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UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
AT EUGENE

CITY OF SALEM, an Oregon Municipal Corporation,

Plaintiffs,

v.

UNITED STATES OF AMERICA, and
UNITED STATES ARMY CORPS OF ENGINEERS, an agency of the United States government,

Defendant.

Case No. 6:26-cv-1381

COMPLAINT

Violations of the Administrative Procedure Act, 5 U.S.C. §§ 701–706

I. INTRODUCTION.

1. This action challenges the United States Army Corps of Engineers’ (“Corps”) decision to proceed with operational changes to the Willamette Valley System (WVS”) that include an annual deep drawdown of Detroit Reservoir, despite failing to adequately evaluate the resulting impacts to the City of Salem’s downstream drinking water system caused by increased turbidity and despite failing to comply with statutory requirements imposed by Congress.

2. The Detroit Dam and Reservoir are part of the federally operated Willamette Valley System (“WVS”), a network of dams and reservoirs owned and operated by the Corps in the Willamette River Basin in Oregon. Water released from Detroit Dam flows downstream through the North Santiam River, which serves as the primary drinking water source for the City of Salem and surrounding communities in the Mid-Willamette Valley.

3. The City of Salem operates the region’s primary drinking water treatment facility, and is responsible for supplying safe and reliable drinking water to approximately 220,000 individuals, as well as hospitals, schools, businesses, and other critical infrastructure.

4. The City of Salem’s service area includes the City of Turner, two water districts, and portions of unincorporated Marion and Polk counties. The City of Salem must also provide water in sufficient quantities for firefighting and other emergency needs, and is the only emergency source of drinking water for the City of Stayton and the City of Keizer.

5. In 2021, after years of failure to implement mandated fish passage measures at various facilities on the WVS, the Corps was ordered by the United States District Court for the District of Oregon to implement operational changes to the WVS, including Detroit Dam.

6. In connection with operational changes to the WVS intended to improve fish passage for threatened salmon and steelhead species, the Corps prepared a Supplemental Environmental Impact Statement (“SEIS”) analyzing proposed modifications to WVS operations, including annual deep drawdowns of Detroit Reservoir.

7. The Corps issued a final SEIS in May 2026. The Corps issued a Record of Decision documenting and publishing the final SEIS on June 23, 2026.

8. The final SEIS anticipates that the Corps will initiate the first deep drawdown of Detroit Reservoir in late 2026.

9. The proposed deep drawdown will substantially disturb sediments accumulated within Detroit Reservoir and downstream channels, mobilizing fine sediments and causing dramatic increases in turbidity levels in the North Santiam River.

10. Elevated turbidity in the North Santiam River will cause irreparable harm to the City of Salem’s drinking water treatment system, which relies on slow sand filtration and is designed to treat raw water with very low turbidity levels. High turbidity introduces fine sediments that clog the slow sand filters and significantly reduce the treatment plant’s capacity to produce safe drinking water, with sustained high turbidity levels ultimately causing complete failure and shutdown of the filtration system, resulting in the inability to produce *any* safe drinking water.

11. The City of Salem provided detailed public comments to the Corps regarding the impacts of the proposed deep drawdown on the City of Salem’s water supply and recommended specific measures to safeguard the City of Salem’s water supply while allowing the Corps to comply with its Endangered Species Act (“ESA”) obligations and avoid violations of Clean Water Act (“CWA”) water quality standards.

12. Despite acknowledging that the proposed deep drawdown will increase turbidity and mobilize sediment downstream, the final SEIS fails to conduct a legally sufficient analysis of turbidity impacts on downstream municipal drinking water systems, including the City of Salem’s water treatment facility.

13. The final SEIS also fails to consider and analyze how the proposed deep drawdown will lead to violations of Oregon’s water quality standards for turbidity.

14. The final SEIS also fails to adequately evaluate reasonable alternatives and mitigation measures that could reduce risks to downstream water users, including operational safeguards tied to turbidity thresholds.

15. In addition, Congress enacted the Thomas R. Carper Water Resources Development Act of 2024 (“WRDA”), which requires the Corps to prepare a report analyzing turbidity impacts associated with reservoir drawdowns in the WVS and identifying lessons learned from prior drawdown events and submit that report to Congress by January 4, 2026.

16. The Corps has not prepared or submitted the turbidity report required by the WRDA, despite the statutory deadline for the report having passed, depriving the public of key information relevant to the process under National Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4321–4370h, and the development of the SEIS.

17. By failing to closely analyze the turbidity impacts, failing to evaluate reasonable alternatives, failing to meaningfully respond to significant public comments, and failing to comply with the mandatory reporting requirements imposed by WRDA, Defendants have violated NEPA and the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701–706.

18. Plaintiff therefore seeks declaratory and injunctive relief setting aside the final SEIS and preventing implementation of the Detroit Reservoir deep drawdown unless and until Defendants comply with all federal laws to ensure the protection of the City of Salem’s water supply and consequently the health, safety, and welfare of the community depending on it.

II. JURISDICTION AND VENUE.

19. This Court has original jurisdiction over Plaintiff’s claims under 28 U.S.C. § 1346(b)(1).

20. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331 because this case arises under the laws of the United States, NEPA, 42 U.S.C. §§ 4321–4370h, the APA, 5 U.S.C. §§ 701–706, the Clean Water Act, 33 U.S.C. § 1251 et seq., and the Water Resources Development Act of 2024.

21. Venue is proper in the District of Oregon, Eugene Division, because the violations and the resources impacted by the Corps’ actions and omissions at issue in this case occurred in this judicial district. The City of Salem is located in this district. 28 U.S.C. § 1391(b)(2).

III. PARTIES.

22. Plaintiff City of Salem is a City in the State of Oregon.

23. Defendant United States of America is responsible for the actions of its agencies, officers, and employees, including the United States Army Corps of Engineers.

24. Defendant United States Army Corps of Engineers (“Corps”) is an agency of the United States Department of the Army responsible for the ownership, operation, and maintenance of the WVS, including Detroit Dam and Detroit Reservoir on the North Santiam River. The Corps prepared and issued the final SEIS challenged in this action and is responsible for implementing the operational changes addressed in that document.

IV. FACTS.

A. The Importance of the Detroit Dam and North Santiam River

25. The Corps owns, operates, and maintains the WVS, a system of thirteen federally operated dams and reservoirs located throughout the Willamette River Basin in Oregon.

26. The WVS includes Detroit Dam and Detroit Reservoir on the North Santiam River.

27. Water released from Detroit Dam flows downstream through the North Santiam River.

28. The North Santiam River is a critical municipal water source for communities in the Mid-Willamette Valley, including the City of Salem, which draws its drinking water from the North Santiam River through its water treatment facility located downstream from Detroit Dam.

29. The City of Salem is the primary regional drinking water provider in the Mid-Willamette Valley and supplies drinking water to approximately 220,000 residents as well as hospitals, schools, businesses, and other critical facilities, including firefighting infrastructure.

30. As Oregon’s capital city, the City of Salem is home to state offices, the state legislature, OSP headquarters, federal offices, multiple prisons, and the Oregon State Hospital, all of which rely directly on the City for safe water. In addition, Salem Hospital, which also relies on the City for drinking water, has one of the busiest emergency rooms in the West Coast and the largest trauma center in the region, which has a population of approximately 500,000 people.

31. Because the City relies on the North Santiam River as its primary drinking water source, operational changes at Detroit Dam directly affect the quality and reliability of Salem's drinking water supply.

B. The Thomas R. Carper Water Resources Development Act of 2024

32. On January 4, 2025, Congress enacted the Thomas R. Carpenter Water Resources Development Act of 2024, PL 118-272 (the "WRDA").

33. § 1205 of the WRDA requires the Corps to "submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on instances of high turbidity in a reservoir in the Willamette Valley resulting from a drawdown in the reservoir." PL 118-272 § 1205(b)(1). The Corps was required to submit this report within one year after the date of enactment of the WRDA (January 4, 2026). *Id.*

34. The report must:

"(B) identify and report instances during the 10-year period preceding the date of enactment of this Act in which turbidity concerns have arisen following a drawdown at a reservoir in the Willamette Valley ...;

(C) report on turbidity monitoring that the [Corps] performs during drawdowns to identify, and if necessary correct, turbidity issues;

(D) ... provide a summary of turbidity monitoring records collected during drawdowns with respect to which turbidity concerns have been raised by the public, including a comparison between turbidity prior to a drawdown, during a drawdown, and following refilling;

(E) identify lessons learned associated with turbidity resulting from drawdowns and indicate how changes based on those lessons learned are being implemented; and

(F) identify opportunities to minimize monetary strains on non-Federal entities caused by increased turbidity levels."

Id. at § 1205(b)(2).

35. The purpose of this requirement is to ensure that the Corps evaluates the water-quality impacts of drawdown operations, incorporates lessons from prior drawdowns, and implements appropriate operational safeguards to protect downstream water users and water quality.

