



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD



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

FROM: Megan Capper, Energy Resources Manager; Jonathan Hart, Power Planning Supervisor; Emily Tozier, Senior Energy Resource Analyst

DATE: March 29, 2024

SUBJECT: 2024 Power Market, Budget Hedging and Generation Update

OBJECTIVE: Information Only

Issue

The purpose of this backgrounder is to provide an annual update of wholesale power markets and a generation resource outlook.

Background

The Energy Division, which is comprised of the Power Planning and Trading Operations Departments, manages EWEB's power supply and wholesale market activities consistent with utility financial objectives in accordance with Board Strategic Direction Policy SD8, and as further described in the Power Risk Management Procedures (Procedures) maintained by the Power Risk Management Committee (RMC). The Generation Department manages EWEB's owned generation assets.

Summary

Wholesale power market prices have declined from their highs in 2022/2023. This change is primarily driven by decreasing natural gas prices in the west. Natural gas generators have historically determined the price at which electricity markets settle, but new resource development in the region is coming from non-dispatchable resources like solar and wind. This transition in the balance of dispatchable vs as-run resources in the west is changing market dynamics. So, while EWEB expects lower electric prices in 2024, staff anticipate continued periods of price volatility during periods of high load or constrained resource operations, the recent and local January ice storm as an example. EWEB continues to participate in, and implement, the non-binding phase of the Western Power Pool's (WPP) Western Resource Adequacy Program (WRAP), which aims to address forecasted capacity scarcity by creating a set of shared standards and practices to ensure regional reliability and market liquidity. Staff are working to modernize EWEB's 5-year hedging program to better align with, and incorporate, these new Resource Adequacy standards into EWEB's overall portfolio hedging strategy.

Generation continues efforts at various EWEB owned projects related to implementation of the Carmen Smith license, developing a decommissioning plan for Leaburg and strategic evaluation of Walterville, and investigating/monitoring for existing or emergent dam safety issues, and adjusting operational plans to align with hydrologic conditions in the Northwest. The Stone Creek Hydroelectric, International Paper TGU#4, and Harvest Wind Projects continue to operate normally and are expected to do so throughout 2024. This update for markets and generation is reflected in our current financial projections.

Discussion

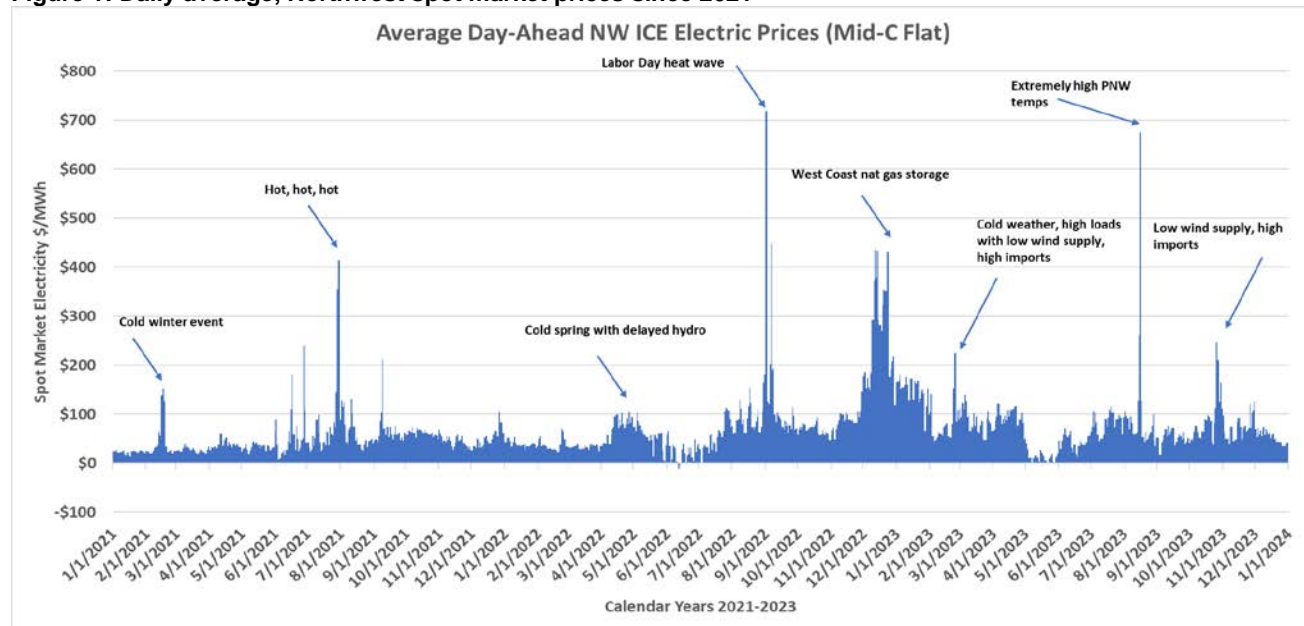
Market Price Update

Wholesale energy markets can generally be described as either near-term “spot markets” or longer term “forward markets”¹. Spot market prices are impacted by weather (e.g., temperature and precipitation), fuel costs, and operational phenomena (e.g., generation and transmission availability), while forward markets tend to reflect longer term market expectations of energy supply and consumer demand. Both forward and spot markets can influence the cost of balancing EWEB’s energy portfolio in annual, monthly, daily, and hourly time frames.

Spot Markets

In recent years, the WECC² region, including the Pacific Northwest (Northwest), have seen continued generation additions from renewable resources like wind and solar, and incremental retirements of conventional, thermal resources like coal and nuclear. This shift in the composition of regional generation has increased the abundance of low and zero cost marginal energy while, at the same time reducing the amount of controllable capacity resources available to meet demand during high load periods³. This has resulted in recent spot markets that can be characterized as periods of generally low/stable prices, interspersed with short, intense periods of extremely high and volatile pricing. Because the Northwest is interconnected with other parts of the WECC Region (e.g., with and through California) and experiencing similar changes in regional supply mix⁴, it is exhibiting similar trends in local spot market and forward market pricing.

Figure 1: Daily average, Northwest spot market prices since 2021



3 Spot markets typically refer to markets where commodities are traded for immediate (next day, next hour) delivery, whereas forward markets imply markets where the traded commodity is delivered in a future period.

4 Western Electricity Coordinating Council.

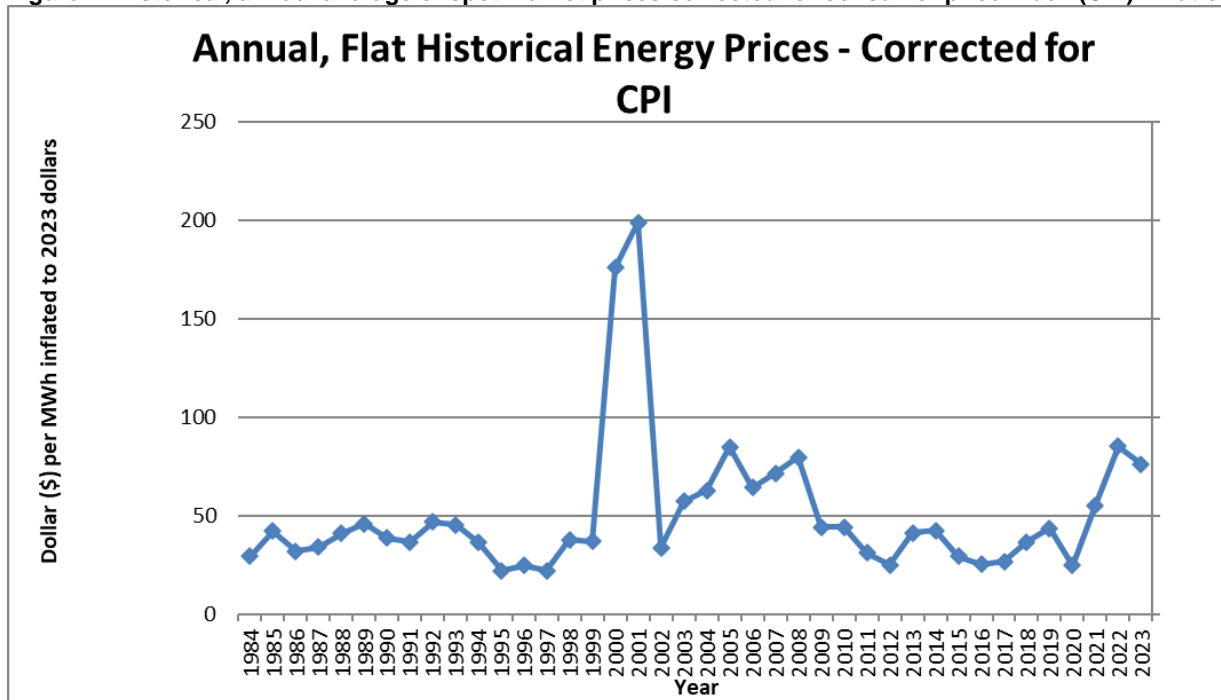
5 Market penetration of capacity only resources (i.e. batteries) is growing, but still limited. As such, the current fleet of renewable resources can only replace a portion of the effective capacity of now retired thermal resources.

6 <https://www.nwccouncil.org/energy/energy-topics/power-supply>

Spot Market Drivers: 2021 and 2022 experienced a variety of load and resource changes, which resulted in general increases in both average price and price volatility. In February 2021, prices surged during a nationwide cold weather event, which drove up demand for energy while limiting the supply of natural gas. During spring and summer months the west experienced high prices and volatile markets, driven by low water supply conditions and limited hydroelectric generation (hydro), high natural gas prices, and high loads from an unprecedented heat dome event. High natural gas prices continued to prop up electricity prices on the West Coast for the remainder of the year, despite a return to mild weather. 2022 included longer duration price events that cycled over weeks instead of days. The 2022 Northwest trading hub was trading over California hubs due to both hydro and natural gas systems' inability to keep up with the unusual demand at that time of year. This was partially related to multiple gas generators in the Northwest going offline, and a chillier region. In late summer, the Northwest experienced heat spikes, increased load, and dwindling hydro. The 2022 average settled price was \$82, which was the highest average price since 2004.

2023 prices started high, relative to 10-year historical norms, driven primarily by scarce natural gas storage in the Western region. Though January Henry Hub (national gas) prices averaged \$3.27, the northwest local gas prices surpassed \$48 per MMBtu, which had a large impact on Northwest electric energy prices. Pricing remained strong during the spring, but began to soften, and appeared less volatile when compared to the prior year. Despite a general return to more familiar price levels, there were still periods of short-term price volatility. The highest hourly peak prices of 2023 were over \$1000 per MWh on August 16, as the entire Pacific Northwest experienced an extremely warm weather event. During this time, observed temperatures at Portland International Airport reached 108 degrees Fahrenheit. In late October, prices surged again due to a combination of colder temperatures, reduced generation capacity at the Columbia Generating Station, low regional wind output, and constrained hydro operations. After the event, prices were relatively stable until the start of the new year.

