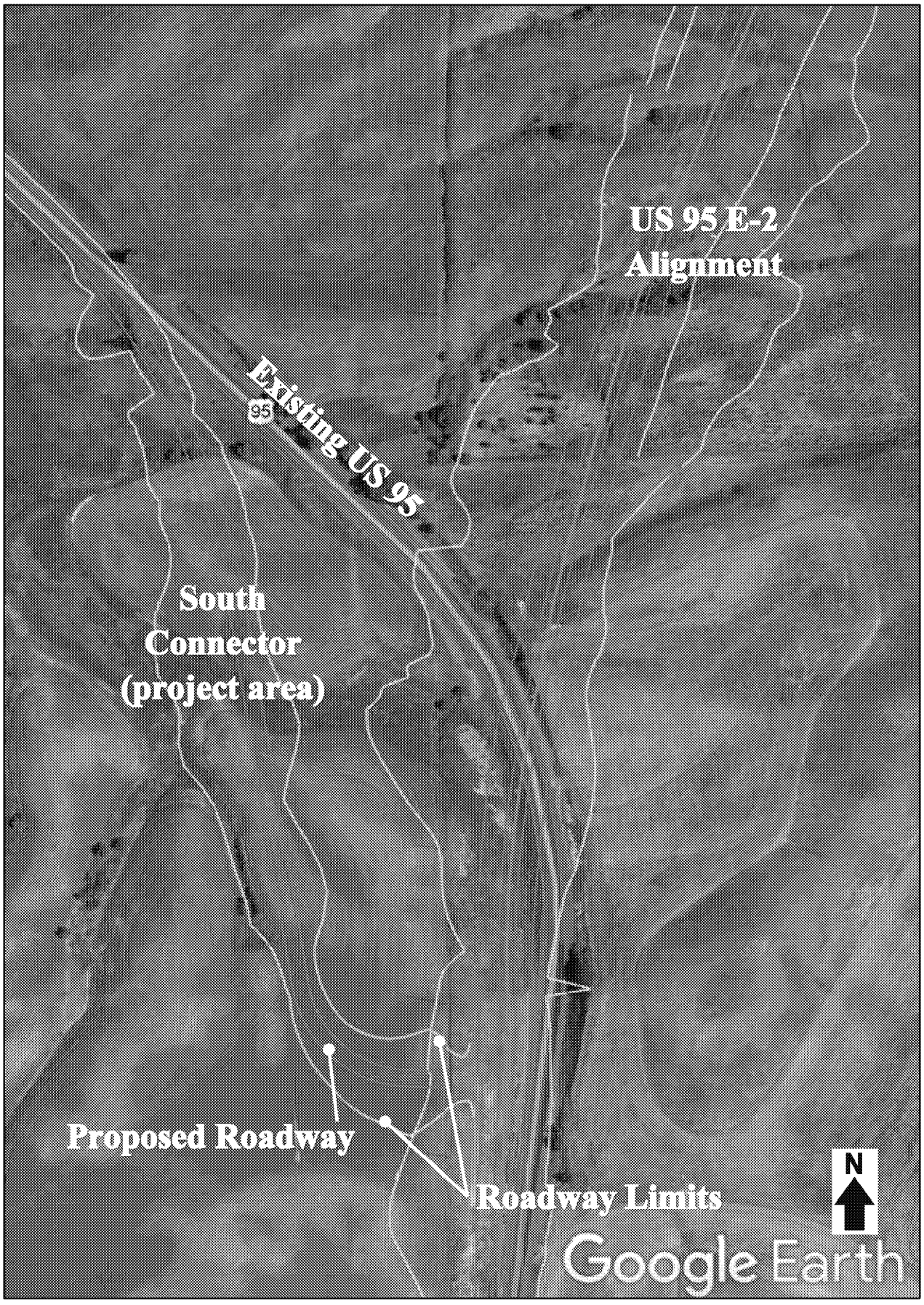


FIGURE 2. Wetland, tributary, and test site (TS) location map.

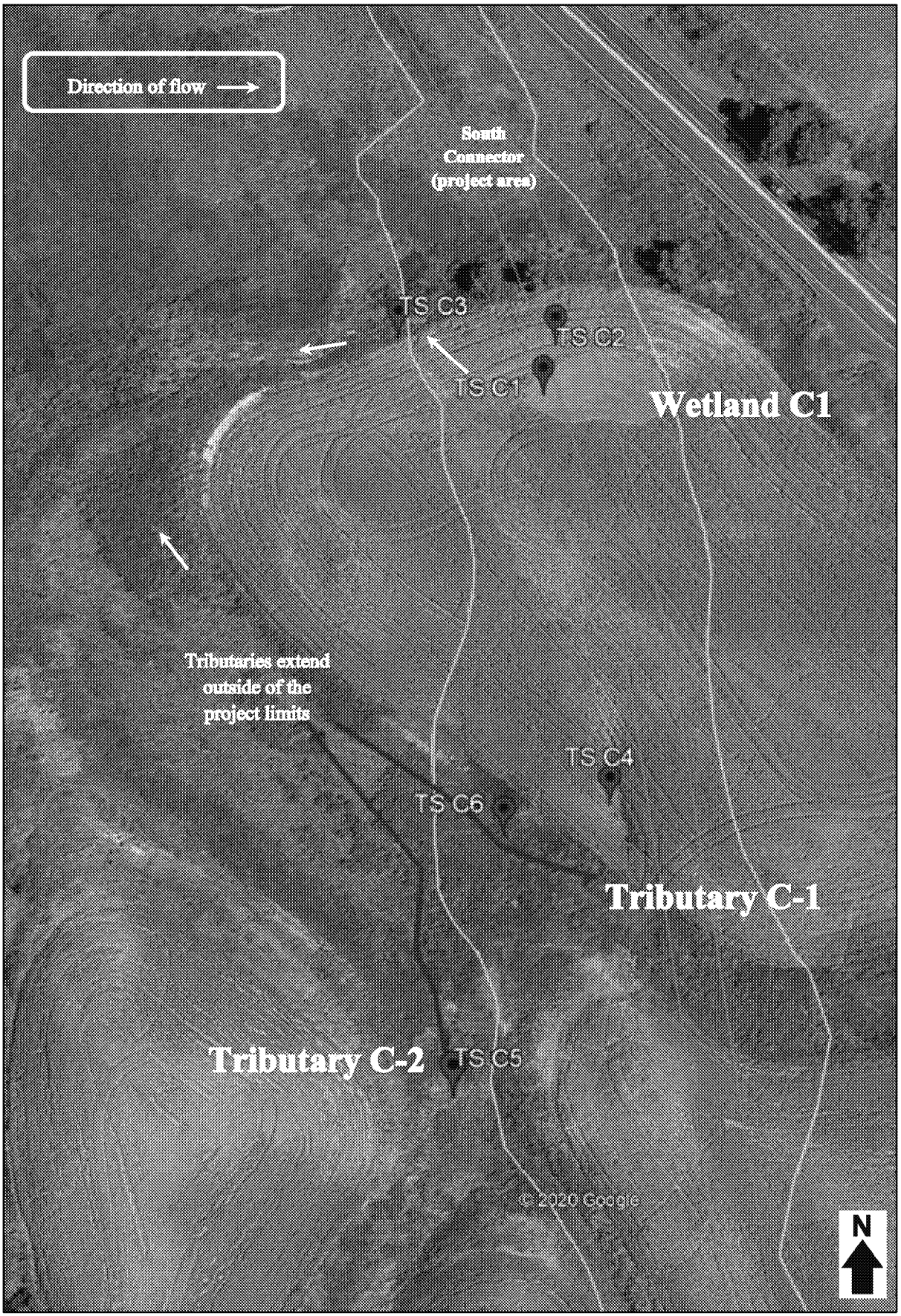
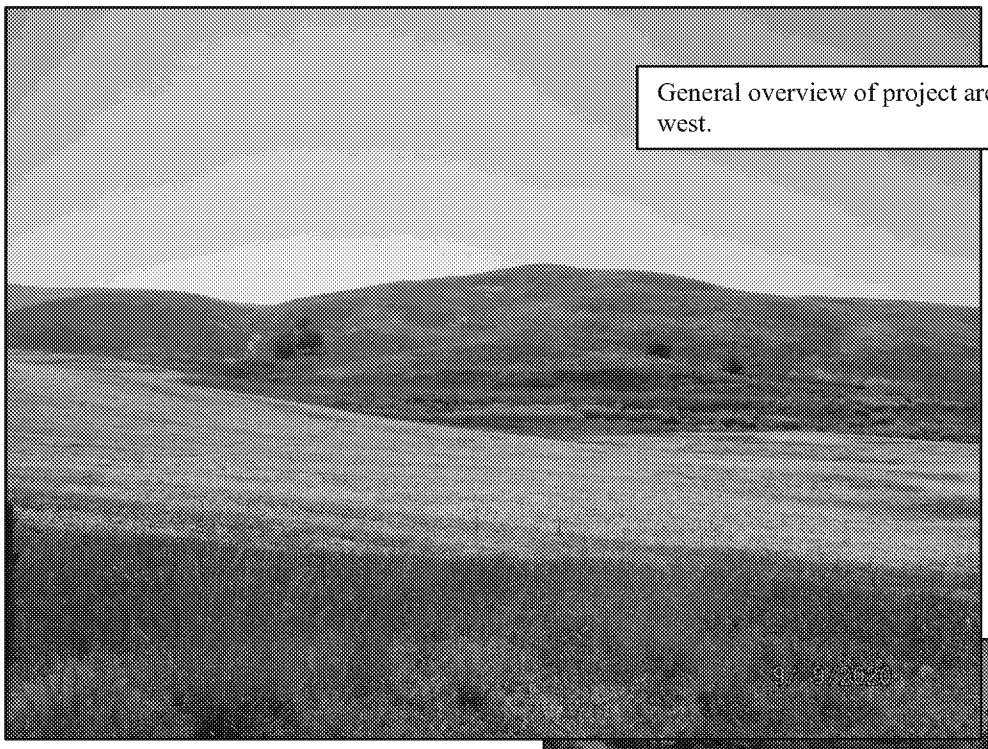
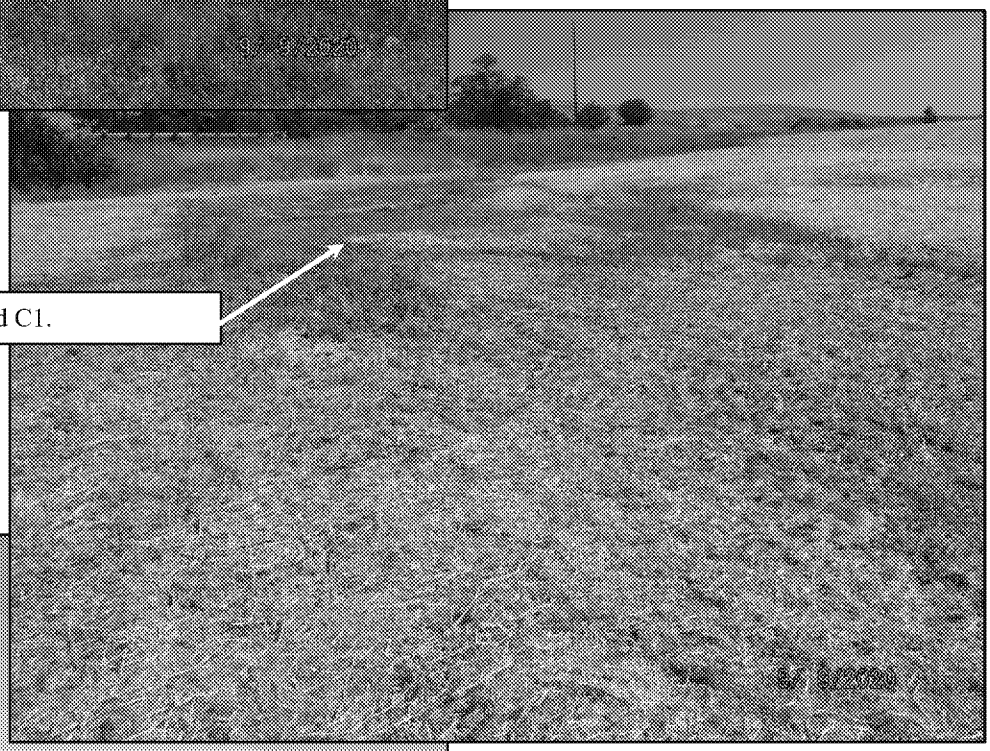


