



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Schlossberg, Brown, Carlson, Barofsky and McRae
FROM: Lisa Krentz, Electric Generation Manager; Mark Zinniker, Generation Engineering Supervisor; and Patty Boyle, Generation Contracts Supervisor
DATE: August 3, 2021
SUBJECT: Leaburg Evaluation and Triple Bottom Line Results (2021 Organizational Goal 4b)
OBJECTIVE: Board discussion and feedback

Issue

This memo provides an update on our progress achieving the 2021 EWEB organizational goal # 4b to collaborate and align with the Board to develop directional guidelines and decision criteria on a Triple Bottom Line (TBL) based plan for the lower McKenzie River Hydroelectric Project, in compliance with the Federal Energy Regulatory Commission (FERC) license requirements and collaboration with the McKenzie Valley community.

Background

With approximately 20 years remaining on the FERC-issued operating license for the Leaburg-Walterville Project, EWEB is evaluating the near- and long-term options to resolve dam safety concerns associated with the Leaburg Canal. The Leaburg Powerhouse has been out of service since October 2018 following observations of increased seepage and internal erosion of the canal embankments that prompted EWEB and the FERC to dewater the canal and cease power generation. The Leaburg Canal has been operating as a stormwater conveyance facility since then.

Areas of low strength soils were encountered during subsurface investigations in April 2019, indicating there are portions of the embankment that could become unstable during an earthquake. In response to this new information on safety risks, EWEB initiated a comprehensive assessment of the entire canal in late 2019 to better understand the level of investment that would be required to ensure long term safe and reliable operation.

Discussion

EWEB staff, expert consultants, and representatives from the FERC participated in risk assessment workshops throughout 2020. Staff reported the findings, along with planning level cost estimates, at the February 2021 EWEB Board meeting. Based on 2019 forward wholesale prices, the net present value (NPV) for returning to service for safe and reliable power generation for the remainder of the license period was roughly negative \$80 million, versus negative \$50 million to continue operating as a stormwater conveyance. While both options demand substantial canal safety improvements, the NPV results clearly indicated that the required investment to return to service will likely substantially exceed the expected returns from power generation. For context, in order to recover the cost of investing to return to service for the remainder of the license period, market power prices would need to increase from the current forecast value of about \$40 per MWh to at least \$105 per

MWh for low-cost scenarios and up to \$180 per MWh for high-cost scenarios. The source and expense of replacement power should Leaburg not ultimately return to service will be further defined as part of the Integrated Resource Plan due at the end of 2022.

Even with the canal out of service for power generation, it must reliably and safely convey tributary creek flows back into the McKenzie River. Given the condition of the embankment, near-term risk reduction measures are necessary to ensure safe stormwater conveyance. The current version of the Capital Improvement Plan includes approximately \$20 million in risk mitigation investments. As these improvements would be needed under either scenario presented below, they effectively front load the investment and do not change the financial comparison between the various options.

The Leaburg and Walterville projects are licensed together under one FERC operating license that expires in 2040. As a result, the long-term future of the Walterville project is regulatorily tied to Leaburg. Ultimately, a decision on whether to relicense or decommission one or both projects is necessary. However, there is significant uncertainty as to the scope and expense of decommissioning versus relicensing. Further work is needed to better understand these options. Therefore, this memo focuses on the near-term (current license term) options of either continuing to operate Leaburg as a stormwater conveyance facility while developing a better understanding of the long-term options (decommissioning v. relicensing) or returning to service for power generation.

Triple Bottom Line

The Leaburg Canal has been a feature in the McKenzie River Valley for 90 years, during which time a portion of the McKenzie River has been diverted through it and residences and business have established around it. Given the nature and location of the canal, there are many stakeholders who are directly impacted by the near- and long-term future of the Leaburg project.

As there are additional factors to consider beyond the monetary costs, staff have prepared a preliminary TBL analysis so the Board may better understand the environmental, social, and economic impacts of two near-term (current license term) options:

Return to Service (RTS) – Repair and/or rebuild portions of the Leaburg Canal as necessary for safe power generation.

Convert to Stormwater Conveyance (SWC) – No diversion of the McKenzie River into the canal, and repair and/or rebuild portions of the canal as necessary for safe stormwater conveyance to the river.