Figure 2: Historical, annual average of spot market prices corrected for consumer price index (CPI) inflation



Forward Markets

Forward market prices for 2024 are currently trading above 2023 spot market prices, at close to \$84/MWh for the year, but at lower levels than were anticipated (for 2024) this time last year. The reduction appears to be coincident with the lower cost of natural gas fuel supplies for generators. Though natural gas prices have moderated, natural gas prices are still generally higher than periods before 2022, as there are still continued effects from increased US LNG exports to Europe and other regions impacted by the Ukraine war and reductions in Russian natural gas exports⁵. Elevated natural gas prices, changing regulatory policy, the shift in regional load resource balance, and general uncertainty surrounding physical resource adequacy create upward pressure on forward prices which is why they continue to exhibit price levels that are higher than periods before 2022.

Natural gas: January 2023 saw historic highs in natural gas prices due to increasing global exports, lagging production, and low levels of gas storage in the west. Natural gas prices moderated as west coast storage recovered during a period of strong production⁶, increased storage capacity, and mild weather. The U.S. Energy Information Administration (EIA) forecasts that natural gas commodity prices should hold at the current, relatively stable, level through the end of 2025⁷.

Carbon Policy: Emergent Carbon policy, including the Washington Climate Commitment Act (CCA), continues to have a direct impact on Northwest energy markets. The most recent carbon allowance auction (March 2024) included 7.4 million allowances sold at a settlement price of \$25.76. This price is nearly half of settled auction prices seen in 2023, likely due to an initiative to link the WA carbon market to lower priced markets in California and Quebec. Since Northwest power trading can carry carbon liability, it is assumed that the cost of compliance is embedded in power market prices, though the total dollar impact has yet to be determined.

Regional Resource Mix and Resource Adequacy: In 2020, renewable resources became the second most abundant source of electric generation in the United States⁸, surpassing sources of controllable thermal energy like coal and nuclear. Further for 2024 and 2025, the largest forecasted increase in resource capacity is expected to come from renewable resources⁹ and batteries¹⁰. In regions with high levels of renewable penetration, market prices can experience drastic swings with changes in the level of renewable energy production. Batteries can help with short-term, in-day volatility, but the technology has not progressed to the point of addressing multi-day load and resource balance concerns. When combined with load variability and hydro uncertainty, these factors prompt concerns about general market scarcity, leading market participants to consider adding risk premiums in their bilateral pricing to address increasing levels of potential physical scarcity risk.

5 [Russia's natural gas pipeline exports to Europe decline to almost 40-year lows - U.S. Energy Information Administration \(EIA\)](#)

6 [Natural gas prices fall in first half of 2023 amid record production and mild temperatures - U.S. Energy Information Administration \(EIA\)](#)

7 [Natural gas prices fall in first half of 2023 amid record production and mild temperatures - U.S. Energy Information Administration \(EIA\)](#)

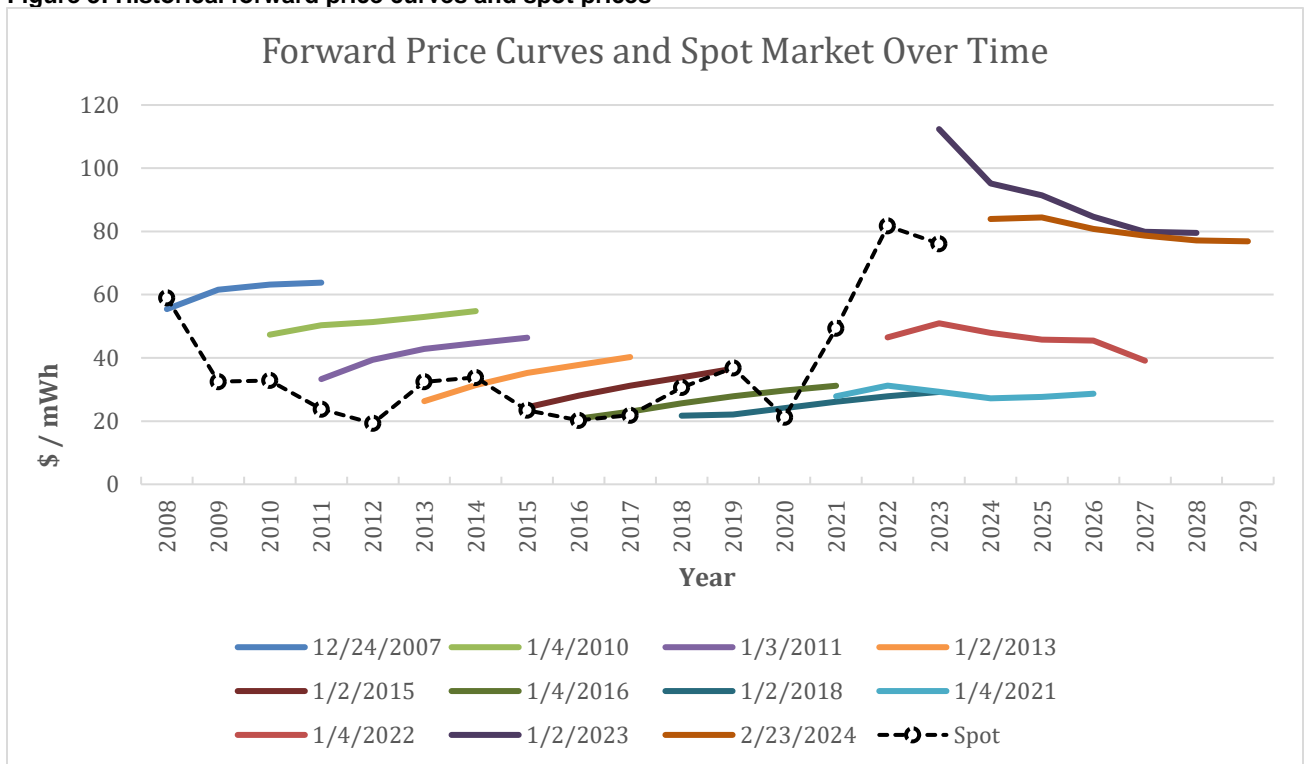
8 [U.S. electric capacity mix shifts from fossil fuels to renewables in AEO2023 - U.S. Energy Information Administration \(EIA\)](#)

9 <https://www.eia.gov/todayinenergy/detail.php?id=55239>

10 <https://www.eia.gov/todayinenergy/detail.php?id=54939>

Figure 3 below shows both forward market price curves and spot market prices over time. A forward curve reflects prices for future periods of delivery, which can be traded today. The first blue line on the left reflects a forward curve taken at the end of 2007 and subsequent lines reflect changing forward price curves for the years that followed. For the period of 2008 - 2020, forward market price curves experienced a period of consistent declining value. However, since 2021, changes in natural gas price forwards as well as changes in regional policy have caused electric market price curves to jump drastically, and now reflect some of the highest pricing seen since the 2001 West Coast energy crisis. The February 23, 2024, curve reflects moderation from the previous year, with prices from 2024 through 2029 currently projected to be flat to moderately declining.

Figure 3: Historical forward price curves and spot prices



Resource Adequacy

EWEB continues to actively participate in the Western Power Pool's (WPP) RA effort. Last year, the Federal Energy Regulatory Commission (FERC) approved the tariff for the Western Resource Adequacy Program (WRAP), which means that the WPP can complete the implementation of the program. As such, the program has begun the transition from a "non-binding" implementation to a "binding" paradigm where the tariff dictates how the program operates.

To date, 23 entities including EWEB have signed on to participate in the next phase of the WRAP program. EWEB sees several benefits to program participation. Externally, we want to provide continued support for the development of new resource adequacy standards and want to be able to advocate for business practices that reflect the capabilities of EWEB's resources and transmission rights. Internally, we want to gain insights for how well EWEB's portfolio aligns with these new standards. Those learnings will inform operational changes as well as assumptions included in our IRP modeling.

Much of the work in the next year will be to provide testing to the various data communications that will make the program work. This includes gathering and transferring of actual EWEB data to the program operator, submitting forecasts of generator outages and loads to the program operator, the transfer of analysis results from the program operator to EWEB planning, and operational transfer of data between EWEB and the system operator as the program moves into the operational timeframe.

As a participant, EWEB has elected to not be "bound by the tariff"¹¹ until Summer of 2028, near the start of the next BPA contract in October of 2028. Since the majority of EWEB's resources come from BPA, it is integral that future BPA products align with WRAP, or its successor, before EWEB fully commits to the program. Should EWEB determine that the WRAP program is not a good fit, or it is misaligned with our BPA product decision, withdrawal is allowed with two years notice. Until such time, EWEB is still committed to fully participating in the planning and operational communications efforts of the program.

Surplus Position Hedging Update

In accordance with EWEB's Risk Management Procedures, Staff hedges¹² a portion of its surplus position¹³ up to five years in advance. In years past, this has provided two benefits: 1) it has reduced financial exposure related to market prices; and 2) it has resulted in sales executed at various times which diversify the sales price by "dollar cost averaging" through time. This strategy resulted in near-term years being fully hedged while year five is the least hedged, with interim years somewhere in between. EWEB does not hedge any surplus energy beyond five years.

An effort is underway to modernize EWEB's approach to budget hedging and portfolio balancing activities. This effort recognizes that EWEB's portfolio needs are changing and that current market dynamics may require adjustment to existing hedging goals, requirements, strategies and metrics. Until this effort has completed, budget hedging activities will primarily be focused on nearer years, though RMC will continue to monitor for emergent needs in all five years. Staff expect most of the length of 2025 to be hedged in the next couple months. After that, the focus will shift to 2026.

11 Subject to the full requirements of the tariff including operational requirement and penalty structures for non-performance.

12 A hedge is a trade, or set of trades, that reduces the market price exposure risk inherent in EWEB's portfolio length. EWEB hedges to provide greater wholesale revenue certainty.

13 Surplus position is an amount of energy that staff forecasts will not be needed to serve EWEB's customers and is therefore exposed to changes in market price. For 2025-2026 there is about 47 aMWs of surplus compared to EWEB's load of about 276 aMWs

Figures 4 and 5 below show EWEB's surplus market peak and off-peak positions for 2025 and 2026 based on a budget hydro assumption of 90% of expected hydro generation. For each chart, the top of each stacked column indicates EWEB's original surplus market position (i.e., the amount of forecasted generation EWEB expects to realize in excess of that which is forecasted as being necessary for reliable load service). The white and red/blue column segments represent the volume of energy risk already hedged by Staff. The solid red/blue column segments represent the remaining unhedged surplus. The black and red/blue column segments reflect energy that is reserved by the RMC for strategic management of seasonal risk. The gray area behind the stacked columns reflects EWEB's expected surplus, without the conservative hydro assumption.