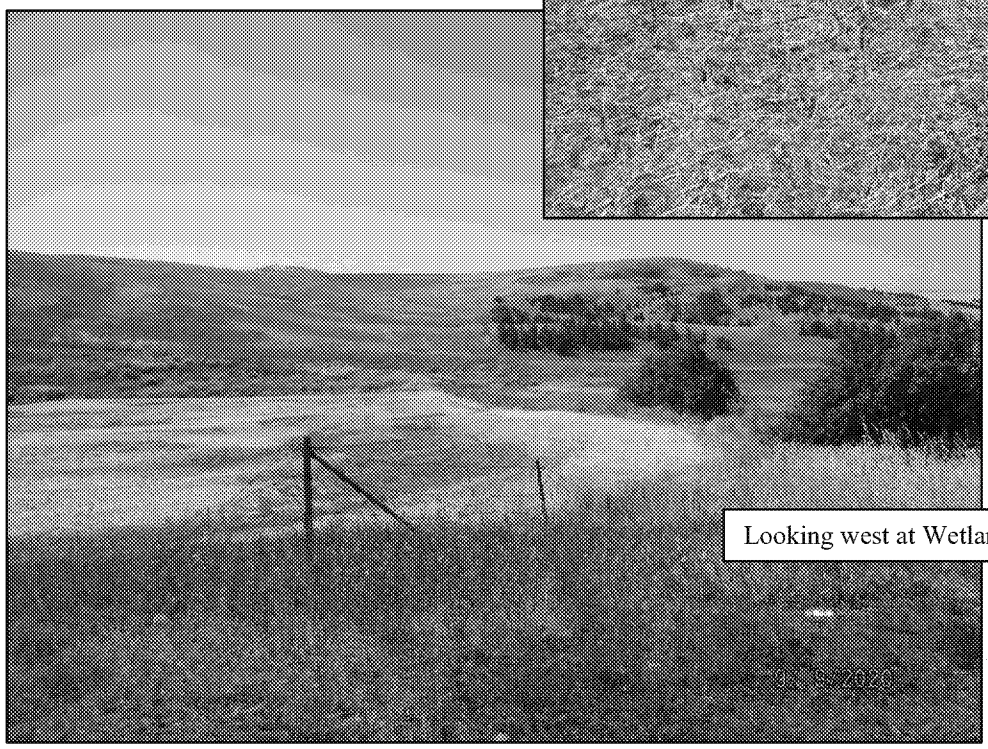
FIGURE 3. Photos of project area.



General overview of project area, looking west.



Looking east at Wetland C1.



Looking west at Wetland C1.

# Appendix A – Data sheets

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Thorncreek Rd to Moscow (E-2 alignment: south connector) City/County: Moscow/Latah Sampling Date: 9/9/2020

Applicant/Owner: Idaho Transportation Department State: ID Sampling Point: C1

Investigator(s): S. Gilmore Section, Township, Range: 7, T38N, R5W

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): Columbia/ Snake River Plateau Lat: 46°39'0.60"N Long: 117° 0'12.79"W Datum: WGS84

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None identified

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** | **Yes ☒ No ☐** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: Test site located in a farm field that was planted to peas and havested this fall. The site has tracks in what appears to be wet soil areas in the spring of the year. The site is significantly disturbed because it is in an annually cropped field, citing that normal circumstances are not present. Determining wetland presence is supported: soils and hydrology are supported. Judging from similar areas in the project area, hydric vegetation such as reed canarygrass and/or meadow foxtail would be supported without seasonal distubance from farming.

## VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size:s) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size:_____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Herb Stratum** (Plot size:20' x 20') | | | |
| 1. *Scented mayweed (Matricaria recutita)* | 40 | yes | NI |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 50% = 20, 20% = 8 | 40 | = Total Cover | |
| **Woody Vine Stratum** (Plot size:_____) | | | |
| 1. | | | |
| 2. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| % Bare Ground in Herb Stratum 75 | % Cover of Biotic Crust 0 | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of : | | Multiply by: | |
|---|---|---|---|
| OBL species | | x1 = | |
| FACW species | | x2 = | |
| FAC species | | x3 = | |
| FACU species | | x4 = | |
| UPL species | | x5 = | |
| Column Totals: | (A) | | (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ☐ No ☒

Remarks: Hydrophytic vegetation is not supported at this test site. Field in annually cropped farming practices, site appears to stay wet into the spring, likely from a hillside seep. If the site was not cropped and managed agriculturally, judging from other sites in the project area, it would support reed canarygrass and/or meadow foxtail.

Project Site: Thorncreek Rd to Moscow (alignment E-2: south connector)

## SOIL

Sampling Point: C1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (Moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0-2 | 10YR 3/1 | 100 | _____ | _____ | _____ | _____ | Silt loam | _____ |
| 2-18 | 10YR 3/1 | 90 | 10YR 3/6 | 10 | C | PL | Silt loam | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: No restrictive layer observed.

Depth (Inches): _____

**Hydric Soils Present?** **Yes** ☒ **No** ☐

Remarks: Soils support hydric soil characteristics.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | | |
|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): _____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): _____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): __ |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Google Earth aerial photos, soil survey, NWI maps, and topographic map reviewed.

Remarks: Weland hydrology is supported at this site. Soils dry at the time of this site visit, but did present oxidation along the roots of the mayweed and the soil surface was cracked in the unvegetated areas.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Thorncreek Rd to Moscow (E-2 alignment: south connector) City/County: Moscow/Latah Sampling Date: 9/9/2020

Applicant/Owner: Idaho Transportation Department State: ID Sampling Point: C2

Investigator(s): S. Gilmore Section, Township, Range: 7, T38N, R5W

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): Columbia/ Snake River Plateau Lat: 46°39'0.98"N Long: 117° 0'12.66"W Datum: WGS84

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None identified

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | |

Remarks: Test site located in a farm field (upslope from Test Site C1) that was planted to peas and havested this fall. The site is significantly disturbed because it is in an annually cropped field, citing that normal circumstances are not present.

## VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size:s) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Herb Stratum (Plot size:20' x 20')** | | | |
| 1. *Spring pea chaff* | 100 | yes | NI |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 50% = 50, 20% = 20 | 100 | = Total Cover | |
| **Woody Vine Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| % Bare Ground in Herb Stratum 0 | % Cover of Biotic Crust 0 | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of : | | Multiply by: | |
|---|---|---|---|
| OBL species | | x1 = | |
| FACW species | | x2 = | |
| FAC species | | x3 = | |
| FACU species | | x4 = | |
| UPL species | | x5 = | |
| Column Totals: | (A) | | (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☐ No ☒**

Remarks: Hydrophytic vegetation is not supported at this test site.

Project Site: Thorncreek Rd to Moscow (alignment E-2: south connector)

## SOIL

Sampling Point: C2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (Moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0-18 | 10YR 2/2 | 100 | ____ | ____ | ____ | ____ | Silt loam | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: No restrictive layer observed.

Depth (Inches): ____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Soils do not support hydric soil characteristics.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | | |
|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): ____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): ____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): __ |

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Google Earth aerial photos, soil survey, NWI maps, and topographic map reviewed.

Remarks: Weland hydrology is not supported at this site. Soils dry at the time of this site visit; site visit is during the dry period of the year, although hydric soils and hydrophitic vegetation are not supported.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Thorncreek Rd to Moscow (E-2 alignment: south connector) City/County: Moscow/Latah Sampling Date: 9/9/2020

Applicant/Owner: Idaho Transportation Department State: ID Sampling Point: C3

Investigator(s): S. Gilmore Section, Township, Range: 7, T38N, R5W

Landform (hillslope, terrace, etc.): Drainage pattern Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): Columbia/ Snake River Plateau Lat: 46°39'1.05"N Long: 117° 0'14.40"W Datum: WGS84

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None identified

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: Test site located in small westerly sloping drainage pattern, appears to be receiving seasonal water from a roadway cross culvert. The test site is a grassy strip between cropland and pastureland.

## VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size:s) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Herb Stratum (Plot size:20' x 20')** | | | |
| 1. *Reed canarygrass (Phalaris arundinacea)* | 100 | yes | FACW |
| 2. *Canada thistle (Cirsium arvense)* | 25 | yes | FACU |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 50% = 62.5, 20% = 25 | 125 | = Total Cover | |
| **Woody Vine Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 1 | (A) |
| Total Number of Dominant Species Across All Strata: | 2 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 50 | (A/B) |

**Prevalence Index worksheet:**

| | Total % Cover of : | Multiply by: | |
|---|---|---|---|
| OBL species | | x1 = | |
| FACW species | 100 | x2 = | 200 |
| FAC species | | x3 = | |
| FACU species | 25 | x4 = | 100 |
| UPL species | | x5 = | |
| Column Totals: | 125 (A) | | 300 (B) |

Prevalence Index = B/A = 2.4

**Hydrophytic Vegetation Indicators:**

- ☐ Dominance Test is >50%
- ☒ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: Hydrophytic vegetation is supported at this test site.

Project Site: Thorncreek Rd to Moscow (alignment E-2: south connector)

## SOIL

Sampling Point: C3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (Moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0-18 | 10YR 2/2 | 100 | | | | | Silt | Soils very dry and chalky |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: No restrictive layer observed.

Depth (Inches): _____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Soils do not support hydric soil characteristics.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | | |
|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): _____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): _____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): __ |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Google Earth aerial photos, soil survey, NWI maps, and topographic map reviewed.

