PUBLIC NOTICE
Alaska Department of Environmental Conservation (DEC)
Wastewater Discharge Authorization Program/401 Certification
555 Cordova Street, Anchorage AK 99501-2617
Phone: 907-269-6285 | Email: DEC-401Cert@alaska.gov

Notice of Application for State Water Quality Certification

Public Notice (PN) Date: June 3, 2022
PN Expiration Date: June 24, 2022
PN Reference Number: POA-2022-00166
Waterway: Hess Creek

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act (CWA) of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws.

Notice is hereby given that a request for a CWA §401 Water Quality Certification of a Department of the Army Permit application, Corps of Engineers’ Reference Number POA-2022-00166, Hess Creek, has been received for the discharge of dredged and/or fill materials into waters of the United States (WOUS), including wetlands, as described below, and shown on the enclosed project figures/drawings. The public notice and related project figures/drawings are also accessible from the DEC website at http://dec.alaska.gov/water/wastewater/.

Any person desiring to comment on the project with respect to water quality, may submit comments electronically via the DEC public notice site (preferred method) at https://water.alaskadec.commentinput.com/?id=gah5M

Alternatively you may direct written comments or requests for public hearing via email or mail to the address listed above by the Public Notice (PN) expiration date. All comments submitted via mail or email should include the PN reference number listed above in the subject heading. Mailed comments must be postmarked on or before the expiration date of the public notice.

Applicant: Brett Nelson, Alaska Department of Transportation and Public Facilities (ADOT&PF) Northern Region, 2301 Peger Road, Fairbanks, AK 99709, brett.nelson@alaska.gov

Project Name: POA-2022-00166 Hess Creek ADOT Dalton Highway MP 18-37 Reconstruction

Location: The project site is located within the following Sections, Townships, Ranges, and Meridians; and USGS Quad Maps:

<table>
<thead>
<tr>
<th>Township</th>
<th>Range</th>
<th>Section(s)</th>
<th>Meridian</th>
<th>USGS Quad Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>9N</td>
<td>7W</td>
<td>4, 7, 8, 9, 17</td>
<td>Fairbanks</td>
<td>Livengood C-5</td>
</tr>
<tr>
<td>10N</td>
<td>7W</td>
<td>18, 19, 30, 31, 32,33</td>
<td>Fairbanks</td>
<td>Livengood C-5</td>
</tr>
<tr>
<td>10N</td>
<td>8W</td>
<td>3, 4, 5, 6, 8, 9, 10,11, 13, 14, 15, 24</td>
<td>Fairbanks</td>
<td>Livengood C-5</td>
</tr>
<tr>
<td>11N</td>
<td>8W</td>
<td>31</td>
<td>Fairbanks</td>
<td>Livengood C-5</td>
</tr>
<tr>
<td>11N</td>
<td>9W</td>
<td>25, 26, 35, 36</td>
<td>Fairbanks</td>
<td>Livengood C-5</td>
</tr>
<tr>
<td>11N</td>
<td>9W</td>
<td>25, 26</td>
<td>Fairbanks</td>
<td>Livengood C-5</td>
</tr>
</tbody>
</table>
The beginning of the project is located at Dalton Highway Mile Post (MP) 18 at approximately Latitude 65.601411° N., Longitude 149.066394° W.; the end of the project is located at Dalton Highway MP 37 at approximately Latitude 65.759015° N., Longitude 149.375873° W. The project site can be reached by taking the Elliot Highway north out of Fairbanks, Alaska for approximately 82 miles to the start of the Dalton Highway and continuing along the Dalton Highway for approximately 18 miles, approximately 100 miles north of Fairbanks, Alaska.

**Purpose:** The applicant’s stated purpose is to reconstruct the Dalton Highway between MP 18 and MP 37 to improve highway safety and performance, bring the roadway up to current design standards, reduce annual maintenance costs, and improve drainage and fish passage where applicable. For the replacement of Hess Creek Bridge, the applicant’s stated purpose is to widen the bridge to accommodate passing commercial trucks operating at speeds of approximately 50 miles per hour.

**Project Description:** The proposed repairs and upgrades consist of 83.38 acres of permanent impacts from the discharge of approximately 672,201 cubic yards of fill and 23.84 acres of temporary impacts from the discharge of 5,418 cubic yards of fill into waters of the U.S., including wetlands, consisting of the following components as described in Tables 2, 3, and 4.

**Project Components**

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Permanent Impact</th>
<th>Temporary Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road widening and realignment; install new culverts and replace existing culverts (described in Table 3 below); at MP 33 unusable ice-rich material would be placed adjacent to the excavated roadway with a containment berm</td>
<td>72.82 acres (668,854 cubic yards fill)</td>
<td>N/A</td>
</tr>
<tr>
<td>Material Site 65-3-013-2 (MP 19 Quarry)</td>
<td>9.76 acres (Excavation volume unknown; depends on contractor’s use of site)</td>
<td>N/A</td>
</tr>
<tr>
<td>Hess Creek Bridge replacement</td>
<td>0.80 acre (3,347 cubic yards fill)</td>
<td>N/A</td>
</tr>
<tr>
<td>Hess Creek Bridge detour and half-width construction to maintain driving lane during construction</td>
<td>N/A</td>
<td>0.40 acre (4,027 cubic yards fill)</td>
</tr>
<tr>
<td>Two temporary stream diversions, one each at Hot Dog Creek (MP 29.48) and Hot Cat Creek (MP 33.74)</td>
<td>N/A</td>
<td>0.18 acres (2.2 cubic yards fill)</td>
</tr>
<tr>
<td>Widening to accommodate half width construction to maintain driving lane during construction</td>
<td>N/A</td>
<td>0.25 acre (1,389 cubic yards fill)</td>
</tr>
<tr>
<td>Temporary construction work zone, approximately 10 feet beyond the toe of slope for the length of the road corridor project</td>
<td>N/A</td>
<td>23.01 acres</td>
</tr>
</tbody>
</table>

Total: **83.38 acres**

23.84 acres

**Culvert Specifications**

<table>
<thead>
<tr>
<th>Original Size</th>
<th>New Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-inch</td>
<td>36-inch</td>
<td>67</td>
</tr>
<tr>
<td>24-inch</td>
<td>48-inch</td>
<td>5</td>
</tr>
<tr>
<td>30-inch</td>
<td>36-inch</td>
<td>2</td>
</tr>
<tr>
<td>36-inch</td>
<td>48-inch</td>
<td>10</td>
</tr>
<tr>
<td>36-inch</td>
<td>60-inch</td>
<td>1</td>
</tr>
<tr>
<td>42-inch</td>
<td>48-inch</td>
<td>8</td>
</tr>
<tr>
<td>Original Size</td>
<td>New Size</td>
<td>Quantity</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>48-inch</td>
<td>72-inch</td>
<td>1</td>
</tr>
<tr>
<td>60-inch</td>
<td>96-inch</td>
<td>1</td>
</tr>
<tr>
<td>72-inch</td>
<td>156-inch</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Fish Passage Culvert</td>
</tr>
<tr>
<td>No size listed as these would be new culverts</td>
<td>36-inch</td>
<td>7 (New)</td>
</tr>
</tbody>
</table>

Note: 96 culverts would be upgraded as described in Table with the addition of 7 new culverts.

