



Oregon

Kate Brown, Governor

Department of Fish and Wildlife

Fish Division
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April 17, 2015

Scott Bailey
Tillamook Estuary Partnership
P.O. Box 493, 613 Commercial St
Garibaldi OR 97118



and

Liane Welch, PE.
Tillamook County Public Works Director
503 Marolf Loop Rd.
Tillamook, Oregon 97214

Re: Fish Passage Approval for Myrtle Creek Fish Passage Restoration Project, PA-01-0075

Dear Mr. Bailey and Mrs. Welch,

The Oregon Department of Fish and Wildlife (ODFW) has reviewed, and approves, as required by Oregon Fish Passage Law ORS 509.585, the fish passage design plans for the new Myrtle Creek crossing situated in located in Tillamook County. Myrtle Creek is a direct tributary of the Kilchis River, a tributary of Tillamook Bay. The project consists of replacing an existing undersized culvert crossing, with new bridge structures, that once completed, will clear span the active channel of Myrtle Creek, which is 17.30 feet in the project area. In addition to clear spanning the active channel, both the bed materials and the gradient under the crossing will be reflective of "stream simulation" conditions in Myrtle Creek.

Immediately below the new bridge crossing the project will construct and rebuild the new streambed using stream simulation design techniques. Given the steep gradient of the Myrtle Creek channel reach proximal to the new bridge crossing, the new stream channel will be constructed at a gradient not to exceed 5.5 to 6.0 percent and will incorporate large, oversized boulder clusters that will functionally provide stream bed stability, promote low-flow resting habitat for upstream migrating native fish, and will help dissipate hydraulic forces in this steep stream reach. HEC RAS modeling by the project consultant engineering design team confirms the predicted flow velocities and corresponding water depths are consistent with Oregon fish passage design criteria.

ODFW Fish Passage program staff has reviewed the fish passage plans and all corresponding designs for this project, which were received by ODFW fish passage on April 1, 2015, and we find the project meets all ODFW fish passage requirements for stream simulation road-stream

crossings pursuant to OAR 635-412-0035 (1) and (3)(a). ODFW fish passage approval is contingent on specific items which include:

1. All in-water work for this project shall occur during the ODFW in-water work window, unless otherwise approved by the Department.
2. As required by OAR 635-412-0035 (10ef), a fish salvage shall be performed by a qualified fisheries biologist to safely remove all native fish from the work area prior to dewatering of the site. Post construction, the construction site shall be re-watered in a manner to prevent loss of downstream surface flow as the new streambed absorbs water.
3. A low flow thalweg shall be designed and implemented into the crossing's stream simulation material to ensure low flow fish passage through the site. In addition, fines shall be adequately washed into the bed material matrix to seal the materials and prevent sub-surface flow.
4. All best management practices (BMPs) shall be followed to minimize impacts to the stream. These BMP's may include, but are not limited to silt curtains, or other turbidity protection devices to ensure turbidity from construction activities does not impact downstream habitats. In addition, downstream connectivity shall be maintained through a gravity fed bypass pipe, as described in the fish passage plans. Any deviation from this plan shall be approved by an ODFW North Coast District Fish Biologist.
5. The project owner shall be responsible for all monitoring and maintenance required at the crossing to maintain fish passage as designed. Maintenance activities shall include periodic debris removal as necessary to keep the crossing clear of obstructions.
6. Failure to maintain, monitor and evaluate fish passage for the duration of this approval shall constitute a violation of this approval and applicable fish passage statutes (ORS 509.610) and rules (OAR 635-412-0035(1)(h)).
7. The Applicant or your designee shall monitor and report the effectiveness of fish passage during and after completion of this project. This shall entail monitoring of the channel bed stability within the project, with particular emphasis on the steep channel gradient and large boulder clusters immediately below the proposed bridge crossing as well as throughout the project area(s) after construction and project completion. Monitoring will be performed by a qualified fisheries biologist to determine whether or not the project is functioning as it was designed to function for fish passage.
8. Fish passage monitoring reports shall report on the effectiveness of fish passage of native migratory fish at a variety of passage flows when these fish are migrating through the project area. Monitoring and reporting shall coincide with the time(s) of the year when native migratory fish species are migrating in Myrtle Creek and throughout the project area. Monitoring and reporting shall consist of a summary of the fish passage conditions and fish passage performance with particular emphasis on flow velocities, water depths and the volitional unimpeded passage of native migratory fish during the appropriate fish passage design flows. Monitoring and reporting can be based on visual observations, established photo points, flow velocity characteristics, or other means; particularly with regards to fish passage conditions and fish passage performance through the project area after the completion of the project.
9. Monitoring reports shall be completed and submitted by the Applicant, or your designee, to the ODFW Fish Passage Program Coordinator and the North Coast Watershed District Fish Biologist annually for a period of 5-years after the completion of the projects.

Project specific monitoring reports shall be submitted by January 31 of each year for the previous year's reporting period.

10. If monitoring reveals that fish passage criteria is no longer being met (volitional fish passage of native migratory fish no longer being achieved), project owners shall contact ODFW in order to develop solutions to provide volitional fish passage through the project site.
11. The Department shall be allowed to inspect the project site at reasonable times for the duration of this approval. Unless prompted by emergency or other exigent circumstances, inspection shall be limited to regular and usual business hours, including weekends.

Please retain this correspondence for your records, as this documents ODFW's approval (PA-01-0075) of fish passage for this project. Please pass this information to the appropriate construction staff, project managers, and project stakeholders as you deem fit.

Thank you for your cooperation and patience as we worked through the fish passage approval details for this project. We also wanted to specifically thank the effort(s) of Eirik Schulz, PE from ESA Vigil-Agrimis, who unexpectedly passed away during the final design phase of this fish passage restoration project. Eirik provided integral input into the fish passage restoration project, of which we are very grateful.

If you have any questions regarding these projects or the content of this letter, please contact me by calling 503-947-6228.

Sincerely,



Greg Apke
ODFW Fish Passage Program Leader

Cc: Chris Knutsen, ODFW North Coast District Fish Biologist
Troy Laws, ODFW North Coast Asst. District Fish Biologist
Ken Loffink, ODFW Statewide Fish Passage Coordinator
Alan Ritchey, ODFW Screens and Passage Program Manager
Amy Horstman, USFWS
Hunter White, ESA Vigil-Agrimis
Project Files: PA-01-0075