Remarks: Weland hydrology is supported at this site by 2 secondary indicators. Soils very dry at the time of this site visit-site visit is during the dry period of the year; because hydric soils and hydrophitic vegetation are not supported, did not default to wetland hydrology support because the site visit was performed in the dry time of the year.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Thorncreek Rd to Moscow (E-2 alignment: south connector) City/County: Moscow/Latah Sampling Date: 9/9/2020

Applicant/Owner: Idaho Transportation Department State: ID Sampling Point: C4

Investigator(s): S. Gilmore Section, Township, Range: 7, T38N, R5W

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): Columbia/ Snake River Plateau Lat: 46°38'57.52"N Long: 117° 0'12.07"W Datum: WGS84

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None identified

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | | |

Remarks: Test site located in a farm field that was planted to peas and havested this fall. The site is significantly disturbed because it is in an annually cropped field, citing that normal circumstances are not present.

## VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size:s) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Herb Stratum (Plot size:20' x 20')** | | | |
| 1. *Field horsetail (Equisetum arvense) FAC* | 100 | yes | FAC |
| 2. *Scented mayweed (Matricaria recutita)* | 10 | no | NI |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 50% = 55, 20% = 22 | 110 | = Total Cover | |
| **Woody Vine Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| % Bare Ground in Herb Stratum 0 | % Cover of Biotic Crust 0 | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 1 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of : | | Multiply by: | |
|---|---|---|---|
| OBL species | | x1 = | |
| FACW species | | x2 = | |
| FAC species | | x3 = | |
| FACU species | | x4 = | |
| UPL species | | x5 = | |
| Column Totals: | (A) | | (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: Hydrophytic vegetation is supported at this test site, Equisetum in a dense patch along hillside slope.

Project Site: Thorncreek Rd to Moscow (alignment E-2: south connector)

## SOIL

Sampling Point: C4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (Moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0-19 | 10YR 2/2 | 99 | 10YR 4/4 | 1 | C | M | Silt loam | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: No restrictive layer observed.

Depth (Inches): _____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Soils do not support hydric soil characteristics, hardly detectable (very few) redox features.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | | |
|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): _____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): _____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): __ |

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Google Earth aerial photos, soil survey, NWI maps, and topographic map reviewed.

Remarks: Weland hydrology is not supported at this site. Soils dry at the time of this site visit; site visit is during the dry period of the year, although hydric soils and hydrophitic vegetation are not supported.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Thorncreek Rd to Moscow (E-2 alignment: south connector) City/County: Moscow/Latah Sampling Date: 9/9/2020

Applicant/Owner: Idaho Transportation Department State: ID Sampling Point: C5

Investigator(s): S. Gilmore Section, Township, Range: 7, T38N, R5W

Landform (hillslope, terrace, etc.): Drainage pattern Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): Columbia/ Snake River Plateau Lat: 46°38'55.32"N Long: 117° 0'13.78"W Datum: WGS84

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None identified

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: Test site located in small southwesterly sloping drainage pattern, appears to be receiving seasonal water small upland agricultural watershed. Drainage pattern is between annually cropped agricultural fields.

## VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size:s) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Herb Stratum (Plot size:20' x 20')** | | | |
| 1. *Meadow foxtail (Alopecurus pratensis)* | 100 | yes | FACW |
| 2. *Field horsetail (Equisetum arvense)* | 50 | yes | FAC |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 50% = 75, 20% = 30 | 150 | = Total Cover | |
| **Woody Vine Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 2 | (A) |
| Total Number of Dominant Species Across All Strata: | 2 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of : | | Multiply by: | |
|---|---|---|---|
| OBL species | | x1 = | |
| FACW species | | x2 = | |
| FAC species | | x3 = | |
| FACU species | | x4 = | |
| UPL species | | x5 = | |
| Column Totals: | (A) | | (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: Hydrophytic vegetation is supported at this test site.

Project Site: Thorncreek Rd to Moscow (alignment E-2: south connector)

## SOIL

Sampling Point: C5

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (Moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0-18 | 10YR 2/2 | 100 | ____ | ____ | ____ | ____ | Silt loam | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: No restrictive layer observed.

Depth (Inches): ____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Soils do not support hydric soil characteristics.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | | |
|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): ____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): ____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): __ |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Google Earth aerial photos, soil survey, NWI maps, and topographic map reviewed.

Remarks: Weland hydrology is supported at this site by 2 secondary indicators. Soils very dry at the time of this site visit-site visit is during the dry period of the year; because hydric soils and hydrophitic vegetation are not supported, did not default to wetland hydrology support because the site visit was performed in the dry time of the year.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Thorncreek Rd to Moscow (E-2 alignment: south connector) City/County: Moscow/Latah Sampling Date: 9/9/2020

Applicant/Owner: Idaho Transportation Department State: ID Sampling Point: C6

Investigator(s): S. Gilmore Section, Township, Range: 7, T38N, R5W

Landform (hillslope, terrace, etc.): Drainage pattern Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): Columbia/ Snake River Plateau Lat: 46°38'57.28"N Long: 117° 0'13.23"W Datum: WGS84

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: Test site located in small southwesterly sloping drainage pattern, appears to be receiving seasonal water small upland agricultural watershed. Drainage pattern is between annually cropped agricultural fields.

## VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size:s) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |
| **Herb Stratum (Plot size:20' x 20')** | | | |
| 1. *Reed canarygrass (Phalaris arundinacea)* | 100 | yes | FACW |
| 2. *Canada thistle (Cirsium arvense)* | 20 | no | FACU |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 50% = 60, 20% = 24 | 120 | = Total Cover | |
| **Woody Vine Stratum (Plot size:_____)** | | | |
| 1. | | | |
| 2. | | | |
| 50% = _____, 20% = _____ | | = Total Cover | |

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 1 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of : | | Multiply by: | |
|---|---|---|---|
| OBL species | | x1 = | |
| FACW species | | x2 = | |
| FAC species | | x3 = | |
| FACU species | | x4 = | |
| UPL species | | x5 = | |
| Column Totals: | (A) | | (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: Hydrophytic vegetation is supported at this test site. Some Equisetum at the field edge near the test plot area.

Project Site: Thorncreek Rd to Moscow (alignment E-2: south connector)

## SOIL

Sampling Point: C6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (Moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0-20 | 10YR 2/2 | 100 | ____ | ____ | ____ | ____ | Silt loam | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: No restrictive layer observed.

Depth (Inches): ____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Soils do not support hydric soil characteristics.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | | |
|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): ____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): ____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): __ |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Google Earth aerial photos, soil survey, NWI maps, and topographic map reviewed.

Remarks: Weland hydrology is supported at this site by 2 secondary indicators. Soils very dry at the time of this site visit-site visit is during the dry period of the year; because hydric soils and hydrophitic vegetation are not supported, did not default to wetland hydrology support because the site visit was performed in the dry time of the year.

# Memo – OHWM Delineation

To: **Shawn Smith, ITD District 2**
From: **Michelle Anderson, Anderson Environmental Consulting LLC**
Date: **2020/09/28**
Re: **Thorncreek to Moscow Ordinary-High-Water-Mark Delineation**

---

## 1. Purpose:

This memo explains the method used to determine the ordinary high-water mark (OHWM) of the tributaries and square feet of impacts presented in the 404 Permit Application.

## 2. Background:

The US-95 Thorncreek Road to Moscow project will realign 6.34 miles of US-95 just south of the City of Moscow. The new US-95 alignment will be east of existing US-95 and approximately 5.86 miles in length. Wetlands were originally delineated by Resource Planning Unlimited, Inc. using the US Army Corps of Engineers (USACE) methodology, Regional Supplement to Corps of Engineers Wetland Delineation Manual: Arid West Region in 2005, and was then reevaluated in 2012 and again in 2019/2020 (Gilmore, 2005 and 2012). Tributaries in the project area were identified and characterized during the 2005 wetland studies and the Stream Assessment Report prepared by Alta Science & Engineering, Inc., in 2018 (Alta, 2018).

## 3. Methodology:

The US-95 Thorncreek to Moscow 404 Permit Application provides an OHWM which is used to calculate impacts to waters of the US (WOTUS). The OHWM boundaries were identified using a combination of methods and sources including the following:

- Stream Assessment Report (Alta 2018)-Used wetted width, field data and photos.
- OHWM measurements taken during site visit by ITD and USACE in August 2020
- OHWM measurements taken during AEC fieldwork in September 2020. This included tributaries not covered by the previously mentioned reports or site visits.
- ITD used LIDAR derived topographic maps with 1-foot contours to calculate tributary alignment and lengths.

### 3.1. Alta Stream Assessment (April 2018)

The Alta Stream Assessment field data was collected during rainfall events in April of 2018. Wetted width was collected in the field, typically at two sample locations on either side of the alignment for each tributary (except for Tributaries AA, Thorn Creek and Tributary P). Photos were taken at each sample location which showed the relation of the wetted width to the bed and bank, showed absence or change in vegetation, signs of scour and topography.

Stream/wetted width measurements that were available were summed and averaged for each tributary. Where the wetted width was measured within a wetland, such as Wetland 29A, the width was not considered in the sum or average. Instead a OHWM measurement taken during the ITD/USACE site visit in August 2020 was combined

with the other tributary widths data to determine the average OHWM for Tributary U. A map of sample locations and data table showing wetted width are attached.

### 3.2. ITD/USACE August 2020 Site Visit:

On August 25th and 26th, 2020 ITD staff, consultants, Shane Skaar of the USACE, and Alison Young of NRCS, performed a field verification of delineated wetlands throughout the proposed alignment. Although this site visit's primary purpose was to verify wetland boundaries, tributaries were also evaluated and several OHWM measurements were measured on Tributary U near Eid Road, as previously described.

### 3.3. AEC September 2020 OHWM Delineation:

Several streams that will be impacted by the project were not evaluated in the Alta Stream Assessment (Alta 2018), therefore; Anderson Environmental Consulting, LLC (AEC) identified the OHWM for the following Tributaries:

- Thorn Creek
- Tributary P
- Tributary AA

Jacob Taylor of Anderson Environmental Consulting, LLC delineated the OHWM for the tributaries on August 14th, 2020 based on methods identified in A Field Guide to the Identification of the Ordinary-High-Watermark (OHWM) in the Arid West Region of the Western United States (USACE, 2008).

Prior to field work, imagery was analyzed in the project area. Imagery included the National Agricultural Imagery Program (NAIP) 2019 data for Latah County, as well as high resolution aerial imagery collected by Aero-Graphics in 2016. LIDAR derived topographic maps with 1-foot contours was also reviewed.

In the field, cross sections were chosen at locations along the tributaries above and below water regime changes, such as confluences between tributaries, wetlands or seeps. The cross sections, including OHWM, low-flow channels, and active floodplain areas, were drawn on data sheets and recorded using a Trimble Geo 7X handheld GPS. OHWM indicators present were documented on the attached data sheets.