Many of the items identified in the TBL require further analysis to determine the nature and scope of the impact. Two areas of additional study have already been completed and preliminary results are shared with the Board in either Executive Session or in this report. The TBL results are subject to change as additional information is obtained. Several items, such as regulatory constraints, have been identified as critical path topics to verify that both RTS and SWC are viable options in the near term. Research on these critical path issues has been prioritized. A timeline to obtain and verify the information identified in the preliminary TBL is provided in the Road Map section of this memo.

Preliminary TBL Results

Both RTS and SWC have a suite of benefits and impacts from an environmental, social, and economic perspective. The following assumptions were made in the development of the preliminary TBL:

- Focus is on the near-term options of operating the Leaburg Canal as a SWC or RTS during the current license term.
- Possible decommissioning scenarios, such as removing Leaburg Dam, are not considered at this time. Although the long-term decision to either relicense or decommission the project has implications for the viability of the SWC and RTS options, these scenarios have not yet been developed and are included in the 2022 work plan.
- Emphasis is on the Leaburg Canal. However, the Walterville complex is regulatorily tied to Leaburg and most of the issues would apply to a similar circumstance at Walterville.

There are several general conclusions from the TBL. In the near term, the SWC option is favorable for financial and public safety reasons. It is the lower cost option and, therefore, has a smaller impact on EWEB ratepayers than the RTS option. From a public safety standpoint, a reduction in both the likelihood and effect of a catastrophic failure is significant, in addition to other safety benefits. Environmentally, the SWC option restores a more natural flow regime in the McKenzie River, which generally benefits fish and improves mainstem water quality. However, the water quality impacts of this option have yet to be fully researched and questions remain about the potential for adverse conditions arising from stagnant water or sediment in the canal that may be periodically flushed to the river during storm events. When operating, the Leaburg Project is a local, low carbon generation source and replacing this baseload generation with similar low carbon energy on the market may be difficult. The SWC option has the potential for pronounced social repercussions for the upriver community. Namely, the loss of irrigation opportunities from the canal has a direct impact on local agricultural business.

The RTS option is favorable from a local community/social impact perspective but has more negative near term environmental and financial consequences. The cost to repair the canal to safely return to power generation is substantial. In addition, reduced instream flows over time, due to drought or other circumstances, has the potential to affect generation capability in the future. Continued diversion of water into the canal impacts fish migration and recreation. However, the terms of the FERC license are intended to effectively mitigate for the environmental impacts of operating the project for power generation purposes.

Pursuit of either scenario has implications for the long-term decision to either decommission or relicense the project. For example, pursuit of the SWC option limits the ability to properly maintain generating equipment, increasing the likelihood that extensive and costly repairs would be needed to ultimately return to generation. The impacts of a short-term decision on the viability of long-term options requires additional investigation and is included in our work plan.

Complete results of the Preliminary TBL are presented in Appendix A.

