



Meeting Summary

Huffman Potter Valley Project Ad Hoc Committee

Meeting held October 2, 2019

Summary prepared by the Consensus Building Institute

Key Outcomes

The Ad Hoc Committee refined the Potter Valley Project Ad Hoc Committee charter to reflect the new planning context, add several members (Bear Valley Rancheria, Dry Creek Rancheria, and The Nature Conservancy), and establish delegations for each member organization.

Planning Agreement Parties (Parties) must complete a feasibility study evaluating project options by April 2020, which will include a description of the “Regional Entity” that will be formed and be the licensee applicant, project plan showing capital modifications needed for continued water delivery and power generation, fisheries restoration plan, proposed study plan for additional research, and financial plan.

The Fish Passage and Water Supply Working Groups presented their respective evaluations to inform a two-basin solution. The Parties will rely on these to create scenarios for the feasibility study.

Scheduling the next Ad Hoc Committee will occur after the Parties and its consultant clarify the feasibility study development timeline to identify when to engage the Ad Hoc Committee.

Action Items

Assignee	Task
Fish Passage WG & CBI	Finalize the Fish Passage Evaluation Document by late October / early November
Scott McBain & CBI	Post summary of Oregon/Washington fish passage facilities tour [DONE]: View tour summary , fish sorting video
Paul Kubicek & Cardno	Prioritize technical information from relicensing studies that PG&E had been conducting (provide this information as it becomes available, rather than wait for all 21 studies).
Planning Agreement Parties / Ad Hoc	Inform PG&E which studies should take priority for PG&E/Cardno to process.

Ad Hoc Refined Charter and Intent, Membership Changes

Context

In July 2019, several Ad Hoc Committee member organizations, partnered to submit a joint Notice of Intent (NOI) and Pre-Application Document (PAD) to the Federal Energy Regulatory Commission (FERC) to license the Potter Valley Project consistent with the two-basin solution. In August, FERC approved the Parties' NOI/PAD submittal.

The Planning Agreement Parties (Parties) currently include California Trout (Cal Trout), Mendocino County Inland Water and Power Commission (IWPC), Sonoma County Water Agency (Sonoma Water), Humboldt County, and the Round Valley Indian Tribes (RVIT). Lake County made steps to become part of the Parties (and is in process of approving the budget to participate).

Charter 2.0 and Membership Changes

Congressman Huffman has refined the Ad Hoc Committee process (View [Congressman Huffman's letter outlining the changes](#)) to reflect this new context. The updated [Ad Hoc Committee Charter](#) included the following refinements to the Ad Hoc Committee membership and process:

- All new Ad Hoc members must support the two-basin principles and goals.
- Tribes with substantial and direct interest in the Eel or Russian Rivers will have a seat on the Ad Hoc Committee.
- Existing Ad Hoc Committee member organizations will be considered "delegations" and may bring multiple attendees to meetings. However, each delegation will have no more than two principal participants sitting at the table.
- The Parties will be allowed additional principals as needed to provide information for productive Ad Hoc discussions.

The new Ad Hoc Committee members are the Bear River Rancheria, Dry Creek Rancheria, and The Nature Conservancy (TNC)

Discussion

The Ad Hoc was comfortable with the revised Ad Hoc Committee Charter. Participants emphasized the importance for onboarding parties to sufficiently review the Ad Hoc Committee's past work, including the working groups' technical analyses, to understand and value the principles and extensive discussions seeking a two-basin solution.

An Ad Hoc member shared concerns about maintaining a balance across represented perspectives in the room that reflect the co-equal goals.

Planning Agreement Update

Feasibility Study. The Parties must complete a feasibility study evaluating project options by April 2020, which will include a description of the "Regional Entity" that will be formed and be the licensee applicant, project plan showing capital modifications needed for continued water delivery and power generation, fisheries restoration plan, proposed study plan for additional research, and financial plan. The Parties recently

hired a technical consultant to work on the feasibility study. Near-term next steps for the consultant include developing scenarios for the feasibility study.

Sediment Study. The Parties members have been working with PG&E to access Lake Pillsbury and downstream areas for sampling. The Parties intends to have the consultant work with the State Coastal Conservancy in the coming weeks (before the sampling season window closes). The study will test for various constituents of interest, including mercury and legacy pesticides. The feasibility study will incorporate the sediment study findings.

Integrating Ad Hoc Committee Input

The Planning Agreement Parties value the guidance and input of the Ad Hoc, but cautioned that the April deadline for completing the feasibility study will limit direct input. However, the Parties plan to rely on Ad Hoc technical work, document the process for conducting the study, and inform the Ad Hoc Committee periodically. The Parties and consultant will engage the Water Supply and Fish Passage working groups members for their technical expertise. And, the consultant will have allotted time to work with the Ad Hoc Committee.