Figure 4: Peak Budget Hedging Progress

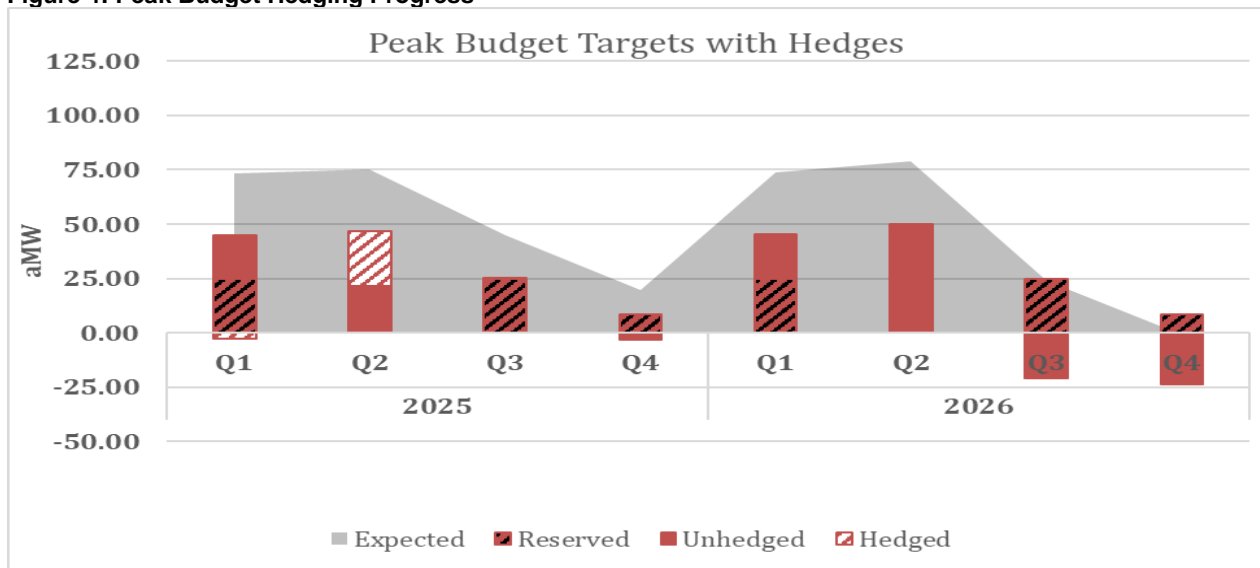
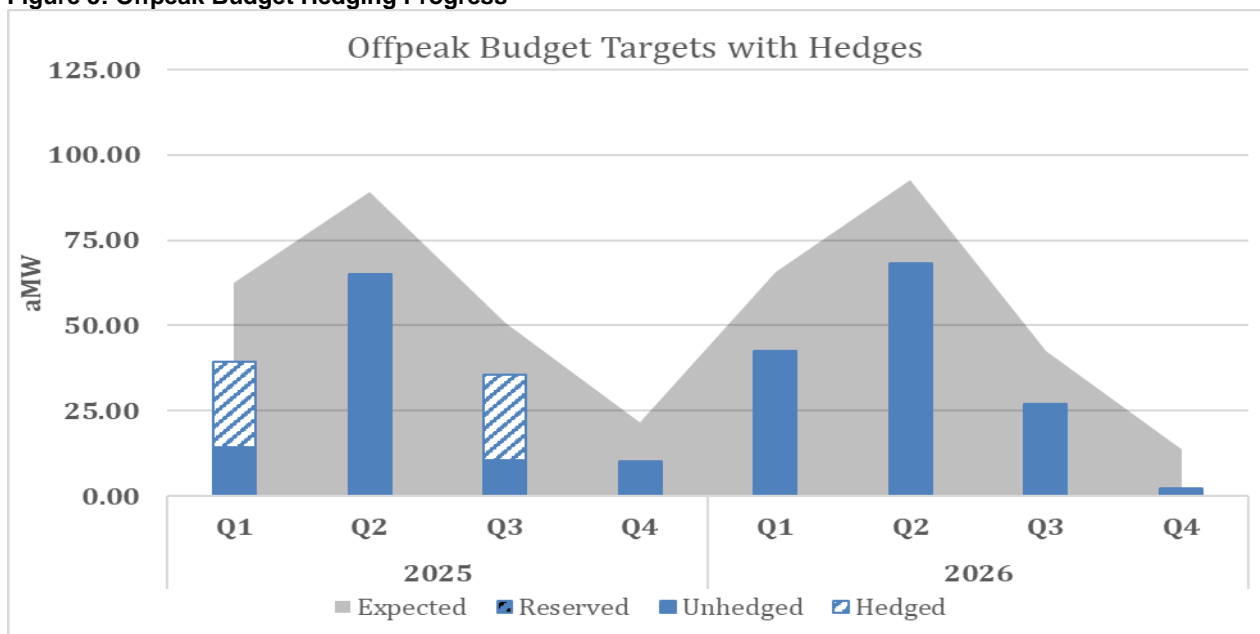


Figure 5: Offpeak Budget Hedging Progress



EWEB-Owned Generation Update

EWEB McKenzie Hydro Projects:

Refurbishment of the first turbine-generator unit at the Carmen Power Plant continued in 2023, though contractor delays pushed back the projected return-to-service date to early 2024. The second Carmen unit will continue to operate until the first unit comes back online. The second Carmen unit overhaul is now expected to start in summer 2024 and be completed by early 2026.

Also, at the Carmen-Smith Project, there was progress on environmental and recreational improvements in 2023. EWEB coordinated with State and Federal fish agencies to complete the temporary trap and haul facility to move Chinook salmon from the recently improved spawning channel below Trail Bridge Dam up into Trail Bridge Reservoir. This interim effort creates an opportunity for spawning above the dam prior to construction of the permanent trap and haul facility. These types of interim efforts became increasingly important as the overall fish passage work plan experienced further schedule delays related to the May 2021 discovery of sinkholes in Trail Bridge Reservoir. The investigation to determine root causes and critical details on the sinkhole formation mechanisms is ongoing. The geotechnical field report was completed in the Fall of 2023 and reviewed by the Board of Consultants (BOC) at meeting No. 04. The BOC recommended an additional potential failure mode (PFM) be evaluated, which will be included in the Sinkhole Evaluation Report that will be completed in April of 2024. Additionally pursuant to BOC & FERC recommendation/requirements EWEB is planning to hold a Semi-Quantitative Risk Assessment (SQRA) workshop for the Trail Bridge sinkholes and trap & haul construction PFMs in July 2024, review the SQRA report in an October 2024 BOC meeting, update the report as per BOC recommendations, and submit the final report to FERC by December 31, 2024. Findings from these investigations will determine if the planned fish passage improvements can safely proceed or if they will need to wait until sinkhole remediation work is complete.

The Leaburg power canal and power plant had been offline since October 2018 due to dam safety concerns. Based on the Board's decision, Staff developed a decommissioning action plan in 2023 while also pursuing near-term risk reduction measures to mitigate dam safety concerns that remain even with the power generation facilities offline. Staff presented the Leaburg Decommissioning Action Plan (LDAP) at the January 2024 Board meeting and received approval to begin implementation of the same. The geotechnical drilling program plan (DPP) that will support near-term risk reduction and initial decommissioning planning was submitted to FERC in March 2023 and their review is expected to be completed in 2024.

The Walterville Hydroelectric Project continued to operate reliably throughout most of 2023, managing to continue operation through the late summer and early fall despite relatively low river flow conditions, however, power generation was impacted by high river flows in late fall and was taken offline for approximately two weeks. Walterville generation disruptions associated with the ice storm and subsequent high river flow conditions in early 2024 were followed by an excessive seepage dam safety event at the power plant's forebay in late February. Current understandings are that forebay repairs will take many months for design, regulatory approvals, and construction. Additional Walterville investigations to support updated dam safety analyses continued and an independent consultant completed the 5-year dam safety inspection report for their inspection work that took place in 2022. The final inspection report was submitted to FERC on May 1, 2023. Geotechnical drilling occurred at Walterville in 2023 to investigate seepage concerns at the forebay and evaluate seismic stability of the canal at high hazard locations. The subsurface data that was collected is being used for various analysis tasks that are currently in progress. An element of the Board's resolution to decommission the Leaburg Project was a directive to complete a strategic evaluation of the Walterville Project by 2030 that will help inform a Board decision on whether to relicense or decommission. The Walterville Strategic Evaluation timeline was incorporated into the LDAP and is expected to begin in late 2024.

Following a relatively wet and cold start of the year, current 2024 river flow forecasts are trending around average for this spring/summer on the McKenzie below Trail Bridge and at Vida. Recent changes to the Army Corps' reservoir operations will continue and are anticipated to result in slightly lower-than-normal summertime flows in the lower McKenzie, affecting expected generation at the Walterville Project. The Corps' operation changes would affect expected generation at the Walterville Project, but the Project will most likely need to remain out of service through the summer regardless due to a dam safety concern that arose at the power plant's forebay in late February. Staff will monitor flow forecasts through mid-April to determine whether low flow mode operations will be required if the unit is not out of service. An update to the Board will be included in the May Board meeting materials.

Other EWEB Owned Projects:

During 2023 operations a Minor Turbine Overhaul was performed at the IP TG4 in April-May, the Newell Road Wildfire prompted the proactive shutdown of the Harvest Wind Site in July until the fire and smoke dissipated, and the Harvest Wind site was shut down in May for the rebuild of the Rock Island Substation by the Klickitat Public Utility District (KPUD).

Both Stone Creek and Harvest Wind are scheduled to have typical maintenance outages this year. A planned switchgear replacement for the International Paper TG4 is scheduled for May of 2024 concurrently with the mills Total Mill Outage. The Harvest Wind project may be impacted by a potential KPUD substation outage in 2024 however, the scope/duration is not yet defined. No other significant capital improvements are currently planned to take place in 2024.

Stone Creek Hydroelectric, International Paper Turbine Generator, and Harvest Wind continue to operate normally and are expected to do so throughout 2024.

Recommendation and Requested Board Action

This item is information only and no Board action is requested.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners McRae, Barofsky, Schlossberg, Brown, and Carlson
FROM: Deborah Hart, Assistant General Manager/CFO; Aaron Balmer, Acting Financial Services Manager; Timothy Poublon, Interim Power Risk Supervisor; Amanda Lane, Financial Analyst II
DATE: March 27, 2024
SUBJECT: Annual Report on Power Trading Compliance
OBJECTIVE: Information Only

Issue

Board Strategic Direction Policy SD8 (SD8), which governs Power Risk Management, requires the Chief Financial Officer to present a report to the Board covering trading and contracting compliance on at least an annual basis. This backgrounder provides information for the calendar year 2023.

