



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

FREEDOM OF INFORMATION ACT/PRIVACY PROGRAM

March 12, 2024

In reply refer to: FOIA #BPA-2023-00619-F

SENT VIA EMAIL ONLY TO: aschick@opb.org

Tony Schick
Oregon Public Broadcasting

(b) (6)

Dear Mr. Schick,

This communication is the Bonneville Power Administration's (BPA) first partial response to your request for agency records made under the Freedom of Information Act, 5 U.S.C. § 552 ("FOIA"). Your FOIA request was received on February 27, 2023, and formally acknowledged on March 17, 2023.

Original Request

"... any documents since Jan 1, 2023, regarding the de-authorization of commercial power production at dams in the Willamette Basin (otherwise known as the Willamette Valley System)."

First Partial Response

BPA continues to process your request. To both accommodate the ongoing review of the large volume of responsive records, and to provide the records expediently, within the limitations of available agency resources, BPA is releasing responsive records to you in installments. Partial records releases are permitted by the FOIA. A first partial release of responsive records accompanies this communication.

BPA is releasing 1,544 pages as a first partial response to your FOIA request. Those pages accompany this communication with the total number of redactions made under the following exemptions:

- 136 exemptions applied under 5 U.S.C. § 552(b)(5)
- 264 exemptions applied under 5 U.S.C. § 552(b)(6)

Explanation of Exemptions

The FOIA generally requires the release of all agency records upon request. However, the FOIA permits or requires withholding certain limited information that falls under one or more of nine statutory exemptions (5 U.S.C. §§ 552(b)(1-9)). Further, section (b) of the FOIA, which contains

the FOIA's nine statutory exemptions, also directs agencies to publicly release any reasonably segregable, non-exempt information that is contained in those records.

Exemption 5

The FOIA's Exemption 5 deliberative process privilege protects records showing the deliberative or decision-making processes of government agencies. Records protectable under this privilege must be both pre-decisional and deliberative. A record is pre-decisional if it is generated before the adoption of an agency policy. A record is deliberative if it reflects the give-and-take of the consultative process, either by assessing the merits of a particular viewpoint, or by articulating the process used by the agency to formulate a decision.

Here, BPA relies on Exemption 5 here to protect the following records:

1. **Draft fact sheets** – These were intended to provide overviews of the Willamette Valley dams. However, the facts and figures were never vetted for accuracy or released.
2. **Scoping of disposition outcomes** – These are early brainstorming ideas and have since been superseded by formal analyses.
3. **Cost of generation analyses** – These are early draft analyses which have since been superseded by formal economic analyses.
4. **Internal discussions** – These are pre-decisional discussions regarding the agency's approaches with communication and engaging the Army Corps of Engineers.

BPA is withholding these records noted at items 1-3 because disclosure of this information will mislead the public about the decision-making processes regarding reauthorization of commercial power production at the Willamette Valley dams. BPA is withholding the records noted at item 4 because releasing these would harm the agency's ability to have open, frank internal discussions.

Records protected by Exemption 5 may be discretionarily released. BPA has considered and declined a discretionary release of some pre-decisional and deliberative information in the responsive records set because disclosure of that information would harm the interests and protections encouraged by Exemption 5.

Exemption 6

Exemption 6 serves to protect Personally Identifiable Information (PII) contained in agency records when no overriding public interest in the information exists. BPA does not find an overriding public interest in a release of the information redacted under Exemption 6—specifically, personal cell phone numbers, personal email addresses, personal details about availability, conference call passcodes, and WebEx passcodes. This information sheds no light on the executive functions of the agency and BPA finds no overriding public interest in its release. BPA cannot waive these redactions, as the protections afforded by Exemption 6 belong to individuals and not to the agency.

Lastly, as required by 5 U.S.C. § 552(a)(8)(A), information has been withheld only in instances where, (1) disclosure is prohibited by statute, or (2) BPA foresees that disclosure would harm an interest protected by the exemption cited for the record. When full disclosure of a record is not possible, the FOIA statute further requires that BPA take reasonable steps to segregate and release nonexempt information. The agency has determined that in certain instances partial disclosure is possible, and has accordingly segregated the records into exempt and non-exempt portions.

Non-responsive Records

The record titled *Federal Hydropower Council Meeting Agenda, Virtual, April 19, 2023* contains discrete groupings of information. Only one item, the grouping titled *Deauthorizations*, is responsive to your request. The other sections are not related to the subject of your FOIA request and are being withheld as non-responsive. Additionally, an email thread with the subject “Apropos requests” contains emails that are not related to your request and those are being withheld as non-responsive.

Fees

There are no fees associated with processing your FOIA request.

Certification

Pursuant to 10 C.F.R. § 1004.7(b)(2), I am the individual responsible for the records search and information release described above. Your FOIA request BPA-2023-00619-F remains open, with available agency records still under process.

Appeal

Note that the records release certified above is partial. Additional records releases will be forthcoming as agency resources and records volumes permit. Pursuant to 10 C.F.R. § 1004.8, you may appeal the adequacy of the records search, and the completeness of this partial records release, within 90 calendar days from the date of this communication. Appeals should be addressed to:

Director, Office of Hearings and Appeals
HG-1, L’Enfant Plaza
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585-1615

The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase “Freedom of Information Appeal” in the subject line. (The Office of Hearings and Appeals prefers to receive appeals by email.) The appeal must contain all the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review

will be available to you in the Federal District Court either (1) in the district where you reside, (2) where you have your principal place of business, (3) where DOE's records are situated, or (4) in the District of Columbia.

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road-OGIS
College Park, Maryland 20740-6001
E-mail: ogis@nara.gov
Phone: 202-741-5770
Toll-free: 1-877-684-6448
Fax: 202-741-5769

Next Partial Release Target Date

As mentioned, BPA continues to review and process the remaining responsive records collected in response to your FOIA request. The remaining records under review contain information created by the Army Corps of Engineers. BPA provided those records to the Corps, and the agency is waiting for the Corps to complete their review. Considering these conditions, BPA currently estimates a next partial response to your FOIA request by April 30, 2024. BPA again invites you to contact us to narrow the scope of your request, if desirable, or to discuss this estimated completion date, if you are interested.

Questions about this communication or the status of your FOIA request may be directed FOIA Program Lead Jason E. Taylor at jetaylor@bpa.gov or 503-230-3537.

Sincerely,

CANDICE
PALEN  Digital ly signed by CAND CE PALEN
Date: 2024 03 11 16 45:41 07 00

Candice D. Palen
Freedom of Information/Privacy Act Officer

[Responsive agency records accompany this communication.](#)

From: Smith,Glen A (BPA) - PG-5
Sent: Wednesday, March 22, 2023 7:37 AM
To: Kintz,Jesse H (BPA) - PG-5
Subject: FW: Removal/Decommissioning of EWEB's Leaburg Dam and Canal on the McKenzie River
Attachments: m11_management_recommendation_leaburg_hydroelectric_project_2022_11_30.pdf; corr_goal_3a_leaburg_canal_tbl_and_strategic_assessment_update_Memo Only.pdf

Here is that EWEB decision that will impact USACE hatchery operations and most likely will cause USACE to spend money to resolve (either find an alternate water supply or something else to help fish). This is a bit old and I think there are documents showing board approval. Not sure what USACE is working on as their path forward. Bottom line is that EWEB is making a decision internally affecting their finances and acknowledging but not solving problems for the other agencies.

Glen

From: Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>
Sent: Friday, December 2, 2022 3:35 PM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Peacock,Julie (BPA) - AIR-7 <jxpeacockwilliamson@bpa.gov>; Sinters,Anne E (BPA) - LN-7 <aesinters@bpa.gov>; Welch,Julie A (BPA) - LP-7 <jawelch@bpa.gov>; Nagra,Angad S (BPA) - LN-7 <ASNagra@bpa.gov>
Cc: Sullivan,Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>
Subject: Removal/Decommissioning of EWEB's Leaburg Dam and Canal on the McKenzie River

Hello:

EWEB is planning to remove Leaburg Dam and its associated canal. To make a long story very short, it seems that there were substantive structural deficiencies to both the dam and the canal and that the cost of upgrading both of them would have rendered the power produced by the infrastructure to not be cost-effective.

While Leaburg and its canal were primarily power generating infrastructure (as opposed to the federal dams that are primarily for flood control) they also provide water to the McKenzie hatchery. Moreover, the adult fish ladders at Leaburg are used to collect hatchery fish to remove them from going upstream. Above Leaburg was the locus of the "wild fish zone" whereas the area beneath Leaburg was the locus of the "hatchery fish zone". Without the ability the sort hatchery fish out of Leaburg there will probably be more mixing of wild and hatchery fish under current hatchery management policies.

Dan Spear

From: Andrew Janos <Andrew.Janos@EWEB.ORG>
Sent: Friday, December 2, 2022 11:40 AM
To: Jeff Ziller <jeffrey.s.ziller@odfw.oregon.gov>; Jeremy Romer <jeremy.d.romer@odfw.oregon.gov>; Walker, Christopher E CIV USARMY USACE (USA) <Christopher.E.Walker@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Taylor, Gregory A CIV USARMY CENWP (USA) <Gregory.A.Taylor@usace.army.mil>; COUTURE Ryan B ODFW <Ryan.B.COUTURE@odfw.oregon.gov>; WITHALM Erik J ODFW <Erik.J.WITHALM@odfw.oregon.gov>; Lance Kruzic - NOAA Federal <lance.kruzic@noaa.gov>; REIS Kelly

<kelly.e.reis@state.or.us>; Ann Gray <ann_e_gray@fws.gov>; Melissa Jundt <melissa.jundt@noaa.gov>; John Zauner <john.r.zauner@odfw.oregon.gov>; Wertheimer, Robert H CIV USARMY CENWP (USA) <Robert.H.Wertheimer@usace.army.mil>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>

Cc: Jeremy Somogye <Jeremy.Somogye@EWEB.ORG>; Andrew Janos <Andrew.Janos@EWEB.ORG>

Subject: [EXTERNAL] Leaburg Project Disposition Recommendation (Decommission)

All,

The following recommendation (attached) has been made by EWEB's General Manager, Frank Lawson, to EWEB's Board of Commissioners and it is to permanently discontinue electricity generation and ultimately decommission the project. This will include the removal of Leaburg Dam and portions, if not all, of the 5-mile canal. This is a recommendation from staff to the board (see attached TBL used in justification), not a decision, which will formally be made in the next month or two. This decision will have widespread impacts on the middle/lower McKenzie River, including the availability of a water supply to both hatcheries, and if alternate water supplies are not secured, the hatcheries will cease to operate. EWEB recognizes the significance of the this impact, as well as many others, and has tried its best to be transparent to all of the stakeholders during this multi-year process. The recommendation from staff and the TBL analysis will be discussed at the next public board meeting on December 6th.

If you have any questions, please reach out to Jeremy or myself.

Andrew

Andrew Janos

Senior Environmental Specialist

Eugene Water & Electric Board

4200 Roosevelt Blvd

Eugene, OR 97402

Office: 541-685-7486

Cell: (b)(6)

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Management Recommendation:

Future Disposition of the Leaburg Hydroelectric Project

Presented To: Eugene Water & Electric Board of Commissioners

From: Frank Lawson

Chief Executive Officer & General Manager

November 30, 2022

Issue

Based on extensive staff research and analysis, including outreach and public input, the General Manager is providing a conditional recommendation for the future disposition of the Leaburg Hydroelectric Project and associated infrastructure. While it is recognized that the Walterville Hydroelectric Project is included in a combined Federal Energy Regulatory (FERC) operating license, and some interdependency exists in the future disposition pathways, this recommendation only pertains to the Leaburg Hydroelectric Project.

Background

Over the past two years, staff have shared, discussed, and collaborated with EWEB Commissioners on information related to the future of the Leaburg Hydroelectric Project, which has been operating as a stormwater conveyance only facility since October 2018, when observations of internal erosion of the canal embankments prompted

29 EWEB to dewater the canal and cease power generation until the dam
30 safety issue could be resolved. Eleven future disposition options were
31 initially identified, and ultimately narrowed to four to facilitate
32 discussion and further triple-bottom-line (TBL) assessment of
33 economic, environmental, and social impacts. The four alternatives
34 include 1) Decommissioning to Pre-Project Conditions, 2) Return to
35 Full Service (Generation), 3) Partial Return to Service, and 4)
36 Decommission to Storm Water Conveyance.

37 Significant background information exists, and is provided in the
38 attached November 29, 2022, memorandum entitled "Goal #3(a) Leaburg
39 Canal TBL & Strategic Assessment Update & Recommendation Analysis"
40 (Krentz et al.).

41 **Recommendation**

42 With respect to the future of EWEB's Leaburg Hydroelectric Project,
43 Management offers the following recommendation to the Board for
44 consideration:

- 45 1. Management's recommendation is to permanently discontinue
46 electricity generation at the Leaburg Hydroelectric Project;
47 Leaburg ceased generating electricity in 2018. However, if this
48 recommended decommissioning becomes further economically
49 challenged as design and implementation begins, the cost premium
50 to facilitate generation should be reexamined and could be cause
51 for reconsideration of long-term generation.
- 52 2. With the decommissioning of the Leaburg Hydroelectric Facility,
53 Leaburg Dam should, and will likely be required to, be removed
54 returning the McKenzie River to unobstructed flow in the bypass
55 reach impacted by the hydroelectric facilities. Removing the dam
56 eliminates EWEB's long-term obligation and liability, as well as
57 is a likely regulatory outcome.
- 58 3. The dam's removal warrants alternative access development at the
59 east end of the project boundary, south of the river. Because of
60 cost and ongoing obligations and liability, Management is not
61 recommending EWEB construct a new bridge to replace the dam's

- 62 role as cross-river transport, but rather utilization of the
63 Goodpasture Bridge and road improvements.
- 64 4. Initially, canal infrastructure should be repaired and used to
65 channel intersecting side stream flows, including storm water,
66 for conveyance to the river as the most practical alternative,
67 still preserving the option to incrementally return a portion or
68 the entire project, including canal, to pre-project conditions.
- 69 5. EWEB should work specifically to mitigate water rights and water
70 access issues where legally obligated and facilitate water access
71 where possible specifically for fish hatcheries.
- 72 6. Before 2030, a similar triple-bottom-line analysis should be
73 completed to inform potential directional decisions (relicense or
74 decommission) associated with the Walterville project.

75 Recommendation Impact(s)

76 It is recognized that the aforementioned recommendations will have a
77 negative net present value (cost to customer-owners) baseline impact
78 of \$159 million (midpoint estimate, without bridge replacement cost)
79 and a significant discrete (additional from other costs and
80 investments) rate impact on EWEB customer-owners, incrementally in the
81 range of 9-10% if cost recovery were implemented immediately. The
82 timing of any rate impacts to customers will be discussed in 2023, in
83 the context of other investments, for potential implementation as
84 early as 2024.

85 Permanently discontinuing electricity generation at the Leaburg
86 Hydroelectric Project will result in the removal of the dam, restoring
87 the McKenzie River to unobstructed flow and eliminating the human-made
88 Leaburg Lake behind the dam. This will have a positive impact on water
89 quality, fish and wildlife. Lakeside recreation facilities will shift
90 to riverside recreation facilities for the decommissioning
91 alternatives and trails will need to be re-configured for all altered
92 reaches of the canal. Lakeside residences will become riverside
93 residences.

94 Recommendation Considerations

95 Although several alternative paths forward have been evaluated for
96 economic, environmental, and social impacts, Management's recommended
97 future of the Leaburg Hydroelectric Project is also influenced by the
98 following:

- 99 A. Consistency with EWEB's Mission and Organizational Values
- 100 B. Alignment with Customer-Owner Priorities
- 101 C. Understanding and Mitigating Risks and Uncertainties
- 102 D. Impacts of Long-Term Obligations and Commitments
- 103 E. Directional Resiliency/Flexibility

104 **Consistency with EWEB's Mission and Organizational Values**

105 Any recommendation should examine how the outcomes of the alternatives
106 best support EWEB's mission and values. EWEB's mission is *"to enhance
107 our community's vitality by delivering drinking water and electric
108 services consistent with the values of our customer-owners."* EWEB
109 recognizes that our two primary services are "vital" to the health and
110 welfare of our community, and that our methods are important to our
111 customer-owners. Examining how the Leaburg Hydroelectric Project
112 supports "delivering drinking water and electric services" is a
113 logical starting point.

114 Our methods are guided by our Organizational values that drive "how"
115 we do things, and provide the fundamental basis for our policies,
116 actions, behavior, and decisions. These values are sacrosanct; they
117 cannot be compromised for convenience, short-term gain, or strategic
118 progress. Safe, reliable, affordable, environmental, and community
119 encompass our stated organizational values.

120 With respect to the future alternatives of the Leaburg Hydroelectric
121 Project, EWEB's mission is most impacted or influenced by the
122 project's potential to generate electricity (or not) and any
123 subsequent impacts on the water quality of Eugene's only drinking
124 water source. EWEB's mission does not specifically identify
125 electricity generation but focuses on "delivering" electric services.
126 EWEB's mission does not directly prioritize creating or managing

127 recreational facilities, transportation assets, or other non-
128 electricity or drinking water activities.

129 **Alignment with Customer-Owner Priorities**

130 EWEB routinely surveys customers to better understand general
131 customer-owner priorities. Additionally, significant specific outreach
132 was performed to understand the perspectives of stakeholders,
133 including customer-owners, on the potential future options of the
134 Leaburg Hydroelectric Project. Staff conducted multiple forms of
135 direct outreach (articles, letters, emails, media tours) to
136 stakeholders, customers, neighborhood associations (23 direct
137 efforts), conducted ten (10) listening sessions (Lloyd Know Park,
138 Roosevelt Operations Center, Virtual), a topic-specific survey, and
139 received 18 letters or emails and 15 phone calls.

140 According to general customer surveys, once a basic threshold of
141 performance is achieved (e.g., reliability, water quality, etc.), cost
142 of service or rates/affordability becomes a clear priority for EWEB
143 customer-owners at large. Throughout decades of surveys, the top
144 three customer priorities, ranking above environmental and social
145 preferences, are water quality, reliability of delivery, and cost. In
146 our most recent residential customer survey (2022), when asked to
147 distribute points based on importance in decision-making, respondents
148 placed nearly equal importance on reliability (26% of points) and
149 affordability (25%), followed by environmental responsibility (19%),
150 safety (17%) and lastly community (12%). When asked about EWEB's role
151 in the community, nearly two-fifths (39%) of respondents place
152 controlling costs as their top priority.

153 Feedback distinctly gathered to gauge stakeholder perspectives on the
154 future options of the Leaburg Hydroelectric Project were demographic
155 sensitive. According to a Leaburg Hydroelectric Project survey many
156 McKenzie Valley residents placed importance on the recreational and
157 economic value of the lake, while most Eugene residents did not and
158 placed a higher value on fisheries and rate impacts. Two letters
159 received by EWEB also included petitions signed by multiple

160 individuals - one petition (305 signatures) advocated decommissioning;
161 the other (586 signatures) stated a preference for return to service,
162 emphasizing the importance of Leaburg Lake to the local economy.

163 **Understanding and Mitigating Risks and Uncertainties**

164 Long-Term "legacy" decisions often involve forecasting future
165 uncertainties and mitigating for the potential negative impacts of
166 inaccurate predictions or assumptions. Climate change and increasing
167 regulations associated with generation and dam operations pose ongoing
168 risks to the economic viability of the Leaburg Hydroelectric Project.

169 Obligating EWEB to continued long-term electricity generation at the
170 Leaburg Hydroelectric Generation Project presents ongoing and future
171 risks to the organization, including regulatory, environmental,
172 social, and economic. The regulatory environment is getting more
173 expensive and difficult to navigate, with requirements becoming
174 stricter. It is fully anticipated that regulations impacting
175 hydroelectric operations involving water quality, safety, and fish and
176 wildlife will become more restrictive and expensive over time. As an
177 example, if these hydroelectric projects are required to increase
178 bypass reach flows from 1,000 to 2,000 cubic feet per second (cfs),
179 then forecasted generation scenario NPVs will be negatively impacted
180 between \$5-13 million (partial - full return to service).

181 Environmental shifts associated with climate changes, and thus river
182 flows, are likely to impact electricity generation at the Leaburg
183 Hydroelectric Generation Project. Most climate change models identify
184 less snowpack and more volatile winter storm runoff, thus reducing
185 summer run-of-river hydroelectric production potential. Because of
186 climate changes, summer electricity demand is growing faster than
187 winter demand, meaning Leaburg generation will not align with premium
188 future needs across the region, reducing the value of the electricity
189 produced or cost of replacement energy.

190

191 **Impacts of Long-Term Obligations and Commitments**

192 Many electricity generation options now require 10- to 30-year
193 commitments, depending on the type of resource and investment (lease,
194 power purchase, facility ownership). If EWEB should choose to continue
195 electricity generation at the Leaburg Hydroelectric Project, this
196 would be at least a 54-year commitment with a likely extension to 94
197 years upon relicensing in 2076. If the relicensing in 2076 is
198 uncertain, and a decommissioning sinking fund necessarily created, the
199 levelized cost of energy increases incrementally by at least \$67/MWh
200 above already uncompetitive rates.

201 Under electricity generation scenarios (partial or full return to
202 service), ongoing dam operations, maintenance, and capital investment
203 will be required, along with the ongoing liability associated with
204 river flow obstruction and water management, and the liability
205 associated with the dams use as a transportation facility
206 (bridge/roadway).

207 In options that retain a portion of the canal, whether for storm water
208 management or electricity generation, ongoing operations, maintenance,
209 capital costs, and liability remain.

210 **Directional Resiliency/Flexibility**

211 EWEB acknowledges the importance of decision resiliency, making
212 decisions that can provide for future flexibility where possible. For
213 example, a decision to generate electricity at the Leaburg
214 Hydroelectric Project requires the dam remain, but does provide some
215 flexibility for canal restoration depending on the size of generation
216 (full return to service vs. partial return to service). On the other
217 hand, setting the direction towards decommissioning electricity
218 generation likely requires dam removal, but provides for future
219 choices and flexibility associated with canal restoration scope and
220 timing (return to pre-project conditions or canal use as storm water
221 conveyance). In the case of partial canal restoration for storm water
222 conveyance or electricity generation, portions of the canal may be
223 returned to pre-project conditions, while the remainder is used to
224 convey water.

225 Electricity Generation Economics

226 Investing in electricity generation at Leaburg is not economically
227 viable, creating a cost of energy at least three times higher than
228 other carbon-free options, with the most affordable incremental cost
229 option (above safety-driven required/mandated investments) of
230 electricity generation requiring an additional \$104.9 million or
231 \$173.5 million, for partial or full return to service with Walterville
232 relicensed in 2040. The levelized cost of energy produced for partial
233 and full return to service is \$117/MWh without a sinking fund, jumping
234 to \$195/MWh and \$207/MWh, respectively, if a sinking fund is included.
235 A sinking fund should be included if decommissioning is anticipated in
236 2076 but should not be included if relicensing is expected.

237 If Walterville is decommissioned, the \$117/MWh costs increase to
238 \$121/MWh and \$127/MWh for partial and full return to service
239 generation, indicating that if Leaburg returns to electricity
240 generation, Walterville should be relicensed also. Walterville's
241 projected LCOE is \$147/MWh if relicensed alone, also non-competitive
242 to other alternatives.

243 Because both generating facilities are dedicated to load in the BPA
244 contract, EWEB will petition the BPA Administrator to have EWEB's net
245 requirement (Tier 1) increased by the decommissioned amount of Leaburg
246 Hydroelectric Project, so that replacement energy from BPA is
247 available. Presently, EWEB's cost for Tier 1 energy is approximately
248 \$33/MWh.

249 Levelized Cost of Energy

Levelized Cost of Energy (per MWh)	Leaburg Full Return-to-Service	Leaburg Partial Return-to-Service
Walterville Relicensed*	\$117	\$117
Walterville Decommissioned	\$188	\$207

250 * Under generation scenarios, it would be unlikely that decommissioning would occur in
251 2076 given the infrastructure condition, thus a sinking fund would be not an
252 appropriate way to recover future relicensing costs.

253 Additional information on electricity generation economics is provided
254 on pages 43-45 of the attached November 29, 2022, memorandum entitled
255 "Goal #3(a) Leaburg Canal TBL & Strategic Assessment Update &
256 Recommendation Analysis" (Krentz et al.).

257 Decision Summary

258 EWEB Commissioners and staff have shared, discussed, and collaborated
259 on information related to the future of the Leaburg Hydroelectric
260 Project, and have listened to community members about the impacts and
261 importance of this directional decision.

262 Investing in electricity generation at the Leaburg Hydroelectric
263 Project is not economically viable, bares substantial regulatory and
264 economic risk, obligates EWEB in a long-term direction with limited
265 future flexibility, and places a further economic and social burden on
266 our customer-owners. Not generating at the Leaburg Hydroelectric
267 Project also triggers other outcomes, including the removal of the dam
268 and the repair, and potential decommissioning, of the canal. Removing
269 the dam has positive water quality and fish and wildlife benefits, an
270 attribute for which the community depends.

271 Requested Action(s)

272 Commissioners are asked to consider this recommendation and the
273 direction set forth herein. As part of a formal "endorsement" process,
274 a Record of Decision will be presented for future Board approval at a
275 time determined by the Board. Approval of a Record of Decision will
276 not launch an immediate decommissioning, but will initiate an
277 implementation and action plan, which may include contingencies and
278 conditions that the Board feels are necessary to mitigate certain
279 impacts of the direction chosen.

280

281

282 _____

283 Frank Lawson



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Brown, Carlson, Barofsky, McRae and Schlossberg

FROM: Lisa Krentz, Electric Generation Manager; Mark Zinniker, Generation Engineering Supervisor; and Jeremy Somogye, Generation Engineering Planner IV

DATE: November 29, 2022 (Board Meeting December 6, 2022)

SUBJECT: Goal #3(a) Leaburg Canal TBL & Strategic Assessment Update & Recommendation Analysis

OBJECTIVE: Informational / Direction

Memoranda Formatting

Due to the extensive amount of information included in this update, staff has formatted the memorandum to assist your review with color-coded text to distinguish between information that was previously shared, new information, and what has changed since the past update, as follows:

- Black Text is new information that has not been presented to the Board previously
- Blue Text signifies information that has been provided in past correspondence but remains herein for context and reference.
- Bold Purple Text signifies data and values, primarily depicted in tables, that have been updated since past briefings based on refined analysis.

Issue

This memo provides an update on our progress toward achieving the 2022 EWEB organizational goal #3a to work in collaboration with the Board and the McKenzie Valley Community to set the direction of the **Leaburg Hydro Electric Project** toward either a power producing asset or a storm water conveyance asset.

This memo provides the final Triple Bottom Line Analysis (TBL) results for EWEB's long term options, supporting analysis, and additional information/clarification requested by the Board at the October 25th Work Session. Note that EWEB staff re-opened the public comment survey until mid-December. A summary of the additional feedback will be provided in the January Board Correspondence.

Background

The Leaburg Canal has been operating as a stormwater conveyance facility since October 2018, when observations of internal erosion of the canal embankments prompted EWEB to dewater the canal and cease power generation until the dam safety issue could be resolved. Following subsequent findings that some canal embankments may also present earthquake safety risks, EWEB initiated a comprehensive risk assessment of the entire canal to better understand the level of investment that would be required to ensure long term safe and reliable operation. This assessment indicated that the necessary level of investment would be considerable and the Net Present Value (NPV) for the Leaburg Project would be substantially negative with less than 20 years remaining on the Federal Energy Regulatory Commission (FERC) operating license. Based on this understanding, pursuing a rapid return-to-service (RTS) was not considered appropriate in the short term. Instead, the Board directed staff to pursue near-term risk reduction measures for safe stormwater

conveyance while, in parallel, performing a Triple Bottom Line (TBL - social, environmental, and economic) analysis of long-term options. The fundamental long-term options are to pursue a return-to-service/relicensing of the Project or move toward permanent decommissioning of the Project.

In order to provide the Board with information to make an informed selection on the most appropriate long-term path forward by the fourth quarter of 2022, EWEB staff retained a consulting team (GEI Consultants, Harvey Economics, Cornforth Consulting) to assist in developing detailed analyses of the social, environmental, and financial impacts of various scenarios. Current results from this effort are detailed in this memo.

Eleven alternatives were initially identified and ultimately narrowed to four options that will be fully evaluated using the TBL and key decision parameters. The four alternatives that have been selected for detailed TBL analysis are:

- **Alternative 1 – Decommission to Pre-Project:** Return site to pre-project conditions
- **Alternative 2 – Full Return to Service:** Full facility restoration of existing power generation configuration
- **Alternative 3 – Partial Return to Service:** New hydro powerhouse at Luffman Spillway and conversion to stormwater conveyance downstream of the proposed powerhouse
- **Alternative 4 – Decommission to SWC:** Combination of decommissioning to storm water conveyance (SWC) and return to pre-project conditions

Please see Appendix A for a more detailed description of the above alternatives, as well as the alternatives that were not selected for further evaluation.

Triple Bottom Line Assessment Overview

A Triple Bottom Line (TBL) analysis is a comparative assessment and decision-making tool typically applied in complex circumstances when the outcome of a selection among options has significant and broad consequences. The theoretical foundation for this tool is that improved decision-making will result if the full spectrum of issues are objectively and comprehensively considered. Harvey Economics (HE), the consultant leading the TBL analysis, has provided their TBL Report, the highlights of which are summarized in the following sections.

Methods and Information Sources

Information for the TBL analysis was gathered through multiple means, including:

- Workshops with EWEB and consultant staff
- Review of the preliminary Leaburg analysis and TBL report developed by EWEB in 2021
- Review of notes from public meetings (still in process)
- Review of results from public outreach surveys (still in process)
- Secondary source research
- Structured interviews with EWEB Subject Matter Experts (SME)

HE's TBL framework was reviewed with a broad group of EWEB staff to ensure comprehensive inclusion of potential effects and public input.

The following caveats and limitations should be kept in mind when reviewing the TBL analysis:

- The TBL is limited to the four proposed alternatives and does not consider solutions that were not selected for further evaluation or a blending of the four options

- Electric power pricing projections are subject to a high level of uncertainty due to EWEB being in the early stages of the Integrated Resource Plan (IRP) process
- Relative impacts from TBL categories were derived from EWEB SMEs, stakeholder group feedback, upriver listening sessions and social impact surveys that were not designed for statistical confidence intervals
- The TBL is a comparative analysis and not a feasibility study

Public Outreach Update

The EWEB Communications team and project staff have completed substantial public outreach to date and continue to inform the public about the status of the Leaburg Canal evaluation. A highlight of work completed to date includes:

- EWEB Employee News update – March 17, 2022
- Launch Leaburg Canal Strategic Evaluation Website – March 23, 2022
- Letter to Canal Neighbors providing current update – March 24, 2022
- Email update to river guides and irrigators – March 24, 2022
- Status update press releases to McKenzie River Reflections and Register Guard – April 6, 2022
- Social impact survey launched – June 15, 2022
- Update letter to Canal Neighbors providing an invitation to participate in the survey – July 1, 2022
- Upriver listening sessions (6 completed)
- Listening sessions held at the ROC and Via MS Teams (4 completed)
- Media Tour of the LB Canal, Cogswell Reach
- Notification of project status and social impact survey availability distributed in September customer billing
- Facilitated a Leaburg tour and strategic evaluation project overview for a University of Oregon student and faculty group
- Directed outreach to neighborhood associations (23 total)
 - Presented the strategic evaluation to the Santa Clara Neighborhood Association on November 2, 2022
 - Fairmount Neighborhood Association highlighted the strategic evaluation in their November newsletter
 - Jefferson-Westside Neighborhood Association highlighted the strategic evaluation in their November Newsletter
 - Bethel Neighborhood Association plans to highlight the Leaburg project in their December Newsletter
 - Scheduled to present to the Fairmount Neighborhood Association in January
- Met with FERC Division of Hydropower Administration and Compliance (DHAC) staff on November 10, 2022
- Presented the strategic evaluation to the Eugene Chamber of Commerce Local Government Affairs Committee on November 16, 2022
- Presented the Strategic Evaluation to the Lions Club of Springfield on November 28, 2022

Forthcoming and ongoing outreach includes:

- Public comment and survey period extended to Mid-December
- Updates to the neighborhood associations
- Periodic press releases in the McKenzie River Reflections, Eugene Weekly and Register Guard
- Routine updates to the hatchery stakeholders (U.S. Army Corps of Engineers, NOAA Fisheries and Oregon Department of Fish & Wildlife)

Summary of Outreach Efforts

The EWEB Communications Team led an extensive effort to gather input from the public related to the four alternatives and the overall Leaburg Strategic Evaluation process and timeline. The effort included multiple outreach channels ranging from direct mailers to property owners living near project facilities to a bill insert for all EWEB customers. In addition, the Communications Team coordinated directly with local media outlets, utilized social media, developed a comprehensive webpage, and facilitated in-person and virtual listening sessions.

Public “Listening Sessions”

EWEB staff hosted five separate “listening sessions” at the Lloyd Knox Park Pavilion near Leaburg Lake between May and August 2022 (upriver listening sessions) and five additional listening sessions in September and October 2022 (Eugene listening sessions), including three at EWEB’s Roosevelt Operations Center and two virtual sessions. These sessions were intended to give community members and others interested in the Leaburg Project an opportunity to learn about the alternatives, ask questions, and provide comments to EWEB staff and Commissioners.

More than 100 people attended the upriver listening sessions, including McKenzie Valley and Eugene/Springfield residents, as well as visitors from outside the immediate area. Comments and questions addressed during those sessions focused on the following:

- Importance of recreation on Leaburg Lake and support for local businesses
- Environmental stewardship and green power generation
- Irrigation concerns for local commercial agriculture
- Impacts of the proposed Luffman Powerhouse to adjacent landowners

The Eugene listening sessions, including the in-person and virtual sessions, were attended by a total of 28 people. Comments and questions addressed during those sessions included the following:

- TBL process and NPV calculations
- Project costs, rate increases, and power generation
- Fisheries and other environmental impacts

Leaburg Project Public Comment Form / Survey

A public comment form with questions related to the process of choosing an alternative, the importance of Leaburg facilities, and tradeoffs among different priorities was released in mid-June and open through mid-October. The form was advertised at in-person events, such as listening sessions and EWEB Board meetings, in the September customer bill insert, on social media and EWEB’s website, and promoted by local news outlets. Following the October 25th Board Work Session, the comment form was re-opened through mid-December to allow for additional feedback on the final Triple Bottom Line report and recommendation to the Board. The survey and comment details shown below include results collected through mid-October. Comments received after mid-October, will be summarized in a January Board correspondence.

Between mid-June and mid-October 2022, a total of 422 people responded to the form, including 128 from the Eugene area and 211 from upriver communities; 89 respondents were not EWEB customers.

In addition to questions on specific topics, each respondent was asked to rank a list of 10 different issues (nine specified and one write-in) from most important to least important. Responses to the public comment form provided the following information:

- Fisheries impacts were the highest priority for all respondents combined, with recreation at Leaburg Lake ranked as the second highest priority. However:

- o Recreation at Leaburg Lake ranked highest among upriver respondents.
- o Upriver respondents valued recreation much higher than Eugene respondents, as related to both Leaburg Lake and the Leaburg Canal Trail.
- o Fisheries impacts was the highest priority among Eugene respondents.
- o Eugene respondents place a higher priority on rate impacts and carbon footprint than on recreation concerns.



Figure 1: Polarizing Perspectives on Recreation among Upriver and Eugene-based Customers

- For all respondents combined, the survey results offered the following ranking of priorities, in order of importance from most important to least important:
 - o Impacts to fish
 - o Recreation at Leaburg Lake
 - o Hydropower production
 - o Resiliency
 - o Recreation along Leaburg Canal
 - o Electric rates
 - o Carbon footprint
 - o Historic structure preservation
 - o Project costs

Overall, respondents placed low emphasis on the total project cost and rate impacts, with slightly higher importance on rates:

Priorities Ranking

Please rank the importance of the following values in order of your top priorities. A Smaller Bar indicates a Higher Priority (#1 Priority).

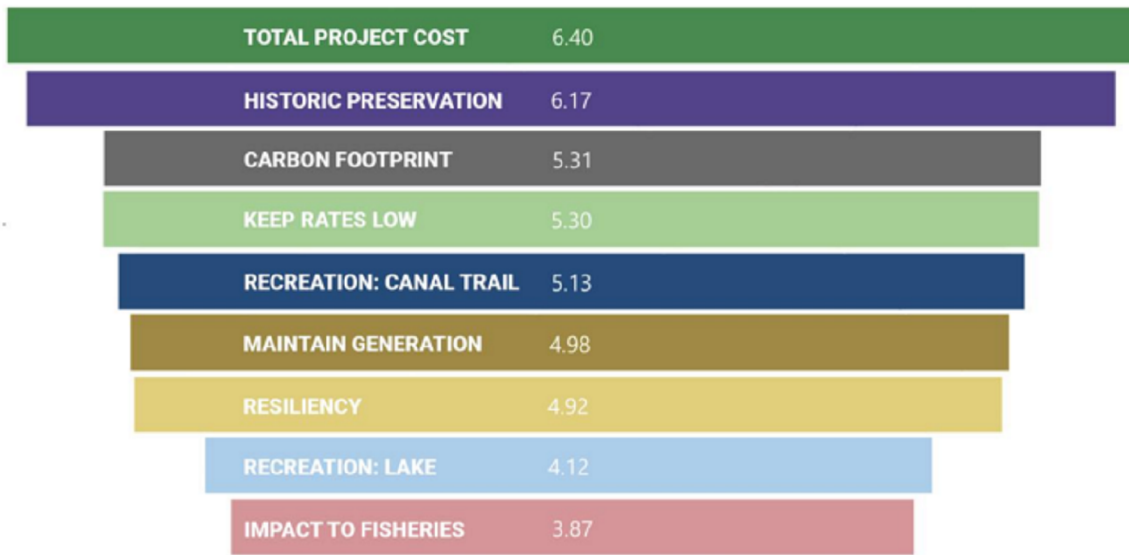


Figure 2: Tornado Diagram of Public Comment Form Priorities Rank Order. A narrower bar indicates a higher priority.

Additional Leaburg Project Comments Submitted

EWEB staff also received e-mails, letters and phone calls from individuals, businesses, community and environmental groups.

- 18 letters or e-mails, including:
 - Three (3) indicating a preference to prioritize hatchery management concerns in decision-making
 - Ten (10) indicating a preference for decommissioning, citing fisheries, water quality, and climate change associated with return to service scenarios
 - Two (2) indicating a preference for return to service, citing resiliency and electricity demand concerns
 - Five (5) indicating a preference for return to service, citing recreation at Leaburg Lake and local economics concerns
 - Two (2) letters also included petitions signed by multiple individuals – one petition (305 signatures) advocated decommissioning; the other (586 signatures) stated a preference for return to service, emphasizing the importance of Leaburg Lake to the local economy.
- 15 phone calls, including nine (9) callers concerned specifically about Leaburg Lake. Other calls addressed fisheries impacts, dam safety, impacts to rates, other recreation, questions about the decision-making process, and several stating a preference for the full return to service alternative.

EWEB Customer Satisfaction Surveys

Two customer satisfaction surveys of EWEB's entire customer base have been completed in recent years:

- **2019 Customer Benchmark Survey** - Conducted to measure customers' satisfaction with EWEB services and programs. A total of 915 customer households participated in the survey. The following results are relevant to the evaluation of the Leaburg Project alternatives:
 - Overall satisfaction with EWEB is high at 4.4 (on a 5.0 scale) and is up from 4.2 in 2017.
 - Despite higher satisfaction in 2019, efforts to control costs still represents the issue with largest gap between importance and satisfaction.
 - In terms of ranking importance of EWEB programs and services, "electric service reliability" ranked slightly higher than "efforts to control costs" and "efforts to protect environment." The latter two were ranked as equally important.
 - Roughly three-quarters of those surveyed are concerned about lowering their carbon footprint (77%).

- **2022 Residential Customer Satisfaction Survey** – Aimed to "check in with customers to gauge satisfaction and better understand customers' needs, values and priorities related to key utility functions and strategic initiatives." A total of 1,044 surveys were completed, offering the following information relevant to the evaluation of the Leaburg Project alternatives:
 - Respondents placed more importance on reliability and affordability regarding EWEB's decision-making.
 - When asked about importance in decision-making, respondents placed nearly equal importance on reliability (26%) and affordability (25%), followed by environmental responsibility (19%), safety (17%) and community (12%).
 - Respondents prioritize controlling costs and electric service reliability when it comes to EWEB's core services.
 - More than half (55%) of respondents place controlling or reducing costs as one of their top two priorities. Enhancing electric reliability follows closely with just over half (51%) of respondents placing it as one of their top two priorities
 - With respect to core services, respondents in EWEB's McKenzie River Valley territory prioritize reliability above affordability by a larger margin than other zip codes within EWEB service territory.
 - Respondents prioritize protecting the local watershed when it comes to environmental responsibility.
 - Protecting the watershed is one of the top two priorities for about 58% of respondents.
 - Respondents are split on addressing climate change as a priority for EWEB's role in the community.
 - When respondents left a comment regarding areas for improvement, the primary topic was related rates/costs/fees.

The customer satisfaction surveys included a broader customer base and responses reflect the overall values and sentiment regarding social, environmental, and economic issues associated with EWEB's mission to provide reliable services to the community without consideration of a specific project in mind when completing the survey.

Additional information about the outreach effort, including detailed survey information, media coverage, public comments, listening session summaries, stakeholder letters, and petitions can be found in Appendix F.

Regulatory Assumptions and Process

During the October 25th work session, the Board inquired about the regulatory process and constraints for the four alternatives and asked if it is possible to obtain direction about project specifics from our regulatory

stakeholders prior to finalizing a directional decision. Based on the experience of EWEB staff, including those who worked through recent Carmen-Smith relicensing negotiations, and a legal review performed by our consultant team, there are viable pathways to regulatory acceptance for all four alternatives. However, the regulatory, consultation, negotiation, and licensing (amendment or relicensing) requirements would vary significantly between alternatives.

There will be regulatory oversight from multiple governmental agencies regardless of the alternative and regulatory pathway selected. The primary regulator will be the FERC. EWEB will consult with the following three divisions of the FERC regarding our conceptual proposal and the most appropriate regulatory pathway:

- FERC Division of Dam Safety and Inspections (D2SI): EWEB provides routine updates about the Leaburg Canal to the D2SI with the next update due by December 12, 2022. D2SI is the division of FERC that directed EWEB to de-water Leaburg Canal, ultimately leading to the initiation of the Strategic Evaluation project.
- FERC Division of Hydropower Administration and Compliance (DHAC): DHAC manages compliance with the existing license or would be the division processing any applications for license amendment.
- FERC Division of Hydropower Licensing: The Division of Hydropower Licensing manages relicensing or license surrender applications.

In addition to the FERC, EWEB will consult with additional regulatory agencies to determine the details of any license-action proposal. These include, but may not be limited to:

- Oregon Department of Environmental Quality (DEQ): Clean Water Act Section 401 Water Quality Certification.
- U.S. Fish and Wildlife Service (USFWS): Section 7 Endangered Species Act Consultation for threatened bull trout and Federal Power Act Section 18 Fishway Prescriptions.
- National Marine Fisheries Service (NMFS): Section 7 Endangered Species Act Consultation for threatened spring Chinook salmon and Federal Power Act Section 18 Fishway Prescriptions.
- U.S. Army Corps of Engineers (USACE): Clean Water Act Section 404 Permit for the Discharge of Fill into Waters of the U.S.; Rivers and Harbors Act Section 10 Permit for Structures or Work in Navigable Waters.
- National Park Service, Advisory Council on Historic Preservation: Memorandum of Agreement and management plans for the Leaburg Hydroelectric Project Historic District on the National Register of Historic Places.
- Oregon Parks and Recreation Department, State Historic Preservation Office: National Historic Preservation Act Section 106 consultation including that necessary for effects to the Leaburg Hydroelectric Project Historic District.
- Oregon Division of State Lands: Oregon Removal Fill Law (ORS 196.795, Removal-Fill Permit)
- Oregon Department of Transportation (ODOT)
- Lane County Division of Land Management & Roads Division
- Oregon Water Resources Department (OWRD)
- Oregon Department of Fish and Wildlife: Habitat, Wildlife, Fish, and Hatchery Divisions.

Additional stakeholders that could be part of any formal negotiation process include local Native American Tribes, organized Non-Governmental Organizations (NGO's), and the public. The regulatory authorities, jurisdictions, goals, and interests of the stakeholder groups vary, and many of the regulatory agencies, to different degrees, are required to take into consideration public comment in the administration of their authorities.

EWEB staff met with two staff members from the DHAC on November 10, 2022, to give them an overview of our Leaburg Canal challenges and the four options being considered by the Board. They provided helpful feedback regarding potential license-action options and consequences for our existing license based on their experience. The primary takeaways from the meeting with DHAC are:

- Confirmation that EWEB's overarching assumptions about the FERC's regulatory processes and constraints are appropriate.
- The FERC will not provide feedback on the strategic alternatives under consideration but will provide guidance on process and answer questions regarding regulations.
- The FERC recommended close communication with key stakeholders prior to proceeding with any formal license action in order to reduce the potential for adverse interventions.
- DHAC would be willing to coordinate a joint consultation meeting with the other two FERC divisions (Dam Safety, Division of Licensing) once we have formulated a conceptual proposal.
- D2SI typically consults with DHAC with respect to dam safety measures requiring a license amendment.
- If substantial investments are made at a project, the licensee can request an extension to the existing license term.
- Substantial amendments to a license require essentially the same three-stage process as relicensing: 1) pre-application consultation with federal and state resource agencies, Native American Tribes, and the public, 2) conducting studies and obtaining information, and 3) filing an application with FERC.
- Many, but not all, Licensees have negotiated settlement agreements for both applications for surrender and license amendments.
- DHAC has seen developments split off from a License by way of a License amendment. For example, it is possible for the Leaburg and Waltherville developments to be separated, from a licensing perspective, through an amendment process.
- A licensee can coordinate with DHAC, the Licensing Division, and D2SI at the same time.
- The Commission has not favored large license amendments close to a license expiration date.

The EWEB Board and several community members asked if EWEB could negotiate with the FERC to reduce the design parameters from the million-year flood event to a more reasonable 10,000-year flood event to save cost. EWEB staff feels it is unlikely the FERC will reduce the design requirements because they are based on standards that FERC applies to all hydroelectric projects in the same classification as Leaburg. If the flood design parameters were reduced, the cost savings would likely be minimal due to the need to also mitigate the seismic vulnerability of the embankments in the same reaches. The consultant team provided an analysis to determine the potential cost savings and the most optimistic savings of reducing the flood design parameters would be approximately 2 percent.

TBL Attributes

HE gathered input from EWEB staff, consultants, and public stakeholders to compile a master list of issues and organized them into TBL attribute categories. The categories considered in the TBL analysis are shown below in Table 1:

Table 1: Triple Bottom Line Attributes		
Social	Environmental	Economic
<ul style="list-style-type: none"> • Public Safety • Local Economic Activity • Wildfire Response / Mitigation • Social Justice • Environmental Justice • Recreation - Lake • Recreation – River • Recreation - Trails • Cultural / Historical Resources • Visual / Aesthetics • Domestic Groundwater Wells • Surface Water Supplies • Local Community Property Values • Fish Hatcheries • Local Transportation Networks • Noise Levels 	<ul style="list-style-type: none"> • Water Quality – McKenzie River • Aquatic Resources • Carbon Footprint • Terrestrial / Avian Species Wetlands • Vegetation 	<ul style="list-style-type: none"> • Project Cost / Rate Impacts • Financing and Bond Rating Impacts • Power Price Risk Reduction (via EWEB owned generation) • Future Economic Risk • Access to Grant Funding • Access to Partnership (i.e., ODFW, USACE, LCPW) • Future Economic Opportunity

Table 2: Triple Bottom Line Attribute Scores				
	Full Decomm	Full RTS	Partial RTS	SWC
<u>Social</u>				
Public Safety	4	1	2	3
Local Economic Activity	-2	1	1	-2
Wildfire Response /Mitigation	-5	0	-1	-3
Social Justice	-5	-5	-3	-3
Environmental Justice	0	0	0	0
Recreation - Lake	-4	0	0	-4
Recreation - River	1	0	0	1
Recreation - Trails	0	0	0	0
Cultural / Historical Resources	-3	0	-1	-2
Visual / Aesthetics	1	0	-1	-1
Domestic Groundwater Wells	-2	-2	-2	-2
Surface Water Supplies	-2	0	-1	-2
Local Community Property Values	-1	0	-1	-1
Fish Hatcheries	-4	0	-2	-4
Local Transportation Networks	-2	-1	-1	-1
Noise Levels	-1	-1	-1	-1
<u>Environmental</u>				
Water Quality – McKenzie River	2	0	1	2
Aquatic Resources	2	0	0	2
Carbon Footprint	-3	-2	-4	-1
Terrestrial / Avian Species	1	0	0	1
Wetlands	-1	-1	-1	-1
Vegetation	2	0	1	2
<u>Economic</u>				
Project Costs / Impacts to Rates	-5	-5	-3	-3
Financing & Bond Rating Impacts	-5	-5	-3	-3
Power Price Reduction (Via EWEB Owned Generation)	-3	0	-2	-3
Future Economic Risk	-1	-5	-3	-2
Access to Grant Funding	2	1	1	2
Access to Partnership (i.e., USACOE, ODFW, LCPW)	1	1	1	1
Future Economic Opportunity	1	1	1	1

Attribute Scoring Approach

A scoring system was developed to define the relative impact of each attribute for each alternative in relation to current conditions. This approach allows attributes to be considered individually within the context of each alternative. The attribute scoring is shown above in Table 2.