**Permanent Fill Quantities**

<table>
<thead>
<tr>
<th>Fill Type</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Convection Embankment (ACE fill)</td>
<td>23 cubic yards</td>
</tr>
<tr>
<td>Embankment</td>
<td>429,278 cubic yards</td>
</tr>
<tr>
<td>Unusable Excavation</td>
<td>238,858 cubic yards</td>
</tr>
<tr>
<td>Waterway Bedfill</td>
<td>1,281 cubic yards</td>
</tr>
<tr>
<td>Riprap I</td>
<td>330 cubic yards</td>
</tr>
<tr>
<td>Riprap III</td>
<td>2,431 cubic yards</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>672,201 cubic yards</strong></td>
</tr>
</tbody>
</table>

Additional work associated with the proposed project includes the use of three materials sites located in uplands and excavation of 66,350 cubic yards of material within wetlands. Work is proposed from October 2022 to October 2024.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

The permit application and associated documents are available for review. For inquiries or to request copies of the documents, contact dec-401cert@alaska.gov, or call 907-269-6285.

**Disability Reasonable Accommodation Notice**

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act (ADA) of 1990. If you are a person with a disability who may need special accommodation in order to participate in this public process, please contact ADA Coordinator Brian Blessington at 907-269-6272 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 5 days of the expiration date of this public notice to ensure that any necessary accommodations can be provided.
FILE NO.: WRCW001
WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet
PREPARED BY: R&M CONSULTANTS, INC

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017/Z607350000
FILE NO.: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 4
FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION 0652017/Z607350000
PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
REF: ADEC
FIGURE: 5
FILE NO.: 2328.01
WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017/Z607350000

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet

FILE: PREPARED BY: R&M CONSULTANTS, INC
DATE: APR 2022
FIGURE: 12

ALL LOCATIONS ARE APPROXIMATE
0 250 500 1,000 Feet
FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017/2607350000

PREPARED BY: R&M CONSULTANTS, INC

PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 14
A-A' - RECONSTRUCT/WIDEN EXISTING EMBANKMENT

B-B' - ACE SHOULDERS

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

NOT TO SCALE
PREPARED BY: R&M CONSULTANTS, INC.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017/2607350000

PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 16
NOT TO SCALE

PREPARED BY: R&M CONSULTANTS, INC

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017/Z607350000
PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 19
0.28 acres of fill below O.H.W
2,393 cy of riprap
HOT CAT CREEK CHANNEL REALIGNMENT

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017Z657350000

PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 22

NOT TO SCALE
PREPARED BY: R&M CONSULTANTS, INC

TABLE OF WATERWAY REALIGNMENT DETAILS

<table>
<thead>
<tr>
<th>Township</th>
<th>Range</th>
<th>Section</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T009N</td>
<td>R007W</td>
<td>4, 7, 8, 9, 17</td>
<td>Arched</td>
<td>Holzer Dunes</td>
</tr>
<tr>
<td>T010N</td>
<td>R007W</td>
<td>18, 19, 30, 31, 32, 33</td>
<td>Arched</td>
<td>Holzer Dunes</td>
</tr>
<tr>
<td>T010N</td>
<td>R008W</td>
<td>3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 24</td>
<td>Arched</td>
<td>Holzer Dunes</td>
</tr>
<tr>
<td>T011N</td>
<td>R008W</td>
<td>31</td>
<td>Arched</td>
<td>Holzer Dunes</td>
</tr>
<tr>
<td>T011N</td>
<td>R009W</td>
<td>25, 26, 35, 36</td>
<td>Arched</td>
<td>Holzer Dunes</td>
</tr>
<tr>
<td>T011N</td>
<td>R009W</td>
<td>25, 26</td>
<td>Arched</td>
<td>Holzer Dunes</td>
</tr>
</tbody>
</table>
NOT TO SCALE

PREPARED BY: R&M CONSULTANTS, INC.

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017Z607350000
PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 23

DETOUT TYPICAL SECTION
TEMPORARY WETLAND IMPACTS

TEMPORARY WETLAND IMPACTS

NOTES:
1. GRASS TO PT B eyond the SP slope or to far lower hlev is good.
2. Open channel of temporary diversion is far too much. Generally use slumping, freeboard for temporary
   diversion capacity in case of heavy open.
3. Cross section side channel color not necessary, although color can help delineate.
4. Cross section side channel color not necessary, although color can help delineate.

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017Z607350000
PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 23

DETOUT TYPICAL SECTION
TEMPORARY WETLAND IMPACTS

TEMPORARY WETLAND IMPACTS

NOTES:
1. GRASS TO PT B eyond the SP slope or to far lower hlev is good.
2. Open channel of temporary diversion is far too much. Generally use slumping, freeboard for temporary
   diversion capacity in case of heavy open.
3. Cross section side channel color not necessary, although color can help delineate.
4. Cross section side channel color not necessary, although color can help delineate.

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017Z607350000
PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 23

DETOUT TYPICAL SECTION
TEMPORARY WETLAND IMPACTS

TEMPORARY WETLAND IMPACTS

NOTES:
1. GRASS TO PT B eyond the SP slope or to far lower hlev is good.
2. Open channel of temporary diversion is far too much. Generally use slumping, freeboard for temporary
   diversion capacity in case of heavy open.
3. Cross section side channel color not necessary, although color can help delineate.
4. Cross section side channel color not necessary, although color can help delineate.

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017Z607350000
PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 23

DETOUT TYPICAL SECTION
TEMPORARY WETLAND IMPACTS

TEMPORARY WETLAND IMPACTS

NOTES:
1. GRASS TO PT B eyond the SP slope or to far lower hlev is good.
2. Open channel of temporary diversion is far too much. Generally use slumping, freeboard for temporary
   diversion capacity in case of heavy open.
3. Cross section side channel color not necessary, although color can help delineate.
4. Cross section side channel color not necessary, although color can help delineate.

FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017Z607350000
PROJ: 2328.01
DATE: APR 2022
REF: ADEC
FIGURE: 23

DETOUT TYPICAL SECTION
TEMPORARY WETLAND IMPACTS

TEMPORARY WETLAND IMPACTS

NOTES:
1. GRASS TO PT B eyond the SP slope or to far lower hlev is good.
2. Open channel of temporary diversion is far too much. Generally use slumping, freeboard for temporary
   diversion capacity in case of heavy open.
3. Cross section side channel color not necessary, although color can help delineate.
4. Cross section side channel color not necessary, although color can help delineate.
NOT TO SCALE
PREPARED BY: R&M CONSULTANTS, INC

DATE: APR 2022
PROJ: 2328.01
FILE NO.: WATERWAY: HESS CREEK
PROPOSED ACTIVITY: HIGHWAY RECONSTRUCTION
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES NORTHERN REGION
DALTON HIGHWAY MP 18-37 RECONSTRUCTION 0652017/2607350000
REF: ADEC
FIGURE: 24
Temporary Wetland Impacts
0.1 acres
1.47 cy of fill
386.6 cy of excavation
Temporary Wetland Impacts
0.08 acres
0.75 cy of fill
380.94 cy of excavation

OPEN CHANNEL DIVERSION

EXISTING DALTON HWY. ROADWAY TO BE OBLITERATED.

USE EXISTING 72" CULVERT AS DIVERSION. REMOVE ONCE CHANNEL REALIGNMENT IS COMPLETE.

PROPOSED 156" CULVERT

PROPOSED 36" OVERFLOW CULVERT

PROPOSED CUT LIMITS, TYP

PROPOSED FILL LIMITS, TYP

EXISTING WATERWAY
PROPOSED CHANNEL REALIGNMENT
PROPOSED IMPROVEMENTS
CREEK DIVERSION
TEMPORARY WETLAND IMPACTS

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

DALTON HIGHWAY MP 18-37 RECONSTRUCTION
0652017/Z507350000

MP 33.74 CULVERT DIVERSION

APRIL 2022 FIGURE 26
I. Identify the applicable federal license or permit*

Permit License Number: ____________ Federal Agency: ☑ USACE, ☐ FERC, or ☐ Other:

*A copy of the federal permit or license application is required to be submitted with the request for the water quality certification. (18 AAC 15.130, 18 AAC 15.180)

II. Project Proponent and Point of Contact

Applicant Information

<table>
<thead>
<tr>
<th>First</th>
<th>Middle</th>
<th>Last</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brett</td>
<td>Nelson</td>
<td>Alaska DOT&amp;PF</td>
<td>Regional Environmental Manager</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>2301 Peger Road</td>
<td>Fairbanks</td>
<td>AK</td>
<td>99709</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>Phone</th>
<th>Fax (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:brett.nelson@alaska.gov">brett.nelson@alaska.gov</a></td>
<td>907-451-2238</td>
<td></td>
</tr>
</tbody>
</table>

| Point of Contact or Agent Information |

<table>
<thead>
<tr>
<th>First</th>
<th>Middle</th>
<th>Last</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blair</td>
<td>French</td>
<td>AK DOT&amp;PF</td>
<td>Environmental Impact Analyst</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>2301 Peger Road</td>
<td>Fairbanks</td>
<td>AK</td>
<td>99709</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>Phone</th>
<th>Fax (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:blair.french@alaska.gov">blair.french@alaska.gov</a></td>
<td>907-451-2229</td>
<td></td>
</tr>
</tbody>
</table>

Statement of Authorization

I hereby authorize __________________________ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit/certification application.

SIGNATURE OF APPLICANT DATE

III. Name, Location, and Description of Project or Activity

Dalton Highway MP 18-37 Reconstruction

<table>
<thead>
<tr>
<th>Project Name or Title</th>
<th>AK</th>
<th>Latitude (Decimal Degrees, 6 places)</th>
<th>Longitude (Decimal Degrees, 6 places)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dalton Hwy - MP 18-37</td>
<td></td>
<td>65.665384</td>
<td>-149.097476</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AK</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/15/2022</td>
<td>09/30/2023</td>
</tr>
</tbody>
</table>

Directions to the site:

Leave Fairbanks, AK traveling north on the Steese Hwy for 11 miles. At Fox, continue north on the Elliott Hwy for 72 miles to the start of the Dalton Hwy, travel north for 19 miles to the south terminus of the project.

Nature of Activity (Description of project, include all features)

The project consists of reconstructing the Dalton Highway from MP 18 to 37. Specific actions include: improving embankment stability; widening the highway to meet current design standards; improving drainage and replacing cross culverts as necessary; improving horizontal and vertical geometry to meet design standards for 50 mph design speed and improving sight distances; replacing six large diameter culverts at tributaries of Hess Creek; and replacing the Hess Creek Bridge (No. 1213). Four nearby DOT material sites are available for further development to support this project.

Project Purpose (Describe the reason(s) for discharge)

The Dalton Highway MP 18-37 section is a narrow, mostly gravel-surfaced highway with soft shoulders, high embankments and steep grades, limited sight distances due to sharp horizontal and vertical curves, and is constructed over areas of ice-rich permafrost. In addition, there is a general lack of roadside drainage which contributes to embankment failures and ponding storm water.

The section of the highway between MP 18.5 and MP 23 was realigned to its current location and paved in the early 1990s. However, this realigned section is exhibiting substantial embankment failures and pavement distress and is in need of repair. The Dalton Highway MP 23 to MP 37 was constructed to 1970 State of Alaska standards for secondary highways as a service access road, taking advantage of terrain to reduce construction costs. This results in roadway geometry comprised of narrow shoulders, several sharp curves, and numerous steep grades making travel difficult and time consuming.

For fill material, identify the material source: See attachment

Types of material being discharged and the amount of each type in cubic yards:

<table>
<thead>
<tr>
<th>Type</th>
<th>yd³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riprap/Waterway Bedfill</td>
<td>5,440</td>
</tr>
</tbody>
</table>

Borrow/Unusable Ex. | 433,617

Surface area in acres of wetlands or other waters filled: Acres: 73.62 or, linear feet:
Is dredging involved? ☐ Yes, ☑ No; If yes, how much? _______ acres and volume _______ yd³.

a. Is the dredging considered a ☐ new project, or is it ☐ maintenance? If maintenance, how frequent? ____________

b. Proposed Placement of dredged material: (provide center coordinates of placement area)
   ☐ Upland, ☐ in water, ☐ Other: ________________

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
</table>

   c. Has a Tier analysis been conducted of the dredged prism? ☐ Yes, ☐ No; If yes, attach tier analysis and sample results.

   Note: If marked no, this may later be required upon review of request.

   (For example of Tier analysis, see EPA Inland Testing Manual or USACE Seattle District Civil Works DMMP User Manual)

Is any portion of the work already complete? ☐ Yes, ☑ No  If yes, describe the completed work:

IV. Identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters;

Name and location of receiving waters, and geographical extent potentially affected by the proposed discharge:

Hess Creek near MP 24 of the Dalton Highway, and its various tributaries, as well as wetlands (needleleaf shrub scrub and emergent and deciduous shrub scrub dominated), adjacent to the project area between MP 18 and MP 37.