36. The Corps has previously conducted deep drawdowns at other Willamette Valley reservoirs, including the Green Peter Reservoir drawdown, which generated substantial turbidity downstream and caused operational disruptions and damages to municipal drinking water systems.

37. These past drawdowns generated turbidity levels far above normal background conditions and show the significant risk that drawdown operations can pose to downstream water users, including public drinking water systems.

38. The report under § 1205(b)(1) of the WRDA was due on January 4, 2026.

39. To this date, the Corps has not submitted the report under § 1205(b)(1) of the WRDA.

C. Oregon's Water Quality Standards

40. To comply with the CWA, each state must develop and implement water quality standards that protect and enhance the quality of water within the state. Federal agencies, including the Corps, are required to comply with the water quality standards established by Oregon law.

41. Oregon's water quality standards are implemented via (a) numeric criteria, which may vary by location; (b) narrative criteria that apply state-wide; and (c) a general antidegradation standard.

42. Oregon law establishes a numeric criteria throughout the state for turbidity, allowing turbidity levels of no more than 10 percent above the baseline turbidity level upstream of the activity causing an increase in turbidity. OAR 340-041-0036.

43. Oregon’s Statewide Narrative Criteria for water quality provides that deleterious factors, which includes turbidity, must be maintained at their lowest possible levels regardless of the specific water quality standards established by regulation. OAR 340-041-0007(1). This Statewide Narrative Criteria also encourages coordination between federal, state, and local agencies to protect water quality, including by controlling turbidity. OAR 340-041-0008.

44. Oregon’s antidegradation policy requires governing bodies “to prevent unnecessary further degradation” and “ensure the full protection of all existing beneficial uses.” OAR 340-041-0004(1).

45. Previous drawdowns implemented by the Corps in the WVS in 2023 resulted in violations of Oregon’s limitations for turbidity, of Oregon’s Statewide Narrative Criteria, and of Oregon’s antidegradation policy.

D. The Deep Drawdown of the Detroit Reservoir

46. In 2024, the National Marine Fisheries Service (NMFS) issued a Biological Opinion and Essential Fish Habitat Response for the Continued Operation and Maintenance of the WVS (“BiOp”). In the BiOp, NMFS concluded that existing operations of the WVS jeopardize threatened fish species, including Upper Willamette River chinook salmon and Upper Willamette River steelhead, and therefore established a series of operational requirements and measures intended to improve fish passage and survival within the WVS.

47. Among those requirements, the BiOp directs the Corps to conduct annual deeper drawdowns of the Detroit Reservoir as an interim operational measure to facilitate downstream migration of juvenile fish.

48. In connection with the operational changes to the WVS under the BiOp, the Corps prepared a Supplemental Environmental Impact Statement (“SEIS”) for the WVS Operations and Maintenance.

49. The Corps released a draft SEIS in November 2025 for public review and comment, and the public comment period for the draft SEIS ran from November 14, 2025 through January 13, 2026.

50. The draft SEIS stated the level of the Detroit Reservoir would be dropped to a historically low level of 1,395 feet in the fall/winter in a single, continuous operation to facilitate the out-migration of threatened fish species.

51. Prior to the issuance of the draft SEIS, the City of Salem attended numerous meetings with the Corps, including one where the Corps toured the City of Salem's water treatment facility. During these meetings, the City of Salem explained how its facility's treatment process works and how the increased turbidity above 10 NTUs will impact the water system.

52. On June 20, 2025, before the issuance of the draft SEIS, the City of Salem submitted comments to the Corps, which are attached hereto as **Exhibit A**.

53. The City of Salem also submitted comments to the proposed SEIS on January 12, 2026, which are attached hereto as **Exhibit B**.

54. In its comments, the City of Salem explained why the proposed deep drawdown presents substantial and unreasonable risks of irreparable harm to Salem's drinking water infrastructure and to the hundreds of thousands of residents and businesses that rely on the North Santiam River for a safe and reliable water supply. The City of Salem's comments also proposed measures that would alleviate this risk while allowing the Corps to comply with its obligations.

55. The proposed annual deep drawdown of Detroit Reservoir will substantially increase turbidity in the North Santiam River, which poses serious operational risks to the City's water treatment system and thus threatens the availability of drinking water for the City's residents.

56. The City of Salem's drinking water treatment plant relies on a slow sand filtration system designed to treat raw water with very low turbidity levels. Under normal operating

conditions, turbidity in the North Santiam River is typically below 10 Nephelometric Turbidity Units (“NTU”), allowing the City of Salem’s filters to operate for approximately three months between cleaning cycles. The proposed deep drawdown would significantly disturb sediments in Detroit Reservoir and downstream channels, increasing the concentration of suspended solids and fine particles in the river well above 50 NTUs.

57. Bench-scale and pilot testing conducted by the City of Salem demonstrates that increased turbidity levels can reduce filter run times (meaning the period a sand filter can operate before it must be taken offline for cleaning due to accumulated particles) from approximately three months to as little as three weeks, and in some circumstances less than 24 hours. At higher turbidity levels, fine sediments can penetrate deeply into the sand filter beds, fouling the entire filter media rather than only the upper layer typically removed during routine maintenance. Such fouling can render filters inoperable and require extensive rehabilitation, including draining filters, removing contaminated sand, replacing filter media, and rebuilding the biological layer necessary for filtration. This rehabilitation process can take months and can cost several million dollars per filter.

58. If turbidity reaches levels above 10 NTUs, the filtration system will be threatened and the City of Salem may be forced to close its intake gates to prevent damage to the treatment plant. When the intake is closed, the City of Salem must rely on limited alternative water sources, including groundwater wells, stored reservoir water, and interties with the City of Keizer. These alternative sources are insufficient to reliably meet regional demand over extended periods and lack operational redundancy. If any component of these alternative supplies fails during a turbidity event, the City of Salem will be unable to provide adequate drinking water to the region/community, creating a public health emergency.

59. In addition, these alternative sources will be insufficient to meet anticipated increased demand through population growth in the next three to five years, or any request for

service by any new large user and to meet the City's demand in the event any unexpected and unrelated issues occur that disrupt the water sources.

60. Extended high-turbidity events would therefore threaten public health and safety by impairing the City of Salem's ability to produce safe drinking water in compliance with federal and state drinking water standards.

61. The risks are not merely theoretical. Similar reservoir drawdowns in the region have produced sustained turbidity levels ranging from approximately 20 to over 450 NTUs, causing significant operational disruptions for downstream water systems. Such conditions could force the City of Salem to shut down its treatment system, impose emergency water restrictions, or risk producing water that does not meet regulatory standards.

62. Water shortages will more significantly impact low-income communities, who may lack resources to obtain alternative drinking water over a prolonged period.

63. Even a short-term water shortage will lead to serious impacts in the community's health. For example, it will imperil operations at Salem's Hospital which has large Emergency Room and Trauma Center and provide services to a region containing approximately 500,000 people, and impact Salem's ability to fight fires.

64. Beyond immediate operational concerns and the resulting threat to clean and safe drinking water, the proposed deep drawdown also poses long-term consequences for the region's economic stability and growth. Operating the regional water supply system at or near capacity without redundancy limits the City of Salem's ability to maintain essential services, support residential development, and attract new businesses. The reliability of the City of Salem's water supply is a critical factor in economic development and infrastructure planning throughout the Mid-Willamette Valley. Accordingly, sustained or repeated disruptions caused by annual drawdowns threaten not only the City of Salem's water treatment infrastructure but also the broader regional economy.

65. In addition, the City of Salem indicated that the Draft SEIS lacked a detailed analysis of turbidity impacts on the North Santiam River water supply system, instead providing only a general qualitative description of increased sediment and turbidity. Specifically, the draft SEIS did not analyze specific turbidity level effects on downstream drinking water users, particularly Salem's treatment plant. It also did not evaluate how turbidity thresholds would affect the operation of Salem's slow sand filtration system and, as a result, how turbidity thresholds would affect the availability of drinking water for Salem residents, despite the City of Salem providing the results of laboratory testing that clearly demonstrated how turbidity affects the City's water treatment facility.

66. The City of Salem therefore recommended that the SEIS include a turbidity trigger analysis and operational responses—such as pausing the drawdown and restoring normal dam operations—to be implemented if turbidity exceeded certain levels.

E. The City of Salem Proposed Reasonable Alternatives and Mitigation Measures to Address the Impacts of the Drawdown

67. In its comments to the draft SEIS, the City of Salem proposed several reasonable measures that would allow the Corps to pursue the objectives in the BiOp while reducing the risks posed to the region's drinking water system and mitigating the risk for CWA violations.