Comparative scoring ranges from +5 to -5. If the effect is significant, a score of +5 or -5 is assigned. If the effect is minor, the attribute will be assigned a +1 or -1. The range for negative effects relative to current conditions is -5 to -1. A score of -5 represents a major negative effect and -1 represents a minor negative effect,

comparatively. The range for positive effects relative to current conditions is +5 to +1. A score of +5 denotes a major positive impact, while +1 denotes a minor positive impact, comparatively. A score of zero means no effect from the alternative for that attribute. For example, looking at project costs/rate impacts, Alternative 1 receives a score of -5 while Alternative 3 gets a score of -2. Project costs are highest for Alternative 1 and lowest for Alternative 3. While this attribute is relatively straightforward, many other attributes have more complexity and needed to be carefully considered with regards to scoring.

The scores for each attribute and for each Leaburg Canal alternative are based upon factual information gathered by the consultant and project team. Impact assessments for the economic category were based primarily on a quantitative analysis, whereas assessments for the environmental and social impacts were primarily determined qualitatively.

In mid-June, the consultant conducted a preliminary TBL workshop with EWEB staff to review the preliminary results. Based on the feedback, HE made minor revisions to the TBL. However, EWEB staff generally agreed with the scoring approach.

Social Impact Assessment

The social impact assessment scores were devised using input from EWEB SME's and public comments that have been received to date (outreach events, survey results, and direct contact). Table 3 shows some examples of the considerations used as inputs to their respective assessment scores.

Table 3: Social Impact Assessment Considerations	
Attribute	Considerations
Public Safety	<ul style="list-style-type: none"> • Landslides / Slope Stability • Breach Flooding • Canal Safety
Local Economic Activity	<ul style="list-style-type: none"> • Construction Employment, Income, Benefits • Recreation Economy • Commercial Irrigator Operations • EWEB Employment – Local Operators • Property Values / Tax Revenues
Wildfire Response /Mitigation	<ul style="list-style-type: none"> • Canal / Lake Availability for Water • Canal as a Fire-Break
Social Justice	<ul style="list-style-type: none"> • Rate Payer Impacts • Rural and Underserved Community Impacts
Environmental Justice	<ul style="list-style-type: none"> • River Restoration Impacts
Recreation	<ul style="list-style-type: none"> • Changes in Local Recreational Opportunities • Boating / Fishing on Leaburg Lake • Boating / Fishing Downstream of Dam • Hiking / Walking on Canal Trail
Cultural / Historical Resources	<ul style="list-style-type: none"> • Tribal Resources • Project Facilities on National Historical Registry
Visual / Aesthetics	<ul style="list-style-type: none"> • Change from Current Conditions <ul style="list-style-type: none"> ○ At Leaburg Lake ○ Along the Canal • Impacts Near Luffman Spillway (New Powerhouse)
Domestic Groundwater Wells	<ul style="list-style-type: none"> • Shallow Well impacts
Surface Water Supplies	<ul style="list-style-type: none"> • Impacts to those with and without EWEB Agreements
Local Community Property Values	<ul style="list-style-type: none"> • Lake vs. River Frontage • Impacts of Canal Configuration
Local Transportation Networks	<ul style="list-style-type: none"> • Leaburg Bridge Impacts • Construction Phase Traffic (Detours, Delays) • Operational Phase Traffic
Noise Levels	<ul style="list-style-type: none"> • Construction Activities • Operational Activities

The social impact assessment evaluates effects to stakeholders, such as customers or community members, and to the resources or conditions that those stakeholders value. The TBL considers a large number of social attributes and compares how those attributes are affected by the alternatives relative to current conditions. The following sections provide a description of each attribute and key differences in impacts between the alternatives that affects their scoring.

Public safety – This attribute addresses human safety associated with local landslides, slope stability related to canal embankments, canal breach flooding and other canal safety issues that pose potential risks to people. Although EWEB has fielded limited concerns about public safety risks created by the Leaburg facilities, there are differences between the alternatives in terms of public safety risk. Even though upgraded facilities under

the return to service scenarios would greatly reduce public safety risks relative to current conditions, the presence of stored water at elevation presents a greater hazard relative to the decommissioning alternatives, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: +4
- Alt 2 – Full RTS: +1
- Alt 3 – Partial RTS: +2
- Alt 4 – Decomm to SWC: +3

Highlighted example comments received during public outreach to date include:

- Concern that canal safety requirements such as the 10,000-year return frequency seismic event and 1,000,000-year return frequency flood event are unreasonable design criteria relative to the limited hazard presented by the Leaburg hydroelectric facilities.
- Canal related issues during a large seismic or flood event will be minor relative to all of the other impacts from such an event.
- The nuisances created by canal seepage have been of far greater concern to canal neighbors than safety issues. (Note that seepage and elevated groundwater levels were viewed as benefits rather than a nuisance by some canal neighbors)

Local economic activity – The alternatives will produce varying levels of construction benefits, such as employment and income, plus changes to the recreational economy, particularly businesses that cater to visitors and recreators. Certain alternatives can also have impacts to commercial irrigators with EWEB water supply agreements. In addition, there are local economic benefits from EWEB’s local O&M expenditures on skilled labor/materials/supplies. While construction benefits are roughly equivalent among the alternatives, the decommissioning alternatives are expected to have net adverse effects on local economic activity, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: -2
- Alt 2 – Full RTS: +1
- Alt 3 – Partial RTS: +1
- Alt 4 – Decomm to SWC: -2

Highlighted example comments received during public outreach to date include:

- Concern that McKenzie Valley businesses catering to recreationalists at Leaburg Lake will lose a significant portion of their customer base.
- The “Save Leaburg Lake” petition highlights the economic impact concern. Signature collection is ongoing with 50 pages of signed petitions submitted to the EWEB Board at their September meeting. The petitions included signatures from McKenzie Valley and Lane County residents as well as visitors from elsewhere in the Pacific Northwest and beyond.
 - “This recreational facility brings tourists and commerce to the McKenzie valley.”
 - “It is not fair to the community and visiting tourists that the dam has not been maintained as it should have all these years. The McKenzie River needs this area for tourism to help the local economy after the 2020 fires.”
- Others emphasize dam removal and return of the natural river as a long-term tourism benefit:
 - “Other recreational lakes are nearby. The value of a free-flowing McKenzie River has far more value.”

- “The “lake” directly borders a state highway. It is therefore very unpleasant to be on or in. I fail to see how anyone other than a wealthy lakeshore landowner would oppose removing the lake.”
- “Even if Leaburg Lake were to disappear, there could still be other recreational activities, potentially both on land with trails and some water-based recreation, too, and the area would return to its more natural setting before it was created.”

Wildfire response and mitigation – The ability of Leaburg Lake to provide a potential water supply source for firefighting, as well as use of the Canal as a potential firebreak. Use of surface water for outdoor irrigation to dampen areas adjacent to structures is also included here. The decommissioning alternatives experience negative impacts for this attribute, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: -5
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -3

Highlighted example comments received during public outreach to date include:

- Concern from McKenzie Fire and Rescue about finding timely alternative sources for filling water tanks as they have historically drawn from multiple locations along the canal when fighting both structure fire and wildfires, however, McKenzie Fire and Rescue has implemented additional protocols for ensuring adequate water sources.
- Concern from canal neighbors that flammable vegetation will replace the “firebreak” effect of the canal and increase the risk of wildfire movement into residential areas.

Social justice – This attribute considers disproportionate impacts to low-income or minority populations, specifically due to changes in EWEB electric rates. The alternatives will have variable effects on electric rates, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: -5
- Alt 2 – Full RTS: -5
- Alt 3 – Partial RTS: -3
- Alt 4 – Decomm to SWC: -3

EWEB has not received public comment on social justice topics separate from rate escalation concerns.

Environmental justice – Disproportionate adverse effects of environmental resources (i.e., local air quality or noise effects) upon low-income or minority populations during the construction phase or as a result of operational conditions or activities.

Environmental justice impacts associated with the Leaburg decision appear to be limited. The recreation facilities (walking/biking trails, park, and lake) are free to the public, a significant benefit to local low-income populations and, thus, valuable to the low-income community. Recreation facilities are also equally accessible to underserved populations. This free and equal access to recreation is unlikely to change for any alternative, though the nature of the recreation (for example lake vs. river) would be different. Leaburg Lake currently has the only local disabled river access and there are limited nearby lakes with hand-launch craft access, such that the decommissioning alternatives may result in a slight impact to environmental justice.

- Alt 1 – Decomm to Pre-Project: -1
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: 0
- Alt 4 – Decomm to SWC: -1

EWEB has not received public comment on environmental justice topics.

Recreational activity – The recreational attribute incorporates impacts to boating and fishing activities on Leaburg Lake and along the McKenzie River downstream of the Leaburg Dam, as well as the use of trails along the length of the Canal for walking and biking.

Operation of the Leaburg Project includes license-required management of recreation facilities along the full length of the lake and canal. Examples include the Goodpasture Boat Landing at the upstream end of Leaburg Lake, recreational facilities at Leaburg Lake, and the embankment crest trail running the full length of the canal. There are local and regional users of the recreation facilities and, while summertime utilization is the highest, the facilities are used throughout the year.

FERC’s requirement to continue providing recreational opportunities is unlikely to change for any alternative, although the nature of the recreational facilities would change. Except for the full return to service scenario, modifications to the lakeside and canal trail recreational facilities would be necessary. Lakeside recreation facilities would shift to riverside recreation facilities for the decommissioning alternatives and trails would need to be re-configured for all altered reaches of the canal. These changes would disrupt historical recreational patterns, and the most significant disruptions would be related to recreation on Leaburg Lake.

Based on feedback from the Board, the recreation attribute has been separated into lake, river, and canal trail attributes to capture the different impacts to each.

Recreation – Lake:

- Alt 1 – Decomm to Pre-Project: -4
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: 0
- Alt 4 – Decomm to SWC: -4

Recreation – River:

- Alt 1 – Decomm to Pre-Project: 1
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: 0
- Alt 4 – Decomm to SWC: 1

Recreation – Trails:

- Alt 1 – Decomm to Pre-Project: 0
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: 0
- Alt 4 – Decomm to SWC: 0

While hosting six listening sessions at Lloyd Knox Park, EWEB received numerous comments about the recreational impacts. Highlighted example comments include:

- Concern from many recreators that comparable lakes for recreation are distant from Leaburg.
- Sentiments from some recreators that they are not concerned about their ability to find comparable recreational opportunities elsewhere.
- Strong opinions from canal trail users that every alternative should include a comparable trail system to current facilities.
 - “I use it almost daily for exercise for my dog and I.”
- According to the Public Comment Form, recreation access is a polarizing issue. On the question of “How important is it to you that Leaburg Lake remain as a recreational facility?” 28% (N=40) of respondents rank it “Not Important,” while 37% (N=53) rank it “Extremely Important.”
- The question “How important is it to you that the Leaburg Canal Trail remain as a recreational facility?” evokes a similar divergence, with 26% (N=38) ranking it “Not Important,” and 32% (N=45) ranking it “Extremely Important.”
- Those who rank recreational activity as “Not Important” emphasize EWEB’s priorities of serving water and electricity and that EWEB “is not in the recreation business” and that the lake serves to generate electricity with recreation a secondary benefit.
- “The interests of having a healthy and viable ecosystem are far more important than maintaining recreational dams and lakes.”
- “There are so many places to hike and walk in the McKenzie Valley. Walking along a manmade canal is the least inspiring area we have.”
- “While the lake, park, and trails are nice, clean renewable power is extremely important and should be the pivotal concern.”

Cultural and historical resources – Impact to Project facilities that are included in the Leaburg Hydroelectric Project Historic District (District) and potential impacts to Tribes or to Tribal resources. EWEB will engage with Tribes separately from this TBL analysis.

The District encompasses the vast majority of the Project facilities and any changes require mitigation to the satisfaction of the State Historic Preservation Office. The decommissioning alternatives would result in major impacts that would be challenging to mitigate to the satisfaction of all stakeholders. For some facilities, such as the Leaburg Power Plant, there may be opportunities to preserve facilities by re-purposing for alternative uses, though there is significant uncertainty about what ultimate outcome can be achieved in a decommissioning agreement. Except for the full return to service, alternatives have a range of impacts to cultural and historical resources as follows:

- Alt 1 – Decomm to Pre-Project: -3
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -2

Highlighted example comments received during public outreach to date include:

- Particular concern about the potential loss of the iconic Leaburg power plant.
- On the Public Comment Form, “Retain historic structures” is the lowest-ranked priority

Visual / aesthetics – Long-term, permanent changes as compared to current scenic conditions, specifically at Leaburg Lake and along the canal.

Several Leaburg Project features are readily visible from Highway 126 and have come to characterize the visual/aesthetic presence of this portion of the McKenzie Valley over the past 92 years. The Leaburg Power Plant, Leaburg Dam, and Leaburg Lake are familiar features to people from throughout the region and any significant change to the facilities would alter the historic aesthetics of the area. Although decommissioning of the facilities would be performed in a way that intends to replace the historic visuals with comparably favorable aesthetics, the change would be drastic and could take a substantial period of time to achieve the desired visual outcome.

There are portions of the Leaburg Project that could transform into more visually appealing scenes than the existing condition. Decommissioning or conversion of portions of the canal to stormwater conveyance could result in a more natural, less industrial aesthetic that complements the McKenzie Valley surroundings. Portions returned to Pre-Project conditions would tend to have a natural or park like appearance.

Given there are such wide-ranging perspectives on this particular attribute, largely influenced by residential location and aesthetic opinion, it is difficult to score the net impacts. Considering there will be both positive and negative impacts, we estimate the overall total impact to be minor in scale. Except for the full return to service, alternatives have been assigned a range of impacts to visual and aesthetic resources as follows:

- Alt 1 – Decomm to Pre-Project: +1
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -1

Highlighted example comments received during public outreach to date include:

- Some local residents selected their home in part due to the existing visual and aesthetic presence of the Leaburg Project, for example a view of Leaburg Lake.
- Some local residents have expressed that the prospect of having a re-patriated creek located adjacent to their property is highly attractive.

Domestic groundwater wells – Potential effects to properties adjacent to the canal that may have historically benefitted from Leaburg Canal seepage.

In all alternatives, there will continue to be a drastic reduction in contributions to the groundwater table from canal facilities. In the decommissioning alternatives, only the tributary creeks and stormwater will be contributing to the local groundwater. In the return to service alternatives, a canal lining will prevent diverted McKenzie River water from seeping into the subsurface. As such, all alternatives have an equally negative impact on the local groundwater table as summarized by the following scores:

- Alt 1 – Decomm to Pre-Project: -2
- Alt 2 – Full RTS: -2
- Alt 3 – Partial RTS: -2
- Alt 4 – Decomm to SWC: -2

Highlighted example comments received during public outreach to date include:

- Numerous canal neighbors have voiced frustration with the negative impacts to the groundwater table since the canal went out of service.

Surface water supplies – Access to supplemental irrigation supplies by landowners with EWEB agreements to provide water.

Over the past 92 years, EWEB has entered into 17 agreements to supply water to property owners along the length of the canal. Most of these agreements are interruptible in the event that EWEB is unable to maintain water in the canal. The vast majority of water withdrawals from the canal have been small in scale, though the McKenzie Hatchery has an interruptible agreement for the supply of 50 cubic feet per second (over 22,000 gallons per minute). Except for the full return to service, a portion or all of these agreements would be disrupted. The water supply disruption impacts are scored for the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: -2
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -2

Highlighted example comments received during public outreach to date include:

- Multiple commercial irrigators have advised that the canal water supply is critical to the viability of their farming activities.
- Several canal neighbors historically drawing landscaping irrigation water have voiced concerns about the increased wildfire vulnerability of their property.

Local community property values – Effects to property values under these alternatives can occur in numerous ways, including changes in canal related safety risks to property; local recreational amenities and opportunities; aesthetics / visual changes; and availability of groundwater or access to surface water supplies. Changes in property tax revenues for Lane County and other local entities may occur with changes in property values or the acquisition of properties by EWEB.

There are approximately 100 properties located in close proximity to Leaburg Project facilities, such as the power plant, 5-mile canal, Leaburg Dam, and Leaburg Lake. Depending on the specific location, property values could be altered in a variety of ways. There will be temporary construction phase, as well as long-term post-construction changes, that may influence property values. Similar to the visual and aesthetic discussion, the nature of impacts will be highly variable by location. Much of the visual and aesthetics discussion is relevant to this property value discussion as well, as there could be a mix of favorable and unfavorable impacts.

There are wide-ranging perspectives on this attribute, largely influenced by residential location and personal opinion. Considering there will be both positive and negative impacts, we estimate the overall total impact to be minor in scale. Except for the full return to service, alternatives have been assigned a range of impacts to property values as follows:

- Alt 1 – Decomm to Pre-Project: +1
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -1

Highlighted example comments received during public outreach to date include:

- Many Leaburg Lake neighbors expect that a transition from lakeside to riverside conditions would adversely affect property values.
- Some canal neighbors think that a reduction of seepage and reduced risk of canal-related problems would favorably affect property values.

Fish hatcheries – Impacts to Leaburg and McKenzie Hatchery operations associated with changes in water supplies and water availability.

The Leaburg Trout Hatchery and McKenzie Salmon Hatchery have relied on Leaburg Project facilities for the majority of their water supply throughout their history. The loss of gravity supply from Leaburg Lake and the Leaburg Canal would likely force the hatcheries toward pumped water supply systems that are very expensive, both in terms of upfront capital costs and ongoing operation and maintenance costs. Substantial operational changes would require lengthy planning and implementation efforts as well as financial support from the State and Federal agencies that own and operate the hatcheries. The potential hatchery impacts are scored for the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: -4
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -2
- Alt 4 – Decomm to SWC: -4

Highlighted example comments received during public outreach to date include:

- Impact to fisheries is the top-ranking concern among survey participants, with many prioritizing the return-to-service of the hatcheries as part and parcel of fisheries management.
 - “The Leaburg Project has been screened for many years to protect fish. In partnership with ODFW, hatchery and wild salmon can be separated at the dam if necessary. The salmon fishery on the McKenzie River is very important for the business community.”
 - “The fish ladder and hatchery work in harmony. Migration and breeding are both enabled with the ladder”
 - “The fish need our help and the water supply alone to the hatcheries is a bigger positive impact than retaining the fish passages in my opinion.”
- Others prioritize the benefits of the return to natural river flows as the best way to support the fisheries:
 - “Our salmon populations are continuing to decline and the amount of money spent on hatchery programs has not improved those populations”
 - “We must protect our environment and the salmon. This is a world-renown fishing river-one of the best, last, cleanest rivers in the country. The salmon is our identity and our biggest source of tourism and supports our local businesses”
 - “The McKenzie, in its wild state, is a world class recreational and natural resource. The work being done on the South Fork and in the area of Finn Rock to restore salmon habitat has been extremely encouraging. Dam removal would support these efforts.”
- McKenzie Salmon Hatchery staff have communicated their concern that alternatives other than the full return to service could reduce the long-term viability of the hatcheries.
- Local economic development stakeholders have voiced concern about the potential impact to tourism if the Leaburg Hatchery sturgeon ponds are lost.

- A Puget Sound orca activist voiced concern about adverse impacts to the McKenzie Salmon Hatchery as hatchery fish are valuable forage for that endangered species.
- The “Save Leaburg Lake” petition highlights the hatchery impact concern. Signature collection is ongoing with 50 pages of signed petitions submitted to the EWEB Board at their September meeting. The petitions included signatures from McKenzie Valley and Lane County residents as well as visitors from elsewhere in the Pacific Northwest and beyond.

Local transportation networks – Impacts to roads, bridges, or other transportation infrastructure during the construction phase and during operations, including potential traffic delays, temporary or permanent road closures, or other traffic related effects.

There will certainly be transportation impacts during the construction phase for all alternatives. While investigated as part of the TBL, no significant difference in impacts is discernible, except that the repatriation of all creeks in the decommissioning to pre-Project conditions alternatives would require the largest number of closures to Highway 126. As such, the potential transportation impacts are scored as follows:

- Alt 1 – Decomm to Pre-Project: -2
- Alt 2 – Full RTS: -1
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -1

Highlighted example comments received during public outreach to date include:

- A local farmer with operations reliant on the Leaburg Bridge expressed concern with transporting their harvest during bridge construction.
- A local resident that relies on the bridge expressed concern over detour and school bus impacts during bridge construction.
- McKenzie Fire & Rescue volunteers emphasized the challenge of staging response teams on both sides of the river during Goodpasture and Bridge Street repairs.

Noise levels – Noise generated by vehicles and equipment during the construction phase. Noise from Project facilities during operation will be minimal.

Construction noise impacts will occur for all the alternatives. However, no significant difference in impacts is discernible. As such, the potential transportation impacts are scored as follows:

- Alt 1 – Decomm to Pre-Project: -1
- Alt 2 – Full RTS: -1
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -1

Highlighted example comments received during public outreach to date include:

- Several residents near Luffman Spillway expressed concern about potential noise pollution from a power plant situated near their homes.

Environmental Impact Assessment

The environmental impact assessment scores were devised using input from EWEB SME's and public comments that have been received to date (outreach events, survey results, and direct contact). Table 4 shows some examples of the considerations used as inputs to their respective assessment scores.

Table 4: Environmental Impact Assessment Considerations	
Attribute	Considerations
Water Quality – McKenzie River	<ul style="list-style-type: none">• Temperature• Turbidity / Sediments during Construction• Drinking Water Source
Aquatic Resources	<ul style="list-style-type: none">• Fish Migration• Habitat Availability• Fish Sorting Capabilities• Hatchery Water Supply• Lamprey Habitat
Carbon Footprint	<ul style="list-style-type: none">• Construction Phase Emissions• Manufactured Construction Materials• Low-Carbon Electric Power Portfolio• GHG Emissions from Operations
Terrestrial / Avian Species	<ul style="list-style-type: none">• Construction and Operational Phases
Wetlands	<ul style="list-style-type: none">• Mitigation Needs• Regulatory Requirements
Vegetation	<ul style="list-style-type: none">• Extent of Removal• Extent of new planting

The environmental impact assessment evaluates effects to local natural resources as well as more global effects, such as carbon impacts. The TBL considers a number of environmental attributes and compares how those attributes are affected by the alternatives. The following sections provide a description of each attribute and the key differences in impacts between the alternatives that affects their scoring.

Water quality – This attribute takes into account two effects: changes in turbidity due to construction phase activities and ongoing operations, and water temperature changes in reaches of the McKenzie River affected by changes in flow. Other water quality parameters are not expected to exhibit appreciable differences between the alternatives.

Turbidity will be a major water quality concern during construction activities associated with all alternatives. Even though the permits required to perform construction will have extensive turbidity control requirements, any construction activity taking place below the ordinary high-water level of a river or stream will have some unavoidable turbidity impact. The decommissioning alternatives require the largest amount of construction work below the ordinary high-water level and, thus, present the most significant construction phase turbidity issues.

Turbidity impacts during ongoing operations are expected to be minimal for all alternatives. Since Leaburg Lake allows for some turbidity to settle out as silt on the lake bottom, there is some reduction effect during operation, though it is arguably offset during brief periods of maintenance when the lake or canal levels are drawn down and that sediment can mobilize or be intentionally removed.

There are small, but measurable, impacts to river temperatures associated with the diversion of McKenzie River water into the Leaburg Canal. While the narrow and deep canal itself experiences limited warming as it travels downstream, the wide, shallow bypass reach below Leaburg Dam does experience more warming than it would in the absence of the canal diversion. The net warming effect of the Leaburg operation is a concern, due to the potential for adverse impacts on plants and animals in the aquatic environment.

Temperature impacts are widely considered to be the most significant water quality concern, so the different effects on this attribute associated with each alternative appropriately dominate the scoring. The alternatives will have variable effects on temperature, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: +2
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: +1
- Alt 4 – Decomm to SWC: +2

EWEB has fielded some public concerns about water quality as it relates to the dewatered canal. During the dry weather season, there are locations with essentially stagnant stormwater that tend to grow algae and breed insects. EWEB is currently conducting a comprehensive water quality assessment, including ongoing monitoring work, and expects that water quality issues can be appropriately mitigated in any of the alternatives.

Aquatic resources – Consideration of impacts to fish migration (particularly species listed for protection under the Endangered Species Act; Willamette Spring Chinook Salmon and Upper Willamette bull trout) and habitat availability at Leaburg Lake and in the McKenzie River. Impacts to Pacific Lamprey, a U.S. Fish and Wildlife Service Species of Concern, are also considered as part of this attribute.

Leaburg Dam is equipped with fish ladders on both the right and left banks of the river for upstream fish passage. For downstream passage, there are screens that prevent fish from entering the canal and, instead, return them to the river immediately below the dam. Both upstream and downstream fish passage facilities were improved in 2003/2004 as part of the new license requirements. EWEB has conducted extensive monitoring and evaluation of fish passage facility performance and has documented the adequacy of performance and ongoing operation to the satisfaction of State and Federal fish agencies. Although slight fish migration delay has been documented, the Leaburg Dam facilities have relatively minor impacts on fisheries, including federally listed species, in terms of fish passage effectiveness.

It is also important to note that both the upstream and downstream fish passage facilities provide Federal and State fishery managers with an opportunity to accomplish important fish population monitoring work (counting and cataloging seasonal fish movement by species). The McKenzie River basin is regarded as a stronghold for native Willamette Spring Chinook salmon, and the area upstream of Leaburg Dam is considered a wild fish sanctuary. The Oregon Department of Fish and Wildlife (ODFW) has used the left bank fish ladder to sort hatchery salmon from wild salmon in an effort to minimize breeding between hatchery and wild fish. As such, the presence of Leaburg dam provides some fisheries management value.

Pacific Lamprey use the silt deposits that have accumulated behind Leaburg Dam as rearing habitat for their lengthy larval development phase, and Leaburg Lake currently supports a large population of the lamprey ammocoetes (larvae). If Leaburg Dam were to be removed, lamprey ammocoetes would be re-distributed into silt deposition in the lower reaches of the McKenzie River.

Leaburg has relatively minor impacts on aquatic resources relative to other hydroelectric operations. Those impacts would remain under both return to service options as there would not be substantial changes to the status quo. The decommissioning options would largely eliminate impacts to fish migration in the long term, although there would be some negative impact to fish population monitoring. The resulting scoring between the alternatives is as follows:

- Alt 1 – Decomm to Pre-Project: +2
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: 0
- Alt 4 – Decomm to SWC: +2

Highlighted example comments received during public outreach to date include:

- Preferences from McKenzie Watershed Protective for completely uninhibited fish movement through the McKenzie River at Leaburg.
- Desire from ODFW for continued reduction of hatchery fish above Leaburg Dam through sorting at the dam.

Carbon footprint – Greenhouse gas emissions (GHG) impacts of the four Leaburg alternatives and relation to EWEB’s Climate Change Policy, SD15.

For this project, three primary categories of potential GHG emissions were identified and estimated for each of the four alternatives: construction emissions, embodied emissions in purchased goods and services, and emissions from power generation / replacement power. The description of the emissions calculations, boundaries, exclusions, data sources, and methods are outlined below.

Construction Emissions: This includes the GHG emissions associated with the construction phase of the project. These emissions primarily come from fuel consumption (mostly diesel fuel, but also some gasoline) by construction equipment at or near the Leaburg project site in the McKenzie River Valley. Additional emissions could come from passenger traffic detours, delays, or idling due to construction, but were excluded from the analysis due to data uncertainties. The results are shown in the table below and range 30,000-43,000 MT CO₂e between alternatives for the full duration (multiple years) of the construction activities. **Alternative 3 is expected to provide the lowest impact.**

Methods: Fuel consumption estimates (as an expected percentage of the total project budget) and the expected fuel split (90% diesel, 10% gasoline) were provided by the consultant construction estimator. These estimates were turned from dollars into expected gallons by applying the average fuel price per gallon for diesel and gasoline over the last 5 years. For diesel, the price per gallon source used was ODOT’s asphalt and fuel pricing between Jan 2018 and Aug 2022. For gasoline, the analysis relied on the Energy Information Administration (EIA) West Coast less California monthly gasoline prices for regular conventional retail prices (\$/gallon). The final emissions value listed in the table below shows the analysis results using the average fuel price over the 5-year period. Sensitivity analysis was conducted using the highest and lowest fuel prices within the same 5-year period but is not shown here. The gallons were turned into metric tons of greenhouse gas emissions using emissions factors for diesel and gasoline from The Climate Registry’s Annual Emissions Factors for 2022.

Embodied Emissions in Purchased Goods and Services: Each of the four project alternatives have significant materials requirements for construction, including products such as concrete, plastics, gravel, pipe, etc., as

well as services such as facility maintenance/repair, waste management and remediation services, or architectural and engineering services. These goods and services have embodied greenhouse gas emissions associated with their manufacture and delivery up to the point of purchase. This analysis sought to provide a high-level estimate of these upstream emissions impacts. These emissions would occur at the manufacturing plants, likely at considerable distance from the project site. While these types of emission calculations are considered above and beyond what is typically expected in an analysis such as this, EWEB includes it here as a measure of best practice and an opportunity to educate our decision-makers about the GHG intensity of construction projects, and an opportunity to identify any potential low-GHG alternatives when the project is being bid. When looking at the results, it is interesting to note that despite its lower cost, Alternative 3 has a higher estimated emissions impact, even compared to Alternative 2. This is because of the high carbon intensity of the replacement materials that would make up the new powerhouse at Luffman Spillway required under Alternative 3 that is not included in Alternative 2. **Alternative 4 is expected to provide the lowest impact.**

Methods: Using the Opinion of Probable Costs provided by the consultant construction estimator for each alternative, the types of costs expected were categorized and matched up with categories in Oregon DEQ’s OR2010 CBEI Purchaser Price Model. This consumption-based greenhouse gas emissions inventory (CBEI) model was designed to provide emissions factors for emissions “upstream” of the purchaser (e.g., for petroleum, this model would provide the emissions associated with extracting and refining the petroleum up to the point of purchase, but not using it). The model provides emissions factors for approximately 440 commodities and is based on the IMPLAN database using Oregon-specific consumption values. The most recent version of the model provides emissions factors in units of (MT CO₂e) per \$ spent (using 2014 dollars). Once the expected expenditures for each alternative were matched with categories from the model, emissions estimates were calculated and adjusted for inflation to current year (2022) using the Turner Building Index for construction materials as shown below in Table 5:

Alternative	Construction Emissions (MT CO₂e)¹	Embodied Emissions in Purchased Goods & Services (MT CO₂e)²
1. Decommission to Pre-Project	42,000	170,000
2. Full Return to Service	43,000	123,000
3. Partial Return to Service	30,000	182,000
4. Decommission to Storm Water Conveyance	31,000	52,000

¹Consultant construction estimator assumes fuel costs are a portion of total project costs and the diesel/gasoline split is 90%/10%. Diesel price/gallon is from the ODOT Monthly Fuel Prices (MFP), Gasoline price/gallon is from the US Energy Information Administration (EIA). Emissions factors are from The Climate Registry 2022 Default Emissions Factors. Rounding reflects cost and methodology uncertainty in estimates.

²Construction cost estimates for categories of goods and services was matched to OR DEQ OR2010 CBEI Purchaser Price Model and emissions totals were adjusted for inflation based on the Turner Building Cost Index. Rounding reflects cost and methodology uncertainty in estimates.

Emissions Implications from Replacement Power: The four alternatives identified for the Leaburg TBL process have different implications for the amount of power that could be produced from this zero-carbon, renewable, hydroelectric resource. Replacing that power with a different source, if it were to be taken offline entirely (alternatives 1 and 4) or if the power produced was reduced from historic levels (alternative 3), would undoubtedly have various carbon implications depending on the source of the replacement power.

EWEB's Climate Change Policy (SD15), within the section related to power generation, states: *"The Board is committed to supporting a low-carbon electric power portfolio that maintains, on a planning basis, over 90% of annual energy from carbon-free resources and targets over 95% of annual energy from carbon-free resources by 2030 to the extent possible and practical without distinct adverse impacts to customer-owners."*

In EWEB's current Integrated Resource Plan (IRP) planning process, EWEB has set itself a carbon budget that will allow power planning decisions to meet the 95% carbon-free goal from SD15. This means that whether EWEB selects to return Leaburg to service or not, EWEB will be looking to replace that power with other largely carbon-free resources and therefore the consequences of the question of replacement power are less about actual GHG emissions and more about what it would cost to continue to have access to low-carbon power sources in the future. Looking at the price implications of the Leaburg alternatives and how that decision relates to the language in SD15 is outside the scope of this analysis but could be included in future IRP sensitivities as directed by EWEB's Board of Commissioners.

Due to other planning decisions EWEB would make to meet the goal outlined in SD15 to maintain a 95% carbon-free resource portfolio and replace Leaburg's output with other sources of carbon-free power, none of the Leaburg alternatives are expected to have an emissions impact as it relates to replacement power.

Public Comment and Final Scoring: EWEB has not received public comment on the calculations above for construction and embodied emissions in materials and services, but several attendees at the listening sessions expressed their support for the carbon free hydro-electric power options.

On the Public Comment Form, "Lowest carbon footprint as possible" ranks 4th among the rank-ordered priorities. The resulting scoring between the alternatives is as follows:

- Alt 1 – Decomm to Pre-Project: -4
- Alt 2 – Full RTS: -2
- Alt 3 – Partial RTS: -3
- Alt 4 – Decomm to SWC: -1

Terrestrial species / avian species. Effects on mammals, waterfowl, birds and other wildlife species during the construction phase and from operations. Changes in animal behavior and habitat availability are also considered.

Any decommissioned portions of the canal and lake would be largely converted into terrestrial habitat, transitioning from hosting aquatic animals to terrestrial and avian species. This shift would be favorable for the terrestrial and avian species, though comparable habitat is locally plentiful such that effect on populations

relative to current conditions are not expected to be substantial. The decommissioning options would bring minor improvement, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: +1
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: 0
- Alt 4 – Decomm to SWC: +1

EWEB has not received public comment on terrestrial or avian topics.

Wetlands. Changes in the number of wetland acres, including both areas where wetlands may be reduced and areas where wetlands may be generated. Since the canal was taken offline in 2018, wetland areas that were supplied by canal seepage have substantially diminished. Any of the alternatives under consideration will reduce the historic extent of wetlands indefinitely. For the return to service alternatives, the canal will be lined to prevent excessive seepage. For the decommissioning alternatives, there will only be stormwater flows and limited potential wetland development. As such, scoring is uniform for the alternatives and the impact is minor.

- Alt 1 – Decomm to Pre-Project: -1
- Alt 2 – Full RTS: -1
- Alt 3 – Partial RTS: -1
- Alt 4 – Decomm to SWC: -1

EWEB has received some feedback from the canal neighbors that the reduction of wetland areas is not a concern, though there are other neighbors that see the change as adverse to their ponds and similar water features.

Vegetation. Changes in the amount of regional vegetation, including trees, are represented by this attribute. This category takes into account both areas where vegetation may be eliminated and areas where additional vegetation may be planted.

Any decommissioned portions of the canal and lake would transition into largely vegetated areas. This shift would generally expand the local vegetation canopy, though similar canopy is locally plentiful such that the overall effect is not expected to be substantial. The decommissioning options would bring minor canopy expansion, thus resulting in scoring between the alternatives as follows:

- Alt 1 – Decomm to Pre-Project: +2
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: +1
- Alt 4 – Decomm to SWC: +2

EWEB has not received public comment on terrestrial or avian topics.

Economic Impact Assessment

The Economic component of the TBL Assessment accounts for impacts to EWEB's operating costs and profits – the "typical" bottom-line. The Economic component of the Leaburg TBL considers financial impacts to EWEB and our customer-owners directly, including project costs, revenues from power generation, and overall utility bonding capacity. The following sections explain how the economic analysis was performed and presents results for each of the alternatives under consideration.

Upfront Capital Cost Estimates

The consultant team and EWEB staff developed initial cost estimates for the upfront capital investment needed for each of the four alternatives, which are used as inputs into the Net Present Value (NPV), essentially an estimate of “all-in” cost. A variety of additional financial considerations that affect the NPV results are also discussed in the following sections of this memo.

All four alternatives are currently in the feasibility assessment and study phase, creating significant cost uncertainty such that estimates will be in an expected range of -30% to +50% from baseline, in accordance with the American Association of Cost Engineering (AACE) Class 4 guidelines detailed in Table 6.

Estimate Class	Primary Characteristic	Secondary Characteristic		
	Maturity Level of Project Definition Deliverables Expressed as % of complete definition	End Usage Typical Purpose of Estimate	Methodology Typical Estimating Method	Expected Accuracy Range Typical Variation in Low and High Ranges ¹
Class 5	0% to 2%	Concept screening	Capacity factored, parametric models, judgment, or analogy	L: -20% to -50% H: +30% to +100%
Class 4	1% to 15%	Study or feasibility	Equipment factored or parametric models	L: -15% to -30% H: +20% to +50%
Class 3	10% to 40%	Budget authorization or control	Semi-detailed unit costs with assembly level line items	L: -10% to -20% H: +10% to +30%
Class 2	30% to 75%	Control or bid/tender	Detailed unit cost with forced detailed take-off	L: -5% to -15% H: +5% to +20%
Class 1	65% to 100%	Check estimate or bid/tender	Detailed unit cost with detailed take-off	L: -3% to -10% H: +3% to +15%

Table 6: American Association of Cost Engineering Estimate Classes

Baseline cost estimates, including low and high ranges, for the four alternatives are shown below in Table 7. Estimates **include**, but are not limited to, the following categories, all of which fall into AACE Class 4:

- Subsurface Exploration & Feasibility Studies
- Legal and Administration
- Property and Water Right Acquisitions
- Permitting and Relicensing
- Design and Construction Planning
- Construction
- Post-Construction Oversight and Studies

Exclusions from the baseline capital cost include, but are not limited to:

- Inflation/Escalation after 2022 in excess of assumptions for EWEB’s Long Term Financial Plan
- Unknown hazardous materials
- Unforeseen change in site conditions
- Unusual contract constraint risk, including but not limited to:
 - Fixed price contracts
 - Date certain contracts
 - Performance guarantee contracts

Baseline Capital Cost Assumptions:

- Typical May through November construction

- Overtime rates based on 50 hours per week
- Standard equipment rates, fuel, and maintenance cost
- Historically consistent crew and equipment productivity levels

The baseline cost estimates for all four alternatives are shown below in Table 7:

Alternative	Baseline	-30%	+50%
1. Decommission to Pre-Project	\$242,700,000	\$169,890,000	\$364,050,000
2. Full Return to Service	\$257,860,000	\$180,502,000	\$386,790,000
3. Partial Return to Service	\$176,608,000	\$123,625,000	\$264,912,000
4. Decommission to Storm Water Conveyance	\$175,862,000	\$123,103,000	\$263,793,000

Assumed Power Value

In earlier versions of the NPV analysis, staff assumed power value based on forecasted wholesale market costs. However, given that Leaburg is a resource that is dedicated to serve retail load, staff determined it is more appropriate to estimate power value with the potential power costs of a replacement resource. EWEB’s long-term power supply includes a mix of long-term power contracts, owned generating resources, and limited amounts of market purchases. As such, a replacement resource would likely look more like an owned asset or a long-term power contract. For example, BPA power, or other similar resources, are likely more representative of EWEB’s true long-term power supply costs, as opposed to forecasted wholesale market prices. EWEB has not completed our Integrated Resource Plan (IRP), and it’s not clear which candidate resource would be the best fit for EWEB’s portfolio, so staff are utilizing forecasted BPA costs as a proxy for these replacement power costs, as it generally reflects the resource attributes, including cost, of a collection of resources that EWEB is likely to pick for a least cost portfolio. In the NPV analysis, this replacement cost of delivered power could be avoided by having Leaburg return to service and resume generation.

In the NPV analysis, the expected power value for our replacement resource escalates at a rate that is similar to what is assumed for BPA products in EWEB’s long term financial plan: a ~6.3% increase every two years. For our low and high value scenarios we assume ~3% and ~9% escalation every two years. This reflects the potential range of costs that EWEB might incur if we replace Leaburg with another generation resource. This price range also reflects a replacement product that would have similar environmental and capacity benefits. Though we are using forecasted BPA costs as a proxy for estimating replacement power value, it should not be assumed that BPA power products will be available to replace Leaburg generation, as this determination has not yet been made. Staff are working to better understand which resource options can serve EWEB’s future portfolio and BPA products will be included in that discussion.

Capital Spending Projections

All scenarios will require extensive planning, regulatory compliance negotiations, and construction. Each scenario requires that near-term risk reduction measures, which are expected to be completed by 2028, are performed in parallel. Table 8 provides an overview of the assumed timelines. We expect an increase in capital spending beginning in 2031, correlating with final design and permitting efforts, followed immediately by intensive construction activities that will take approximately 6 years (Chart 1). It is assumed the RTS scenarios will have a slightly heavier pace of upfront spending for the additional design and planning effort, and the decommissioning scenarios will have the need for additional studies at the conclusion of the work due to extensive restoration efforts.

Table 8: Assumed Project Timeline: RTS and Decommissioning			
Decommissioning	Assumed Schedule	Return to Service	Assumed Schedule
Implementation of Near-Term Risk Reduction Measures	2023-2027	Implementation of Near-Term Risk Reduction Measures	2023-2027
License Surrender & Settlement Agreement Technical Studies	2023-2027	License Amendment and Settlement Agreement studies	2023-2027
FERC Approval, NEPA and ESA Process	2028-2029	FERC Approval, NEPA and ESA Process	2028-2029
Design & Permitting	2030-2032	Design & Permitting	2030-2032
Decommissioning Implementation & Closeout Studies	2033-2040	Re-commissioning Implementation & Closeout Studies	2033-2040

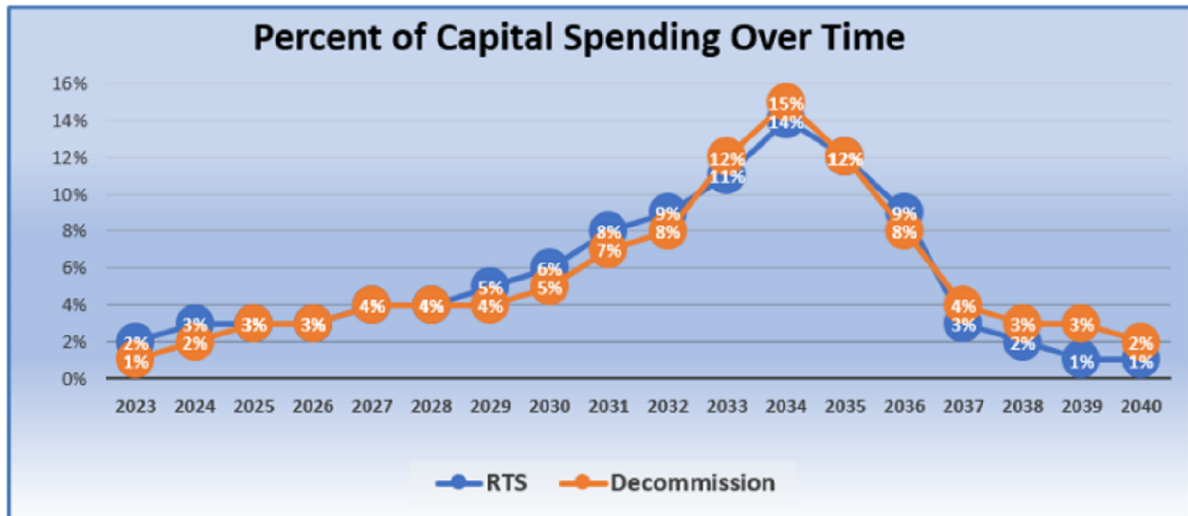


Chart 1: Percent of Capital Spending Over Time: RTS vs. Decommissioning

Net Present Value

For each of the four selected alternatives, the EWEB financial team has calculated the NPV, essentially an estimate of “all-in” cost, to inform the economic assessment portion of the TBL analysis. The primary baseline NPV analysis inputs and assumptions are shown below in Tables 9 and 10. Table 11 summarizes line-item details for the NPV results and Chart 2 graphically shows the NPV results.

Table 9: Baseline Net Present Value Inputs: Leaburg				
Input to NPV (\$ million)	Alternative 1 – Decomm to Pre-Project	Alternative 2 – Full RTS	Alternative 3 – Partial RTS	Alternative 4 – Decomm to SWC
Initial Capital Cost¹	\$242,700,000 ¹	\$257,860,000	\$176,608,000 ¹	\$175,862,000 ¹
Ongoing Capital Cost:²				
Normal Year (Annually)	\$125,000	\$282,000	\$230,000	\$215,000
Major Improvements (5-yr)	\$400,000	\$1,474,000	\$1,100,000	\$923,000
Annual O&M Cost³	\$870,000	\$1,450,000	\$1,305,000	\$1,085,000

¹ Estimated baseline costs for each alternative.

² Estimated costs for equipment replacement and renewal, as necessary to maintain reliability.

³ Annual labor, material, and support service costs.

Additional underlying NPV assumptions for all alternatives:

Table 10: NPV Assumptions for all Alternatives	
Escalation Rates:	
O&M Labor	3.0%
Non-labor Escalation	2.0%
Capital Escalation	3.0%
Capacity Value Escalation (nominal output)	2.1%
Discount Rates:	
Nominal Dollars	6.3%
Uninflated Dollars	4.2%
Historical Inflation Rate¹	2.1%

¹ Based on historical inflation – Bureau of Labor Statistics headline inflation rate (average 2018-2021)

Table 11: NPV Baseline Summary				
Line Items	Alternative 1 – Decommission to Pre-Project	Alternative 2 – RTS to Existing Power Plant	Alternative 3 – RTS to Power Plant at Luffman	Alternative 4 – Decommission to SWC
NPV: Upfront Capital Expenses	(\$186,200,000)	(\$200,800,000)	(\$137,500,000)	(\$134,900,000)
NPV: Ongoing Expenses				
O&M	(\$33,200,000)	(\$48,800,000)	(\$44,900,000)	(\$39,000,000)
Capital	(\$4,800,000)	(\$6,400,000)	(\$10,900,000)	(\$9,600,000)
NPV – Power Value¹				
Expected	\$0	\$41,900,000	\$16,300,000	\$0
High Replacement Value	\$0	\$61,800,000	\$24,100,000	\$0
Low Replacement Value	\$0	\$26,500,000	\$10,300,000	\$0
Total NPV	(\$222,000,000)	(\$214,000,000)	(\$171,000,000)	(\$178,000,000)

¹ Projected power value based on assumed replacement power similar to a BPA resource

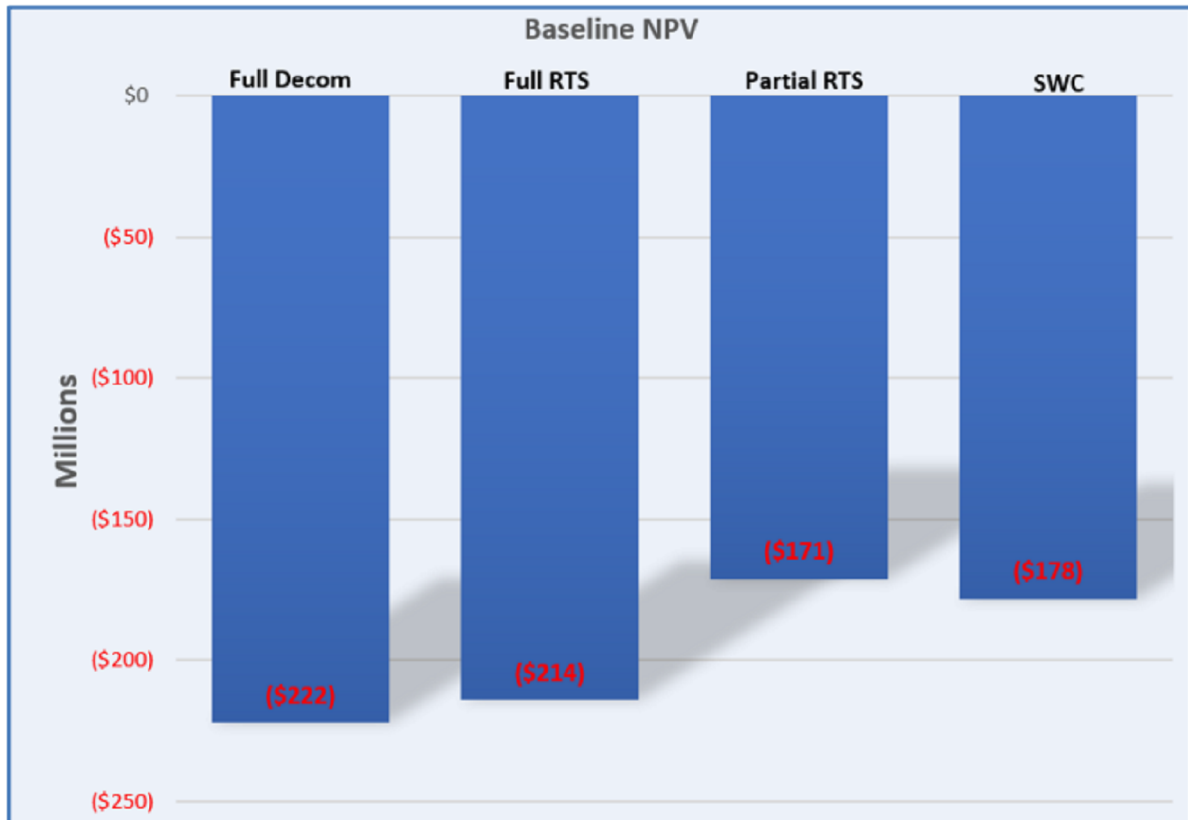


Chart 2: Baseline NPV Results

NPV Sensitivities

In addition to the baseline NPV, staff have also performed sensitivity analyses to better inform the Board of the complexities and uncertainties associated with the financial aspects of the alternatives. Since an NPV is

typically a capital planning and budgeting tool, sensitivity analysis allows for consideration of the alternatives given the inherent risk and uncertainty of relying on assumptions and forecasts. Please note the NPV is still preliminary because the upfront capital cost are based on conceptual plans. Actual cost will not be known until negotiations with key regulators and more detailed planning occurs.

