

INSTREAM PROJECT DESIGN CHECKLIST: Sections II and III

For Design and Construction of Flood and Erosion Protection Facilities and Habitat Restoration Projects that May Include Large Wood Placement or Natural Wood Recruitment

Project Name: Stossel Bridge Right Bank 2019 Mitigation Project Manager: Stella Torres

River/River Mile/Bank: Snoqualmie River / RM 21 Right Bank Date June 14, 2019

Check one or both:

- Project includes placement of large wood elements
- Project may influence the recruitment, mobility and accumulation of natural large wood.

Note: If the project is comprised of emergency work, then fill out and file this form within 30 days of completion of emergency work.

II. Pre-Construction Information (70% or 100% design with permits) *These questions relate to the designed and permitted project. Information should include input resulting from permit review process, SEPA, boater safety meetings and any other stakeholders.*

1. **Have any answers provided in Section I at the Preliminary Design Phase changed in the interim? If so, provide the new answers and the rationale for the change.**

Yes. The wood elements described in section I were ballasted with rock rather than steel piles. No steel piles were utilized in the project. The reason for change was the lack of availability for a pile contractor on short notice. As compensatory mitigation for this project King County will also be placing 35 pieces of large wood within one mile of the project site. This mitigation wood will be placed unanchored and without backfill.

2. **What regulatory review or permits are required for the project (e.g. HPA, Clearing and Grading permit, COE permits)? List any conditions or requirements included in the permit approvals relevant to placement of large wood in the project.**

USACE Section 404 and Section 10 permits have been applied for (June 2019). As part of the USACE permit process, consultation with US Fish and Wildlife Service and National Marine and Fisheries Service will take place. Washington Dept. of Natural Resources will also need to approve placement of additional 35 pieces of large wood as mitigation.

3. **What specific actions or project elements were employed to address public safety in the final, permit-approved design?**

The root wads on the ballasted wood structures were changed to be oriented both upstream and downstream rather than initially designed which had them oriented downstream. However, post-construction site observations show the rootwads primarily below the low flow water level. The design included a series of "bumper logs" elements that were placed at the upstream end of the wood elements as shown in the final design drawings.

4. **Describe how the project team solicited public input on the preliminary design. Describe the input received from the public and how, if appropriate, the project team has responded to this input.**

The project team posted 30% design drawings and 30% instream project design checklist on the Large Wood projects webpage upon completion of the 30% milestone in 2018. The team also presented about the project at the June 2018 Large Wood Public meeting. No comments were received, however, because there is some documented use by rafters or

inner tubers in this reach, the project team placed "bumper logs" at the upstream end of each of the large wood elements.

5. Describe any additional design modifications or mitigating actions that were or will be taken in response to the public comments.

No additional modifications or mitigating actions will be taken other than the mitigative actions described above.

16. Will further educational or informational materials be made available to the public to heighten awareness of the project (e.g., public meeting, press release, informational website, or temporary or permanent signage posted in the vicinity of the project)? If so, explain.

Permanent signage that alerts the public of "log jams ahead" have been posted upstream of the 2018 repair location.

17. If the project is expected to influence the recruitment, mobility or accumulation of natural wood, has a Public Safety Management Plan been completed?

Current patterns of wood mobility or accumulation are not likely to change as a result of the project. Wood from upstream sources may accumulate periodically at the site as it does under existing conditions. It is anticipated that naturally occurring large wood will be transported downstream in the case it is temporarily deposited within the project area.

Project Manager

Date

Supervising Engineer, Project Supervisor or Unit Manager

Date

III. Post-Construction Actions or Project Modifications

- Have any answers provided in Sections I and II at the Preliminary design and Pre-Construction phases changed in the interim? If so, provide the new answers and the rationale for the change.

No answers provided in Section I and II have changed.

- Briefly describe the scope and timing of post-construction monitoring and inspection activities planned for the project as they relate to large wood. If a Public Safety Management Plan or Monitoring Plan has been developed for the project, you may simply reference and attach that document.

Routine monitoring is the responsibility of River and Floodplain Management (RFMS) staff. RFMS staff will visit the project site when notified by other agencies or the public of issues in the vicinity of the repair site as well as stop by the project site when traveling in the area, look for evidence of active bank erosion or scour on the levee as well as evidence of erosion or movement of the large wood structures.

- If post construction monitoring or inspections result in modifications to the project, please describe the action taken and the rationale and consistency with the Public Safety Management Plan, if applicable.

As part of the County's mitigation requirements for obtaining a Hydraulic Project Approval from Washington Department of Fish and Wildlife in 2017 and 2018, the County is required to place approximately 35 pieces of large wood (unanchored) in the river with at least 1/3 of their length within the flow channel. The requirement for placing at least 1/3 of the length of the wood in the low flow channel is an ecological consideration related to providing salmon habitat throughout the year. If the wood was placed high up near the bank it would not be available as habitat to fish except during periods of high flow. The exact location that the wood will be placed cannot be determined until low flow season (i.e. July-September). The wood will be placed approximately parallel to the shoreline to avoid spanning the channel.

Project Manager

Date

Supervising Engineer, Project Supervisor or Unit Manager

Date