Background

In addition to SD8, Board Strategic Direction Policy SD6 requires that funds used for EWEB's activity in power markets be managed to maximize benefits to customers while minimizing the risk of adverse impacts on retail prices. Accordingly, EWEB's activities in power markets must be associated with the provision of electricity to meet anticipated sales and generation forecasts. SD8 establishes the formation of the Power Risk Management Committee (RMC), a horizontal and cross-functional team comprised of five voting members (Members) responsible for oversight, compliance with SD8, setting limits, and establishing and maintaining Power Risk Management Procedures (Procedures) for power trading operations.

Discussion

The specific responsibilities of the RMC outlined in SD8 are listed below with a characterization of compliance status and instances in which compliance was maintained through exception.

Anti-speculation Statutes: In Compliance

Compliance with Board Policy and anti-speculation statute is maintained through megawatt limits on market positions to monitor and limit opportunities for speculation and exposure to price volatility. At times, changes to load and/or generation forecasts can result in position limits being exceeded. In such instances, the Procedures require positions to be brought back into compliance no later than the next trading day, unless an exception has been approved by the Fiscal Services Supervisor and Power Planning Supervisor. For periods during which the Power Planning Supervisor position was vacant or when the Power Trader was acting-in-capacity for the Power Planning Supervisor, exceptions were approved by the Energy Resources Manager, the division manager overseeing both the Power Planning and Trading & Power Operations departments. EWEB maintained compliance with this provision in 2023, which included forward market positions from 2023 through 2024. No exceptions for financial position limit exceedances were requested in 2023.

There were five instances where a volumetric market position limit exception was approved by either the RMC and/or the Fiscal Services Supervisor and Power Planning Supervisor:

- In April, the Q4 2023 forward position changed from a quarterly test to a monthly test, causing the December 2023 position to exceed the Mid-Term market position compliance threshold. The Fiscal Services Supervisor and Interim Power Planning Supervisor approved an exception to hold the position until additional load and revenue forecasts and trading activity could take place. At the April RMC meeting, Members voted to uphold and extend this exception, which was cured in early May following a peak purchase for the December period.
- In May, an update to EWEB load and revenue forecasts caused the November 2023 position to exceed the Mid-Term market position compliance threshold. The Fiscal Services Supervisor and Energy Resources Manager approved an exception to hold the position and allow sufficient time for EWEB traders to solicit competitive bids in the market, and the position was cured in early May following an off-peak purchase for the November period.
- In May, an increase in EWEB's Bonneville Power Administration (BPA) Slice allotment caused the May 2023 position to exceed the Short-Term market position compliance threshold. The Chief Financial Officer and Energy Resources Manager approved an exception to hold the position until the end of the following week to allow sufficient time for EWEB traders to solicit competitive bids in the market, after which the exceedance was cured within one week.
- In July, a preliminary update to EWEB's BPA entitlement for FY2024 caused three forward positions to exceed the Mid-Term market position compliance thresholds. These periods included October 2023, February 2024, and Q4 2024. The Financial Services Manager and Energy Resources Manager approved an exception to hold the positions until the August RMC meeting, at which time Members voted to uphold and extend this exception. Exceedances for October 2023 and Q1 2024 were cured in early September following trading activity. An extension for the February 2024 compliance position was granted by Members at the September RMC meeting and the February 2024 exceedance was cured in early October following trading activity.
- In August, updates to BPA generation forecasts for FY2024 caused four forward positions to exceed the Mid-Term market position compliance thresholds. These periods included November 2023, December 2023, January 2024, and Q2 2024. The Acting Financial Services Manager and Energy Resources Manager approved an exception to hold the positions and allow sufficient time for EWEB traders to solicit competitive bids in the market. Exceedances for November 2023, December 2023, and Q2 2024 were cured in early September following trading activity. Ahead of the September RMC meeting, Members voted to uphold and extend this exception for the remaining compliance period, which was cured mid-October following a peak purchase for the January 2024 period.

Development of Detailed Control Procedures: In Compliance

SD8 requires that the RMC establish and maintain Power Risk Management Procedures which define processes that govern roles and responsibilities, daily trade activity, and exception authorization. Staff solicited feedback on the Procedures from internal stakeholders in Q3 2023 and incorporated recommended edits for clarification and evolving business practices into an updated Procedures document that was unanimously approved by RMC Members on November 29, 2023.

Notification of changes to compliance limits: In Compliance

No changes to compliance limits were recommended by staff or approved by the RMC during the 2023 calendar year.

Oversee control infrastructure and monitor compliance: In Compliance

The RMC meets monthly to monitor and review compliance limits. RMC Members are notified of the status of Short-Term compliance measures weekly to provide insight into both current compliance status and market trends that may influence future compliance periods.

In July, the Acting Financial Services Manager approved an exception to extend documentation schedules for counterparties whose periodic counterparty credit reviews were due in the second half of 2023 to accommodate staff's work on the reimplementation of EWEB's Energy Trading and Risk Management application. Progress on outstanding counterparty credit reviews has been reported to the RMC monthly. As of the end of Q1 2024, two counterparty credit reviews due in 2023 remain outstanding. Staff anticipate credit reviews to be current in Q2 2024.

Authorize and monitor risk reports for financial results, market positions, and credit exposure: In Compliance

RMC meetings are held monthly. Prior to each meeting, Members receive updated compliance reporting materials that provide the basis for monitoring financial results and compliance with market position limits and credit. RMC meetings were held via video conference each month in 2023 except July, where materials were disbursed in lieu of the meeting due to scheduling conflicts for several Members.

Review and approve contracts which impact EWEB's power portfolio: In Compliance

The RMC provides cross-functional oversight and review of any contracts that may have an impact on EWEB's portfolio to ensure that Board-mandated risk mitigation and financial stability are maintained. Where contracts require Board approval, the RMC provides direction and preliminary review in advance of Board action. No changes to the approval thresholds are being requested.

The RMC approved one contract that did not require Board approval:

- In June, Members approved a 6-month extension on an existing power sales and scheduling services agreement. The transaction required RMC approval as it impacted EWEB's power portfolio; however, it did not require Board approval as the extension did not exceed one year in duration and fixed-price components of the transaction did not exceed the \$3 million nominal value threshold outlined in SD8.

The RMC provided preliminary review for one contract in advance of Board action:

- In November, Members approved a power sales and scheduling services agreement for a five-year term. The agreement required subsequent Board approval as it was greater than one year in duration and the fixed-price components of the agreement exceeded the \$3 million nominal value threshold outlined in SD8.

Recommendation and Requested Board Action

This item is information only and no Board action is requested.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners McRae, Barofsky, Schlossberg, Brown, and Carlson
FROM: Jason Heuser, Public Policy and Government Affairs Program Manager
DATE: March 19, 2024
SUBJECT: 2024 Oregon Legislative Session Summary
OBJECTIVE: Information

Issue

EWEB monitors, influences, and strategically plans around legislative and regional policy issues.

Background

The Board adopts general policy directives for advocacy on legislation and other public policy matters, which guide the work of EWEB's lobbying activities. When political considerations test the applicability of those directives, the General Manager makes a determination as to whether a fundamental shift in direction is required. The Board may be asked to reaffirm policy directives or direct staff to make necessary adjustments.

Discussion

2024 State Legislative Session Issues Final Status:

The 2024 State Legislative Session concluded just slightly ahead of schedule on March 8, with no walkouts/delays, and with successful passage of legislation on high-profile topics: drug policy reform, affordable housing policies and investments, and campaign finance reform.

SB 1576A – Recreational Immunity – SUPPORT -- PASSED

In 2023 an Oregon appellate court decision called into question the tort immunity enjoyed by public and private landowners when they allow access to land free of charge for recreation. The issue in question in the case was whether a person hiking on a trail while walking their dog and socializing with a friend was recreating on the trail or was using it for transit to and from a beach recreational area.

SB 1576A contains a restoration of recreational immunity, a priority for local governments and recreation enthusiasts this session. The bill adds running, walking and biking to the definition of recreational immunity, but sunsets the changes at the end of 2025 to allow for pending court cases to be resolved and a workgroup to craft a more durable solution to be adopted in the 2025 legislative session.

The bill was approved by the Senate unanimously on February 22 and approved by the House unanimously on March 5.

SB 1581A – Organized Market Participation Reporting – MONITOR -- PASSED

This legislation requires an investor-owned utility that sells more than two million megawatt hours of electricity in a calendar year (Portland General Electric and Pacific Power) to report to and inform the Legislative Assembly on the activities, if any, that the investor-owned utility has taken or is taking toward participating in a regional energy market. The bill does not apply to any consumer-owned utility. The bill as amended does not require a written report but allows oral testimony at an informational hearing to satisfy compliance. Portland General Electric and Pacific Power have expressed a neutral position on the amended bill and did not testify at the public hearings on the bill. If public utilities would have been included, EWEB would meet the reporting threshold of two million megawatt hours of electricity in a calendar year.

SB 1581A was approved by the Senate 24-6 on February 21 and approved by the House 37-14 on March 5.

Hydroelectric Water Rights Conversion Statute Clarification – SUPPORT -- UNSUCCESSFUL

EWEB initiated a request for the drafting of a legislative concept that would clarify any potential ambiguity on the timelines for conversions of hydroelectric water rights to instream rights. In January and February EWEB outreach and negotiations with interest groups and state agencies did not produce consensus on how Oregon law might clarify potential ambiguity and EWEB voluntarily ceased working to advance the legislative proposal. Lack of consensus and concerning concessions that EWEB would have likely had to accept to achieve passage resulted in legislative options that were not judged by EWEB staff to be net positive. Contested legislation is not easy to get approved during any legislative session – and improbable in a short session. EWEB staff continue to pursue administrative options to address clarity for Leaburg’s hydroelectric water rights and will reevaluate legislative options prior to the 2025 legislative session.

SB 1575A – Professional Design Contracts: Duty to Defend Preemption– OPPOSE -- PASSED

As proposed, SB 1575A would preclude a public body from including contractual language requiring a design professional (architects, engineers, landscape architects, surveyors, etc.) to defend and indemnify a contracting agency prior to liability being established. In other words, design professionals would not need to indemnify or defend contracting agencies for design defects until after a legal determination that the design defect was attributable to the design professional. This change in policy would fundamentally shift the risk of liability for defending construction design defect claims from the design professional to the contracting agency. This is an abnormal assumption of risk because the contracting party who can mitigate the risk is generally the one who assumes the risk. The risks of defective design claims are best borne by the designers: designers can mitigate against litigation risk by designing projects without defects.

SB 1575 was approved by the Senate 24-6 on February 26 and approved by the House 40-16 on March 7.

HB 4015 – Energy Storage Siting Authority Transfer – MONITOR – PASSED

This bill allows a developer of a facility or the governing body of a local government after consulting with the developer to elect to defer regulatory authority to the Energy Facility Siting Council for the siting of a battery energy storage system.

The bill was approved by the House 44-13 on February 15 and approved by the Senate 16-13 on March 5.