The subsequent discussion, tables, and charts explains the purpose of each sensitivity and interprets the relevancy of the results.

Capital Cost and Power Price Sensitivity: The upfront capital cost estimates are believed to have an accuracy range of -30% to +50%. Future power price projections cover a substantial range of 29 to 42 \$/MWH in the near term and 85 to 390 \$/MWH in the year 2075. To test the sensitivity of the NPV results to these factors, the Finance team ran scenarios for high capital costs combined with low power prices, as well as low capital costs with high power prices. Chart 3 depicts the expected range of power value at Leaburg.

As shown in Chart 4, while the bottom line NPV result was substantially different than the baseline numbers in each case, the relative ranking of the four alternatives to each other did not shift. This sensitivity analysis shifted the ranking slightly between alternatives 3 and 4.

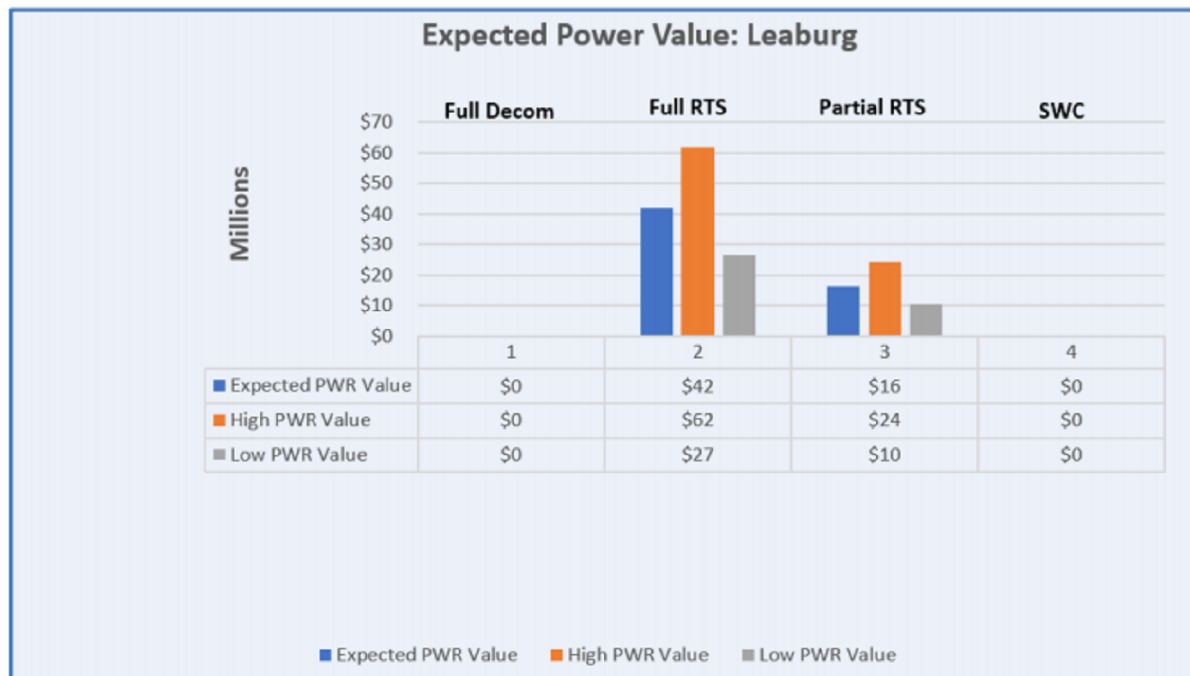


Chart 3: Expected Power Value: Low Replacement Value / High Replacement Value

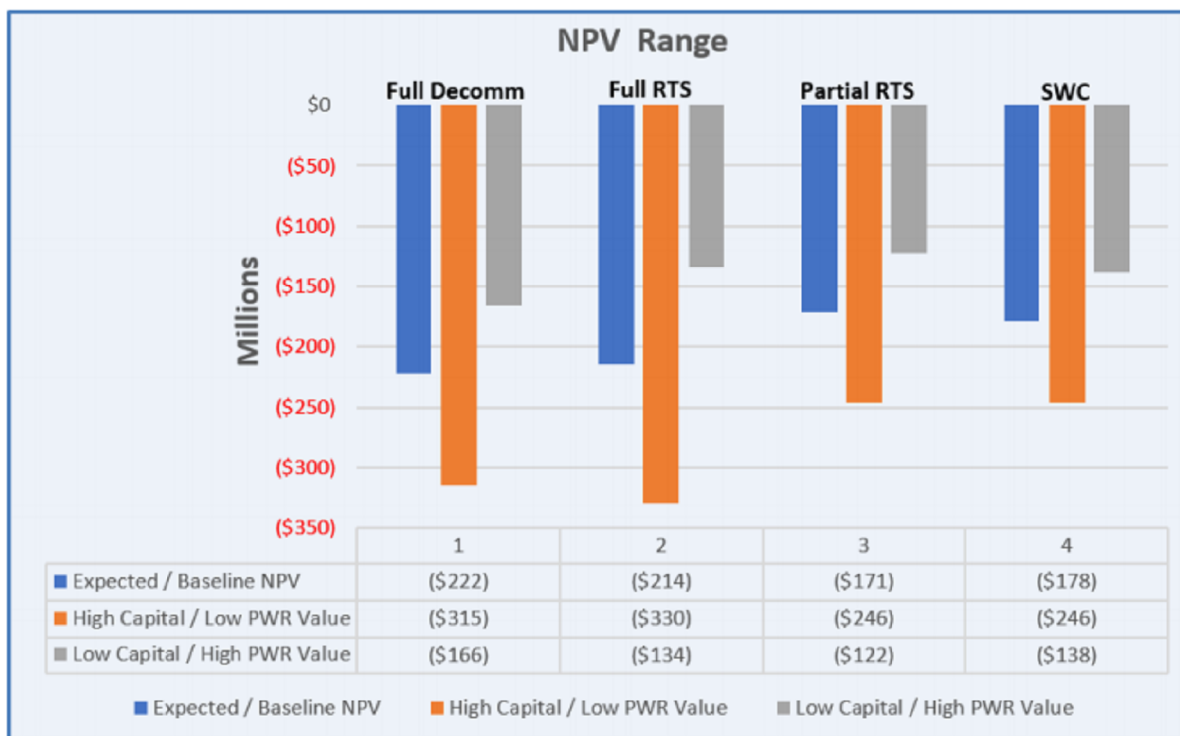


Chart 4: NPV – Sensitivity: High Capital / Low Power Valuer & Low Markets / High Power Value

Tornado Diagram Perspective: To further clarify the scale of change associated with individual key NPV inputs, it is useful to chart the individual NPV input items in a tornado diagram. Charts 5 and 6 depict how variation of the individual key inputs within a reasonable range would impact the NPV of the return to service alternatives. Decommissioning alternatives follow the same logic, although power values are not a factor because no generation is produced. The following charts summarizes the results from varying the capital, power price, discount rate, and inflation rate as follows:

- High Capital Cost / Low Capital Cost (-30% - +50%)
- Power Value (High and Low Prices)
- Discount Rate (4% or 9%)
- Low Inflation / High Inflation (2% variation)

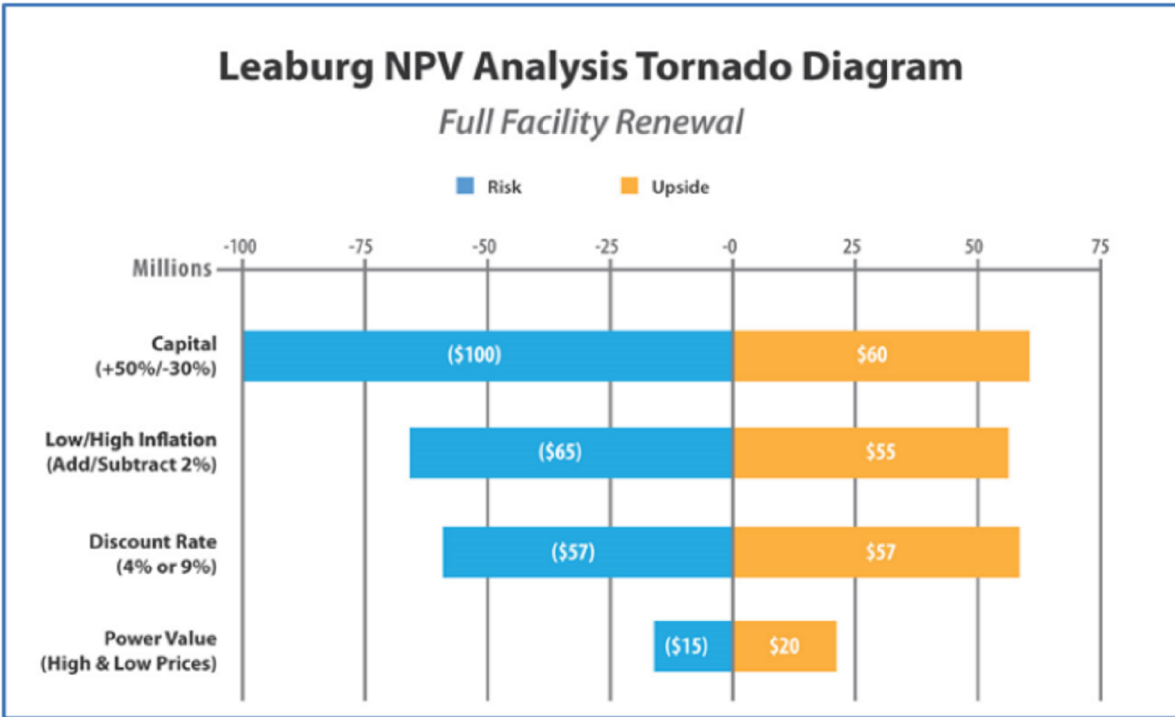


Chart 5: NPV Sensitivities for RTS – Full Return to Service, assuming Cougar Flow Regime

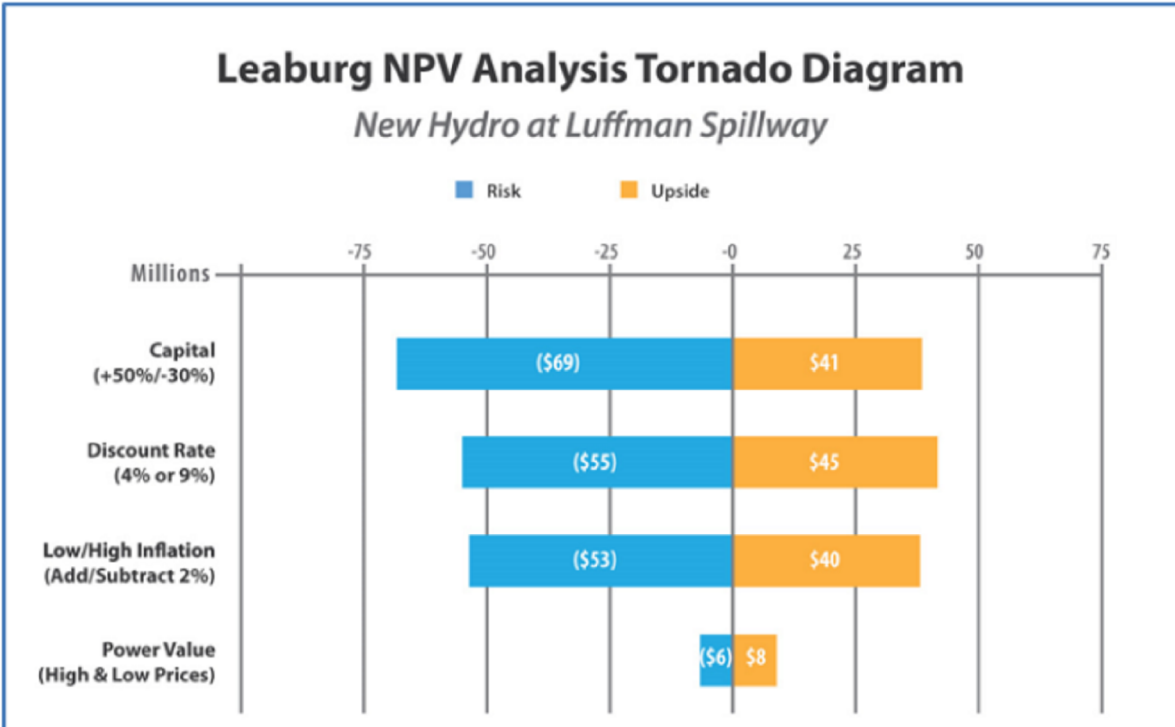


Chart 6: NPV Sensitivities for RTS – Partial Return to Service, assuming Cougar Flow Regime

For all alternatives, based on this analysis, NPV is most sensitive to the potential range of capital costs for each alternative and least sensitive to the potential range of future power prices. The effect of discount and inflation rates are in between, although high interest rates are likely to be accompanied by high discount rates and vice versa and, thus, tend to offset each other and minimize the net change in NPV. As a result, the results are unlikely to be sensitive to these parameters, reinforcing that capital costs are the most influential factor over the NPV results.

Minimum McKenzie River Flow Requirements: Under the existing FERC license, EWEB must release a minimum of 1,000 cubic feet per second (cfs) into the bypass reach below Leaburg Dam at all times. Due to environmental concerns (primarily water temperature), it is possible that a new or amended FERC license would increase the minimum flow requirement. This sensitivity explores the effect of increasing the minimum flow requirement to 1,500 cfs or 2,000 cfs in the future. Increasing the minimum bypass flow requirements would result in a reduction in the amount of water available for generation during the dry weather season, the time of year when there is not enough water available in the river for EWEB to divert its full water right. In drier years, this change would likely trigger shutdowns of the power generation facilities in the late summer when river flows are at their lowest. The results of this sensitivity analysis are shown in Chart 7.

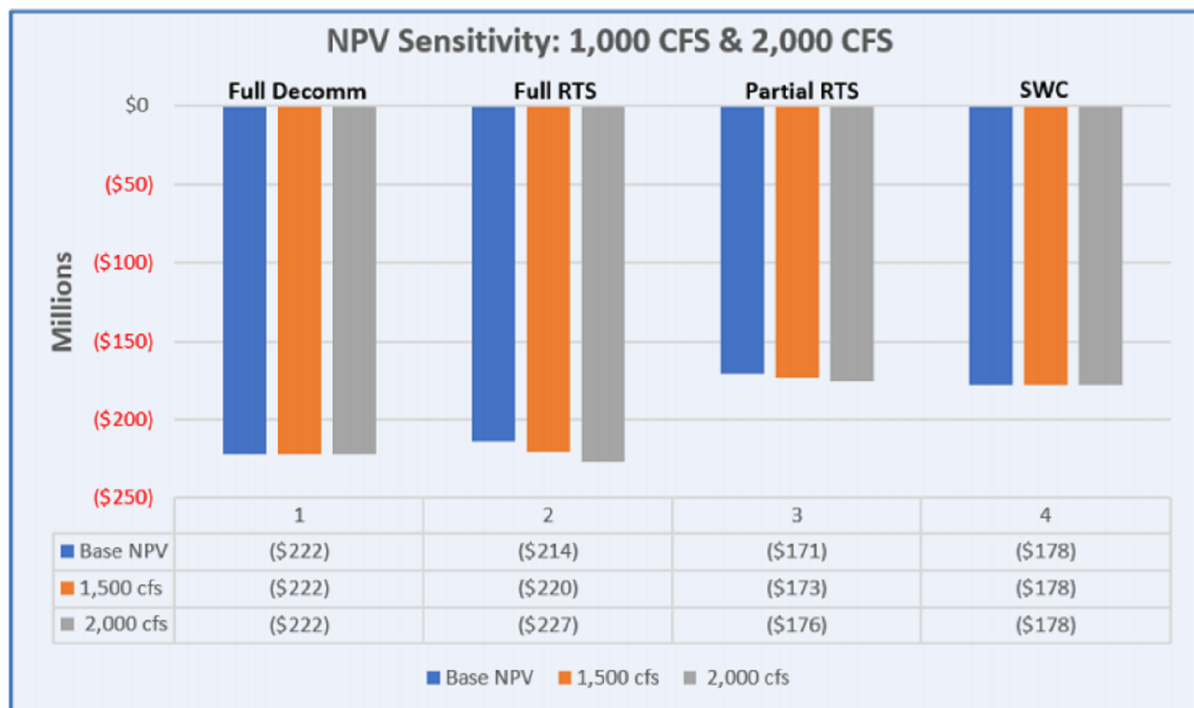


Chart 7: NPV – Sensitivity: 1,500 CFS and 2,000 CFS Instream Requirement (1,000 CFS is current requirement)

As shown in the chart above, an increase in the instream flow requirements would only have a slight impact on the NPV. As discussed earlier, variations in power price (and thus power revenues) have the least impact on the NPV results relative to other sensitivity variables. Since increased instream flows would only be impactful in a portion of the year, the overall impact on the NPV is not substantial.

Decommissioning Sinking Fund: Hydroelectric power projects have historically been considered to be legacy investments, meaning that the power generation facilities would be relicensed and renewed essentially in perpetuity such that the net present value of decommissioning costs were negligible since they were expected

to occur in the very distant future. At this time, there is no longer the same confidence that hydroelectric investments will be relicensed and renewed in perpetuity. The possibility that the Leaburg facility will need to be decommissioned at the end of its license term creates a valid reason for factoring those costs into the economic analysis. EWEB would most likely assemble funding for those future decommissioning costs while the facility remains in operation so that future rate payers are not saddled with decommissioning costs for a facility that no longer benefits them. This sensitivity reflects the accumulation of money in a decommissioning sinking fund for the return to service scenarios during the operating license period, so that EWEB is financially prepared to fund the decommissioning work when power generation goes offline. The following chart shows that this sensitivity increases the difference in NPV between the return to service and decommissioning alternatives and Alternative 4 remains the highest ranked option. For the purposes of this analysis, the sinking fund is also assumed to cover the cost of future re-licensing in the event the project is relicensed instead of being decommissioned. Note that relicensing costs are expected to be less than decommissioning. The sinking fund sensitivity intends to highlight that there will be future costs to either decommission or relicense if a return to service alternative is chosen.

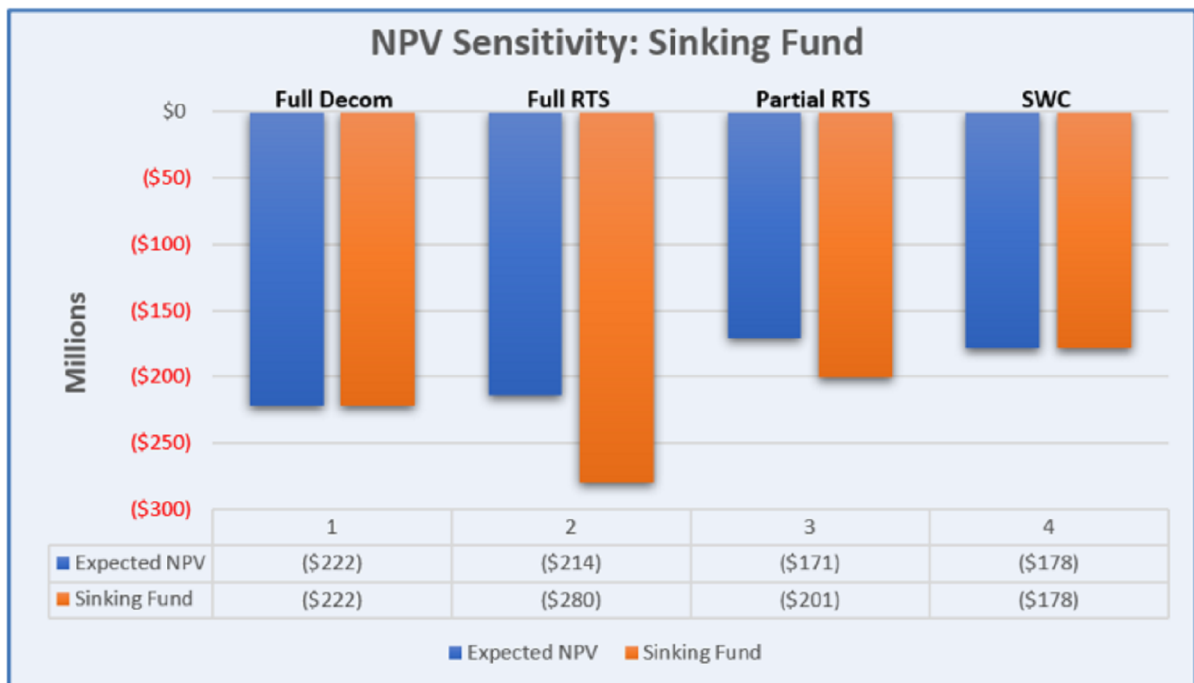


Chart 8: Preliminary NPV – Sensitivity: Sinking Fund for RTS Alternatives

Renewable Energy Credits (RECs), Carbon Values, and Capacity Values Sensitivity: This sensitivity evaluates the effect of including power generation values that are not captured in the wholesale power pricing. The REC and carbon values are analyzed using theoretical (shadow) carbon prices to include the low, medium, and high REC prices multiplied by the baseline Leaburg generation output. This sensitivity assumes a return to service date in late 2036 and generation that extends through 2075. Although the Leaburg product is run-of-river and does not qualify for RECs under Oregon law, the REC, carbon, and capacity “replacement values” for the return to service alternatives are shown in below Table 12 and Chart 9 illustrates the effect of this sensitivity on the NPV. While including these values yields slight improvement to the return to service NPVs, the relative ranking between the alternatives remains the same. Under this sensitivity, Alternative 3 remains the highest ranked option with a slight advantage over Alternative 4 after the recently updated values are considered.

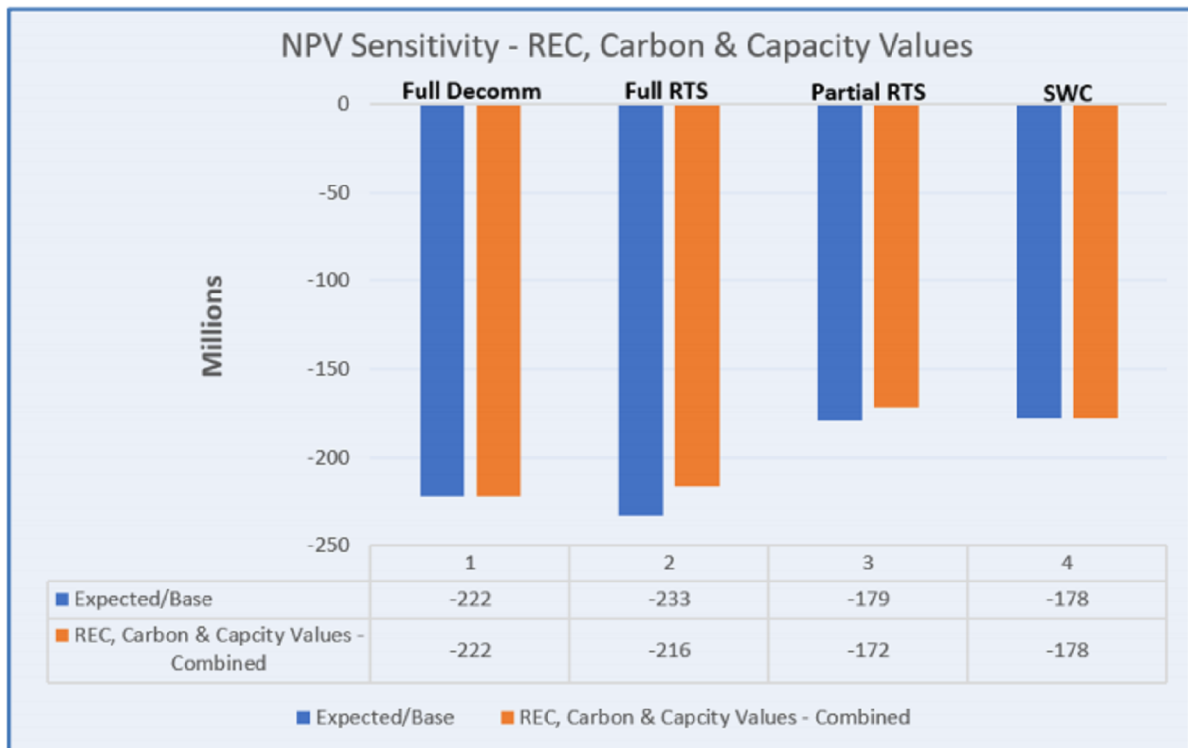


Chart 9: Preliminary NPV Sensitivity: REC, Carbon Value, Capacity Value (Millions)

Bridge vs. No Bridge Sensitivity:

The removal of Leaburg Dam would eliminate the current access route for approximately 19 properties east of the dam including the Leaburg Hatchery. This sensitivity highlights the cost difference between replacing the existing bridge at Leaburg Dam (“bridge”) versus constructing an access road (“no bridge”) in either decommissioning scenario. The no bridge sensitivity includes the assumed cost of constructing an access road using an existing bridge located upriver from Leaburg dam. Constructing a replacement bridge at the current Leaburg Dam location may be outside of the required scope of minimum safety and environmental obligations EWEB is expected to perform as part of a decommissioning. As depicted in the below chart, the results of this sensitivity show that constructing an access road in lieu of a bridge will result in a savings in the NPV of nearly 20 million dollars.

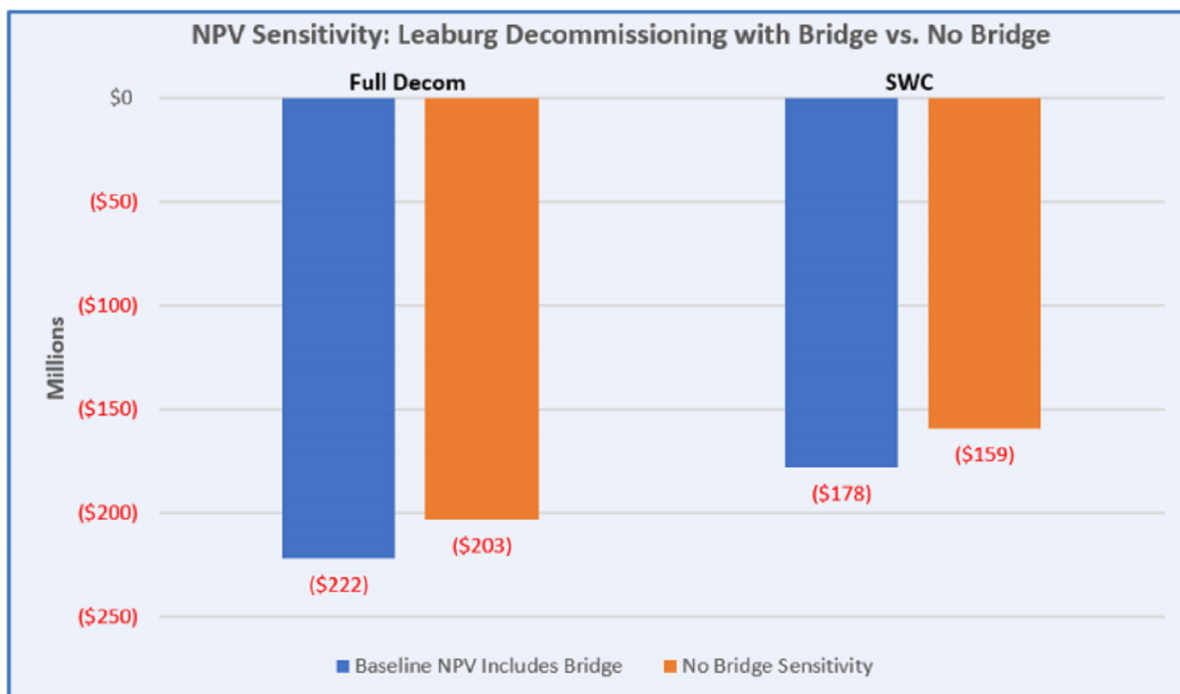


Chart 10: NPV Sensitivity – Leaburg decommissioning scenarios with and without constructing a bridge

NPV Analysis Summary

Table 12 summarizes each of the sensitivities discussed above by showing the dollar amount change associated with the sensitivity scenario. This table can be used to combine sensitivities and quantify the magnitude of change for a combined scenario. For example, combining the effects of high capital costs and low power prices with a decommissioning sinking fund. The information available in the table allows one to assemble the scenario that seems most likely.

\$ Million	Full Decomm	Full RTS	Partial RTS	SWC
Expected Power Revenue (1,000 CFS)	\$0	\$23	\$9	\$0
Expected NPV	(\$222)	(\$214)	(\$171)	(\$178)
High Capital / Low PWR Value	(\$315)	(\$330)	(\$246)	(\$246)
Low PWR Value/ High Capital	(\$166)	(\$134)	(\$122)	(\$138)
Full Decomm without Bridge Replacement (Expected NPV)	(\$203)	-	-	-
SWC without Bridge Replacment (Expected NPV)	-	-	-	(\$159)
Value Stream Sensitivities				
REC Value	\$0	\$3	\$1	\$0
Carbon Value	\$0	\$5	\$2	\$0
Capacity Value	\$0	\$9	\$4	\$0
Cost Stream Sensitivites				
Sinking Fund	\$0	(\$66)	(\$30)	\$0
1,500 CFS Flow	\$0	(\$6)	(\$2)	\$0
2,000 CFS Flow	\$0	(\$13)	(\$5)	\$0

Sensitivity - Walterville NPV

In order to better understand the financial effects that the Walterville Project has on the Leaburg Project, the financial team has calculated a preliminary NPV for both decommissioning and relicensing scenarios for Walterville. Walterville is currently generating and is expected to do so throughout the current joint-license period that expires in 2040. However, consideration of the all-in costs (NPV) for Walterville is important because the projects share a joint FERC operating license and any license amendment for Leaburg will likely trigger capital spending to either relicense or decommission Walterville. If Walterville is relicensed, the assumed license period will extend to 2076.

The primary baseline NPV analysis inputs and assumptions for Walterville are shown below in Tables 13 and 14. Walterville NPV analysis uses the same assumptions for escalation, inflation, and discount as for the LB NPV analysis (Table 11). Chart 11 depicts the expected power revenue, Chart 12 shows the NPV range, and Table 15 summarizes line-item results for the Walterville analysis. It is important to note that cost estimates for the Walterville relicensing and decommissioning scenarios are much more speculative than the costs used to perform the Leaburg NPV. Although there is good reason to expect that decommissioning costs at Walterville would be significantly lower than at Leaburg due to the absence of a dam/lake, shorter canal embankment heights, and fewer tributaries to repatriate, the cost assumptions warrant additional analysis and verification.

Table 13: Baseline Net Present Value Inputs: Waltherville		
Input to NPV (\$ million)	Alternative 1 – Decommission	Alternative 2 – Relicense
Initial Capital Cost ¹	\$75,000,000	\$135,000,000
Ongoing Capital Cost: ²		
Normal Year (Annually)	\$30,000	\$250,000
Major Improvements (5-yr)	\$100,000	\$1,250,000
Annual O&M Cost ³	\$325,000	\$1,250,000

¹ Estimated baseline costs for each alternative.

² Estimated costs for equipment replacement and renewal, as necessary to maintain reliability.

³ Annual labor, material, and support service costs.

Table 14: NPV Baseline Summary - Waltherville		
Line Items	Alternative 1: Decommission	Alternative 2: Relicense
NPV: Upfront Capital Expenses	(\$50,100,000)	(\$90,500,000)
NPV: Ongoing Expenses		
O&M	(\$20,800,000)	(\$42,000,000)
Capital	(\$3,500,000)	(\$8,800,000)
NPV – Power Value ^{1,2}		
Expected	\$19,200,000	\$42,400,000
High PWR Value	\$20,900,000	\$55,900,000
Low PWR Value	\$17,300,000	\$31,500,000

¹ Projected power value based on assumed replacement power similar to a BPA resource

² Projected power value based on assumed power value through 2076 (except 2035 & 2036 when the plant will be off-line for improvements)

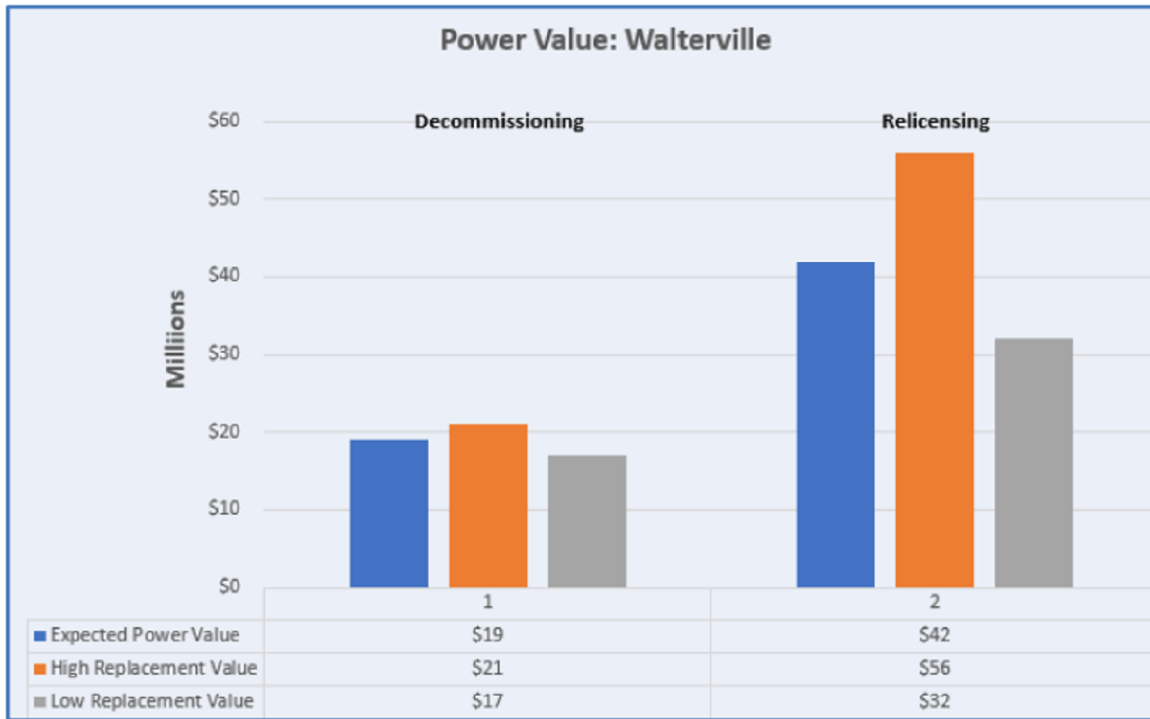


Chart 11: Expected Power Value for Waltherville (Millions). Power values shown for decommissioning assume generation throughout current license period. Power values shown for relicensing assume generation until 2076 except during 2035 and 2036 when plant upgrades are expected to occur for relicensing.

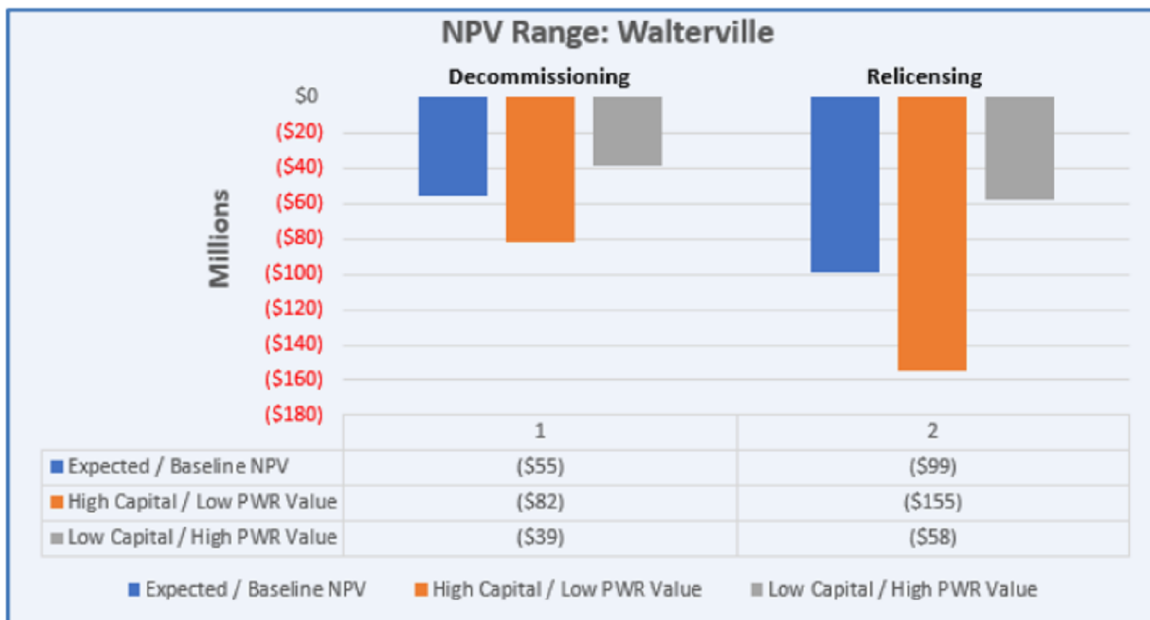


Chart 12: NPV Range for Waltherville (Millions)

Table 15: Preliminary NPV Summary - Walterville		
\$ Million	Alternative 1: Decommissioning	Alternative 2: Relicensing
Expected Power Value (1,000 CFS)	\$19	\$42
Expected NPV	(\$55)	(\$99)
High Capital / Low PWR Value	(\$82)	(\$155)
Low PWR Value/ High Capital	(\$39)	(\$58)
Value Stream Sensitivities		
REC Value	\$0	\$4
Carbon Value	\$0	\$4
Capacity Value	\$0	\$12
Cost Stream Sensitivites		
Sinking Fund	\$0	(\$50)

Replacement Power Considerations and Analysis

The Leaburg NPV analysis compares the investment profitability of various alternatives to one another and is included as an input into the TBL. To add additional context to the financial component of the TBL, we have conducted an incremental cost analysis that estimates the value of Leaburg as a candidate resource in EWEB's generation portfolio in a similar way to other candidate resources considered in the IRP. The key assumption in this analysis is that there is an unavoidable cost of modifying the Leaburg Canal system for safe and reliable performance that is included across all alternatives considered. Therefore, the least cost alternative represents an unavoidable expense (or a sunk cost) that could be removed from consideration when comparing alternatives.

At first glance, the severely negative NPV for the return to service options suggests that EWEB will easily find more affordable replacement power sources if replacement power were necessary. At a NPV of negative \$214M and a discounted power generation volume of 967k MWH, the apparent levelized cost of energy (LCOE) would be \$221/MWH for Alternative 2, the full return to service. The analogous calculation for Alternative 3, new powerhouse at Luffman Spillway, (\$171M for 377k MWH) yields an apparent LCOE of \$453/MWH. However, this sort of analysis ignores the fact that there is not a zero-cost alternative available to EWEB, further it doesn't account for the complex interdependencies that exist between Leaburg and Walterville. When assessing the whole project, the lowest cost decommissioning alternative will require very large expenditures without any power supply benefit. As such, an incremental cost approach that considers only the additional investment beyond the unavoidable expenditures provides another appropriate perspective on the cost per MWH for generation at Leaburg and Walterville.

The NPV analysis results show that all four alternatives may result in a substantial loss for the Utility from a project perspective, but different alternatives result in different impacts to EWEB's future power supply. By looking at the incremental cost of generating energy at Leaburg and Walterville, instead of revenue value, relative to market, we can compare it to the breakeven costs of alternative generating resources currently being considered in EWEB's IRP process. While the method may lack the rigor of full production cost modeling, a Levelized Cost of Energy (LCOE) metric may shed light on whether the return to service alternatives at Leaburg and/or Walterville have the potential of creating added value to EWEB's power portfolio relative to our replacement power options. The cost and generation information contained in the NPV analysis can be used to create a levelized cost metric. Comparison of LCOE's can help to contextualize the portfolio value of the return to service alternatives.

For added context, Leaburg and Walterville combined generation has historically served approximately 6% of EWEB’s annual loads, so the incremental generation (no matter the costs) are not likely to significantly impact EWEB’s total portfolio costs. Additionally, EWEB is currently “long” on an average energy basis, meaning that we typically have more power than needed in most hours to meet our customer demand. However, EWEB’s long term power needs and market conditions are uncertain and are being evaluated as part of the upcoming IRP.

Basic LCOE Assumptions:

- The LCOE metric inputs do not include revenue assumptions, but they can be tested against the same cost and generation sensitivities included in the core NPV analysis. These sensitivities include alternative flow regimes, capital risk ranges, and estimated non-energy benefits (avoided capacity cost, REC, and Low Carbon values).
- MWh generation was discounted by 4.2% to align Leaburg LCOEs with the LCOEs provided by EWEB’s power planning consultant, E3, for the IRP.
- Decommissioning costs are excluded from LCOE calculations because they are often uncertain, subject to regulatory oversight, and can be difficult to estimate. This supports comparability with other new electricity generating assets. However, sinking funds have been included as a potential LCOE adder in Table 16 below.

Table 16 below illustrates the incremental value of the four Leaburg scenarios where Walterville is assumed to be relicensed and four scenarios where Walterville is assumed to be decommissioned at the end of its current license (eight scenarios total). This incremental analysis assumes Alternative 4 NB, the least cost NPV alternative, as our minimum unavoidable cost, which is compared against the other alternatives.

Table 16: Incremental Cost of Generation Analysis				
<i>Walterville Relicensed</i>				
Leaburg Alternatives	Alternative 1 NB	Alternative 2	Alternative 3	Alternative 4 NB
Incremental Cost (Total \$)	(\$120,400,000)	(\$173,500,000)	(\$104,900,000)	(\$76,100,000)
Discounted Generation (total MWh)	517,993	1,484,542	894,886	517,993
Levelized Cost (Average \$/MWh)	-\$232	-\$117	-\$117	-\$147
Sinking Fund	\$0	(\$115,600,000)	(\$80,000,000)	\$0
Levelized Cost w/Sinking Fund (Average \$/MWh)	-\$232	-\$195	-\$207	-\$147
<i>Walterville Decommissioned</i>				
Leaburg Alternatives	Alternative 1 NB	Alternative 2	Alternative 3	Alternative 4 NB
Incremental Cost (Total \$)	(\$44,300,000)	(\$182,100,000)	(\$77,900,000)	NA
Discounted Generation (total MWh)	-	966,549	376,893	NA
Levelized Cost (Average \$/MWh)	NA	-\$188	-\$207	NA
Sinking Fund	\$0	(\$65,600,000)	(\$30,000,000)	NA
Levelized Cost w/Sinking Fund (Average \$/MWh)	NA	-\$256	-\$286	NA

All alternatives in Table 16 add incremental cost as compared to Alternative 4 NB (Walterville Decomm), however except for Alternatives 1 NB (Walterville Decomm), all comparative scenarios add generation. We divide the incremental cost by the incremental generation to calculate an estimated levelized cost of generation for each alternative compared to the unavoidable costs of Alternative 4 NB (Walterville Decomm). Alternatives 2 and 3 (Walterville Relicensed) have an estimated incremental cost of generation of approximately \$117/MWh, before a sinking fund. For context, BPA provides the vast majority of EWEB’s power today which costs approximately \$33/MWh (Table 17).

By comparing the resource alternatives in this way, Alternative 2 and 3 (Walterville Relicense) appear to be lower cost alternatives for generation at Leaburg/Walterville. However, as Table 19 illustrates all alternatives appear higher on the stack of potential candidate resources, and as such are less likely to be part of EWEB's least-cost future portfolios. It should also be noted that Leaburg has existing transmission, whereas new wind or solar generation may require additional investment in transmission to bring the energy to serve EWEB's load.

Both the NPV and LCOE are valuable metrics to evaluate the Leaburg/Walterville alternatives. The NPV is used for capital budgeting decisions whereas the LCOE can be useful for understanding power portfolio resource decisions.

Economic Risk and Uncertainty

Each parameter of the financial analysis contains uncertainty. For example, capital cost estimates have an expected range of -30% to +50% from baseline. Given this, the NPV results should be considered preliminary until a focused and refined feasibility and design effort is completed after an alternative is selected. Additionally, although other assumptions used in the NPV and sensitivity analysis attempt to capture the myriad of uncertainty and risk associated with the following elements, several are outside of EWEB's control:

- Unknown and changing regulatory requirements
- Changing economic climate
- Future market prices and replacement power options
- Changes in available flow for power generation due to climate change or other factors

Because there is inherent risk in relying heavily on analysis that is based on many assumptions, variables, and uncertainty, the NPV analysis should be considered a tool to better understand the general outcome of the different alternatives rather than a conclusive instrument.

Rate Impacts

The financing requirements of any scenario, both to cover the upfront capital costs and ongoing expenses, are expected to have a substantial impact on customer-owner rates. Projecting actual rate impacts for a conceptual project with many uncertainties and a capital cost range of negative 30% to positive 50% has limitations, however, the rate impacts are expected to be proportional to the NPV values shown for each alternative. Table 18 details the estimated electric rate increase associated with the Leaburg project under the following assumptions:

- Finance Rate: 5%
- Finance Period: 30 years
- Debt service coverage policy: 2.0
- Revenue Requirement per 1% (2023 dollars): \$2,218,560

IRP Candidate Resources	LCOE \$/MWh
MT/WY Wind	22
Utility Solar (Eastern OR)	28
North East OR Wind	29
Energy Efficiency Bin 1	33
BPA Contract (Slice & Block)	33
Natural Gas CCCT (80%)	40
Community Solar	69
Cogeneration/Biomass	74
Natural Gas SCCT (40%)	74
Small Modular Nuclear (80%)	76
Offshore Wind	102
Leaburg Alternative 2 (WV Relicense)	117
Leaburg Alternative 3 (WV Relicense)	117
Leaburg Alternative 4 NB (WV Relicense)	147
Leaburg Alternative 2 (WV Decomm)	188
Residential Rooftop Solar	196
Leaburg Alternative 3 (WV Decomm)	207
Leaburg Alternative 1 NB (WV Relicense)	232
Energy Efficiency Bin 2	291

Estimated Customer Financial Impacts							
Alternative	Full Decomm	Full Return to Service	Partial Return to Service	Decomm to SWC	Higher	Lower	Incremental
NPV Baseline (Millions)	\$222	\$214	\$171	\$178	\$300	\$150	\$20
Rate Impact (%)	13.0%	12.5	10.0%	10.4%	17.6%	8.8%	1.2%
Monthly Bill Impact (\$) -Single Family Home: 1,600 KWh/mo	\$22.51	\$21.70	\$17.34	\$18.05	\$30.42	\$15.21	\$2.03
Monthly Bill Impact (\$) - Residential: 1,200 KWh/mo	\$17.58	\$16.94	\$13.54	\$14.09	\$23.75	\$11.88	\$1.58

Table 18: Estimated Electric Rate Increase

As shown above, the rate impacts are expected to be proportional to the NPV of the alternatives. As detailed in the Incremental column, every \$20,000,000 of project cost results in a rate increase of approximately 1.2%. Additional considerations for rate impacts are as follows:

- Rate impact percentages shown above apply to all customer classes (residential, commercial, and industrial)
- Due to the wide variance of commercial and industrial usage, we only show the monthly impact for average residential customers.
- Rate impacts shown above are for electric rates only and do not affect water rates
- Rate impacts shown are associated with the Leaburg Project only and do not include other potential electric rate increases.

Economic Impact Assessment Summary

The economic impact assessment scores were devised using input and analysis from EWEB SME's. Table 19 shows some examples of the considerations used as inputs to their respective assessment scores.

Table 19: Economic Impact Assessment Considerations	
Attribute	Considerations
Project Costs / Impacts to Rates	<ul style="list-style-type: none"> • NPV Capital Costs • Permitting / Licensing • Property Acquisition Cost • NPV Annual O&M • NPV Sensitivities
Financing & Bond Rating Impacts	<ul style="list-style-type: none"> • Impacts to other EWEB projects • Sinking Fund
Power Price Reduction (Via EWEB Owned Generation)	<ul style="list-style-type: none"> • EWEB Resiliency • Community Resiliency

The following discussion draws from the financial information presented above to determine relative impact scores for each economic attribute included in the TBL. Below is a description of each economic attribute and key differences in impacts between the alternatives that affects their scoring.

Net Present Value / Impacts to rates – NPV and proportional rate impact for each alternative. The NPV includes all up-front capital construction costs, land acquisition and easement costs, and on-going costs for operation, offset by power sale revenues where relevant. Costs incurred from permitting and licensure are also included. As presented by the baseline NPV results and accompanying sensitivities, the relative economic performance ranking of the alternatives is consistent in each scenario with Alternative 4 showing as the best option. Using the relative economic performance rankings, the scoring results for this attribute are as follows:

- Alt 1 – Decomm to Pre-Project: -4
- Alt 2 – Full RTS: -5
- Alt 3 – Partial RTS: -3
- Alt 4 – Decomm to SWC: -2

EWEB fielded numerous comments from the public regarding the economic analysis. Highlighted example comments received during public outreach to date include:

- Concern that the baseline projections for future power prices do not reflect the increased demand for electricity due to electrification and the ongoing migration toward carbon-free power generation.
- Concern that capital cost estimates are too high and actual costs will be substantially lower.
- Concerns about the current affordability of electric rates and potential for future increases.
- Residential customer survey respondents indicate affordability and reliability should be EWEB's top drivers of decisions.