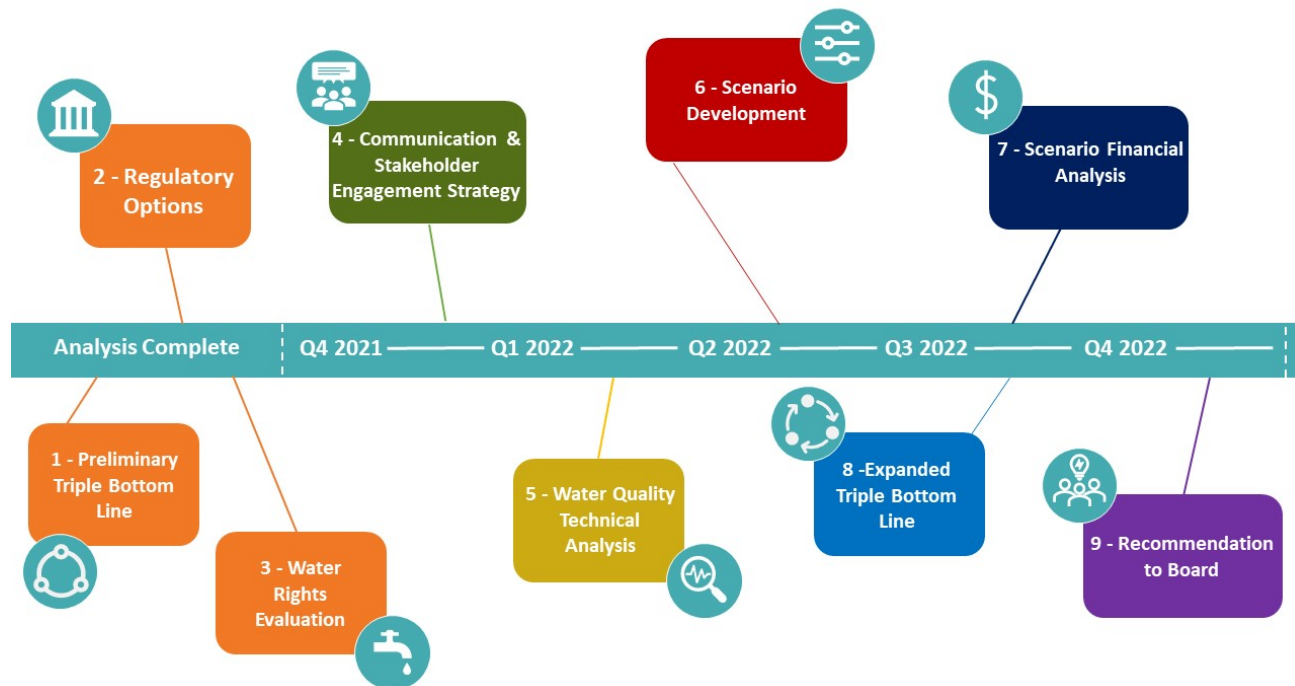
Road Map

The issues identified in the TBL have been used to develop a decision-making timeline that prioritizes critical work products. We will update the Board periodically to share information and seek guidance on direction, as depicted below in the 2021 to 2022 Road Map. Our goal is for the Board to have enough information to help make an informed decision on the near-term path forward by the fourth quarter of 2022, prior to the end of office term for Commissioners.

Following the recommendation to pursue SWC or RTS, workplans and decision points vary depending on the chosen course of action. These two paths are depicted generally in the 2023 to

2030 Road Map presented below and will be updated with more detail prior to Q4 2022.

2021 to 2022 Road Map

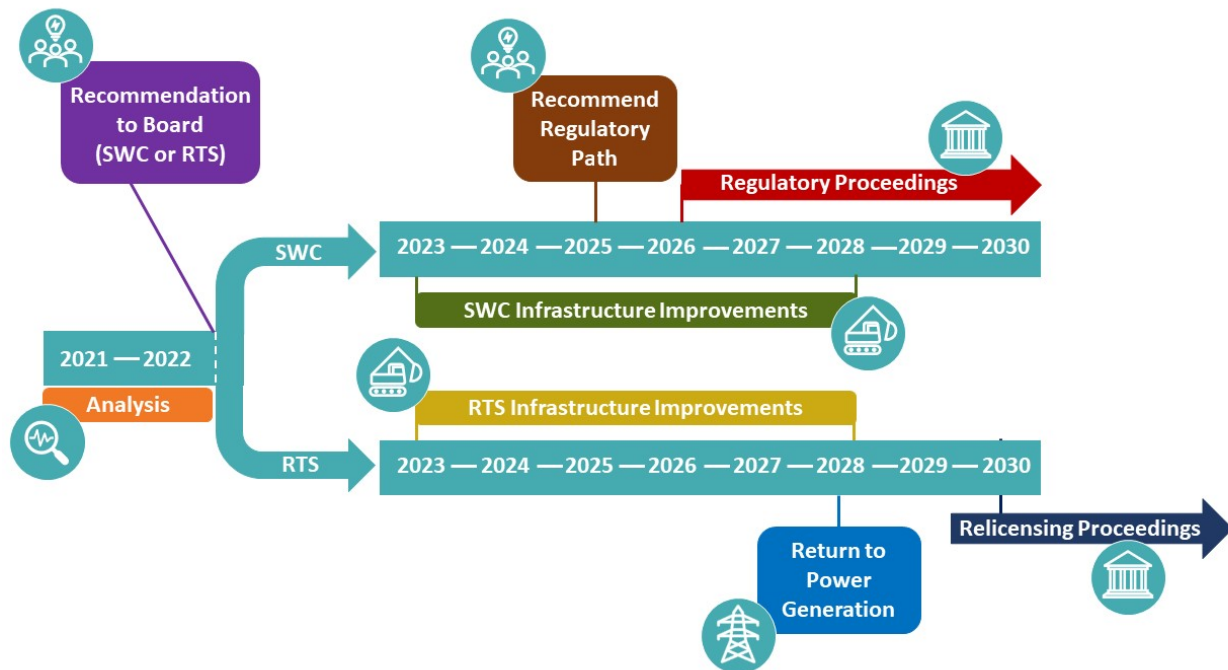


The near-term decision-making road map consists of the following deliverables:

1. Preliminary TBL (complete - presented in Appendix A) – TBL analysis of two near term options: RTS and SWC.
2. FERC Regulatory Options Legal Analysis (complete - provided to Board under attorney-client privilege) – Legal evaluation of ceasing generation (FERC license and regulatory implications).
3. Water Rights Analysis (complete - presented in Appendix B) – Analysis of water rights and obligations.
4. Communication and Stakeholder Engagement Strategy (Q4 2021) – Develop strategy to implement in 2022.
5. Water Quality Technical Analysis (Q1 2022) – Determine the water quality impacts, both in the canal and McKenzie River, of SWC option.
6. Scenario Development (Q2 2022) – Likely decommissioning and recommissioning scenarios to inform near term decision.
7. Scenario Financial Analysis (Q3 2022) – Planning level estimates for scenarios developed in item 6.
8. Expanded TBL (Q3 2022) – Updated and expanded TBL to include information obtained in items 4-7.
9. Recommendation to Board (Q4 2022) – Staff will provide the Board with a recommendation to pursue either the SWC or RTS option in the near term. If the SWC option is recommended, we will seek input from the Board on whether continued investment in the Leaburg Powerhouse and other power generation infrastructure is desirable to maintain the ability to RTS during the current license term or relicense in the future.

2023 to 2030 Road Map

Beyond 2022, the path forward varies depending on the route chosen. Although the decision to pursue one option over the other in the near term does not necessarily prevent the ability to change course, it would be highly inefficient from both a schedule and cost perspective. For example, the investment required to RTS is substantial enough to presume that relicensing the project is necessary to recover those expenses. Similarly, converting to a SWC facility requires significant regulatory effort for decommission planning and deployment. Therefore, the two paths are shown linearly on the Road Map. The timelines depicted below are approximate and intended to give the Board a general sense of phasing.



SWC:

1. Infrastructure Improvements (2023-2028) – Implement risk mitigation improvements for safe stormwater conveyance.
2. Recommendation to Board on Regulatory Path (2025) – Staff will provide the Board with a recommendation on a regulatory path related to licensure depending on the Board’s desire to preserve the ability to relicense the project after the current license term expires.
3. Begin Regulatory Proceedings (2026) – Begin the regulatory path process, depending on the option chosen in item 2.

RTS:

1. Infrastructure Improvements (2023-2028) – Repair/rebuild portions of the canal as necessary for safe power generation.
2. Return to Power Generation (2028) – Schedule contingent on FERC and permitting process for infrastructure improvements.
3. Begin Relicensing Proceedings (2030) – Initiate Relicensing proceedings ten years ahead of license expiration.

Near Term Risk Mitigation Actions

Even with the canal out of service for power generation, the canal must reliably and safely convey tributary creek flows back into the McKenzie River. Large storms can contribute enough water into the tributaries to result in full canal flow. Moreover, the 2020 risk assessment work determined that extremely long return period storms (10,000-year storms or beyond) might over-top the canal. Given restoring all the creeks to their original beds to accommodate these high flows has been precluded by post-canal property development, there are deficient portions of the canal that will need repair or improvement regardless of which strategic direction EWEB ultimately selects. As such, there are near-term needs to invest in risk reduction measures.

Examples of near-term projects that would benefit both potential paths forward include remediation of strategic portions of the canal embankment and construction of new stormwater discharge outlets. Canal embankment remediation will be focused on critical locations vulnerable to internal erosion as there are known deficiencies in some areas for conveying stormwater to the river in both the near and long term. Additional discharge outlets would minimize the potential for overtopping of the canal during extreme storm events and reduce hydraulic loading on the canal embankments during more common storm events.