<table>
<thead>
<tr>
<th>Location of potential discharge</th>
<th>Activity</th>
<th>Description</th>
<th>Receiving Waterbody Name</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Dredge</td>
<td>☐ Fill</td>
<td>___________</td>
<td>Hess Creek</td>
<td>see attachment</td>
<td>see attachment</td>
</tr>
<tr>
<td>b. Dredge</td>
<td>☐ Fill</td>
<td>needleleaf and emergent/deciduous shrub scrub</td>
<td>adjacent wetlands</td>
<td>see attachment</td>
<td>see attachment</td>
</tr>
<tr>
<td>c. Dredge</td>
<td>☐ Fill</td>
<td>___________</td>
<td>Hess Creek</td>
<td>see attachment</td>
<td>see attachment</td>
</tr>
<tr>
<td>d. Dredge</td>
<td>☐ Fill</td>
<td>___________</td>
<td>Hess Creek</td>
<td>see attachment</td>
<td>see attachment</td>
</tr>
<tr>
<td>e. Dredge</td>
<td>☐ Fill</td>
<td>___________</td>
<td>Hess Creek</td>
<td>see attachment</td>
<td>see attachment</td>
</tr>
</tbody>
</table>

Is the project within 1,500 feet of a known contaminated site? ☐ Yes, ☑ No (see DEC Contaminated Sites Program website).

If yes, describe the identified contaminated site(s) or groundwater plume within 1,500 feet.

Parameter(s) of Concern: (check all that apply): ☑ Turbidity, ☑ Sediment, ☐ Petroleum Hydrocarbons, ☐ Metals, ☐ Other, _______

Identify the parameters of concern that may be present in your discharge. Consider if other parameters may be present from past activities in the area. Describe if known respective concentrations, persistence, and potential impacts to the receiving water and data on parameters that may alter the effects of the discharge to the receiving water.

Any potential for increase in turbidity of surface water would be short term, during construction activities. Permanent fill placed in wetlands will be long term.

Impaired Waters: Does a discharge of any parameter identified above occur to an impaired waterbody listed as a Category 4 [304(b)] or Category 5 [303(d)] in the current EPA approved Alaska’s Integrated Water Quality Monitoring and Assessment Report? (See http://dec.alaska.gov/water/water-quality/impaired-waters.aspx for the most recently approved report and category listings.)

☐ Yes, ☑ No

If determined necessary and requested by the Department, submit sufficient and credible baseline water quality information for the receiving water which meets the requirements of 18 AAC 70.016(a)(6)(A-C).
Social or Economic Importance (18 AAC 70.016(c)(5)): Provide information that demonstrates the accommodation of important social or economic development. The applicant shall complete either a social OR economic importance analysis (or both) for each affected community in the area where the receiving water for the proposed discharge is located. (If additional space is needed, attach separate sheet)

(A) Social Importance Analysis:
(select one or more areas, and describe below)
- ☐ community services provided;
- ☑ public health or safety improvements;
- ☑ infrastructure improvements;
- ☐ education and training;
- ☐ cultural amenities;
- ☐ recreational opportunities

Describe (checked items above or attach as separate document)

(B) Economic Importance Analysis:
(select one or more areas, and describe below)
- ☐ employment, job availability, and salary impacts;
- ☑ tax base impacts;
- ☐ expanded leases and royalties;
- ☑ commercial activities;
- ☑ access to resources;
- ☑ access to a transportation network

V. Include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge

(Example: Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Include best management practices (BMPs) for sediment and erosion controls that will be implemented to minimize the environmental impacts.)

Please see attachment for a list of wetland avoidance and minimization measures and BMPs.

VI. Include a list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Type of Approval*</th>
<th>Identification Number</th>
<th>Date Applied</th>
<th>Date Approved</th>
<th>Date Denied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Fish &amp; Game</td>
<td>Fish Habitat Permit</td>
<td>ongoing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHPO</td>
<td>106 Clearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USACE</td>
<td>Individual Permit</td>
<td>Concurrent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Would include but is not restricted to zoning, building, and flood plain permits.
Addresses of Adjoining Property Owners, Lessees, Etc. Whose Property Adjoins the Waterbody(s) listed in Section IV (if more than can be entered here, please attach a supplemental list)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Alaska Department of Natural Resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3700 Airport Way</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Address</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fairbanks</td>
<td>AK</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>State</td>
</tr>
<tr>
<td>b.</td>
<td>Name(s)</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Name(s)</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Name(s)</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>Name(s)</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>Name(s)</td>
<td></td>
</tr>
</tbody>
</table>

VII. Attachments:

- [ ] Required: Copy of the federal license or permit requiring certification under 33 U.S.C. 1341 (Clean Water Act, Section 401) to include all accompanying information, contemporaneous with the submission of the application to the federal licensing or permitting agency. (18 AAC 15.130, 18 AAC 15.180)
- [x] Required: Figures and/or Drawings/Plan Sets
- [ ] Tier Analysis of dredged material
- [ ] Sampling Results
- [ ] Baseline Water Quality Information
- [ ] Other/Comments

VIII. Certification Statement:

As per 18 AAC 15.030 signing of applications, all permit or approval applications must be signed as follows:

1) in the case of corporations, by a principal executive officer of at least the level of vice president or his duly authorized representative, if the representative is responsible for the overall management of the project or operation;
2) in the case of a partnership, by a general partner;
3) in the case of a sole proprietorship, by the proprietor; and
4) in the case of a municipal, state, federal or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

Brett Nelson
First Name: Brett
Middle Name: Nelson
Last Name:
Title: Regional Environmental Manager
Company: Alaska DOT&PF
Mailing Address: 2301 Peger Road, Fairbanks, AK 99709
Email: brett.nelson@alaska.gov
Phone: 907-451-2238
Fax (optional):
Signature:

Date: April 20, 2022

Submit the CWA §401 Certification Request to DEC-401Cert@alaska.gov.
Include in the subject line the following:
"CWA §401 Certification Request - [Insert Federal Agency and permit number or license number] - [insert project title]".

Note: DEC does charge a fee for processing CWA §401 water quality certification, see DEC Permit Fee website https://dec.alaska.gov/water/wastewater/fees#IP-Fee
Instructions for Preparing a Request for CWA §401 Certification for an Individual Permit or License

(General Instruction: If more space is needed than what is provided in the form, attach a sheet with the necessary information and indicate the appropriate section for reference.)

I. Identify the applicable federal license or permit
Include the Federal Agency’s permit license number and identify the corresponding agency for which you are applying for the Alaska DEC CWA §401 certification.

II. Project Proponent and Point of Contact
Enter the name, contact information to include the E-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information. Point of Contact or Agent Information to be completed if you choose to have an agent.