68. First, the City of Salem recommended the establishment of a turbidity trigger that would halt drawdown operations if water quality conditions reach unsafe levels. Specifically, the City of Salem proposed that the Corps cease drawdown operations and return Detroit Reservoir to normal operating conditions if turbidity in the North Santiam River reaches or exceeds 10 NTU for twelve consecutive hours. This trigger would provide a clear operational safeguard to protect downstream water users, allow time for turbidity levels to decline, and ensure that the City of Salem's treatment system can recover before additional drawdown activities occur, thereby limiting or eliminating any interruption in drinking water availability and potential damage to the treatment system.

69. Second, the City of Salem recommended that the drawdown be implemented using a stepwise approach conducted over multiple years rather than a single continuous operation. A staged approach would allow agencies to collect data, evaluate turbidity responses, and adjust operations through adaptive management. This method would provide critical information regarding how quickly turbidity levels rise during drawdown operations, how long elevated levels persist, and how quickly downstream water quality recovers once operations cease.

70. Third, the City of Salem requested that the Corps evaluate the merits of delaying implementation of the drawdown for one to three years. Such a delay would allow the City of Salem to develop additional water supply resiliency measures, including identifying locations, securing funding, and constructing additional groundwater wells capable of providing sufficient yield during periods when water from the North Santiam river cannot be used due to the turbidity caused by the drawdown.

71. Fourth, the City of Salem urged the Corps to prioritize long-term structural solutions for fish passage rather than relying on annual drawdowns as a continuing operational measure. The BiOp and related planning documents identify structural improvements—such as downstream fish passage facilities—as the long-term strategy for supporting threatened fish species. The City of Salem requested that the final SEIS clearly commit to pursuing funding, project planning, and construction of these structural solutions so that annual drawdowns remain only an interim measure.

72. Finally, the City of Salem urged that the USACE incorporate an adaptive management framework with clear decision criteria governing annual drawdowns. Such criteria should account for changing circumstances, including variations in regional water demand or failures in critical water infrastructure, and allow drawdown operations to be delayed or modified when necessary to protect public health and safety.

73. Together, these proposed measures—turbidity triggers, phased drawdowns, implementation delays to improve water supply resiliency, prioritization of structural fish passage solutions, and adaptive management—represent reasonable and practicable alternatives that would allow the Corps to pursue ESA compliance while safeguarding the drinking water supply for the City of Salem and the surrounding region and complying with the CWA.

F. The Final SEIS is Insufficient Under Federal Law

74. In May 2026, the Corps issued the final SEIS. The Corps anticipates it will initiate the Detroit Reservoir deep drawdown in late November or early December 2026. The reservoir will be drawn down to the target elevation over approximately two weeks and remain at that level for about two additional weeks.

75. The SEIS acknowledges that the proposed deep drawdown of Detroit Reservoir will increase sediment and turbidity levels downstream of Detroit Dam, specifically mobilizing sediment stored in the reservoir and increasing turbidity in the North Santiam River downstream of Detroit and Big Cliff dams.

76. Despite acknowledging these impacts, the Corps did not prepare a turbidity report as required under the WRDA that would help inform the SEIS.

77. The SEIS also fails to adequately analyze turbidity impacts on the North Santiam River and Downstream Drinking Water Systems.

78. The SEIS does not model turbidity concentrations at downstream municipal water supply intakes, including the City of Salem’s drinking water intake on the North Santiam River.

79. The SEIS also does not analyze turbidity thresholds that would impair downstream drinking water treatment facilities.

80. In addition, the SEIS does not analyze several key alternatives proposed by the City of Salem. Specifically, the SEIS does not evaluate:

- a. turbidity-based operational triggers for halting drawdown operations;
- b. operational safeguards tied to downstream water quality thresholds; or

- c. delays in implementing the drawdown to allow development of alternative municipal water supplies.

81. The SEIS therefore fails to rigorously explore and objectively evaluate reasonable alternatives to the proposed drawdown operations.

82. The SEIS acknowledges that many commenters raised concerns regarding turbidity and impacts to municipal water supplies but fails to provide a substantive response addressing the specific concerns the City of Salem raised.

83. The SEIS does not evaluate the turbidity thresholds identified in the City's engineering analyses or the potential consequences of treatment plant shutdowns or prolonged interruptions to municipal water supply.

84. The SEIS does not evaluate or even consider the alternatives proposed in the City of Salem's comments.

85. The SEIS does not evaluate how the proposed drawdown will result in violations of Oregon's water quality standards for turbidity, despite previous drawdowns clearly violating those standards.

V. CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

Violation of the APA for Failure to Act in Accordance with 42 U.S.C. §§ 4321–4370h (5 U.S.C. § 706(2)(A))

86. Plaintiff incorporates the preceding paragraphs as though fully set forth herein.

87. The APA requires that a reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

88. NEPA requires federal agencies to take a “hard look” at the environmental consequences of their proposed actions before those actions are implemented. 42 U.S.C. §§ 4321–4370h; *WildEarth Guardians v. United States Dep't of Agric. Animal & Plant Health Inspection Serv. Wildlife Servs.*, 135 F.4th 717, 728 (9th Cir. 2025).

89. A “‘hard look’ requires a consideration of ‘all foreseeable direct and indirect impacts’ and a full assessment of the cumulative impacts of the proposed action.” *Cascadia Wildlands v. Bureau of Land Mgmt.*, 410 F. Supp. 3d 1146, 1156 (D. Or. 2019) (citing *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 916-17 (9th Cir. 2012)).

90. The final SEIS prepared by the Corps fails to meet the “hard look” standard because it fails to adequately analyze the environmental consequences of the proposed annual deep drawdown of Detroit Reservoir.

91. The final SEIS admits that the deep drawdown would mobilize sediment and increase turbidity levels downstream of Detroit Dam in the North Santiam River and that fine sediment mobilized during the deep drawdown may remain suspended and pass downstream through Big Cliff Reservoir and into the North Santiam River.

92. Despite recognizing these impacts, the final SEIS fails to conduct a quantitative analysis of turbidity impacts on downstream drinking water systems.

93. The final SEIS fails to model turbidity concentrations at downstream municipal water supply intakes, including the City of Salem’s drinking water intake on the North Santiam River.

94. The final SEIS fails to analyze turbidity thresholds that would impair downstream drinking water treatment facilities.

95. The final SEIS fails to evaluate the operational effects of sustained turbidity events on municipal drinking water treatment systems, including slow sand filtration systems used by the City of Salem.

96. The final SEIS also fails to analyze the risks that elevated turbidity levels could force municipal water providers to close drinking water intakes or suspend treatment operations.

97. The final SEIS fails to analyze how the proposed deep drawdown will result in violations of Oregon’s water quality standards for turbidity.

98. The risks of increased turbidity are not speculative. The Corps has previously conducted deep drawdowns at other reservoirs within the WVS, which generated substantial turbidity downstream, with turbidity levels far exceeding normal background conditions and Oregon's water quality standards and persisting for extended periods.

99. Because the Corps has previously conducted drawdowns that produced significant turbidity impacts, it knew that similar operations at Detroit Reservoir could produce comparable downstream effects. Despite this knowledge, the final SEIS does not analyze the turbidity impacts demonstrated by those prior drawdowns or evaluate the resulting risks to downstream municipal drinking water systems, including the City of Salem's treatment facility.

100. The final SEIS failed to incorporate a congressionally-mandated turbidity study for the WVS that should have informed the final SEIS's analysis.

101. The Corps' failure to take a hard look at turbidity impacts is particularly harmful because the proposed deep drawdown is expected to mobilize large volumes of sediment stored in Detroit Reservoir and downstream channels, causing irreparable harm to the City of Salem's primary drinking water source. Sustained turbidity events of this type will impair the City of Salem's drinking water treatment systems and may force water providers to close their intake facilities to protect treatment infrastructure.

102. Defendants' failure to take a "hard look" at the environmental consequences of its proposed action and its reliance on the final SEIS despite these deficiencies is arbitrary, capricious, and contrary to law within the meaning of the APA and thus is unlawful and must be set aside. 5 U.S.C. § 706(2)(A).

103. The Corps' failure to take the required hard look at turbidity impacts will directly harm the City of Salem because the increased turbidity generated by the Detroit Reservoir drawdown threatens to impair the City's slow sand filtration treatment system and jeopardize the availability of safe and reliable drinking water for the City and surrounding communities that rely on the North Santiam River.

104. Under 5 U.S.C. § 705, the Court should therefore postpone the implementation of the Detroit Reservoir drawdown unless and until the Corps prepares a supplemental environmental analysis that takes the required hard look at turbidity impacts and adequately evaluates the risks to downstream drinking water systems in compliance with NEPA and the APA.

105. Pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A), Plaintiff is entitled to its reasonable attorneys' fees, costs, and expenses.

