

QUESTIONS & ANSWERS

* Transcribed

Forest & Range Evaluation Program (FREP): Introduction to the Protocol for Evaluating the Condition of Streams and Riparian Management Areas

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Question: (21:32) I was wondering if you are using any undisturbed sites as [inaudible] reference sites. In my experience, I can think of a number of places in several regions of BC where totally natural, undisturbed streams would end up answering “yes” to a number of your questions, particularly with regards to what’s happening in the channel. And my second question is, have you done any work on how the results of your habitat evaluations are reflected in fish populations?

Answer: (22:06, Brownie) OK, to answer your first question, there are not currently equal or comparisons taking place at the same time of these sites and undisturbed sites. But what happened previously in the work that went into developing the evaluation question, the protocol and the data model and the checklist, is work that was done by Steve Bird and also Dan Hogan where they looked at 1,300 undisturbed sites across the province. And it was on their research that they based assessing, what are the indicators? How do the streams look when they are undisturbed? So, even though the comparison isn’t currently going on, the studies in unlocked areas were a key part to the foundation of development of this protocol. It isn’t to say that in that continuous improvement loop there’s probably some fine tuning or some rechecking that should be done after we have a number of years of data.

As far as your second question related to implications or connections to fish populations, that isn’t being done currently as part of the FREP program. However, Peter Tschaplinski, who is the lead, is a fisheries biologist with the research branch of Ministry of Forests, may be doing some of that work and would be a better person to answer that question.

Question: (23:32) Kerri, I’m wondering if, with your colleagues on the team of watching for improvement, that sort of thing, if there’s been any discussion around the differences between salmon streams and non-salmon streams. I know under FRPA that people doing forest development have to do stream inventory and indicate whether fish are present or not present. But I’m not familiar, where salmon are sort of identified separate, and maybe a salmon lake, a lake that’s used by salmon or a stream—has there been any discussion on that, separating salmon out from the non-salmon ones?

Answer: (24:16, Brownie) The need to do that has definitely been identified and the data hasn’t been run quite like that yet. So far, it’s been broken down by the class of stream, basically coming out of the forest practice codes the S1, S2, S3, S4, so we can separate out what’s happening with the S5 and S6s from the others. But that is another level of analysis that needs to be done, because that question is being asked. Kind of the, “so what?” question. Sometimes people put that twist on it, like there’s this impact on the stream,

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but if it's not a fish stream, then kind of, so what. We may object to that, but it's another level of analysis that does need to be done. But in selecting the sites, because they are selected randomly, there's no emphasis so far on whether it's a salmon stream or whether it isn't. We kind of randomly selected on what that cutblock is. That can be another opportunity for future studies to get more information that is salmon specific.

Comment: (25:15) Or within the stream inventory requirements. Seems to me, living in the Skeena we know quite a few lakes, even close by, Aldrich or Dennis Lake, but I don't think there's maps readily available from the Ministry of Forests or licensees showing the difference between which lakes may be housing smolt and salmon or which may not.

Question: (25:51) It takes a lot more protection and retention of the riparian areas to protect terrestrial values, which is not something that seems to be assessed in this monitoring process. Are there any plans to start assessing terrestrial values so that you're actually coming up with a rating of the proper functioning conditioning of the riparian area itself?

Answer: (26:16, Brownie) This process that I have described today is what we call a routine evaluation, so is, at a certain level, highly repeatable by folks that are trained to do it, but are not specialists in the field. We also do have another level of evaluation, which is intensive evaluation. Part of that is linking to work in Carnation Creek that Peter Tschaplinski is doing right now. And he again would be better able to speak to that. One of the things about the retention that we have found is that there are some classes of streams that are naturally just getting a higher level of retention because licensees are steering away from them, because it's just awkward or expensive to operate there. For instance, we're finding a lot of the S5 licensees are just planning away from it. So, to answer your specific question, that would fall under the intensive evaluation work, which is still in its initial stages except for the Carnation Creek study. But it's not part of this evaluation right now.

Question: (27:28) What were your criteria to ask the right questions? I wondered if you could give us some examples of wrong questions. And I was kind of concerned in your list of questions that you were getting into the grey area that Dave talked about earlier. That you had value judgments in terms of your monitoring and you had using terms like "satisfactory", "healthy", "feasible", "minimized" and so on. I wondered if you could sort of talk a little bit more about what are right questions and what are wrong questions in this process.

Answer: (28:22, Brownie) OK, well, I was not part of the original team that developed this, but I would say the wrong question—I don't want to say wrong question—but the questions that were not a focus of this study would relate to, say, the economics. The economic ends of it. Concerns about licensees, about, "Can we actually guard around that?" Those kinds of practicalities. The focus of the question is around that properly functioning condition of the streams. Anything that's outside of that focus, be it economic or social, are very valid questions, but are not the focus of this study. Now, I agree with

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you. There are terms like “satisfactory” and what have you, and I should have slides for the checklist. Each of the questions actually has from two to six sub-questions to it. And those ones have thresholds. So, it might be for a given indicator greater than 15 percent of that value is in good condition. It might help for me to grab a few examples, but in that kind of broader question, those 15 questions, there are sub-questions that all have thresholds in them. So, we’re not dealing with experts out there. And they don’t want to be in that grey area as well and go, “Well, is it satisfactory in my mind?” We’ve helped them out, the scientists have helped them out, by giving them specific thresholds for each one of those.