Financing and bond rating impacts – Each of the alternatives will need to be funded through bond issuance. Like all entities, there are limits to EWEB's debt servicing and bonding capacity. This attribute looks at each alternative and analyzes the impact on the organization's overall Bonding Capacity. EWEB has many large projects in its Capital Improvement Plan (CIP) and the need to fund Leaburg work likely means that completion schedules for other projects will be affected or those projects will incur higher interest rates. The potential for financing and bond rating impacts are proportional to their NPV such that the same scoring for the NPV attribute is appropriate.

- Alt 1 – Decomm to Pre-Project: -4
- Alt 2 – Full RTS: -5
- Alt 3 – Partial RTS: -3
- Alt 4 – Decomm to SWC: -2

EWEB has not fielded public comments regarding financing and bond rating impacts.

Power price risk reduction (via EWEB owned generation) – The relative importance of power generated from Leaburg versus EWEB obtaining power from outside sources in the future. The key question is the uncertainty of power availability and cost for EWEB in the long term. There is value in possessing long term power supply control, redundancy, and resiliency as a hedge against future power price uncertainty. The return to service options provide this type of value while the decommissioning options would create new power price risks. As such, this attribute is scored as follows:

- Alt 1 – Decomm to Pre-Project: -3
- Alt 2 – Full RTS: 0
- Alt 3 – Partial RTS: -2
- Alt 4 – Decomm to SWC: -3

EWEB has fielded a few comments regarding the value of owned generation. Highlighted example comments received during public outreach to date include:

- Concern that the loss of generation due to carbon reduction efforts will result in a scarcity of affordable power.
- Concern that electrification will result in a scarcity of affordable power.
- The “Save Leaburg Lake” petition highlights the value of local renewable power. Signature collection is ongoing with 50 pages of signed petitions submitted to the EWEB Board at their September meeting. The petitions included signatures from McKenzie Valley and Lane County residents as well as visitors from elsewhere in the Pacific Northwest and beyond.

Future Economic Risk – All alternatives have exposure to economic risk due to uncertainties associated with future regulation, power value, economic climate, on-going liabilities, and potential geohazard or weather-related events that affect the cost of maintenance and operations. The risk exposure aligns with the capital investment needs and the size of the project footprint. All hydroelectric generation projects have inherent economic risk exposure, but the current analysis indicates the return to service alternatives will not generate enough power to off-set the substantial upfront capital cost, and the on-going liabilities poses additional risk exposure that can occur in the event of loss or reduced generation due to regulation or other unforeseen event(s).

The decommissioning alternatives are also exposed to future economic risk. However, risk exposure decreases with reductions in capital investment, operations & maintenance, and project footprint that lowers ongoing liabilities and obligations.

- Alt 1 – Decomm to Pre-Project: -1
- Alt 2 – Full RTS: -5
- Alt 3 – Partial RTS: -3
- Alt 4 – Decomm to SWC: -2

EWEB has fielded comments regarding the long-term risk of generation at the upriver listening sessions, primarily from a resiliency perspective. This attribute was further developed at the request of the EWEB Board to include economic risk associated with continuing to operate a power generation or stormwater facility.

Access to Grant Funding – All alternatives have some opportunity for external funding. However, external funding sources are uncertain, limited, competitive, and have stipulations associated with their allocation that may or may not align with the specific requirements of each respective alternative. Based on research and understanding of currently available funding sources, the decommissioning alternatives are slightly better positioned to be competitive for external funding sources to assist with the overall capital investment, primarily due to the various environmental based resources available, which are more aligned with the restoration aspect of the decommissioning alternatives.

- Alt 1 – Decomm to Pre-Project: 2
- Alt 2 – Full RTS: 1

- Alt 3 – Partial RTS: 1
- Alt 4 – Decomm to SWC: 2

EWEB has received some comments from various community members at the listening sessions, but mostly inquiring if EWEB has explored available grant funding. A recent letter from an external stakeholder group described private and public funding sources for river restoration programs that currently exist. The EWEB Board also has inquired about grant opportunities.

Access to Partnerships – Partnering with the various agencies and stakeholder groups that have interest in the outcome of the project will be necessary for all the alternatives, but the extent and specifics of each partnership is dependent on the various parameters of the alternatives. Key partnerships will be developed regardless of the alternative. Some of the project components that will require partnering are transportation, fisheries / environmental and social.

- Alt 1 – Decomm to Pre-Project: 1
- Alt 2 – Full RTS: 1
- Alt 3 – Partial RTS: 1
- Alt 4 – Decomm to SWC: 1

EWEB has received some comments about partnering from community members at the listening sessions, primarily related to partnering with state and local agencies for operating the existing recreational facilities. EWEB will continue to monitor the potential for a partnership with the affected hatchery stakeholders.

Future Economic Opportunity – The alternatives have been conservatively developed assuming the only value streams come from the avoided cost of replacement power or the environmental value streams (RECs, Carbon, Capacity) in the return to service options. Future economic opportunities may be realized with all the alternatives, such as liquidating project assets/land or shifting operational obligations to a new operator/utility through a sale or agreement. Due to future economic uncertainty and the general uncertainty associated with implementing any of the alternatives, capturing opportunities in the financial analysis was deemed unreliable and not attempted. However, staff assume the opportunity exists equally for all the alternatives.

- Alt 1 – Decomm to Pre-Project: 1
- Alt 2 – Full RTS: 1
- Alt 3 – Partial RTS: 1
- Alt 4 – Decomm to SWC: 1

EWEB staff have been asked by several community members during the listening sessions if EWEB has considered selling the land associated with the project to recuperate some of the project cost or offering the lake to the County Parks department for future operation and maintenance.

Next Steps and Upcoming Project Milestones

- Special Meeting/Work Session December 20, 2022 – TBD as needed

Requested Board Action

No Board action is requested at this time. We encourage questions and request feedback on the information provided.

Attachments:

- [Appendix A – Alternative Scenario Descriptions](#)
- Appendix B – Semi-Qualitative Risk Analysis Report (2020 Workshop), prepared by Gannett Fleming (Critical Energy Infrastructure Information – CEII)
- Appendix C – Water Quality Technical Analysis (Privileged Work Product), prepared by Cable Huston
- Appendix D – Legal Analysis of Ceasing Power Generation at Leaburg Canal (Privileged Work Product), prepared by Cable Huston
- Appendix E - Leaburg Water Rights Summary, dated July 02, 2021, prepared by EWEB staff
- Appendix F – Compilation of Public Outreach Comments, Letters and Outreach Session Summaries

From: Kintz,Jesse H (BPA) - PG-5
Sent: Friday, April 14, 2023 3:49 PM
To: Smith,Glen A (BPA) - PG-5; Welch,Julee A (BPA) - LP-7; Ashby,Gordon S (BPA) - PGA-6
Subject: RE: Another Charrette - Here are some talking point/notes that I've developed
Attachments: Disposition Planning Charrette.docx

This is great, Glen. I agree with you and Julee that the timing is good to take a run at a pragmatic approach to working with the Corps.

One thing to consider is whether these points work best in a letter format or if we would rather weave them in to us providing comments on the 6-pager document per the Corps' invite in Tuesday's meeting. Or both. Either way, I think we should aim for getting something to the Corps sometime next week while the charrette is still fresh and before the Corps gets too much further with their planning.

From: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>
Sent: Friday, April 14, 2023 1:56 PM
To: Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Ashby,Gordon S (BPA) - PGA-6 <gsashby@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Subject: Another Charrette - Here are some talking point/notes that I've developed

Glen A. Smith

Senior Policy Advisor | PG-5

BONNEVILLE POWER ADMINISTRATION

gasmith@bpa.gov | P 503-230-3105 | C (b)(6)



From: Smith,Glen A (BPA) - PG-5
Sent: Friday, March 17, 2023 7:03 AM
To: Kintz,Jesse H (BPA) - PG-5; Todd,Wayne A (BPA) - PGA-6; Ashby,Gordon S (BPA) - PGA-6; Welch,Julee A (BPA) - LP-7
Subject: RE: Monday's meeting with Corps

We may want to add some discussion on cost allocation studies. I am still working with ORNL on starting a cost allocation approach. It would be great if USACE wanted to be a part of the effort to see if we could find an alternate to the outdated approach.

I think that sharing our study topics is good.

Glen

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Friday, March 17, 2023 1:33 AM
To: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Ashby,Gordon S (BPA) - PGA-6 <gsashby@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>
Subject: Monday's meeting with Corps

I'm thinking we share something like this slide with Corps on Monday on the status of our internal analysis:

ANALYSIS PRODUCTS NEEDED	GROUPS	KEY SCENARIOS
Long term financial analysis (NPV scenarios)	PGA	Prices, EIS cost projections
Cost of generation update	FA, PGA	Prices, EIS cost projections
Financial health impact	FA, FT	Financial plan / financial ratios
Carbon impacts of loss of clean energy	PT	Impacts of reduced or 0 mw from Willamette
Long term resource adequacy	PGPR, PT	Impacts of reduced or 0 mw from Willamette
Provider of Choice / Post 2028	PS, PGPR	Impacts of reduced or 0 mw from Willamette
Value of Willamette flexibility (or lack thereof)	PGP, PGS	Dispatchability, renewables integration
Transmission impacts - reliability	TO, TP	Grid reliability, Islanding

Thoughts?

Also: Brad Thompson mentioned they're working on a possible disposition study scoping meeting on 4/11 that BPA would be invited to, so we should hear more about that on Monday.

-Jesse

Jesse Kintz

Finance Power Issues Support and Cost Allocation Project Lead | [FL-2]

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Please consider the environment before printing this email

From: Smith,Glen A (BPA) - PG-5
Sent: Wednesday, April 5, 2023 6:24 AM
To: Kintz,Jesse H (BPA) - PG-5; Todd,Wayne A (BPA) - PGA-6; Ashby,Gordon S (BPA) - PGA-6; Welch,Julee A (BPA) - LP-7
Subject: RE: Recap of 3/20 Corps meeting and prep for 4/11 disposition study meeting with Corps

I'll attend in person. I have some targeted other topics to cover with other attendees before, after and during breaks...

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Tuesday, April 4, 2023 2:58 PM
To: Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Ashby,Gordon S (BPA) - PGA-6 <gsashby@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>
Subject: FW: Recap of 3/20 Corps meeting and prep for 4/11 disposition study meeting with Corps

Can you let me know if you plan on attending the 4/11 meeting with the Corps in person, remotely, or are unavailable? I plan to attend in person. I believe Gordon and Wayne may have potential conflicts – if still the case, we can finalize once we get the agenda from the Corps.

Thanks,
-Jesse

From: Kintz,Jesse H (BPA) - PG-5
Sent: Monday, April 3, 2023 12:06 PM
To: Ledy Jr,William J (BPA) - PG-5 <wjledy@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Senters,Anne E (BPA) - LN-7 <aesenters@bpa.gov>; Nagra,Angad S (BPA) - LN-7 <ASNagra@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>; Wingert,Kevin M (BPA) - DKP-7 <kwingert@bpa.gov>
Cc: Ashby,Gordon S (BPA) - PGA-6 <gsashby@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>
Subject: Recap of 3/20 Corps meeting and prep for 4/11 disposition study meeting with Corps

All,
Below is a recap from the most recent monthly meeting we had with the Corps on the Willamette, along with a few notes on the planned approach to the upcoming planning meeting with the Corps on disposition study. Let me know if any questions.

-Jesse

BPA-Corps monthly Willamette meeting (3/20/23):

-Corps has finalized 4/11 as date for an all day disposition study planning/scoping meeting called a “charrette”. BPA invited. Attendees are likely to be planning-focused, disposition study leads, economists, possibly real estate or budgeting (middle levels, not execs). Meeting should help clarify the analysis to do for federal interest. Corps is emphasizing achieving vertical alignment up to HQ/Army level.

-Corps confirmed that BPA is the only other federal agency invited to the 4/11 meeting (good sign that they agree with/acknowledge our significant role).

- Corps reiterated that the 18 month disposition study deadline is very short, so they will need to phase the work into what they can do for 18 months, and what would be after.
- Corps now says that they may not get any implementation guidance from the Army on the disposition study provision (WRDA 2022 Sec 8220). This is a change from before when they said guidance was likely.
- Corps shared that the WRDA 2020 report on Cougar/Detroit has cleared Corps HQ and is now at ASA Civil Works level. Not sure when final report will be shared with Congress. Gave example of some WRDA 2018 items just recently being shared for perspective.
 - BPA asked if any additional BPA opportunities for review and Corps confirmed no. BPA reiterated that we view the impact on other purposes as an unresolved issue in that report and requested that at minimum the BPA perspective is shared alongside Corps'.
- BPA shared our chart with the categories of Willamette analysis we are working on for federal interest determination.
 - Corps mentioned that they plan to include temperature and flow considerations as part of federal interest.
- BPA mentioned the budget language mentioning an OMB meeting and joint proposal for FY2025 budget. Corps had not heard much on this yet.
- After the meeting BPA sent copy of budget language and our WRDA 2022 Sec 8220 implementation comments we sent to Army.

BPA approach to 4/11 disposition study planning meeting:

- Corps plans to send an agenda by middle of this week.
- Potential BPA attendees: Jesse Kintz, Glen Smith, Julee Welch, PGA rep (Wayne Todd and/or Gordon Ashby), possibly a PGS rep (TBD). Will finalize attendees after receiving agenda.
- BPA to compile set of talking points this week to prepare for the meeting. Jesse will draft and send to team for input, and set up a pre-meeting for the attendees.
- BPA will also get opportunity to provide some brief opening remarks after the Corps does theirs. Can use talking points, I will likely be the one doing this, will coordinate with others as needed.

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

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From: Smith,Glen A (BPA) - PG-5
Sent: Wednesday, April 5, 2023 1:58 PM
To: Kaseweter,Alisa D (BPA) - AI-7
Subject: RE: Seeking Input on Determining and Describing the impacts of Reduced Power in the Willamette Valley

Hi Alisa,

We didn't have a meeting. I reached out to Kristina to follow up and she contacted Matt and they sent me a spreadsheet with the analysis. There is some more analysis needed. Once that is done, I'll schedule a meeting to review and to ask questions.

Do you want to talk separately or do you want a copy of what they've sent??

Glen

From: Kaseweter,Alisa D (BPA) - AI-7 <alkaseweter@bpa.gov>
Sent: Wednesday, April 5, 2023 12:03 PM
To: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>
Subject: RE: Seeking Input on Determining and Describing the impacts of Reduced Power in the Willamette Valley

Hi Glen,

Did you set up a meeting to address this? Just making sure I didn't miss it.

Thanks,
Alisa

From: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>
Sent: Friday, March 10, 2023 7:59 AM
To: Rohe,Kristina E (BPA) - PTKC-5 <kerohe@bpa.gov>; Germer,Matthew J (BPA) - PTMA-5 <mjgermer@bpa.gov>; Kaseweter,Alisa D (BPA) - AI-7 <alkaseweter@bpa.gov>
Subject: Seeking Input on Determining and Describing the impacts of Reduced Power in the Willamette Valley

Hi Kristina, Matt and Alisa,

BPA is in need of updating our internal analysis on the impacts of potential power reductions from the Willamette dams. This analysis will help inform BPA's strategy on the future of power in the Willamette (to be confirmed by Bill Leady, Suzanne Cooper and the Front Office in late Spring/early Summer), and will also help inform the Corps' Congressionally directed study to evaluate disposition of Willamette hydropower (occurring over the next several months). The analysis will consider impacts on transmission, carbon portfolio and other financial aspects.

Previously BPA put together Net Present Value and Cost of Generation analysis (attached) which showed that under the assumptions at the time and the planned EIS work, the Willamette projects were "in the red", i.e. uneconomical for power. The general sentiment in the region is that power is too expensive to maintain in light of all proposed EIS investments. As USACE is conducting their disposition study (determining the future of power generation) we, BPA are looking at all aspects of reduced power in the Willamette.

I'd like to setup a meeting with you all and others to talk about the reduction of power and it's on BPA's carbon free portfolio and other related consequences.

Here are some questions to consider:

- 1) Who all needs to be a part of this discussion?
- 2) Is there a time frame that we need to consider in our description of the impacts to our carbon portfolio?
- 3) Do we use White Book average generation for the power delivered at the dams in the Willamette?
- 4) We have two likely scenarios of average MW losses from the 8 dams in the Willamette:
 - a. Historical AVG 171 aMW
 - b. Reductions to 120 aMW (loss of 51 aMW)
 - c. Removal of all hydropower – 0 aMW (loss of 171 aMW).
- 5) Are there other considerations that need evaluation?

Please let me know if you all have any additional questions and general availability.

I'll look for a time on our calendars to setup a meeting sometime this month.

Thanks in advance and I'm looking forward to our discussion,

Glen

Glen A. Smith

Senior Policy Advisor | PG-5

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gasmith@bpa.gov | P 503-230-3105 | C (b)(6)



Disposition Planning Charrette

Acknowledge nature of systems currently in place and how the operations, utilizing these systems (turbines, turbine outlets etc.), are critical in maintaining current and future operations that have an impact on dam safety, fish survival, water quality, water supply and other purposes such as recreation.

Acknowledge how difficult and interconnected the systems are and that we appreciate how operational changes at one dam can have a wider effect on the rest of the system in the Valley as they are all interconnected.

Acknowledge our support of protecting fish and assisting the Corps where we can with this difficult effort.

Emphasize that our mission is for long term economically viable power for the region and the current and future lower generation and proposed EIS infrastructure are pushing cost of commercial power where it is not economically viable.

Without a change in the current authorities commercial power produced at these sites are not economically viable (economically efficient?) for the future.

Suggest that we need to study how to limit generation with existing structures to just station service needs and not produce commercial power.

Study, utilizing side boards of not impacting any of the current water conveyance operation limits (inlet and outlet locations, flow range and control etc.). Thereby, reducing the need for studies of other impacts as the operational characteristics, in theory, will not change (now or under current EIS plans). The only impact on operations is to limit the production of commercial power from these facilities.

Focus on the costs and feasibility of various methods to eliminate commercial power production and maintain other operational capabilities of the dams to include supplying station service power to the dams.

Re-emphasize that transmission issues, replacement power and the carbon impacts of losing power are all BPA's responsibilities. Power reduction in the Valley may not need direct replacement as BPA will assess resource adequacy and whether we can utilize various tools such as market purchases, energy efficiency or other means to make up for the loss of generation, if needed. We also are responsible for the level of reliability and risk of power supply all over the region and will assess what the impacts and levels of risks are for various communities and power supply. We understand markets and the impacts of carbon pricing as we sell power into both the California and market and in Washing State where both states have a carbon cap and trade approach to reducing carbon from the fuel mix of power.

From: Egerdahl,Ryan J (BPA) - PGPR-5
Sent: Tuesday, March 14, 2023 2:15 PM
To: Hawkins,Robert E (BPA) - PGSP-5; Kintz,Jesse H (BPA) - PG-5; Petty,Robert J (BPA) - PGP-5; Van Calcar, Pamela M (BPA) - PGS-5; Siewert,Christopher W (BPA) - PGS-5
Cc: Smith,Glen A (BPA) - PG-5; Todd,Wayne A (BPA) - PGA-6; Lana,Aaron D (BPA) - PGSD-5
Subject: RE: Seeking your input on staff/scope for describing the value BPA gets from the Willamette dams

I'm even later. 😊 Jesse, pls contact Milli about this. She can help determine if she or Erin will help you. One of them should be able to. I think the scope looks right, btw.

Thanks

From: Hawkins,Robert E (BPA) - PGSP-5 <rehawkins@bpa.gov>
Sent: Monday, March 13, 2023 3:05 PM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Petty,Robert J (BPA) - PGP-5 <rjpetty@bpa.gov>; Van Calcar, Pamela M (BPA) - PGS-5 <pmvancalcar@bpa.gov>; Egerdahl,Ryan J (BPA) - PGPR-5 <rjegeerdahl@bpa.gov>; Siewert,Christopher W (BPA) - PGS-5 <cwsiewert@bpa.gov>
Cc: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Lana,Aaron D (BPA) - PGSD-5 <adlana@bpa.gov>
Subject: RE: Seeking your input on staff/scope for describing the value BPA gets from the Willamette dams

Hi Jesse,

My apologies for the late response to this. Yes, Paul from my group sounds like a good person to participate in this team. Aaron Lana is now Josiah Failings supervisor, so you may need to check with him, but if I was Aaron, I would want Josiah involved. I've cc'd Aaron.

Thank you,
Rob

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Monday, March 6, 2023 11:00 AM
To: Petty,Robert J (BPA) - PGP-5 <rjpetty@bpa.gov>; Van Calcar, Pamela M (BPA) - PGS-5 <pmvancalcar@bpa.gov>; Egerdahl,Ryan J (BPA) - PGPR-5 <rjegeerdahl@bpa.gov>; Siewert,Christopher W (BPA) - PGS-5 <cwsiewert@bpa.gov>; Hawkins,Robert E (BPA) - PGSP-5 <rehawkins@bpa.gov>
Cc: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>
Subject: Seeking your input on staff/scope for describing the value BPA gets from the Willamette dams

Rob P., Pam, Ryan, Chris and Rob H.,
BPA is in need of updating our internal analysis on the value of power from the Willamette dams. This analysis will help inform BPA's strategy on the future of power in the Willamette (to be confirmed by Bill, Suzanne and the Front Office in late Spring/early Summer), and will also help inform the Corps' Congressionally directed study to evaluate disposition of Willamette hydropower (occurring over the next several months).

Previously BPA (primarily Gordon Ashby, PGA) put together Net Present Value and Cost of Generation analysis (attached) which showed that under the assumptions at the time and the planned EIS work, the Willamette projects

were “in the red”, i.e. uneconomical for power. This analysis used SAMP data, EIS cost projections, and a modeled distribution of prices from Aurora. **We need to expand on that analysis by being able to assess and describe any non-generating value – peaking, dispatchability, other - that comes from the Willamette dams – and to do that, I’m seeking the help of your teams.** This would include aspects such as articulating an understanding of how much of the limitations of what BPA receives in the Willamette are imposed by the Corps, vs BPA not choosing to pursue due to limited “bang for the buck”. It would also be helpful to contrast the value and flexibility (or lack thereof) that BPA gets from the Willamette compared to the Snake or Columbia projects. **Ideally, we could have a product, likely a narrative description with a little bit of supporting analysis if necessary, covering these areas, by early April (within roughly 4-6 weeks).**

I’m checking in with you first before reaching out to some of your staff to make sure I have the right proposed scope and people, and to help support the prioritization of this effort (or let me know if your folks are tied up with other priorities). Birgit suggested Erin Riley, and Josiah Failing and Paul Koski have been incredibly helpful for similar questions related to the Keys pumping plant, so I was thinking of starting with those three. Does that sound right? Any other suggestions for who I should work with?

Please let me know your thoughts on the prioritization of this effort, who the right staff might be, or if any suggestions on scope description or questions about the proposed approach.

Thanks!
-Jesse

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Kintz,Jesse H (BPA) - PG-5
Sent: Monday, March 6, 2023 11:00 AM
To: Petty,Robert J (BPA) - PGP-5; Van Calcar, Pamela M (BPA) - PGS-5; Egerdahl,Ryan J (BPA) - PGPR-5; Siewert,Christopher W (BPA) - PGS-5; Hawkins,Robert E (BPA) - PGSP-5
Cc: Smith,Glen A (BPA) - PG-5; Todd,Wayne A (BPA) - PGA-6
Subject: Seeking your input on staff/scope for describing the value BPA gets from the Willamette dams
Attachments: Economics of power_NPV and COG.pptx

Rob P., Pam, Ryan, Chris and Rob H.,

BPA is in need of updating our internal analysis on the value of power from the Willamette dams. This analysis will help inform BPA's strategy on the future of power in the Willamette (to be confirmed by Bill, Suzanne and the Front Office in late Spring/early Summer), and will also help inform the Corps' Congressionally directed study to evaluate disposition of Willamette hydropower (occurring over the next several months).

Previously BPA (primarily Gordon Ashby, PGA) put together Net Present Value and Cost of Generation analysis (attached) which showed that under the assumptions at the time and the planned EIS work, the Willamette projects were "in the red", i.e. uneconomical for power. This analysis used SAMP data, EIS cost projections, and a modeled distribution of prices from Aurora. **We need to expand on that analysis by being able to assess and describe any non-generating value – peaking, dispatchability, other - that comes from the Willamette dams – and to do that, I'm seeking the help of your teams.** This would include aspects such as articulating an understanding of how much of the limitations of what BPA receives in the Willamette are imposed by the Corps, vs BPA not choosing to pursue due to limited "bang for the buck". It would also be helpful to contrast the value and flexibility (or lack thereof) that BPA gets from the Willamette compared to the Snake or Columbia projects. **Ideally, we could have a product, likely a narrative description with a little bit of supporting analysis if necessary, covering these areas, by early April (within roughly 4-6 weeks).**

I'm checking in with you first before reaching out to some of your staff to make sure I have the right proposed scope and people, and to help support the prioritization of this effort (or let me know if your folks are tied up with other priorities). Birgit suggested Erin Riley, and Josiah Failing and Paul Koski have been incredibly helpful for similar questions related to the Keys pumping plant, so I was thinking of starting with those three. Does that sound right? Any other suggestions for who I should work with?

Please let me know your thoughts on the prioritization of this effort, who the right staff might be, or if any suggestions on scope description or questions about the proposed approach.

Thanks!

-Jesse

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Smith, Glen A (BPA) - PG-5
Sent: Monday, April 17, 2023 1:49 PM
To: Kintz, Jesse H (BPA) - PG-5
Subject: Thoughts for our 2 meeting
Attachments: Disposition Planning Charrette.docx

Glen A. Smith

Senior Policy Advisor | PG-5

BONNEVILLE POWER ADMINISTRATION

gasmith@bpa.gov | P 503-230-3105 | C (b)(6)



B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

EIS and economics of power

Table 5.2-1. 30-year Net Present Value by Alternative in Millions of 2024 Dollars (Median of 1600 Iterations, 2.81 % Risk Free Bonneville Discount Rate).^{1,4}

Project	NAA	ALT1	ALT2A	ALT2B	ALT3A	ALT3B	ALT4	ALT5	Near Term Operations Measure
Detroit/Big Cliff ¹	84	-351	-353	-354	-189	-73	-356	-354	5
Green Peter/Foster ¹	-3	-296	-208	-207	-172	-231	-134	-209	-123
Lookout Point/Dexter ¹	109	-309	-28	-30	-144	-83	-304	-33	-94
Cougar	-3	-22	-90	-152	-86	-152	-76	-153	-32
Hills Creek	39	45	43	39	-41	-68	-67	37	49
Combined WVS Projects²	225	-934	-638	-708	-628	-604	-937	-714	-196

1/ Cougar and Hills Creek dams are operated as individual projects. Additionally, peaking dams and their respective re-regulating dams are functionally operated together as individual projects; therefore, the combined peaking/re-regulating dams (Detroit/Big Cliff, Green Peter/Foster, and Lookout Point/Dexter) are treated as individual projects.

2/ Net Present Values for combined WVS projects are calculated from the sum of benefits and costs across each project for 1600 iterations. The median result may not equal the sum of median results for individual plants.

3/ Bonneville's share of basin-wide costs (e.g., RME) were not included in this analysis. With inclusion of those costs, the Net Present Value would be incrementally lower and the Levelized Costs of Generation would be incrementally higher. Additionally, structural cost estimates used in the analysis of Action Alternatives were at a conceptual design level with a 50% contingency. For other projects of similar size and complexity, the conceptual design cost estimates increased by 11% to 215% upon completion of the detailed design report. Post-construction, the complexity of these systems has typically resulted in further costs to improve performance. Higher implementation costs than currently estimated would result in additional reductions of the Net Present Value and increases in the levelized costs of generation.

4/ Alternative 5 effects are only inclusive of near term operational measures and do not account for structural measures that have been proposed under the court order (e.g., upgrades to the Dexter adult fish facility), nor do they account for operational changes that could occur as a result of structural measure implementation.

PRE-DECISIONAL, DELIBERATIVE AND CONFIDENTIAL 1

Alt5 is preferred alternative. NPV -\$714 million, i.e. costs expected to significantly exceed revenues in the future
Context important – what’s included, role of injunction on economics, etc.

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

EIS and economics of power

Table 5.2-3. 2024 Cost of Generation (\$/MWh) by Alternative (Median of 1600 Iterations).^{3,4}

Project	NAA	ALT1	ALT2A	ALT2B	ALT3A	ALT3B	ALT4	ALT5	Near Term Operations Measure
Detroit/Big Cliff ¹	\$25.24	\$57.50	\$57.50	\$57.52	\$81.57	\$41.25	\$57.71	\$57.52	\$31.97
Green Peter/Foster ¹	\$33.86	\$66.01	\$64.74	\$64.68	\$58.85	\$86.99	\$52.03	\$64.90	\$50.40
Lookout Point/Dexter ¹	\$22.96	\$57.87	\$34.52	\$34.52	\$64.14	\$42.92	\$57.17	\$34.52	\$44.93
Cougar	\$32.49	\$38.22	\$56.24	\$340.57	\$80.53	\$346.18	\$52.34	\$363.99	\$42.76
Hills Creek	\$21.85	\$21.26	\$21.54	\$21.95	\$44.79	\$67.13	\$46.48	\$22.20	\$21.57
Combined WVS Projects²	\$26.70	\$53.84	\$47.45	\$50.66	\$64.32	\$59.42	\$54.54	\$50.81	\$38.35

PRE-DECISIONAL, DELIBERATIVE AND CONFIDENTIAL 2

COG doubles vs no action alternative. Avg COG for system is ~\$11/MWh. Open market is ??
 This is high level and doesn't factor in the timing of power

Outline

A – Introduction Thank You

B – Acknowledge understanding of difficulty and emphasize support

C – Propose study with constraints

D - State purpose for economically viable power and state our mission/purpose and authorities

E – Discuss 6 pages and comments from meeting response

6 Pages Topic

1 – De-authorizing power causes issues meeting fish passage, dam safety, other purposes.

2 – Recommendations to re-allocate costs, change cost structure, moth ball some assets.

3 – USACE to determine replacement, carbon and regional power reliability needs.

4 – What does federal interest mean? What criteria do we use?

5 – Difficult to get funding, costs more added through appropriations and not direct funding.

6 – Authorization to sell power or allow other entity to market it.

7 – Need for reliable station service power, claiming 3 alternates needed.

8 – What are reconfiguration needs and costs? Who will pay?

Disposition Planning Charrette

Acknowledge nature of systems currently in place and how the operations, utilizing these systems (turbines, turbine outlets etc.), are critical in maintaining current and future operations that have an impact on dam safety, fish survival, water quality, water supply and other purposes such as recreation.

Acknowledge how difficult and interconnected the systems are and that we appreciate how operational changes at one dam can have a wider effect on the rest of the system in the Valley as they are all interconnected.

Acknowledge our support of protecting fish and assisting the Corps where we can with this difficult effort.

Emphasize that our mission is for long term economically viable power for the region and the current and future lower generation and proposed EIS infrastructure are pushing cost of commercial power where it is not economically viable.

Without a change in the current authorities commercial power produced at these sites are not economically viable (economically efficient?) for the future.

Suggest that we need to study how to limit generation with existing structures to just station service needs and not produce commercial power.

Study, utilizing side boards of not impacting any of the current water conveyance operation limits (inlet and outlet locations, flow range and control etc.). Thereby, reducing the need for studies of other impacts as the operational characteristics, in theory, will not change (now or under current EIS plans). The only impact on operations is to limit the production of commercial power from these facilities.

Focus on the costs and feasibility of various methods to eliminate commercial power production and maintain other operational capabilities of the dams to include supplying station service power to the dams.

Re-emphasize that transmission issues, replacement power and the carbon impacts of losing power are all BPA's responsibilities. Power reduction in the Valley may not need direct replacement as BPA will assess resource adequacy and whether we can utilize various tools such as market purchases, energy efficiency or other means to make up for the loss of generation, if needed. We also are responsible for the level of reliability and risk of power supply all over the region and will assess what the impacts and levels of risks are for various communities and power supply. We understand markets and the impacts of carbon pricing as we sell power into both the California and market and in Washing State where both states have a carbon cap and trade approach to reducing carbon from the fuel mix of power.

From: Kintz,Jesse H (BPA) - PG-5
Sent: Wednesday, January 4, 2023 11:49 AM
To: Webster-Wharton,Stacy T (BPA) - PGA-6
Cc: Todd,Wayne A (BPA) - PGA-6; Leady Jr,William J (BPA) - PG-5
Subject: FW: Willamette and WRDA 2022 - Summary of key points discussed on Dec 16 2022

From: Kintz,Jesse H (BPA) - PG-5
Sent: Wednesday, January 4, 2023 11:47 AM
To: Cook,Joel D (BPA) - K-7 <jdcook@bpa.gov>; Leady Jr,William J (BPA) - PG-5 <wjleady@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>; Harris,Marcus A (BPA) - F-2 <maharris@bpa.gov>; Cooper,Suzanne B (BPA) - P-6 <sbcooper@bpa.gov>
Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Sullivan,Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Senters,Anne E (BPA) - LN-7 <aesenters@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>
Subject: RE: Willamette and WRDA 2022 - Summary of key points discussed on Dec 16 2022

Stacy,
Heads up that I included in another email string some additional guidance related to our Willamette discussion with the Corps tomorrow- see the highlighted section below.

-Jesse

Hello all,
Heading into our check in with Corps NWD leadership tomorrow, I wanted to follow up with one tweak and one point of clarification on Bill's key point #1 below related to BPA's Willamette strategy that we discussed before the holidays.

1. I would remove the word "reliable" from this characterization. We are continuing to build knowledge and awareness around the fact that the power from the Willamette has limited to no capacity value in contrast to the Columbia/Snake power (BPA is generally told how much we get and in what windows). The power is also less reliable in the sense that fish needs and water conditions have a significant impact on the mw generated.

BPA's position: BPA desires to retain the Willamette Valley System's carbon-free, ~~reliable~~ hydropower within the FCRPS if cost allocations can be adjusted to make power economically feasible. Only when power will not be economically feasible or when operational changes (e.g. deep drawdowns) make hydropower infeasible should deauthorization be the course of action.

2. While the above position represents a practical approach, BPA needs to be cautious with how we characterize the interplay between cost allocation and deauthorization with the Corps.
 - a. The wording's characterization could be misinterpreted to infer deauthorization is plan B. While this is true in a practical and long-term sense, BPA should bear in mind that in the near-term, the 2022 WRDA (with significant input/backing from some of BPA's stakeholders/customers) directing a disposition study on power de-authorization just passed and has real traction, whereas the cost allocation path forward is currently less defined. Therefore, even though cost allocation makes sense as an outcome for any

projects with remaining economic power, BPA needs to avoid sending a signal that we are de-prioritizing the disposition study / deauthorization path and related WRDA 2022 language.

- b. I would suggest that BPA's message to the Corps be focused on first, that we want to retain any cost effective power. Second, that we support prioritizing the WRDA system-wide disposition study to help us collectively identify and preserve any cost effective power, or remove power if power can't be cost effective. Third, we would like to clarify BPA's role in the disposition economic analysis component and believe that we should have a leading voice in our areas of expertise – aka the economics related to power values.

-Jesse

Jesse Kintz

Power Generation – Senior Policy and Projects Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Cook,Joel D (BPA) - K-7 <jdcook@bpa.gov>

Sent: Monday, December 19, 2022 12:06 PM

To: Leady Jr,William J (BPA) - PG-5 <wjleady@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jkintz@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>; Harris,Marcus A (BPA) - F-2 <maharris@bpa.gov>; Cooper,Suzanne B (BPA) - P-6 <sbcooper@bpa.gov>

Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Sullivan,Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Sinters,Anne E (BPA) - LN-7 <aesinters@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>

Subject: RE: Willamette and WRDA 2022 - Summary of key points discussed on Dec 16 2022

Thanks Bill

Looks good to me

Joel D. Cook

Chief Operating Officer, K-7

BONNEVILLE POWER ADMINISTRATION

C: (b)(6) P: 503-230-7640 | jdcook@bpa.gov

From: Leady Jr,William J (BPA) - PG-5 <wjleady@bpa.gov>

Sent: Friday, December 16, 2022 4:21 PM

To: Cook,Joel D (BPA) - K-7 <jdcook@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jkintz@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>; Harris,Marcus A (BPA) - F-2 <maharris@bpa.gov>; Cooper,Suzanne B (BPA) - P-6 <sbcooper@bpa.gov>

Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Sullivan,Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Sinters,Anne E (BPA) - LN-7 <aesinters@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>

Subject: Willamette and WRDA 2022 - Summary of key points discussed on Dec 16 2022

Joel, Suzanne, Marcus, Jesse, Doug, Sonya, *et all*

Summary of key points discussed on Dec 16 2022

1. BPA's position: BPA desires to retain the Willamette Valley System's carbon-free, reliable hydropower within the FCRPS if cost allocations can be adjusted to make power economically feasible. Only when power will not be economically feasible or when operational changes (e.g. deep drawdowns) make hydropower infeasible should deauthorization be the course of action.
2. BPA's position: BPA believes the disposition study required by WRDA 2022 must be completed on schedule (in 18 months). To accomplish this the scope needs to be both limited and focused primarily on hydropower.

NOTE: We need to be aware the act states:

"In carrying out the disposition study under paragraph (1) the Secretary shall review the effects of deauthorizing hydropower on –

(A) Willamette Valley hydropower operations;

(B) other authorized purposes of such project;

(C) cost apportionments;

(D) dam safety;

(E) compliance with the requirements of the Endangered Species Act;

(F) the operations of the remaining dams within the Willamette Valley hydropower project."

3. BPA's position: BPA should be an active partner with the Corps in hydropower's economic analysis as the Corps moves forward in the disposition studies and potential cost allocation updates.
4. Action: We need the legal and financial definition and clarity on the term "new construction" as intended in WRDA 2022.

Bill,

Bill Leady P.E.

Vice President, Generation Asset Management | PG

BONNEVILLE POWER ADMINISTRATION

bpa.gov | Office 503-230-4270 | Cell (b)(6)

From: Marker,Doug R (BPA) - AIR-7
Sent: Tuesday, March 14, 2023 8:53 AM
To: Webster-Wharton,Stacy T (BPA) - PGA-6; Kintz,Jesse H (BPA) - PG-5
Cc: Todd,Wayne A (BPA) - PGA-6; Smith,Glen A (BPA) - PG-5
Subject: New development from President's budget for this week's NWD-BPA meeting
Attachments: DOE FY 2024 Budget Request Vol 3 PMAs FCRPS Reallocation.pdf

Stacy – Related to the talking points on Willamette disposition studies, the President’s budget is out with the attached provisions in Bonneville’s budget for a joint meeting with OMB and the Corps to discuss cost allocation and development of a joint proposal; with a report from the Corps and BPA to OMB by August 1.

From: Webster-Wharton,Stacy T (BPA) - PGA-6 <stwebsterwharton@bpa.gov>
Sent: Monday, March 6, 2023 7:55 AM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Subject: RE: NWD-BPA talking points update

Thanks all. I have reviewed and finalized the talking points for the upcoming prep meeting.

Stacy Webster-Wharton, PE (she/her/hers)
Asset Manager (AM) and Chief Data Officer (CDO) (K) (acting)
BONNEVILLE POWER ADMINISTRATION
stwebsterwharton@bpa.gov



P: 503-230-3102 C:(b)(6)



From: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Sunday, March 5, 2023 6:45 PM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Webster-Wharton,Stacy T (BPA) - PGA-6 <stwebsterwharton@bpa.gov>
Subject: RE: NWD-BPA talking points update

Stacy and Jesse – I suggest some revisions in the points about the disposition studies:

- We will do our economic analysis – this can be collaborative with the Corps, but my suggestion insists we need to determine commercial viability of power generation. That determination informs the finding of continued federal interests.
- The economic analysis leads to either deauthorization of power or – if power generation remains viable – reallocation. Same analysis – two possible outcomes. It’s important to recognize the congressional direction presumes deauthorization as an outcome.

I try to suggest a forthright approach in these comments – I think appropriate and respectful, but I think these are the points we should continue to make.

Thanks for giving me the opportunity for review and I’m happy to discuss.

Best,

Doug

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6) phone and text

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Thursday, March 2, 2023 5:39 PM
To: Webster-Wharton,Stacy T (BPA) - PGA-6 <stwebsterwharton@bpa.gov>
Cc: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Subject: RE: NWD-BPA talking points update

Here are some updated talking points, Stacy. Copying Doug Marker in case he wants to emphasize anything additional from his perspective.

-Jesse

From: Webster-Wharton,Stacy T (BPA) - PGA-6 <stwebsterwharton@bpa.gov>
Sent: Tuesday, February 21, 2023 11:18 AM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Subject: NWD-BPA talking points update

Jess-

In prep for March's meeting, I have attached the talking points for your revision. I have made some revisions (did not track changes) in some areas. Please take a look at the WV/disposition/cost allocation section and provide revisions. Thanks!

Stacy Webster-Wharton, PE (she/her/hers)
Asset Manager (AM) and Chief Data Officer (CDO) (K) (acting)
BONNEVILLE POWER ADMINISTRATION
stwebsterwharton@bpa.gov



P: 503-230-3102 C: (b)(6)



BONNEVILLE POWER ADMINISTRATION

FY 2024 Congressional Justification

March 2023



Evidence & Analysis in the Budget

Bonneville has undertaken several initiatives and processes to determine appropriate budget expenditures.

Through Bonneville's IPR process, the public is able to see all relevant FCRPS expense and capital forecast costs in the same forum. In addition, Bonneville's IPR process allows the public to review and comment on Bonneville's 10-year capital forecasts. The IPR occurs every two years, prior to each Bonneville rate case, and provides the public an opportunity to review and comment on Bonneville's forecast costs prior to being set for inclusion in rate cases.

Bonneville conducted the BP-24 IPR, which reviewed forecast costs for the FY 2024 rate period and FY 2025 during the summer of 2022. Bonneville was guided by the 2018 Strategic Direction goal to hold costs at or below the level of inflation through 2028, though Bonneville is experiencing greater cost pressures. Bonneville issued the closeout report for the BP-24 IPR in October 2022.

The forecast cost increases for Power Services are \$96.5 million above BP-22. The primary drivers for the cost increase are adequately funding our generating partners; needed investments in core information technology (IT) systems and cybersecurity; supporting staffing levels in key areas; establishing the new Chief Workforce and Strategy Office; and meeting fish and wildlife program obligations.

Transmission Services is facing greater cost pressures and is projecting costs above BP-22 by \$80 million. Projected cost increases include investments in core IT systems, the labor-related cost of Bonneville's current workforce, wildfire mitigation, cybersecurity, Grand Coulee Dam substation assets, and support for Bonneville's current workforce.

Judicial & Regulatory Activity

The Energy Policy Act of 2005 authorized the Federal Energy Regulatory Commission (FERC) to approve and enforce mandatory electric reliability standards with which users, owners, and operators of the bulk electric power system, including Bonneville, are required to comply. These standards became enforceable on June 18, 2007, and compliance is monitored by the North American Electric Regulatory Corporation (NERC) and the regional reliability organizations.

FCRPS Cost Allocations

The FY 2021 Energy and Water Development Appropriations Act included report language requesting that Bonneville, the Corps, and Reclamation provide quarterly reports on their work to resolve policy differences for the allocation of costs for multi-purpose projects of the FCRPS. This followed language in the House Committee on Appropriations report in the FY 2020 Energy and Water Development Appropriations Act, noting that the allocation of cost sharing among the authorized project purposes can be decades old and requesting that the three agencies return an outline of how cost allocations may be updated. The three agencies provided the subcommittee with an outline of cost allocation methods and authorities in June 2020, noting specific policy differences. Bonneville is continuing to provide the subcommittee with Quarterly reports of its progress.

BPA appreciates the OMB budget guidance to BPA indicating that Bonneville should work with the Corps of Engineers to determine if changes in cost allocation may be warranted and present a joint proposal to OMB for consideration for the FY 2025 Budget if both agencies agree changes may be warranted.

BPA agrees that a joint proposal to OMB would support the effort to determine whether or not project costs are being appropriately allocated to power, thus ensuring carbon free and reliable FCRPS hydropower costs are not inflated by non-joint, non-power costs. The joint effort also would support the federal interest determination portion of completing the directed studies on disposition of hydropower at the Willamette dams, authorized by the enacted into federal law on December 23, 2022 as Section 8220, Disposition Study of hydropower in the

Bonneville Power Administration FY 2024 Congressional Justification **Description of Bonneville Operations & Services**

Willamette, Valley, Oregon (pp. 3162-6), of Division H. of Title LXXXI, the Water Resources Development Act of 2022 (WRDA), of the James M. Inhofe National Defense Authorization Act (NDAA), P.L. 117-263, and directed to be completed by June 2024. Thus, the timing for this joint effort is critical to assuring decarbonization goals and certain fish mitigation activities.

BPA appreciates OMB scheduling a joint meeting of OMB, the Corps and BPA to discuss cost allocation and potential development of a joint proposal. BPA intends to discuss with OMB and the Corps a proposed schedule for the BPA and the Corps joint report to OMB by August 1. And assuming the report will note reallocation is warranted, BPA intends to discuss with OMB and the Corps a joint proposal for commencing the cost allocation update process by September 15 for the FY 2025 Budget. BPA believes that the subcommittee continues to have an interest in expeditious commencement of these activities.

Strategic Direction

Bonneville's 2018-2023 Strategic Plan, released in 2018, describes how it will operate in a commercially successful manner while meeting its statutory obligations. Bonneville developed this strategic plan after listening to customers and constituents express their interests in Bonneville's commercial viability and ability to meet those obligations. The strategic plan was developed at the point when Bonneville was midway through 20-year firm power sales contracts with its preference power customers. Those customers continue to evaluate how Bonneville will be positioned to meet their needs beyond the terms of their current contracts.

The strategic plan is framed by these goals:

- Strengthen financial health
- Modernize assets and system operations
- Provide competitive power products and services
- Meet transmission customer needs efficiently and responsibly

In 2020, Bonneville reassessed and reconfirmed its strategic goals and objectives. In its Strategic Plan Update, Bonneville added a fifth goal, "Value people and deliver results," which captures the agency's commitment to its workforce and the people it serves.

In calendar year 2023, Bonneville expects to complete a strategic planning refresh to prepare its 2024-2028 Strategic Plan.

The following provides more detail about the strategic plan's goals.

Strategic Goal: Strengthen Financial Health

Financial Plan

In 2018, Bonneville completed its Financial Plan to address the Strategic Plan's direction to maintain and enhance the agency's financial strength. The 2018 Financial Plan establishes a guiding framework for decision-making by defining the financial constraints within which Bonneville operates, and outlines Bonneville's financial health objectives. The plan contains Bonneville's statutory obligations and authorities, financial policies and established practices, and financial health objectives.

Bonneville adopted the Financial Reserves Policy (FRP), which guides the level of financial reserves Bonneville and each business line should hold, how to build financial reserves when they fall below a prescribed level, and a process to consider repurposing financial reserves when they exceed a prescribed level. The policy provides a framework to help ensure Bonneville maintains a minimum of 60 days cash on hand for each business line.

In FY 2022, Bonneville held a public process to refresh its Financial Plan. The objective of the Financial Plan Refresh was to ensure Bonneville's long-term financial goals are supported with the appropriate targets, metrics

Bonneville Power Administration FY 2024 Congressional Justification **Description of Bonneville Operations & Services**

From: Spear, Daniel J (BPA) - PGB-5
Sent: Friday, January 20, 2023 1:43 PM
To: Senters, Anne E (BPA) - LN-7; Welch, Julee A (BPA) - LP-7; Nagra, Angad S (BPA) - LN-7; Chan, Allen C (BPA) - LT-7
Cc: Maslow, Jeffrey J (BPA) - EC-4; Sullivan, Leah S (BPA) - PGB-5; Marker, Doug R (BPA) - AIR-7; Anasis, John G (TFE)(BPA) - TOOP-DITT-2; Smith, Glen A (BPA) - PG-5
Subject: FW: Final Talking Points for Green Peter Drawdown Voltage Support Issue -- Attorney/Client Communication -- Do Not Release Under FOIA
Attachments: Letter from Ron Edwards RE Green Peter Islanding.pdf

Attorney-Client Communication

Hello Jeff:

When you set up the meeting for next week please include Eric Carter and Charles Sweeney.

From my preliminary conversation with Eric it sounds like we owe a "good neighbor" heads up to PAC on the possible changes in generation from GPR/FOS and that it would then be up to them to ascertain the (presumably very small) impacts that this would have on their ability to deliver load in Lebanon/Sweet Home area. That said, it will be best to confirm a path forward with the people with the most expertise in this area.

Dan Spear

From: Carter, Eric H (TFE)(BPA) - TSE-TPP-2 <ehcarter@bpa.gov>
Sent: Friday, January 20, 2023 1:31 PM
To: Sweeney, Charles R (TFE)(BPA) - TSE-TPP-2 <crsweeney@bpa.gov>
Cc: Spear, Daniel J (BPA) - PGB-5 <djspear@bpa.gov>
Subject: FW: Final Talking Points for Green Peter Drawdown Voltage Support Issue -- Attorney/Client Communication -- Do Not Release Under FOIA

Charles,

FYI regarding an issue involving the Corps in the Willamette Valley. I just met with Dan to get briefed before a larger internal meeting is scheduled next week to prep for a PAC meeting in a few weeks. I asked Dan to invite you to the pre-meeting, since the Corps is involved, and so you can determine whether to participate in this team.