SECOND CLAIM FOR RELIEF

**Violation of the APA for Failure to Act in Accordance with 42 U.S.C. 4332(C)(iii)
(5 U.S.C. § 706(2)(A))**

106. Plaintiff incorporates by reference the preceding paragraphs as though fully set forth herein.

107. The APA provides that a reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

108. NEPA requires federal agencies to include in every recommendation for major federal actions “ a detailed statement . . . on . . . a reasonable range of alternatives to the proposed agency action, including an analysis of any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative, that are technically and economically feasible, and meet the purpose and need of the proposal.” 42 U.S.C. 4332(C)(iii).

109. Consideration of reasonable alternatives is the “heart” of the NEPA process.

110. During the draft SEIS comment process, the City of Salem submitted detailed comments describing reasonable alternatives and mitigation measures that would reduce risks to downstream drinking water systems.

111. These alternatives included:

- establishing turbidity based operational triggers requiring cessation of drawdown operations;
- adopting a turbidity threshold of approximately 10 NTU sustained for twelve consecutive hours measured at the USGS Niagara gauge;
- evaluating delays of one to three years before implementing the deep drawdown to allow development of additional water supply infrastructure; and
- prioritizing long term structural fish passage solutions rather than repeated annual deep drawdowns.

112. These alternatives were technically and economically feasible approaches to reducing the environmental and public health risks associated with the proposed deep drawdown.

113. These alternatives could allow the Corps to comply with the ESA and avoid violations of the CWA and Oregon's water quality standards.

114. The final SEIS does not analyze several key alternatives proposed by the City of Salem and other stakeholders.

115. Specifically, the final SEIS does not include a detailed statement analyzing the alternatives suggested by the City of Salem, including the turbidity based operational triggers for halting drawdown operations; operational safeguards tied to downstream water quality thresholds; or delays in implementing the drawdown to allow development of alternative municipal water supplies.

116. By failing to rigorously evaluate these reasonable alternatives, the final SEIS violates NEPA.

117. Defendants' decision to proceed without analyzing these alternatives is arbitrary, capricious, and not in accordance with law within the meaning of the APA and thus is unlawful and must be set aside. 5 U.S.C. § 706(2)(A).

118. The Corps' failure to evaluate reasonable alternatives harms the City of Salem because alternatives such as turbidity-based operational triggers, phased drawdowns, or delayed

implementation would substantially reduce the risk that the Detroit Reservoir drawdown will impair the City's drinking water treatment system and threaten the reliability of its water supply.

119. Under 5 U.S.C. § 705, the Court should therefore postpone the implementation of the Detroit Reservoir drawdown unless and until the Corps adequately evaluates these reasonable alternatives in compliance with NEPA and APA.

120. Pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A), Plaintiff is entitled to its reasonable attorneys' fees, costs, and expenses.

THIRD CLAIM FOR RELIEF

**Violation of the APA for Failure to Act in Accordance with 5 U.S.C. § 553(c)
(5 U.S.C. § 706(2)(A))**

121. Plaintiff incorporates by reference the preceding paragraphs as though fully set forth herein.

122. The APA requires federal agencies to consider the issues raised in the public comments and to respond in a reasoned manner to the comments received, to explain how the agency resolved any significant problems raised by the comments, and to show how that resolution led the agency to the ultimate rule.

123. During the Draft SEIS comment period, the City of Salem submitted detailed written comments explaining that the proposed deep drawdown could significantly impair the City's drinking water system.

124. The City explained that it provides drinking water to approximately 220,000 residents in the Mid-Willamette Valley and supplies water to hospitals, schools, businesses, industries, and emergency services.

125. The City's comments explained that the proposed drawdown would likely increase turbidity levels in the North Santiam River far above historic levels and could cause sustained turbidity events lasting far longer than typical storm-related turbidity events.

126. The City submitted engineering analyses and pilot testing results demonstrating that turbidity levels above approximately 50 NTU can significantly impair slow sand filtration systems. Operational observations and additional pilot testing results confirm that turbidity above 10 NTUs can cause adverse effects on the filters.

127. The City further explained that increased turbidity levels could drastically reduce filter run times and potentially render filters inoperable for extended periods.

128. The City warned that sustained turbidity events could force the City to close its intake gates to protect its treatment plant and rely on limited backup water supplies.

129. The City also explained that its alternative water sources—including groundwater wells, reservoirs, and interties with neighboring systems—lack sufficient redundancy to reliably meet regional demand during extended turbidity events.

130. Despite receiving these detailed comments and supporting technical analyses, the final SEIS does not meaningfully consider the specific vulnerabilities of the City of Salem's drinking water treatment system.

131. The final SEIS does not consider the turbidity thresholds identified in the City's engineering analyses.

132. The final SEIS does not consider the potential consequences of treatment plant shutdowns or prolonged interruptions to municipal water supply.

133. The final SEIS acknowledges that many commenters raised concerns regarding turbidity and impacts to municipal water supplies but fails to consider and provide a substantive response addressing the specific concerns raised by the City of Salem.

134. Instead, the final SEIS provides only generalized statements regarding potential increases in turbidity and sediment transport.

135. By failing to meaningfully consider these significant comments, Defendants violated APA's public participation and informed decision making requirements.

136. Defendants’ decision to proceed on the final SEIS despite these deficiencies is arbitrary, capricious, and not in accordance with law and thus is unlawful and must be set aside. 5 U.S.C. § 706(2)(A).

137. The Corps’ failure to meaningfully consider the City of Salem’s detailed comments harms the City because those comments identified specific turbidity risks that will impact thousands of people, as well as the operational safeguards necessary to protect the City’s drinking water treatment system for a reliable delivery of safe drinking water to the region.

138. Under 5 U.S.C. § 705, the Court should therefore postpone the implementation of the Detroit Reservoir drawdown unless and until the Corps adequately considers and responds to the City’s comments in compliance with NEPA and the APA.

139. Pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A), Plaintiff is entitled to its reasonable attorneys’ fees, costs, and expenses.

FOURTH CLAIM FOR RELIEF
Violation of the APA for Failure to Act in Accordance with the WRDA
(5 U.S.C. § 706(2)(A))

140. Plaintiff incorporates by reference the preceding paragraphs as though fully set forth herein.

141. The APA provides that a reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

142. The WRDA imposed specific obligations on the Corps related to turbidity impacts associated with reservoir drawdowns in the WVS.

143. This obligations include the requirement that the Corps prepare and to submit to Congress by January 4, 2026 a report addressing turbidity impacts associated with reservoir drawdowns in the Willamette Valley, including identifying instances where turbidity concerns have arisen following reservoir drawdowns, identifying lessons learned from those events, and

explaining how changes based on those lessons learned are being implemented in reservoir operations.

144. The Corps was therefore required under WRDA to analyze these turbidity impacts, identify lessons learned from past drawdown events, and incorporate those lessons into its operational planning before proceeding with drawdown operations such as the proposed deep drawdown of Detroit Reservoir.

145. Despite this statutory mandate, the Corps failed to prepare the turbidity report required by WRDA before finalizing the final SEIS and moving forward with operations that include a deep drawdown of Detroit Reservoir.

146. The final SEIS acknowledges that the Detroit Reservoir deep drawdown will mobilize sediment and increase turbidity downstream but does not analyze turbidity impacts based on the lessons learned from prior drawdowns.

147. Nor does the final SEIS identify the specific lessons learned from prior turbidity events in the Willamette Valley or explain how such lessons have been incorporated into operational safeguards for the Detroit Reservoir deep drawdown.

148. The Corps' failure to complete the turbidity report required by WRDA deprived the agency and the public of critical information regarding foreseeable turbidity impacts and appropriate mitigation measures.

149. The absence of the required turbidity report also resulted in the Corps failing to adequately evaluate downstream water-quality risks and failing to incorporate reasonable operational protections for downstream drinking water systems.

150. As a result, the Corps' decision to proceed with the Detroit Reservoir drawdown without first preparing the WRDA-mandated turbidity report was arbitrary, capricious, and not in accordance with law and thus is unlawful and must be set aside. 5 U.S.C. § 706(2)(A).

151. Plaintiff and its residents will suffer harm from this unlawful agency action because the Detroit Reservoir drawdown is expected to significantly increase turbidity in the

North Santiam River, the primary source of drinking water for the City of Salem and its regional customers.

152. Without the required turbidity report and corresponding operational safeguards, the Corps' decision-making failed to adequately consider the risks posed to downstream drinking water infrastructure and public health.

153. Under 5 U.S.C. § 705, the Court should therefore postpone the implementation of the Detroit Reservoir drawdown unless and until the Corps prepares the WRDA-mandated turbidity report.

154. Pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A), Plaintiff is entitled to its reasonable attorneys' fees, costs, and expenses.

FIFTH CLAIM FOR RELIEF
Violation of the APA for Action Unlawfully Withheld or Unreasonably Delayed
(5 U.S.C. § 706(1))

155. Plaintiff incorporates by reference the preceding paragraphs as though fully set forth herein.

156. The APA authorizes reviewing courts to "compel agency action unlawfully withheld or unreasonably delayed." 5 U.S.C. § 706(1).