SB 1525A – Oregon Department of Energy (ODOE) Technical Omnibus – SUPPORT – PASSED

Natural and Working Lands:

SB 1525A requires ODOE to report to the Oregon Climate Action Commission (OCAC) on updates to the natural and working lands net biological carbon sequestration and storage inventory no later than December 1 of each odd-numbered year rather than in each even-numbered year. It requires the results of the ODOE study on workforce and training needs to support natural climate solutions on natural and working lands by September 15, 2025, rather than September 15, 2024, and extends the sunset to January 2, 2026, instead of January 2, 2025. It requires that ODOE and OCAC establish nonbinding biological carbon sequestration and storage goals for Oregon's natural and working lands by January 1, 2026, rather than January 1, 2025. The adjusted deadlines are to improve the quality of the reports which entail complex analysis.

Energy Security Plan:

SB 1525A requires ODOE to submit the first state energy security plan by September 30, 2024, rather than June 1, 2024. The plan will identify risks and threats to Oregon's energy systems, including transportation fuels storage, and identify actions that can be taken in the future to reduce those risks.

Community Renewable Investment Program:

SB 1525A expands the definition of planning costs and project costs in the Community Renewable Energy Grant Program to include costs paid or incurred by an applicant's partner, rather than exclusively an applicant. It clarifies that "electric cooperative" includes a cooperative that is operating in-state and formed to generate, purchase or obtain electric power, energy, transmission services or ancillary services or to represent one or more consumer-owned utilities in meeting rural, environmental or renewable energy requirements and mandates. ODOE is authorized to release up to 30 percent of additional grant money provided for in a performance agreement from the Community Renewables Energy Grant Program, if the applicant demonstrates certain requirements have been met. The bill stipulates that the amount of grant moneys released prior to completion may not exceed 30 percent of qualifying project costs and 15 percent of costs that do not qualify as community energy resilience projects.

Standby Generation Facilities:

SB 1525A expands exemption from obtaining a site certificate from the Energy Facility Siting Council for a standby generation facility that is electrically capable of being interconnected to the grid but is dispatched by a local transmission and distribution grid operator or balancing authority to support grid reliability. The bill requires the standby generation facility to be operating consistent with federal requirements and to exclusively use renewable fuels, including renewable diesel, renewable natural gas, or renewable hydrogen, if they are available and it does not violate the generator's warranty or certification. The bill requires a public utility that operates a dispatchable standby generation program to report to the Director of ODOE on the number of generators, the average hours of operation, aggregated amounts of fuel by type, availability of renewable fuels, and statutory compliance. The ODOE Director is required to make this information available on a publicly available website.

Heat Pump Grants and Rebates:

SB 1525A requires that money in the Heat Pump Deployment Fund on July 1, 2024 be transferred to the Residential Heat Pump Fund. It requires the transferred moneys to be used to provide grants, rebates, and administrative costs in some regions and for members of federally recognized Indian tribes – the existing heat pump program did not successfully procure regional program administrators across all of Oregon – leaving some regions and tribes unserved, which HB 1525 will remedy. The transferred funds are required to be used to provide rebates for the purchase and installation of air-source or ground-source heat pumps to owners of a dwelling unit used as a residential tenancy and to the owners of a manufactured dwelling or recreational vehicle who rent a space in a manufactured dwelling or recreational vehicle park.

SB 1525A passed the Senate 28-2 unanimously on February 21 and was approved by the House 49-4 on March 4.

HB 4080 Offshore Wind Roadmap – MONITOR -- PASSED

This bill directs Oregon Department of Land Conservation and Development (DLCD) to lead an engagement and input gathering process with a diverse group of interested parties, Tribes, communities, and state agencies to develop a “state offshore wind roadmap” to identify standards that must be considered in approval processes related to developing an offshore wind project.

HB 4080 was approved in the House 37-21 on March 5 and approved in the Senate 17-11 on March 7.

HB 4102 Federal Funds and Natural and Working Lands – SUPPORT -- PASSED

HB 4102 allows federal funds to be deposited into the state Natural and Working Lands Fund established by HB 3409 in 2023. The Natural and Working Lands Fund supports projects that can reduce or sequester carbon via programs at the Oregon Departments of Agriculture, Fish and Wildlife, and Forestry and the Oregon Watershed Enhancement Board. By law, the Oregon Climate Action Commission has a role in approving how the Natural and Working Lands Fund is allocated.

HB 4102 was approved by the House 53-1 on February 15 and approved by the Senate 26-4 on March 4.

Recommendation/Requested Board Action

These are informational updates, and no action is required at this time.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

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

FROM: Karen Kelley, Chief Operations Officer; Mike Masters, Water Operations Manager; Wally McCullough, Water Engineering Supervisor; Susan Fricke, Water Resource & Quality Assurance Supervisor

DATE: April 2, 2024

SUBJECT: Water Utility Willamette River Second Source Project

OBJECTIVE: Information Only

Issue

Numerous activities are currently underway in support of EWEB's Willamette Supply Project which is currently in the Water Capital Improvement Program (CIP) and Long-Term Financial Plan (LTFP). This memo and its attachment summarize the background behind the project and these current activities.

Background

The background and detail associated with EWEB's current effort to construct a second source of supply was documented in the September 24, 2021, Board Memo (2021 Memo) presented at the Board's October 2021 meeting. As the proposed project is essentially unchanged from what is described in the 2021 Memo, it is attached for reference.

The 2021 Memo included a discussion on activities necessary for EWEB to implement the project, i.e. the Next Steps. These include:

1. The EWEB Board needs to decide if they support the current approach and timeline to implementing a second source, including potentially the maximum level of investment.
2. EWEB needs to meet with the City of Springfield and resolve any issues with the treatment plant location in Glenwood. As part of these discussions, the location of the treatment plant (preferred property, option property, other?) needs to be resolved.
3. Land use permitting should begin. This would start by getting the treatment plant location on the PFSP followed by amendments to the Glenwood Refinement Plan and Springfield Development Code.
4. Environmental permitting should begin. Once the river intake design is confirmed, EWEB needs to submit for the appropriate Army Corp of Engineers and State Division of State Lands permits for in-river construction.

A progress report on each of these items is presented below along with an update on a few other related project topics.

Discussion

Progress Toward Next Step Items:

1. Board Support for Current Approach, Timeline, and Level of Investment

The 2021, 2022, 2023, and 2024 Water Capital Plans were consistent with respect to timing and the level of investment associated with the Willamette Water Treatment Plant/Second Source of Supply Project. Each plan included approximately \$90M to \$100M allocated to the project with the bulk of the spending occurring in the 2026 to 2029 timeframe. The minor variations in costs are due to inflation assumptions included in the respective plans.

The inclusion of these CIPs in the Board approved Long Term Financial Plans for the noted years indicate support for the project which staff greatly appreciate. Consistent support from the Board is critical to the success of the project.

2. Treatment Plant Location

Current permitting and land use efforts both place the treatment plant on Tax Lot 700 in Glenwood which is the original and preferred location for the plant. While an option to place the treatment plant closer to Springfield Utility Board's proposed substation to the north was obtained, this property has limited space and access issues. Refer to the 2021 Memo for tax lot location.

The decision to continue with the treatment plant on Tax Lot 700 was based on discussions at the Development Issues (DIM) meetings mentioned in the land use update below and on discussions with the Springfield City Council at their June 27, 2022, work session where EWEB presented the project to them.

3. Land Use Permitting

EWEB staff-initiated land use planning efforts in partnership with the City of Springfield (Springfield) in 2023. EWEB staff participated in three Springfield Development Issues (DIM) Meetings. A DIM provides applicants with a formal recorded venue to ask and receive answers to questions pertaining to project implementation. The meetings include Springfield planning and development staff and other stakeholders from agencies such as ODOT and Eugene/Springfield Fire.

At these meetings, Springfield confirmed that the treatment plant site will need to be annexed into Springfield and that the treatment plant itself is considered a High Impact Public Facility by Springfield Development Code (code) which is not currently an allowed use within the Glenwood Refinement Plan (Plan) area. Furthermore, the code requires that all High Impact Public Facilities be included in the Eugene-Springfield Metropolitan Area Public Facilities and Services Plan (PFSP), which the project currently is not included in. Because of these issues, the project will require code and plan amendments and a PFSP amendment to

be considered developable and Springfield will not issue code and plan amendment approval prior to the PFSP being amended to include EWEB's project.

The PSFP is a state required planning document that among other things includes a list of all required utility projects within the Eugene-Springfield metro area as defined in the Oregon Administrative Rules. Amendments to the existing PFSP require approval by the joint Eugene, Springfield and Lane County Planning Commissions and joint Eugene and Springfield Councils and the Lane County Commission. After the DIM meetings with Springfield, it came to EWEB's attention that a regional amendment to the PFSP was being initiated by both City of Eugene (Eugene) and Springfield with a target approval date of early 2023.

EWEB staff participated in this amendment project and worked with staff from Eugene and Springfield to include the proposed raw water intake, treatment plant and transmission pipeline on the projects list and map in the (PFSP) as well as all other upcoming EWEB projects. However, the project timeline was delayed by both the Eugene and Springfield legal counsels, which has resulted in larger wholesale changes to the PFSP, unrelated to EWEB's project.

EWEB staff are in regular contact with Eugene and Springfield staff regarding options on how to proceed with the required plan and code amendments given the delays in the adoption of the amended PFSP. This is an ongoing process which EWEB hopes to have resolved by year end 2024.

4. Environmental Permitting

Most of the effort over the last year has been associated with this task. Specific accomplishments include:

- Value engineering was performed regarding the specific intake location which resulted in a downstream shift in the intake location to minimize excavation costs.
- Field work was completed including wetland delineations, plant surveys, aquatic habitat surveys, and cultural surveys. Reports were prepared for each item.
- A permit required project alternative analysis was completed along with wetland functional assessments.
- Permit drawings were prepared, based on past pre-design efforts, for the river intake, treatment plant, and transmission pipelines.
- Meetings to introduce the project were held with the permitting agencies including Corp of Engineers, Division of State Lands, National Marine Fisheries Service, and Department of Environmental Quality.

In addition, river temperature modeling to determine the potential effects of the water withdrawal are in progress as is preparation of the required biological assessment.

Related Activities

1. Water Rights

For the past several years, EWEB's efforts regarding water rights focused on supplementing the existing Registration/Claim and Permit EWEB has on the Willamette with access to

Federal stored water. This is the water stored behind the Federal dams in the Willamette Basin. Access to this water required a reallocation of the storage space to allow for municipal/industrial use which EWEB and other Willamette Basin Providers have been working towards for the last decade or more.

The reallocation of the storage space was approved at the Federal Level in 2020 and at the State level in 2021-22 however many hurdles remain as the different agencies work to develop a process for the stored water to become available. EWEB along with the other Willamette Basin water providers are working with the Bureau of Reclamation, Corp of Engineers, and the Oregon Water Resources Department to develop the required procedures but it is a very slow process and legislative support may be necessary. Progress is measured in years.