E

From: Spear, Daniel J (BPA) - PGB-5 <djspear@bpa.gov>
Sent: Thursday, October 13, 2022 3:49 PM
To: Senters, Anne E (BPA) - LN-7 <aesenters@bpa.gov>; Welch, Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Nagra, Angad S (BPA) - LN-7 <ASNagra@bpa.gov>; Chan, Allen C (BPA) - LT-7 <acchan@bpa.gov>
Cc: Anasis, John G (TFE)(BPA) - TOOP-DITT-2 <jganasis@bpa.gov>; Marker, Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Haggerty, Nicholas J (TFE)(BPA) - TOOP-DITT-2 <njhaggerty@bpa.gov>; Kintz, Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Smith, Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Wilson, David B (BPA) - DKS-7 <dbwilson@bpa.gov>; Dondy-Kaplan, Hannah A (BPA) - AIR-7 <hadondy-kaplan@bpa.gov>; Wilson, Scott K (BPA) - PSW-6 <skwilson@bpa.gov>; Leady Jr, William J (BPA) - PG-5 <wjleady@bpa.gov>; Schaad, John G (BPA) - TPCV-ALVEY <jgschaad@bpa.gov>; Felker, Steven D (TFE)(BPA) - TORM-MEAD <sdfelker@bpa.gov>; Mercer, Joseph R (TFE)(BPA) - TOOP-DITT-2 <jrmercerc@bpa.gov>;

Sullivan, Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>; Chase, Luke B (BPA) - PGAF-6 <lbchase@bpa.gov>; Brown II, George L (BPA) - PGA-6 <glbrown@bpa.gov>; Todd, Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Johnson, Kimberly O (BPA) - PGAF-6 <kojohnson@bpa.gov>

Subject: Final Talking Points for Green Peter Drawdown Voltage Support Issue -- Attorney/Client Communication -- Do Not Release Under FOIA

Attorney/Client Communication -- Do Not Release Under FOIA

Hello:

Several of you are getting this cold, so please allow me to state the background and the context.

The court-ordered measures regarding fish operations for the Willamette Valley System stipulated that the Corps undertake a fall/winter drawdown at Green Peter Dam (similar to the one that is currently underway at Cougar) which would prioritize passing water through ROs “on the way down” and then leave the reservoir well beneath the penstocks starting in early November through whenever rains refill the reservoir starting in January. The GPR fall/winter drawdown measure is scheduled to be implemented for the first time in the fall of 2023.

As part of the public outreach regarding the upcoming changes in dam operations the Corps received a letter (attached) from a former employee that worked at Green Peter/Foster expressing concern about the ability of GPR/FOS load to provide voltage support to the Lebanon substation if Green Peter is not able to generate while it is drawn down.

The Corps contacted BPA to examine the issue. Kudos to all of the Transmission employees on this email that took time out of their busy schedules to consider this request.

After reviewing we came up with the following bullet points:

- Generation from Green Peter/Foster is not necessary to maintain the reliability of the Transmission System or compliance with NERC Reliability Standards.
- Generation from the projects provides a convenient tool to maintain local load service during islanded conditions, and the court-ordered drawdown may make this tool unavailable.
- The unavailability of generation to maintain local load service during islanded conditions is a common system configuration, as most of the transmission system does not have local generation that can provide support during outage conditions.

The Corps intends to use these bullet points to help their at-dam Project Manager, Erik Petersen, verbally respond to questions about impacts of the GPR drawdown at meetings with the public. The Corps is not looking to make a formal written response at this time. In addition, they do not think it is necessary to make a report to the court on this issue as it relates to their implementation of the GPR fall/winter drawdown. If either of those decisions change then the Corps will work with BPA on the more formal responses.

The purpose of this message is to be certain that anyone with an interest on this topic has had an opportunity to review the bullet points before they are expressed externally. If you have any questions, concerns or edits please let me know. Please forward to anyone you feel should have a chance to review.

Best Regards,

Daniel Spear

From: Kintz,Jesse H (BPA) - PG-5
Sent: Monday, March 20, 2023 11:45 AM
To: Marker,Doug R (BPA) - AIR-7; Smith,Glen A (BPA) - PG-5; Welch,Julee A (BPA) - LP-7; Senter,Ane E (BPA) - LN-7; Nagra,Angad S (BPA) - LN-7; Spear,Daniel J (BPA) - PGB-5; Todd,Wayne A (BPA) - PGA-6; Dondy-Kaplan,Hannah A (BPA) - AIR-7; Maslow,Jeffrey J (BPA) - EC-4; Biegel,Sarah T (BPA) - EC-4; Mai,Amy E (BPA) - EC-4
Subject: RE: BPA comments on WRDA 2022 implementation guidance

Well done, Doug, to lead the writing for this and push it to the finish line
(And, with one day to spare!)

-Jesse

From: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Monday, March 20, 2023 11:35 AM
To: Kintz,Jesse H (BPA) - PG-5 <jkintz@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Senter,Ane E (BPA) - LN-7 <aesenters@bpa.gov>; Nagra,Angad S (BPA) - LN-7 <ASNagra@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; Dondy-Kaplan,Hannah A (BPA) - AIR-7 <hadondy-kaplan@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Biegel,Sarah T (BPA) - EC-4 <stbiegel@bpa.gov>; Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>
Subject: BPA comments on WRDA 2022 implementation guidance

I've sent in comments to the Department of the Army for implementation guidance to the Corps for the section of WRDA 2022 directing disposition studies for Willamette hydro power.

Forwarding FYI

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6) phone and text

From: Karnezis,Jason P (BPA) - EWL-4
Sent: Thursday, January 19, 2023 7:48 PM
To: Kintz,Jesse H (BPA) - PG-5; Mai,Amy E (BPA) - EC-4
Cc: Nagra,Angad S (BPA) - LN-7; Senters,Anne E (BPA) - LN-7; Maslow,Jeffrey J (BPA) - EC-4; Spear,Daniel J (BPA) - PGB-5
Subject: RE: Services comments on BA

Thanks, Jesse.

Jason Karnezis
Estuary Lead
Bonneville Power Administration
503-230-3098

(b)(6)

jpkarnezis@bpa.gov

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Thursday, January 19, 2023 5:14 PM
To: Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>; Karnezis,Jason P (BPA) - EWL-4 <jpkarnezis@bpa.gov>
Cc: Nagra,Angad S (BPA) - LN-7 <ASNagra@bpa.gov>; Senters,Anne E (BPA) - LN-7 <aesenters@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>
Subject: Services comments on BA

Amy and Jason,
Heads up that per the discussion on the Willamette Deputy meeting today, the Corps should be sending over a copy of the Services' comments on the BA for BPA's review. The Corps was asking about whether we'd want to review it, and we said we'd probably take a look, especially if there are comments on our sections.

-Jesse

Jesse Kintz

Power Generation – Senior Policy and Projects Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Anasis,John G (TFE)(BPA) - TOOP-DITT-2
Sent: Thursday, January 19, 2023 6:33 PM
To: Maslow,Jeffrey J (BPA) - EC-4
Cc: Spear,Daniel J (BPA) - PGB-5; Kintz,Jesse H (BPA) - PG-5; Stevenson,Audrey C (TFE)(BPA) - TOOP-MEAD
Subject: RE: Willamette EIS Public Meetings -- GPR/FOS Voltage Support Issue -- Attorney/Client Communication Do No Release Under FOIA

Jeff,

Thank you for the heads up on this. I will certainly do what I can to help with this, but some of the data gathering may need to be done by others. This will depend on what specific information is desired. I see that you have set up some time for us to discuss this, so we can address these issues at that meeting.

Thanks again!

John

From: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Sent: Thursday, January 19, 2023 9:07 AM
To: Anasis,John G (TFE)(BPA) - TOOP-DITT-2 <jganasis@bpa.gov>
Cc: Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Subject: FW: Willamette EIS Public Meetings -- GPR/FOS Voltage Support Issue -- Attorney/Client Communication Do No Release Under FOIA
Importance: High

Hi John,

I hope we can all touch base with you again on this issue at Foster and Green Peter dams. As Dan noted in his email below, it's coming up in public meetings again so I was just hoping to touch base. For this reason, we're anticipating that this will be a public comment to which we will need to provide responsive language to the Corps for the Final EIS, so those talking points will be useful for that purpose.

Additionally, also as noted by Dan, the Corps suggested increasing coordination across utilities and "getting a detailed accounting of how frequently the voltage support issue occurs," so we'd like to be prepared to respond to that request in the manner Transmission Services deems appropriate. We're thinking we're probably need to loop the Transmission AE to coordinate on this with the retail utility at issue (we are told it's Pacific Power & Light), or we could add them to this discussion. Would that be Eric Carter?

I'll look to set up a meeting next week as your availability allows. Thank you for revisiting it with us!

Regards,
Jeff

Jeff Maslow
Senior Environmental Protection Specialist
Environmental Planning and Analysis

BONNEVILLE POWER ADMINISTRATION
503-230-3928

From: Spear, Daniel J (BPA) - PGB-5 <djspear@bpa.gov>

Sent: Thursday, January 12, 2023 5:01 PM

To: Senters, Anne E (BPA) - LN-7 <aesenters@bpa.gov>; Welch, Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Nagra, Angad S (BPA) - LN-7 <ASNagra@bpa.gov>

Cc: Maslow, Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Sullivan, Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>; Marker, Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Kintz, Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Smith, Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Baskerville, Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>

Subject: Willamette EIS Public Meetings -- GPR/FOS Voltage Support Issue -- Attorney/Client Communication Do No Release Under FOIA

Importance: High

Attorney/Client Communication Do No Release Under FOIA

Hello:

The author of the letter embedded in the attached email expressed his concerns about GPR/FOS voltage support and islanding at the public meeting in Sweet Home that Jeff summarized. Corps staff mentioned it as a key issue at today's meeting in Stayton.

When the Corps first asked for help responding to the letter, I worked with our Transmission staff (with, as always, a primary assist from John Anasis) to write up the attached talking points that we sent to the Corps. Apparently, the concern is still there.

To move forward, Erik Petersen (Corps' at-dam manager for the Willamette) suggested that we try to get a more detailed accounting of how frequent the voltage support/islanding condition would come up. I think that is reasonable. Nonetheless, revisiting the talking points (which were vetted by TXM legal staff) I think the fact that even with less voltage support with generation lost at GPR during drawdowns we would still be within NERC standards is important. And while the concern is valid, an outage would only occur when GPR/FOS are islanded from the rest of the system AND there are local conditions that would necessitate the need for voltage support from GPR/FOS. I think it is very likely that this is a very uncommon circumstance.

We can discuss further on Tuesday, but wanted you all to be aware now as this seems to be one of the prominent issues arising from the public meetings.

Best,

Dan Spear

1/23 Corps disposition study meeting prep

DRAFT AGENDA:

1. *Disposition studies status (Corps)*
2. *Disposition studies: scoping and BPA's role (Corps + BPA)*
3. *Cost allocations*
4. *Next steps / wrap*

BPA POINTS TO EMPHASIZE:

- *Suggest commercial power as scope*
- *Other ways to keep scope limited to hydropower / small*
- *BPA offering our expertise on power economics within federal interest determination*
- *Cost allocations – should update these even if power isn't deauthorized. Equity between ratepayers and taxpayers*

QUESTIONS:

- *Corps status on setting up PDT and schedule?*
- *Should BPA be part of PDT?*

From: Kintz, Jesse H (BPA) - PG-5

Sent: Tue Sep 27 09:08:18 2022

To: bradley.e.thompson@usace.army.mil; Mark.D.Bierman@usace.army.mil; Christina.A.Austin-Smith@usace.army.mil; Thomas.Topi@usace.army.mil

Cc: Welch, Julee A (BPA) - LP-7; Smith, Glen A (BPA) - PG-5; Todd, Wayne A (BPA) - PGA-6

Subject: BPA bullet point input on Corps disposition study components

Importance: Normal

Attachments: Disposition study outline_BPAs initial thoughts and input.docx

Brad and team,

As a follow up to the discussion during our meeting last Monday, I've attached some initial BPA thoughts on Corps' Willamette disposition studies in a bullet point format consistent with the outline from the Corps' August 22, 2016 "interim guidance" memo on disposition studies. We provided comments only for sections A-E, through the federal interest determination, given that this is the first step in the process.

The goal in providing this is to proactively provide BPA input, and to assist with further coordination and discussion between BPA and the Corps as the disposition study process moves forward. We look forward to further discussion.

-Jesse

From: Kintz, Jesse H (BPA) - PG-5

Sent: Friday, September 16, 2022 9:28 AM

To: Welch, Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Smith, Glen A (BPA) - PG-5 <gasmith@bpa.gov>;
Todd, Wayne A (BPA) - PGA-6 <watodd@bpa.gov>; bradley.e.thompson@usace.army.mil;

Mark.D.Bierman@usace.army.mil; Christina.A.Austin-Smith@usace.army.mil; Thomas.Topi@usace.army.mil

Subject: RE: BPA-Corps Willamette coordination team (monthly)

All,

Here is a draft agenda for our BPA-Corps monthly Willamette hydropower coordination meeting on Monday. Brad, please add anything I may have missed from our discussion earlier this week.

Cougar disposition study status update (Corps)

Initial BPA thoughts on disposition studies (BPA)

Status update on Sep 30 committee report on cost allocations (BPA)

Open discussion (BPA/Corps)

Wrap up / next steps

Look forward to touching base. Have a nice weekend all.

-Jesse

-----Original Appointment-----

From: Kintz, Jesse H (BPA) - PG-5

Sent: Tuesday, June 28, 2022 3:24 PM

To: Kintz, Jesse H (BPA) - PG-5; Welch, Julee A (BPA) - LP-7; Smith, Glen A (BPA) - PG-5; Todd, Wayne A (BPA) - PGA-6; bradley.e.thompson@usace.army.mil; Mark.D.Bierman@usace.army.mil; Christina.A.Austin-Smith@usace.army.mil; Thomas.Topi@usace.army.mil

Subject: BPA-Corps Willamette coordination team (monthly)

When: Monday, September 19, 2022 2:00 PM-3:00 PM (UTC-08:00) Pacific Time (US & Canada).

Where: WebEx - links to follow

Recurring monthly invite

Purpose: To coordinate between BPA and Corps on the Corps' disposition study and other issues related to the future of power at the Willamette dams given the EIS and injunction measures impacts on power economics.

BPA thoughts and input on USACE disposition studies – September 2022

(Outline based on August 22, 2016 Corps disposition study memo; BPA comments in green)

Overall: BPA views timely completion of the federal interest determination in Section E as critical to inform path forward. If it's determined there is no federal interest in hydropower at certain projects, it could have implications on subsequent actions, including EIS work, repayment responsibilities, etc.

A. Purpose of Study –

-Scope should be system-wide due to economics concerns at all 8 power Willamette projects. Consider options to streamline including studying subset and applying broadly.

B. Project Authorization and History

C. Study Area Detailed Project Description

D. Historic and Existing Conditions

- a. History of Performance
- b. Operation and Maintenance History
- c. Existing Safety Evaluation
- d. Summary of Asset Holding

-Could be largely gathered from existing (EIS, Willamette Falls locks) documentation?

-Call out commercial power distinction (vs station service, TDG mgmt)

-Consider whether the commercial power purpose is still being met (vs minimal power for station service, total dissolved gases management)

-Include Congressional intent of cost-benefit for power and regional benefits that were expected from House Document 531

-Include description of Bonneville's role as the sole power marketer

E. Description of Federal Interest in Disposition

-Timing. Consistent with the Corps' memo guidance, Corps has shared that this will be the first phase of the disposition study process and determined within a period of months (Spring 2023?). BPA supports this approach and believes that this determination early in the process will be critical in informing the path forward on multiple fronts.

-Federal interest should be grounded in original Congressional intent.

-Include consideration of potential benefits of de-authorizing commercial power including flexibility for fish and water quality

a. Screening and Selection Criteria –

-Criteria should include economic viability consistent with Congressional intent

-BPA, given our expertise in power marketing, should have significant input, partnering with Corps HAC

b. Eligibility for disposition

- i. Limit this to commercial power generating facilities (as opposed to turbine functions for reservoir releases, water quality and fish).*

-
- F. Plan Formulation and Evaluation
 - a. Problems and Opportunities
 - b. Future without Project Condition
 - c. Alternatives Description
 - d. Evaluation of Benefits and Costs of Alternatives
 - e. Safety Evaluation for Alternatives
 - f. Comparison of Alternatives
 - G. Recommended Plan
 - a. Description of Plan
 - b. Environmental Effects
 - c. Economic Effects
 - d. Other Social Effects
 - e. Safety Effects
 - f. Cultural Resources
 - H. Environmental Compliance and Mitigation Requirements
 - I. Description of Interested Party
 - a. Description of the entity
 - b. Capability of entity to assume ownership
 - J. Requirements for Implementation of Recommendation
 - a. Costs and Schedule



Department of Energy

Official File

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

POWER SERVICES

February 3rd, 2023

In reply refer to: PG-5

Liza Wells
Deputy District Engineer for Programs and Project Management
Portland District, United States Army Corps of Engineers
333 SW First Ave.
Portland, OR 97204

Dear Ms. Wells,

The Bonneville Power Administration (Bonneville) appreciates this opportunity to comment on the Draft Programmatic Environmental Impact Statement (Draft PEIS) for operations and maintenance of the Willamette Valley System.

Bonneville is participating in the development of the Draft PEIS as a cooperating agency, focusing on its expertise on the hydropower purpose of the Willamette Valley System, including hydropower generation and marketing, and electric transmission facilities and operations.

As contemplated by the Cooperating Agency Memorandum of Understanding between Bonneville and the Corps, Bonneville would like to take this opportunity to present its views on the Draft PEIS, particularly where it believes the PEIS would benefit from additional analysis. In addition to the themes discussed in this letter, Bonneville will provide the Corps with specific updates and revisions related to hydropower generation and transmission analysis in the Draft PEIS, as part of Bonneville's ongoing participation in this PEIS process as a cooperating agency. Bonneville continues to acknowledge and thank the Corps staff and leadership for its engagement and collaboration with Bonneville in the preparation of the Draft PEIS.

The Draft PEIS evaluated alternatives to achieve multiple objectives; however, none of the action alternatives to restore naturally spawning salmon and steelhead above Willamette Valley dams would maintain economical hydropower as a residual benefit of the system.

The Corps constructed the Willamette Valley System to primarily provide flood protection for Oregon communities. The system's storage capacity also provides benefits for recreation, water supply, and water quality. As the Draft PEIS notes, hydropower is a residual benefit of the Willamette Valley System, available after the Corps has optimized operations for other project purposes. The current action alternatives in the draft PEIS have outcomes which reduce the availability of hydropower generation while multiplying its costs.

Although the Draft PEIS clarifies some of the challenges of maintaining economical hydropower as a benefit of the Willamette Valley System, Bonneville believes that the Final PEIS would benefit by including specific elements to more completely capture the scope of those challenges, as well as identifying steps towards addressing them. Accordingly, Bonneville has three requests for inclusion in the Final PEIS:

- Bonneville continues to request that the Corps include in the final PEIS its implementation plan for the consideration of de-authorization and cost allocation updates at these projects. Bonneville notes the recent mandate from Congress in the 2022 Water Resources Development Act directing system-wide disposition studies of the power purpose of the Willamette dams by June 2024. Bonneville also offers the following considerations for the disposition studies:
 - Disposition studies will inform potential congressional deauthorization of power at the Willamette dams. If Congress does deauthorize power, the Corps may be able to design less costly and more effective passage routes for juvenile salmon.
 - Disposition study analysis should also inform needed cost allocation updates. Significant operational changes and the shifting economics of managing hydropower and flood control at Willamette Valley projects make cost allocation updates necessary. The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet power's cost allocation averages around 40 percent. If the disposition studies, as part of assessing whether hydropower is in the federal interest, do find net economic value for remaining hydropower generation at one or more of the Willamette dams, the Corps and Bonneville should use that analysis to implement the needed appropriate cost allocation between flood risk management and power.
 - Meeting Congress' timeline for completing disposition studies by June 2024 should support implementation planning for the Final PEIS and help inform Bonneville's decisions for continued investments in the dams' power facilities. It will be important for the Corps to limit the scope of the disposition studies and focus only on the effects of deauthorizing hydropower.
- The Corps should revise the PEIS analysis to fully include the impact of the continuation of the near-term operations in the planned implementation of the final preferred alternative. The most significant impact on hydropower is the provision to continue the operations of the 2021 Oregon District Court injunction until the Corps completes structural measures, which, for some of the measures, would be well into the 2040s under the Draft PEIS implementation schedule. The current analysis does not reflect these operations which stand to reduce the value of hydropower generation by nearly a third. The Final PEIS should include revised estimates for the remaining value of hydropower generation that incorporates the near-term measures. Because these estimates are also

necessary for the disposition studies directed by Congress, their inclusion will help inform both Congress and the Final PEIS.

- Bonneville continues to urge the Corps to update structural cost estimates. The estimated costs of structures for fish passage and water temperature seem to be quite conservative. The Corps states in the Draft PEIS that it is basing cost estimates on conceptual designs and that actual costs could likely more than double. Additionally, recent economic events of inflation, constrained supply chains, and escalated interest rates make the Draft PEIS estimates likely out of date.

Again, Bonneville appreciates the Corps' collaboration during the preparation of the PEIS. This represents an important milestone for the future management of the Willamette Valley System. The system continues to provide substantial regional value through flood risk management, water supply, and recreation as its operations evolve to benefit fish and wildlife. We submit these comments with the objective of resolving the anticipated major, adverse impacts presented in the PEIS to economic and reliable power generation.

Sincerely,

William J. Leady P.E.
Vice President for Generation Asset Management
Bonneville Power Administration

cc: Beth Coffey
Director of Programs
Northwestern Division, USACE

Brad Thompson
Chief of Planning, Environmental Resources and Fish Policy
Northwestern Division, USACE

Jesse Kintz
Senior Policy and Project Lead, Power Generation, Bonneville

Draft of January 24, 2022

Liza Wells
Deputy District Engineer for Programs and Project Management
Portland District, United States Army Corps of Engineers
333 SW First Ave.
Portland, OR 97204

Dear Ms. Wells,

The Bonneville Power Administration (Bonneville) appreciates this opportunity to comment on the Draft Programmatic Environmental Impact Statement (Draft PEIS) for operations and maintenance of the Willamette Valley System

Bonneville is participating in the development of the Draft PEIS as a cooperating agency, focusing on its expertise on the hydropower purpose of the Willamette Valley System, including hydropower generation and marketing, and electric transmission facilities and operations.

As contemplated by the Cooperating Agency Memorandum of Understanding between Bonneville and the Corps, Bonneville would like to take this opportunity to present its views on the Draft PEIS, particularly where it believes the PEIS would benefit from additional analysis, while continuing to acknowledge and thank the Corps staff and leadership for its engagement and collaboration with Bonneville in the preparation of the Draft PEIS.

The Draft PEIS evaluated alternatives to achieve multiple objectives; however, none of the action alternatives to restore naturally spawning salmon and steelhead above Willamette Valley dams would maintain economical hydropower as a residual benefit of the system.

The Corps constructed the Willamette Valley System to primarily provide flood protection for Oregon communities. The system's storage capacity also provides benefits for recreation, water supply, and water quality. As the Draft PEIS notes, hydropower is a residual benefit of the Willamette Valley System, available after the Corps has optimized operations for other project purposes. The current action alternatives in the draft PEIS have outcomes which reduce the availability of hydropower generation while multiplying its costs.

Although the Draft PEIS clarifies some of the challenges of maintaining economical hydropower as a benefit of the Willamette Valley System, Bonneville believes that the Final PEIS would benefit by including specific elements to more completely capture the scope of those challenges, as well as identifying steps towards addressing them. Accordingly, Bonneville has three requests for inclusion in the Final PEIS:

- Bonneville continues to request that the Corps include in the final PEIS its implementation plan for the consideration of de-authorization and cost allocation updates at these projects. Bonneville notes the recent mandate from Congress in the 2022 Water Resources Development Act directing system-wide disposition studies of the power purpose of the Willamette dams by June 2024. Bonneville also offers the following considerations for the disposition studies:

- Disposition studies will inform potential congressional deauthorization of power at the Willamette dams. If Congress does deauthorize power, the Corps may be able to design less costly and more effective passage routes for juvenile salmon.
- Disposition study analysis should also inform needed cost allocation updates. Significant operational changes and the shifting economics of managing hydropower and flood control at Willamette Valley projects make cost allocation updates necessary. The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet power's cost allocation averages around 40 percent. If the disposition studies, as part of assessing whether hydropower is in the federal interest, do find net economic value for remaining hydropower generation at one or more of the Willamette dams, the Corps and Bonneville should use that analysis to implement the needed appropriate cost allocation between flood risk management and power.
- Meeting Congress' timeline for completing disposition studies by June 2024 should support implementation planning for the Final PEIS and help inform Bonneville's decisions for continued investments in the dams' power facilities. It will be important for the Corps to limit the scope of the disposition studies and focus only on the effects of deauthorizing hydropower.
- The Corps should revise the PEIS analysis to fully include the impact of the continuation of the near-term operations in the planned implementation of the final preferred alternative. The most significant impact on hydropower is the provision to continue the operations of the 2021 Oregon District Court injunction until the Corps completes structural measures, which, for some of the measures, would be well into the 2040s under the Draft PEIS implementation schedule. The current analysis does not reflect these operations which stand to reduce the value of hydropower generation by nearly a third. The Final PEIS should include revised estimates for the remaining value of hydropower generation that incorporates the near-term measures. Because these estimates are also necessary for the disposition studies directed by Congress, their inclusion will help inform both Congress and the Final PEIS.
- Bonneville continues to urge the Corps to update structural cost estimates. The estimated costs of structures for fish passage and water temperature seem to be quite conservative. The Corps states in the Draft PEIS that it is basing cost estimates on conceptual designs and that actual costs could likely more than double. However, recent economic events of inflation, constrained supply chains, and escalated interest rates make the Draft PEIS estimates likely out of date.

Again, Bonneville appreciates the Corps' collaboration during the preparation of the PEIS. This represents an important milestone for the future management of the Willamette Valley System. The system continues to provide substantial regional value through flood risk management, water supply, and recreation as its operations evolve to benefit fish and wildlife. We submit these

comments with the objective of resolving the anticipated major, adverse impacts presented in the PEIS to economic and reliable power generation.

Sincerely,

William J. Leady P.E.
Vice President for Generation Asset Management
Bonneville Power Administration

cc: Beth Coffey
Director of Programs
Northwestern Division, USACE

Brad Thompson
Chief of Planning, Environmental Resources and Fish Policy
Northwestern Division, USACE

Comments of the Bonneville Power Administration

Draft Programmatic Environmental Impact Statement For Willamette Valley System O&M

The Bonneville Power Administration (Bonneville) appreciates this opportunity to comment on the Draft Programmatic Environmental Impact Statement during the public comment period for operations and maintenance of the Willamette Valley System (Draft PEIS). Bonneville previously provided cooperating agency review comments to the Corps, and the Corps has begun considering Bonneville's comments. Bonneville would like to expand on the key themes and open items from those comments in this letter.

Bonneville has participated in the development of the Draft PEIS as a cooperating agency, with its role focused primarily on its expertise on the hydropower purpose of the Willamette Valley System, including hydropower structures, electric transmission facilities and operation, and the marketing of the hydropower. Bonneville's Memorandum of Understanding with the Corps of Engineers (Corps) for cooperation in the PEIS process provides for the Corps, as lead agency, to ensure that Bonneville's comments, including divergent views or disagreements on substantive elements in the PEIS, are considered. Bonneville will present such views in these comments, while continuing to acknowledge and thank the staff and leadership of this PEIS for its engagement with Bonneville in the preparation of the Draft PEIS.

The Draft PEIS undertook to evaluate alternatives to achieve multiple objectives. The outcome of the evaluation of the action alternatives is that the proposed measures to restore naturally spawning salmon and steelhead above Willamette Valley dams would not maintain economical hydropower as a benefit of the system.

The Willamette Valley System was constructed primarily for flood protection for Oregon communities. The storage of the system also provides benefits for recreation, water supply, and water quality. As the Draft PEIS notes, hydropower is a residual benefit of the Willamette system, available after the Corps has optimized operations for other project purposes. To achieve the additional objectives to restore naturally spawning populations of ESA-listed fish above the dams, the Corps presents an evaluation of measures in the Draft PEIS which reduce the availability of hydropower generation while multiplying the costs of this generation.

While the Draft PEIS begins to bring the concern of uneconomical hydropower to light, Bonneville believes the Draft PEIS should do much more to accurately portray those issues, and include actions to address them, as part of the chosen alternative in the Final PEIS. In light of this, Bonneville is highlighting three important requests for the completion of the Final PEIS;

- Bonneville continues to request that the Corps include in the final PEIS its implementation plan for consideration of de-authorization and cost allocation updates at these projects. It would be important for this plan to include a response to the recent direction of Congress in the 2022 Water Resources Development Act directing

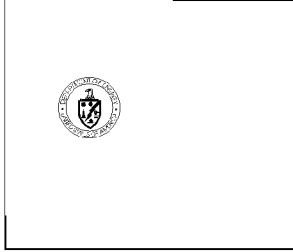
Willamette system-wide disposition studies of the power purpose of the Willamette dams by June 2024. Bonneville further adds the following considerations:

- Disposition studies will inform potential congressional deauthorization of power at the Willamette dams. If power were deauthorized, the Corps may be able to design less costly and more effective passage for juvenile salmon.
- Disposition study analysis should also inform priority for needed cost allocation updates. Cost allocation updates are needed as a result of significant operational changes and the corresponding changing economic benefits between hydropower and flood control at Willamette Valley projects. The Draft PEIS estimates the annual benefit of flood protection at a billion dollars and power generation at \$21 million dollars on average – before the reductions in power output recommended in the Draft PEIS. If the disposition studies, as part of assessing whether hydropower is in the federal interest, do find net economic value for remaining hydro generation at one or more of the Willamette dams, the Corps and Bonneville should use that analysis to implement the needed appropriate cost allocation between flood risk management and power.
- It is important to complete the disposition studies quickly, and by the requested Congressional timeline of June 2024. This timeline provides that the disposition studies will run during the additional evaluations for the Final PEIS, and therefore should contribute to the implementation plan. Additionally, timely completion will inform decisions on continued investments in the power facilities of the dams. You'll recall that in response to diminished power generation from the Willamette dams, Bonneville informed the Corps last year of its pause on new power facility capital spending except as required for dam safety. To complete the studies on this timeline, and consistent with the Congressional direction, the disposition studies will need to be limited in scope and be focused only on hydropower.
- The Corps, with Bonneville's cooperation and expertise, should complete the disposition studies to recommend deauthorization of power or, if there is remaining value for hydropower, a revised allocation of the power share of individual project joint costs.
- The Corps should revise the PEIS analysis to fully include the impact of the near-term operations in each of the alternatives, including the preferred alternative. The most impactful operation to hydropower is the provision to continue the operations of the 2021 Oregon District Court injunction until structural measures are completed – at least well into the 2040s, by the Draft PEIS implementation schedule. These operations are not currently reflected in the analysis and already reduce the value of hydropower generation by nearly a third. The Final PEIS should include revised estimates for the remaining value of hydropower generation that incorporates the near-term measures. These estimates are necessary for the disposition studies directed by Congress and so the necessary economic analysis will inform both Congress and the Final PEIS.

~~The Draft PEIS estimates the annual benefit of flood protection at a billion dollars and power generation at \$21 million dollars on average. The economic benefits of power are further reduced significantly by the Draft PEIS proposal to extend injunction operations indefinitely. Cost reallocations are needed to appropriately reflect the current and anticipated net economic benefits of power operations.~~

- Bonneville continues to urge the Corps to update structural cost estimates and the estimated value of power generation from the Willamette System. The estimated costs of structures for fish passage and water temperature seem to be quite conservative. The Corps states in the Draft PEIS that its cost estimates are based on conceptual designs and that actual costs could likely more than double. However, recent economic events of inflation, constrained supply chains, and escalated interest rates make the Draft PEIS estimates likely out of date.

Again, Bonneville appreciates the Corps' collaboration during the preparation of the PEIS. This represents an important milestone for the future management of the Willamette Valley System. The Willamette Valley System continues to provide substantial regional value through flood risk management, water supply, and recreation as its operations evolve for restoration of anadromous fish. We submit these comments with the objective of resolving the anticipated major, adverse impacts presented in the PEIS to economic and reliable power generation.



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

In reply refer to: PG-5

Liza Wells
Deputy District Engineer for Programs and Project Management
Portland District, United States Army Corps of Engineers
333 SW First Ave.
Portland, OR 97204

Dear Ms. Wells,

The Bonneville Power Administration (Bonneville) is providing comments on the draft Programmatic Environmental Impact Statement (PEIS) for Willamette Valley System operations and maintenance. We have used the comment spreadsheet for specific comments, as requested. With this letter, we wish to elevate larger themes from our review.

First, we want to express our appreciation for your collaboration with Bonneville in the development of the PEIS. The draft PEIS acknowledges many of the issues we have raised as a Cooperating Agency. The PEIS represents a substantial and complex amount of effort. It is well organized and its analysis is clearly presented. It will be very useful to inform the public discussion that must consider important management decisions and public investments in the Willamette Valley.

It is essential to appreciate that the PEIS describes an evolution in the management of, and regional benefits from the Willamette Valley System. The evaluations of the action alternatives necessary to restore naturally spawning salmon and steelhead above the dams make clear that the system, built primarily for flood protection for the communities in the Willamette Valley, will almost certainly no longer be able to provide economical hydropower.

We believe the PEIS understates the cost and operational factors affecting the viability of hydropower generation from the Willamette dams, including the significance of the changes that this PEIS would have on hydropower output and flexibility. In some cases, hydropower benefits are highlighted, while in other cases, significant constraints or reductions to hydropower are not described. Additionally, the cost estimates and assumptions for the structural measures in the action alternatives seem to be quite conservative. Further, these cost estimates assume that the experimental designs for downstream fish passage, would meet their performance objectives without substantial contingencies for remedial measures.

It is important to understand that the PEIS proposes that current operating limits affecting hydropower generation would continue for many years. These limits are ordered in the injunction of the U.S. District Court for the District of Oregon pending completion of the PEIS and a new Biological Opinion under the Endangered Species Act. The PEIS proposes that those limits continue through completion of the structural measures in the alternatives. Those operational limits led Bonneville last year to inform the Corps that Bonneville intends to pause new capital investments in the power-generating facilities of the Willamette dams.

Because of these outcomes of the preferred alternative, Bonneville believes that power deauthorization or cost-allocation updates need to be pursued urgently, to either remove uneconomical power or make any remaining power more economical while improving passage conditions for fish. The Corps should include in the implementation plan for its preferred alternative the recommendation for deauthorization of power or reallocating the power share of project costs.

The Corps has informed Bonneville that a disposition study for the power purposes of the Willamette Valley System is necessary before seeking Congressional deauthorization. However, the PEIS proposes only to study power disposition at Cougar Dam rather than for all Willamette dams. Bonneville requests that the Corps publicly define what information is needed for power disposition studies that is not already included in the PEIS.

Bonneville believes that study of deauthorization and/or appropriate reallocation of the power share of project costs should precede funding and construction of structural measures in the final preferred alternative.

Bonneville also continues to urge the Corps to fully explore fish passage designs that may be more biologically effective if the Corps is not constrained by maintaining power generation as a project purpose.

Bonneville also urges the Corps to include mention of Bonneville's funding role in the PEIS as appropriate, and submit to Congress a stand-alone budget line item for implementation of the preferred alternative. The costs for implementation would be a substantial Federal monetary commitment. It will be important to confirm that the cost estimates for structural measures reflect the most accurate and up to date estimates of the potential costs.

Again, we appreciate the Corps' collaboration during the preparation of the PEIS. This represents an important milestone for the future management of the Willamette Valley System. The Willamette Valley System continues to provide essential regional value through flood risk management, water supply, and recreation as its operations evolve for restoration of anadromous fish. We submit these comments with the objective of resolving the anticipated major impacts presented in the PEIS to economic and reliable power generation.

Sincerely,

Bill Leady
Vice President for Generation Asset Management
Bonneville Power Administration

cc: Beth Coffey
Director of Programs
Northwestern Division, USACE

Brad Thompson

Chief of Planning, Environmental Resources and Fish Policy
Northwestern Division, USACE

Marker,Doug R (BPA) - AIR-7

From: Maslow,Jeffrey J (BPA) - EC-4
Sent: Wednesday, January 25, 2023 12:49 PM
To: Marker,Doug R (BPA) - AIR-7
Subject: FW: GPR-FOS Voltage Support - Internal Coordination - 1/24/23 DRAFT MEETING NOTES

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

From: Maslow,Jeffrey J (BPA) - EC-4
Sent: Wednesday, January 25, 2023 12:48 PM
To: Simpson,Troy D (TFE)(BPA) - TSE-TPP-2 <tdsimpson@bpa.gov>; Lewis,Jacob A (BPA) - TPCF-REDMOND <jalewis@bpa.gov>; Wick,Martin A (BPA) - TPCV-TPP-4 <mawickjr@bpa.gov>; Carter,Eric H (TFE)(BPA) - TSE-TPP-2 <ehcarter@bpa.gov>; Anasis,John G (TFE)(BPA) - TOOP-DITT-2 <jganasis@bpa.gov>; Baker,Kevlyn D (BPA) - TPCV-TPP-4 <kdmathews@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Sweeney,Charles R (TFE)(BPA) - TSE-TPP-2 <crsweeney@bpa.gov>; Schaad,John G (BPA) - TPCV-ALVEY <jgschaad@bpa.gov>; Filan,Dallas A (BPA) - TPCF-TRI CITIES RMHQ <dafilan@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Subject: GPR-FOS Voltage Support - Internal Coordination - 1/24/23 DRAFT MEETING NOTES

DRAFT/Predecisional –Deliberative Work Products – Please Do Not Share

Some DRAFT notes based on yesterday’s meeting—please edit or offer clarifications wherever necessary:

- John walked through the local transmission diagram and explained that Albany/Bethel provides “dual-support” generation/voltage support Sweet Home/Lebanon area – situation not uncommon along 115kv lines in BPA’s system. Most other areas in BPA’s system do not also have local generating facilities that could provide voltage support.
- Eric noted that it’s not clear whether BPA Transmission has a position on potential power de-authorization at GPR/FOS: It may be necessary to reach alignment with BPA Power on the issue of generation becoming unavailable in that scenario. Specifically, regarding two issues:
 - o Is BPA’s Albany-Bethel transmission sufficient to maintain load service? Does that mean BPA have a responsibility to maintain load service or does that responsibility shift to PAC?
- John offered to run a simple test case of zeroing out generation at GPR/FOS to determine how much reliance local communities would have on GPR/FOS for voltage support/grid stability based on data from the last three years (which included heat dome in 2021 and cold snap in late 2022). (NOTE: Drawdowns under EIS alternatives in zero out generation at these projects from ~Nov 1 - ~ Dec 31.) A more detailed study would require a formal request submitted to Ashley Donahue.
- Richard Shaver should be looped for longer-term transmission studies that are prospective in nature (2-10-20 years into the future) to run simulations with zeroed out generation at those dams to identify the transmission problems (e.g., with or without Albany “dual support”) in the ~ Nov 31 – ~Dec 31 timeframe. Jeff noted that this prospective scope of analysis reflects analysis presented in the NEPA context; if there are non-negligible impacts based on this study, we may need to consider revising the final EIS to make findings for this.

Next Steps:

- Jeff/Dan to determine whether talking points need revision and will reach out to this team for high-level-study results (described above)and further analysis.
- John will conduct a simple “test case” based on last three years.

- Jeff/Dan will reach out to Richard Shaver for longer term look, as needed.
- Pending the above steps, Eric will put on hold additional coordination with PAC; however, the team will keep him in the loop. When additional information is available, Eric will be on point to coordinate with PAC accordingly.

From: Kintz,Jesse H (BPA) - PG-5
Sent: Wednesday, March 8, 2023 11:28 AM
To: Leady Jr,William J (BPA) - PG-5; Baskerville,Sonya L (BPA) - AIN-WASH; Todd,Wayne A (BPA) - PGA-6; Welch,Julee A (BPA) - LP-7; Marker,Doug R (BPA) - AIR-7; Smith,Glen A (BPA) - PG-5; Senters,Anne E (BPA) - LN-7; Hardy,Kyle R (BPA) - FAC-2; Spear,Daniel J (BPA) - PGB-5; Harris,Marcus A (BPA) - F-2; Cook,Joel D (BPA) - K-7; Cooper,Suzanne B (BPA) - P-6; Sullivan,Leah S (BPA) - PGB-5
Subject: 3/9/23 Willamette and FCRPS Legislation Strategy meeting materials
Attachments: 03_09_23 Willamette_FCRPS legislation strategy meeting materials.pptx

Materials / slides for our discussion tomorrow attached.

-Jesse

-----Original Appointment-----

From: Marker,Doug R (BPA) - AIR-7 <wjleady@bpa.gov> **On Behalf Of** Leady Jr,William J (BPA) - PG-5
Sent: Friday, March 3, 2023 3:09 PM
To: Leady Jr,William J (BPA) - PG-5; Kintz,Jesse H (BPA) - PG-5; Baskerville,Sonya L (BPA) - AIN-WASH; Todd,Wayne A (BPA) - PGA-6; Welch,Julee A (BPA) - LP-7; Marker,Doug R (BPA) - AIR-7; Smith,Glen A (BPA) - PG-5; Senters,Anne E (BPA) - LN-7; Hardy,Kyle R (BPA) - FAC-2; Spear,Daniel J (BPA) - PGB-5; Harris,Marcus A (BPA) - F-2; Cook,Joel D (BPA) - K-7; Cooper,Suzanne B (BPA) - P-6; Sullivan,Leah S (BPA) - PGB-5
Subject: Willamette and FCRPS Legislation Strategy meeting
When: Thursday, March 9, 2023 11:00 AM-11:30 AM (UTC-08:00) Pacific Time (US & Canada).
Where: WebEx

AGENDA:

1. Brief status updates (INFORM) – 3 min
2. Confirm cost allocation schedule / themes (DECIDE/APPROVE) – 2 min
3. Willamette BPA internal analysis approach (INFORM/DISCUSS)– 5-10 min
4. Clarify BPA’s view of federal interest (DISCUSS) – 10-15 min
 - a. Consider what would constitute remaining federal interest (power value) from BPA’s perspective
 - b. Consider likely Corps perspective for broader analysis

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Thursday, March 9, 2023

11:00 AM | (UTC-08:00) Pacific Time (US & Canada) | 1 hr

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Global call-in numbers

Join from a video system or application

Dial (b)(6) @bpa.webex.com

You can also dial 207.182.190.20 and enter your meeting number.

Need help? Go to <https://help.webex.com>

From: Marker,Doug R (BPA) - AIR-7
Sent: Monday, March 20, 2023 11:38 AM
To: Irene Scruggs (iscruggs@ppcpdx.org); Michael Deen
Cc: Marty Kanner (mkanner@kannerandassoc.com); Smcdonald@kannerandassoc.com
Subject: BPA comments to Army for implementation guidance on WRDA 2022
Attachments: Bonneville Power Administration Comment to Army on implementation guidance for WRDA 2022 Sec 8220_03.21.2023.pdf

FYI – I just submitted these comments for the Army’s implementation guidance to the Corps

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6) phone and text

From: Dondy-Kaplan,Hannah A (BPA) - AIR-7
Sent: Monday, April 10, 2023 10:00 AM
To: Wilhite, Olivia; Whelan, Dan
Cc: Baskerville,Sonya L (BPA) - AIN-WASH; Kintz,Jesse H (BPA) - PG-5; Marker,Doug R (BPA) - AIR-7
Subject: BPA and Willamette information for meeting 4/10
Attachments: BPA comments on Draft PEIS (3 Feb 2023).pdf; 2022 BPA Facts FINAL.pdf; BPA comments to House TI per Sec 218 of 2020 WRDA for mtg Nov 2021.docx; Power-from-the-Willamette-Basin-dams.pdf

Hi, here is some background and reference material for our conversation later this morning,

Hannah

Hannah Dondy-Kaplan (she/her)

Constituent Account Executive, Oregon

Bonneville Power Administration

Cell: (b)(6)

hadondy-kaplan@bpa.gov



**Willamette / FCRPS Legislation
Strategy Meeting Materials**

3/9/23



Agenda

AGENDA:

1. Brief status updates (INFORM) – 3 min
2. Confirm cost allocation schedule / themes (DECIDE/APPROVE) – 2 min
3. Willamette BPA internal analysis approach (INFORM/DISCUSS)– 5-10 min
4. Clarify BPA's view of federal interest (DISCUSS) – 10-15 min
 - a. Consider what would constitute remaining federal interest (power value) from BPA's perspective
 - b. Consider likely Corps perspective for broader analysis

Status updates (INFORM)

- **Cost allocations**
 - March report, Keys letter, Budget status
- **De-authorization**
 - WRDA 2022 input, Disposition study status
- **NEPA EIS process**
 - Public comment period completed
- **Litigation**
- **National/regional relations**
 - Current and upcoming meetings

March 2023 report points- (DECIDE)

- **No changes to format or process**
- **New inclusions vs previous report:**
 - Highlighting BPA's latest EIS comments
 - Include EIS flood control and power benefits example
- **Corps messaging summary:**
 - Lack of progress
 - EIS status update highlighting BPA's comments
 - Disposition study status update highlighting federal interest determination
 - Cost allocation updates continue to be warranted
- **Reclamation messaging summary:**
 - Keys pump plant coordination and info sharing continues

BPA analysis approach (INFORM/DISCUSS)

ANALYSIS PRODUCTS NEEDED	GROUPS	KEY SCENARIOS
Long term financial analysis (NPV scenarios)	PGA	Prices, EIS cost projections
Cost of generation update	FA, PGA	Prices, EIS cost projections
Financial health impact	FA, FT	Financial plan / financial ratios
Carbon impacts of loss of clean energy	PT	Impacts of reduced or 0 mw from Willamette
Long term resource adequacy	PGPR, PT	Impacts of reduced or 0 mw from Willamette
Provider of Choice / Post 2028	PS, PGPR	Impacts of reduced or 0 mw from Willamette
Value of Willamette flexibility (or lack thereof)	PGP, PGS	Dispatchability, renewables integration
Transmission impacts - reliability	TO, TP	Grid reliability, Islanding

Disposition study (DISCUSS)

- What would constitute a “federal interest in hydropower” from BPA’s perspective?
 - Proposal: Rely on updated BPA economic analysis and commercial hydropower scope
 - Discuss quantitative vs qualitative factors as well as Corps/BPA differences

6

Consider discussion Qs for 3/17 meeting with Corps

Next steps

- BPA - Corps NWD exec meeting – March 17
- Upcoming milestones

TIMEFRAME	MILESTONE
Feb/Mar 2023	Planning/scoping for BPA analysis
Feb/Mar 2023	Army WRDA public comment sessions
March 2023	Army WRDA comment deadline
March 2023	Q cost allocation report to EW committee
March/April 2023	Budget hearing with OMB?
April 2023	Corps disposition study scoping meeting (tentative)
April 2023	Federal Hydropower Council meeting



BACKGROUND MATERIALS



OMB Budget language

- Provided further, that the U.S. Army Corps of Engineers (Corps) and U.S. Bureau of Reclamation (Reclamation) and Bonneville Administrator shall jointly conduct an updated cost allocation study, based solely on benefits and without regard to alternate costs, for any Federal Columbia River Power System (FCRPS) Project identified by the Administrator and such study shall be completed within three years. The Corps and Bureau shall postpone any planned investments at the Project during the study, unless agreed to by the Administrator, if any portion of the costs tied to the investment are allocated to power. In no event shall the Administrator be responsible for payment of costs other than those specifically allocated to power; any additional costs that may shift to the irrigation purpose shall be considered non-reimbursable.