**Thorn Creek**: Four cross sections were recorded along Thorn Creek. This perennial tributary was generally wider and contained more surface water farther north in the project area. As the tributary flows further south in the project area the channel narrows and the surface water is more intermittent in nature, with sections of dry channel at the time of delineation. The average width at OHWM for Thorn Creek is 58 inches or 4.8 feet.

**Tributary P:** Five cross sections were recorded along Tributary P from its' headwater to its' confluence with Thorn Creek. No surface water was observed at the time of delineation. The channel width is relatively consistent and the average OHWM is 30 inches or 2.5 feet.

**Tributary AA:** Two cross sections were recorded on Tributary AA within the project extent, one above and one below wetland 40b. This tributary flows through agricultural fields at the northern end of the project. There is a small seep within the wetland and surface water was flowing downstream of the wetland at the time of delineation. The channel Tributary AA is relatively consistent throughout the project area. The average width at OHWM is 26 inches or 2.2 feet.

See **Table 1** for summary of OHWM measurements taken during the AEC site visit. Photos of cross sections are provided below. Delineation map, a table of GPS point locations, and data sheets are attached.

**Table 1: Summary of Tributary Cross Sections (CS)**

| Tributary width at OHWM in inches | | | | | |
|---|---|---|---|---|---|
| **Thorn Creek** | | | | | |
| CS1 | CS2 | CS3 | CS4 | | Average |
| 26 | 25 | 112 | 69 | n/a | 58 |
| **Tributary P** | | | | | |
| CS5 | CS6 | CS7 | CS8 | CS9 | Average |
| 26 | 46 | 29 | 24 | 23 | 30 |
| **Tributary AA** | | | | | |
| CS10 | CS11 | | | | Average |
| 28 | 24 | n/a | n/a | n/a | 26 |

## 4. Results

The evaluation of OHWM widths were used to determine the average OHWM width and to calculate the square feet of impacts to tributaries. The results are presented in **Table 2** below:

**Table 2. Summary of OHWM Widths**

| Tributary Name | Stationing Beginning | Stationing Ending | OHWM (ft) | OHWM Source |
|---|---|---|---|---|
| **Thorn Creek** | 44+65 | 59+38 | 4.83 | AEC OHWM delineation Sept 2020 |
| **Trib P** | 59+35 | 89+75 | 2.50 | AEC OHWM delineation Sept 2020 |
| **Trib U** | 138+86 | 140+80 | 4.87 | Alta Stream Assessment Report (and field notes) Spring of 2018, and Measurements taken in the field during USACE site visit in August 2020 |
| **Trib U** | 142+63 | 143+14 | 8.13 | Measurements taken in the field during USACE site visit in August 2020 |
| **Trib U** | Eid Rd stn 20 | | 8.13 | Measurements taken in the field during USACE site visit in August 2020 |
| **Trib U** | 158+19 | 160+62 | 2.10 | Alta Stream Assessment Report (and field notes) Spring of 2018 |
| **Trib V** | 174+08 | 174+97 | 3.45 | Alta Stream Assessment Report (and field notes) Spring of 2018 |
| **Trib W** | 179+91 | 181+31 | 16.20 | Alta Stream Assessment Report (and field notes) Spring of 2018 |
| **Trib W** | 209+52 | 212+59 | 4.75 | Alta Stream Assessment Report (and field notes) Spring of 2018 |
| **Trib X** | 233+51 | 233+76 | 2.20 | Alta Stream Assessment Report (and field notes) Spring of 2018 |
| **Trib AA** | 272+66 | 281+03 | 2.17 | AEC OHWM delineation Sept 2020 |
| **Trib Q** | Connector Stn 12 | | 2.00 | Shelly Gilmore Wetland Addendum for Connector Sept 2020 |

**Photo 1: Thorn Creek, CS1, AEC delineation**

**Photo 2: Thorn Creek, CS1, AEC delineation**

**Photo 3: Thorn Creek, CS1, AEC delineation**

**Photo 4: Thorn Creek, CS1, AEC delineation**

**Photo 5: Thorn Creek, CS2, AEC delineation**

**Photo 6: Thorn Creek, CS2, AEC delineation**

**Photo 7: Thorn Creek, CS2, AEC delineation**

**Photo 8: Thorn Creek, CS2, AEC delineation**

**Photo 9: Thorn Creek, CS3, AEC delineation**

**Photo 10: Thorn Creek, CS3, AEC delineation**

**Photo 11: Thorn Creek, CS3, AEC delineation**

**Photo 12: Thorn Creek, CS3, AEC delineation**

Photo 13: Thorn Creek, CS4, AEC delineation

Photo 14 Thorn Creek, CS4, AEC delineation

Photo 15 Thorn Creek, CS4, AEC delineation

Photo 16: Tributary P, CS5, AEC delineation

Photo 17: Tributary P, CS5, AEC delineation

Photo 18: Tributary P, CS5, AEC delineation

Photo 19: Tributary P, CS6, AEC delineation

Photo 20: Tributary P, CS6, AEC delineation

Photo 21: Tributary P, CS6, AEC delineation

Photo 22: Tributary P, CS7, AEC delineation

Photo 23: Tributary P, CS7, AEC delineation

Photo 24: Tributary P, CS7, AEC delineation

**Photo 25: Tributary P, CS8, AEC delineation**

**Photo 26: Tributary P, CS8, AEC delineation**

**Photo 27: Tributary P, CS8, AEC delineation**

**Photo 28: Tributary P, CS9, AEC delineation**

**Photo 29: Tributary P, CS9, AEC delineation**

**Photo 30: Tributary P, CS9, AEC delineation**

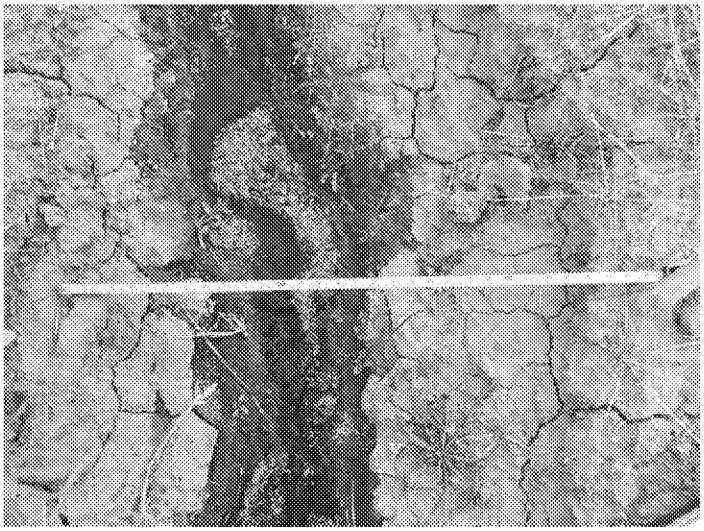


Photo 31: Tributary AA, CS10, AEC delineation

Photo 32: Tributary AA, CS10, AEC delineation

Photo 33: Tributary AA, CS10, AEC delineation

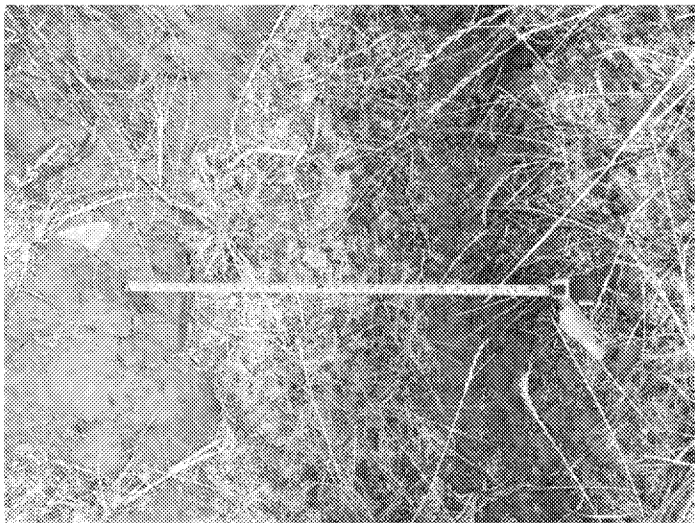


Photo 34: Tributary AA, CS11, AEC delineation

Photo 35: Tributary AA, CS11, AEC delineation

Photo 36: Tributary AA, CS11, AEC delineation

**Photo 37: Tributary Q, Sample Point 12B, Alta Report**

**Photo 38: Tributary V, Sample Point 3a, Alta Report**

**Photo 39: Tributary W, Sample Point 5a, Alta Report**

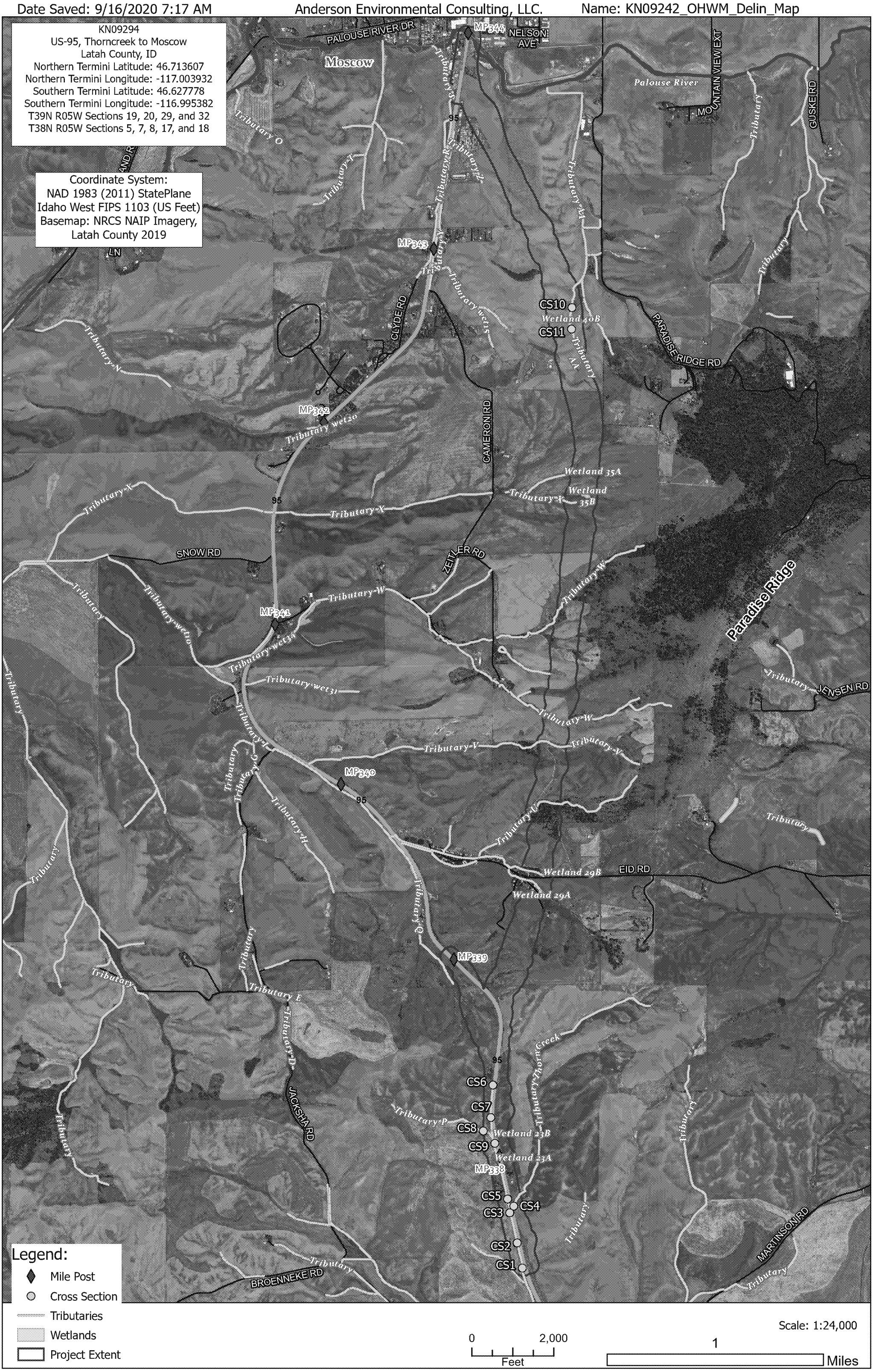
**Photo 40: Tributary W, Sample Point 6a, Alta Report**