Given the need for these near-term safety improvements, EWEB advertised for consulting support this past Spring to plan, design, and implement risk mitigation measures. The Board approved a new contract with Cornforth Consultants in July and planning for priority improvements is underway. Implementation of these improvements will follow the FERC's conventional regulatory review and approval processes such that the associated construction work is targeted to begin in 2023. The current version of the Capital Improvement Plan includes approximately \$20 million for near term risk mitigation investments through 2028. A refined schedule and cost for this work will be developed by early 2022.

Conclusions

Determining the near- and long-term future of the Leaburg Canal is a complex matter with economic, environmental, and social repercussions. The preliminary TBL identified a number of issues that require further research to better understand the impact and inform the path forward. Pursuit of either the SWC or RTS scenario has implications for the long-term decision to either decommission or relicense the project. These issues affect all EWEB customers and have unique and marked impacts on the upriver community. Therefore, Board direction will be critical.

According to the proposed timeline, Staff will provide the Board with a recommendation to pursue either the SWC or RTS option by the end of 2022. If the SWC path is chosen, we will seek Board input on whether continued investment in the Leaburg Powerhouse or other power generation infrastructure is desirable to maintain the ability to RTS during the current license term or relicense in the future.

We invite comments on both the approach and deliverables. Specifically, we are seeking feedback on whether our plan includes the critical pieces of information along a suitable timeline with sufficient opportunities for review and input. We will adjust the plan as necessary as new considerations surface.

Requested Board Action

No Board action is requested at this time, but we request feedback on the proposed deliverables and timeline for decision making.

Please contact Lisa Krentz, Mark Zinniker, or Patty Boyle with questions.

Appendix A - Leaburg Hydroelectric Project Triple Bottom Line Analysis



Options:	<ol style="list-style-type: none"> 1. Return to service (RTS) – Repair/rebuild portions of the canal as necessary for safe power generation. 2. Convert to stormwater conveyance (SWC) – No diversion of McKenzie River into canal, and repair/rebuild portions of canal as necessary for safe stormwater conveyance to the river.
Assumptions:	<ul style="list-style-type: none"> • Focus is on near term (current license term) for Leaburg Canal. • Impacts may be both positive and negative. • Financial impacts to customers that are unrelated to rates/EWEB expense (ex. reduced property values) are classified as a social impact.

Storm Water Conveyance		
Social	Environmental	Economic
<p><u>Recreation –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ More natural flows increase river navigability in the summer and provide better fishing opportunity • Impacts <ul style="list-style-type: none"> ○ Canal path is no longer aesthetically pleasing. <p><u>Agriculture (ex. irrigation, water rights) –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ None identified. • Impacts <ul style="list-style-type: none"> ○ Loss of irrigation opportunity for local users who draw their McKenzie River water right from the canal. ○ Lowering of water table impacts viability of neighboring domestic wells. <p><u>Public Safety –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Reduces public safety risk of people/pets swimming in canal. ○ Reduces likelihood and impact of catastrophic failure. 	<p><u>Fish –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ More natural and higher instream flows benefit fish habitat and migration ○ Avoids adult migration delay at LB Tailrace Barrier, although delay at LB dam is still possible ○ No juvenile injury/mortality through fish screens ○ No project induced injury/mortality related to river ramping • Impacts <ul style="list-style-type: none"> ○ Loss of resident fish habitat in canal and destruction of local resident populations ○ McKenzie Hatchery water supply interrupted, resulting in potential loss of brood stock and increased hatchery origin spawners in the wild ○ Loss of sampling site at Leaburg Flume that has been used for 40+ years by state and federal fish agencies to monitor fish populations <p><u>Water Quality –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Higher instream flows in mainstem avoids project related temperature impacts • Impacts 	<p><u>EWEB Expense –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Lower cost option in the near term than RTS • Impacts <ul style="list-style-type: none"> ○ Estimated cost of repairs is \$16-\$40M. ○ Net Present Value of stormwater conveyance option is estimated at negative \$17 (does not include estimated cost of repair) ○ All in cost, including NPV, ranges from negative \$33M to negative \$57M ○ Scope and cost of ultimate decommissioning is unknown ○ Ratepayer impact of decommissioning unknown <p><u>Regulatory –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ None identified • Impacts <ul style="list-style-type: none"> ○ Power contracts compliance consequences? ○ Regulatory process and outcome uncertain ○ Potential litigation from water rights holders or other stakeholders