III. Name, Location, and Description of Project or Activity

Project Name: Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center. Include location and description of the project or activity.

Estimate Start/End Dates: What are the anticipated start and end dates for project construction?

Location: Provide Latitude & Longitude in decimal degrees with a minimum of five decimal places, example: 61.21688 N Latitude / 149.87875 W Longitude or 61.21688, -149.87875. Provide street address if applicable, and other location descriptions if known. If the facility or project lacks a street address, indicate the general location of the facility (e.g., intersection of x and y).

Directions to the site: Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known.

Nature of the Activity: Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms. The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper.

Project Purpose: Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes rock, sand, clay, concrete, etc.

Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper.

Dredging: Identify if any dredging is involved. If so, quantify the acres and volume to be dredged. Provide an assessment of the dredge prism and sample results to support a Tier analysis. Consult the EPA Inland Testing Manual or the USACE Seattle District Civil Works DMMP User Manual for an example of a Tier analysis of the dredge prism. It is recommended to consult with DEC and Corps prior to conducting sampling during pre-application meetings to avoid delays.

Is any portion of the work already complete: Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps or other federal/state permit, identity the authorization, if possible.

IV. Identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters;

Name and Location of potential discharge. Provide latitude and longitude coordinates (Decimal Degrees, minimum 5 decimal places) of potential discharge. Describe the location if necessary. Include the geographic extent potentially affected by the proposed discharge.
Instructions for Preparing a Request for CWA §401 Certification for an Individual Permit or License

Contaminated Sites: Identify any known contaminated sites within 1,500 feet of the proposed project discharge, to include those known by the applicant or known DEC identified contaminated site either in “Active” or “Cleanup Complete – Institutional Controls” status. For more information, see DEC Contaminated Sites website (dec.alaska.gov/spar/csp.aspx) for ability to search via map, database, and background summaries.

Parameters of Concern: Identify the parameters of concern that may be present in your discharge. Consider if other parameters may be present from past activities in the area. Describe if known respective concentrations, persistence, and potential impacts to the receiving water and data on parameters that may alter the effects of the discharge to the receiving water.

Impaired Waters: Does a discharge of any parameter identified may occur to an impaired waterbody listed as a Category 4 [304(b)] or Category 5 [303(d)] in the current EPA approved Alaska’s Integrated Water Quality Monitoring and Assessment Report? See http://dec.alaska.gov/water/water-quality/impaired-waters.aspx for the most recently approved report and category listings.

Social or Economic Importance Analysis: select as appropriate and provide a description per 18 AAC 70.016(c)(5).

V. Include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge

Nature of potential discharge and potential environmental impacts on the receiving water: Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Include best management practices (BMPs) for sediment and erosion controls that will be implemented to minimize the environmental impacts.

VI. List of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received;

You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for the CWA §401 certification.

VII. Attachments:

Required: Provide a copy of the federal license or permit application requiring certification under 33 U.S.C. 1341 (Clean Water Act, Section 401) to include all accompanying information, contemporaneous with the submission of the application to the federal licensing or permitting agency. This would include all site drawings and maps and illustrations.

VIII. Certification Statement

As per 18 AAC 15.030 Signing of applications, all permit or approval applications must be signed as follows:

5) in the case of corporations, by a principal executive officer of at least the level of vice president or his duly authorized representative, if the representative is responsible for the overall management of the project or operation;

6) in the case of a partnership, by a general partner;

7) in the case of a sole proprietorship, by the proprietor; and

8) in the case of a municipal, state, federal or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

For more information regarding CWA §401 Certifications, see the DEC website at http://dec.alaska.gov/water/wastewater/wetlands, or contact:
Alaska Department of Environmental Conservation
Division of Water – Wastewater Discharge Authorization Program
555 Cordova Street, Anchorage AK 99501
email: dec-401Cert@alaska.gov  Phone: 907-269-6285

Submit the CWA §401 Certification Request to DEC-401Cert@alaska.gov. Include in the subject line the following:
“CWA §401 Certification Request - <Insert Federal Agency and permit number or license number> - <insert project title>”.

Note: DEC does charge a fee for processing CWA §401 water quality certification which will typically be assessed after the certification decision is issued. See DEC Permit Fee website https://dec.alaska.gov/water/wastewater/fees#IP-Fee
**U.S. Army Corps of Engineers (USACE)**

**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**

33 CFR 325. The proponent agency is CECW-CO-R.

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

**PRIVACY ACT STATEMENT**

Authorities: Rivers 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 Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. 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. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: [http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx](http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx)

**ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS**

<table>
<thead>
<tr>
<th>1. APPLICATION NO.</th>
<th>2. FIELD OFFICE CODE</th>
<th>3. DATE RECEIVED</th>
<th>4. DATE APPLICATION COMPLETE</th>
</tr>
</thead>
</table>

**ITEMS BELOW TO BE FILLED BY APPLICANT**

<table>
<thead>
<tr>
<th>5. APPLICANT'S NAME</th>
<th>8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First - Brett</td>
<td>First - Middle - Last -</td>
</tr>
<tr>
<td>Middle - Nelson</td>
<td>Company -</td>
</tr>
<tr>
<td>Company - Alaska Department of Transportation &amp; Public Facilities</td>
<td>E-mail Address - <a href="mailto:brett.nelson@alaska.gov">brett.nelson@alaska.gov</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. APPLICANT'S ADDRESS:</th>
<th>9. AGENT'S ADDRESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address- 2301 Peger Road</td>
<td>Address-</td>
</tr>
<tr>
<td>City - Fairbanks</td>
<td>City -</td>
</tr>
<tr>
<td>State - AK</td>
<td>State -</td>
</tr>
<tr>
<td>Zip - 99709</td>
<td>Zip -</td>
</tr>
<tr>
<td>Country - USA</td>
<td>Country -</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. APPLICANT'S PHONE NOS. w/AREA CODE</th>
<th>10. AGENTS PHONE NOS. w/AREA CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Residence</td>
<td>a. Residence</td>
</tr>
<tr>
<td>b. Business</td>
<td>b. Business</td>
</tr>
<tr>
<td>c. Fax</td>
<td>c. Fax</td>
</tr>
<tr>
<td>907-451-2238</td>
<td></td>
</tr>
</tbody>
</table>

**STATEMENT OF AUTHORIZATION**

11. I hereby authorize, to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

2022-02-14

**SIGNATURE OF APPLICANT**

**DATE**

**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

<table>
<thead>
<tr>
<th>12. PROJECT NAME OR TITLE (see instructions)</th>
<th>13. NAME OF WATERBODY, IF KNOWN (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dalton Highway MP 18-37 Reconstruction</td>
<td>Hess Creek</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. PROJECT STREET ADDRESS (if applicable)</th>
<th>15. LOCATION OF PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address Dalton Highway Milepost 18-37</td>
<td>Latitude: N 65.601411</td>
</tr>
<tr>
<td>City -</td>
<td>Longitude: W 149.066394</td>
</tr>
<tr>
<td>State-</td>
<td>Zip-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Tax Parcel ID N/A</td>
<td>Municipality Yukon-Koyukuk Census Area/Unorganized Borough</td>
</tr>
<tr>
<td>Section - See Cover Letter Township - See Cover Letter Range - See Cover Letter</td>
<td></td>
</tr>
</tbody>
</table>
17. DIRECTIONS TO THE SITE
The site is located between DOT&PF mileposts 18 and 37 on the Dalton Highway approximately 100 miles north of the City of Fairbanks. Take the Elliott Highway north out of Fairbanks approximately 82 miles to the start of the Dalton Highway. Continue on the Dalton Highway approximately 18 miles to the beginning of the project. Project corridor continues for approximately 19 miles.