**Photo 41: Tributary U, Sample Point 1a Alta Report**

**Photo 42: Tributary U, USACE Site Visit**

# Order of Attachments

1. AEC OHWM Delineation Map
2. AEC GPS Point Table
3. AEC OHWM Datasheets
4. Alta Sampling Location Map
5. Alta Data Table


KN09294
US-95, Thorncreek to Moscow
Latah County, ID
Northern Termini Latitude: 46.713607
Northern Termini Longitude: -117.003932
Southern Termini Latitude: 46.627778
Southern Termini Longitude: -116.995382
T39N R05W Sections 19, 20, 29, and 32
T38N R05W Sections 5, 7, 8, 17, and 18
Coordinate System:
NAD 1983 (2011) StatePlane
Idaho West FIPS 1103 (US Feet)
Basemap: NRCS NAIP Imagery,
Latah County 2019
Moscow
PALOUSE RIVER DR
NELSON AVE
MOUNTAIN VIEW EXIT
GUSKE RD
Palouse River
CLYDE RD
CAMERON RD
PARADISE RIDGE RD
SNOW RD
ZEIT LER RD
Paradise Ridge
JENSEN RD
EID RD
JACKSHA RD
BROENNEKE RD
MARTINSON RD
CS1
CS2
CS3
CS4
CS5
CS6
CS7
CS8
CS9
CS10
CS11
Legend:
Mile Post
Cross Section
Tributaries
Wetlands
Project Extent
Scale: 1:24,000
0
2,000
Feet
1
Miles

| Tributary Name | Cross Section ID | GPS ID | Point Type | Latitude | Longitude |
|---|---|---|---|---|---|
| Thorn Creek | 1 | 1 | ohwm | 46.63148427 | -116.9985854 |
| Thorn Creek | 1 | 2 | ohwm | 46.63148337 | -116.998575 |
| Thorn Creek | 1 | 3 | Active Floodplain | 46.63148568 | -116.9985606 |
| Thorn Creek | 2 | 4 | ohwm | 46.63316328 | -116.9990885 |
| Thorn Creek | 2 | 5 | ohwm | 46.63316515 | -116.9990793 |
| Thorn Creek | 2 | 6 | Active Floodplain | 46.63317107 | -116.9990625 |
| Thorn Creek | 3 | 7 | ohwm | 46.63519362 | -116.9997605 |
| Thorn Creek | 3 | 8 | ohwm | 46.63518575 | -116.9997939 |
| Thorn Creek | 3 | 9 | Low-Flow Channel | 46.63518904 | -116.999781 |
| Thorn Creek | 4 | 10 | ohwm | 46.63562514 | -116.9993753 |
| Thorn Creek | 4 | 11 | ohwm | 46.63563236 | -116.999395 |
| Tributary P | 5 | 12 | ohwm | 46.63610408 | -116.9999857 |
| Tributary P | 5 | 13 | ohwm | 46.63610378 | -116.9999948 |
| Tributary P | 6 | 14 | ohwm | 46.64373033 | -117.0013937 |
| Tributary P | 6 | 15 | ohwm | 46.64373014 | -117.0014093 |
| Tributary P | 6 | 16 | Active Floodplain | 46.64372975 | -117.0014234 |
| Tributary P | 7 | 17 | ohwm | 46.6415599 | -117.00162 |
| Tributary P | 7 | 18 | ohwm | 46.64155624 | -117.0016283 |
| Tributary P | 8 | 19 | ohwm | 46.64065758 | -117.00236 |
| Tributary P | 8 | 20 | ohwm | 46.64065305 | -117.0023586 |
| Tributary P | 8 | 21 | Active Floodplain | 46.6406377 | -117.0023667 |
| Tributary P | 8 | 22 | Active Floodplain | 46.64066135 | -117.0023596 |
| Tributary P | 9 | 23 | ohwm | 46.63983052 | -117.0012448 |
| Tributary P | 9 | 24 | ohwm | 46.63983178 | -117.0012373 |
| Tributary AA | 10 | 25 | ohwm | 46.69574039 | -116.9937407 |
| Tributary AA | 10 | 26 | ohwm | 46.69574038 | -116.9937321 |
| Tributary AA | 11 | 27 | ohwm | 46.69429953 | -116.9937799 |
| Tributary AA | 11 | 28 | ohwm | 46.69430146 | -116.9937729 |

# Arid West Ephemeral and Intermittent Streams OHWM Datasheet

**Project:** Thorn Creek To Moscow
**Project Number:**
**Stream:** Thorn Creek
**Investigator(s):** Jacob Taylor

**Date:** 9/14/20
**Town:**
**Photo begin file#:** Placemark 3

**Time:** 9:30 AM
**State:** ID
**Photo end file#:** Placemark 3

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

**Location Details:** S. End of Project stn 44.5 – 60

**Projection:** ID stateplane **Datum:** NAD 83
**Coordinates:** see map

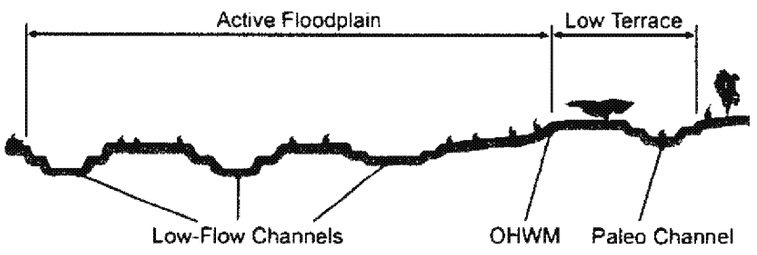
**Potential anthropogenic influences on the channel system:**
irrigation / HWY runoff

**Brief site description:** Mostly reed canary grass ditch line parallel to US-95. Hay field to west

**Checklist of resources (if available):**

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [X] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies
- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

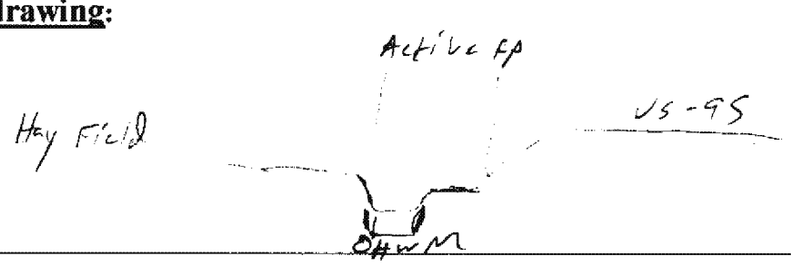



**Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:**

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [ ] Digitized on computer
   - [X] GPS
   - [ ] Other:

**Project ID:** T2M **Cross section ID:** CS1 **Date:** 9/14/20 **Time:** 9:30 AM

**Cross section drawing:**




## OHWM

**GPS point:** TD 1-2

**Indicators:**

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

channel scour, bed and bank. surface water present in channel, 0-3" deep

OHWM 26"

## Floodplain unit:

- [ ] Low-Flow Channel
- [x] Active Floodplain
- [ ] Low Terrace

**GPS point:** TD 3

**Characteristics of the floodplain unit:**

Average sediment texture: fine to medium silt

Total veg cover: ____ % Tree: ____ % Shrub: ____ % Herb: 100 %

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [x] Late (herbaceous, shrubs, mature trees)

**Indicators:**

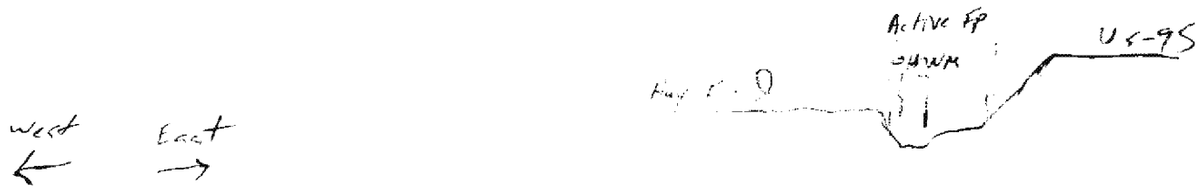
- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [x] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

Typha latifolia growing along the OHWM. Phalaris arundinacea and equisetum arvense growing on terrace within floodplain.

