

To: Bethany Nickison
Project Manager
Army Corps of Engineers, Regulatory Branch
Seattle District

From: Natural Systems Design
Matt Tiedemann, PE, Project Manager
Torrey Luiting, PWS, Senior Ecologist

Date: May 26, 2020

Re: Revised Permit Application; Reference Number: NWS-2020-0322

JARPA PACKAGE REVISIONS

Design updates to the Keys Road Flood Protection Project (project) have necessitated the update of the NWW-2020-0322 JARPA package. Project revisions have been summarized below and outlined by application element. Revisions to the JARPA form and figures have been made in “redline” fashion, using red text and red text boxes, to clearly highlight added or adjusted elements.

In addition to the elements listed below, an advanced set of construction plans (dated May 26, 2020), and an updated cultural resources report (provided by ICF), have been included in this modification submittal.

Project revisions include:

Addition of Work Element: Selective removal of approximately 300 cubic yards of an existing riprap revetment located along the left bank of the Satsop River at approximately river mile 1.5 (JARPA Figure Sheet 02). Removal includes riprap only; no native alluvium would be excavated from the river as part of this work. Removal activities would be conducted from the left bank; no equipment access would occur below the ordinary high water mark (OHWM). Additional elements associated with this work include approximately 0.5 acre of stream buffer clearing for a temporary access route and subsequent revegetation of the access route following construction activities. This work has been included in the following:

JARPA Form

- Added project element (riprap removal): 6a Project Description, 6d Major Elements, 6e Construction Methods and Equipment
- Inclusion of riprap removal impact and impact quantities: 8b Impacts, 8c Mitigation, Table 8e Impacts Summary, and 8g Excavation Method and Material Disposal

JARPA Figures

- Riprap removal area and temporary access route: Sheets 02 – 04
- Quantification of riprap removal impacts: Sheet 06
- Replanting of riprap removal access route: Sheet 07

Additional ELJ Excavation: During design refinement, excavation volumes for individual structures were studied in more detail. Uniform excavation volumes have been removed from the JARPA figures. Additional excavation has been included relative to four (4) Type 1 Apex ELJs. These are 03-A1, 04-A1, 05-A1, and 06-A1. Temporary impacts related to structure 06-A1 have been split by impact to the Satsop River and the river's critical area buffer. All other temporary impacts occur below the OHWM. In addition, temporary waterbody impacts related to excavation for the Type 2 Apex ELJ, have also been included.

JARPA Form

- Inclusion of updated total excavation volumes including updates to the Apex ELJs and riprap removal: Table 8e
- Revision of total excavation volume below OHWM inclusive of Apex ELJs and riprap removal: Section 8g

JARPA Figures

- Addition of excavation impact volumes: Sheets 05 – 06
- Removal of uniform excavation volumes: Sheets 09 – 15

Revegetation Revisions: Refinements to the planting plan include characterization of post-project vegetation communities, refinement of plant species within each community, and revised plant quantities. Revegetation of the additional riprap removal temporary access route has been included in these revisions.

JARPA Figures

- Revegetation community labels and inclusion of riprap access route revegetation: Sheet 07
- Plant Schedules: Sheet 08