Discussion

Participants acknowledged the substantial time constraints for completing the feasibility study; however, several expressed a desire for opportunities to provide meaningful feedback that can influence the study's design and implementation (rather than after major decisions have been made). Ad Hoc members offered suggestions for fostering input opportunities (e.g., utilizing email and webinars) for the Parties and consultant team to consider as the group moves forward. Congressman Huffman noted that the Parties has an inherent incentive to continue engaging the Ad Hoc Committee because the public funding that will ultimately be needed for the project's success requires the Parties maintain support from a diverse group like the Ad Hoc Committee.

Next Steps

The Parties will send CBI the consultant's contract (once finalized) to share with the Ad Hoc Committee. The consultant team and the Parties will discuss when and how to engage the Ad Hoc Committee.

Technical Working Group Outputs

Fish Passage

[Refer to [Fish Passage Evaluation \(v. 9/27/2019\)](#) | [Fish Passage Presentation Slides](#)]

The Fish Passage Working Group considered a wide range of fish passage options and technologies (refer to past [fish passage working group summaries](#)). In October 2018, the working group formed two technical subgroups (scenarios subgroup and scoring subgroup) to define and qualitatively evaluate the fish passage options. Passage options were intended to meet three major objectives for targeted species: population

viability of upper Eel River anadromous fishes, access to abundant high quality habitat, and functional fish passage.

The Fish Passage Working Group identified four “scenarios” for evaluation: a conventional fishway (i.e., fish ladder or channel), trap and haul, lowering Scott Dam, and removing Scott Dam and/or removing/modifying Cape Horn Dam. The scenarios subgroup developed multiple options that incorporated various fish passage technologies to enhance the feasibility of the concept (See summary table of scenarios and options below). The scoring subgroup scored options independently and collectively as a group. The group noted areas where participants had strong alignment and areas with diverse perspectives.

Scenarios	1 Fishway at Existing Scott Dam	2 Trap & Haul	3 Partial Dam Removal	4 Remove Scott Dam and Modify Cape Horn Dam
Options	1.1 Semi-Natural, Low-Gradient Bypass Channel 1.2 Conventional Fishway 1.2a Mead & Hunt Study 1.2b Modified	2.1 Trap & Haul, Van Arsdale to Scott Dam 2.2 Trap & Haul, at Scott Dam	3.1 Lower Scott Dam to 80’ ~ Meets current PVID water demand and RPA environmental flows 3.2 Lower Scott Dam to 50’ ~ Retain and manage accumulated sediment, no water storage within Lake Pillsbury	4.1 Remove Scott Dam and Modify Cape Horn Dam ~ diversion to East Branch Russian River with modified Cape Horn Dam infrastructure 4.2 Remove both Scott Dam and Cape Horn Dam ~ With alternative diversion infrastructure

Major takeaways from the fish passage options evaluation include:

- Dam removal greatly benefits all species and life stages evaluated. However, dam removal (without alternative diversion infrastructure or other water supply options) challenges a two-basin solution.
- Various upstream passage options are available for adult salmonids and lamprey. Downstream passage poses major concerns (primarily for juveniles).
- Fish Passage Working Group members had different perspectives on the value of Scott Dam releases during the dry season and associated water quality conditions downstream (i.e., temperature).
- Several members had concerns about engineering a successful fish passage facility on aging infrastructure.
- All passage scenarios and subsequent options assume that Cape Horn Dam / Van Arsdale Fish Station will meet current NMFS/CDFW fish passage standards.

(Cape Horn Dam may need significant modifications to meet current fish passage standards.)

- Future recommended considerations and analyses include: downstream passage options, non-biological factors (e.g., operations and maintenance costs), alternative flow schedules, predatory fish suppression techniques, fish production capacity associated with each passage option, and fish behavior / response to different habitat conditions.

Discussion

Ad Hoc members commended the working group and subgroups' robust process to qualitatively evaluate fish passage options. Several stated the subgroups incorporated a good breadth of expertise to consider both biological and technological design implications. Subgroup members did not have the expertise to adequately evaluate non-passage factors (e.g., cost of construction and operations & maintenance); however, the subgroup identified specific questions that should be further explored, such as through the feasibility study.

The Ad Hoc discussed other facilities that may inform fish passage feasibility, efficacy, and costs for the Potter Valley Project. Examples exist; however, very few are directly analogous to Potter Valley (e.g., number of fish, scale, size, etc.). Several agencies and RVIT recently toured Cowlitz River and Clackamas River facilities in Oregon and Washington (view [tour summary](#), [fish sorting video](#)); their technical experts also plan to visit Potter Valley, facilitating cross-learning and problem-solving on how to approach the unique conditions related to the Potter Valley Project (e.g., more challenges with predatory fish and water quality). Working group members added that almost anything could be engineered to be technically feasible, but at a high cost. Operations and maintenance could also be high (e.g., removing leaf litter to prevent clogging).