157. WRDA requires the Corps to prepare a report addressing turbidity impacts associated with reservoir drawdowns in the WVS.

158. The statute directs the Corps to identify instances in which turbidity concerns have arisen following reservoir drawdowns, identify lessons learned from those events, and explain how changes based on those lessons learned are being implemented in reservoir operations.

159. The WRDA turbidity report is a discrete agency action that the Corps is required by law to undertake.

160. The purpose of the turbidity report requirement is to ensure that the Corps evaluates the water-quality impacts of drawdown operations, incorporates lessons from prior turbidity events, and implements appropriate operational safeguards to protect downstream water users and water quality.

161. Prior reservoir drawdowns in the Willamette Valley have produced substantial downstream turbidity and caused significant operational disruptions and damages to municipal drinking water systems.

162. These turbidity events demonstrated the foreseeable risks that reservoir drawdowns pose to downstream water users, including public drinking water systems that rely on the North Santiam River.

163. Because of these known risks, Congress required the Corps to analyze turbidity impacts and lessons learned from prior drawdowns before implementing or continuing drawdown operations in the WVS.

164. Despite this statutory mandate, the Corps has failed to prepare the turbidity report required by WRDA.

165. The Corps' failure to prepare the WRDA-mandated turbidity report constitutes agency action unlawfully withheld within the meaning of 5 U.S.C. § 706(1).

166. Alternatively, to the extent the Corps has initiated but not completed the turbidity report, the Corps has unreasonably delayed completion of that mandatory statutory duty within the meaning of 5 U.S.C. § 706(1).

167. The Corps' failure to complete the turbidity report deprives Plaintiff, downstream water users, and the public of critical information regarding the water-quality risks associated with reservoir drawdowns.

168. Without the turbidity report required by WRDA, the Corps has proceeded with drawdown planning and operations without completing the analysis that Congress mandated.

169. Unless compelled by this Court, Defendants will continue to unlawfully withhold or unreasonably delay the preparation of the turbidity report required by WRDA in violation of 5 U.S.C. § 706(1).

170. Under 5 U.S.C. § 706(1), the Corps should therefore be compelled to prepare the turbidity report required by WRDA.

171. Under 5 U.S.C. § 705, the Court should postpone the implementation of the Detroit Reservoir drawdown unless and until the Corps prepares the WRDA-mandated turbidity report.

172. Pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A), Plaintiff is entitled to its reasonable attorneys' fees, costs, and expenses.

SIXTH CLAIM FOR RELIEF
Violation of the APA for Failure to Act in Accordance with the CWA
(5 U.S.C. § 706(2)(A))

173. Plaintiff incorporates by reference the preceding paragraphs as though fully set forth herein.

174. The APA provides that a reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

175. The CWA requires Federal Agencies including the Corps to comply with the water quality standards established by Oregon law. 33 U.S.C. § 1323.

176. For turbidity specifically, Oregon sets a numeric limit prohibiting increases greater than 10% above the natural upstream background turbidity caused by an activity. OAR 340-041-0036.

177. Oregon's statewide narrative criteria require that deleterious substances such as turbidity be maintained at the lowest possible levels and encourage coordinated efforts among agencies to control pollution. OAR 340-041-0007(1); OAR 340-041-0008.

178. Finally, Oregon's antidegradation policy requires regulators to prevent unnecessary degradation and to protect all existing beneficial uses of waters. OAR 340-041-0004(1).

179. Previous drawdown actions on the South Santiam River resulted in violations of the CWA and Oregon's numeric criteria for turbidity, Oregon's statewide narrative criteria, and Oregon's antidegradation policy.

180. If implemented as proposed under the SEIS, the deep drawdown of Detroit Reservoir will violate the CWA and Oregon's numeric criteria for turbidity, Oregon's statewide narrative criteria, and Oregon's antidegradation policy.

181. As a result, the Corps' decision to proceed with the Detroit Reservoir drawdown in violation of Oregon water quality standards and the CWA is arbitrary, capricious, and not in accordance with law and thus is unlawful and must be set aside. 5 U.S.C. § 706(2)(A).

182. If the drawdown is implemented in violation of the CWA, it will significantly increase turbidity in the North Santiam River, the primary drinking water source for the City of Salem and its regional customers, jeopardizing the City's ability to provide safe and reliable drinking water to approximately 220,000 residents and critical facilities. Under 5 U.S.C. § 705, the Court should therefore postpone the implementation of the Detroit Reservoir drawdown unless and until the Corps adequately proposes a drawdown that will comply with the CWA and the APA.

183. Pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A), Plaintiff is entitled to its reasonable attorneys' fees, costs, and expenses.

VI. PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for relief as follows:

1. On Plaintiff's First Claim, a judgment:
 - a. Declaring under 5 U.S.C. § 706(2)(A) that the Corps failed to take a "hard look" at the environmental consequences of its proposed action and its reliance on the

final SEIS despite these deficiencies is arbitrary, capricious, and contrary to law within the meaning of the APA and thus is unlawful;

- b. Setting aside the portions of the final SEIS, related agency findings, and any Record of Decision that authorize or rely upon the proposed deep drawdown of Detroit Reservoir under 5 U.S.C. § 706(2)(A);
 - c. Under 5 U.S.C. § 705, postponing the implementation of the Detroit Reservoir drawdown unless and until the Corps prepares a supplemental environmental analysis that takes the required hard look at turbidity impacts, adequately evaluates the risks to downstream drinking water systems in compliance with NEPA and APA, and establishes a turbidity trigger that would halt drawdown operations if water quality conditions reach unsafe levels and
 - d. Awarding Plaintiff its reasonable attorneys' fees, costs, and expenses pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A).
2. On Plaintiff's Second Claim, a judgment:
- a. Declaring under 5 U.S.C. § 706(2)(A) that the Corps' decision to proceed without analyzing reasonable alternatives to reduce the risk of increased turbidity is arbitrary, capricious, and contrary to law within the meaning of the APA and thus is unlawful;
 - b. Setting aside the portions of the final SEIS, related agency findings, and any Record of Decision that authorize or rely upon the proposed deep drawdown of Detroit Reservoir under 5 U.S.C. § 706(2)(A);
 - c. Under 5 U.S.C. § 705, postponing the implementation of the Detroit Reservoir drawdown unless and until the Corps adequately evaluates these reasonable alternatives in compliance with NEPA and APA, including the establishment of a turbidity trigger that would halt drawdown operations if water quality conditions reach unsafe levels;

- d. Awarding Plaintiff its reasonable attorneys' fees, costs, and expenses pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A).
3. On Plaintiff's Third Claim, a judgment:
 - a. Declaring under 5 U.S.C. § 706(2)(A) that the Corps' decision to proceed without meaningfully considering the City of Salem's detailed comments is arbitrary, capricious, and contrary to law within the meaning of the APA and thus is unlawful;
 - b. Setting aside the portions of the final SEIS, related agency findings, and any Record of Decision that authorize or rely upon the proposed deep drawdown of Detroit Reservoir under 5 U.S.C. § 706(2)(A);
 - c. Under 5 U.S.C. § 705, postponing the implementation of the Detroit Reservoir drawdown unless and until the Corps adequately considers and responds to the City's comments in compliance with NEPA and the APA, in particular the City's recommendation to establish a turbidity trigger that would halt drawdown operations if water quality conditions reach unsafe levels; and
 - d. Awarding Plaintiff its reasonable attorneys' fees, costs, and expenses pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A).
4. On Plaintiff's Fourth Claim, a judgment:
 - a. Declaring under 5 U.S.C. § 706(2)(A) that the Corps' decision to proceed with the Detroit Reservoir drawdown without first preparing the WRDA-mandated turbidity report was arbitrary, capricious, and not in accordance with law;
 - b. Setting aside the portions of the final SEIS, related agency findings, and any Record of Decision that authorize or rely upon the proposed deep drawdown of Detroit Reservoir under 5 U.S.C. § 706(2)(A);

- c. Under 5 U.S.C. § 705, postponing the implementation of the Detroit Reservoir drawdown unless and until the Corps prepares the WRDA-mandated turbidity report; and
 - d. Awarding Plaintiff its reasonable attorneys' fees, costs, and expenses pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A).
- 5. On Plaintiff's Fifth Claim, a judgment:
 - a. Under 5 U.S.C. § 706(1), compelling the Corps to prepare the turbidity report required by the WRDA;
 - b. Under 5 U.S.C. § 705, postponing the implementation of the Detroit Reservoir drawdown unless and until the Corps prepares the WRDA-mandated turbidity report; and
 - c. Awarding Plaintiff its reasonable attorneys' fees, costs, and expenses pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A).
- 6. On Plaintiff's Sixth Claim, a judgment:
 - a. Declaring under 5 U.S.C. § 706(2)(A) that the Corps' decision to proceed with the Detroit Reservoir drawdown in violation of Oregon water quality standards and the CWA is arbitrary, capricious, and not in accordance with law;
 - b. Setting aside the portions of the final SEIS, related agency findings, and any Record of Decision that authorize or rely upon the proposed deep drawdown of Detroit Reservoir under 5 U.S.C. § 706(2)(A);
 - c. Under 5 U.S.C. § 705, postponing the implementation of the Detroit Reservoir drawdown unless and until the Corps adequately proposes a drawdown that will comply with the CWA and the APA, including by establishing a turbidity trigger that would halt drawdown operations if water quality conditions reach unsafe levels; and

- d. Awarding Plaintiff its reasonable attorneys' fees, costs, and expenses pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412(a) and (d)(1)(A).
7. Grant such other and further relief as the Court deems just and proper.