<ul style="list-style-type: none"> • Impacts – <ul style="list-style-type: none"> ○ Change in floodplain, inundation area during storm events to properties in Leaburg reach? ○ Toxic algal bloom safety impacts on people and pets (ex. dogs playing in canal). ○ Embankment failure during storm event could cause loss of life or property. ○ Loss of accessible water for firefighting. ○ Lack of irrigation increases fire danger on adjacent properties. ○ Creates an “attractive nuisance”. <p><u>Community Economics –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Lower cost option so less impactful to ratepayers. • Impacts <ul style="list-style-type: none"> ○ Loss of local jobs and businesses due to inability to irrigate (ex. Holly Farm, Lavender Farm, Organic Redneck Farm, McKenzie Hatchery). ○ Cost of digging deeper wells. <p><u>Other –</u></p> <ul style="list-style-type: none"> • Benefits • Impacts <ul style="list-style-type: none"> ○ Water table/groundwater reduction impacts wells and irrigation. ○ Aesthetically unpleasant “muddy ditch” instead of flowing canal. ○ Mosquito and insect source that is frustrating to neighbors. ○ Loss of local energy resilience? ○ Loss of community pride in local, low carbon energy resource ○ Impact on Leaburg Historic District 	<ul style="list-style-type: none"> ○ Stagnant water in canal increases likelihood of cyanotoxin bloom that could be harmful to wildlife or flushed into the mainstem during a warm weather storm event ○ Buildup of sediment that could cause turbidity issues if flushed into mainstem during a storm event ○ Potential for treatment issues at Hayden Bridge from cyanotoxins (likelihood unknown)? <p><u>Carbon –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ None Identified • Impacts <ul style="list-style-type: none"> ○ Loss of low carbon, local generation source ○ Hydro operates as baseload, which can be difficult to replace in the energy market and replacement power may not be low/no carbon <p><u>Other –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ None identified • Impacts <ul style="list-style-type: none"> ○ Loss of ecosystem communities that have developed/evolved with canal ○ Loss of wetlands and neighboring habitat due to change in water table/groundwater 	<ul style="list-style-type: none"> ○ Change to operations could result in assumed license surrender or amendment process that triggers additional regulatory requirements (ex. Clean Water Act 401 Certification) <p><u>Operational –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ None identified • Impacts <ul style="list-style-type: none"> ○ Degradation of generating equipment due to in-operation could lead to extensive repairs if RTS ○ Potential for canal embankment integrity issues due to raising/lowering/inconsistent water levels (ex. storm events) and side stream inflows ○ Stormwater management may be difficult - potential for side streams to blow out? ○ Vegetation growing in canal needs management and can impact embankment structural integrity
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Return to Service

Social	Environmental	Economic
<p><u>Recreation –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Maintains aesthetically pleasing canal path and Walterville wetland (aka Walterville Pond) • Impacts <ul style="list-style-type: none"> ○ Reduced instream flows compared to natural flow regime, especially in summer, has negative impacts on boating/fishing ○ Outages and maintenance alter flow regime, impacting angling opportunities and fishing guides <p><u>Agriculture (ex. irrigation, water rights) –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Maintains irrigation opportunity for local users who draw McKenzie River water rights from the canal, including McKenzie Fish Hatchery ○ Maintains groundwater and viability of domestic wells • Impacts <ul style="list-style-type: none"> ○ Perpetuates reliance on canal water for private use that may be interrupted for various operational reasons <p><u>Public Safety –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Accessible water source for firefighting • Impacts <ul style="list-style-type: none"> ○ Embankment failure could cause loss of life or property. Higher risk and impact than stormwater conveyance option. ○ Fast flowing, cold water and infrastructure poses a safety risk if people and pets use the canal for recreation 	<p><u>Fish –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ McKenzie Hatchery water supply via canal remains viable ○ Maintains historically beneficial canal habitat for resident fish populations • Impacts <ul style="list-style-type: none"> ○ Adult delay at project facilities (minimal impact) ○ Juvenile injury and mortality through screens (minimal impact) <p><u>Water Quality –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Avoids stagnant water in the canal that could lead to water quality concerns (ex. cyanotoxin blooms) ○ Avoids turbidity pulses from Johnson Creek following routine maintenance outages that cause short term water quality impacts • Impacts <ul style="list-style-type: none"> ○ Reduced instream flows compared to natural flow regime - potential for temperature impacts in mainstem <p><u>Carbon –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Maintain low carbon, local generation source ○ Maintain baseload generation • Impacts <ul style="list-style-type: none"> ○ None identified <p><u>Other –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ None identified • Impacts <ul style="list-style-type: none"> ○ Unknown impact on geomorphology in main stem reach (increased or altered scour locations?) 	<p><u>EWEB Expense –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Avoids decommissioning cost uncertainties • Impacts <ul style="list-style-type: none"> ○ Estimated cost of repairs is \$35- \$87M ○ Net Present Value of return to service option is estimated at negative \$5 Million to negative \$14 Million (does not include estimated cost of repair) ○ All in cost, including NPV, ranges from negative \$40M to negative \$101M ○ Equipment that has not been operated may need to be replaced or extensively repaired (costs unknown) ○ Ongoing maintenance costs unknown ○ Reduced instream flows may impact generation potential (severity unknown) <p><u>Regulatory –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Regulatory process clear and does not trigger additional requirements (ex. Clean Water Act 401 Certification). • Impacts <ul style="list-style-type: none"> ○ Extensive permitting process to repair canal. ○ Implies future relicensing with unknown costs <p><u>Operational –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Equipment is maintained and operating • Impacts <ul style="list-style-type: none"> ○ Requires more maintenance (ex. debris management) ○ Changed or expanded canal footprint because of repairs?