Ad Hoc members indicated some of the passage options do not support volitional passage, which seems incongruent with the two-basin solution. Congressman Huffman caveated that the two-basin solution co-equal goals do not explicitly call for volitional passage (as some viewed 'volitional' as too constraining and pre-decisional); rather, the co-equal goals describe the qualities that support core components of volitional passage.

Ad Hoc members identified or reemphasized the following additional issues that should require further discussion and analyses:

- Geologic instability around Scott Dam, particularly on the south bank
- Predation management (particular concern with predation on juveniles)
- Bypass flow schedule (e.g., adjust flow releases and/or modify infrastructure that considers fish passage, habitat, water supply, etc.). Comprehensive analyses may need to occur once the project is more defined.
- Water quality (and temperature). A report mapping temperature throughout Eel River is expected in the coming months (informs suitability for different fish life stages).
- Changing the reservoir size affects both short- and long-term sediment dynamics, risking harmful mercury methylation. Consider the long-term risks.

- More information on suitable habitat above Scott Dam. Precise numbers are currently unknown, but current reports indicate substantial, highly valued habitat does exist above Scott Dam. Several existing and forthcoming reports will be available.
- Greater understanding of expected fish production value for each option.

The Ad Hoc Committee agreed that the Fish Passage Working Group's evaluations were robust, and documentation is adequate; no additional analyses or recommendations are necessary at this point.

Next Steps

The Fish Passage Working Group and CBI will review the Fish Passage Evaluation document (for clarifications and consistency) and finalize by late October / early November.

Water Supply Scenarios

[Refer to Water Supply [Summary Outcomes](#), [Full Report](#) | [Water Supply Presentation Slides](#)]

The charge of the Water Supply Working Group was to identify water supply issues, identify viable near- and longer-term solutions, and inform potential futures for the project. A Water Supply Modeling Subgroup, a subset of the working group and under the direction of the working group and Ad Hoc Committee, developed and validated a water and operations model (HEC-ResSim).

The Water Supply Working Group identified a number of scenarios for consideration and then narrowed to five "scenarios" to model and evaluate: Potter Valley Project decommission under current operations (scenario 1), run-of-the river (scenario 2), Potter Valley Project Decommission with Lake Mendocino operating with Forecast Informed Reservoir Operations (FIRO) and draft Fish Flow EIR Operations (scenario 3), Potter Valley Project revised operations (scenario 4), and Potter Valley Project Decommission with Coyote Dam Raising (scenarios 5A, 5B, and 5C).

Modeling Scenarios		Russian River & Lake Mendocino Alternatives		
		Current Operations	Lake Mendocino FIRO (Hybrid) with Fish Flow EIR Operations	Raise Coyote Valley Dam
Potter Valley Project Alternatives	Current Operations	Baseline: Existing Climate (n=1)		
		Baseline FC: Future Climate (n=4)		
	PVP Revised Operations	Scenario 4: Existing Climate (n=1)		
	Run-of-the-River		Scenario 2: Existing Climate (n=1)	
			Scenario 2FC: Future Climate (n=4)	

PVP Decommission	Scenario 1: Existing Climate (n=1)	Scenario 3: Existing Climate (n=1)	Scenario 5A, 5B, and 5C: Preliminary analysis with Existing Climate
<p>GREEN boxes are scenarios that were run using existing (historic) hydrology (WY1911-WY2017). Green boxes (scenarios) were compared with each other.</p> <p>PINK boxes are scenarios that were run using hydrology developed from 4 future climate models and were run into the future (CY2006-CY2099) rather than historical. The only comparisons were 1) Baseline Future Climate (FC) with Baseline, and 2) Scenario 2FC with the Scenario 2 (no other scenarios modeled for climate change except Baseline and Scenario 2).</p>			

Key takeaways from the modeling results include:

- **Scenario 2 and Scenario 4** show promise in meeting two-basin solution water supply goals. However, Scenario 4 would need to improve Cape Horn Dam fish passage, and Scenario 2 would need to resolve Scott Dam fish passage.
- **Scenario 1** does not appear to meet two-basin solution water supply goals. **Scenario 3** improves upon Scenario 1, but still does not appear to meet two-basin solution water supply goals
- **Scenario 5 (Preliminary analysis)** - Requires much more storage in Lake Mendocino to meet two-basin solution water supply goals.
- **Climate Change Scenarios** show higher winter flows, lower spring and summer flows, and greater reservoir depletion frequency.