**Project ID:** T2M **Cross section ID:** CS2 **Date:** 9/14/20 **Time:** 10:45 AM

**Cross section drawing:**




## OHWM

**GPS point:** ID 4-5

**Indicators:**

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**
25" OHWM. Bed + bank w/ scour. 5-10% veg cover, equisetum + Rcg
No surface water @ time of delineation

**Floodplain unit:** [ ] Low-Flow Channel [x] Active Floodplain [ ] Low Terrace

**GPS point:** ID 6

**Characteristics of the floodplain unit:**
Average sediment texture: fine to medium silt
Total veg cover: ____% Tree: ____% Shrub: ____% Herb: 100 %
Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [x] Late (herbaceous, shrubs, mature trees)

**Indicators:**

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [x] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

**Comments:**
Small terrace on bury side of channel w/ Rcg

**Project ID:** T2M **Cross section ID:** CS3 **Date:** 9/14/20 **Time:** 11:30

**Cross section drawing:**

**OHWM**

**GPS point:** ID 7-8

**Indicators:**

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**
channel'zed w/ scour, bed + bank, under cut bank on west side.
60% veg above Low Flow channel on East side within OHWM

112" OHWM

**Floodplain unit:** [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

**GPS point:** ID 9

**Characteristics of the floodplain unit:**
Average sediment texture: Very fine silt
Total veg cover: ____% Tree: ____% Shrub: ____% Herb: 0 %
Community successional stage:

- [x] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

**Indicators:**

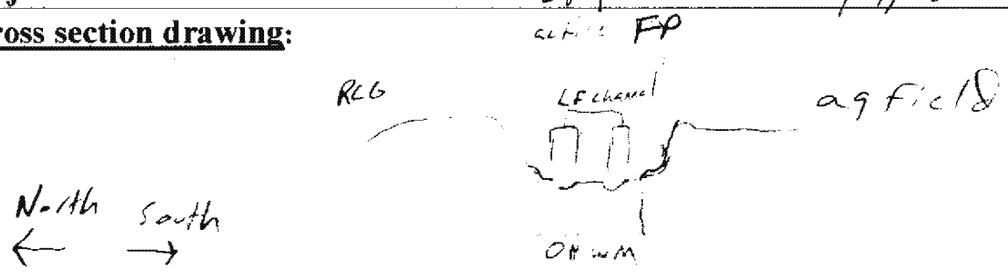
- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

**Comments:**
Low flow channel within OHWM. surface water present @ time of delineation

36" low flow channel

**Project ID:** **Cross section ID:** CS 4 **Date:** 9/14/20 **Time:** 12:00PM

**Cross section drawing:**




**OHWM**

**GPS point:** ID 10-11

**Indicators:**

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [ ] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

69" OHWM
other than in LF channel, 100% veg cover (ICG). steep banks on both sides
obvious slope break in bank slope, channel w/ scour, bed and bank

**Floodplain unit:** [x] Low-Flow Channel x2 [ ] Active Floodplain [ ] Low Terrace

**GPS point:** none

**Characteristics of the floodplain unit:**

Average sediment texture: very fine silt
Total veg cover: ____% Tree: ____% Shrub: ____% Herb: 60 %
Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

**Indicators:**

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

x2 Low flow channels w/ water present, ~20' wide, veg growing less vigorously in channels

# Arid West Ephemeral and Intermittent Streams OHWM Datasheet

**Project:** Thorncreek to Moscow
**Project Number:**
**Stream:** Trib P
**Investigator(s):** Jacob Taylor

**Date:** 9/14/20 **Time:** 12:30 PM
**Town:** **State:** ID
**Photo begin file#:** **Photo end file#:**

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

**Location Details:** Ditchline Parallel to US-95 Stn 60-90

**Projection:** ID state plane W **Datum:** NAD 83
**Coordinates:** See Map

**Potential anthropogenic influences on the channel system:**
Irrigation and HWY runnoff

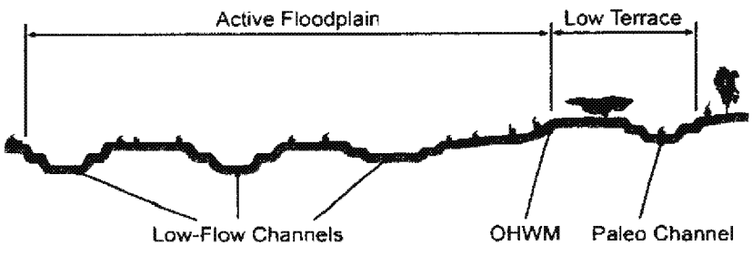
**Brief site description:**
Trib P parralels US-95 on west side at the southern end of a ligament. Ditchline w/ Hwy fill slope on one side and Agricultural fields / rural residences on the other

**Checklist of resources (if available):**

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [X] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

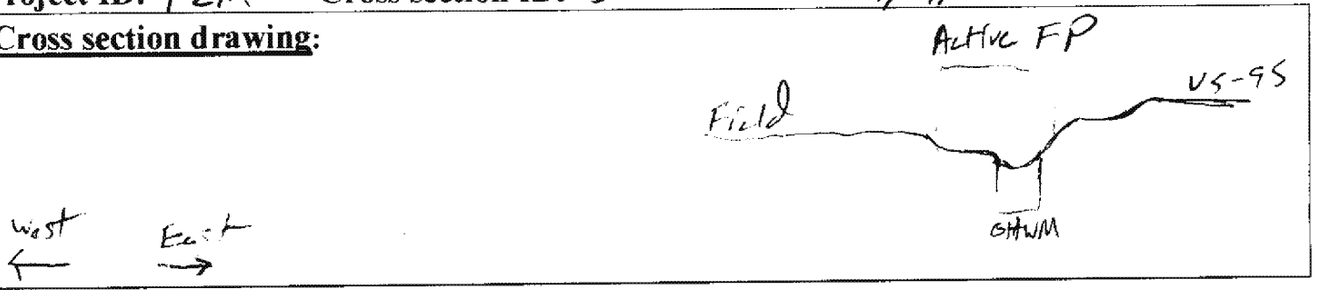



**Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:**

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [ ] Digitized on computer
   - [X] GPS
   - [ ] Other:

**Project ID:** T2M **Cross section ID:** CS5 **Date:** 9/14/20 **Time:** 12:30

**Cross section drawing:**




## OHWM

**GPS point:** ID 12-13

**Indicators:**

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

**Comments:**
26" OHWM
Scour w/ bed and bank, 10-20% veg cover, No surface water present

## Floodplain unit:

☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

**GPS point:** None

**Characteristics of the floodplain unit:**

Average sediment texture: Medium to course sand

Total veg cover: ____% Tree: ____% Shrub: ____% Herb: 100% Reg

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☒ Benches
- ☒ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

**Project ID:** T2M **Cross section ID:** CS 6 **Date:** 9/14/20 **Time:** 1:00

**Cross section drawing:**

## OHWM

**GPS point:** ID 14-15

**Indicators:**

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

20% veg cover, Reg., sediment coarse sand w/gravel. No surface water

OHWM 46"

**Floodplain unit:** [ ] Low-Flow Channel [x] Active Floodplain [ ] Low Terrace

**GPS point:** ID 16

**Characteristics of the floodplain unit:**

Average sediment texture: Very coarse sand w/ gravel

Total veg cover: ____ % Tree: ____ % Shrub: ____ % Herb: 100 % Reg

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [x] Late (herbaceous, shrubs, mature trees)

**Indicators:**

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [x] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

**Project ID:** T2M **Cross section ID:** CS 7 **Date:** 9/14/20 **Time:** 1:40 PM

**Cross section drawing:**

**OHWM**

**GPS point:** ID 17-18

**Indicators:**

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

**Comments:**
Incised ditch. No surface water. channel w/ scour, bed and bank
OHWM 29"

**Floodplain unit:** ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

**GPS point:** _____

**Characteristics of the floodplain unit:**
Average sediment texture: _____
Total veg cover: _____% Tree: _____% Shrub: _____% Herb: _____%
Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

**Project ID:** T2M **Cross section ID:** CS8 **Date:** 9/14/20 **Time:** 2:10 PM

**Cross section drawing:**

**OHWM**

**GPS point:** ID 19-20

**Indicators:**

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

channel w/ scour, bed + bank, surface water present, Just upstream of wetland

OHWM 24'

**Floodplain unit:** ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

**GPS point:** ID 21-22

**Characteristics of the floodplain unit:**

Average sediment texture: fine silt

Total veg cover: ____% Tree: ____% Shrub: ____% Herb: 100%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☒ Benches
- ☒ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

Narrow swale through agricultural fields with channel running through center

**Project ID:** T2M **Cross section ID:** CS9 **Date:** 9/14/20 **Time:** 2:20 PM

**Cross section drawing:**

**OHWM**

**GPS point:** ID 23-24

**Indicators:**

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

Narrow incised ditch near Hwy shoulder. Full of Veg litter. No surface water.

OHWM 23'

**Floodplain unit:** ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

**GPS point:** _____

**Characteristics of the floodplain unit:**

Average sediment texture: _____

Total veg cover: _____% Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

# Arid West Ephemeral and Intermittent Streams OHWM Datasheet

**Project:** The Creek to Moscow
**Project Number:**
**Stream:** Trib A A
**Investigator(s):** Jacob Taylor

**Date:** 9/14/20
**Town:**
**Photo begin file#:**

**Time:** 3:00 PM
**State:** ID
**Photo end file#:**

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

**Location Details:** N end of Project stn 273 – 284

**Projection:** ID StatePlane W **Datum:** NAD 83
**Coordinates:** see map

**Potential anthropogenic influences on the channel system:**
Drainage in agricultural field, may be influenced by irrigation
Area surrounding drainage likely tilled

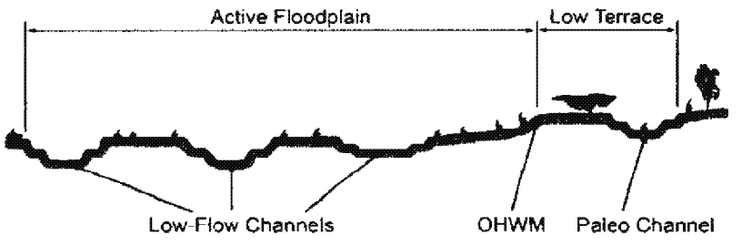
**Brief site description:**
Narrow Draw/drainage through field just downstream of wetland
Seeps upstream of wetland

**Checklist of resources (if available):**

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [X] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units




**Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:**

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [ ] Digitized on computer
   - [X] GPS
   - [ ] Other:

**Project ID:** T2M **Cross section ID:** CS10 **Date:** 9/14/20 **Time:** 3:00 PM

**Cross section drawing:**

**OHWM**

**GPS point:** ID 25-26

**Indicators:**

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

**Comments:**
obvious break in slope w/ bed and bank
surface water present in narrow low flow channel

OHWM 25"

**Floodplain unit:** ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

**GPS point:** none

**Characteristics of the floodplain unit:**
Average sediment texture: Fine silt
Total veg cover: ____ % Tree: ____ % Shrub: ____ % Herb: 5 %
Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

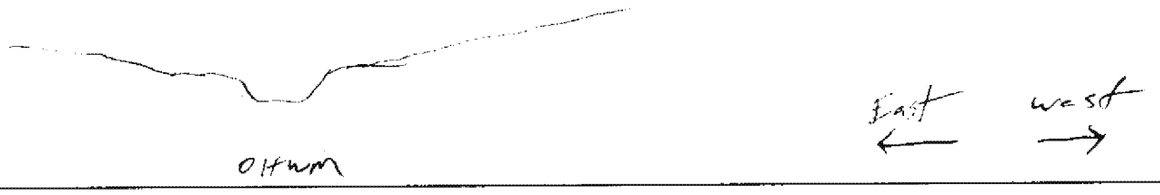
**Indicators:**

- ☒ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☒ Benches
- ☐ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**
11" wide low-flow channel

**Project ID:** TZM **Cross section ID:** CS 11 **Date:** 9/14/20 **Time:** 3:30 PM

**Cross section drawing:**




## OHWM

**GPS point:** ID 27-28

**Indicators:**

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

Obvious break in slope, change w/ scour, bed and bank upstream of wetland. No surface water

OHWM 2.4'

## Floodplain unit:

☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

**GPS point:** _____

**Characteristics of the floodplain unit:**

Average sediment texture: _____

Total veg cover: _____% Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

This map was produced using information obtained from several different sources that have not been independently verified. These sources have also not provided information on the precision and accuracy of the data. Information on this map is not a substitute for survey data.