One aspect that EWEB is taking on is the development of a standard contract for the stored water. This work involves a relatively minor amount of water that happens to be available now from Cottage Grove and Dorena Lakes. A draft contract between EWEB and the Corp of Engineers for access to this stored water is currently in review, slowly making its way up to the Assistant Secretary of the Army who will eventually need to approve it.

Concurrently EWEB staff and its water rights consultant meet monthly with the Corp of Engineers to discuss the details of the contract and its progress which, similar to the reallocation, is very slow. EWEB's primary concerns relate the cost of the stored water in relation to its reliability as these two items need to be connected. The Board can expect to hear about this ongoing work for several more years.

2. Source Water Protection

With the renewed effort toward a Willamette River supply, source water protection staff reached out to DEQ in February 2024 to discuss a general Source Water Protection Plan and the timeline for the project. Staff anticipate working with a GIS analyst at DEQ to look at GIS layers of upstream threats (e.g. erosion potential, underground storage tanks) in the Coast and Middle Fork Willamette watersheds. This work will form the basis of the source water protection plan for the Willamette.

In addition, in 2023 staff started source water quality monitoring at the proposed intake location. This work included installation of a permanent water quality sonde. The new water quality monitoring data will build upon the work completed in 2013-2017 as part of the earlier plant preliminary design efforts. We will keep the board updated on the monitoring results as part of this annual update.

Costs

The current Water CIP and LTFP include approximately \$98M for the Willamette Supply Project. This cost is based on the estimate prepared in the 2016-17 Preliminary Design Report with the costs escalated for inflation to a construction time frame of 2026-2028.

In late 2024 EWEB anticipates hiring a consultant for detailed design. One of the first tasks will be to verify this estimate in conjunction with a construction manager/general contractor (CMGC).

Schedule

The anticipated project schedule, which is regularly reported to the Board as part of the Quarterly Reporting for 2024 Organizational Goal 1, is summarized below:

- Final Environmental Permits – Joint Permit Applications to Agencies: June 2024
- Land Use Approval: Q1 2025
- Start of Construction: Mid 2026
- Project Operational: 2028-2029

For the above to occur it is important that Design Consultant be retained by end of 2024.

TBL Assessment

Triple bottom line reviews are anticipated to occur for individual aspects of the project during final design development. Items to be reviewed would include such things as building type and layout, site configuration, mass grading alternatives and other aspects where alternatives are available. This work will be completed in a collaborative manner with the designer and construction manager as part of the CMGC process.

Recommendation/Requested Board Action

None, this is an information only item providing an update on the Willamette Water Treatment Plant/Second Source of Supply.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Schlossberg, Brown, Carlson, Barofsky and McRae
FROM: Karen Kelley, Chief Operations Officer; Wally McCullough, Water Engineering Supervisor
DATE: September 24, 2021
SUBJECT: Water Utility Second Source Project
OBJECTIVE: Information Only

Issue

The proposed 2022-2026 Water Capital Improvement Plan (CIP) includes significant investments associated with the construction of a second water treatment plant/source of supply on the Willamette River. This memo summarizes the background behind this proposed project and describes the project's capacity, reliability, and other features.

Background

EWEB has made numerous attempts to build a second water treatment plant over the last several decades. These have included attempts on both the McKenzie River and the Willamette River. Earlier efforts had a goal of additional capacity while later efforts were focused on enhanced resiliency. Three different properties have been purchased during these efforts and numerous engineering studies completed.

The current effort to develop a Second Source began in 2014 with the following activities occurring through 2017:

- **Water Rights.** A point of diversion was added to EWEB's claim and recently acquired permit on the Willamette River at a point just below the confluence of the Coast Fork and Middle Fork.
- **Property Acquisition.** Property was obtained for both a river intake and a water treatment plant. The properties are in South Glenwood off Franklin Blvd/McVay Hwy.
- **Design.** Preliminary design was completed for the new river intake and treatment plant. The treatment plant was to be a robust normally operating plant with a capacity of approximately 16 million gallons per day (MGD). A preliminary site plan for the proposed treatment plant along with renderings of it are included in Attachment 1.
- **Public Outreach.** Concurrent with the design effort, EWEB completed an extensive public outreach campaign and program. This included facilitating a Blue-Ribbon Panel to vet the project. This panel included community and stakeholder members with expertise in engineering and treatment plant operations, environmental issues, water quality, emergency management, and community resiliency.

- Land Use. Two Development Issues Meetings were held with City of Springfield (Springfield) staff prior to property acquisition and work was undertaken to add the Second Source Facilities to the Public Facilities Services Plan (PFSP) via an amendment to the plan. This is the first step in the land use process and required approval by Springfield City Council. The topic was presented at two Springfield council meetings in 2016 and in both meetings the Council removed the item from the agenda with no action taken.

Following the 2016 Springfield Council meetings, EWEB wrapped up our preliminary design and put the proposed new water treatment plant on hold. EWEB then shifted focus to establishing an emergency water supply distribution system using groundwater wells in case EWEB is unable to deliver water from the Hayden Bridge Filtration Plant or through the water distribution system.

After our Emergency Water Supply System became more developed, EWEB started planning work once again on the Second Source project. In 2018 funding for the project was placed back in the CIP and the Long-Term Financial Plan (LTFP) and this past year EWEB met with the City of Springfield twice to discuss the project, its placement in Glenwood, and the benefit it would provide to the region.

In addition, recently EWEB completed negotiations with the Springfield Utility Board (SUB) regarding EWEB's property in Glenwood, SUB's adjacent property, and other interests. The result of these negotiations includes, among other items, SUB's acquisition of easements for electric transmission lines across EWEB property and EWEB acquiring a purchase option for adjacent property that could be used to site the treatment plant to better consolidate utilities in the area. This was an issue for Springfield in the 2016 discussions. EWEB's original property and the option property location are shown on the map included as Attachment 2.

With respect to costs, over the last 10-12 years costs allocated for the Second Source in the CIP and LTFP have varied from \$120M to \$0. The current CIP includes approximately \$90M for a Second Source for EWEB which is the cost for a robust treatment plant as envisioned in the completed preliminary design, accounting for inflation.

Discussion

As a redundant source intended to provide service to our customers in the event of EWEB losing the Hayden Bridge Filtration Plant/McKenzie River supply, the capacity and reliability of the Second Source project are important. These and other features of the project are discussed below.

Capacity

The proposed treatment plant will have an emergency supply capacity of approximately 16 Million Gallons per Day (MGD). This is equal to the current wintertime demand which would be enough to keep water flowing to all customers (assuming curtailment of landscape use in peak demand season). If a local event shut down the Hayden Bridge source, and everything else was normal, this would ensure service to businesses and industry. This would be the initial capacity at startup. Once in operation, it is anticipated that testing would confirm the ability to increase loading rates on various process to increase the capacity to the water right limit of 19 MGD.

Treatment plant capacity is related to finished water quality. As proposed, the new Treatment Plant will have robust treatment processes able to treat all anticipated raw water conditions in the Willamette both with respect to water quality and taste/odor to a level higher than Hayden Bridge

drawing from the McKenzie. The proposed plant will be able to provide very high-quality water up to about 10 MGD at lower flows and in emergencies will be able to provide up to approximately 16-19 MGD of water meeting all regulatory requirements.

This is illustrated in the capacity-quality curve for the proposed Filtration Plant shown in Figure 1.

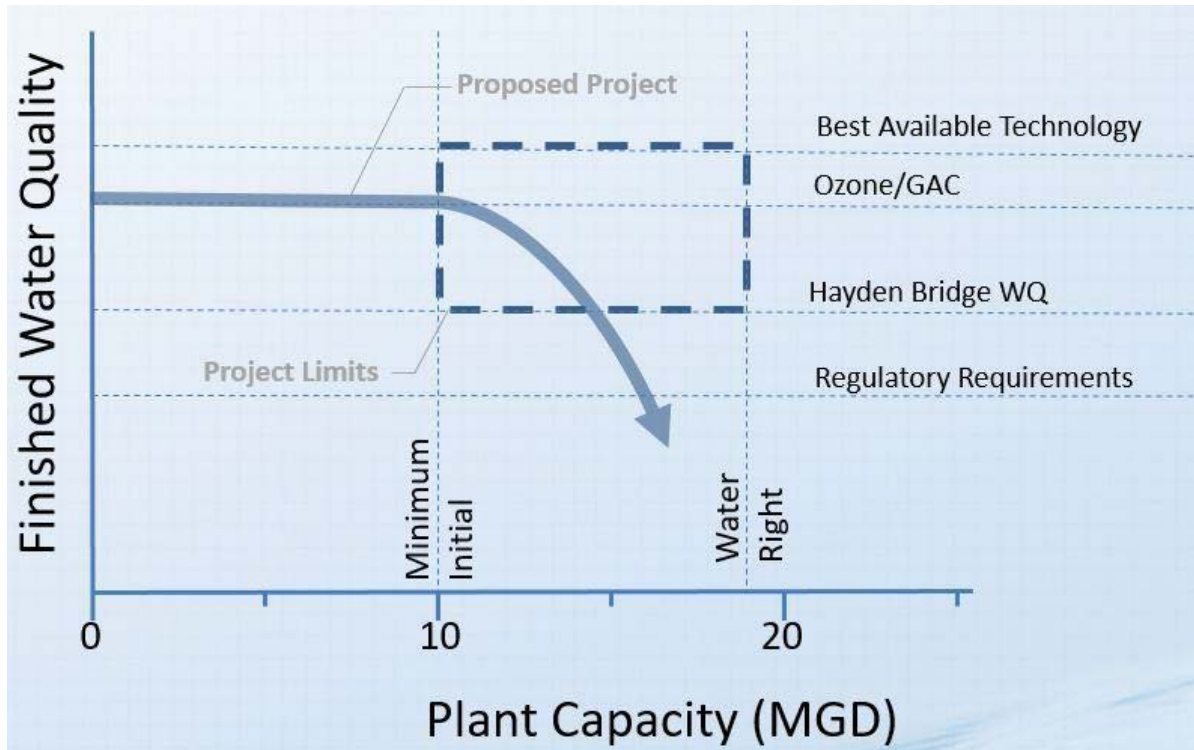


Figure 1. Capacity/Quality Curve for Proposed Treatment Plant

Reliability

The reliability of the Second Source Project is dependent on three items:

- 1) The reliability of the source or the ability to draw water from the Willamette River – the ‘water rights’ EWEB has on the river.
- 2) The reliability of the river intake and water treatment plant
- 3) The reliability of the transmission and distribution system

Each of these are discussed below.