18. Nature of Activity (Description of project, include all features)
The project consists of reconstructing the Dalton Highway from MP 18 to 37. Specific actions include: improving embankment stability; widening the highway; improving drainage and replacing cross culverts as necessary; improving horizontal and vertical geometry to meet design standards for 50 mph design speed and improving sight distances; replacing six large diameter culverts at tributaries of Hess Creek; and replacing the Hess Creek Bridge (No. 1213). Four material sites are available for further development to support this project. The material site near MP 19 contains wetlands, and may result in wetland impacts as described in this application.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)
The purpose of the project is to reconstruct the Dalton Highway between MP 18 and MP 37 to enhance highway safety and performance while reducing annual maintenance costs. The Dalton Highway from MP 18-37 is a narrow, mostly gravel-surfaced highway with soft shoulders, high embankments and steep grades, limited sight distances due to sharp horizontal and vertical curves, and is constructed over areas of ice-rich permafrost. There is also a general lack of roadside drainage which contributes to embankment failures and ponding storm water. Construction is expected to occur from July 2022 until October 2024.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge
Fill and dredging within waters of the U.S. is necessary to widen the existing roadway and increase curve radii (flatten sharp curves) in order to improve safety and bring the roadway up to current design standards. Culvert replacements will improve drainage and include fish passage design where applicable. Placement of ice-rich unusable excavated material will occur in adjacent wetlands (near MP 33).

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount in Cubic Yards</th>
</tr>
</thead>
<tbody>
<tr>
<td>439,057 (See Supplemental Info Sheet)</td>
<td>31,524 temporary fill</td>
</tr>
</tbody>
</table>

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

<table>
<thead>
<tr>
<th>Acres</th>
<th>93.48 permanent and 23.7 temporary</th>
</tr>
</thead>
</table>

23. Description of Avoidance, Minimization, and Compensation (see instructions)
The proposed project was designed to avoid and minimize impacts to waters of the U.S. to the maximum extent practicable while still meeting the project purpose and need. The proposed mitigation statement is provided in the attached Supplemental Information Sheet.
24. Is Any Portion of the Work Already Complete? □ Yes  □ No  IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- Alaska Department of Natural Resources, Northern Region Office, 3700 Airport Way
City - Fairbanks  State - AK  Zip - 99709

b. Address- Alaska Gasline Development Corporation, 3201 C Street, Suite 200
City - Anchorage  State - AK  Zip - 99503

c. Address- Alyeska Pipeline Service Co., P.O. Box 196660
City - Anchorage  State - AK  Zip - 99519

d. Address-
City - State - Zip -
e. Address-
City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>TYPE APPROVAL*</th>
<th>IDENTIFICATION NUMBER</th>
<th>DATE APPLIED</th>
<th>DATE APPROVED</th>
<th>DATE DENIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT&amp;PF</td>
<td>CE Document</td>
<td>0652017/Z607350000</td>
<td>8/12/2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHPO</td>
<td>Sec. 106 Review</td>
<td>3130-1R FHWA/2018</td>
<td>03/05/2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADEC</td>
<td>Sec. 401 Certification</td>
<td>Concurrent with App.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADF&amp;G</td>
<td>Fish Habitat Permit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Brett Nelson
4/14/2022

SIGNATURE OF APPLICANT  DATE  SIGNATURE OF AGENT  DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.
Background

The Alaska Department of Transportation and Public Facilities (DOT&PF) is proposing to reconstruct the Dalton Highway between mileposts (MP) 18 and 37 (Figure 1). A wetland delineation and functional assessment was performed between August 28 and September 2, 2020 to support the environmental document and permitting efforts for this project. The attached wetland report (ABR 2021) details the study area, methodology, and results of this effort.

Wetlands in the Project Area

Sixteen National Wetlands Inventory (NWI) wetland classes were identified in the project area. These include four waters, 10 wetlands, and two non-wetlands (uplands). The 14 NWI waters and wetland types were aggregated into six wetland functional classes. All wetlands within the project area are adjacent to or drain to Hess Creek or a tributary of Hess Creek which flows to a traditional navigable water, the Yukon River. Therefore, wetlands within the project area are considered jurisdictional waters of the U.S.

Wetland Impact Summary

Wetlands are prevalent adjacent to the Dalton Highway along the project corridor from MP 18 to 37. Where cut or fill slopes will be extended beyond the footprint of the existing road embankment, wetland impacts are likely (Figures 2-14). At one location near MP 33, unusable, ice-rich excavated material will be placed adjacent to the excavated roadway (Figures 12 and 18). A containment berm will be constructed to prevent movement once the material thaws. There are several curves between Hess Creek Bridge and the end of the project where the horizontal curve radius is increased to soften the curve or make the turn less sharp. At these locations, the existing road surface will be removed, and the area will receive topsoil and seed. Most culverts will be replaced with longer culverts including six large-diameter culverts (Figures 19-20). A small portion of Hot Cat Creek (MP 33.74) will be realigned around the new limits of the road embankment (Figure 22). Table 1 identifies the cut and fill quantities and material associated with the permanent wetland impacts. Table 2 shows the 12 impacted NWI codes, descriptions, and associated wetland functional classes for the approximately 73.62-acre impact area.

Four material sites are adjacent to the project corridor and may be used for this project. Only one, located near MP 19 (MS 65-3-013-2; MP 19 Quarry), is surrounded by wetlands (Figure 15). The potential wetland impacts associated with the development of this material site are shown in Table 3. Exact excavation quantities will depend on the Contractor’s use of the site.

The Hess Creek Bridge will be replaced and a temporary detour will be established prior to bridge construction (Figures 6, 21, and 23). The permanent wetland impacts for the bridge replacement are included in Table 1. The fill below Ordinary High Water (OHW) is shown on Figure 21 and includes 0.28 acres and 2,393 cubic yards (cy). The temporary impacts associated with the detour are 0.41 acres and are included in Table 4.

