

## Field Work Guidance – BC Fish Passage Strategic Approach 2011-12 Field Season

### Objective

To complete a systematic assessment of all closed bottom structures on fish streams and to identify the location and basic information of open bottom structures on fish streams. The assessment data for closed bottom structures on fish streams will allow the best decisions to be made regarding which closed bottom structures block fish passage and further to that, which closed bottom structures should be fixed first to achieve the greatest habitat gains given the limited resources available

### Scope of Work

#### In Scope

- Full assessment to be completed for all closed bottom structures on a known or inferred fish stream.
- Basic location, structure type and photos to be gathered for all open bottom structures on fish streams.

#### Not in scope:

- Culverts that have been placed in a road as cross drains and are not on a stream are not to be assessed.
- Culverts or other crossings that are not on fish streams are out of scope of this process.
- Sites where no stream exists – for example, locations that were modelled as having a crossing but when you arrive at that co-ordinate, no stream (and obviously, no crossing structure) is found do not need to be entered into the system. The overview map which is submitted with the report will highlight all the roads which have been driven and therefore it will be clear that any modelled points that do not have a corresponding assessment, do not exist.

### A day in the field conducting assessments.

#### What do I need before I go in the field? Pre-Work Planning

1. Map of the area showing roads and streams. The map should depict what is known about fish distribution in the area. Known fish distribution and inferred fish distribution is available from the MoE model which is available from the contract monitor or by contacting [Craig Mount](#) or [Richard Thompson](#).

2. Local knowledge from Government fisheries and habitat staff (DFO, MFLNRO (former MOE)) and Industry staff should be used to augment the modeled fish habitat data when possible.
3. Local knowledge from MFLNRO, Industry staff should be gathered regarding access challenges including information on roads that have been deactivated.
4. Plan assessment work to cover all crossing structures within Known fish distribution first if accessing all of the known and inferred fish distribution area will not be possible.
5. Notify licensees of plans to be conducting assessments in the area.
6. Ensure crew has appropriate expertise and training necessary to carry out the field work
7. Ensure crew has appropriate field equipment necessary to carry out the field work.
8. Have a safety plan appropriate for the location and scope of the work.

### What to do on field day?

1. Review maps and decide best route to optimize the amount of road and number of fish stream crossings that can be assessed by each crew during the field day.
2. Travel the road looking for stream crossings (do not assess cross drains, cross ditches or other structures on drainages that are not fish habitat.)
3. If you locate an open bottom structure on a fish stream collect the basic information as per the standard. Location (UTM), Structure type, Span, Width and five photos.
4. If you locate a closed bottom structure on a fish stream collect the full assessment data. Use a field form or directly enter it into the excel spreadsheet. Do not forget the five photos.

## Questions and Answers

**Q.** What if I encounter a crossing on a stream that is not on the map of modelled crossings and habitat?

**A.** If the crossing is within an area of probable fish distribution gather the appropriate information for either an open bottom or closed bottom structure.

**Q.** What if I stop at the location of a crossing that appears on the map and either no stream exists or no crossing exists?

**A.** Simply move on do not collect any information. Do not assess sites just because the fish habitat / road crossing modelling says that there should be a crossing structure at that site. This is simply modelling and does not necessarily reflect reality on the ground. What is most important is what you see on the ground. If you are driving along a road that is supposed to have numerous stream crossings but you can't see them and there are no streams visible, then clearly the GIS stream network is in error and as a result, the modelling is overestimating the number of potential crossings. You can only assess what is there. Furthermore, if it is a 'Dry Draw' or has 'No Discernable Channel' or there is 'No Stream' then, clearly, no assessment is required.

**Q.** What if I stop at a culvert location and no stream exists?

**A.** This is likely a cross drain that is used to convey water from a ditchline to the downslope side of the road. Do not assess cross drains or cross ditches. The protocol is only meant to assess drainage structures on streams that could potentially be fish habitat. If the structure does not convey water flowing in a stream on the upslope side to a stream on the downslope side of the road, it does not need to be assessed. Road drainage structures that are designed to simply convey water from the upslope ditchline to the downslope side of the road prism are not to be assessed.

**Q.** What should I do if a road you had planned to assess is fully deactivated?

**A.** Do not assess these roads mark the road on overview map as being deactivated.

**Q.** What should I do if a road you had planned to assess is fully overgrown with trees?

**A.** Make a note on the map that the road was not assessed due to access issues. This information will be valuable if a structure on a road further upstream is identified as a priority then the lower road crossing will need to be checked to determine if a structure remains and if it is also a fish passage barrier.

**Q.** What should I do if I find a road that does not exist on the map but would appear (based on the information you have about fish distribution) to likely cross fish streams?

**A.** Drive the road and assess any crossings on fish habitat you come across. Include the rough location of the road on your overview map that is included with the final report.

**Q.** What if I'm not sure who owns the road or whether a structure will be eligible for funding – should I still do an assessment?

**A.** Assess all Closed Bottom Structures (CBS) – regardless of age, ownership or jurisdiction. For the assessment phase, it does not matter if they may or may not be 'eligible' for remediation under a given funding program. We need to know about all structures that may present a barrier to upstream fish migration so we can determine context and priorities. Sorting out jurisdiction, responsibility and how to fund their repair (if needed) can happen at a later date.

At the end of the day in the field... make sure that all your maps have been properly marked showing area traveled. Make sure all of your field data is complete. Ideally enter the field data in the provided excel spreadsheet each day to make sure it is complete.