DATED this 8th day of July, 2026.

DAVIS WRIGHT TREMAINE LLP

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June 20, 2025

U.S. Army Corps of Engineers
 Attn: CENWP-PME-E / Willamette EIS
 P.O. Box 2946
 Portland, OR 97208-2946

Re: City of Salem Public Comments on USACE Proposed Detroit Reservoir Drawdown

This letter and the attached memorandum provide comments from the City of Salem (City) to the US Army Corps of Engineers (USACE) regarding the Supplemental Environmental Impact Statement (SEIS) the USACE is preparing. The SEIS addresses two issues: (1) a permanent end to hydropower production at Willamette Valley Dams, as directed by the Water Resources Development Act of 2024, and (2) a deep drawdown of Detroit Reservoir, as published in the Biological Opinion (BiOp) issued in December 2024 by the National Marine Fisheries Services (NMFS). The City's comments are specific to a deep drawdown in which the level of Detroit Reservoir is dropped to a historically low elevation of 1,395 feet in the fall/winter in a single, continuous operation to facilitate the out-migration of threatened fish species.

To begin, the City firmly supports the efforts of USACE, NMFS, and others that improve passage through Detroit Dam for spring Chinook and winter steelhead, both of which are listed as threatened under the Endangered Species Act (ESA). The City also recognizes and respects the historic, cultural, and spiritual interests these species represent to the tribal nations. However, the City cannot support a deep drawdown conducted as proposed in the BiOp because it will cause excessively high levels of turbidity in the North Santiam River which will put at risk the City's drinking water system. The attachment provides additional details and considerations to the City's comments below.

1. As proposed, the deep drawdown puts in danger public health, public safety, and the regional economy because of the risks it places on the City's drinking water system.

The City is the only regional water provider in the Mid-Willamette Valley and is responsible for supplying safe and reliable drinking water to approximately 200,000 individuals and thousands of customers that include hospitals, schools, businesses, industries, irrigators, multifamily housing units, and single-family homes. The City's water service area includes the City of Salem, the City of Turner, four water districts, and portions of unincorporated Marion and Polk counties. In addition, the City must provide water in sufficient quantities for firefighting and other emergency needs.

Moreover, the City is the only emergency source of drinking water to the City of Stayton and the City of Keizer should either, or both, municipalities suffer impairment to their drinking water system.

There is little question that the deep drawdown will elevate turbidity levels in the North Santiam River. The City's operational procedure in the event of high turbidity involves filling the slow sand

EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Women, minorities, and disabled are encouraged to apply • ADA Accommodations will be provided upon request

Exhibit A

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filters to their maximum capacity and then closing the intake gates. With the gates shut, the filters can operate for no more than three days before being shut down because of low water levels. Historically, high turbidity events that triggered this procedure lasted less than three days. However, if high turbidity levels persist and the gates remain shut, the City must rely on remaining volumes in our reservoirs, several groundwater wells, the aquifer storage and recovery system, and an intertie with the City of Keizer. We estimate that these alternative water sources can marginally meet the projected water demand during the timeframe of the proposed drawdown. However – and this is a significant consideration – under this mode of operation there is *no redundancy* in the system. Should a critical component of one or more of these alternative sources fail, our ability to supply water will fall below the demand and our customers would be faced with untenable and unsustainable risks to life, property, and livelihood.

The City is conducting research to determine the limitations and feasibility of keeping the intake gates open to allow high-turbidity surface water into the slow sand filtration system. Bench-scale testing is being carried out to evaluate the relationship between intake turbidity and filter performance. The results will help inform decision-making on how best to manage high-turbidity events triggered by the drawdown. Our research is continuing but based on the preliminary results, at a turbidity level of 50 Nephelometric Turbidity Units (“NTU”) we expect complete loss of filter performance within one week to ten days. If turbidity exceeds 50 NTU, in which is likely based on other drawdown operations conducted by the USACE, we expect our filter performance will degrade within days. Restoring a filter to full operational status may require months to drain the water, remove the clogged layer of sand, replace the bed with new sand if necessary, and restore the biological layer in the rebuilt filter bed. In addition, rehabilitating filters lost to sustained turbidity as a result of the drawdown operation is a laborious effort and has the real possibility of reducing the City’s ability to meet peak summer demands as the filters remain offline for the duration of the work.

2. As proposed, the deep drawdown will result in violations of federal law.

The National Environmental Policy Act (NEPA) requires the lead agency, in this instance NMFS, to rigorously evaluate reasonable alternatives. However, the BiOp does not thoroughly analyze alternatives other than the drawdown. Further, the BiOp does not thoroughly consider the degree to which the degradation of water quality would impact users, including our water customers, or how the drawdown might impact other aquatic species in the basin. The failure to more fully consider these impacts is notable given that the USACE and NMFS are aware that the elevated turbidity will have dramatic and adverse impacts on the City’s drinking water infrastructure.

The Clean Water Act (CWA) addresses, among many other things, contaminants in water resources. Causing high levels of turbidity is a clear violation of the CWA. Typical turbidity levels at the City’s intake from the North Santiam River are well below 10 NTU. The anticipated turbidity during the drawdown is expected to be well in excess of 100 NTU. In the EPA-approved Oregon Water Quality Standards “turbidity” is defined as “pollution” and the standard in ORS 340-041-0036 states, in part:

Turbidity (Nephelometric Turbidity Units, NTU): No more than a ten percent cumulative increase in natural stream turbidities may be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity.

The Safe Drinking Water Act (SDWA) requires persons to protect public water systems. The proposed drawdown would likely contaminate the City’s source of drinking water, potentially contaminate the

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City's water treatment system, and generally impair the City's ability to provide safe drinking water, any one of which could constitute a violation of the SWDA.

Given the many considerations, the City recommends the SEIS incorporate, at minimum, the following:

1. Developing a stepwise approach to the annual drawdown. It is imperative to avoid a scenario in which the elevation of Detroit Reservoir is continuously and without pause dropped to the target level of 1,395 feet *regardless* of downstream water quality, *regardless* of impacts to aquatic species, and *regardless* of the attendant harm to the City's drinking water system. A stepwise drawdown conducted in successive years, coupled with turbidity triggers (see below) would help fill many critical information gaps. These include: (1) How fast and how high will turbidity levels rise during the drawdown? (2) How quickly will turbidity levels drop once drawdown operations cease? (3) How long will it take before turbidity levels sufficiently decrease for the City to resume drawing water from the river?
2. Establishing turbidity levels that trigger a clear and decisive response. The purpose of this recommendation is to balance the USACE's need to perform a deep drawdown with the impacts and duration of those impacts on the City's water system. Turbidity triggers could provide a degree of certainty and significantly enhance the City's ability to develop contingency and recovery plans. One approach to developing turbidity triggers would be to establish a specific turbidity at which the USACE would cease drawdown operations, commence refilling the reservoir, and conduct no further deep drawdowns until the following year or complete recovery of the City's water treatment system, whichever is later. This recommendation comes with a commitment by the City to work with the USACE and to share information, data, and research results (see above) to help develop turbidity triggers that reflect current scientific research and sound engineering practices.
3. Evaluating the merits of delaying implementation. The SEIS should evaluate potential environmental impacts if the deep drawdown is delayed for one, two, or three years hence. Doing so would provide the City additional time to identify locations, obtain funding, and construct enough wells with sufficient yield to provide resiliency and mitigate risks to life, property, and livelihood.
4. Creating a long-term strategy. The BiOp requires development of an Adaptive Management Plan that includes "decision criteria" that guide strategies (see Section 2.5.10 of the BiOp). At issue is the City's need for the USACE to incorporate decision criteria that can be modified over time based on new information, changes in conditions, and lessons learned. More specifically, decision criteria should consider changes in risks and consequences from year to year. To illustrate, consider two scenarios. (1) The City's risk assessment is based, in part, on historic water demand. If the City adds a new industrial customer with a high, *year-round* water demand, the risks/consequences assessment will be altered. (2) The City's water system relies on a wide range of factors and components to deliver safe drinking water to our customers. If, prior to commencing a deep drawdown, one or more of our critical components has failed, decision criteria should be in place that delays or cancels the deep drawdown.