Moscow

W COLT ROAD
W PALOUSE RIVER DR
E PALOUSE RIVER DR
S MAIN ST
S NURSERY ST
S MOUNTAIN VIEW ROAD
SAND ROAD
PARADISE RIDGE ROAD
CLYDE ROAD
CAMERON ROAD
ZEITLER ROAD
SNOW ROAD
JACKSHA ROAD
BIEKER ROAD
EID ROAD
95
South Fork Palouse River
Thorn Creek North

28A 28B 35A 35B 26A 25A 26B 25B 34A 34B 33A 33B 33C 32A 32B 32C
24 (not sampled)
23 (not sampled)
9 8 7
22A 22B 31A 31B
30A 30B
6A 6B 5.5A 5.5B 5A 5B
21A 21B 20A 20B 19A 19B 18A 18B 17A 17B 16A 16B 29A 29B 15A 15B 14A 14B 13A 13B 12A 12B
4A 4B 3A 3B 2A 2B 1A 1B

N

Sampling and Assessment Location
Tributaries
Roads
Delineated Wetland

**Alternative Routes**

W-4
C-3
E-2
W-4 and C-3

Map Scale: **1:20,000**
1 inch = 1,667 feet

0 1,000 2,000 Feet

U:\Moscow\Clients\Idaho\Thorn_Creek_Road\MXDs\sample_map_20180501.mxd

| | | | | |
|---|---|---|---|---|
| Alta Science & Engineering, Inc. | Print Date: May 2, 2018<br>Project Number: 18010 | Requestor: T. Harju<br>Project Manager: S. Firor<br>Cartographer: B. Bailey | Project Name: Thorn Creek to Moscow Stream Assessment | Figure 2<br>**Sampling and Assessment Locations** |

| Site Name | Date Sampled | Time Sampled | Flow Duration | Average Wetted Width (ft) | Min Bank Height (ft) | Max Bank Height (ft) | Notes |
|---|---|---|---|---|---|---|---|
| Max Potential Score | | | | | | | |
| 01-A | 3/30/2018 | 8:40 | Intermittent | 27.0 | 0.5 | 4.9 | |
| 01-B | 3/30/2018 | 8:55 | Ephemeral | 7.0 | 2 | 4.2 | Very small stream. |
| 02-A | 3/30/2018 | 10:32 | Intermittent | 1.6 | 0.4 | 3 | Cow Parsnip (FACW), So<10% |
| 02-B | 3/30/2018 | 10:45 | Ephemeral* | 2.6 | 0.4 | 1.8 | Cow Parsnip (FACW), So<10% |
| 03-A | 3/30/2018 | 11:25 | Intermittent | 3.2 | 0.3 | 1.7 | Reach located in shallow canyon and is congested with boulders and hawthorne and birch trees. RCG everywhere but a good mix of other plants as well, especially cow parsnip. Hawthorne density caused upstream GPS point to be taken on top of bank. |
| 03-B | 3/30/2018 | 11:35 | Intermittent | 3.7 | 0.3 | 0.6 | Reach located in a shallow canyon between cultivated fields. Channel is congested with medium sized boulders, with cobble along the bed. Channel is steep and fast moving with several steps. Woody debris along reach as well. Canyon walls covered with RCG and hawthorne trees. Stream diverges at the upstream portion of reach and converges again at the middle of the reach. |
| 04-A | 3/30/2018 | 11:55 | Ephemeral | 4.7 | 0 | 1.6 | Small groups of choke cherry bushes along left bank. Channel is relatively flat, but a head cut occurs in the downstream portion. Very small stream. |
| 04-B | 3/30/2018 | 12:05 | Intermittent | 27.7 | 0 | 0 | Reach is a wide floodplain covered with RCG and hawthorne trees. Wetted area goes throughout floodplain. Some braiding under grass is apparent. |
| 05-A | 3/30/2018 | 12:40 | Intermittent | 1.4 | 0 | 0.7 | A pond is located just downstream. Channel is narrow and shallow with small meanders and grass bergs. |
| 05-B | 3/30/2018 | 12:48 | Intermittent | 3.3 | 0 | 0.2 | Stream is located in a narrow flood plain between two cultivated fields. Channel is narrow but shallow. Channel bed is covered with algae and has severl short steps. |
| 05.5-A | 3/30/2018 | 13:00 | Intermittent | 6.4 | 0 | 0.6 | Seems to be a narrow flood plain. Water is shallow and spread out in places. A large patch of dead water extends from the upstream portion. Very grassy. No FACW or OBL |
| 05.5-B | 3/30/2018 | 13:10 | Intermittent | 3.9 | 0 | 0.9 | |
| 06-A | 3/30/2018 | 13:35 | Intermittent | 4.3 | 0.2 | 1.2 | Reach is located in a woody area just south of a cultivated field. Reach has large meanders and is in a large 'S' shape. Area is congested with hawthornes. Area outside is a grassy meadow. |
| 06-B | 3/30/2018 | 13:41 | Intermittent | 5.2 | 0.3 | 1 | Reach is located in a meadow area and is in the middle of a dense tree group. Flow is medium speed and consistant the entire reach. Lots of woody debris. |
| 7 | 3/30/2018 | 14:15 | Ephemeral | 2.2 | 0.1 | 0.6 | Stream is located in a long meadow between cultivated fields. Stream is very shallow with a gently flow. Banks are congested with RCG. A small diver/convergence in upstream end. |
| 8 | 3/30/2018 | 14:30 | Ephemeral | 1.3 | 0.1 | 0.5 | Banks are muddy and unstable. Three drainages converge at upstream end. Very small stream. |
| 9 | 3/30/2018 | 14:57 | Intermittent | 2.4 | 0.1 | 0.4 | |

## Appendix 1 – REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: Walla Walla District

- I am requesting a JD on Property located at: US-95 south of Moscow, ID
  (Street Address)

City/Township/Parish: Moscow County: Latah State: Idaho

Acreage of Parcel/Review Area for JD: ~208 (total acres od cut/fill limits)

Legal: T39N R05W Sections 19, 20, 29, and 32; T38N R05W Sections 5, 7, 8, 17, and 18

Latitude (decimal degrees): 46.672622° Longitude (decimal degrees):-116.997265°

(For linear projects, please include the center point of the proposed alignment.)

- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ___ I currently own this property.
  ___ I plan to purchase this property.
  _X_ I am an agent/consultant acting on behalf of the requestor.
- Reason for request (check as many as applicable)
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ___ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  _X_ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ___ I intend to construct/develop a project or perform activities in navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ___ A Corps JD is required in order to obtain my local/state authorization.
  ___ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ___ I believe that the site may be comprised entirely of dry land.
  ___ Other: _____

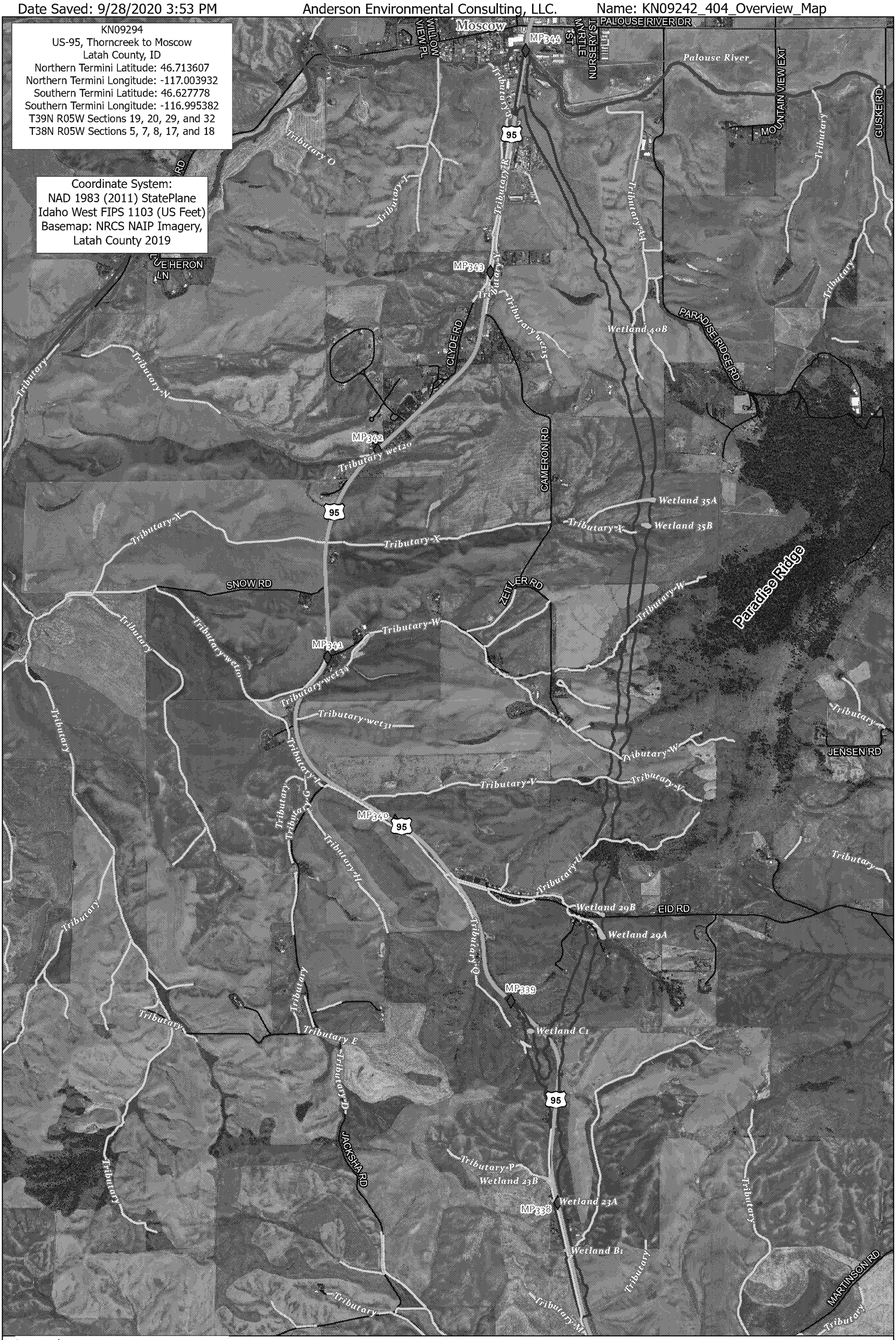
- Type of determination being requested:
  ___ I am requesting an approved JD.
  _X_ I am requesting a preliminary JD.
  ___ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ___ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: 9-28-2020

- Typed or printed name: Michelle Anderson
  Company name: Anderson Environmental Consulting, LLC
  Address: 707 N. Cedar St, ste 1B
  Spokane, WA 99201
  Daytime phone no.: 509-467-2011
  Email address: MCA@aec-enviro.com

***Authorities**: River and Harbors Act, Section 10, 33 USC 403, Clean Water Act, Section 404, 33 USC 1344, Marine Protection Research and Sanctuaries Act, Section 103, 33 USC 1413, Regulatory Program of the U.S. Army Corps of Engineers, Final Rule for 33 CFR Parts 320-332.
**Principle Purpose**: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
**Routine Uses**: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
**Disclosure**: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.