Question: (29:59) The problem that I have with—you mentioned culverts. But there’s a problem there: Who has jurisdiction on it? We have two culverts in my area and it cuts off the steelhead from going up to the lake where it always spawns and we’ve made a complaint to DFO and the response that we got from DFO is that it’s provincial jurisdiction and that seemed to be a problem. Thank you.

Answer: (30:38, Brownie) Thank you for sharing that. I’m hearing through a number of the presentations and concerns in this area that jurisdiction is very important. I’m not sure I have an answer to that, but it does bring up a point I’d like to make about the link between these evaluations and the compliance and enforcement role by the provincial government. There’s been a lot of effort to keep the two very separate, but it does not mean that if something that is found—like, for instance, a closed-bottom culvert on a fish stream or something else that is a non-compliance—that the evaluators find when they are doing their assessment, that they then don’t communicate back to their compliance enforcement peers at the district. We don’t have a lot of control over what happens with that then, but it’s not like a closed box where we just keep the evaluation and what we see to ourselves.

Question: (31:33) If you wanted to explore adding some resolution to the benthic invertebrate indicator that you had, where developing a provincial reference condition approach database for that purpose, I’d love to talk to you about it later. I’d also like to ask a question. When you find a stream that is dry, especially in low flow years, do you carry on with the data collection and analysis?

Answer: (32:05, Brownie) It’s hard to do the bugs. That’s probably the biggest challenge, is to assess the benthic invertebrates when that water level is low. But no, the assessment would carry on and there are questions about whether there is water presence or not. In some ways, it’s a bit of an advantage because sometimes the profile of the streambed is a little bit easier to assess when there’s no water there. So, it doesn’t prevent actually doing the assessment if there is no water present. Another thing, it’s a little bit hard to get people to do, but in every evaluation there’s a comment section and also a request to take photographs. We really want those additional observations. Makes it much more meaningful what the assessment is. So, yes, the assessment will still take place if there is no water present.

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- Question:** (33:06) Just a question on your relationship between the number of “no”s and the risk that you assign to a stream, which kind of gets at Len’s reframing of your 13-65. How do you decide what that relationship was? So what’s telling you how many “no”s give you low risk, medium risk and high risk? What’s the biological sequence?
- Answer:** (33:32, Brownie) OK, that one, my apologies, but I am going to have to defer that whatever mechanism we have to Peter Tschaplinski and the team that developed it. All the questions have been equally weighted. Within each question, the various indicators and their thresholds are what comes up with—some things more sensitive than others for the indicators. So, when it all rolls up, those 15 questions come out with equal value and I have to leave it at that, but we’d be pleased to provide follow up contact information. It’s a very good question.
- Question:** (34:21) Mine’s really quick and easy. Is this list that you developed, or that was developed through this, is it applicable to other types—you said it was specifically used for cutblocks. Can you use it, or would you recommend, can it be used for other developments like pipeline right-of-ways? If so, or do you know, if the ministries responsible are looking at similar evaluations based on existing right-of-ways?
- Answer:** (34:48, Brownie) The evaluation method is not dependent on the fact that it is logging, although it was developed in relation to that. It’s really dependent on the class of the stream, the morphology of the stream, which doesn’t change regardless of what you are doing around it. So, I think it would be applicable. That’s a very good question given some of the initiatives that the Ministry of Forests is moving down and trying to work with other ministries around. There are limited resources. There are only so many folks in the field that are assessing these things, so I think it is quite applicable. It hasn’t been done yet to that level, but I think it’s a very important next step, because a lot of work has gone into developing this. If it’s solid, then it should be able to be used for other resource activities as well.
- Question:** (35:50) We have a Blue Listed species in our region, it’s a coastal tailed frog, and the epicentre of its population base here in the Skeena region is around the Terrace area, Kalum TSA, a little bit on the north coast. The best practices for the species—it’s already proven scientifically in lots of studies that we need at least a minimum of 20 metres full forest cover, ideally 50, and all protection along the ravine right to the break. So, the Forest Range and Practices Act does not guarantee that kind of protection legislatively. So, we are trying to push the best practices and trying to pursue that timber supply analysis with applying these best practices to show to the forest licensees that in fact we’re not really talking timber supply impact, hopefully, but we’d like to look at it more objectively when we’re having issues getting funding for that because of the fear of timber supply impact. But, I haven’t been involved in the FREP. I know colleagues of mine have. I would highly suggest that when we do the functioning of the stream, we actually look at the species that actually inhabit that stream or have immediate downstream influences, then decide, is this functioning? Because, you can have a lot of

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functioning streams pass the FREP, but it's deficient when there's tailed frogs in that stream, because the best practices call for more than what the codes call for. We need to focus on getting away from being fish centric to looking at more of an overall species approach.

Answer: (37:49, Brownie) I think it's a good point and I think I talked about the need to be relevant. This is a very important way that FREP and this evaluation can be relevant. You are correct. This is based on the fish riparian value and fish habitat. Another of the 11 FREP values that's being worked on is wildlife habitat and wildlife values. That's Laura Darling looking at the species under the Species at Risk Act etc.. And we haven't been having these conversations yet about, where are we looking at streams? What about species that are also in streams? Non-fish species that we could be taking a look at. Alter some of those thresholds that I mentioned. Those fish-related thresholds. How could we alter them to capture other species there? So, I think I will put that on the category of important work we need to move into. Because it's correct, right now this is very fish centric.