Further, the BiOp instructs the USACE and NMFS to coordinate a review of the 2017 engineering design report for Detroit Dam downstream fish passage via a floating screen structure, to be initiated in early 2026 (see RPA 4.13.5). The Action Agencies will complete construction of structural fish passage facilities by December 2033. By March 2034, the Action Agencies will begin operating downstream fish passage facilities at Detroit that enable collection of steelhead and Chinook salmon from above Detroit, with volitional passage of transport to

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habitat downstream of Big Cliff Dam. The City is adamant that the USACE adhere to these timelines to ensure a long-term plan is enacted for downstream passage that does not present an annual threat to the City's drinking water supply.

In summary, and for the reasons stated, the City has no choice but to stand in opposition to the deep drawdown of Detroit Reservoir as proposed in the BiOp unless the heightened risks and substantial consequences of failure can be mitigated. Our position on this matter is regrettable given our long-standing support for the endeavors of the USACE and others, including our own work, to protect endangered species. However, we *must* give equally significant consideration to the health, life, safety, and livelihood of our customers and our region. Simply put, the risks to the City's water supply created by the deep drawdown are too high and consequences of failure are too staggering to accept. Regardless of our current opposition, the City commits to working with the USACE and others to evaluate and, ultimately, to implement measures that contribute to downstream passage of juvenile species, protect habitat and water quality, and support the many users of the North Santiam River.

Sincerely,



Krishna Namburi
Interim City Manager

Attachment: "City of Salem Public Comments on USACE's Proposed Detroit Reservoir Drawdown."
Memorandum. Davis Wright Tremaine, LLP. June 17, 2025

cc:

Brian D. Martin, PE, Public Works Director
Dan Atchison, City Attorney



Suite 700
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Portland, OR 97205-2702

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MEMORANDUM

To: U.S. Army Corps of Engineers, Portland District
From: Davis Wright Tremaine, LLP on behalf of City of Salem
Date: June 19, 2025
Subject: City of Salem Public Comments on USACE's Proposed Detroit Reservoir Drawdown

On May 16, 2025 the U.S. Army Corps of Engineers ("USACE"), Portland District, published a press release seeking public comments as part of a Supplemental Environmental Impact Statement ("SEIS") focused on two new requirements related to the operations and maintenance of the Willamette Valley System ("WVS") of dams and reservoirs, including implementing a deep fall drawdown of Detroit Reservoir. This memorandum provides the City of Salem's (the "City") comments on the proposed drawdown that the City understands to refer to a proposal to draw Detroit Reservoir down to 1,395 feet in the December 26, 2024, Biological Opinion for the Continued Operation and Maintenance of the Willamette Valley System (the "BiOp") prepared by the National Marine Fisheries Service ("NMFS").

The City has a strong interest in this matter and intervened in prior litigation regarding potential changes to the WVS that would impact its drinking water supply. As a result of that litigation, the court specified interim measures (including drawdowns) that the City found acceptable. The BiOp's proposed elevation target for the drawdown at Detroit Reservoir goes much further than those previous measures and USACE is seeking input from the public on what impacts should be investigated prior to the drawdown.

At the outset, the City is emphasizing its overall support of efforts by NMFS, USACE, and others to protect and benefit listed fish species and the environment, including iconic fish species of the Pacific Northwest. The City also recognizes and supports tribal interests in those resources, including the Confederated Tribes of Grand Ronde and other tribal nations in the salmonid species, their habitat, and the environment. However, the City opposes the proposed drawdown as described in the BiOp and as scheduled because it would violate the National Environmental Policy Act ("NEPA"), the Clean Water Act ("CWA"), and the Safe Drinking Water Act ("SDWA"), and would result in unacceptable risks to the City's drinking water infrastructure. USACE's proposal is particularly troubling because other alternatives exist to benefit listed fish species that would allow USACE to comply with the Endangered Species Act ("ESA"). USACE's drastic proposal is the result of the agency's own repeated failure to comply with the ESA for more than a decade and may jeopardize the water supply for over 200,000

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Oregon residents, as well as threaten access to safe water for schools, hospitals, firefighters, and other essential services. USACE's decision to favor the drawdown as an interim measure seems to be guided by economic considerations and may pose a risk to public health for one of the most populated areas of the state. NMFS and USACE should consider alternatives to the proposed drawdown that would allow the agencies to comply with the ESA without putting the City's water supply at risk. The City strongly believes that USACE can and should find alternatives to the proposed drawdown allowing maximum benefit for listed fish species while protecting drinking water supplies for the City's residents. As part of those efforts, the City encourages the Corps to consider and study a stepped approach to the drawdown that would protect water quality in the North Santiam River. The City's comments first summarize the potential impacts of the drawdown on its water supplies, then address the lack of considerations for those impacts in the BiOp, and finally discuss the legal implications of the drawdown in the context of NEPA, the CWA, and the SDWA.

I. The Proposed Drawdown Creates an Unacceptable Risk of Public Health Emergency

a. Background on the City's Water Supply

For more than 80 years, the North Santiam River—where the Detroit Dam and Reservoir are located—has served as the primary drinking water source for the City of Salem. The City relies on the North Santiam River for water to serve over 200,000 customers and three wholesale customers: the City of Turner, Suburban East Salem Water District, and Orchard Heights Water Association. The City also provides emergency water supply connections to the Cities of Stayton and Keizer or an additional 47,000 residents.

The City's drinking water treatment plant (the "Treatment Plant") is located on Geren Island in the North Santiam River, approximately 30 miles downstream from Detroit Dam. The high-water quality of the North Santiam River allows the City to use slow sand filtration as the core treatment process. Slow sand filtration is a natural filtration process, allowing naturally existing biota in the river to form a biological layer which then degrades and/or removes particulates and microbial contaminants in the water. This process uses locally sourced native materials that are reusable and recyclable, providing environmental and ecological benefits. Under normal operating conditions, the slow sand filters are operated without pretreatment. Historical operation of the Treatment Plant indicates that a raw water turbidity (the measure of water clarity or how much matter is suspended in water) of less than 10 Nephelometric Turbidity Units ("NTU") is necessary. An engineering evaluation and literature review concluded that sustained turbidity greater than 10 NTU in the feedwater to a slow sand filter will lead to rapid head loss accumulation of filters, leading to excessive cleaning of filters which could become impractical for continued operation depending on filter run times. Slow sand filter subject experts have indicated the recommended sustainable feed turbidity to effectively treat water in slow sand filters is typically less than 10 NTU. These theoretical evaluations align with plant historical operating data.

During normal plant operations, filter run times are typically in excess of 3 months. These long run times allow the City operational flexibility to schedule filter cleaning and maintenance activities to avoid peak demand and/or challenging water quality conditions. During normal operation, cleaning and maintenance activities generally consist of both scraping and ripening. Filter scraping is completed by draining the respective filters, scraping 1/4-inch to 1/2-

inch of media off the top of the bed using machinery, then re-filling the filter. The overall scraping process normally lasts 3 to 5 days. Following scraping a filter is normally allowed to ripen before being placed into production. During the ripening period, which lasts anywhere from 1 week to 2 months, the filter develops a biologically active layer on top of the media, which is required to effectively produce potable water.

To quantify the impacts of the proposed deep drawdown to the Treatment Plant, the City has developed a series of bench and pilot scale tests based on anticipated water quality conditions as observed during similar regional drawdown activities in other comparable basins. Below is a summary of the preliminary results:

- Pilot testing confirmed what is suggested by the literature and plant historical data - turbidities above the recommended feedwater turbidity range (<10 NTU) significantly increase filter clogging and reduce filter run durations.
- Pilot testing of 50 NTU feedwater with native sediments collected from Detroit Reservoir at filter loading rates required to produce 20-25 mgd from the Treatment Plant, resulted in filter run times of 11-13 days, or ~88% reduction compared to normal conditions.
- Pilot testing of 100 NTU feedwater with surrogate sediments at filter loading rates required to produce 20-25 mgd from the Treatment Plant resulted in filter run times of 9 days, or 93% reduction compared to normal conditions.
- Preliminary results at higher turbidity loading verify this trend.
- Results from the pilot testing were obtained under controlled laboratory conditions. It is expected that actual run times will be shorter than what has been observed.

Sustainably producing adequate potable water at these reduced run times for an extended duration is unlikely. Significantly reduced filter run durations will lead to a significant increase in annual operating expenses while increasing the load on already heavily burdened City staff and resources. In addition to immediate increased operational costs from filter cleaning, there are longer term cost impacts associated with increased turbidity loading. Pilot results indicate the nature of solids removal during the drawdown period will require deeper sand removal from filters compared to normal cleaning activities and will therefore increase the need for and the frequency of filter re-sanding. Re-sanding is required when sand depths in a filter reach a critical minimum value to ensure effluent water quality meets all drinking water standards and treatment goals. Supplies of additional filter sand, to replace the excessively scraped sand, are also limited and costly to procure, and adding sand to a filter is a costly (estimated at between \$2 and \$3.5 million for each filter) and time-consuming process, typically only occurring every 10 or more years during normal operation.