<p><u>Community Economics –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Maintains local jobs and businesses due to ability to irrigate (ex. farms) • Impacts <ul style="list-style-type: none"> ○ Canal seepage could impact neighboring properties (ex. wet fields, home foundations) ○ Rate impact from cost of necessary repairs <p><u>Other –</u></p> <ul style="list-style-type: none"> • Benefits <ul style="list-style-type: none"> ○ Aesthetically more pleasing to neighbors and recreators than a dewatered canal ○ Maintains historic look and feel of Leaburg complex (listed as a Historic District). • Impacts <ul style="list-style-type: none"> ○ None identified 		<ul style="list-style-type: none"> ○ Recommission cost for bringing equipment back on-line are unknown
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Appendix B – August 2021 Leaburg Board Update

EUGENE WATER & ELECTRIC BOARD
GENERATION

TO: Commissioners Schlossberg, Brown, Carlson, Barofsky and McRae
FROM: Lisa Krentz, Generation Manager; Mark Zinniker, Generation Engineering Supervisor; Rafael Sebba, Right-of-Way Agent
DATE: July 2, 2021
SUBJECT: Leaburg Canal Water Rights Summary

Issue

This memorandum provides a summary of water rights and obligations related to the Leaburg Canal.

Background

Since the inception and construction of the Leaburg Canal in the 1920s, EWEB has entered into a patchwork of agreements under which water from the canal is made available to individual property owners. EWEB staff have been working with water rights specialists at GSI Water Solutions, Inc. to identify and evaluate these agreements. GSI's work has determined EWEB's obligations with respect to each of the agreements, as well as clarified how each property owner is impacted by the canal's closure.

There are currently a total of 17 active agreements for water deliveries from the canal. The agreements are not uniform and have nuanced differences and discrepancies. However, they generally fall into two categories:

- Those in which EWEB has some limited obligation to provide water; and
- Those where continuity of supply is not guaranteed.

Agreements with Obligations

There are three property owners in the vicinity of Cogswell Creek and one in the vicinity of Hansen Creek who are party to 1928 agreements under which EWEB has certain limited obligations to provide water (Elston Agreement and Hansen Agreement, respectively). The City of Eugene entered into these agreements in the course of acquiring the land necessary for the construction of the canal. The agreements recognized that the canal would intercept the flows of certain creeks, the waters of which were historically used by some downstream property owners.

While the City entered into a number of these agreements at the time of canal construction, most were retired or modified by subsequent agreements or contracts which specified that continuity of supply would not be guaranteed. However, in the cases of the Elston and Hansen agreements, apparently no subsequent action was taken, and the original agreements remain in place.

The Elston Agreement calls for EWEB to pass the mean summer flow of Cogswell Creek into the channel below the canal. Historically, water from the canal has been withdrawn via a shared diversion valve vault and water lines that extends to the individual properties. The three parties to this agreement also hold Oregon Water Resources Department Surface Water Registrations, which are treated as interim water rights but have yet to be formally adjudicated and memorialized as Water Right Certificates.