Source Reliability

Water rights i.e., permits, claims, certificates, instream rights, etc., are very complicated. The items applicable to EWEB’s ability to draw water from the Willamette River at the Second Source location are summarized in Table 1:

Table 1. Applicable Second Source Water Rights

Pre-1909 EWEB Surface Water Registration:	EWEB holds a pre-1909 Surface Water Registration Claim on the Willamette River which was first used in 1887. This
---	---

SW-354	claim will need to be confirmed through a process known as adjudication where pre-1909 claims are confirmed. Adjudication for the Willamette River is not anticipated to be completed for decades, 50 plus years. Until then this claim is available to use and approximately 19MGD is allowed for withdrawal at the Second Source site. EWEB is actively managing this claim with annual use.
1983 State of Oregon Certificate: 59549	This is the certificate established by the State which establishes minimum instream flows in the reach of the Willamette River where our second source is located.
2013 EWEB Permit: 54805	<p>EWEB acquired this permit to increase the level of certainty for its authorization to use Willamette River water. It reflects the authorization of EWEB’s registration SW-354 but is subject to the “senior” instream rights established by Certificate 59549. If during the adjudication process SW-354 is confirmed, this permit expires.</p> <p>Being subject to instream flows, the ability to withdraw water under this permit is subject to how much water is in the river. A previous analysis concluded that if future flows continue to reflect the trends seen in historical flow records, EWEB could expect Permit S-54805 to be relatively reliable. Water is, however, expected to be unavailable under the permit during at least some portion of most years and a large portion of the time in very dry years</p>

In addition to the above, EWEB is pursuing other avenues to supplement the amount of water that can be withdrawn from the Willamette River. Currently the most likely future opportunity is with access to Federal stored water. This is the water stored behind the Federal dams in the Willamette Basin. Access to this water has required a reallocation of the storage space to allow for municipal/industrial use. Processes to access stored water for municipal/industrial use are in development and EWEB along with several other Willamette Basin water providers are involved that have supported recent legislation at the State and Federal level related to this. Use of stored water used for municipal purposes would not be subject to instream water rights, such as Certificate 59549.

Treatment Plant and Intake

The proposed treatment plant and intake will be robust and designed to be very reliable with the following features:

- The proposed plant will have redundancy in process and equipment. When failures do occur, there will be a backup.
- It will have the appropriate treatment process to handle most river quality situations with ease.

The level of service goals for the proposed plant are shown in Table 2.

Table 2. Proposed Treatment Plant Level of Service Goals

Parameter	Proposed Treatment Plant Level of Service Goal
Capacity/Water Quality	
Quality Equal to or Better than Hayden Bridge	Up to 10 MGD
Quality Meeting Current Regulatory Limits	Up to 16 MGD
Ability to Treat during Fuel Spill	Yes
Ability to Treat Following Fire in Watershed	Yes
Ability to Treat for Algae Toxins	Yes
Ability to Meet Anticipated Future Regulations	Yes
Resiliency/Recovery Time (Note - The EWEB water system has approximately 1 to 2 days demand's worth of water in reservoirs when the Hayden Bridge source is lost i.e., no home water delivery or sanitation after a couple days)	24 Hours to 100% Capacity following event – 16 MGD

Transmission/Distribution

The proposed project and associated costs include a new robust transmission line from the treatment plant location to our existing transmission system near the Knickerbocker Bridge. The current CIP includes numerous resiliency upgrades to the existing transmission system which will help ensure that the water can be delivered throughout Eugene. These include:

- 1) A planned seismic upgrade of the Knickerbocker Bridge.
- 2) A redundant crossing of the Willamette River at the EWEB Headquarters (HQ) Site.
- 3) Completion of the HQ to Knickerbocker Transmission Main. The second phase of this three-phase project is currently in construction.
- 4) New transmission lines to the E 40th and College Hill Base Level Reservoir sites.

A map showing the planned transmission improvements is included as Attachment 3.

Water Quality/Blending

As proposed the new treatment plant would operate daily to ensure its reliability and operation when needed, producing about 5 MGD. This water would enter our transmission system at Knickerbocker Bridge, into the transmission main supplying water to the bulk of South Eugene. The rest of the service area would receive water from our Hayden Bridge Plant.

While water quality testing shows no issues with mixing the source waters, there may be public perceptions of quality to overcome. Some customers looking at the data will see that the higher quality water from the new treatment plant is going to South Eugene while North and West Eugene are getting water from the older Hayden Bridge Plant. Other customers may have the perception that McKenzie River will always be better than the Willamette or vice versa. In both cases, the finished water from the plants will meet or exceed established water quality standards.

The difference in source water for different areas can be solved by blending the water from the two plants prior to entering our system. This, however, would be very expensive requiring pipelines, valving, and potentially a couple river/highway crossings.

Alternatively, the issue can be countered with public education - explaining the fact that it is all high-quality water. Most water utilities with multiple sources do not blend the different source waters prior to entering the system.

Partnership Opportunities

Potential partnerships with the Springfield Utility Board (SUB) on use of Willamette River water have been discussed in the past and culminated in the July 2019 Joint Resolution (EWEB No. 1919; SUB No. 2019-5). This resolution directed the General Managers to study how the two utilities could put their respective water rights on the Willamette River to beneficial use more effectively by working together rather than separately.

Since 2019, most of the discussions with SUB on water supply have been focused on the potential for enhancing the interties between the two utilities. The intertie intergovernmental agreement between EWEB, SUB and Rainbow Water District is in process of being updated. Due to SUB's priority to negotiate land, an asset transfer, and establish electric transmission lines in Glenwood, over the past 18 months there have been few meetings on this effort. The land and asset agreements were signed by EWEB and SUB earlier this month (September 2021).

Presently, SUB is putting effort into constructing a new surface water treatment plant on the McKenzie and is not currently focused on the Willamette River or their existing 6.6 MGD Willamette River Plant. SUB's existing water plant uses a slow-sand filtration process, and while it was not designed to meet the same standards as our Willamette River Plant preliminary design, it currently meets SUB's needs.

As such, it does not appear that there are benefits for SUB to participate in a new Willamette River Treatment Plant at this time. In the future however, to protect their water rights and/or if SUB is required to upgrade or expand their existing Willamette River plant, the opportunity would be there for SUB to consider 'buying into' the new EWEB plant if it is a cost-effective alternative for them.

Outside Funding Opportunities

Obtaining some level of outside funding would obviously alleviate pressure on the LTFP due to this project. Depending on the timing, as a rough estimate for every \$5 million of avoided capital financed by EWEB, a 1% rate increase is avoided.

In addition to EWEB's own municipal bonding options, outside financing options that might be available to EWEB for the Second Source Project include:

- The Drinking Water State Revolving Fund (DWSRF) program. This is a federal-state partnership to help ensure safe drinking water. It is a loan program that can incorporate partial grants in some instances.
- The Water Infrastructure Finance and Innovation Act (WIFIA) program. This is a federal credit program administered by EPA for eligible water and wastewater infrastructure projects. The WIFIA program offers longer-term, supplemental loans for regionally and nationally significant projects. WIFIA works separately from, but in coordination with, the State DWSRF programs to provide low-cost financing for large dollar-value projects.
- A variety of other grant programs at the federal and state level, but in most instances, these

are tailored to meet the needs of water systems much smaller than EWEB.

Also, at the time of this memo, Congress and the Executive Branch are pursuing passage of a historic national infrastructure bill with water/wastewater infrastructure investment as a key element of this legislation. Presently, the infrastructure bill aims to use existing programs like the DWSRF and WIFIA to disburse the new funding infusion. Discussions in Congress are contemplating increasing the ratio of grant relative to loan in federal-state water infrastructure financing tools.

Finally, because of recent federal assistance to states over the last year and a potentially promising state revenue forecast, there could be opportunities in the 2022 Oregon Legislative Session for EWEB to seek a discretionary appropriation of funds from the Legislature for drinking water infrastructure, although the availability of funds is not known at this time.

In anticipation of pursuing some level of external financing, EWEB is currently looking at ways to ‘carve’ out smaller portions of the Second Source project that may be easier to seek outside funding for compared to the overall project.

Next Steps

While much work has gone into the current second source project, much work remains. The following activities/decisions are necessary for EWEB to construct a second source on the Willamette River:

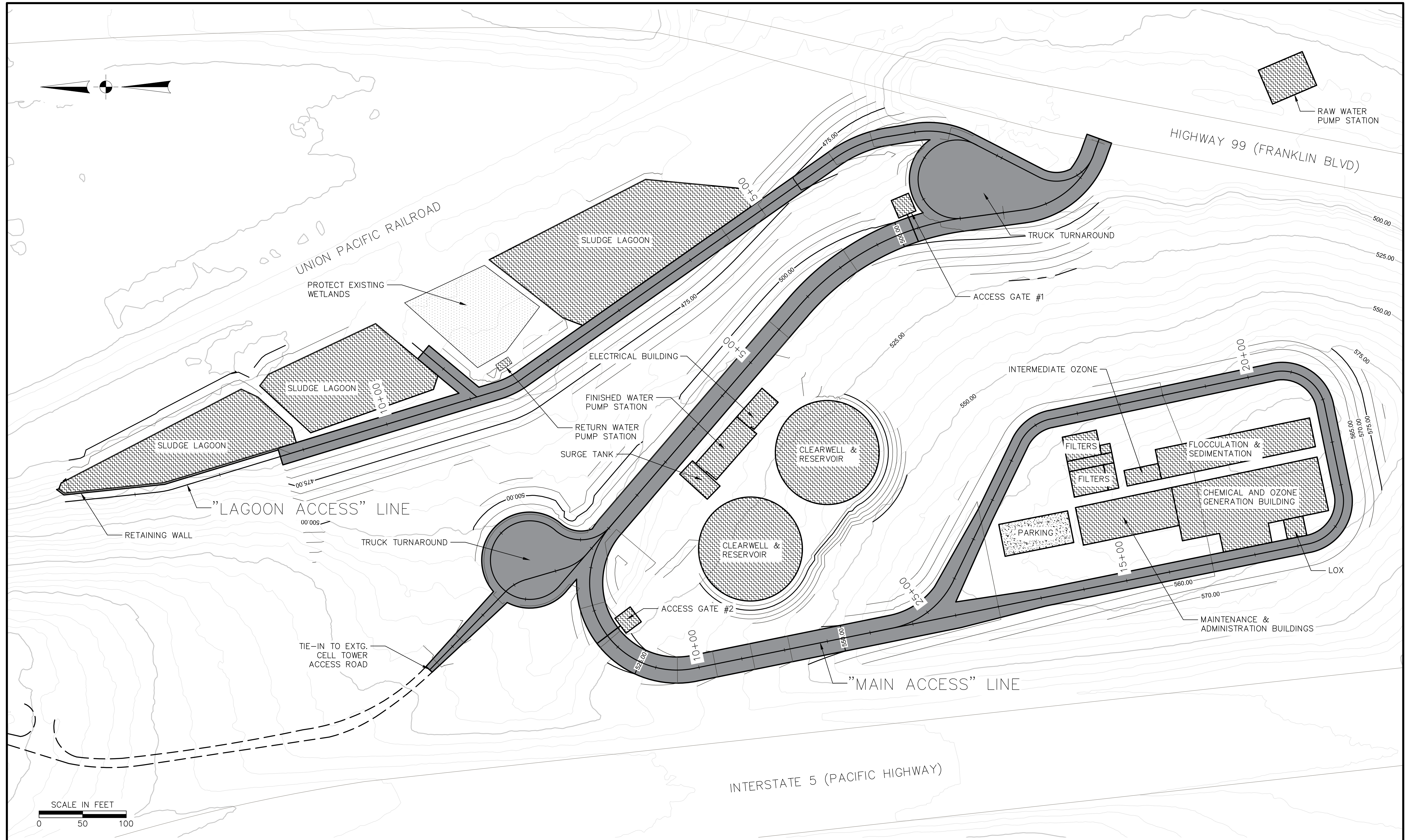
- 1) The EWEB Board needs to decide if they support the current approach and timeline to implementing a second source, including potentially the maximum level of investment.
- 2) EWEB needs to meet with the City of Springfield and resolve any issues with the treatment plant location in Glenwood. As part of these discussions, the location of the treatment plant (preferred property, option property, other?) needs to be resolved.
- 3) Land use permitting should begin. This would start by getting the treatment plant location on the PFSP followed by amendments to the Glenwood Refinement Plan and Springfield Development Code.
- 4) Environmental permitting should begin. Once the river intake design is confirmed, EWEB needs to submit for the appropriate Army Corp of Engineers and State Division of State Lands permits for in-river construction.