In order to keep the highway open during construction, a portion of the project will require half-width construction in order to provide an available drive lane while the road is reconstructed. Several areas between MP 19 and 22 will require this half-width construction resulting in up to 0.1 acres of temporary wetland impacts (Table 4). The temporary bridge detour and the half-width construction will result in approximately 31,524 cy of temporary fill.
Additional temporary wetland impacts will result from two of the six large diameter culvert installations. Hot Dog Creek (MP 29.48) and Hot Cat Creek (MP 33.74) will require temporary diversions which will result in temporary wetland impacts (Figures 25-26). These temporary diversions will result in 0.18 acres of temporary wetland impacts including 2.22 cy of fill (unclassified excavation) and 767.54 cy of excavation (Table 4).

A work zone of approximately ten feet beyond the toe of slope is being permitted along the length of the road corridor. Approximately 23.01 acres of this work zone includes wetlands, which may be temporarily impacted (Table 4). Beyond the 10-foot work zone, a 25-foot vegetation buffer will be used as a construction best management practice (BMP) to protect surface waters from sediment-laden storm water runoff.

Table 1. Cut and Fill Quantities - Permanent Wetland Impacts

<table>
<thead>
<tr>
<th>Excavation Quantities (cy)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill Quantities (cy)</td>
<td>439,057</td>
</tr>
<tr>
<td>ACE</td>
<td>27</td>
</tr>
<tr>
<td>Embankment</td>
<td>157,951</td>
</tr>
<tr>
<td>Unusable Excavation</td>
<td>275,666</td>
</tr>
<tr>
<td>Waterway Bedfill</td>
<td>2,652</td>
</tr>
<tr>
<td>Riprap I</td>
<td>330</td>
</tr>
<tr>
<td>Riprap III</td>
<td>2,431</td>
</tr>
</tbody>
</table>

Notes: Wetland impact quantities include a 10% contingency.
Table 2. Permanent Wetland Impact Areas – Dalton Highway Reconstruction

<table>
<thead>
<tr>
<th>NWI Code</th>
<th>NWI Description</th>
<th>Wetland Functional Class</th>
<th>Impact Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS1/4B</td>
<td>Palustrine Seasonally Saturated Broad-leaved Deciduous/Needle-leaved Evergreen Scrub-Shrub</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>26.52</td>
</tr>
<tr>
<td>PSS1B</td>
<td>Palustrine Seasonally Saturated Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Saturated Emergent and Deciduous Shrub Scrub</td>
<td>18.44</td>
</tr>
<tr>
<td>PSS4B</td>
<td>Palustrine Seasonally Saturated Needle-leaved Evergreen Scrub-Shrub</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>12.94</td>
</tr>
<tr>
<td>PSS1C</td>
<td>Palustrine Seasonally Flooded Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>9.80</td>
</tr>
<tr>
<td>PEM1E</td>
<td>Palustrine Seasonally Flooded-Saturated Persistent Emergent Meadow</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>2.36</td>
</tr>
<tr>
<td>PSS1/4E</td>
<td>Palustrine Seasonally Flooded-Saturated Broad-leaved Deciduous/Needle-leaved Evergreen Scrub-Shrub</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>1.51</td>
</tr>
<tr>
<td>PSS1E</td>
<td>Palustrine Seasonally Flooded-Saturated Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>1.09</td>
</tr>
<tr>
<td>PFO4B</td>
<td>Palustrine Seasonally Saturated Needle-leaved Evergreen Forest</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>0.77</td>
</tr>
<tr>
<td>R2UBH</td>
<td>Riverine Lower Perennial Permanently Flooded Unconsolidated Bottom</td>
<td>Rivers and Streams</td>
<td>0.11</td>
</tr>
<tr>
<td>PEM1F</td>
<td>Palustrine Semi-Permanently Flooded Persistent Emergent Meadow</td>
<td>Semipermanently Flooded Emergent</td>
<td>0.06</td>
</tr>
<tr>
<td>R4SBC</td>
<td>Riverine Seasonally Flooded Intermittent Streambed</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>0.01</td>
</tr>
<tr>
<td>PUBH</td>
<td>Palustrine Permanently Flooded Unconsolidated Bottom Ponds</td>
<td>Permanently Flooded Ponds</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>73.62</strong></td>
</tr>
</tbody>
</table>

Notes: Wetland impact quantities include a 10% contingency.

Table 3. Permanent Wetland Impact Areas – Material Site Development

<table>
<thead>
<tr>
<th>NWI Code</th>
<th>NWI Description</th>
<th>Wetland Functional Class</th>
<th>Impact Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS1B</td>
<td>Palustrine Seasonally Saturated Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Saturated Emergent and Deciduous Shrub Scrub</td>
<td><strong>19.88</strong></td>
</tr>
</tbody>
</table>

Notes: Wetland impact quantities include a 10% contingency. Excavation quantities are dependent upon Contractor’s use of the site.
Table 4. Temporary Wetland Impacts

<table>
<thead>
<tr>
<th>NWI Code</th>
<th>NWI Description</th>
<th>Wetland Functional Class</th>
<th>Impact Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS1/4B</td>
<td>Palustrine Seasonally Saturated Broad-leaved Deciduous/Needle-leaved Evergreen Scrub-Shrub</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>9.51</td>
</tr>
<tr>
<td>PSS4B</td>
<td>Palustrine Seasonally Saturated Needle-leaved Evergreen Scrub-Shrub</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>4.55</td>
</tr>
<tr>
<td>PSS1B</td>
<td>Palustrine Seasonally Saturated Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Saturated Emergent and Deciduous Shrub Scrub</td>
<td>3.93</td>
</tr>
<tr>
<td>PSS1C</td>
<td>Palustrine Seasonally Flooded Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>3.44</td>
</tr>
<tr>
<td>PEM1E</td>
<td>Palustrine Seasonally Flooded-Saturated Persistent Emergent Meadow</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>0.79</td>
</tr>
<tr>
<td>PFO4B</td>
<td>Palustrine Seasonally Saturated Needle-leaved Evergreen Forest</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>0.53</td>
</tr>
<tr>
<td>PSS1/4E</td>
<td>Palustrine Seasonally Flooded-Saturated Broad-leaved Deciduous/Needle-leaved Evergreen Scrub-Shrub</td>
<td>Seasonally Saturated Needleleaf Shrub Scrub</td>
<td>0.47</td>
</tr>
<tr>
<td>PSS1E</td>
<td>Palustrine Seasonally Flooded-Saturated Broad-leaved Deciduous Scrub-Shrub</td>
<td>Seasonally Flooded Emergent and Deciduous Shrub Scrub</td>
<td>0.42</td>
</tr>
<tr>
<td>R2UBH</td>
<td>Riverine Lower Perennial Permanently Flooded Unconsolidated Bottom</td>
<td>Rivers and Streams</td>
<td>0.04</td>
</tr>
<tr>
<td>PUBH</td>
<td>Palustrine Permanently Flooded Unconsolidated Bottom Pond</td>
<td>Permanently Flooded Ponds</td>
<td>0.01</td>
</tr>
<tr>
<td>PEM1F</td>
<td>Palustrine Semi-Permanently Flooded Persistent Emergent Meadow</td>
<td>Semi permanently Flooded Emergent</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>23.70</strong></td>
</tr>
</tbody>
</table>

Notes: Wetland impact quantities include a 10% contingency.