Key points – Dec 2022 report

- **Same format as previous reports.**
- **New inclusions vs last report:**
 - EIS details including cost estimates and inclusion of operational power reductions based on Court injunction
 - WRDA 2022 passage
 - Updated characterization on areas of alignment vs disagreement w/Reclamation
- **Corps messaging summary:**
 - Corps has released EIS for public comment
 - Near term operations from injunction are part of EIS preferred alternative, reducing power by ~30%
 - EIS cost projections are \$1.3b and likely to go up
 - These factors highlight that cost allocations are still warranted
 - BPA and USACE are information sharing on disposition study but progress is slow, partly due to USACE staffing issues
- **Reclamation messaging summary:**
 - Information sharing between BPA and BOR continues
 - Reclamation is scoping planning studies

Key points – Sep 2022 report

- **Same format as previous reports.**
 - Summary of policy discrepancies, Recent developments, Status and next steps (Corps and Reclamation separate sections)
- **New inclusions vs last report:**
 - BPA-Reclamation section now jointly written (Corps section is still BPA view with Corps comment opportunity)
 - Summary of Corps' recent CRFM cost projections, and some pending EIS issues, to highlight large scope of future costs
 - Update on disposition study discussions and scope including Corps plans to focus only on Cougar unless/until WRDA passes
 - Mentioning the importance of federal interest determination as part of disposition study process and how that could inform cost allocation or deauthorization
- **Corps messaging summary:**
 - No progress on cost allocations work because Corps is prioritizing EIS
 - BPA is doing what we can to work with the Corps on these issues
 - Recent EIS developments and CRFM cost projections further show that scope and costs of upcoming work will be significant; power generation and revenues will decrease; result is that power will be uneconomical
 - To date, Corps is only planning on Cougar disposition study (not system-wide) unless/until WRDA passes
- **Reclamation messaging summary (pending further Reclamation review/input):**
 - Information sharing occurring (existing allocation components, ideas for potential updates, BPA's operational use of Keys)
 - Agencies will be proactive, working on identifying optimal next steps (studies?) towards improving allocation

Key points - June 2022 report

- **Separate sections for Corps and Reclamation. Each covers:**
 - Summary of policy discrepancies
 - Recent developments
 - Status and next steps
- **New inclusions vs last report:**
 - Split sections by agency
 - Reference to Hairston-ASA Connor conversations and ask for principles
 - Draft NPV calculations (if USACE approves)
 - Updates on Corps disposition study and potential 2022 WRDA language
 - Suggesting a tie between disposition study and cost allocation updates
- **Corps messaging summary:**
 - BPA drafted cost allocation principles, USACE not ready and are focused more on NEPA at this time
 - Litigation and NEPA continue to progress worsening economics for power, cost allocations should be updated as a result and also to determine if any power is economically viable
- **Reclamation messaging summary:**
 - We disagree overall but agree allocation and method should be updated for Keys and have begun early stage discussions
 - No agreed upon work plan yet, a lot of unknowns and work to do

Key points: April 2022 cost allocations report

- **Three sections:**
 - Summary of policy discrepancies
 - Recent developments
 - Status and next steps
- **Key points**
 - Continued lack of alignment on policy issues, very little progress
 - Willamette litigation injunction ruling in Sept 2021 is limiting power generation
 - Willamette NEPA EIS costs will be expensive, up to \$2 billion, causing the dams to become uneconomical
 - Worsening economics further driving the need for cost allocation updates
 - Included example chart showing Cougar dam operational limitations under injunction

From: Marker,Doug R (BPA) - AIR-7
Sent: Monday, April 10, 2023 8:50 AM
To: Dondy-Kaplan,Hannah A (BPA) - AIR-7
Subject: BPA comments to House TI per Sec 218 of 2020 WRDA for mtg Nov 2021
Attachments: BPA comments to House TI per Sec 218 of 2020 WRDA for mtg Nov 2021.docx

Here is our analysis of impacts to other project purposes from deauthorization (none)



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

POWER SERVICES

March 21, 2023

In reply refer to: PG-5

**Comments of the Bonneville Power Administration
Implementation Guidance for Section 8220 of the Water Resources Development Act of 2022
Disposition Study on Hydropower in the Willamette Valley, Oregon**

Docket ID No. COE-2023-2002

Ms. Amy Frantz, CEW-P
U.S. Army Corps of Engineers, 3F91
441 G Street, N.W.
Washington, DC 20314

Dear Ms. Frantz,

The Bonneville Power Administration (Bonneville) appreciates the opportunity to comment on guidance for implementing section 8220 of the Water Resources Development Act of 2022. Section 8220 directs the Secretary to carry out a disposition study to determine the Federal interest in, and identify the effects of, deauthorizing hydropower as an authorized purpose in whole, or in part, of the Willamette Valley Project.

Bonneville is the Federal power marketing administration with the statutory authority and sole obligation to market hydroelectric power from the Willamette Valley project. Bonneville implements this authority to ensure an adequate, economic, and reliable power supply for regional power customers in the Pacific Northwest.

Implementation guidance should guide the Corps to scope the project to be deliverable within 18 months by focusing on the power purpose of the WVS dams and not introduce other, more broad analysis that Section 8220 does not address. The analysis should focus primarily on answering whether there is a federal interest in commercial production of hydropower in the future. The implementation guidance should encourage the Corps to incorporate Bonneville's determination of the value of the commercial generation that may remain available with the limits on operations proposed by the draft PEIS.

Bonneville shares the interest of the U.S. Army Corps of Engineers (Corps), for timely and sufficient completion of the final Programmatic Environmental Impact Statement (PEIS) for the Willamette Valley System (WVS), which is evaluating dam passage and water quality designs for anadromous fish restoration above the WVS dams as well as reservoir operational changes. Bonneville believes that the disposition studies required by Congress, if efficiently conducted, will inform the completion of the WVS EIS by incorporating analysis of the Federal interest in commercial power generation. That analysis may

inform design options that are the Corps has not considered in order to preserve power generation as a project purpose.

Bonneville also wants to reiterate points it recently provided to the Corps on the draft PEIS:

- An implementation plan for the consideration of deauthorization and cost allocation updates should be included in the final PEIS.
 - The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet the power purpose's cost allocation averages around 40 percent. This estimate itself highlights the need for updated cost allocations, and should help inform the Corps of its appropriate short and long-term federal funding requests necessary to meet its most valued project purposes.
- The disposition studies should include the full scope of operational limits affecting hydropower generation. The current PEIS analysis does not reflect the significant cost impact from continued operations of the 2021 Oregon District Court injunction until the Corps completes structural measures. These operations stand to reduce the value of hydropower generation by nearly a third. Under the PEIS implementation schedules, these operational limits will be in place well into the 2040s. Having that information incorporated into the disposition studies analysis will help inform both Congress and the Final PEIS.
- Finally, Bonneville continues to urge the Corps to update structural cost estimates, which the Corps states in the Draft PEIS are likely more than double the current estimates. In addition, recent economic events of inflation, constrained supply chains, and escalated interest rates also likely impact the cost estimates.

Bonneville has also provided its assessment to the Corps that the other project purposes would not be negatively impacted by deauthorization of the project purpose. Bonneville provided this assessment to the Corps in 2021 and respectfully requests that the Corps consider this analysis in the report to Congress responding to Section 8220.

Thank you for your consideration of these comments and please do not hesitate to contact me for any additional information or assistance.

Sincerely,

William J. Leady P.E.
Vice President for Generation Asset Management
Bonneville Power Administration

Attachment: Bonneville comments on Draft Programmatic Environmental Impact Statement for Willamette Valley System Operations and Maintenance



Department of Energy

Official File

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

POWER SERVICES

February 3rd, 2023

In reply refer to: PG-5

Liza Wells
Deputy District Engineer for Programs and Project Management
Portland District, United States Army Corps of Engineers
333 SW First Ave.
Portland, OR 97204

Dear Ms. Wells,

The Bonneville Power Administration (Bonneville) appreciates this opportunity to comment on the Draft Programmatic Environmental Impact Statement (Draft PEIS) for operations and maintenance of the Willamette Valley System.

Bonneville is participating in the development of the Draft PEIS as a cooperating agency, focusing on its expertise on the hydropower purpose of the Willamette Valley System, including hydropower generation and marketing, and electric transmission facilities and operations.

As contemplated by the Cooperating Agency Memorandum of Understanding between Bonneville and the Corps, Bonneville would like to take this opportunity to present its views on the Draft PEIS, particularly where it believes the PEIS would benefit from additional analysis. In addition to the themes discussed in this letter, Bonneville will provide the Corps with specific updates and revisions related to hydropower generation and transmission analysis in the Draft PEIS, as part of Bonneville's ongoing participation in this PEIS process as a cooperating agency. Bonneville continues to acknowledge and thank the Corps staff and leadership for its engagement and collaboration with Bonneville in the preparation of the Draft PEIS.

The Draft PEIS evaluated alternatives to achieve multiple objectives; however, none of the action alternatives to restore naturally spawning salmon and steelhead above Willamette Valley dams would maintain economical hydropower as a residual benefit of the system.

The Corps constructed the Willamette Valley System to primarily provide flood protection for Oregon communities. The system's storage capacity also provides benefits for recreation, water supply, and water quality. As the Draft PEIS notes, hydropower is a residual benefit of the Willamette Valley System, available after the Corps has optimized operations for other project purposes. The current action alternatives in the draft PEIS have outcomes which reduce the availability of hydropower generation while multiplying its costs.

Although the Draft PEIS clarifies some of the challenges of maintaining economical hydropower as a benefit of the Willamette Valley System, Bonneville believes that the Final PEIS would benefit by including specific elements to more completely capture the scope of those challenges, as well as identifying steps towards addressing them. Accordingly, Bonneville has three requests for inclusion in the Final PEIS:

- Bonneville continues to request that the Corps include in the final PEIS its implementation plan for the consideration of de-authorization and cost allocation updates at these projects. Bonneville notes the recent mandate from Congress in the 2022 Water Resources Development Act directing system-wide disposition studies of the power purpose of the Willamette dams by June 2024. Bonneville also offers the following considerations for the disposition studies:
 - Disposition studies will inform potential congressional deauthorization of power at the Willamette dams. If Congress does deauthorize power, the Corps may be able to design less costly and more effective passage routes for juvenile salmon.
 - Disposition study analysis should also inform needed cost allocation updates. Significant operational changes and the shifting economics of managing hydropower and flood control at Willamette Valley projects make cost allocation updates necessary. The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet power's cost allocation averages around 40 percent. If the disposition studies, as part of assessing whether hydropower is in the federal interest, do find net economic value for remaining hydropower generation at one or more of the Willamette dams, the Corps and Bonneville should use that analysis to implement the needed appropriate cost allocation between flood risk management and power.
 - Meeting Congress' timeline for completing disposition studies by June 2024 should support implementation planning for the Final PEIS and help inform Bonneville's decisions for continued investments in the dams' power facilities. It will be important for the Corps to limit the scope of the disposition studies and focus only on the effects of deauthorizing hydropower.
- The Corps should revise the PEIS analysis to fully include the impact of the continuation of the near-term operations in the planned implementation of the final preferred alternative. The most significant impact on hydropower is the provision to continue the operations of the 2021 Oregon District Court injunction until the Corps completes structural measures, which, for some of the measures, would be well into the 2040s under the Draft PEIS implementation schedule. The current analysis does not reflect these operations which stand to reduce the value of hydropower generation by nearly a third. The Final PEIS should include revised estimates for the remaining value of hydropower generation that incorporates the near-term measures. Because these estimates are also

necessary for the disposition studies directed by Congress, their inclusion will help inform both Congress and the Final PEIS.

- Bonneville continues to urge the Corps to update structural cost estimates. The estimated costs of structures for fish passage and water temperature seem to be quite conservative. The Corps states in the Draft PEIS that it is basing cost estimates on conceptual designs and that actual costs could likely more than double. Additionally, recent economic events of inflation, constrained supply chains, and escalated interest rates make the Draft PEIS estimates likely out of date.

Again, Bonneville appreciates the Corps' collaboration during the preparation of the PEIS. This represents an important milestone for the future management of the Willamette Valley System. The system continues to provide substantial regional value through flood risk management, water supply, and recreation as its operations evolve to benefit fish and wildlife. We submit these comments with the objective of resolving the anticipated major, adverse impacts presented in the PEIS to economic and reliable power generation.

Sincerely,

William J. Leady P.E.
Vice President for Generation Asset Management
Bonneville Power Administration

cc: Beth Coffey
Director of Programs
Northwestern Division, USACE

Brad Thompson
Chief of Planning, Environmental Resources and Fish Policy
Northwestern Division, USACE

Jesse Kintz
Senior Policy and Project Lead, Power Generation, Bonneville

From: Marker,Doug R (BPA) - AIR-7
Sent: Friday, February 3, 2023 11:09 AM
To: Baskerville,Sonya L (BPA) - AIN-WASH (b)(6)
Subject: BPA funding

Hi Brett. In a meeting today, but can give you a response to first question. Power share is fixed by Congress. Does not change with output.

I'll need to come back with approximation on effect on dam operating costs. It would be for share of joint o&m costs going forward, and share of new (not past) capital repayments - which for other project purposes are US Treasury obligations.

I'll follow up asap.

Sent from Workspace ONE Boxer

On Feb 3, 2023 10:55 AM, Brett Van (b)(6) wrote:

Hi Doug and Sonya,

Quick questions -

1. Does BPA's funding obligation for dams change based on how much power is produced? I'm not talking about a hydropower deauthorization scenario, just a reduction in power production. E.g. if the dams produce half the current power in say 2025 will BPA contribute less money?

2. And if Congress does deauthorize hydropower, do you have any numbers on how much BPA funding the Corps would "lose." I know BPA would still be obligated for certain costs. I'm wondering if there is a dollar amount that BPA is currently contributing that would go away if BPA is out of the Willamette. I think being able to discuss replacement funding with Congress would be helpful.

Feel free to call if easier.

Best,
Brett

BPA Facts

INFORMATION IS FOR FISCAL YEAR 2022, UNLESS OTHERWISE NOTED.

Profile

The Bonneville Power Administration is a nonprofit federal power marketing administration based in the Pacific Northwest. Although BPA is part of the U.S. Department of Energy, it is self-funding and covers its costs by selling its products and services. BPA markets wholesale electrical power from 31 federal hydroelectric dams in the Northwest, one nonfederal nuclear plant and several small nonfederal power plants. The dams are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. The nonfederal nuclear plant, Columbia Generating Station, is owned and operated by Energy Northwest, a joint operating agency of the state of Washington. BPA provides about 28% of the electric power generated in the Northwest, and its resources — primarily hydroelectric — make BPA power nearly carbon free. BPA also operates and maintains more than 15,000 circuit miles of high-voltage transmission in its service territory. BPA's territory includes Idaho, Oregon, Washington, western Montana and small parts of eastern Montana, California, Nevada, Utah and Wyoming.

BPA promotes energy efficiency, renewable resources and new technologies that improve its ability to deliver on its mission. To mitigate the impacts of the federal dams, BPA implements a fish and wildlife program that includes working with its partners to make the federal dams safer for fish passage.

BPA is committed to public service and seeks to make its decisions in a manner that provides opportunities for input from all stakeholders. In its vision statement, BPA dedicates itself to providing high system reliability, low rates consistent with sound business principles, environmental stewardship and accountability.

Mission

BPA's mission as a public service organization is to create and deliver the best value for our customers and constituents as we act in concert with others to assure the Pacific Northwest:

- An adequate, efficient, economical and reliable power supply.
- A transmission system that is adequate to the task of integrating and transmitting power from federal and non-federal generating units, providing service to BPA's customers, providing interregional interconnections, and maintaining electrical reliability and stability.
- Mitigation of the impacts on fish and wildlife from the federally owned hydroelectric projects from which BPA markets power.

BPA is committed to cost-based rates, and public and regional preference in its marketing of power. BPA sets its rates as low as possible consistent with sound business principles and the full recovery of all of its costs, including timely repayment of the federal investment in the system.

Core values

SAFETY

We value safety in everything we do. Together, our actions result in people being safe each day, every day. At work, at home and at play, we all contribute to a safe community for ourselves and others.

TRUSTWORTHY STEWARDSHIP

As stewards of the Federal Columbia River Power System, we are entrusted with the responsibility to manage resources of great value for the benefit of others. We are trusted when others believe in and are willing to rely upon our integrity and ability.

COLLABORATIVE RELATIONSHIPS

Trustworthiness grows out of a collaborative approach to relationships. Internally we must collaborate across organizational lines to maximize the value we bring to the region. Externally we work with many stakeholders who have conflicting needs and interests. Through collaboration we discover and implement the best possible long-term solutions.

OPERATIONAL EXCELLENCE

Operational excellence is a cornerstone of delivering on our vision (system reliability, low rates, environmental stewardship and regional accountability) and will place us among the best electric utilities in the nation.

General information

BPA established	1937
Service area size (square miles)	300,000
Pacific Northwest population	14,509,853
Transmission line (circuit miles)	15,088
BPA substations	259
Employees (FTE)	2,928

Customers

Cooperatives	54
Municipalities	42
Public utility districts	28
Federal agencies	7
Investor-owned utilities	6
Direct-service industries	1
Port districts	1
Tribal utilities	3
Total	142
Marketers (power and transmission) ¹	213
Transmission customers	339

¹ As of October 2022.

Rates

Wholesale power rates² (fiscal years 2022-2023)

Priority Firm Tier 1 (average ³ , undelivered)	3.49 cents/kWh
Priority Firm Avg. Tier 1 + Tier 2 (undelivered)	3.49 cents/kWh
Priority Firm Exchange (average, undelivered)	6.20 cents/kWh
Industrial Firm (average, undelivered)	4.07 cents/kWh

New Resources 7.88 cents/kWh (average, undelivered)

² The rates shown do not include the cost of transmission. They also do not include the impact of the Reserves Distribution Clause.

³ The actual rate paid by an individual customer will vary according to the shape of the load and the products and services purchased.

Transmission rates⁴ (fiscal years 2021-2022)

Network rates	
Long-Term Firm	\$1.648/kWh-month
Short-Term	0.474 cents/kWh
Southern Intertie rates	
Long-Term Firm	\$1.118/kWh-month
Short-Term	1.029 cents/kWh

⁴ Reflects the rates for point-to-point transmission service. All short-term firm and nonfirm rates are downwardly flexible.

2022 Financial highlights⁵

For the Federal Columbia River Power System (\$ in millions)

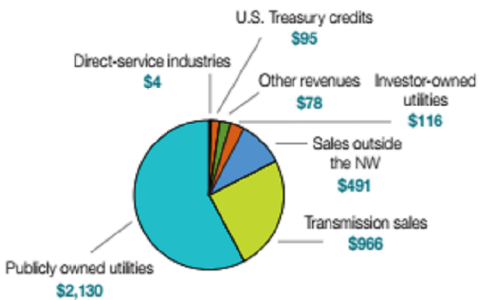
Total operating revenues ⁶	\$4,722
Total operating expenses	3,396
Net operating revenues	1,326
Net interest expense and other income	362
Net revenues	\$964

⁵ This information is consistent with BPA's 2022 Annual Report.

⁶ Includes both power and transmission revenues.

2021 sources of revenues⁷

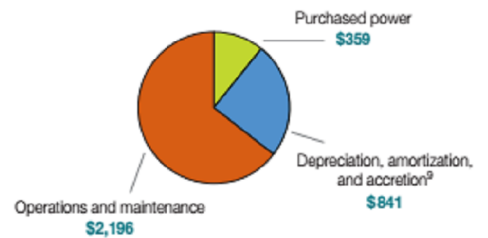
(\$ in millions)



⁷ Total operating revenues include bookouts. Bookouts of \$57 million represent energy activities not settled by physical delivery of power, when certain conditions apply.

2022 operating expenses⁸

(\$ in millions)



⁸ Purchased power includes the effects of \$110.5 million of bookouts.

⁹ Depreciation, amortization and accretion increased \$14.3 million, primarily due to an \$8 million amortization increase related to the Columbia River Fish Mitigation (CRFM) Program.



Transmission system

Operating voltage	Circuit miles
1,000 kV	264 ¹⁰
500 kV	4,860
345 kV	570
287 kV	229
230 kV	5,337
161 kV	119
138 kV	56
115 kV	3,440
below 115 kV	301
Total ¹¹	15,179

^{10/} BPA's portion of the PNWPSW direct-current intertie. The total length of this line from The Dalles, Oregon, to Los Angeles, California is 846 miles.
^{11/} Total circuit miles as of February 2019.

Federal hydro projects

Name	River, state	In service	Max capacity
Albeni Falls	Pend Oreille, ID	1955	49 MW
Anderson Ranch	Boise, ID	1950	40 MW
Big Cliff	N. Santiam, OR	1953	23 MW
Black Canyon	Payette, ID	1925	10 MW
Boise River Diversion	Boise, ID	1912	3 MW
Bonneville	Columbia, OR/WA	1938	1,216 MW
Chandler	Yakima, WA	1956	12 MW
Chief Joseph	Columbia, WA	1958	2,614 MW
Cougar	McKenzie, OR	1963	28 MW
Detroit	N. Santiam, OR	1953	126 MW
Dexter	Middle Fork Willamette, OR	1954	17 MW
Dworshak	Clearwater, ID	1973	460 MW
Foster	S. Santiam, OR	1967	23 MW
Grand Coulee ¹²	Columbia, WA	1942	7,049 MW
Green Peter	S. Santiam, OR	1967	92 MW
Green Springs	Emigrant Crk., OR	1960	17 MW
Hills Creek	Middle Fork Willamette, OR	1962	34 MW
Hungry Horse	Flathead, MT	1953	428 MW
Ice Harbor	Snake, WA	1962	695 MW
John Day	Columbia, OR/WA	1971	2,484 MW
Libby	Kootenai, MT	1975	605 MW
Little Goose	Snake, WA	1970	930 MW
Lookout Point	Middle Fork Willamette, OR	1953	138 MW
Lost Creek	Rogue, OR	1977	56 MW
Lower Granite	Snake, WA	1975	930 MW
Lower Monumental	Snake, WA	1969	930 MW
McNary	Columbia, OR/WA	1952	1,127 MW
Mindokwa	Snake, ID	1909	28 MW
Pallsades	Snake, ID	1958	176 MW
Roza	Yakima, WA	1958	13 MW
The Dalles	Columbia, OR/WA	1957	2,048 MW
Total (31 dams)			22,379 MW

Owned and operated by the U.S. Army Corps of Engineers (21 dams, 14,603 MW)
 Owned and operated by the Bureau of Reclamation (10 dams, 7,776 MW)
^{12/} Includes pump generation.

BPA resources¹³

(for operating year 2023 under 1937 water conditions)

Sustained 120-hour peak capacity (January)	11,680 MW
Hydro	10,109 MW (87%)
Nuclear	1,169 MW (10%)
Firm contracts and other resources	402 MW (4%)
Wind	0 MW (0%)

Firm energy (12-month annual avg.)	7,556 aMW
Hydro	6,313 aMW (84%)
Nuclear	994 aMW (13%)
Firm contracts and other resources	215 aMW (3%)
Wind	35 aMW (<1%)

Regional resources¹³

(for operating year 2023 under 1937 water conditions)

Sustained 120-hour peak capacity (January)	38,074 MW
Hydro	21,928 MW (58%)
Natural gas	6,288 MW (16%)
Coal	4,195 MW (11%)
Cogeneration	3,179 MW (8%)
Nuclear	1,169 MW (3%)
Imports	1,063 MW (3%)
Other Renewables	182 MW (<1%)
Wind	0 MW (<0%)
Other miscellaneous resources	31 MW (<1%)

Firm energy (12-month annual avg.)	27,199 aMW
Hydro	11,564 aMW (42%)
Natural gas	5,872 aMW (21%)
Coal	3,699 aMW (14%)
Cogeneration	2,316 aMW (8%)
Wind	1,814 aMW (7%)
Nuclear	1,116 aMW (4%)
Imports	580 aMW (2%)
Other renewables	177 MW (<1%)
Solar	175 aMW (<1%)
Other miscellaneous resources	26 aMW (<1%)

^{13/} Forecast figures from BPA's "2019 Pacific Northwest Loads & Resources Study," tables 2-4, 2-5, 3-2. Firm resource projections before adjustment for reserves, maintenance and transmission losses. The hydro capacity is reduced by an operational "idle capacity" adjustment to estimate the monthly maximum operational capability that is available to meet the 120-hour peak load for 1937 critical-water conditions. For January 2022 the reduction is -8,133 MW. Totals may not equal sum of components due to rounding.

Federal generation

Hydro generation	8,593 aMW
Total generation	9,721 aMW
60-min. hydro peak generation	14,769 MW
60-min. total peak generation	15,922 MW
All-time 60-min. total peak generation record (June 2002)	18,139 MW

Fish and wildlife

(\$ in millions)

BPA F&W program expense	\$249
Direct funded expenditures	93
Interest, depreciation and amortization expenses	99
Total direct costs	\$442

Operational costs:	
Replacement power purchases	238
Estimated forgone power revenues	252
Total F&W costs for FY 2020 ¹⁴	\$932

^{14/} Program expenses include integrated program and action plan/high priority. Totals may not equal sum of components due to rounding.

Energy efficiency¹⁵

	FY 2021	Total ¹⁶
Residential programs	10 aMW	551 aMW
Commercial programs	14 aMW	462 aMW
Industrial programs	13 aMW	339 aMW
Agricultural programs	1 aMW	77 aMW
Multi-sector programs	0 aMW	109 aMW
Federal	1 aMW	25 aMW
Utility system efficiency	1 aMW	3 aMW
Improved building codes	0 aMW	189 aMW
NEEA ¹⁷ Net Market Effects ¹⁸	6 aMW	266 aMW
NEEA Momentum ¹⁹	23 aMW	107 aMW
BPA Momentum ²⁰	15 aMW	377 aMW
Total aMW saved ²¹	84 aMW	2,505 aMW

^{15/} All figures are preliminary and subject to final revision.

^{16/} Cumulative total, FY1982-2021.

^{17/} Northwest Energy Efficiency Alliance.

^{18/} "Market Transformation" savings are renamed "NEEA Net Market Effects" to be consistent with NEEA's terminology.

^{19/} Prior to FY 2016, BPA reported NEEA Momentum Savings and BPA Momentum Savings as one combined number under BPA Momentum Savings. Starting with FY 2020, NEEA Momentum Savings are reported separately.

^{20/} BPA Momentum Savings are updated at the end of each Power Planning period. Totals reflect achievements made through the 6th Power Plan.

^{21/} Data aligns with 2021 Annual Review and may be adjusted from past versions of BPA Facts.

Points of contact

GENERAL BPA OFFICES AND WEBSITES

BPA Headquarters 905 N.E. 11th Ave., P.O. Box 3621, Portland, OR 97208; 503-230-3000; www.bpa.gov

BPA Visitor Center 905 N.E. 11th Ave., P.O. Box 3621, Portland, OR 97208; 503-230-INFO [4636]; 800-622-4520

Public Engagement P.O. Box 14428, Portland, OR 97293; 800-622-4519; www.bpa.gov/comment

Washington, D.C., Office Forrestal Bldg., Room 8G-061, 1000 Independence Ave. S.W., Washington, D.C. 20585; 202-586-5640

Crime Witness Program To report crimes to BPA property or personnel; 800-437-2744

TRANSMISSION SERVICES

Transmission Services Headquarters P.O. Box 3621, Vancouver, WA 98666-0491; 503-230-3000

Covington District 28401 Covington Way S.E., Kent, WA 98042; 253-638-3700

Eugene District 86000 Hwy. 99 S., Eugene, OR 97405; 541-988-7401

Idaho Falls Regional Office 1350 Lindsay Blvd., Idaho Falls, ID 83402; 208-612-3100

Kalispell District 2520 U.S. Hwy. 2 E., Kalispell, MT 59901; 406-751-7802

Longview District 3750 Memorial Park Drive, Longview, WA 98632; 360-414-5600

Olympia Regional Office 5240 Trospen Road S.W., Olympia, WA 98512; 360-570-4305

Redmond District 3855 S.W. Highland Ave., Redmond, OR 97756; 541-516-3200

Salem District 2715 Tepper Lane N.E., Kelso, OR 97303; 503-304-5900

Snohomish District 914 Ave. D, Snohomish, WA 98290; 360-563-3600

Spokane District 2410 E. Hawthorne Road, Mead, WA 99021; 509-468-3002

The Dalles District 3920 Columbia View Drive E., The Dalles, OR 97058; 541-296-4694

Tri-Cities District 2211 N. Commercial Ave., Pasco, WA 99301; 509-544-4702

Wenatchee District 13294 Lincoln Park Road, East Wenatchee, WA 98802; 509-886-6000

POWER SERVICES

Boise Customer Service Center 950 W. Bannock St., Suite 805, Boise, ID 83702; 208-670-7406

Eastern Area Customer Service Center P.O. Box 789, Mead, WA 99021; 509-822-4591

Montana Customer Service Center P.O. Box 640, Ronan, MT 59864; 406-676-2669

Seattle Customer Service Center 909 First Ave., Suite 380, Seattle, WA 98104; 206-220-6770

Western Area Customer Service Center 905 N.E. 11th Ave., P.O. Box 3621, Portland, OR 97208; 503-230-5856



DOE/BP-5223 • December 2022

Bonneville Power Administration Comments Responding to Section 218, 2020 Water Resources Development Act

Introduction:

Section 218 of the 2020 Water Resources Development Act directs the compilation of a report that provides initial analysis on the potential effects of deauthorizing hydropower as a project purpose at the U.S. Army Corps of Engineers' (Corps) Cougar and Detroit/Big Cliff Dams. This report responds to the congressional directive by first providing a survey of the multiple purposes of the dams. The focus of this report then turns to whether deauthorizing hydropower would either impair operations for other project purposes and Endangered Species Act (ESA) compliance or, alternatively, result in the Corps having greater flexibility in operating for other project purposes, and ESA compliance. In addition, this report also responds to the Section 218 request describing how reimbursable and non-reimbursable costs are currently assigned to authorized project purposes and how costs would be reassigned among the project purposes if hydropower is deauthorized. These costs should include the costs for compliance with the ESA.

Cougar and Detroit/Big Cliff are part of the Willamette River Basin Flood Control Project (Willamette Project), which is comprised of 13 federal dams and reservoirs managed as a system.¹ Although each of the 13 dams is part of the greater Willamette Project, Congress authorized each dam independently and for specified purposes. The Corps manages the timing and volumes of reservoir storage and releases to optimize and fulfill the various authorized purposes of each dam and the overall Willamette Project.

This report is intended to be an initial analysis describing the potential consequences, if any, of deauthorizing power, the results of which should assist further consideration by Congress in deciding whether to initiate an official deauthorization study at Cougar and Detroit/Big Cliff. It draws from recent Corps reports that considered environmental and economic objectives of the Willamette Project.

Descriptions of Cougar and Detroit/Big Cliff Dams

Cougar and Detroit/Big Cliff Dams are three of the 13 dams in the Willamette Project. Congress authorized the individual dams within the Willamette Project principally by three separate Flood Control Acts: 1938, 1950, and 1960. House Document 531, as incorporated by the Flood Control Act of May 17, 1950, remains the overall guiding document pertaining to the operation and maintenance of the Willamette Project².

Detroit and Big Cliff Dams:

¹ For purposes of this analysis, the Willamette Project refers to the 13 federal multipurpose dams and reservoirs, along with four hatcheries and about 42 miles of revetments, in the state of Oregon's Willamette River basin. BPA markets and transmits power from the eight of the 13 dams that are authorized for power generation. BPA also pays for: (1) the "power share" of construction (*i.e.*, capital) and operation and maintenance ("O&M") of the dams, plus (2) the "power share" of capital and O&M for fish facilities constructed to mitigate for fish habitat lost or made inaccessible by the dams.

² US Army Corps of Engineers; Draft Environmental Impact Statement, Detroit Dam Downstream Fish Passage and Temperature Control, Willamette River Basin, May 2019, p. 3.

Detroit and Big Cliff Dams are located on the North Fork of the Santiam River in Marion and Linn Counties, Oregon. The dams are about 45 miles east of Salem, Oregon. Both dams were completed in 1953.

Detroit Dam is 463 feet high, creating Detroit Lake, which is nine miles long and covering 3500 acres. The Detroit powerhouse has two generators with a combined nameplate capacity of 100 megawatts³.

Big Cliff Dam is three miles downstream from Detroit Dam. It is used to regulate water releases from Detroit Dam. Big Cliff Dam is 191 feet high and creates a 2.8 mile lake which can have daily fluctuations of as much as 24 feet in elevation due to releases from Detroit Dam. The Big Cliff powerhouse has one generator with a nameplate capacity of 18 megawatts⁴.

The authorizing legislation for Detroit/Big Cliff specifically names the following as authorized purposes:

- Flood control
- Navigation
- Power
- “other purposes”

In addition, the cost allocation report⁵ for this project includes the following purposes:

- Irrigation
- Recreation
- Water quality/pollution abatement
- Municipal and industrial
- Fish life

Cougar Dam:

Cougar Dam is on the South Fork of the McKenzie River about 42 miles east of Eugene, Oregon. It was completed in 1963. The dam is 452 feet high and creates a six mile lake covering 1,280 acres. The Cougar Dam powerhouse has two generators with a combined nameplate capacity of 30 megawatts⁶

The authorizing legislation for Cougar specifically names the following as authorized purposes:

- Flood control
- Navigation

³ US Army Corps of Engineers Portland District website: [Portland District > Missions > Hydropower \(army.mil\)](https://www.army.mil/portland-district/missions/hydropower). Accessed October 5, 2021.

⁴ US Army Corps of Engineers Portland District website: [Portland District > Missions > Hydropower \(army.mil\)](https://www.army.mil/portland-district/missions/hydropower). Accessed October 5, 2021.

⁵ US Army Corps of Engineers; Cost Allocation Report, Detroit Project, North Santiam River, Oregon; March 1968.

⁶ US Army Corps of Engineers Portland District website: [Portland District > Missions > Hydropower \(army.mil\)](https://www.army.mil/portland-district/missions/hydropower) . Accessed October 5, 2021.

- Power
- “other purposes”

In addition, the cost allocation report⁷ for this project includes the following purposes:

- Irrigation
- Recreation
- Water quality/pollution abatement
- Municipal and industrial
- Fish life

Cost Allocations among Project Purposes:

Costs incurred at Corps’ dams are categorized as either “specific” to a single project purpose or “joint” if they benefit, or mitigate for, multiple purposes. For example, costs designated as “specific” to power include work done on the penstocks and turbine generators; as such they are assigned as 100 percent allocable for power repayment. Joint costs, on the other hand, are distributed to the project purposes based on the individual dam’s cost allocations⁸. It should be noted that not all authorized purposes have costs allocated to them. For Cougar and Detroit/Big Cliff, allocable cost shares were established for power, flood protection, navigation, and irrigation. Costs associated with fish life are allocated as joint costs which are then assigned to other project purposes. No joint costs were allocated to municipal and industrial water supply in the cost allocation report.

The power share of joint costs for Cougar Dam is 23 percent for capital repayment, and 19.5 percent for operation and maintenance. The “Detroit Project” consists of Detroit Dam, Big Cliff Dam, and the associated Minto and Marion Forks fish facilities. The power share of joint costs for Detroit Dam, and the Detroit Project as a whole, are 50.5 percent for capital repayment and 40.5 percent for operation and maintenance. Costs incurred solely for the benefit of Big Cliff Dam are entirely assigned to power because its function is to reregulate outflow from Detroit Dam and generate power.

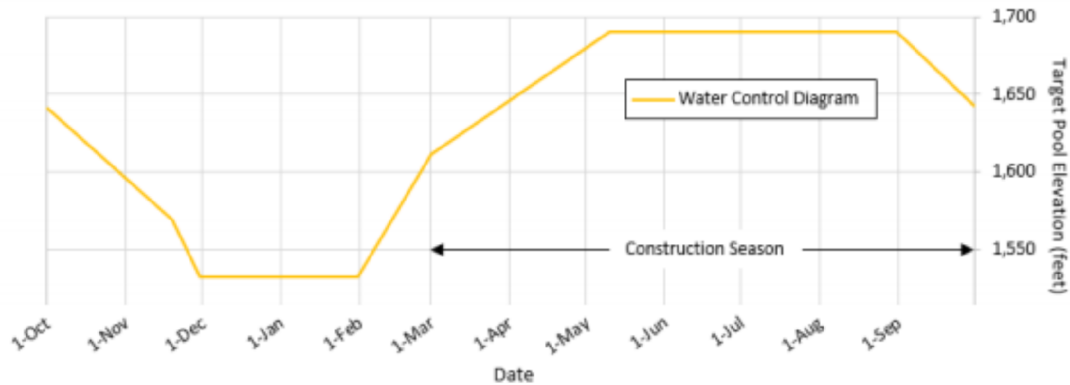
Interactions of Authorized Project Purposes

Flood Risk Management:

The Corps operates the Willamette Project to lower reservoir levels during the winter months when western Oregon receives most storm events. The Corps begins reservoir refill in February and attempts to maintain near-full lake levels during the summer recreation season. In the fall, the Corps begins drawing down the reservoir to again hold room to receive winter storm runoff. Following storm events, the Corps manages reservoir levels to return to the water control diagram.

⁷ US Army Corps of Engineers; Cost Allocation Report, Cougar Reservoir, South Fork McKenzie River, Oregon; September 1967.

⁸ Cost Allocations are economic reports done at the time the dam is first constructed and establish the total percentage of costs assigned to each of the project purposes. Historically, these reports are not updated.



Example: Cougar Dam Water Control Diagram⁹

Through the year, reservoir releases are through the powerhouse and the dams’ regulating outlets or spillways. Power generation occurs as water is released from the reservoirs through the powerhouse, but is subject to the seasonal timing of flood risk management.¹⁰ Moreover, the volume of water released is predicated on meeting downstream conservation flows for ESA-listed species.

Water Supply:

The Willamette Project provides flow augmentation for instream and out-of-stream consumptive water uses. These include water for agricultural irrigation, municipal and industrial water supply, and flow augmentation for pollution abatement and improved conditions for fish and wildlife.

In December 2019, the Corps completed the Willamette Feasibility Study which investigated future Willamette River basin water demand. The study examined the multiple demands for water stored in Willamette Project reservoirs, determining a balance between water stored for conservation purposes (primarily fish) and water that can be allocated for out-of-stream consumptive uses.

In its review of the interactions of demand from the multiple uses of reservoirs and instream flows, the Willamette Feasibility Study described the requirements for hydropower generation. Each of the Willamette Project dams with hydropower generation, including Cougar and Detroit/Big Cliff, maintain exclusive storage for power generation. The study notes that this storage is “relatively small, and drawdowns into this storage are limited to special power requirements that may occur during a period of extended cold weather.”¹¹

Deauthorization of the power purpose at a Willamette Project would remove the constraint of the power storage pool in considerations of allocation of stored water for non-power instream and out-of-stream consumptive uses. Deauthorization would not impair non-power water supply uses.

Water Quality:

⁹ Draft Environmental Assessment, Cougar Dam Downstream Passage, Willamette River Basin, South Fork McKenzie River Oregon; p. 2-18; January 2019.

¹⁰ This narrative is drawn from the Cougar Downstream Passage Draft EA.

¹¹ U.S. Army Corps of Engineers; Final Feasibility and Environmental Assessment, Willamette Basin Review Feasibility Study; December 2019; p. 31.

The Willamette Project reservoirs, including Cougar and Detroit/Big Cliff, influence downstream water quality in several ways. The flow augmentation of summer and fall releases from the reservoirs contributes to the mitigation of pollutants in the Willamette River and plays a significant role in the improvement of water quality in the river in recent decades. However, the temperature of water released from the reservoirs can affect fish downstream and other aquatic species¹². In 2004, the Corps completed a selective withdrawal facility at Cougar Dam, a tower structure allowing water releases from different depths of the reservoir pool at temperatures that benefit fish spawning and rearing downstream. Consistent with NOAA's 2008 Willamette Project Biological Opinion (2008 Biological Opinion),¹³ the Corps is evaluating the construction of a similar temperature control structure at Detroit Dam.

Hydropower generation does not affect the volume or temperatures of reservoir releases. Deauthorizing the power purpose of Cougar and Detroit/Big Cliff Dams is not anticipated to affect compliance challenges for mainstem Willamette River water quality or temperature.

A deauthorization study should consider the potential effect of gas supersaturation if hydroelectric generators are removed. This issue will be listed in topics for further studies.

Recreation:

Pursuant to Section 4 of the Flood Control Act of 1944 and the Federal Water Project Recreation Act of 1965, recreation is an authorized purpose at all of the Willamette Project dams. Managing reservoir levels for recreation is a challenge for balancing requirements for downstream flows for water quality and quantity objectives. The Corps manages demands for downstream flow requirements by drawing from reservoirs with less recreational demand first in order that reservoirs with greater recreation demand can maintain higher pool levels during the summer recreation season.

Cougar has relatively less recreational demand and is correspondingly among the first reservoirs to be called on to augment downstream flow requirements. Detroit is one of the highest used projects for recreation and so is among the last reservoirs to be called on for downstream flows¹⁴.

Power generation, of itself, does not determine reservoir levels affecting recreation. However, the retention of water within a reservoir to maintain the minimum power pool level does, by its nature, serve as a limit to water withdrawals for other purposes, thereby preserving recreational benefits as a by-product. Therefore, deauthorizing power could potentially intensify tradeoffs between recreation and other project purposes because the power pool would no longer be necessary for power generation.

Navigation:

In 1986, Congress deauthorized navigation¹⁵ as a purpose of the Willamette Project due to a lack of commercial river traffic above Willamette Falls¹⁶. Previously, the Corps managed releases of water from

¹² This discussion is drawn from the Water Quality Management Plan of the Willamette Basin TMDL of September 2006, Oregon Department of Environmental Quality.

¹³ Consultation on the Willamette River Basin Flood Control Projects, <https://www.fisheries.noaa.gov/resource/document/consultation-willamette-river-basin-flood-control-project>.

¹⁴ This narrative is drawn from the 2008 Willamette Biological Opinion, pp. 2-21,22.

Willamette Project reservoirs to maintain river flows sufficient to support navigation. Because these releases had corresponding benefits for water quality, the Corps incorporated the reservoir release volumes into its water quality and fish management flow targets.¹⁷ There would be no reduction of these reservoir releases from deauthorizing hydropower at individual Willamette Project dams.

Fish and Wildlife:

Congress authorized the Willamette Project dams recognizing that they would cut off extensive areas of upstream fish habitat and authorized the construction of several fish hatcheries to compensate for the loss of spawning habitat¹⁸. In 2008, the National Marine Fisheries Service (NMFS) issued the 2008 Biological Opinion, determining that continued operation of the system would jeopardize the existence of Upper Willamette River spring Chinook salmon and winter steelhead and including a Reasonable and Prudent Alternative (RPA) to avoid jeopardy.

Although the 2008 Biological Opinion includes several RPA measures, only those specific to Detroit/Big Cliff and Cougar dams that are relevant to this evaluation are discussed here. The 2008 Biological Opinion called on the Corps to investigate the feasibility of constructing juvenile fish passage facilities, along with implementing operational alternatives, at Detroit and Cougar Dams. Passage structures were envisioned to be designed to attract downstream migrating juvenile fish to floating surface collectors and then to be transported for release below the dams. In addition, the 2008 Biological Opinion called for design of a selective withdrawal structure at Detroit Dam, similar to that already in operation at Cougar Dam, to allow for reservoir releases to be drawn from varying elevations in the pool to optimize temperatures for downstream spawning and rearing habitat. The 2008 Biological Opinion also identified various upgrades for the Minto and Marion Forks fish facilities, among others.

In 2017 environmental plaintiffs filed litigation against the Corps and NMFS challenging the adequacy of measures contained in the 2008 Biological Opinion and the Corps' implementation of those measures. Earlier this year, the U.S. District Court of Oregon ruled in the plaintiff's favor, ordering reservoir operations at a number of Willamette Project dams, including Cougar and Detroit/Big Cliff, for the purpose of providing volitional juvenile downstream fish passage using available reservoir outlets. Operational measures are intended to have the same biological outcome, and therefore replace the structural fish passage facilities contained in the 2008 Biological Opinion while the Corps and NMFS consult on a new biological opinion. These operational measures involve significant limits on reservoir pool elevations resulting in reductions or elimination of hydropower generation for several months.¹⁹

Objectives reflected in a new biological opinion for restoring salmon and steelhead production above Detroit and Cougar dams is expected to be centered on investigation and implementation of effective juvenile downstream passage and water quality improvements (e.g., temperature and dissolved gas) using either significant capital construction funds for fish passage and surface water withdrawal

¹⁵ Sec. 1001, P.L. 99-662; November 17, 1986.

¹⁶ Willamette Basin Review Feasibility Study, p. 39.

¹⁷ Willamette Basin Review Feasibility Study, p. 39.

¹⁸ Draft Environmental Impact Statement, Detroit Dam Downstream Fish Passage and Temperature Control, p. 3

¹⁹ The Corps has historically interpreted its authority to prohibit elimination of the reserved power pool during the critical power period in the winter months. In the District Court's ruling the Court disagreed and held that the Corps has sufficient discretion to operate the system in this manner.

structures or operational changes to reservoir elevations and outlets used that limit or eliminate hydropower generation at Detroit Dam and Cougar Dam. Deauthorizing power as a project purpose would provide additional flexibility for implementing reservoir operation strategies (e.g., deep fall and spring drawdowns below the power pool) considered to be potentially effective for assisting salmon and steelhead populations.

Costs That Would be Attributed to Project Purposes Other than Power, including for ESA compliance

If Congress deauthorized power at Cougar and Detroit/Big Cliff Dams, future costs would need to be reallocated to the remaining project purposes, primarily flood control.²⁰

Bonneville expects to remain obligated for its share of past capital investments in the structures and power generating facilities of the dams. Bonneville makes scheduled repayments for these past capital investments to the U.S. Treasury annually. Bonneville would not share in obligations for repayment of capital investments after deauthorization, including for fish passage facilities. These future capital investments, if funded by Congress, would mitigate for the continued function and value of the dams for downstream flood protection as well as the remaining other authorized purposes.

Potential Effects of Deauthorizing Power on Other Ongoing Studies in the Willamette River Basin

Subsection b (1) (D) of WRDA Section 218 directs a compilation of “other ongoing studies in the Willamette River Basin...” to be included in this report. Relevant pending studies include:

Willamette Valley System Environmental Impact Statement:

The Portland District of the US Army Corps of Engineers is undertaking a National Environmental Policy Act review of the operations and maintenance of the Willamette Valley System²¹ federal water projects. As of the fall of 2021, the Corps, with assistance from Cooperating Agencies (federal, state, and tribal entities), is completing scoping of alternatives for project operations and potential capital investments for fish passage. The current schedule for the Willamette Valley System review is to produce a draft environmental impact statement for public review in spring of 2022, prior to finalizing actions concurrent with a new biological opinion by the end of 2023.

Because power generation is currently an authorized, and therefore required, purpose at Cougar and Detroit/Big Cliff dams, operations for power generation have been a consideration and limitation for the design of alternatives for the environmental review. In particular, the Corps interprets the designation of the power pool (reserved storage for power generation) at Cougar and Detroit reservoirs, as constraints on reservoir drawdowns provide flows for volitional fish passage and, regardless of a recent District Court opinion to the contrary, will adhere to that constraint in its analyses in the environmental impact statement. Consideration by Congress of deauthorizing power may provide guidance for the Corps to evaluate deeper reservoir drawdowns as a juvenile fish passage strategy. Such operational passage strategies can be evaluated in comparison to the structural passage designs to be included in the EIS.

²⁰ We need to confirm allocable costs among other project purposes

²¹ The “Willamette Valley System” and the “Willamette Project”, as described in footnote 1, are the same system of dams.

Willamette River Basin Review Feasibility Study:

In 2019, the Corps completed a review with the Oregon Department of Water Resources a study of potential allocations of reservoir storage among downstream uses. The feasibility study examined allocations for fish and wildlife benefits and for consumptive uses, included irrigation and municipal and industrial water supply. The findings of the review were conveyed to the Committee and remain under consideration.

The review did not recommend changes to the volume of water stored in Willamette reservoirs as reserved for power generation. Cougar and Detroit reservoirs hold these reserved power pools as authorized by Congress to be available in times of critical need.

Deauthorizing the power purposes at Cougar and Detroit/Big Cliff dams could provide additional flexibility for decision-making on allocations for other project purposes. The Committee may wish to incorporate such considerations in further action responding to the Corps' 2019 Willamette River Basin Review Feasibility Study report.

Willamette River Biological Opinion:

The Corps and NMFS expect to complete consultation on a new biological opinion at the end of 2023 for operation of the federal Willamette Valley Project to avoid jeopardizing listed species. Power deauthorization, or guidance from Congress for consideration of deauthorization, would inform the range of operational measures potentially available for improving downstream fish passage at Cougar and Detroit/Big Cliff Dams. The viability of alternative downstream fish passage options will help guide comparison of structural passage facilities to operational options for passage through the dams.

Cougar 2.0

"Cougar 2.0" is a study that the Corps is completing regarding potential downstream fish passage operations and structures, including "run of river" options that could use the diversion tunnel if power generation was not a project purpose at the Cougar Dam. This information informs the availability of juvenile passage strategies at potentially lower costs than construction of new passage structures.

Further Studies that May be Needed:

Additional Congressional direction to conduct deauthorization studies might include:

- Consideration of gas supersaturation as a consequence of flows being provided through regulating outlets and/or spillways instead of powerhouses due to decommissioning hydropower generation.
- Power generation decommissioning costs.
- Rebalancing of remaining allocable shares of joint project costs.



Fact Sheet

August 2019

Power from the Willamette Basin dams

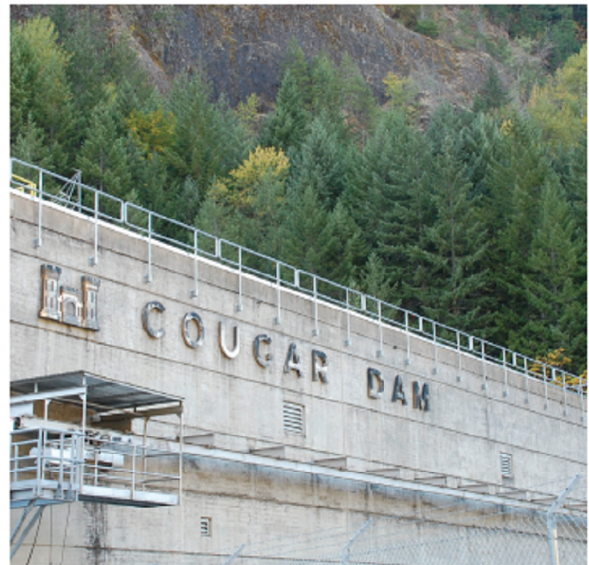
The Willamette Valley System is comprised of 13 multipurpose dams and reservoirs in the Willamette River drainage system, which begins south of Cottage Grove, Oregon, and extends north to the Columbia River.

