

From: [Grove, Matthew A -FS](#)
To: [Kelly Owens \(kowens@segroun.com\)](#); [weiwild@aol.com](#)
Cc: [Klein, Matthew - FS](#)
Subject: RE: Berlaimont trout questions
Date: Wednesday, September 27, 2017 1:28:00 PM
Attachments: [image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[sagebrush_BE_aquatic_FINAL_05212012.docx](#)
[Berry Creek AFLP Analysis Report 051712.xls](#)
[image003.png](#)

Kelly & Rick,

I have attached a BE from 2012 for a sagebrush enhancement project that overlapped some of the Berlaimont project area. It should be used for reference and background only. I did not receive the genetics results until AFTER this report was completed but it should have some useful information. Unfortunately the genetic makeup is a mixed bag of blue (Colorado River) and green (Greenback) lineage cutthroat. I will get into this a little bit below. See below in red for answers to Ricks questions. I can follow up with USFWS for “informal consultation” but don’t think we would need formal consultation for this project because the population is mixed and the project would be affecting the lower 0.9 miles of 4.2 miles of available habitat. Our main focus needs to be on “maintaining or improving” long term stream health (WCP MM3). This goes for fish and macroinvertebrate habitat as well as physical habitat. Looking at the data that I sent you, both the fish and macroinvertebrates in the affected reach are in a “diminished” stream health condition. I think we will also see the same results in the physical habitat. We also need to consider FP Standards 1 and 2 for CRCT. We can use these standards for both green and blue lineage fish since the FP was written before we knew we had any other cutthroat than CRCT. Standard 1 calls for “reducing sediment from existing roads and trails” and standard 2 stated that we should “maintain or reduce” the existing net density of roads and trails. There is opportunity for more road/trail decommissioning and restoration in the Berry Creek watershed. This could be used as mitigation but would not offset expected impacts. We really need to address the new sediment impacts associated with the paved road. I am talking about winter maintenance and traction sand. There needs to be some kind of design criteria/mitigation that includes sediment basins or some kind of sediment control along the lower stretch of the road. The existing road definitely kicks in some sediment and is affecting the existing condition, but it does have some permeability to it. I am under the opinion that traction sand and winter maintenance with no control measures would contribute more sediment than the existing road currently does. This would also speak to the concern for the current status of the Eagle River below Berry Creek (impaired for sediment, M&E for aquatic life). We also have to demonstrate that the new paved road and maintenance of it will not negatively affect these reaches either. I know this is a lot and a little bit of a brain dump on you. I will be on leave until the 10/5. If you need to talk more we can tie back in when I get back. Hopefully this gives you enough info to get pretty far in the analysis.

Matt



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Caring for the land and serving people

From: Kelly Owens [mailto:kowens@segroup.com]

Sent: Friday, September 22, 2017 1:08 PM

To: Grove, Matthew A -FS

Cc: Klein, Matthew - FS

Subject: Berlaimont trout questions

Hi Matt,

Rick's got a couple of questions regarding how to handle Green lineage and Colorado River Cutthroat trout I'd forwarding to you. Feel free to answer via email or we could get on a phone call with you. I've cut these questions out of a longer email with questions for other specialists/resources so that's why I'm forwarding along. If you'd like Rick to contact you directly I'm happy to facilitate that. Let me know.

"I need to know if Matt has plans for Berry Ck. reclamation and if it includes GBlineage greenbacks that would warrant consideration as a listed species.

Yes. We are still considering Berry Creek for a reclamation project where green lineage fish would be reintroduced. I am planning to start that NEPA process this winter. We have not publically scoped the project and we may not even pursue it depending on some logistical issues. Here is where it gets a little complicated. USFWS has not released an official position on the whole blue vs green lineage thing yet. That said, we have been directed to treat green lineage fish as federally threatened "Greenback" until we receive further direction. Blue lineage fish are considered "Colorado River" and are covered as a Forest sensitive species. So as I mentioned above (see genetic results attached) we have both pure blue and green lineage fish in the stream as well as hybridized individuals. I would advise Rick to address both in the cutthroat section. I know this is going to be a little confusing but it seems like the best way to do it. We could also just consider the population hybridized but I will get to that in the question below. If I were to do a reclamation project we would probably treat the stream with rotenone which would kill all of the fish in the stream (including the green lineage). We would probably try to salvage some of the pure fish but that would be a costly and intensive process that would involve a fish hatchery and genetics lab. Even if I completed the NEPA this winter this project would be some years off until implementation. So I hesitate to drop the hammer on this project for some major impact to the green lineage population that is there now knowing if my proposal were carried through we would wipe out the fish anyway. If the reclamation project were completed than yes, there could be future impacts to the population. However, we are talking about the lower 0.9 miles of available habitat out of 4.2 and I could not see making an adverse call on that. Definitely a "may affect" but not an adverse call.

CPW (Nov0716 ltr) asserted: "Berry Creek maintains a population of Colorado River cutthroat trout that have been genetically identified as green-lineage cutthroat trout. Green-lineage cutthroat trout are indigenous to the Eagle River watershed and are currently federally listed, along with Greenback cutthroat trout, as a Threatened Species by the U.S. Fish and Wildlife Service." Need to know what Matt thinks about that.

This is an interesting comment and CPW knows the genetic status of this population and is on board with a reclamation project here. I'm not sure that Kendall provided this comment or her supervisor. Again the concern from CPW is to acknowledge the presence of these fish and (if the project were approved) to make sure that adequate design criteria were in place to mitigate effects of sedimentation in this lower 0.9 mile reach that is directly affected by the project. So yes, address their presence and analyze the potential impacts to this lower reach and we should have this one covered.

Need confirmation that we only make determinations for sufficiently pure (i.e., =90%) CRCT. Those <90% are a fisheries issue, not an R2 sp., issue. Need to know the purity if CRCT in Berry Ck or otherwise how to address them."

Some pure green some pure blue and some hybridized. See attached AFLP report and discussions above. I guess for now we can address that both exist and we will be covering our bases. We could consider the population is hybridized but the fact that there are pure individuals of both lineages makes me want to address both separately for now. I could have some more conversations with CPW and see how they feel about it. If I were to proceed with the NEPA for the reclamation project I would consider both.

Please provide input at your earliest convenience, or let me know if you'd rather we set up a call to discuss.

FYI here are the UTM's for the fish and macroinvertebrate sampling stations:

site	UTM E	UTM N	Sample type	Description
berry	364668	4391934	Macro/ Physical	reach is located above the FSR 744.1 culvert. 100m reach
berrylo	364055	4390583	Macro/ Physical/ Fish	Reach starts at the Forest Boundary. 100m reach and is the lowest reach in the watershed.
berry-0.72	364055	4390583	Fish	Reach is located 100 m downstream from the FSR 744.1 culvert. 100m reach

Thank you very much for your help,
Kelly

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