

Appendix C6. Fish Presence/Absence Surveys

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C6.1 INTRODUCTION AND PURPOSE

Fish presence/absence surveys are ongoing across the Plan Area. The purpose of the presence / absence (P/A) survey is to positively identify a stream reach of interest as a Class I (fish bearing) or Class II (non-fish bearing) watercourse. These surveys are primarily employed in association with a proposed Timber Harvesting Plan (THP) and are intended to assist the RPF with a proper identification of watercourse reaches within the proposed THP. However, the P/A Survey may on occasion be used to identify watercourse reaches not associated with a THP. Both situations will serve to help Green Diamond to better understand and manage for the public trust resources located within the Plan Area.

A key assumption of these surveys is that it is specifically understood that only the presence of fish species can be absolutely proven. Absence of fish can only be inferred from a lack of presence.

C6.2 METHODOLOGY

C6.2.1 Materials

- Appropriate Safety Equipment
- Backpack Electrofisher
- Dip Nets
- Maps and/or aerial photos of area

C6.2.2 Methods

The watercourse reach of interest shall be searched in an upstream direction whenever reasonable. The electrofisher settings shall be adjusted to the least harmful, yet effective setting possible (begin with P-16). Electrofishing will occur in appropriate salmonid habitat such as slower water and pools.

If fish are observed; capture the first few fish in order to identify to species and then release immediately. Continue working upstream, once fish are observed in a pool discontinue shocking and proceed to the next appropriate salmonid habitat. Continue until the reach of interest is covered or 1000' past the last observed salmonid.

If no fish are observed; confirm that the electrofisher unit is working properly. Search for an amphibian species, usually a Pacific giant salamander (*Dicamptodon ensatus*), and observe its behavior during shocking (shock the water within 3 feet of the amphibian, not the organism itself). If the amphibian responds to the electrofishing, then continue working upstream searching for fish. If the organism does not respond, double-check the settings and all connections on the electrofisher unit. Confirm that the warning beeper is working. Re-shock the pool and observe the amphibian. If there is still no response, increase the electrofisher units' settings to I-5 at 300 volts. Re-shock. If there is still no response, discontinue electrofishing and troubleshoot the electrofishing unit. If

the amphibian responds, continue working upstream searching for salmonids until the reach of interest has been covered or 1000' past the last observed salmonid or known Class I watercourse.

C6.2.3 Follow-up

Once presence or absence has been determined this information will be reported to the Plan Coordinator. A map showing the exact location of electrofishing activities and a summary of field notes describing what was found during the survey will be provided to the Plan Coordinator. All information will also be recorded on the Fish and Herp base maps to update the map records.

C6.3 RESULTS AND DISCUSSION

The presence/absence survey information will be entered into Forest Resources Information System (FRIS) database and the results appropriately incorporated into the Timber Harvest Plan (THP). A series of GIS based (FRIS) maps will be continuously updated with information obtained from the presence/absence surveys. The maps and database provides current information on the distribution of fish on a property wide basis. The current fish distribution maps and tables for each HPA are presented in Section 7.

C6.4 CONCLUSIONS

A presence/absence survey is a valuable technique to establish Class I watercourse determinations and fish species distributions across the Plan Area on a site-specific basis. The extent of anadromy for streams is generally known across the Plan Area with the exception of the actual extent for each individual species. The presence/absence surveys are primarily used to delineate the extent of resident populations in low order Class I watercourses.