The dams and reservoirs are operated by the U.S. Army Corps of Engineers as a unified water resource management system to preserve the quality of the valley's environment while providing flood risk management, power generation, irrigation, and navigation in the Willamette Basin.

These dams, built primarily for flood management, generate a small amount of power relative to their operating costs. BPA is evaluating the viability of economical power generation from these dams as it also seeks biologically effective and technologically feasible solutions for protecting, mitigating and enhancing fish and wildlife in the basin.

In addition, the dams help maintain water quality, provide municipal and industrial water supply, support fish and wildlife conservation, and allow for recreational activities that serve as an important economic base for local communities.

Eight of the Willamette Valley dams generate hydroelectricity. Their total maximum generating capacity is 495 megawatts, but due to variations in water supply the annual energy output of these dams is lower,

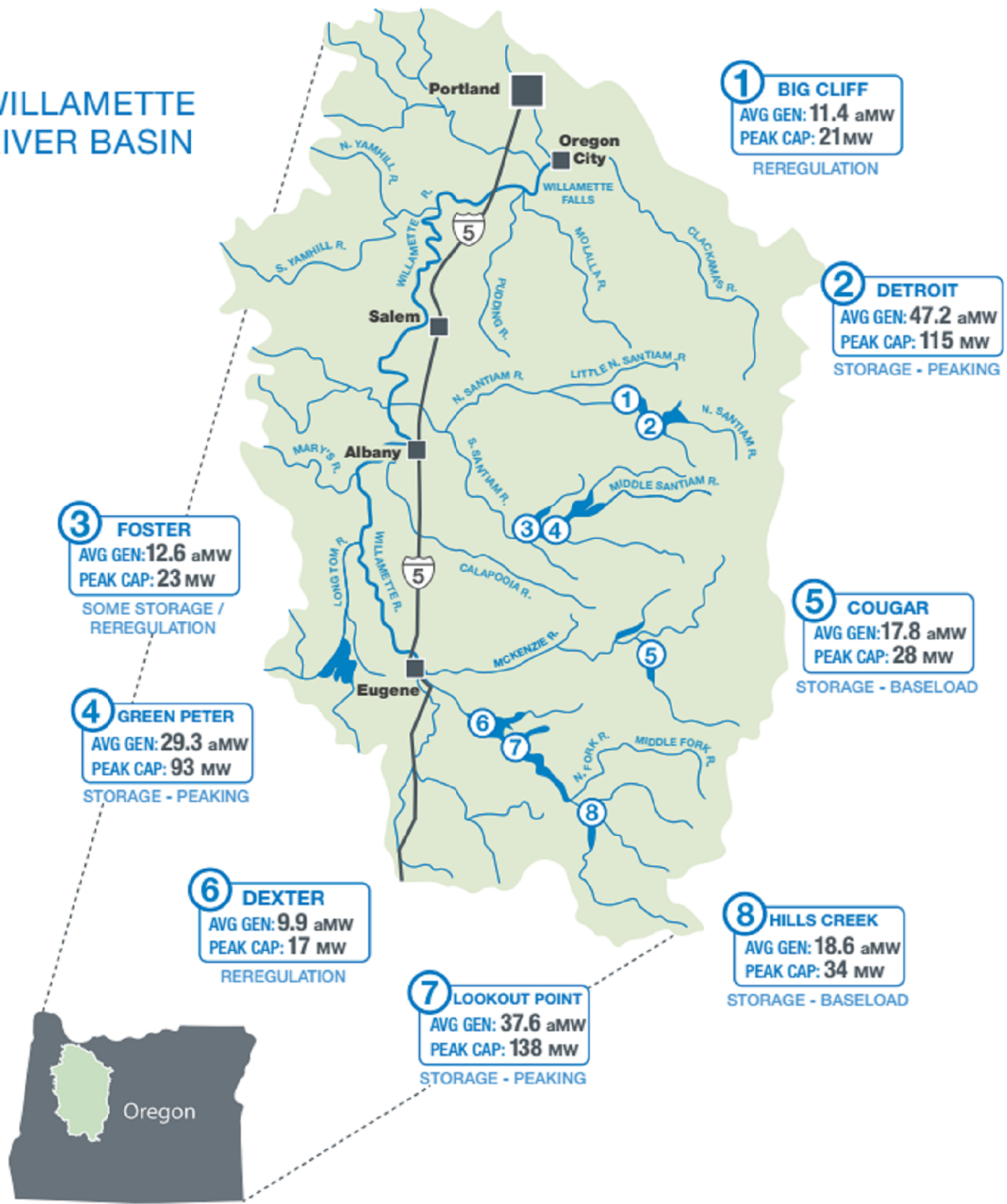


Cougar Dam, located in the McKenzie River subbasin, generates about 18 average megawatts of power each year.

averaging 184.4 MW of hydropower for an average water year, or enough power for about 138,000 homes. The Willamette dams contribute less than 4% to the average power generation for the entire Federal Columbia River Power System. Generation varies between years and within each year due to the seasonal differences in rain and snow and reservoir operations for flood control and other purposes. In most years, generation levels are highest in the winter and lowest in the summer. The operation of these projects has been significantly modified to address the survival and recovery of Endangered Species Act listed salmonids in the Willamette Valley.



WILLAMETTE RIVER BASIN



Map of the Willamette River Basin showing the eight Willamette dams from which BPA markets power.

FCRPS POWER CONTRIBUTIONS AND GENERATION COSTS

The eight dams across four Willamette subbasins from which BPA markets power include: Cougar Dam in the McKenzie River subbasin; Detroit and Big Cliff dams in the North Santiam subbasin; Green Peter and Foster dams in the South Santiam subbasin; and Hills Creek, Lookout Point and Dexter dams in the Middle Fork Willamette subbasin. Storage projects are operated to shape power generation to meet peak demand, and can be classified as either baseload (continuous generation) or peaking (operating during peak power need hours), while reregulation projects also generate hydropower but were installed downstream of the power peaking projects to normalize river flows.

Constructed primarily for flood risk management, the Willamette dams operate at a much higher cost compared to other FCRPS hydroelectric facilities. BPA is evaluating the Willamette Basin dams in its asset management strategy. The agency is taking a value-based approach that takes into account the relative value and performance of each asset. The current levelized cost of generation, as shown in the table, is the incremental cost per megawatt-hour of producing power for each of the different asset groups. BPA presented these costs in the 2018 Integrated Program Review, the public process it conducts every two years in conjunction with the rate case to discuss capital investments and expenses. Cost estimates for the Willamette dams are based on the 30-year capital and operations and maintenance forecasts and exclude investments already made in implementing the Willamette Biological Opinion.

The total levelized cost of generation for the FCRPS across all asset groups is quite low at under \$11 per MWh. However, several of the Willamette dams are currently producing power at a much higher cost. It is important that the levelized cost of generation remains at or near \$11 per MWh so that BPA can remain cost competitive, provide an economical power supply to the region and continue to successfully balance its multiple public duties. The Willamette dams are expected to have a levelized cost of generation of \$30.83 per MWh over the next 30 years as they exist today, before any additional fish mitigation measures are constructed or implemented. Any additional fish mitigation measures would drive the cost to generate power from the Willamette dams even higher.

ASSET GROUP	% OF AVERAGE ANNUAL GENERATION	LEVELIZED COST OF GENERATION (\$/MWH)
Mainstem Columbia	77%	\$9.03
Headwater/Lower Snake	18%	\$11.41
Willamette Basin (includes WVS dams)	4%	\$30.83
Other	1%	\$44.28
FCRPS TOTAL	100%	\$10.56

The cost to generate power from the Willamette dams is among the highest in the FCRPS, but they only contribute about 4% to the total generation.

Multiple federal processes regarding the Willamette Basin Dams are underway. Federal agencies are conducting studies, performing structural and operational improvements and beginning a reevaluation process of how operations on the Willamette River impact chinook salmon, bull trout and steelhead populations.

BPA remains committed to fulfilling its environmental obligations and goals including protecting and enhancing fish and wildlife affected by the Willamette dams. BPA is also committed to fulfilling its obligations and goals for supplying an economical source of power to the region and to the economic viability of the agency. We look forward to working with our federal, state, tribal, and local partners and with other Willamette Valley stakeholders to assure any proposed improvements will result in substantial benefits to native fish populations while being cost-effective. This will require thoughtful and comprehensive analyses of various options to improve fish populations in the Willamette River Basin.



Looking downriver from Cougar Dam in the Willamette Valley.

WILLAMETTE BASIN
HYDRO FAST FACTS

13 dams 



8 produce hydropower

468 MW peak capacity

AVERAGE ANNUAL
GENERATION
184 MW

4% TOTAL POWER
CONTRIBUTION
TO FCPS

**HYDRO
POWER
FLOWS HERE**

From: Marker,Doug R (BPA) - AIR-7
Sent: Monday, March 20, 2023 11:41 AM
To: jennifer@nativefishsociety.org
Cc: Warner,Joshua P (BPA) - AIR-7
Subject: Bonneville comments on implementation guidance for WRDA 2022
Attachments: Bonneville Power Administration Comment to Army on implementation guidance for WRDA 2022 Sec 8220_03.21.2023.pdf

Hi Jennifer –

I just filed these comments for the implementation guidance for WRDA 2022 and wanted to send them to you FYI

Best,

Doug

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6) phone and text

From: Marker,Doug R (BPA) - AIR-7
Sent: Monday, March 20, 2023 11:39 AM
To: (b)(6)
Cc: Foster,Marchelle M (BPA) - AI-7
Subject: Bonneville comments to Army on implementation guidance for WRDA 2022 disposition studies
Attachments: Bonneville Power Administration Comment to Army on implementation guidance for WRDA 2022 Sec 8220_03.21.2023.pdf

Hi Brett – I just sent these comments to the Army and am forwarding FYI

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6) phone and text

From: Marker,Doug R (BPA) - AIR-7
Sent: Friday, March 17, 2023 3:33 PM
To: Arendt,Samantha A (BPA) - PG-5
Cc: Kintz,Jesse H (BPA) - PG-5; Wright,Troy S (CONTR) - AIR-7
Subject: Comments to format for Bill Leady to sign and send to Department of the Army by Tuesday, March 21
Attachments: Comment to Army on implementation guidance for WRDA 2022 Sec 8220 - Final for formatting and Leady signature.docx; BPA comments on Draft PEIS (3 Feb 2023).pdf; Federal Register Notice for WRDA 2022 Implementation Guidance 2023-01043.pdf

Hi Sam – Thanks for discussing this with me this afternoon. As I mentioned, these comments need to be formatted on BPA letterhead for Bill’s electronic signature. These are due March 21.

I’m attaching:

- The comments for formatting. They are the same as Bill has seen and agreed to sign.
- BPA’s comments on the Willamette Valley EIS to be an attachment (This is also an example of the formatting on BPA Power Services letterhead)
- For reference only, the Federal Register Notice with same instructions for comment.

Delivery

Per the Federal Register notice, please e-mail to WRDA2022@usace.army.mil and include “Docket ID No. COE-2023-002” in the subject line. You might add “Bonneville Power Administration comments”

ADDRESSES: You may submit written comments, identified by Docket ID No. COE-2023-0002, by any of the following methods:
Federal eRulemaking Portal: <http://www.regulations.gov/>. Follow the online instructions for submitting comments.
Email: WRDA2022@usace.army.mil. Include Docket ID No. COE-2023-0002 in the subject line of the message.

I’d appreciate it if you could include me as a cc when you send it.

Thanks very much for your help, and please feel free to call, Skype or text me with any questions. Have a great weekend!

Doug

Doug Marker
Intergovernmental Affairs

Bonneville Power Administration

drmarker@bpa.gov

(b)(6) phone and text

From: Dondy-Kaplan,Hannah A (BPA) - AIR-7
Sent: Tuesday, February 7, 2023 2:08 PM
To: Dondy-Kaplan,Hannah A (BPA) - AIR-7; Marker,Doug R (BPA) - AIR-7
Subject: Conversation with Dondy-Kaplan,Hannah A (BPA) - AIR-7

Dondy-Kaplan,Hannah A (BPA) - AIR-7 11:43 AM:

hey do you have a talking point for Suzanne Kunse that's more specific than updating her on the Willamette EIS. Do you want to chat disposition study in particular?

Marker,Doug R (BPA) - AIR-7 11:48 AM:

Bring her up to speed on our response to the EIS - scope of capital projects increased, power output from dams cut by third; DEIS way low on resulting costs. Corps has not responded to WRDA 2020 for report on power deauthorization on other purposes, WRDA 2022 sets 18 month timeline for systemwide deauthorization studies. We want to bring Suzanne current on our expectation that deauthorizing power will not impact other project benefits and could give more options for fish. We want Oregon delegation to be aware of consideration of power deauthorization - cost reallocation an option if power somehow remains economically viable. But our efforts should not harm, and could help, other project benefits.

Dondy-Kaplan,Hannah A (BPA) - AIR-7 11:49 AM:

Got it thanks

Dondy-Kaplan,Hannah A (BPA) - AIR-7 11:55 AM:

disposition same as deauthorization?

(looking at the letter to the Corps)

Marker,Doug R (BPA) - AIR-7 12:36 PM:

Nope. Disposition evaluates federal interest in the power purpose. It informs deauthorization, which has to be done by Congress. If the disposition studies find continuing federal interest, then we could seek reduced allocation of joint project costs to hydropower. That also needs to be determined by Congress.

Dondy-Kaplan,Hannah A (BPA) - AIR-7 1:56 PM:

thanks

**Comments of the Bonneville Power Administration
Implementation Guidance for Section 8220 of the Water Resources Development Act of 2022
Disposition Study on Hydropower in the Willamette Valley, Oregon**

Docket ID No. COE-2023-2002

Ms. Amy Frantz, CEW-P
U.S. Army Corps of Engineers, 3F91
441 G Street, N.W.
Washington, DC 20314

Dear Ms. Frantz,

The Bonneville Power Administration (Bonneville) appreciates the opportunity to comment on guidance for implementing section 8220 of the Water Resources Development Act of 2022. Section 8220 directs the Secretary to carry out a disposition study to determine the Federal interest in, and identify the effects of, deauthorizing hydropower as an authorized purpose in whole, or in part, of the Willamette Valley Project.

Bonneville is the Federal power marketing administration with the statutory authority and sole obligation to market hydroelectric power from the Willamette Valley project. Bonneville implements this authority to ensure an adequate, economic, and reliable power supply for regional power customers in the Pacific Northwest.

Implementation guidance should guide the Corps to scope the project to be deliverable within 18 months by focusing on the power purpose of the WVS dams and not introduce other, more broad analysis that Section 8220 does not address. The analysis should focus primarily on answering whether there is a federal interest in commercial production of hydropower in the future. The implementation guidance should encourage the Corps to incorporate Bonneville's determination of the value of the commercial generation that may remain available with the limits on operations proposed by the draft PEIS.

Bonneville shares the interest of the U.S. Army Corps of Engineers (Corps), for timely and sufficient completion of the final Programmatic Environmental Impact Statement (PEIS) for the Willamette Valley System (WVS), which is evaluating dam passage and water quality designs for anadromous fish restoration above the WVS dams as well as reservoir operational changes. Bonneville believes that the disposition studies required by Congress, if efficiently conducted, will inform the completion of the WVS EIS by incorporating analysis of the Federal interest in commercial power generation. That analysis may inform design options that are the Corps has not considered in order to preserve power generation as a project purpose.

Bonneville also wants to reiterate points it recently provided to the Corps on the draft PEIS:

- An implementation plan for the consideration of deauthorization and cost allocation updates should be included in the final PEIS.
 - The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet the power purpose's cost allocation

averages around 40 percent. This estimate itself highlights the need for updated cost allocations, and should help inform the Corps of its appropriate short and long-term federal funding requests necessary to meet its most valued project purposes.

- The disposition studies should include the full scope of operational limits affecting hydropower generation. The current PEIS analysis does not reflect the significant cost impact from continued operations of the 2021 Oregon District Court injunction until the Corps completes structural measures. These operations stand to reduce the value of hydropower generation by nearly a third. Under the PEIS implementation schedules, these operational limits will be in place well into the 2040s. Having that information incorporated into the disposition studies analysis will help inform both Congress and the Final PEIS.
- Finally, Bonneville continues to urge the Corps to update structural cost estimates, which the Corps states in the Draft PEIS are likely more than double the current estimates. In addition, recent economic events of inflation, constrained supply chains, and escalated interest rates also likely impact the cost estimates.

Bonneville has also provided its assessment to the Corps that the other project purposes would not be negatively impacted by deauthorization of the project purpose. Bonneville provided this assessment to the Corps in 2021 and respectfully requests that the Corps consider this analysis in the report to Congress responding to Section 8220.

Thank you for your consideration of these comments and please do not hesitate to contact me for any additional information or assistance.

Sincerely,

William J. Leady P.E.
Vice President for Generation Asset Management
Bonneville Power Administration

Attachment: Bonneville comments on Draft Programmatic Environmental Impact Statement for Willamette Valley System Operations and Maintenance

From: Kintz,Jesse H (BPA) - PG-5
Sent: Monday, April 3, 2023 9:56 AM
To: Baskerville,Sonya L (BPA) - AIN-WASH
Cc: Marker,Doug R (BPA) - AIR-7; Leady Jr,William J (BPA) - PG-5
Subject: Cost Allocations Update to House Appropriations Energy and Water Development Subcommittee_Mar2023
Attachments: Cost Allocations Update to House Appropriations Energy and Water Development Subcommittee_Mar2023.docx

Sonya,
I've attached the March report to provide to the subcommittee.

-Jesse

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)



Department of Energy

Official File

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

POWER SERVICES

February 3rd, 2023

In reply refer to: PG-5

Liza Wells
Deputy District Engineer for Programs and Project Management
Portland District, United States Army Corps of Engineers
333 SW First Ave.
Portland, OR 97204

Dear Ms. Wells,

The Bonneville Power Administration (Bonneville) appreciates this opportunity to comment on the Draft Programmatic Environmental Impact Statement (Draft PEIS) for operations and maintenance of the Willamette Valley System.

Bonneville is participating in the development of the Draft PEIS as a cooperating agency, focusing on its expertise on the hydropower purpose of the Willamette Valley System, including hydropower generation and marketing, and electric transmission facilities and operations.

As contemplated by the Cooperating Agency Memorandum of Understanding between Bonneville and the Corps, Bonneville would like to take this opportunity to present its views on the Draft PEIS, particularly where it believes the PEIS would benefit from additional analysis. In addition to the themes discussed in this letter, Bonneville will provide the Corps with specific updates and revisions related to hydropower generation and transmission analysis in the Draft PEIS, as part of Bonneville's ongoing participation in this PEIS process as a cooperating agency. Bonneville continues to acknowledge and thank the Corps staff and leadership for its engagement and collaboration with Bonneville in the preparation of the Draft PEIS.

The Draft PEIS evaluated alternatives to achieve multiple objectives; however, none of the action alternatives to restore naturally spawning salmon and steelhead above Willamette Valley dams would maintain economical hydropower as a residual benefit of the system.

The Corps constructed the Willamette Valley System to primarily provide flood protection for Oregon communities. The system's storage capacity also provides benefits for recreation, water supply, and water quality. As the Draft PEIS notes, hydropower is a residual benefit of the Willamette Valley System, available after the Corps has optimized operations for other project purposes. The current action alternatives in the draft PEIS have outcomes which reduce the availability of hydropower generation while multiplying its costs.

Although the Draft PEIS clarifies some of the challenges of maintaining economical hydropower as a benefit of the Willamette Valley System, Bonneville believes that the Final PEIS would benefit by including specific elements to more completely capture the scope of those challenges, as well as identifying steps towards addressing them. Accordingly, Bonneville has three requests for inclusion in the Final PEIS:

- Bonneville continues to request that the Corps include in the final PEIS its implementation plan for the consideration of de-authorization and cost allocation updates at these projects. Bonneville notes the recent mandate from Congress in the 2022 Water Resources Development Act directing system-wide disposition studies of the power purpose of the Willamette dams by June 2024. Bonneville also offers the following considerations for the disposition studies:
 - Disposition studies will inform potential congressional deauthorization of power at the Willamette dams. If Congress does deauthorize power, the Corps may be able to design less costly and more effective passage routes for juvenile salmon.
 - Disposition study analysis should also inform needed cost allocation updates. Significant operational changes and the shifting economics of managing hydropower and flood control at Willamette Valley projects make cost allocation updates necessary. The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet power's cost allocation averages around 40 percent. If the disposition studies, as part of assessing whether hydropower is in the federal interest, do find net economic value for remaining hydropower generation at one or more of the Willamette dams, the Corps and Bonneville should use that analysis to implement the needed appropriate cost allocation between flood risk management and power.
 - Meeting Congress' timeline for completing disposition studies by June 2024 should support implementation planning for the Final PEIS and help inform Bonneville's decisions for continued investments in the dams' power facilities. It will be important for the Corps to limit the scope of the disposition studies and focus only on the effects of deauthorizing hydropower.
- The Corps should revise the PEIS analysis to fully include the impact of the continuation of the near-term operations in the planned implementation of the final preferred alternative. The most significant impact on hydropower is the provision to continue the operations of the 2021 Oregon District Court injunction until the Corps completes structural measures, which, for some of the measures, would be well into the 2040s under the Draft PEIS implementation schedule. The current analysis does not reflect these operations which stand to reduce the value of hydropower generation by nearly a third. The Final PEIS should include revised estimates for the remaining value of hydropower generation that incorporates the near-term measures. Because these estimates are also

necessary for the disposition studies directed by Congress, their inclusion will help inform both Congress and the Final PEIS.

- Bonneville continues to urge the Corps to update structural cost estimates. The estimated costs of structures for fish passage and water temperature seem to be quite conservative. The Corps states in the Draft PEIS that it is basing cost estimates on conceptual designs and that actual costs could likely more than double. Additionally, recent economic events of inflation, constrained supply chains, and escalated interest rates make the Draft PEIS estimates likely out of date.

Again, Bonneville appreciates the Corps' collaboration during the preparation of the PEIS. This represents an important milestone for the future management of the Willamette Valley System. The system continues to provide substantial regional value through flood risk management, water supply, and recreation as its operations evolve to benefit fish and wildlife. We submit these comments with the objective of resolving the anticipated major, adverse impacts presented in the PEIS to economic and reliable power generation.

Sincerely,

William J. Leady P.E.
Vice President for Generation Asset Management
Bonneville Power Administration

cc: Beth Coffey
Director of Programs
Northwestern Division, USACE

Brad Thompson
Chief of Planning, Environmental Resources and Fish Policy
Northwestern Division, USACE

Jesse Kintz
Senior Policy and Project Lead, Power Generation, Bonneville

submitted in response to the agenda set forth in this notice by Monday, January 30, 2023, to be considered by the Board. The DFO will review all timely submitted written comments or statements with the Board Chair and ensure the comments are provided to all members of the Board before the meeting. Written comments or statements received after this date may not be provided to the Board until its next scheduled meeting. Please note that all submitted comments and statements will be treated as public documents and will be made available for public inspection, including, but not limited to, being posted on the Board's website.

Dated: January 13, 2023.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison
Officer, Department of Defense.

[FR Doc. 2023-01013 Filed 1-19-23; 8:45 am]

BILLING CODE 5001-06-P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

[COE-2023-0002]

Water Resources Development Act of 2022 Comment Period and Stakeholder Sessions

AGENCY: U.S. Army Corps of Engineers, DoD.

ACTION: Request for comments; announcement of stakeholder sessions.

SUMMARY: The Assistant Secretary of the Army for Civil Works (ASA (CW)) is seeking public comment on any provisions in the Water Resources Development Act (WRDA) of 2022. The Office of the ASA(CW) will consider all comments received during the 60-day public comment period in the preparation of any guidance.

DATES: The public comment period will end on March 21, 2023. To ensure your comment is considered during development of implementation guidance, comments should be received on or before that date. In addition, three stakeholder sessions will be held to allow the public to provide input on any provisions in WRDA 2022 at the following dates/times: February 15, 2023 from 2:00 p.m. to 4:00 p.m. Eastern; February 22, 2023 from 2:00 p.m. to 4:00 p.m. Eastern; March 1, 2023 from 2:00 to 4:00 p.m. Eastern. Please refer to the **SUPPLEMENTARY INFORMATION** section for additional information on the stakeholder sessions.

ADDRESSES: You may submit written comments, identified by Docket ID No. COE-2023-0002, by any of the following methods:

Federal eRulemaking Portal: <http://www.regulations.gov/>. Follow the online instructions for submitting comments.

Email: WRDA2022@usace.army.mil. Include Docket ID No. COE-2023-0002 in the subject line of the message.

Mail: U.S. Army Corps of Engineers, ATTN: Ms. Amy Frantz, CEW-P, U.S. Army Corps of Engineers, 3F91, 441 G St. NW, Washington, DC 20314.

Hand Delivery/Courier: Due to security requirements, we cannot receive comments by hand delivery or courier. Comments received may be posted without change to <https://www.regulations.gov/>, including any personal information provided.

FOR FURTHER INFORMATION CONTACT: All requests for further information on the notice and the stakeholder sessions may be directed to Mr. Gib Owen, 571-274-1929 or gib.a.owen.civ@army.mil. Mr. Owen may also be contacted by mail at Office of the Assistant Secretary of the Army for Civil Works, 108 Army Pentagon, Washington, DC 20310-0108.

SUPPLEMENTARY INFORMATION: This comment period regarding WRDA 2022 (Pub. L. 117-81) is being conducted in accordance with Section 1105 of the Water Resources Development Act of 2018 (Pub. L. 115-270). A copy of WRDA 2022 can be found at: <https://www.usace.army.mil/Missions/Civil-Works/Water-Resources-Development-Act/>. The ASA(CW) and the Corps will hold focused stakeholder sessions using webinars/teleconferences by means of the web link <https://usace1.webex.com/meet/WRDA2022> and teleconference information at (844) 800-2712, Code 199 937 4287. See dates and times above. Commenters can provide information on any provision of interest during each session. Written final guidance will be available to the public on a publicly accessible website (https://www.usace.army.mil/Missions/Civil-Works/Project-Planning/Legislative-Links/wrda_2022/).

Michael L. Connor,

Assistant Secretary of the Army (Civil Works).

[FR Doc. 2023-01043 Filed 1-19-23; 8:45 am]

BILLING CODE 3720-58-P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

National Wetland Plant List

AGENCY: U.S. Army Corps of Engineers, DoD.

ACTION: Notice.

SUMMARY: The National Wetland Plant List (NWPL) provides plant species indicator status ratings, which are used in determining whether the hydrophytic vegetation factor is met when conducting wetland delineations under the Clean Water Act and wetland determinations under the Wetland Conservation Provisions of the Food Security Act. Other applications of the NWPL include wetland restoration, establishment, and enhancement projects. To update the NWPL, the U.S. Army Corps of Engineers (USACE), as part of an interagency effort with the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS), and the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS), is announcing the availability of the proposed changes to the 2022 NWPL and its web address to solicit public comments. The public will now have the opportunity to comment on the proposed changes to wetland indicator status ratings for two plant species in the Arid West (AW) region. In addition, we are accepting comments on the proposal to move from a two-year update cycle to a three-year update cycle for the NWPL. Finally, USACE is seeking comments on the overall NWPL update process.

DATES: Comments must be submitted on or before March 21, 2023.

ADDRESSES: U.S. Army Corps of Engineers, Attn: CECW-CO-R, 441 G Street NW, Washington, DC 20314-1000.

FOR FURTHER INFORMATION CONTACT: Brianne McGuffie, Headquarters, U.S. Army Corps of Engineers, Operations and Regulatory Community of Practice, by phone at 202-761-4750 or by email at brianne.e.mcguiffie@usace.army.mil.

SUPPLEMENTARY INFORMATION:

Background

USACE administers the NWPL for the United States (U.S.) and its territories. Responsibility for the NWPL was transferred to USACE from the FWS in 2006. The NWPL has undergone several revisions since its inception in 1988. Additions or deletions to the NWPL represent new records, range extensions, nomenclatural and taxonomic changes, and newly proposed species. The latest review process began in 2022 and included review by Regional Panels (RPs) and the National Panel (NP).

Wetland Indicator Status Ratings

On the NWPL, there are five categories of wetland indicator status

March 2023 Federal Columbia River Power System Cost Allocations Update to House Appropriations Energy and Water Development Subcommittee

Background

The Bonneville Power Administration (Bonneville) provides this progress report on Federal Columbia River Power System (FCRPS) cost allocation policy discrepancies. These reports respond to the December 2020 Energy and Water appropriations bill report language, which requested regular progress updates from Bonneville, the US Army Corps of Engineers (USACE) and the U.S. Bureau of Reclamation (Reclamation).

Due to the distinct issues involved with each agency, this report is divided into two sections, one for cost allocation developments related to USACE FCRPS projects and the other for Reclamation FCRPS projects.

BONNEVILLE AND USACE

Bonneville submits this report, based on its perspective and has shared it with USACE.

Summary of Policy Discrepancies

The agencies continue to lack alignment in all three key areas:

- the need for updating cost allocations,
- respective authorities for evaluating and adopting project cost allocations, and
- methods for implementing an updated allocation.

Recent Developments

Bonneville and the USACE did not meaningfully advance on resolving our FCRPS cost allocation policy disagreements during this first quarter of 2023. Bonneville continues to believe that the allocations at many FCRPS projects have become unbalanced over time, based on changing economic benefits between project purposes, and that cost allocation updates are needed and appropriate.

In late February, the USACE closed the public comment period on the Draft Programmatic Environmental Impact Statement (Draft PEIS) for operations and maintenance of the Willamette Valley System, which includes eight dams with power cost share allocations. Bonneville provided comments to the USACE during the public comment period which reiterated concern that none of the alternatives in the Draft EIS would be able to maintain economical hydropower, and that the EIS does not include steps to address this issue.

Bonneville's comments proposed three requested inclusions for the final EIS to more completely capture the scope of the challenges to hydropower and the identification of steps to address them. Bonneville's requests included the addition an implementation plan for de-authorization and cost allocation updates, updating analysis to more completely capture the impacts of the near term operations measures cutting power by nearly one third, and performing a robust update of cost estimates to capture the most accurate and complete scope of the costs.

In the comments, Bonneville also highlights that cost allocation updates are still necessary due to significant operational changes and shifting economics and notes that the EIS estimates the annual benefits of flood protection to be \$1 billion, and the annual benefits of power generation to be \$26 million. However, power's cost allocation averages around 40 percent. These figures illustrate the need to update cost allocations to rebalance more equitably between flood control and power generation.

The USACE and Bonneville have continued with monthly meetings on the disposition study and cost allocation issues. Recent meetings have focused mostly on information sharing, and the USACE's initial scoping efforts related to the system-wide Willamette Valley hydropower disposition study called for in WRDA 2022 Section 8220. The USACE and Bonneville agree that keeping the scope targeted and manageable, and focusing initially on a determination of whether a federal interest in hydropower exists, will be critical for meeting the 18 month timeline.

The President's budget for Fiscal Year 2024 takes note of Bonneville's continued quarterly reporting to the Committee with updates on discussions with the USACE and Reclamation on how FCRPS cost allocations may be updated. The President's budget further notes that the Office of Management and Budget (OMB) provided budget guidance to Bonneville indicating that Bonneville should work with the USACE to determine if changes in cost allocation may be warranted and present a joint proposal to OMB for consideration for the FY 2025 Budget if both agencies agree changes may be warranted. OMB is scheduling a joint meeting with the USACE and Bonneville to discuss a proposed schedule for the joint report of the USACE and Bonneville by August 1.

Bonneville continues to pause certain direct funding investments in hydroelectric generating projects in the Willamette Valley pending a resolution of the long-term economic viability for power at those projects. Bonneville believes the necessary resolution will be informed by the system-wide Willamette disposition studies called for in WRDA 2022. The USACE is also still working to finalize their response to the 2020 WRDA Section 218 language, which requested an initial analysis of de-authorization of hydropower at Cougar and Detroit dams within two years.

Bonneville believes that the disposition studies will inform Congress on whether there is a remaining federal interest in hydropower as a project purpose at the Willamette dams. A determination that there is no remaining federal interest in commercial hydropower will inform Congressional consideration of deauthorizing the power purpose. A determination that there is a remaining federal interest at some projects, though diminished by operating constraints, could lead to an appropriate update of the cost share allocations among project purposes.

Status and Next Steps

The USACE and Bonneville will continue to coordinate on these issues, including the USACE Willamette system-wide disposition study called for in WRDA 2022, and evaluating whether a federal interest exists in commercial hydropower going forward. Overall, the USACE and Bonneville still disagree on the need for cost allocation updates and lack a path to perform a cost allocation update. Without agreement on specific, timely steps to resolve these issues, Bonneville remains concerned about the USACE initiating significant new capital construction at Willamette dams as part of the NEPA EIS process, whether the

costs being allocated to Bonneville are equitable and appropriate, and the continuing trend of Willamette Valley projects becoming uneconomical for power.

BONNEVILLE AND RECLAMATION

Bonneville and Reclamation have collaborated on this report.

Summary of Policy Agreement and Discrepancies

The agencies agree that there are benefits to updating the cost allocation and the methodology at one specific project, the John W. Keys, III Pump-Generating Plant (Keys pumping plant).

Overall, the agencies continue to lack alignment in three key areas:

- The need for updating cost allocations more broadly,
- respective authorities for evaluating and adopting project cost allocations, and
- methods for implementing an updated allocation.

Recent Developments

Bonneville and Reclamation have continued to share information to inform the planned Keys pumping plant allocation update. Bonneville recently shared a draft letter with Reclamation about its use of the plant. Reclamation has continued work on scoping their planning studies which will inform an updated allocation.

Status and Next Steps

Bonneville and Reclamation remain in the early stages of discussions to collaborate on an updated Keys pumping plant allocation ahead of the upcoming 2025-2029 diversion rate cycle. Reclamation expects to increase coordination in the coming months with both Bonneville and the irrigation districts as they work on finalizing scoping for their planning studies and begin work on the studies themselves. Significant work remains to achieve an improved allocation methodology to be implemented by the 2025-2029 cycle.

From: Webster-Wharton, Stacy T (BPA) - PGA-6
Sent: Friday, April 14, 2023 8:26 AM
To: Cook, Joel D (BPA) - K-7
Cc: Cooper, Suzanne B (BPA) - P-6; Leady Jr, William J (BPA) - PG-5; Todd, Wayne A (BPA) - PGA-6; Baskerville, Sonya L (BPA) - AIN-WASH; Harwood, Holly C (BPA) - AIR-7; Kintz, Jesse H (BPA) - PG-5; Marker, Doug R (BPA) - AIR-7
Subject: FHC Agenda with embedded talking points
Attachments: Federal Hydropower Council Agenda - 19April2023_DRAFT with talking points V2.docx

Joel,
The attached document is the upcoming FHC agenda with embedded talking points per our prep meeting and subsequent discussions.

If there are any questions or the need for further details or changes please let me know.

Thank you everyone for providing information for the talking points. There was a lot of good back and forth discussions and involved. Appreciate it.

(Sonya and Holly – you will probably notice that I pared down the details you all provided a bit (particularly just gave a summary of the total costs))

Stacy Webster-Wharton, PE (she/her/hers)
Asset Manager (AM) and Chief Data Officer (CDO) (K) (acting)
BONNEVILLE POWER ADMINISTRATION
stwebsterwharton@bpa.gov



P: 503-230-3102 C: (b)(6)





**Federal Hydropower Council
MEETING AGENDA**

Virtual

April 19, 2023

Start Time: 1300 ET (length: 2 hours)

DOE Attendees

Joel Cook

Chief Operating Officer
Bonneville Power Administration

Virgil Hobbs

Administrator
Southeastern Power Administration

Mike Wech

Administrator
Southwestern Power Administration

Lloyd Linke

Regional Manager, Upper Great Plains
Western Area Power Administration

Barbara Smith

National Relations
Southeastern Power Administration
Southwestern Power Administration

Interior Attendees

Max Spiker

Senior Advisor for Hydropower
US Bureau of Reclamation

USACE Attendees

MG Butch Graham

Deputy Commanding General for Civil
and Emergency Operations

Eddie Belk

Director of Civil Works

Thomas Smith

Chief, Operations & Regulatory

TBD

Commander

Great Lakes & Ohio River Division

TBD

Commander

Mississippi Valley Division

TBD

Commander

Northwestern Division

TBD

Commander

South Atlantic Division

TBD

Commander

Southwestern Division

Daniel Rabon

Manager

National Hydropower Program

Purpose

This is a biannual meeting where, the Power Marketing Administrations (PMAs), U.S. Army Corps of Engineers (USACE) and the U.S. Bureau of Reclamation (Reclamation) senior leaders discuss the current state of the federal hydropower program, and share ongoing and emerging issues related to Federal Hydropower and the following areas of interest:

- Acquisition and Delivery Process
- Joint Cost Allocation and Charging Practices
- Water Storage Reallocation and Crediting
- O&M Cost Reduction and Efficiencies
- Federal Hydropower Communications
- Special Working Group: Coordinated Federal Supply Chain Risk Program



Proposed Federal Hydropower Council (FHC) Agenda:

Not Responsive

Not Responsive

- c. Deauthorizations (FYI from Jesse, Doug and Sonya): **NOTE: Sonya mentioned that we want to refrain from mentioning that “we want to retain any power that is viable” as that will be determined as part of the studies and we should refrain from giving the Corps the easy way out.**
- In WRDA 2022 Section 8220, Congress has directed the Corps to do a system-wide disposition study to determine the federal interest in and effects of de-authorizing hydropower as a project purpose for the Willamette Valley system of flood control projects by June 2024.
 - De-authorization is needed if power cannot be economically viable because of the operations and structural measures to benefit fish. If effective fish passage would allow some power to be produced, it would likely require reallocation of project cost allocations and the Corps has been unwilling to engage in updating cost allocations.
 - The Corps held a planning meeting for the disposition study last week
 - It’s important to BPA that the Corps meets the 18 month disposition study deadline and BPA wants to help the Corps meet the deadline – including providing analysis for our areas of expertise (commercial power marketing and transmission) and scope input.
 - BPA also continues to engage the Corps at the district and division level to revise power cost allocations.

Not Responsive

Not Responsive



From: Conning III,Edward Thomas (BPA) - DKP-7
Sent: Wednesday, January 4, 2023 9:54 AM
To: Marker,Douglas R (BPA) - AIR-7
Subject: Fact sheet language update
Attachments: The future of power from Willamette Valley dams (fact sheet update) - 1-4-23.docx

Follow Up Flag: Follow up
Flag Status: Completed

Doug,

As discussed, here is a clean(er) copy of the fact sheet. One thing to note on the flood control vs. flood risk management in the document. Bottom line: the Corps has changed language throughout the years because of the recognition that they cannot control floods; however, authorizing acts were named Flood Control Act of 19XX and media/public still refers or are referred to those acts as to why the dams were built.

So, are we trying to be a good federal partner in supporting their language, or do we use a more “common” description?

Thanks,

V/R

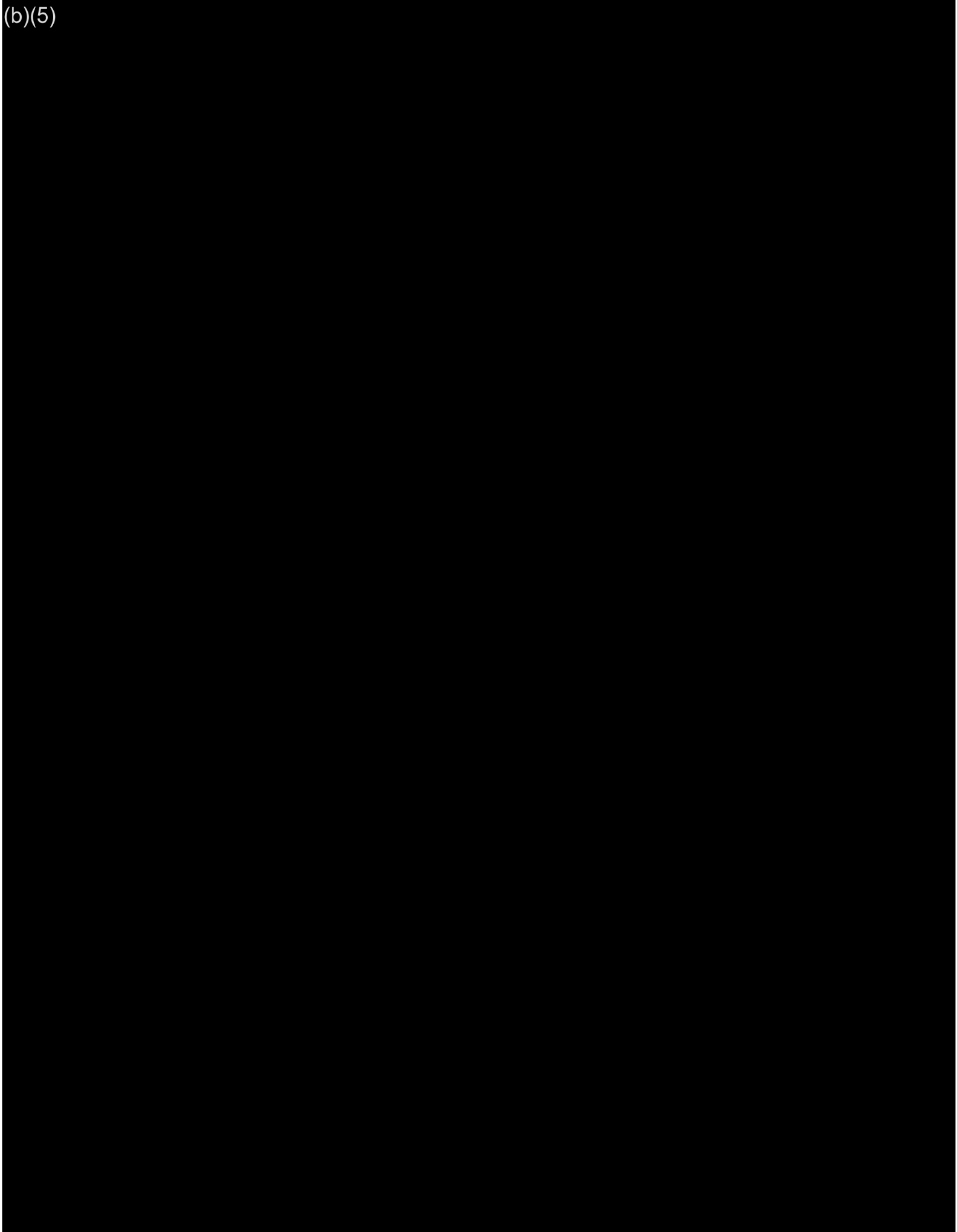
Tom Conning

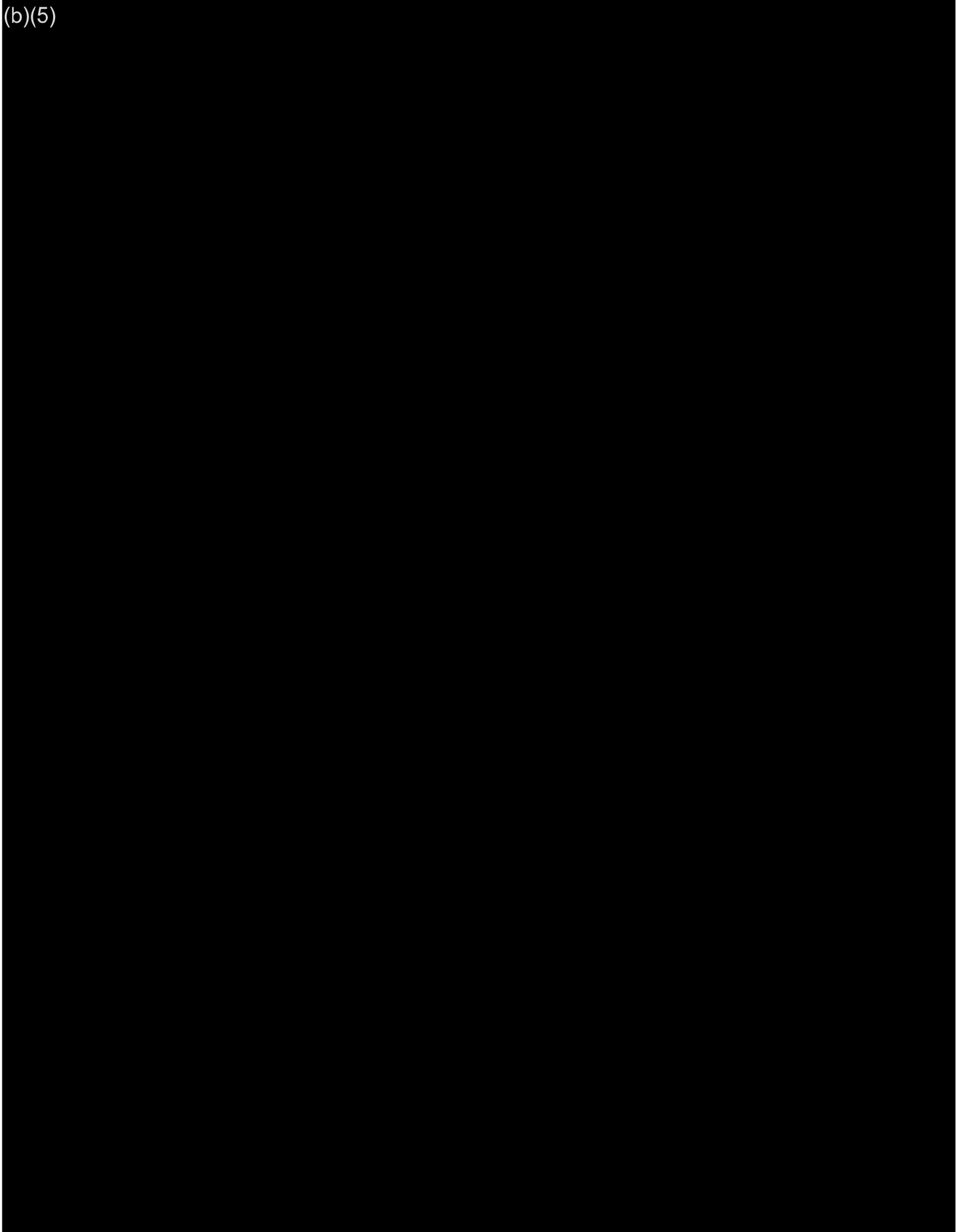
Writer/Editor | Media Relations, Policy Communications and Writing

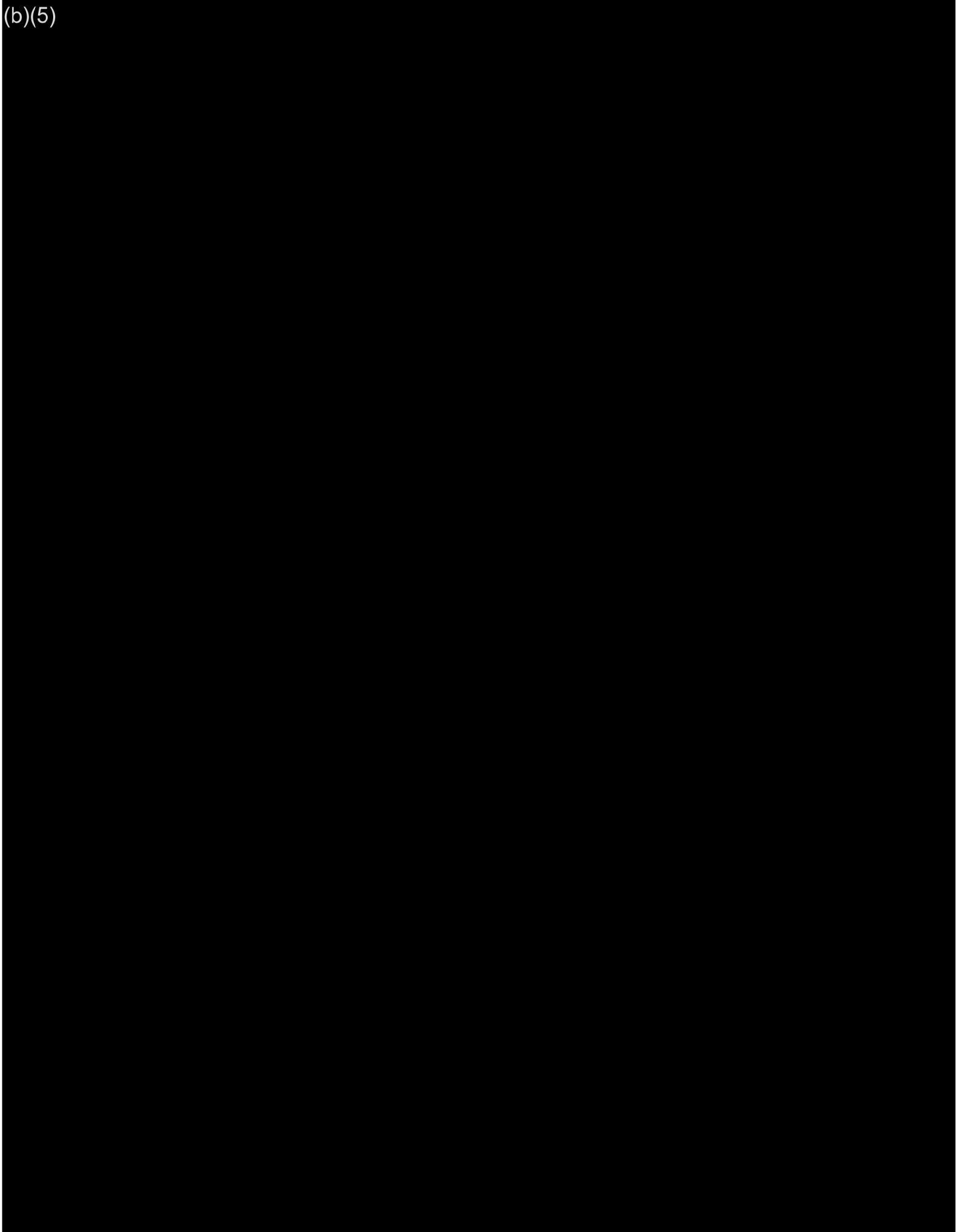
[BONNEVILLE POWER ADMINISTRATION](#)

ETConning@bpa.gov | O: 503-230-3832









From: Baskerville,Sonya L (BPA) - AIN-WASH
Sent: Monday, March 20, 2023 12:55 PM
To: Nathan A. EOP/OMB Steele
Cc: Seifert,Roger E (BPA) - AIN-WASH; Marker,Doug R (BPA) - AIR-7
Subject: Fwd: For Docket ID No. COE-2023-0002 Comments of the Bonneville Power Administration for Section 8220
Attachments: Bonneville Power Administration Comment to Army on implementation guidance for WRDA 2022 Sec 8220_03.21.2023.pdf; BPA comments on Draft PEIS (3 Feb 2023).pdf

Nathan, BPA filed its comments on section 8220 in the Corps' WRDA 2022 implementation guidance public comment request. The comments are essentially the same as what I provided orally during the Corps' public listening session. Please see attached comments, and also BPA's comments on the draft PEIS.