**Applicant Proposed Mitigation Statement**

1. **Avoidance of impacts to waters of the U.S., including wetlands:**

   Complete avoidance of wetlands is not practicable as there is no reasonable, entirely upland alternative (location and/or alignment) along the existing highway route. Impacts to riverine and lacustrine waters of the U.S. have been avoided where possible.

   A variety of earthwork material types are required for construction of this project. One of the critical challenges is determining suitable material sources, and in particular, sources suitable for production of hard rock materials such as air convection embankment (ACE Fill) and aggregate surface course (ASC Grading E-1). These material types have stringent specifications, and the estimated quantity of proven hard rock is low relative to the quantity required for project construction. Construction can also benefit from efficiency gains by limiting production lines for hard rock materials to as few sites as possible. Of the considered local material sources, MS 65-3-013-2 (MP 19 Quarry) has the highest potential for large-scale production of hard rock materials. Geotechnical investigation results indicate the quality, quantity,
and consistency of hard rock deposits at MP 19 Quarry are superior compared to other available nearby material sources. The estimated quantity of hard rock readily available for extraction within the existing developed site limits at MP 19 Quarry is insufficient to meet project quantity requirements. Geological mapping of the proven hard rock unit (Gabbro) indicates that this hard rock unit extends beyond the developed limits of the site and that the required additional quantities may be available with minor expansions of the site working limits. The quantity of hard rock material available through expansion of the site has potential to meet project quantity requirements from this single source.

The Hess Creek bridge replacement, as designed, is at maximum length for a single span, concrete decked bulb-tee bridge girder. Any additional length would require adding a pier in the river and using two spans, or building a steel bridge, which would likely double the bridge cost and increase impacts to Hess Creek. A concrete bridge can most likely be completed in one construction season, thus reducing the duration of temporary wetland impacts. A steel bridge would likely require more construction time, longer lead times for materials, and longer duration for temporary impacts. Further increasing the bridge height would increase the amount of in-water riprap needed to protect the abutments. Retaining walls are being employed at each abutment, which helps to reduce the amount of riprap in Hess Creek. The current bridge design is taller and approximately 15’ longer than the existing bridge, thus will have a slightly larger hydraulic opening. The specified riprap quantity is required to protect the bridge abutments, especially since this location has a history of ice and debris jams during high water events. Specifying vegetation over riprap is not a standard practice and has been met with limited success. High water events post construction tend to wash away soil placed over riprap and deposit it downstream. Placing the riprap deeper in the channel would likely have larger impacts to the channel and require more excavation and a larger excavation area.

2. Minimization of unavoidable impacts to waters of the U.S., including wetlands:

Wetland impacts have been minimized to the greatest extent practicable throughout the design process as detailed below:

- The vertical roadway geometry has been kept to the minimum required for the design speed.
- The horizontal geometry generally follows the existing roadway centerline with only the necessary curve flattening to meet the minimum radius for the design speed. This reduces the embankment footprint.
- The embankment footprint was further reduced by utilizing a “barn-roof” typical section, which uses a steeper foreslope beyond the clear-zone. The clear-zone is a roadside border area beyond the driving lane available for safe use by errant vehicles. The clear zone has also been limited to the minimum recommended for the design speed and traffic volume.
- Other alternatives considered during preliminary engineering included larger realignments which would have had a greater wetland impact, but they were not carried forward into final project design. Figures 27-30 show the realignment alternatives. The proposed realignments at MP 28, 29.7, and 33.5 are much smaller than those considered in earlier alternatives. The realignment at MP 19.5 was eliminated in favor of Air Convection Embankment (ACE) shouldering. The proposed ACE shoulder detail is shown in Figure 16.
- Areas for placement of unusable excavation were chosen to minimize wetland impacts as much as practicable by utilizing uplands where available.
- Guardrails were utilized to steepen the embankment foreslope and reduce fill quantities, thus reducing wetland impacts.
- Existing drainage patterns will be maintained or enhanced through the replacement of damaged or failing culverts. Drainage culverts will be upgraded from 24-inch to 36-inch pipes. Identified fish passage culverts will be designed to meet current fish passage standards.
Existing culverts will be kept in use while new culverts are constructed in order to minimize the need for temporary diversions. This will prevent the need for temporary wetland impacts associated with the new culvert installations.

3. Compensation of unavoidable impacts to waters of the U.S., including wetlands:
Currently, there is no feasible option for compensatory mitigation. The Conservation Fund is no longer accepting in-lieu fee (ILF) payments and there are no other ILF sponsors or approved mitigation banks for this region of the state. Of the 2,971 acres delineated as part of the study area for this project, 1,211 acres were identified as wetlands. Approximately 7.5 percent of these wetlands would be impacted by this project.

The project includes the addition of seven new 36-in culverts to improve drainage. Nearly all the culverts within the project limits will be replaced or upsized. The upsized culverts are summarized in Table 5. In addition, where the road is being re-aligned, old alignments will be rehabilitated to reduce erosion.

Table 5. Culvert Improvements

<table>
<thead>
<tr>
<th>Original Size</th>
<th>New Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-inch</td>
<td>36-inch</td>
<td>67</td>
</tr>
<tr>
<td>24-inch</td>
<td>48-inch</td>
<td>5</td>
</tr>
<tr>
<td>30-inch</td>
<td>36-inch</td>
<td>2</td>
</tr>
<tr>
<td>36-inch</td>
<td>48-inch</td>
<td>10</td>
</tr>
<tr>
<td>36-inch</td>
<td>60-inch</td>
<td>1</td>
</tr>
<tr>
<td>42-inch</td>
<td>48-inch</td>
<td>8</td>
</tr>
<tr>
<td>48-inch</td>
<td>72-inch</td>
<td>1</td>
</tr>
<tr>
<td>60-inch</td>
<td>96-inch</td>
<td>1</td>
</tr>
<tr>
<td>72-inch</td>
<td>156-inch</td>
<td>1 Fish Passage Culvert</td>
</tr>
</tbody>
</table>

Given the extensive avoidance and minimization measures implemented for the project, the functional enhancements resulting from improved drainage, and the lack of mitigation options, compensatory mitigation is not being proposed.