The Hansen Agreement involves maintaining what was an existing domestic water supply pipeline and supplying the channel of Hansen Creek with the remaining summer minimum water flow. Under this agreement, EWEB has similarly withdrawn canal water via a diversion valve vault that discharges water directly into the downstream channel of the creek.

Agreements without Supply Guarantees

Of the agreements for which supply is not guaranteed, three are with commercial irrigators whose farming activities are partially or wholly dependent upon water from the canal. One is with the Army Corps of Engineers and is related to the McKenzie Fish Hatchery. There are also agreements with nine additional property owners. Most of the water rights associated with these agreements identify the McKenzie River as the source, with the canal as the point of diversion. The primary method of delivery under these agreements is through pumping systems that draw suction directly from the canal. There are also some additional diversion valve vaults with water lines extending to the individual properties.

In addition to the agreements and water rights discussed above, there are five other water rights that identify the McKenzie River as the source and the canal as the point of diversion. However, there do not appear to be specific agreements between EWEB and the holders of these water rights. Absent agreements for the provision of water, EWEB is not obligated to provide canal water to fulfill these water rights.

Actions to Date

EWEB staff have been working directly with the three commercial irrigators to identify near-term solutions to deal with the anticipated low flows through the summer months. EWEB has installed short check dams near the irrigator's diversion points to deepen the limited stormwater/creek flow in the canal so that their pumping systems can draw suction. EWEB has also installed a check dam for the party to the Hansen Creek Agreement, which allows gravity flow to the property.

EWEB has also worked closely with the McKenzie Fish Hatchery to assist in their efforts to adapt to the canal outage. The hatchery has three surface water registrations, one for McKenzie River water totaling 50 cfs, as well as two for Cogswell Creek totaling 20 cfs. The Cogswell Creek water source, which includes a dedicated supply pipeline from the hatchery's creek intake uphill of the canal, has been their only reliable supply and has permitted ongoing operation of the incubation facility. However, the water available from Cogswell Creek is minimal in the late summer/early fall. In general, the quality of the residual canal water does not meet the hatchery's needs, primarily due to the warm temperatures associated with the slow moving, shallow flow. Given these water supply vulnerabilities, EWEB has been encouraging the hatchery to develop an alternative or emergency source of supply since at least 1992.

Staff have engaged in ongoing negotiations with one of the three parties to the Elston Agreement. Initially, the party reached out to EWEB to negotiate the transfer of their Surface Water Registration to EWEB. However, the focus has shifted somewhat over the course of negotiations as the property owner has sought greater certainty for their replacement water source. Staff are also in the process of reaching out to the two other parties associated with the Elston Agreement.

Staff have been working with GSI to identify and evaluate long-term options for water users in the face of a possible permanent canal closure. There may be opportunities for water rights holders to transfer or change their points of diversion. However, the complexity of Oregon water law presents a number of challenges for these landowners. The challenges include long procedural timelines, highly technical and site-specific criteria, and the potential for decisions to be appealed which translate into varying degrees of uncertainty and risk for those parties formerly dependent on the canal water source.

Although there may be some financial expense for EWEB to rectify the above water rights issues, the costs are expected to be relatively minor.

Lastly, in an effort to protect EWEB’s own water rights for generation purposes, GSI prepared and submitted an instream lease application for EWEB’s Certificates associated with the Leaburg Canal Project. On May 14, 2021, the Oregon Water Resources Department approved the application and lease through 2026. The instream lease essentially serves as a placeholder for EWEB’s water rights that will go unused during the duration of the canal’s closure and protects against an assertion of forfeiture due to lack of use. EWEB has the option to terminate or extend the instream lease depending on how circumstances surrounding the canal evolve and unfold.

Leaburg Canal Water Rights Summary

Category	Agreement/Location	Party(ies)
Total Properties	Adjacent to the canal	100-125
Agreements with limited obligation to supply water	Elston Agreement/Cogswell Creek	3
	Hansen Agreement/Hansen Creek	1
Agreements without Supply Guarantees	Identify McKenzie River as source, canal as point-of-diversion	12
	Corps of Engineers, McKenzie Fish Hatchery	1
Water Rights without Agreements	Identify McKenzie River as source, canal as point-of-diversion	5