Following the above, the project would follow the steps of a ‘normal’ project with design and construction activities.

Recommendation/Requested Board Action

Input is sought from the Board on the items presented herein, including the scope, commitment to fund the project, and pursuit of next planning steps. This is an update on a long-term strategic project. Board feedback to help ensure we are moving in the right direction is requested. Staff will be available to answer questions at the October 5, 2021, Board meeting.

If you have any questions please contact Karen Kelley, Chief Operations Officer at 541-685-7153 or karen.kelley@eweb.org



SCALE IN FEET
 0 50 100

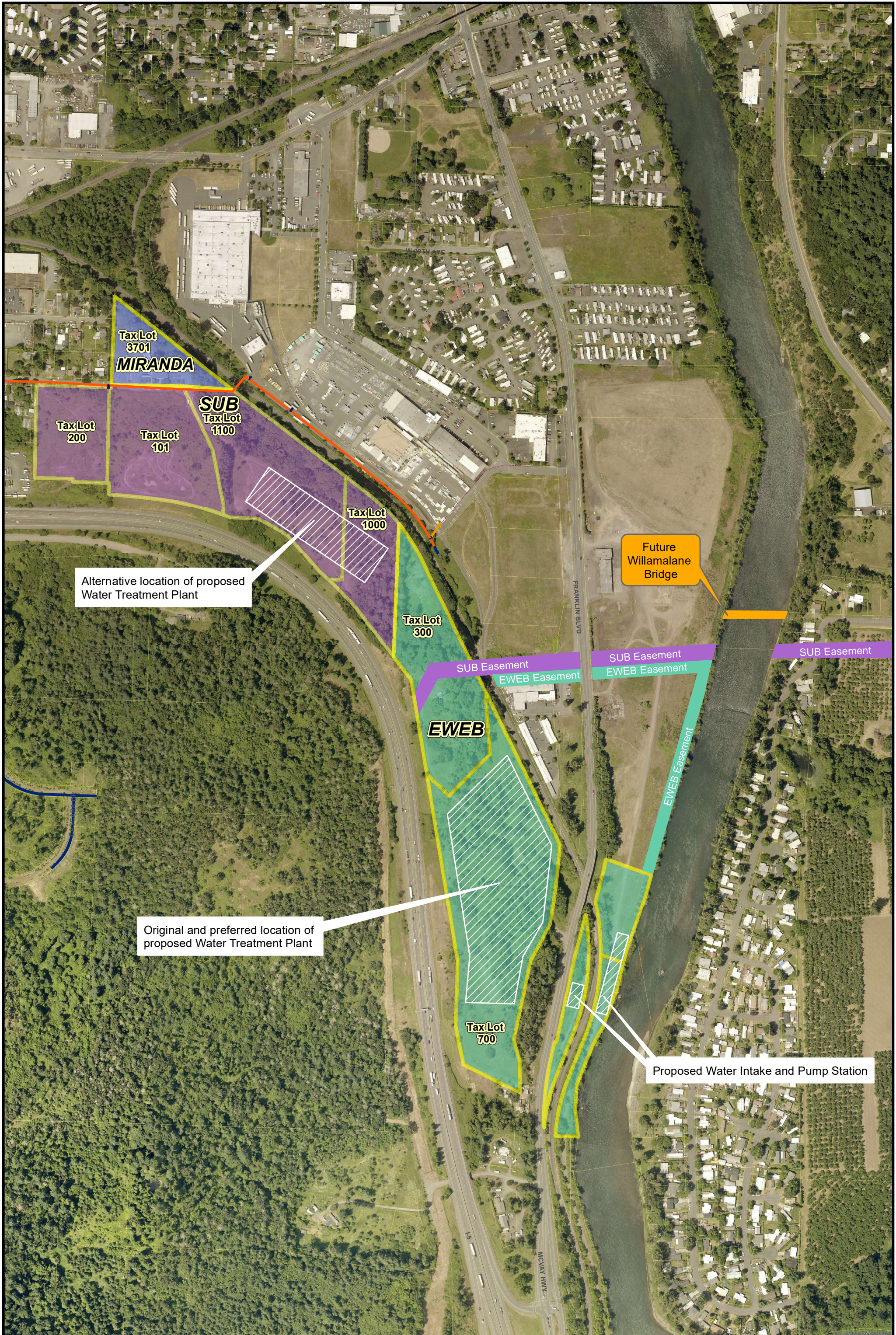


ADMIN. / MAINTENANCE

CHEMICAL AND OZONE GENERATION BUILDINGS







Tax Lot 3701
MIRANDA

Tax Lot 200

Tax Lot 101

SUB
Tax Lot 1100

Tax Lot 1000

Tax Lot 300

EWEB

Tax Lot 700

Future Willamalane Bridge

Alternative location of proposed Water Treatment Plant

Original and preferred location of proposed Water Treatment Plant

Proposed Water Intake and Pump Station

SUB Easement

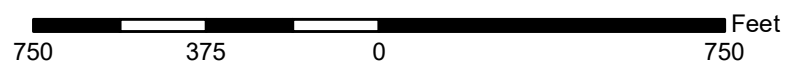
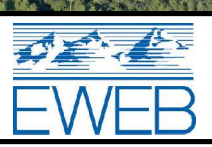
EWEB Easement

SUB Easement

EWEB Easement

SUB Easement

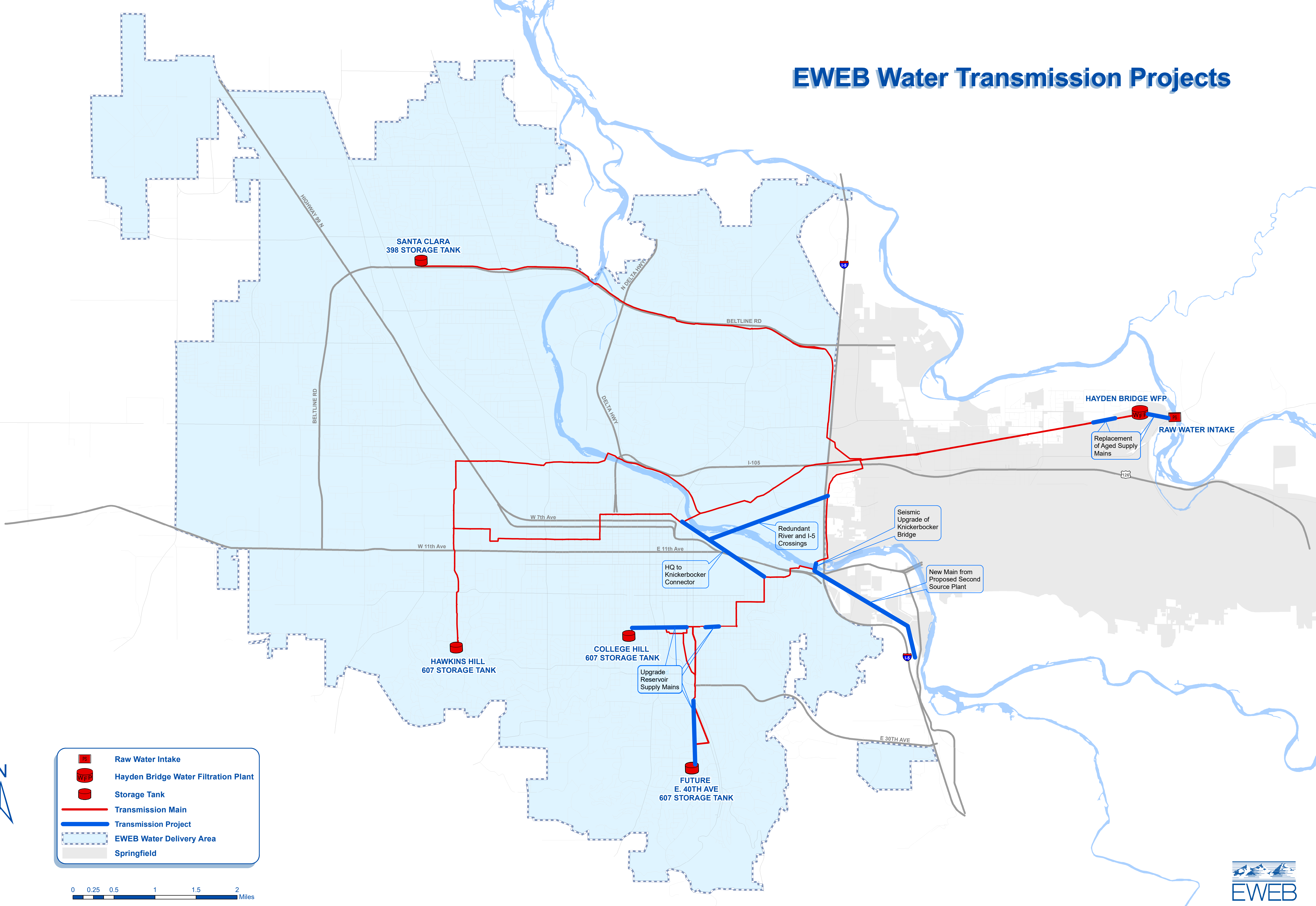
EWEB Easement



INFORMATION SHOWN IS FOR EWEB USE ONLY AND IS NOT WARRANTED TO BE ACCURATE FOR UNINTENDED PURPOSES.

3/4/2021

EWEB Water Transmission Projects



	Raw Water Intake
	Hayden Bridge Water Filtration Plant
	Storage Tank
	Transmission Main
	Transmission Project
	EWEB Water Delivery Area
	Springfield

