



State of Washington
DEPARTMENT OF FISH AND WILDLIFE

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To: TFW Policy Committee

From: Terry Jackson, WDFW

Subj: Fish Passage Effectiveness Monitoring

The purpose of this memo is to update the TFW Policy Committee of WDFW's work pertaining to fish passage effectiveness, and to request adaptive management funding to conduct similar work on forest lands covered under the forest practices HCP.

WDFW recently initiated a new adaptive management program that includes fish passage effectiveness monitoring associated with the HPAs that WDFW permits. As part of this adaptive management program, WDFW has developed monitoring protocols and has hired a new fish passage Principle Investigator/monitoring coordinator. Forest lands are no longer included within this program since forest practices hydraulic projects (FPHPs) now fall under DNR's authority.

Although FPHPs are included in the FPA and now fall under DNR's authority, current statute requires that these decisions reflect the fish protection standards (including fish passage) adopted by WDFW under RCW 77.55. Because WDFW has already designed an effectiveness monitoring program aligned with these standards, we recommend expanding this effectiveness monitoring to include FPHPs for water crossing structures on forest lands covered under the forest practices HCP. This would create efficiencies in effort and funding for the forest practices adaptive management program (FP AMP) in the following ways.

- Study design plans and protocols are already in place for fish passage effectiveness monitoring, which would reduce FP AMP and CMER tasks and funding needs.
- Approaches and study results for fish passage effectiveness would be consistent across all land ownerships.
- WDFW would provide the Study Principle Investigator in-kind.

WDFW's current study designs and protocols will inform effectiveness of the primary water crossing designs listed below, but the standard sample is not currently stratified specifically into those categories.

- Stream simulation
- No-slope
- Bridges
- Alternative designs

WDFW Cost Estimates:

- Fifty (50) fish passage culverts per year @ approximately \$130,000/year.
- Study design currently involves monitoring this cohort of culverts through time at intervals of 1, 2, 5, 10, and 20 years post construction.
- The work would begin in 2015 (FY16)
- The actual study design and sample size will vary if additional questions/hypotheses/treatments are posed or requested by TFW Policy.

Estimate includes:

- Part time work by a GIS and Database Manager
- Three-person field crew comprised of a team leader and two technicians
- Travel and per diem for field staff
- Equipment
- WDFW agency overhead
- Study design, data collection, data analysis, and report writing
- Study Principle Investigator provided in-kind by WDFW