Discussion

The Ad Hoc lauded the model subgroup's extensive work to develop and validate a robust modeling tool. Model subgroup members explained the group had 24 scenarios, but only time and capacity to run Scenarios 1-4 (and preliminary analyses for Scenario 5). Future work (not necessarily by the model subgroup) could use the HEC-ResSim model to modify and/or run additional scenarios (e.g., fine-tune the revised operations and incorporate fish passage options).

Ad Hoc members identified or reemphasized the following additional issues that should require further discussion and analyses:

- Reduced water demand from Lake Mendocino based on reducing water losses (e.g., groundwater and unauthorized diversions)
- Population growth
- Expected new water use requirements / regulations (e.g., State water conservation requirements)
- Options for diversions to Russian River (e.g., change the timing or different technologies)
- Water quality issues (e.g., cyanobacteria, dissolved oxygen, and hydrogen sulfide) and public health and wildlife mitigation.

Next Steps Discussion: Integrating Fish Passage and Water Supply to Advance Two-Basin Solution

Ad Hoc members suggested the consultant team conducting the feasibility study should review the next steps and additional studies the working groups suggested (e.g., downstream fish passage options and cost estimates) to create scenarios that integrated viable fish passage and water supply options. The group indicated that the

information the working groups developed should be sufficient for the Parties and its consultant team to move forward with developing scenarios for the feasibility study.

Congressman Huffman reflected that the options that align better with the two-basin solution include the Water Supply Model Scenario 2 (PVP Run-of-the River + Lake Mendocino FIRO Hybrid with Fish Flow EIR Operations).

Ad Hoc members shared concerns with the “extreme” options ranging from no action to full decommission (without a diversion/water supply alternative). A state agency representative indicated that, from the state perspective, no improvement for fish passage is not an option. Others indicated a decommission scenario that “crashes the system” (i.e., no water for Russian River) is not an option either for seeking a two-basin solution. Raising Coyote Dam (as an alternative to Eel River diversions) poses several concerns (e.g., requires more than 80-foot dam raise, flood concerns, impacts on neighboring infrastructure and communities)

An Ad Hoc member reminded the group to consider how fish passage / water supply strategies may impact other activities and resources (e.g., recreation) that agencies and other land owners need to manage.

The Ad Hoc requested PG&E work with its consultant Cardno to provide the technical information from the relicensing studies that PG&E had been conducting prior to PG&E's announcement it would no longer apply for relicensing. To expedite the process, Ad Hoc members asked PG&E/Cardno to provide this information as it becomes available, rather than wait for all 21 studies. The Ad Hoc/Parties should also inform PG&E which studies should take priority for PG&E/Cardno to process.

Next Steps for the Ad Hoc Committee

Ad Hoc members emphasized their gratitude to Congressman Huffman for his leadership and support discussions across diverse perspectives and backgrounds to seek a two-basin solution for the Potter Valley Project.

Scheduling the next Ad Hoc Committee will occur after the Parties and its consultant discuss the feasibility study development timeline to identify when and how to engage the Ad Hoc Committee.

Meeting Documents

Links to documents associated with this meeting:

- Meeting Agenda - http://pottervalleyproject.org/wp-content/uploads/2019/10/2019_10-2-Agenda-Potter-Valley-P-Ad-Hoc.pdf
- Revised Ad Hoc Charter [2.0] - http://pottervalleyproject.org/wp-content/uploads/2019/09/Ad-Hoc-2.0-Charter-v2019_9-23.pdf
- Congressman Huffman's Letter on Committee Changes - <http://pottervalleyproject.org/wp-content/uploads/2019/09/09.17.19-PVP-Ad-Hoc-Committee-Letter.pdf>
- Fish Passage Evaluation (version 9/27/2019) - <http://pottervalleyproject.org/wp-content/uploads/2019/10/Fish-Passage-Evaluation-Documentation-Final-Draft-2019-09-27.pdf>

- Fish Passage Presentation Slides - http://pottervalleyproject.org/wp-content/uploads/2019/10/FishPassageOptions_10_02_2019_AD-HOC.pdf
- Tour Overview of Cowlitz River and Clackamas River Fish Passage Facilities - http://pottervalleyproject.org/wp-content/uploads/2019/10/Cowlitz-ClackamasX2-2019-tour_reducedsize.pdf
- Water Supply Summary Outcomes Document - http://pottervalleyproject.org/wp-content/uploads/2019/10/Water-Supply-Summary-Outcomes-v-2019_9-27.pdf
- Water Supply Full Report - http://pottervalleyproject.org/wp-content/uploads/2019/06/Water-Supply-Modeling-Grp-Combined-Deliverables_Final.pdf
- Water Supply Presentation Slides - <http://pottervalleyproject.org/wp-content/uploads/2019/10/Oct-2-Ad-Hoc-briefing-Water-Supply-Working-Group.pdf>

Refer to the Potter Valley Project website for more information, including past meeting documents and technical information: <http://pottervalleyproject.org>