Copper River Watershed EVOS Habitat Enhancement Project

Sites COP 20, 22, 25

(ADFG ID #20100485, 20100488, 20100491)

Final Construction Debrief Meeting Notes

1:00 PM, August 25, 2021

Construction documentation here (directives, weekly construction check-ins):

<https://infoexchange.dowlhkm.com/UserWeb/PublishedFiles/PublishedFiles.aspx?pid=4f87453b-01bd-48de-a2fd-abd0e9f54281&itemId=bf53e4fe-9b57-4b4d-a09f-01038d641662>

1. Summary “to-do” list/next steps:
   1. As-builts are in process!
   2. HH will share photos of inside the pipe with partners.
   3. JB will look for low water at Cop 20 in order to check material below outlet of overflow pipe. Kirsti had followed-up with him after the end of project site-visit because she noticed the pipe was a little bouncy.
   4. HH/KJ will submit update to ACOE regarding upstream work and remaining fill at Cop 20.
      1. CRWP/USFS will potentially breach berm to help with connectivity in near term. Want to remove material in the long run, but likely when contractor is mobilized for another project, not as its own task.
   5. CRWP/USFS/local ADFG: will keep an eye on overflow pipes to make sure no pools of water get isolated from system.
   6. Spring 2022: check on re-veg in wetland “pond” above Cop 20. JB says only surface vegetation was removed so should still have roots to help with re-establishment of vegetation.
   7. DOWL:
      1. Will share list of other feedback from Forrester on the designs.
      2. Will make sure CRWP has a copy of all Newforma documents before the project materials are archived.
   8. Key lessons learned for future:
      1. No extra layer of Geotech fabric below subbase materials.
      2. Will include a separate email to partners when directives are being reviewed to make sure all partners track these changes, especially those that result in changes to drawings.
      3. Will add a habitat inspection component to implementation of designs, especially at the “final walk through” to make sure both habitat and the roadway/culvert are evaluated for final approval in a more official capacity. CRWP has attempted to play this role but it was not officially considered part of the final “sign-off”. Will find a way to make sure someone representing habitat features is included on future projects.
      4. Do we need brass plates on culvert markers? 25-mile posts didn’t last 1 year.
      5. If there are wetlands to begin with at the site, we want there to be wetlands at the end of the project.
2. Roll call
   1. CRWP: Kate, Kirsti, Lisa
   2. ADFG: Kim Clark, Megan Marie
   3. ADOT: Jeff Stutzke, Artem Ruppert, Dan Adamczak
   4. Wilson Construction: John Baenon
   5. USFWS: Heather Hanson, Franklin Dekker
   6. DOWL: Forrester Cook, Heidi Robuck, Eric Voorhees, Brad Melocik
3. Overview of construction wrap-up and walk-through with ADOT
   1. Finished on schedule with E1, seeding, mulch. Things went pretty well. Got done just in time before major rain events and water levels went back up.
   2. Clean up went well and all equipment is out of site
   3. Actual veg mat is popping up already.
   4. Walk through with Robbie-went well. He was keeping an eye on things during wrap-up. Liked everything. Wasn’t anything left to do. Forrester made sure the punch list was completed. John graded road between all sections and prior and after job – save the State from having to grade right away.
   5. Quick question KJ: overflow pipe at outlet-no support under invert. Did you get back to get rock under there—John said didn’t do anything yet—haven’t had a chance since water levels subsided. Will take a look.
      1. Water flowing through as of yesterday.
      2. Heather stopped by on Saturday, no water flow, backwatered.
      3. Look at this again with veg re-establishment next year.
   6. Artem: would be helpful to get photos through the pipes-ups/ds
      1. Heather has a bunch of photos she took in pipes that she will share
   7. Question re: markers with brass plates—Kate found one broken off of 25 mile—should she return it somewhere? Should someone be fixing it?
      1. John says they are likely cut down by vandalism.
      2. Jeff: culvert markers—something ADOT has battled for many years.
         1. Help maintenance guys when brushing.
      3. Kate will drop off with Robbie-he has the tabs if he wants them.
      4. Heather: southcentral ADOT Is not using them anymore on bigger culverts. Maybe don’t need them anymore?
4. “Lessons learned” from the field on design and project implementation
   1. Revisit Directives: did we get it better the second time?
      1. Directive 1: geotextile fabric layers-based on 2020 experience at 25-mile—a strategy intended to help contractor establish a solid base. Added in 2021 to help out contractor, but extra layer of geotextile was causing issues. Intent for next round of designs is to not include it in Cop 1 and 33.
      2. Project modification/communication: Megan: she was in the field a lot and had a harder time tracking communications. Just noticing that there was a riprap change in Directive 1, significant enough modification that should have gone through agency review as to whether or not it needed modification. Given that we can’t make all the meetings, maybe she missed something? Relatively significant design change that happened that she was not aware of.
         1. Forrester: wanted to add that the change to remove the rock clusters above the waterline occurred by accident for COP 22-initially COP 22 was constructed without original rock above the water line. Franklin was the first to notice it.
         2. Kate checked meeting notes and agendas to see it was documented. In the future CRWP will distribute draft directives to agencies prior to signing. Can include “timeline for comment” if we need to know ASAP if there are agency concerns. Megan confirmed this sounded good.
         3. Heather: accepts responsibility for this as well. Agrees anytime there’s a chance to the drawings, agencies should have a chance to weigh in. Important for permitting/regulatory purposes as well.
         4. Heidi: do we want to include them this time around? HH: need to match the width of the stream—if the culvert is big enough to allow for construction, and they are constructible, then it’s okay to have bankfull width inside culvert. So really goes to what we think bankfull width is. Culvert would need to be oversized in order to construct banks. Will talk offline more on this.
      3. Directive 2: reduced apron