This information may be helpful to you as we work toward coordinating the cost allocation project plan with the Corps. The commercial power value analysis needed for the Willamette dams disposition studies is the same information that would be needed in a cost allocation review of those dams.

Thanks.

Sonya Baskerville
BPA National Relations
(b)(6) m

----- Forwarded message -----

From: "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov>

Date: Mar 20, 2023 2:24 PM

Subject: For Docket ID No. COE-2023-0002 Comments of the Bonneville Power Administration for Section 8220

To: WRDA2022@usace.army.mil

Cc: "Baskerville,Sonya L (BPA) - AIN-WASH" <slbaskerville@bpa.gov>

Good afternoon – attached are the comments of the Bonneville Power Administration for implementation guidance for Section 8220 of the Water Resources Development Act of 2022. I am also attaching for reference comments that Bonneville submitted to the Portland District on the draft Programmatic Environmental Impact Statement for the Willamette Valley System. Please let me know if I can provide additional information

Thank you for this opportunity.

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6) phone and text

From: Manchester, Kathleen L (CONTR) - AIT-7
Sent: Friday, February 24, 2023 10:42 AM
To: ADL_AI_ALL
Cc: Arthurs, Neil E (BPA) - NNT-MODD; Capps, Stephan A (BPA) - NW-1; Wilson, Cameron R (BPA) - TFAB-MODW; James, Daniel M (BPA) - D-7; Hairston, John L (BPA) - A-7; ADL_DK_ALL
Subject: Intergovernmental Affairs Weekly Report 02-24-23
Attachments: 2023,0224.docx

Greetings, The Intergovernmental Affairs report for the week ending [February 24, 2023](#) is attached and displayed below.

Power Services

California Resource Adequacy Rules

The California Public Utilities Commission staff has proposed new rules that would affect BPA's surplus sales to California. We are filing comments with the CPUC on Friday, February 24.

Doug Marker, POC

Willamette Dam Power Deauthorization

The Department of the Army is holding public comment sessions for implementation guidance for the Water Resources Development Act of 2022. Sonya Baskerville participated to comment on the need for the Corps to meet the Congressional schedule for disposition studies for power deauthorization by June 2024.

Sonya Baskerville, Doug Market POCs

Thank you,

Kathie Manchester

(CONTR) Vanderhouwen

Administrative Assistant | Intergovernmental Affairs, AIT-7

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-7685 kmanchester@bpa.gov

Intergovernmental Affairs Weekly Report (FY 2023)

02-24-23

Power Services

California Resource Adequacy Rules

The California Public Utilities Commission staff has proposed new rules that would affect BPA's surplus sales to California. We are filing comments with the CPUC on Friday, February 24.

Doug Marker, POC

Willamette Dam Power Deauthorization

The Department of the Army is holding public comment sessions for implementation guidance for the Water Resources Development Act of 2022. Sonya Baskerville participated to comment on the need for the Corps to meet the Congressional schedule for disposition studies for power deauthorization by June 2024.

Sonya Baskerville, Doug Market POCs

From: Marker,Doug R (BPA) - AIR-7
Sent: Monday, February 6, 2023 1:37 PM
To: Irene Scruggs (iscruggs@ppcpdx.org)
Subject: Our comments to Corps on Willamette draft EIS
Attachments: BPA comments on Draft PEIS (3 Feb 2023).pdf

Hi Irene - We delivered these comments to the Corps on the Willamette EIS – wanted to be sure you have them asap.

Best,

Doug

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6)

From: Baskerville,Sonya L (BPA) - AIN-WASH
Sent: Thursday, April 6, 2023 8:23 AM
To: Marker,Doug R (BPA) - AIR-7; Samantha McDonald; Marty Kanner
Subject: RE: [EXTERNAL] Willamette - Approps

Yeah, I think we will not have a choice but to send a written memo to the committee responding to our views about their report.

Sonya Baskerville
BPA National Relations

(b)(6) m

On Apr 6, 2023 11:14 AM, "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov> wrote:
We're concerned that the Corps has not shared the draft report with us since we sent them initial objections to their early speculation about transmission impacts. That problem continued into the drafting of the EIS. The Corps has insisted they cannot share the draft with us or allow us to provide comments that would accompany the report to the Committee.

We have been trying to confirm the source of funding for the disposition studies but only have been told that "they have it". Not clear even if they mean only for Cougar or for the systemwide studies.

From: Marty Kanner <mkanner@kannerandassoc.com>
Sent: Thursday, April 6, 2023 8:00 AM
To: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Samantha McDonald <Smcdonald@kannerandassoc.com>
Subject: Re: [EXTERNAL] Willamette - Approps

That is so depressing that the 2020 report is just now being released.

Hopefully we can get a clear answer on funding for the disposition study, so we can share that with Appropriations.

Marty Kanner
President
Kanner & Associates, LLC
202-624-3501 — Direct
(b)(6) — Cell

From: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>
Sent: Thursday, April 6, 2023 10:21:38 AM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Samantha McDonald <Smcdonald@kannerandassoc.com>; Marty Kanner <mkanner@kannerandassoc.com>
Subject: Re: [EXTERNAL] Willamette - Approps

We have a meeting with the Corps on Tuesday. Also apparently the 2020 report has cleared the ASA's office. I have asked Steve Kopecky at Corps HQ whether it is releasable now. Thanks.

Sonya Baskerville
BPA National Relations
(b)(6) m

On Apr 6, 2023 6:56 AM, Marty Kanner <mkanner@kannerandassoc.com> wrote:
Any update on identifying available money for the disposition study?

Marty Kanner
President
Kanner & Associates, LLC
(b)(6) - Cell

From: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>
Date: Friday, March 31, 2023 at 10:55 AM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>, Samantha McDonald <Smcdonald@kannerandassoc.com>, Marty Kanner <mkanner@kannerandassoc.com>
Subject: RE: [EXTERNAL] Willamette - Approps

Got it. Thanks!

Sonya Baskerville
BPA National Relations
(b)(6) m

On Mar 31, 2023 10:40 AM, Samantha McDonald <Smcdonald@kannerandassoc.com> wrote:
If also the Corps has a ballpark number of what that will cost internally—that would help as well. Thanks so much!

From: Marty Kanner <mkanner@kannerandassoc.com>
Sent: Friday, March 31, 2023 10:20 AM
To: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Samantha McDonald <Smcdonald@kannerandassoc.com>
Subject: Re: [EXTERNAL] Willamette - Approps

Awesome!

Marty Kanner
President
Kanner & Associates, LLC
202-624-3501 — Direct
(b)(6) — Cell

From: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>
Sent: Friday, March 31, 2023 10:12:57 AM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Samantha McDonald <Smcdonald@kannerandassoc.com>; Marty Kanner <mkanner@kannerandassoc.com>
Subject: [EXTERNAL] Willamette - Approps

The Corps has claimed that they have the money. I will check in with Kopecky on that, but Jesse or Glen should be able to confirm what line item the funds come from. Thanks.

Sonya Baskerville
BPA National Relations

(b)(6) m

On Mar 31, 2023 9:29 AM, Marty Kanner <mkanner@kannerandassoc.com> wrote:

Sam and I met yesterday with the majority and minority staff for House Appropriations to review PPC requests, including the report language we shared pushing the Corps to meet the 18 month deadline for completion of the disposition study and to refrain from capital investments until the study is complete. We got a lot of pushback – whether the Corps has money for the disposition study, whether it was an earmark, etc. We emphasized that the information the Corps needs to complete the disposition study already exists – from the EIS. We also emphasized how a broad array of stakeholders support the disposition study.

We're hoping you guys have information on whether the Corps has the money – or BPA can provide the money – to complete the disposition study. And anything else on how the information already exists. We can relay that to approps or you guys can directly – whatever you prefer.

Thanks,

Marty Kanner

President

Kanner & Associates, LLC

(b)(6) - Cell

From: Baskerville,Sonya L (BPA) - AIN-WASH
Sent: Thursday, April 13, 2023 7:52 AM
To: Marker,Doug R (BPA) - AIR-7
Subject: RE: Deauthorization talking points for 4/19/23 Federal Hydropower Council

Ha, just saw you comment! I just sent one similar issue. Thanks.

Sonya Baskerville
BPA National Relations
202.253.7352 m

On Apr 12, 2023 7:31 PM, "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov> wrote:
Thanks, Jesse. Some quick suggestions.

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Wednesday, April 12, 2023 4:16 PM
To: Webster-Wharton,Stacy T (BPA) - PGA-6 <stwebsterwharton@bpa.gov>
Cc: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>;
Todd,Wayne A (BPA) - PGA-6 <watodd@bpa.gov>
Subject: Deauthorization talking points for 4/19/23 Federal Hydropower Council

Stacy,

I've taken a stab at a few FHC talking points on deauthorization- see below. I know Doug is tied up part of this week but he may have some input and I also cc'd Wayne and Sonya in case they want to weigh in.

-Jesse

4/19 Federal Hydro Council bullet points – Deauthorization topic

- In WRDA 2022 Section 8220, Congress has directed the Corps to do a system-wide disposition study to determine the federal interest in and effects of de-authorizing hydropower as a project purpose for the Willamette Valley system of flood control projects by June 2024.
- ~~De-authorization is needed if power cannot be economically viable because of the operations and structural measures to benefit fish. BPA wants to retain any power that is economical.~~ If effective fish passage would allow some power to be produced, it would likely require reallocation of project cost allocations and the Corps has been unwilling to engage in updating cost allocations.
- ~~The Corps held a charrette planning meeting for the disposition study last week and is trying to decide on a vertically aligned scoping approach.~~ (DM note – I don't the terms used here convey meanings that will be understood at FHC.
- It's important to BPA that the Corps meets the 18 month disposition study deadline and BPA wants to help the Corps meet the deadline – including providing analysis for our areas of expertise (commercial power marketing and transmission) and scope input.

- BPA also continues to engage the Corps at the district and division level to revise power cost allocations which would help make power more economically viable.

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Marker,Douglas R (BPA) - AIR-7
Sent: Thursday, January 5, 2023 6:16 PM
To: Kintz,Jesse H (BPA) - PG-5
Cc: Maslow,Jeffrey J (BPA) - EC-4
Subject: RE: Draft PEIS public letter JK review

I think we're on track. There are things I would rephrase, but the key parts are there. The description of our decision path through the disposition studies to either deauthorization or, should power remain economical, reallocation is clear. We don't have to choose the outcome at this point.

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Thursday, January 5, 2023 5:11 PM
To: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Cc: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Subject: RE: Draft PEIS public letter JK review

Great point, should be fixed now.

-Jesse

From: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Thursday, January 5, 2023 4:53 PM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Subject: RE: Draft PEIS public letter JK review

OK, on quick review it looks like you've restored the paragraphs I think are essential points. I see you added the point about the pause.

We have two versions at work now. When I last checked the version on the Sharepoint, it showed Nathan had saved it as of around 7:30 this morning. Sharepoint said someone else was editing the document about 15 minutes ago. It did not show new edits from you.

Could you restore this on the Sharepoint and date today so we're working from same version?

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Thursday, January 5, 2023 4:40 PM
To: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Cc: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Subject: RE: Draft PEIS public letter JK review

Looks like a versioning issue again! Try the attached version

-Jesse

From: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Thursday, January 5, 2023 4:23 PM

To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Subject: RE: Draft PEIS public letter JK review

It still strikes out the discussion of the imperative to complete the disposition studies on Congress' timeline.

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Wednesday, January 4, 2023 5:59 PM
To: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Cc: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Subject: RE: Draft PEIS public letter JK review

Doug- I took one more pass at this based on our conversation yesterday (my edits should be in Sharepoint version). Take a look and let me know if you want to discuss.

-Jesse

From: Kintz,Jesse H (BPA) - PG-5
Sent: Tuesday, January 3, 2023 1:08 PM
To: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Cc: Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>
Subject: Draft PEIS public letter JK review

Doug- I gave this a full/fresh look today and added some thoughts, comments and suggestions. Only including you for now (Jeff cc'd to keep him in loop on status) as it would probably be good to discuss with you and I before circling back with the group. I'm pretty flexible today and tomorrow so after you give this a look, let me know when is a good time to discuss.

Happy 2023 and hope you enjoyed your holidays!

Talk soon,
-Jesse

From: Marker,Douglas R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Monday, December 12, 2022 11:57 AM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>; Sullivan,Leah S (BPA) - PGB-5 <lsullivan@bpa.gov>; Biegel,Sarah T (BPA) - EC-4 <stbiegel@bpa.gov>; Maslow,Jeffrey J (BPA) - EC-4 <jjmaslow@bpa.gov>; Mai,Amy E (BPA) - EC-4 <aemai@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Nagra,Angad S (BPA) - LN-7 <ASNagra@bpa.gov>; Senters,Anne E (BPA) - LN-7 <aesenters@bpa.gov>; Andersen,Eric J (BPA) - EWL-4 <ejandersen@bpa.gov>; Conning III,Edward Thomas (BPA) - DKP-7 <ETConning@bpa.gov>
Cc: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>
Subject: Very initial comments on draft PEIS

I developed themes for our comments on the Draft PEIS. Comment deadline is mid-January but folks will be out in next few weeks. Last week I agreed to take this run at comments.

Please edit on
Sharepoint: <https://portal.bud.bpa.gov/sites/WillametteEIS/Shared%20Documents/BPA%20comments%20on%20Draft%20PEIS%20-%20draft%20of%2012-12-22.docx>

These are focused on the impacts to power generation from the preferred alternative incorporating the injunction measures. Also that costs are out of date. But the main point is the need to focus on quick completion of disposition studies.

So these do not yet go into any technical comments on the PEIS. I don't have more to say about transmission characterizations, at least at the moment. I'm more concerned about how the Corps is representing those in other reports.

I'd appreciate suggestions for additional points this week. I'll try to incorporate and revise to be ready for final review the first week in January.

Anne and Sarah – I'll of course seek your final clearance from our legal and NEPA perspectives once I have received comments from this larger group. Jesse, I'll count on you to speak for PG, and then I'll plan to ask Bill Leady for his final approval. If anyone has different expectations for deciding on these, please let me know.

Best.

Doug

Doug Marker
Intergovernmental Affairs
Bonneville Power Administration
drmarker@bpa.gov

(b)(6)

From: Kintz,Jesse H (BPA) - PG-5
Sent: Monday, March 6, 2023 4:18 PM
To: Marker,Doug R (BPA) - AIR-7; Baskerville,Sonya L (BPA) - AIN-WASH
Subject: RE: Draft talking points for John with Mike C

Shoot, how did I miss that one. Added, along with a couple other clarifications to the first and third bullets.

-Jesse

From: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Monday, March 6, 2023 4:05 PM
To: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>
Subject: RE: Draft talking points for John with Mike C

I appreciate these, Jesse. The one point we discussed that is missing is our desire for Corps to share with us the draft report that responds to 2020 WRDA. Can you add the point for that?

From: Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Sent: Monday, March 6, 2023 3:43 PM
To: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Subject: Draft talking points for John with Mike C

- It's important to BPA that the Corps meets the 18 month hydropower disposition study deadline called for in WRDA 2022 and BPA wants to help the Corps meet the deadline – including providing economic analysis and scope input.
- The economic analysis of the WVS EIS shows that under almost all scenarios, hydropower will be uneconomical. This situation worsens with the Draft EIS's measure to extend injunction operations until completion of capital construction in the 2040s, and the very likely escalation of capital project costs from the estimates used in the WVS EIS.
- This spring, Bonneville will update its own analysis of the economic viability of commercial power generation. This analysis will confirm BPA's position on seeking deauthorization or, if some commercial power generation remains viable, appropriately rebalancing project cost allocations more equitably between flood control and power.
- BPA continues to seek the Corps' use of BPA's analysis to determine the federal interest in continued commercial power generation in the Willamette.
- Cost allocation updates continue to be warranted at Willamette projects due to significant operational changes for the injunction and EIS and shifting economic benefits.
- The Draft PEIS estimates the annual benefit of flood protection to be at least \$1 billion and power generation to be \$26 million, yet power's cost allocation averages around 40 percent.
- Bonneville is not aware that the WRDA 2020 Sec 218 report has been provided to Congress by the Corps as required. Bonneville provided to the Corps Bonneville's assessment that other project purposes would not be negatively impacted by deauthorization of the power purpose. Bonneville believes that the Corps's own assessment and the Corps's views of Bonneville's assessment would be useful for a complete assessment of deauthorizing the power purpose.

Hope these are helpful.

-Jesse

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Baskerville,Sonya L (BPA) - AIN-WASH
Sent: Thursday, March 23, 2023 9:04 AM
To: Marker,Doug R (BPA) - AIR-7
Subject: RE: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 03

Thanks!

Sonya Baskerville
BPA National Relations
(b)(6) m

On Mar 23, 2023 11:40 AM, "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov> wrote:
Link to hydropower Powerpoint template is here:

<https://connection.bud.bpa.gov/workplace-resources/branding-toolbox/Documents/PowerPoint/PowerPoint%20Widescreen%20-%20DAM%20Navy%202020.pptx>

From: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>
Sent: Thursday, March 23, 2023 8:26 AM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>; Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>
Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Ellison,Nathan B (BPA) - FAC-2 <NBellison@bpa.gov>; Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>
Subject: RE: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 03

BPA has slide templates that we can use. Please use the one with the hydropower banner. Doug M probably can find it for you. Thanks.

Sonya Baskerville
BPA National Relations
(b)(6) m

On Mar 23, 2023 10:57 AM, "Seifert,Roger E (BPA) - AIN-WASH" <reseifert@bpa.gov> wrote:
Sonya,

I asked the question about the DOE logo last night. Doug and I aren't sure. We have apparently used it for years. We do not know technically if we can remove the DOE logo from each page so we thought maybe we could put a BPA logo on the cover slide below the Bonneville title. Doug was going to talk to IT teck in BPA to see if we can add the BPA logo on the cover page.

I don't have a copy of the sent Wyden letter. If you have it, would you please sent it to us. We will include some bullet point narrative and let you see the revision.

Thanks,

Roger

(b)(6) m

On Mar 23, 2023 10:38 AM, "Baskerville,Sonya L (BPA) - AIN-WASH" <slbaskerville@bpa.gov> wrote:
Also, one additional item, it would be good to put in a paragraph about the potential impact of inaction on the debt ceiling. It could be taken from the Wyden letter. Thanks.

Sonya Baskerville
BPA National Relations

(b)(6) m

On Mar 23, 2023 9:50 AM, "Baskerville,Sonya L (BPA) - AIN-WASH" <slbaskerville@bpa.gov> wrote:
Thanks, all. Why is the DOE logo on the slides? Did DOE provide that?

Sonya Baskerville
BPA National Relations

(b)(6) m

On Mar 23, 2023 9:38 AM, "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov> wrote:
[Sorry for no attachment](#)

From: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>
Sent: Wednesday, March 22, 2023 8:34 PM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Ellison,Nathan B (BPA) - FAC-2 <NBellison@bpa.gov>; Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>
Subject: RE: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx

Doug,

Do you need to attach the file?

Roger

On Mar 22, 2023 9:28 PM, "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov> wrote:
[Made a few suggestions, Roger. Changed the deck title to FY 2024.](#)

[Thanks!](#)

From: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>
Sent: Wednesday, March 22, 2023 6:12 PM
To: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>; Ellison,Nathan B (BPA) - FAC-2 <NBellison@bpa.gov>; Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>
Subject: FW: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx
Importance: High

Sonya, Doug, and Jesse,

Doug Alexander and I have completed several round of drafting on BPA Budget Briefing slides for Sonya' presentation to staff of the Energy and Water Development Subcommittee of the Senate Appropriations Committee now scheduled for next Monday 3/27/2023.

We have included the normal budget briefing material we have in the past, but understand that the most important part of this briefing will be the narrative on FCRPS Cost Allocation and the Willamette River projects disposition study authorized and required by the newly enacted 2022 Water Resources Development Act. We have included the OMB cleared CJ narrative on FCRPS Cost Allocation in this draft. We have also included updated bullet points on the disposition study from our OMB briefing and the bill language from the water authorization law.

Please review all this draft material and in particular the substance and arrangement of this FCRPS cost allocation/Willamette study narrative to make sure it meets your needs. We would ask for your review, tomorrow, Thursday 3/23/2023, so Doug, I can get this into a final draft by Thursday night or early Friday. I am assuming DOE may ask for a review or delivery copy sometime Friday given that the briefing is on Monday 3/27/2023.

Thanks for your review,

Roger

(b)(6) m

From: Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>

Sent: Wednesday, March 22, 2023 8:40 PM

To: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>

Subject: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx

Roger,

Per our conversation at 5:30 my time, attached is the most recent document that includes the changes we discussed.

Thanks,

Doug

From: Baskerville,Sonya L (BPA) - AIN-WASH
Sent: Thursday, March 23, 2023 5:51 PM
To: Seifert,Roger E (BPA) - AIN-WASH; Marker,Doug R (BPA) - AIR-7
Subject: RE: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx

We can leave as is. I will change the name of the file and send to Adam on Monday. Thanks!

Sonya Baskerville
BPA National Relations
(b)(6) m

On Mar 23, 2023 8:32 PM, "Kintz,Jesse H (BPA) - PG-5" <jhkintz@bpa.gov> wrote:
Thanks for looping me in, Roger and all. Looks like this is coming together nicely.

Three comments/suggestions related to the disposition and cost allocation messaging below. I defer to Sonya about whether to include these.

- Slide 13, last bullet consider adding this phrasing: Bonneville requests funding transparency and consultation from the Corps with Bonneville, OMB and Congress prior to the Corps seeking funds for investments which Bonneville is obligated to repay.
- Slide 15. Does it make sense to mention the uneconomical power issue in general at the beginning of the disposition and cost allocation slides? If so here is some potential language (from a previous report to House EW committee):
 - The economic viability of power production at FCRPS projects in the Willamette Valley continues to decline. The September 2021 litigation injunction which imposed operational requirements, and related power generation reductions, on Willamette Valley dams remains in effect. The USACE has also released the Willamette EIS, which includes at least \$1.3 billion of operational and structural measures to improve temperature, flows, and upstream and downstream passage for ESA-listed fish species.
 - Bonneville believes that power deauthorization or cost-allocation updates need to be pursued urgently, to either remove uneconomical power or make any remaining power more economical while improving passage conditions for fish.
- Slide 15. Might be good to add a third bullet to include mention about why cost allocations are justified and/or the factoid about the benefits being skewed (i.e. \$1 billion, \$26 million, and 40% power share). If so here is some potential language (from our draft March report to the House EW committee):
 - a. Bonneville continues to believe that the allocations at many FCRPS projects have become unbalanced over time, based on changing economic benefits between project purposes, and that cost allocation updates are needed and appropriate. The Willamette NEPA EIS estimates the annual benefits of flood protection to be \$1 billion, and the annual benefits of power generation to be \$26 million. However, power's cost allocation averages around 40 percent. These figures illustrate the need to update cost allocations to rebalance more equitably between flood control and power generation.

A couple of other items that you may have already addressed-

- The title of this file says “House” when it should say “Senate”
- Some of Doug’s review comments seem to be blank/missing?

Again, these comments are not required- they are for consideration and leave it up to Sonya’s call. Appreciate the opportunity to weigh in.

-Jesse

Jesse Kintz

Power Generation – Senior Policy and Project Lead | [PG-2]

BONNEVILLE POWER ADMINISTRATION

bpa.gov | P 503-230-3340 | C (b)(6)

From: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Sent: Thursday, March 23, 2023 6:37 AM
To: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Ellison,Nathan B (BPA) - FAC-2 <NBellison@bpa.gov>; Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>
Subject: RE: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx

Sorry for no attachment

From: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>
Sent: Wednesday, March 22, 2023 8:34 PM
To: Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>; Ellison,Nathan B (BPA) - FAC-2 <NBellison@bpa.gov>; Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>
Subject: RE: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx

Doug,

Do you need to attach the file?

Roger

On Mar 22, 2023 9:28 PM, "Marker,Doug R (BPA) - AIR-7" <drmarker@bpa.gov> wrote:
Made a few suggestions, Roger. Changed the deck title to FY 2024.

Thanks!

From: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>
Sent: Wednesday, March 22, 2023 6:12 PM
To: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jhkintz@bpa.gov>
Cc: Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>; Ellison,Nathan B (BPA) - FAC-2 <NBellison@bpa.gov>; Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>

Subject: FW: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx
Importance: High

Sonya, Doug, and Jesse,

Doug Alexander and I have completed several round of drafting on BPA Budget Briefing slides for Sonya' presentation to staff of the Energy and Water Development Subcommittee of the Senate Appropriations Committee now scheduled for next Monday 3/27/2023.

We have included the normal budget briefing material we have in the past, but understand that the most important part of this briefing will be the narrative on FCRPS Cost Allocation and the Willamette River projects disposition study authorized and required by the newly enacted 2022 Water Resources Development Act. We have included the OMB cleared CJ narrative on FCRPS Cost Allocation in this draft. We have also included updated bullet points on the disposition study from our OMB briefing and the bill language from the water authorization law.

Please review all this draft material and in particular the substance and arrangement of this FCRPS cost allocation/Willamette study narrative to make sure it meets your needs. We would ask for your review, tomorrow, Thursday 3/23/2023, so Doug, I can get this into a final draft by Thursday night or early Friday. I am assuming DOE may ask for a review or delivery copy sometime Friday given that the briefing is on Monday 3/27/2023.

Thanks for your review,

Roger

(b)(6) m

From: Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>

Sent: Wednesday, March 22, 2023 8:40 PM

To: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>

Subject: FY 2023 House Energy and Water Development Subcommittee Staff Briefing Draft 032223 -KH.pptx

Roger,

Per our conversation at 5:30 my time, attached is the most recent document that includes the changes we discussed.

Thanks,
Doug

From: Baskerville,Sonya L (BPA) - AIN-WASH
Sent: Friday, March 24, 2023 6:45 AM
To: Seifert,Roger E (BPA) - AIN-WASH; Marker,Doug R (BPA) - AIR-7
Cc: Alexander,Doug (BPA) - FAC-2; Hardy,Kyle R (BPA) - FAC-2
Subject: RE: House Energy and Water Development Subcommittee Staff Briefing Final 022323.pptx
Attachments: SEWD Staff Briefing Final 022323.pptx

Here it is with the pdf title corrected. I will send to Adam. Thanks all for working on this! Thanks!

Sonya Baskerville
BPA National Relations
(b)(6) m

From: Seifert,Roger E (BPA) - AIN-WASH <reseifert@bpa.gov>
Sent: Thursday, March 23, 2023 7:52 PM
To: Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Marker,Doug R (BPA) - AIR-7 <drmarker@bpa.gov>
Cc: Alexander,Doug (BPA) - FAC-2 <daalexander@bpa.gov>; Hardy,Kyle R (BPA) - FAC-2 <krhardy@bpa.gov>
Subject: Fwd: House Energy and Water Development Subcommittee Staff Briefing Final 022323.pptx

Sonya and Doug,

Doug Alexander and I believe this is the final draft of the FY 2024 BPA Congressional Budget briefing slides for our Monday 3/27/2023 SEWD briefing.

Please review this draft and let us know if we need to make further changes so it can be forwarded by Sonya tomorrow.

Thanks,

Roger
(b)(6) m

----- Forwarded message -----

From: "Alexander,Doug (BPA) - FAC-2" <daalexander@bpa.gov>
Date: Mar 23, 2023 7:29 PM
Subject: House Energy and Water Development Subcommittee Staff Briefing Final 022323.pptx
To: "Seifert,Roger E (BPA) - AIN-WASH" <reseifert@bpa.gov>
Cc:
Roger,

Been trying to call you. Attached is the final briefing document with all the changes we talked about.

Thanks,
Doug

From: Kintz,Jesse H (BPA) - PG-5
Sent: Thursday, March 16, 2023 2:39 AM
To: Marker,Doug R (BPA) - AIR-7; Smith,Glen A (BPA) - PG-5; Welch,Julee A (BPA) - LP-7; Baskerville,Sonya L (BPA) - AIN-WASH; Spear,Daniel J (BPA) - PGB-5
Cc: Dondy-Kaplan,Hannah A (BPA) - AIR-7
Subject: RE: For your review and editing this week. Comments to Army for WRDA 2022 implementation - due March 21

Doug,
Appreciate your work to put this together.

My overall suggestion is to make our comment/ask a little crisper– I think our main ask is that the Corps prioritizes meeting the 18 month deadline due to the interdependence with the EIS, to inform funding decisions, etc. I would say that more directly up front.

Second, I would suggest tweaking the scoping characterization, something like: implementation guidance should guide the Corps to scope the project to be achievable in 18 months by focusing it on analysis directly related to the power purpose of the WVS dams and not introduce other, more broad analyses of other project purposes that Section 8220 is not intended to address. The analysis should focus primarily on answering whether there is a federal interest in hydropower, either in total or from a commercial perspective, in the future.

Give me a call if you want to discuss.
-Jesse (b)(6)

From: Marker,Doug R (BPA) - AIR-7 <drmarter@bpa.gov>
Sent: Monday, March 13, 2023 10:43 AM
To: Smith,Glen A (BPA) - PG-5 <gasmith@bpa.gov>; Kintz,Jesse H (BPA) - PG-5 <jkintz@bpa.gov>; Welch,Julee A (BPA) - LP-7 <jawelch@bpa.gov>; Baskerville,Sonya L (BPA) - AIN-WASH <slbaskerville@bpa.gov>; Spear,Daniel J (BPA) - PGB-5 <djspear@bpa.gov>
Cc: Dondy-Kaplan,Hannah A (BPA) - AIR-7 <hadondy-kaplan@bpa.gov>
Subject: For your review and editing this week. Comments to Army for WRDA 2022 implementation - due March 21

Here are draft comments to the Assistant Secretary of the Army for Civil Works for implementation guidance to the Corps for the provision of WRDA 2022 directing disposition studies for the hydropower purpose of the Willamette dams. I'd appreciate your review and suggestions by Wednesday in order to give to Bill Leady for his approval and signature to meet the March 21 due date. I'm happy to discuss. I'm attaching:

The Federal Register notice,
BPA's comments on the Willamette draft EIS for attachment
Our 2021 analysis of the effect on other project purposes from dam deauthorization

Thanks,

Doug



**FY 2024 Budget Briefing: Senate Energy and
Water Development Subcommittee of the
Senate Appropriations Committee**

*Bonneville Power Administration
March 27, 2023*



BPA - Overview

- BPA is a federal nonprofit power marketing administration based in the Pacific Northwest. Although BPA is part of the U.S. Department of Energy, it is self-funding and covers its costs by selling its products and services. BPA markets wholesale electrical power from 31 federal hydroelectric projects in the Northwest, one nonfederal nuclear plant and several small nonfederal power plants. The dams are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. BPA provides about 28 percent of the electric power used in the Northwest and its resources — primarily hydroelectric — making BPA power nearly carbon free.
- BPA also operates and maintains about three-fourths of the high-voltage transmission in its service territory. BPA's territory includes Idaho, Oregon, Washington, western Montana and small parts of eastern Montana, California, Nevada, Utah and Wyoming.
- BPA promotes energy efficiency, renewable resources and new technologies that improve its ability to deliver on its mission. It also funds regional efforts to protect and rebuild fish and wildlife populations affected by hydropower development in the Columbia River Basin.
- BPA is committed to public service and seeks to make its decisions in a manner that provides opportunities for input from all stakeholders. In its vision statement, BPA dedicates itself to providing high system reliability, low rates consistent with sound business principles, environmental stewardship and accountability.

Strategic Direction & Results

- Bonneville's 2018-2023 Strategic Plan, released in 2018, describes how it will operate in a commercially successful manner while meeting its statutory obligations. Bonneville developed this strategic plan after listening to customers and constituents express their interests in Bonneville's commercial viability and ability to meet those obligations. The strategic plan was developed at the point when Bonneville was midway through 20 year firm power sales contracts with its preference power customers. Those customers continue to evaluate how Bonneville will be positioned to meet their needs beyond the terms of their current contracts.
- The strategic plan is framed by these goals:
 - Strengthen financial health
 - Modernize assets and system operations
 - Provide competitive power products and services
 - Meet transmission customer needs efficiently and responsively
- In 2020, Bonneville reassessed and reconfirmed its strategic goals and objectives. In its Strategic Plan Update, Bonneville added a fifth goal, "Value people and deliver results," which captures the agency's commitment to its workforce and the people it serves.
- Bonneville is currently working on a strategic plan refresh for 2024-2028 and expects to publish the plan in 2023 in May.
- In 2018, Bonneville completed its Financial Plan to address the Strategic Plan's direction to maintain and enhance the agency's financial strength. The 2018 Financial Plan establishes a guiding framework for decision-making by defining the financial constraints within which Bonneville operates, and outlines Bonneville's financial health objectives. The plan contains Bonneville's statutory obligations and authorities, financial policies and established practices, and financial health objectives.

Strategic Direction & Results (cont.)

- Pursuant to the Financial Plan, Bonneville adopted two specific policies. The Financial Reserves Policy (FRP) defines the level of financial reserves Bonneville and each business line should hold, how to build financial reserves when they fall below a prescribed level, and a process to consider repurposing financial reserves when they exceed a prescribed level. The policy provides a framework to help ensure Bonneville maintains a minimum of 60 days cash on hand for each business line and 90 days for the agency.
- The Leverage Policy created an approach to reduce Bonneville's total debt compared to its assets in an effort to strengthen financial health and financial flexibility. Reducing debt will help Bonneville lower its interest costs, support its strong credit rating, maintain access to borrowing from the U.S. Treasury, and improve financial strength and flexibility.
- In FY 2022, Bonneville held a public process to refresh its Financial Plan. The objective of the Financial Plan Refresh was to ensure Bonneville's long-term financial goals are supported with the appropriate targets, metrics and policies. The scope of the project focused on debt management, debt capacity, and capital execution performance reporting. From September 2021 through March 2022, Bonneville engaged customers and constituents through a series of workshops to discuss proposals. Bonneville completed a Record of Decision in July 2022 and published its 2022 Financial Plan on September 14, 2022. The 2022 Financial Plan is a refresh of specific sections of its 2018 Financial Plan which guides BPA's financial operations and establishes financial health objectives.

Strategic Direction & Results (cont.)

- The Leverage Policy was superseded on July 29, 2022, by the Sustainable Capital Financing Policy. This policy outlines Bonneville's goal that each business unit will achieve a debt-to-asset ratio of no more than 60 percent by 2040 and outlines the approach for driving toward this goal. The policy creates a structure of 90 percent debt and 10 percent revenues for financing Bonneville's capital program. If a business unit is not on track to reach the 60 percent debt-to-asset ratio target, the percent of revenue financing will increase to 20 percent. At this level of revenue financing, the increases are limited to an approximate 1 percent incremental rate impact per rate period.
- This FY 2024 Budget includes capital and expense estimates based on initial approved spending proposals from Bonneville's BP-24 Integrated Program Review (IPR). Capital investment levels reflect Bonneville's capital asset management process and external factors such as changes affecting the West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region and national energy security goals.
- Bonneville utilizes a structured capital project selection process requiring submission of a standardized business case for review. Each business case consists of a description of the project, a clear statement of objectives, description and mitigation of risks, and a rigorous analysis of project costs and benefits, including a status quo assumption and preferred alternatives. In addition, both annual and end-of-project targets are set for each project covering cost, scope, and schedule. Progress reports on these targets are provided to Bonneville's senior executives at least quarterly.

Strategic Direction & Results (cont.)

- The Columbia River Treaty: The U.S. Government reached consensus on a high level position for negotiations of the post-2024 future of the Columbia River Treaty in June 2015, and received authorization to negotiate with Canada on the Columbia River Treaty in October 2016. Government Affairs Canada notified the United States State Department in December 2017 of Canada's mandate to negotiate the Columbia River Treaty with the United States. Negotiations began in spring 2018 and continue to date. Both the U.S. Department of State and Canadian negotiators have discussed shared objectives and exchanged information on flood risk management, hydropower and ecosystem considerations.
- As of May 2022, debt instruments issued by non-federal entities but secured by payment and other financial commitments provided by Bonneville received the following credit ratings: Moody's at Aa2 with a positive outlook, Standard & Poor's at AA- with a stable outlook, and Fitch at AA with a stable outlook.
- Federal Debt Limit Impact: BPA is concerned that certain U.S. Treasury extraordinary measures could impact BPA's ability to finance its operations.

Capital Infrastructure Investment

- Assured access to capital provides BPA with the planning certainty needed to maintain a capital spending program consistent with its mission and strategic objectives, such as transmission upgrades and new transmission to meet transmission service requests, refurbish the hydroelectric system, and fish and wildlife enhancement. BPA has established a Financial Plan goal to maintain \$1.5 billion in remaining borrowing authority with the US Treasury in order to have planning certainty for the multi-year nature of many projects, and base spending that is necessary to keep the system from deteriorating.
- This FY 2024 Congressional Budget includes capital and expense estimates based on BPA's 2022 initial IPR. FY 2022 numbers are based on BPA's actual FY 2022 financial results.
- BPA continues to consider other strategies, in addition to the use of Treasury borrowing and third party financing sources, to sustain funding for its infrastructure investment requirements. These additional strategies include restructuring of maturing Energy Northwest debt, and seeking, when feasible, third party financing sources.

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

Funding Profile by Subprogram ^{1/}

(Accrued Expenditures in Thousands of Dollars)

	Fiscal Year			
	2022 Actuals	2023 Original ^{2/}	2023 Revised ^{2/}	2024 Proposed
Capital Investment Obligations				
Associated Project Costs ^{3/}	190,294	264,120	281,260	270,000
Fish & Wildlife	16,119	43,000	43,000	41,335
Subtotal, Power Services	206,413	307,120	324,260	311,335
Transmission Services	373,500	497,086	497,160	593,840
Capital Equipment & Bond Premium	20,905	22,002	21,047	23,983
Total, Capital Obligations ^{3/}	600,818	826,208	842,468	929,159
Expensed and Other Obligations				
Expensed	2,994,653	2,733,825	2,758,063	2,879,919
Projects Funded in Advance ^{4/}	120,536	55,775	61,166	45,924
Total, Obligations	3,716,007	3,615,808	3,661,697	3,855,001
Capital Transfers (cash)	694,200	696,000	735,596	673,266
Bonneville Total (Obligations & Capital Transfers)	4,410,207	4,311,808	4,397,293	4,528,267
Bonneville Net Outlays	(806,000)	(324,967)	(332,469)	(208,923)
Full-time Equivalents (FTEs) ^{5/}	2,847	3,000	3,000	3,000

Public Law Authorizations include:

Bonneville Project Act of 1937, Public Law No. 75-329

Federal Columbia River Transmission System Act of 1974, Public Law No. 93-454

Regional Preference Act of 1964, Public Law No. 88-552

Flood Control Act of 1944, Public Law No. 78-543

Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Northwest Power Act), Public Law No. 96-501

BPA/Funding Profile (cont.)

Outyear Funding Profile by Subprogram ^{1/}

(Accrued Expenditures in Thousands of Dollars)

	Fiscal Year			
	2025	2026	2027	2028
Capital Investment Obligations				
Associated Project Costs ^{3/}	275,675	281,620	288,001	294,794
Fish & Wildlife	41,300	29,000	15,700	15,000
Subtotal, Power Services	316,975	310,620	303,701	309,794
Transmission Services	581,009	555,897	537,180	546,032
Capital Equipment & Bond Premium	22,830	24,990	23,180	23,970
Total, Capital Obligations ^{3/}	920,814	891,507	864,061	879,796
Expensed and Other Obligations				
Expensed	2,993,800	3,094,149	3,176,877	3,257,217
Projects Funded in Advance ^{4/}	55,007	53,073	53,907	54,751
Total, Obligations	3,969,620	4,038,729	4,094,846	4,191,763
Capital Transfers (cash)	646,624	660,089	612,307	406,879
Bonneville Total (Obligations & Capital Transfers)	4,616,244	4,698,818	4,707,153	4,598,642
Bonneville Net Outlays	(137,386)	(121,344)	(102,062)	(49,588)
Full-time Equivalents (FTEs) ^{5/}	3,000	3,025	3,075	3,125

BPA/Funding Profile Notes

These notes are an integral part of this table.

- ^{1/} This budget has been prepared in accordance with PAYGO. Under PAYGO all Bonneville budget estimates are treated as mandatory and are not subject to the discretionary caps included in the Budget Control Act of 2011. These estimates support activities that are separate from discretionary activities and accounts. Thus, any changes to Bonneville estimates cannot be used to affect any other budget categories which have their own dollar caps. Because Bonneville's obligations are and will be incurred under pre-existing legislative authority, Bonneville is not subject to a "pay-as-you-go" test regarding its revision of current-law funding estimates. For BP-1 table, the CJ reflects forecasted outlays while the yearend GTAS reflects the actual outlay in the Budget Appendix.
- ^{2/} Original estimates reflect Bonneville's FY 2024 OMB Budget Submission. Revised estimates, consistent with Bonneville's annual near-term funding review process, provide notification to the Administration and Congress of updated capital and expense funding levels for FY 2024. The BPA estimates in this budget are consistent with the BP-24 IPR.
- ^{3/} Includes infrastructure investments to address the long-term electric power related needs of the Northwest and significant changes affecting Bonneville's power and transmission markets.
- ^{4/} In this instance, Projects Funded in Advance represents prepayment of Power customers' bills reimbursed by future credits and third party non-federal financing for Conservation initiatives. Also this category includes those facilities and/or equipment where Bonneville retains control or ownership which are funded or financed by a third party, revenue, or with Power or Transmission reserves, either in total or in part.
- ^{5/} As of 10/20/2022, DOE HR staff has reported FY 2022 BPA's FTE useage at 2,847.

BPA/Funding Profile Notes (cont.)

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving electric utility industry.

Net Outlay estimates are based on current cost savings to date and anticipated cash management goals. They are expected to follow anticipated management decisions throughout the rate period that, along with actual market conditions, will impact revenues and expenses. Actual Net Outlays are volatile and are reported in Report on Budget Execution and Budgetary Resources (5F-133). Actual Net Outlays could differ from estimates due to changing market conditions, streamflow variability, continued restructuring of the electric industry, and other reasons.

Revenues, included in the Net Outlay formulation, are calculated consistent with cash management goals and assume a combination of adjustments. Assumed adjustments include the use of a combination of tools, including upcoming rate adjustment mechanisms, a net revenue risk adjustment, debt service refinancing strategies and/or short-term financial tools to manage net revenues and cash. Some of these potential tools will reduce costs rather than generate revenue, causing the same Net Outlay result. Adjustments for depreciation and 4(h)(10)(C) credits of the Northwest Power Act are also assumed.

FY 2022 Net Outlays are calculated using Bonneville's FY 2022 Q3 review. FY 2023 is based off of rate case and FY 2024 to 2028 Net Outlays are based on BP-24 IPK assumptions and an escalation factor from using the FY 2022 Whitebook Loads and Resources Report.

FTE outyear data are estimates and may change. Bonneville is facing a dynamic and changing energy marketplace and operations while, at the same time, many of its employees are eligible to retire in the near future. It is important that Bonneville continue to attract and retain skilled individuals to meet the growing demands of a competitive and rapidly changing industry. Accordingly, FTE estimates may need to be adjusted in the future.

Amounts in tables and schedules may not add to totals due to rounding.

Major Outyear Considerations

Bonneville's outyear estimates reflect ongoing efforts to achieve its long-term mission and strategic direction. The outyear estimates are developed with consideration and support of Bonneville's multi-year performance targets that lay out the course for achieving Bonneville's long-term objectives. Outyear capital investment levels support Bonneville's infrastructure program, hydro efficiency program, and its fish and wildlife mitigation projects.

Bonneville continues to incorporate the various aspects of the Energy Policy Act of 2005 related to its business, in particular the energy supply, conservation, and new energy technologies for the future that are highlighted in the legislation.

Proposed Bill Language

Expenditures from the Bonneville Power Administration Fund, established pursuant to Public Law 93-454, are approved for official reception and representation expenses in an amount not to exceed \$5,000, provided that during fiscal year 2024 no new direct loan obligations may be made. (Consolidated Appropriation Act, 2023.)

Explanation of Changes

The proposed appropriations language restricts new direct loans in FY 2024 as in FY 2023. This bill language is drafted consistent with the Credit Reform Act of 1990.

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Willamette River Projects Disposition Study

- Sec. 8220 of the enacted House-passed Water Resources Development Act of 2022 directs the Corps to “carry out a disposition study to determine the Federal interest in, and identify the effects of, deauthorizing hydropower as an authorized purpose of the Willamette Valley dams.
- The section directs the Corps to return its report within 18 months of WRDA passage which will be June 2024.
- Bonneville is concerned it will be obligated to repay a share of the costs for new capital investments at Willamette dams made before the disposition study is completed and Congress decides on deauthorization.
- The enacted WRDA law provides assurance that Bonneville will not be obligated to repay new capital investments pending completion of disposition studies.
- Bonneville urges the Corps to propose stand-alone appropriations for Willamette EIS implementation and not draw from other funding sources without specific Congressional approval.

FCRPS Cost Allocations

- The FY 2020 Energy and Water Development Appropriations Act included House subcommittee report language addressing the allocation of costs for multi-purpose projects of the Federal Columbia River Power System. In part, the subcommittee directed that BPA, Corps, and BOR develop a list of prioritized projects for cost reallocation. The FY 2021 Energy and Water Development Act acknowledged the prioritized list submitted by BPA and directed quarterly reports on progress toward resolving policy differences among the agencies for proceeding with reallocation.
- It is clear that reallocation studies will not be easily or timely accomplished without Congressional statutory direction to BPA, the Corps, and BOR. This issue is urgent and Congressional direction will be most effective given current litigation under the Endangered Species Act. An expected outcome of this litigation will be significant reductions in power production and increases in operating costs. Similarly, the Corps may invest in significant fish and wildlife mitigation capital costs at certain Willamette projects that will further erode power production and increase costs. BPA is concerned by use of the Columbia River Fish Mitigation Program to fund the projects.

FCRPS Cost Allocations (cont.)

- The FY 2021 Energy and Water Development Appropriations Act included report language requesting that Bonneville, the Corps, and Reclamation provide quarterly reports on their work to resolve policy differences for the allocation of costs for multi-purpose projects of the FCRPS. This followed language in the House Committee on Appropriations report in the FY 2020 Energy and Water Development Appropriations Act, noting that the allocation of cost sharing among the authorized project purposes can be decades old and requesting that the three agencies return an outline of how cost allocations may be updated.
- The three agencies provided the subcommittee with an outline of cost allocation methods and authorities in June 2020, noting specific policy differences. Bonneville is continuing to provide the subcommittee with Quarterly reports of its progress.

FCRPS Cost Allocations (cont.)

- BPA appreciates the OMB budget guidance to BPA indicating that Bonneville should work with the Corps of Engineers to determine if changes in cost allocation may be warranted and present a joint proposal to OMB for consideration for the FY 2025 Budget if both agencies agree changes may be warranted.
- BPA agrees that a joint proposal to OMB would support the effort to determine whether or not project costs are being appropriately allocated to power, thus ensuring carbon free and reliable FCRPS hydropower costs are not inflated by non-joint, non-power costs. The joint effort also would support the federal interest determination portion of completing the directed studies on disposition of hydropower at the Willamette dams, authorized by the enactment into federal law on December 23, 2022 as Section 8220, Disposition Study of hydropower in the Willamette, Valley, Oregon (pp. 3162-6), of Division H. of Title LXXXI, the Water Resources Development Act of 2022 (WRDA), of the James M. Inhofe National Defense Authorization Act (NDAA), P.L. 117-263, and directed to be completed by June 2024. Thus, the timing for this joint effort is critical to assuring decarbonization goals and certain fish mitigation activities.

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FCRPS Cost Allocations (cont.)

- BPA appreciates OMB scheduling a joint meeting of OMB, the Corps and BPA to discuss cost allocation and potential development of a joint proposal. BPA intends to discuss with OMB and the Corps a proposed schedule for the BPA and the Corps joint report to OMB by August 1. And assuming the report will note reallocation is warranted, BPA intends to discuss with OMB and the Corps a joint proposal for commencing the cost allocation update process by September 15 for the FY 2025 Budget.
- BPA believes that the subcommittee continues to have an interest in expeditious commencement of these activities.