KN09294
US-95, Thorncreek to Moscow
Latah County, ID
Northern Termini Latitude: 46.713607
Northern Termini Longitude: -117.003932
Southern Termini Latitude: 46.627778
Southern Termini Longitude: -116.995382
T39N R05W Sections 19, 20, 29, and 32
T38N R05W Sections 5, 7, 8, 17, and 18
Coordinate System:
NAD 1983 (2011) StatePlane
Idaho West FIPS 1103 (US Feet)
Basemap: NRCS NAIP Imagery,
Latah County 2019
Moscow
PALOUSE RIVER DR
WILLOW VIEW PL
MYRTLE ST
NURSERY ST
Palouse River
MOUNTAIN VIEW EXT
CUSKE RD
95
CLYDE RD
PARADISE RIDGE RD
CAMERON RD
SNOW RD
ZEITLER RD
Paradise Ridge
JENSEN RD
EID RD
JACKSHA RD
MARTINSON RD
Wetland 29B
Wetland 29A
Wetland 23B
Wetland 23A
Wetland 35A
Wetland 35B
Legend:
Tributaries
Project Extent
Wetlands
N
0
2,000
Feet

**PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR (PJD):**
March 9, 2021

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:**
Idaho Transportation Department, District 2
Post Office Box 837
Lewiston, ID 83843

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**
CENWW-RD-BOI, ITD US-95 Thorn Creek to Moscow (KN09294), NWW-2004-0600046

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: (USE THE ATTACHED TABLE BELOW TO DOCUMENT MULTIPLE RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)**
State: ID County/parish/borough: Latah County City: Moscow
Center coordinates of review area (lat/long in degree decimal format):
Lat. 46.678760°, Long. -116.993471°
Universal Transverse Mercator:
Name of nearest waterbody: Thorn Creek

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**
☒ Office (Desk) Determination. Date: March 9, 2021
☒ Field Determination. Date(s): May 21, 2019; July 30, 2019; August 25-26, 2020;

**TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH 'MAY BE' SUBJECT TO REGULATORY JURISDICTION.**

| Site name | Latitude (degrees, minutes, seconds) | Longitude (degrees, minutes, seconds) | Estimated amount of aquatic resource in review area (acreage and linear feet if applicable) | Type of aquatic resource (i.e., wetland vs non-wetland waters) | Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404) |
|---|---|---|---|---|---|
| Thorn Creek | 46.633440° | -116.999251° | 0.174 acres /1574 linear feet | Non-wetland | Section 404 |

| | | | | | |
|---|---|---|---|---|---|
| Tributary P | 46.639634° | -117.001305° | 0.175 acres /3065 linear feet | Non-wetland | Section 404 |
| Tributary Q | 46.649174° | -117.003671° | 0.006 acres /150 linear feet | Non-wetland | Section 404 |
| Tributary U (Station 138-140) | 46.657246° | -116.997539° | 0.042 acres /376 linear feet | Non-wetland | Section 404 |
| Tributary U (Station 142-143) | 46.657941° | -116.997387° | 0.059 acres /318 linear feet | Non-wetland | Section 404 |
| Tributary U (Station 158-160) | 46.662648° | -116.996353° | 0.029 acres /611 linear feet | Non-wetland | Section 404 |
| Tributary V | 46.666453° | -116.995621° | 0.025 acres /317 linear feet | Non-wetland | Section 404 |
| Tributary W (Station 179-181) | 46.668179° | -116.995357° | 0.117 acres /315 linear feet | Non-wetland | Section 404 |
| Tributary W (Station 209-212) | 46.676522° | -116.993860° | 0.043 acres /395 linear feet | Non-wetland | Section 404 |
| Tributary X | 46.682657° | -116.993558° | 0.005 acres /102 linear feet | Non-wetland | Section 404 |
| Tributary AA | 46.694491° | -116.994020° | 0.055 acres /1110 linear feet | Non-wetland | Section 404 |
| Wetland B1 | 46.635841° | -117.000006° | 0.01 acres | Wetland | Section 404 |
| Wetland 23A | 46.639039° | -117.001100° | 0.011 acres | Wetland | Section 404 |
| Wetland 23B | 46.640378° | -117.001540° | 0.413 acres | Wetland | Section 404 |
| Wetland C1 | 46.650117° | -117.003288° | 0.098 acres | Wetland | Section 404 |
| Wetland 29A | 46.656419° | -116.996719° | 0.323 acres | Wetland | Section 404 |
| Wetland 29B | 46.657695° | -116.996568° | 0.041 acres | Wetland | Section 404 |
| Wetland 35A | 46.683071° | -116.992286° | 0.17 acres | Wetland | Section 404 |
| Wetland 35B | 46.684786° | -116.991763° | 0.177 acres | Wetland | Section 404 |
| Wetland 40B | 46.694869° | -116.993881° | 0.21 acres | Wetland | Section 404 |

1. The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as is practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during that administrative appeal, it becomes necessary to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the United States and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for PJD (check all that apply)**

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map:

1) Thorn Creek Road to Moscow Wetland Delineation Review and Technical Report for Areas within the US-95 E-2 Alignment, (KN09294), dated September 22, 2020
2) Thorn Creek Road to Moscow Wetland Delineation of South Connector associated with the US-95 E-2 Alignment, (KN09294), dated September 21, 2020
3) Thorn Creek to Moscow Ordinary-High-Water-Mark Delineation, (KN09294), dated September 28, 2020

☒ Data sheets prepared/submitted by or on behalf of PJD requestor.

☒ Office concurs with data sheets/delineation report:

1) Pages 1-75, Appendix, Thorn Creek Road to Moscow Wetland Delineation Review and Technical Report for Areas within the US-95 E-2 Alignment, (KN09294), dated June 11, 2020
2) Appendix A, Thorn Creek Road to Moscow Wetland Delineation of South Connector associated with the US-95 E-2 Alignment, (KN09294), dated September 21, 2020
3) Pages 14-27, Thorn Creek to Moscow Ordinary-High-Water-Mark Delineation, (KN09294), dated September 28, 2020

☐ Office does not concur with data sheets/delineation report. Rationale.

☒ Data sheets prepared by the Corps:
Site visit dated, Aug 25-26, 2020: W23-1, W28-1, W29-1, W29-2, W29-3, W32-1, W32-2, W32-3, W35B-1, W35B-2, W35B-3, W40-1

☐ Corps navigable waters' study:

☐ U.S. Geological Survey Hydrologic Atlas:

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s).
Cite scale & quad name:

☒ Natural Resources Conservation Service Soil Survey. Citation: TC2M Soil Maps (1-10), dated November 10, 2020

☒ National wetlands inventory map(s). Cite name: NWW-2004-0600046, TC2M (1-3), dated November 9, 2020

☐ State/Local wetland inventory map(s):

☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs:

1) Pages 2, 4, 6, 8, 9, 10, 12, 13-19, 21, and 23, Thorn Creek Road to Moscow Wetland Delineation Review and Technical Report for Areas within the US-95 E-2 Alignment, (KN09294), dated September 22, 2020
2) Page 5, Thorn Creek Road to Moscow Wetland Delineation of South Connector associated with the US-95 E-2 Alignment, (KN09294), dated September 21, 2020

3) Pages 4-10, Thorn Creek to Moscow Ordinary-High-Water-Mark Delineation, (KN09294), dated September 28, 2020

☒ Aerial (Name & Date):

1) Google Earth (June 30, 2015; August 17, 2013; July 24, 2013; August 5, 2011; June 23, 2009)
2) Digital Globe Aerial Imagery (May 29, 2019; June 11, 2019; April 25, 2020; July 26, 2020)

☐ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter:

☒ Other information (please specify): The review area may contain waters of the United States, per 33 CFR 328.1(a)(2) & 33 CFR 328.3(a)(4). Tributary AA flows to the South Fork of the Palouse River which flows to the Palouse River which flows to the Snake River. Tributary V, Tributary U, Tributary W, flow into Tributary Q which flows to Tributary I which flows to Tributary "Wet 10" which flows to the South Fork of the Palouse River which flows to the Palouse River which flows to the Snake River. Tributary X flows to Tributary "Wet 10" which flows to the South Fork of the Palouse River which flows to the Palouse River which flows to the Snake River. The Tributary P flows to Thorn Creek which flows into Union Flat Creek which flows to the Palouse River which flows to the Snake River near RM 59.5. The Snake River is a designated navigable water under Section 10 of the Rivers and Harbors Act from RM 445.5.

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

Shane Skaar, March 9, 2021

Signature and date of Regulatory staff member completing PJD

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

| Applicant: Idaho Transportation Department, D2 | File Number: NWW-2004-0600046 | Date: 3/9/21 |
|---|---|---|
| Attached is: | | See Section below |
| ☐ | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | A |
| ☐ | PROFFERED PERMIT (Standard Permit or Letter of permission) | B |
| ☐ | PERMIT DENIAL | C |
| ☐ | APPROVED JURISDICTIONAL DETERMINATION | D |
| ☑ | PRELIMINARY JURISDICTIONAL DETERMINATION | E |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found in Corps regulations at 33 CFR Part 331 or at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/FederalRegulation.aspx

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

## SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

## POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

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| If you have questions regarding this decision and/or the appeal process you may contact:<br>U.S. Army Corps of Engineers, Walla Walla District<br>ATTN: Kelly Urbanek, Chief, Regulatory Division<br>720 East Park Boulevard, Suite 245<br>Boise, Idaho 83712<br>Telephone: (208) 433-4464<br>Email: Kelly.J.Urbanek@usace.army.mil | For questions about the appeal process, you may also contact:<br><br>U.S. Army Corps of Engineers, Northwestern Division<br>ATTN: Melinda Larsen, Regulatory Appeals Review Officer<br>1201 NE Lloyd Blvd., Suite 400<br>Portland, OR 97232<br>Telephone: (503) 808-3888<br>Email: Melinda.M.Larsen@usace.army.mil |

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

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| _____<br>Signature of appellant or agent. | Date: | Telephone number: |

# TRANSFER OF NATIONWIDE PERMIT

When the structures or work authorized by this Nationwide Permit, **NWW-2004-0600046, US-95 Thorn Creek road to Moscow,** are still in existence at the time the property is transferred. The terms and conditions of this Nationwide Permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this Nationwide Permit, the associated liabilities and compliance with the terms and conditions the transferee must sign and date below.

Name of New Owner:

Street Address:

Mailing Address:

City, State, Zip:

Phone Number:

_____ _____

*Signature of TRANSFEREE* *DATE*