         1. Because of pond, to go out 16 feet would have required filling the entire pond. John talked to Forrester who talked with Heidi and determined that it didn’t need to be out there. Heidi: original intent of apron was to reduce velocities of outlet, which there wouldn’t be at the pond, so made sense to reduce the length and not fill in the pond.
         2. Franklin: curious about takeaway on backwatering of culvert. Overflow culvert—being backwatered—do we need to make sure to re-grade downstream to avoid that in the future. Brad: thinks one of the major issues is the elevation of the roadway—running into HW/D issues. When put crowns of pipes at same elevation, still had backwater effect. Most from downstream tail-waters. Things some will be worked out with flood flows. Need to take a look at Cop 1 and 33. At cop 25-beaver dam downstream is similar to Cop 33 (which won’t have an overflow pipe). If road could be 3’ higher would have worked out better. HH: as long as overflow culverts are draining and not trapping water, shouldn’t be a huge deal. Talked about this in the field, as far as this being a negative impact for fish. If, in the future, we go out there and low flows have trapped water. CRWP and USFS will keep eyes on it.
   2. COP 20: Wetland connection and inlet channel to overflow pipe
      * 1. MM: looks like some diversion channel material still above Cop 20 that is creating a short berm between unimpacted wetland from the N and the re-graded area “created pond”. Might be creating some flow limitation in the wetland area? Is it there for a reason or did it get left behind? Permit required everything to be removed.
        2. FC: swale building on the fly after re-constructing the bank-not as evident how much Q and how much flow there was. Back berm was built to allow for construction of 2 banks of the swale. If concern about flow from creek to ponded wetlands, maybe it’s as simple as creating another conveyance channel? Opening up berm? Berm originated as a result of constructing the swale.
        3. MM: important thing in this discussion, these were wetland areas, so the intent is to let that area be what it was. So the remaining berm to the north is(potentially) impeding the connectivity to remainder of the wetland and creating an extra ponded area that wouldn’t be that ponded, which will inhibit some of the re-veg that would normally occur there. Another discussion is reclamation of these areas we weren’t going to originally disturb. If there’s effort to be made to get wetland vegetation re-established in there. Back to Berm: not here to say “it must go”, but want to point out it’s fill that’s remaining, and the overflow channel development fill—not sure if ACOE will support. Not putting it back in original condition.
        4. HH: should definitely connect with ACOE. ACOE did approve diversion roads. Would like to see wetland plants get put back in. Also agree that berm needs to get taken out. Need to keep an eye on the western overflow channel bank. Also wants to acknowledge it’s a really challenging situation, so don’t want to come off as too critical.
        5. Brad: asked if Heather saw ponds this weekend? The photos we were looking at on the call were from the weekend. How re-veg with water sitting on it?
        6. MM: Overall concern is that in the plan set, the stream channel was still connected to wetlands, and now there are changes, it’s considered “done” and it’s unfortunate. Need to be discussed before it’s done.
        7. FC: does entire berm need to be removed? Or just part of it? If we elected to just remove enough material to facilitate connectivity, it could be done by hand. Otherwise, getting equipment in there could cause more damage.
        8. MM: wanted to clarify if we are talking about two berms at once. Heather is concerned about western bank/swale channel—would have been fine to not have channel and let wetland go through overflow channel. Motivation to return flow to main channel was okay. Fine leaving the overflow channel banks as is and if it fails, help it fail.   
           Agree with discussion with to remove at least part of the berm. MM okay opening up multiple connectivity. But check with ACOE about new channels, too because different than what was permitting.
        9. HH: will help with language to approach ACOE. We need to say “this is the fix for our project and the least damage to the site”, “avoid heavy equipment” in site. Re-vegetating wetlands of interest to Heather. Interested in seeing if we can accelerate growth at site by moving some wetland plants. Doesn’t need to be completely re-vegged. Spring 2022.
        10. KM: for future projects—if there’s a wetland to begin with, would want a wetland at end of the project.
        11. HH: in future would have put overflow pipe on other side.
        12. MM: back to changes-outlet channel-Cop 20-channel created different than designs. Cop 22 was vetted past ADFG, and they would have wanted to look at plan changes for Cop 20.
        13. as long as it’s backwatering and fish aren’t trapped, fine with it.
   3. Other topics?
      1. Kate asked Forrester about list of things he kept in his head while on site that he would recommend as changes next time. For example, when Kate was on site Forrester mentioned the drain wells at cop 25 being pretty close to base where culvert was to be placed. Did he submit these comments to Heidi? Can the rest of the partners see this list to apply lessons learned to other designs across the State?
         1. JB: since Kate mentioned the wells, he wanted to state it was a fine line with sand and big pond for locating well at Cop 25—It was hard to get wells far away without having big blow out with sheet piling in the ponds and the amount of water they were holding back.
         2. FC: said that the comments were being reviewed by DOWL and would be shared with partners after they are reviewed.
   4. Information sharing:
      1. NewForma feedback
         1. MM thought newforma worked well.
         2. KM asked about speed for others—HH said speed was slow, but organization was nice and easy to find things. AR and DA liked having key photos getting included in the report.
         3. Project photos available for the foreseeable future.
            1. Kate requested a copy of the files/photos before they were archived.
      2. project website feedback (<https://copperriver.org/copper-river-evos-project-page/cop-20-22-25-and-sher-2/> passcode: culvert)
         1. will update with designs for Cop 1/33—this site used leading up to construction, and the newforma was the main site during construction.
   5. Other comments:
      1. Thanks team!
5. Other topics? None.