The Treatment Plant is capable of handling short-term turbidity events of a few days, which are frequently caused by unregulated flows in the fork of the river where the Treatment Plant's intake is located. In such instances, the intake to the City's Treatment Plant is shut and the City relies on limited back-up water supplies and in-town finished water storage. The City may

also rely on temporary alterations of operations to mix groundwater (which itself may be impacted by surface water quality) with the river water. However, the City's back-up supplies of water are limited and still rely on treatment from the Treatment Plant. As a result, if high turbidity levels persist beyond a few days, the City's inability to normally operate its Treatment Plant for an extended period would create a significant risk to the City.

b. The Proposed Drawdown and Impacts on the Treatment Plant

Turbidity in the river water is a problem for the City's water supply because 1) it may force a shutdown of the Treatment Plant, and 2) the turbidity and other pollutants may be too high for the treatment process to effectively remove it to drinking water standards and regulations. The result could produce water for the City's customers that violates standards set by the SDWA. Currently, the water level in Detroit Reservoir is maintained at no lower than 1,450 feet as established by USACE. In the summer, the water level elevation is approximately 1,560 feet. Lowering the water level to 1,395 feet in the fall and/or winter, as proposed in the BiOp, is likely to result in high levels of turbidity due to both scouring of settled solids in the Reservoir and precipitation events causing significant erosion to the newly exposed shoreline. Further, lower water volume means the suspended sediment remains more concentrated in the lake. A reduced water level in the Reservoir will allow for less settling time of suspended solids entering the Reservoir. As a result, much of the sediment may flow through the dam and downstream, creating high turbidity, as shown in the case studies summarized in subsection e) below.

The proposed drawdown would seriously exacerbate the problems described above—such as exposed shoreline erosion and low volume of reservoir water—creating a higher risk of excessively turbid water. Moreover, the drawdown conducted over multiple weeks creates a higher risk of sustained high-turbidity events and an unreasonable risk for the City and its ability to supply adequate potable water for its residents and customers. The impacts of drawing down the reservoir would not be limited to the fall or winter. If the reservoir is nearly empty into the spring, for example, it is unlikely to refill to the regular level of 1,560 feet during the summer, which would result in additional stress on the City's water supplies during peak demand times. As the weather gets warmer, the City's water needs more than double from approximately 25 million gallons per day to approximately 50 million gallons per day. If the Detroit Reservoir is near empty in late spring, the City would be largely reliant on natural flow levels of the river during dry months and simply may not have enough water to meet its customers' needs.

The City's Treatment Plant relies on flows that pass by the facility's intake structure in the river channel on the north side of Geren Island. In order for the Treatment Plant to function properly, the water level at this point of the river must be 2.3 feet or higher, which requires flows of 700 cubic feet per second (cfs) or greater. A sustained drawdown into the spring poses the threat that flow levels in the following months will not be sufficient for the facility to operate. Also, lower water elevations in the reservoir as the weather warms are likely to lead to higher water temperatures in the North Santiam River. Any deviations from normal water quality parameters may impact the operations of the Treatment Plant, including but not limited to changing the filter performance and chemical dosages. Higher water temperatures may also increase the occurrence and magnitude of algal blooms in Detroit Reservoir and the North Santiam River. Algal blooms negatively impact the water treatment process (and wildlife and the environment) by (1) clogging filters and inhibiting the City's ability to meet water demand, (2) producing algal toxins, and (3) creating taste and odor issues caused by Geosmin and 2-

Methylisoborneol (MIB). In summary, the proposed drawdown would be detrimental to water quality and the environment in the North Santiam River.

c. City's Alternative Water Supplies and Risk Scenarios

The City holds municipal water rights in the North Santiam River, and decreasing flows in the river as a result of drawdowns at Detroit Lake would interfere with those rights. If the City were to obtain alternative water supplies sufficient to mitigate the potential impacts described above, the process would take years, not months. Upon the release of the BiOp, the City immediately started studying the impact of the proposed drawdown on its water supply and assessed its ability to rely on alternative sources of water. While not final, the City's studies indicate that the Treatment Plant cannot sustainably accommodate the increase in turbidity that will result from the proposed drawdown. A preliminary operational impacts analysis resulted in the following findings:

- Sustained and peak turbidity of the North Santiam River will significantly increase because of the proposed drawdown, potentially up to a sustained value of 200 NTU based on regional case studies of similar events.
- As a result of the proposed drawdown, increased suspended solids concentrations will be deposited along the banks of the river, which may be re-suspended during future storm events, resulting in elevated turbidity into the Treatment Plant even when a deep drawdown is not actively occurring.
- Recent case studies show that water treatment facilities in similar basins have incurred increases in operational costs and encountered challenges meeting finished water quality goals because of increased raw water turbidity from similar drawdowns.
- The City's Treatment Plant is not designed to sustainably treat raw water sources with sustained turbidities above 10 NTU.
- Excessive filter scraping will reduce the stocks of available filter sands, leading to limitations on the Treatment Plant's production capacity.
- Elevated raw water turbidity events may lead to permanent capacity reduction until the entire filter sand bed is replaced, extending impacts beyond the time of initial turbidity loading.

During the anticipated drawdown events of the Detroit Reservoir, large amounts of organic and inorganic sediment will be exposed to changes in hydraulic patterns that have not been previously experienced. This will result in water quality impacts by changing suspended solids concentrations. Based on those findings, the City has been researching alternative water supplies in preparation of a potential shutdown of the Treatment Plant caused by the Reservoir drawdown. The City's water demand in the fall and winter months averages about 25 million gallons per day, with peak day demand reaching 27 to 28 million gallons per day. At full capacity, the City's existing groundwater supply system can provide up to 17 million gallons per day. The City may be able to secure up to 4.3 million gallons per day from the City of Keizer's water supply, if Keizer has excess supply available. This leaves the City short of at least 3 million gallons per day

to barely accommodate its demand, assuming that the groundwater system of wells can run at full capacity for long periods of time, which is unrealistic. During pilot tests, the City of Keizer connection that would be used by the City to provide up to 4.3 million gallons per day operated at full capacity for only two days before breaking down. Even with the additional supply from the City of Keizer and potential additional wells commissioned as part of the City's existing groundwater supply, the City would be operating without any redundancy, which would constitute an unreasonable and unacceptable risk to human health. Finally, the cost of relying on the City of Keizer's system and on additional wells is estimated at an additional cost of at least \$6,600 per day.

In summary, unless the City takes extraordinary measures to mitigate the impacts, the proposed drawdown would cause irreparable harm to the City's infrastructure in such a way that could either (1) cause a shutdown of the treatment plant or (2) reduce the amount of water and water quality level to such a degree that adequate filtration of the water for health and safety may not be possible. In either scenario, the City would be unable to comply with the provisions of the SDWA and Oregon statutes adopting these standards and thus would be in breach of its duty to provide clean and safe drinking water. Additionally, the harm to the City's residents described above may harm the City's reputation and goodwill that cannot be adequately addressed by money.

d. General Impacts of the Drawdown on Water Quality

High loading of fine suspended solids in water entering the Treatment Plant is a significant risk to maintaining effluent quality below limits for drinking water. States and the EPA establish effluent water quality standards. In Oregon, drinking water quality standards are established under the Oregon Drinking Water Quality Act (OAR 333-061), which includes implementation of national drinking water quality standards (40 CFR 141.73 for turbidity requirements). To maintain public health, each contaminant has either an established maximum contaminant level (MCL) or a recommended treatment technique. For turbidity, the Treatment Plant must produce an effluent turbidity of less than 1.0 NTU 95 percent of the time and less than 5.0 NTU 100 percent of the time.

Multiple literature sources indicate that colloidal clays (i.e., fine sediment type of a diameter less than 2 μm , matching the most expected suspended solids type from the Detroit Reservoir drawdown) can cause higher effluent turbidity from slow sand filters compared to larger particle sizes (AWWARF, 1991; Collins, Youngstrom, and Broder, 2012; EPA, 2024). For example, in one set of pilot slow sand filters in a Boulder, Colorado experiment, the process only removed 20 percent of raw water turbidity when feedwater particles were primarily composed of colloidal clay particles. Elevated filter outlet turbidity can be correlated to decreased cyst and bacteria removal across the filters (AWWARF, 1991). The City's Treatment Plant may not be equipped to remove the biological particles due to the elevated turbidities corresponding with lower water levels in the Reservoir. In addition to risk of passage of biological particulates through the Treatment Plant, biologicals in the filtered water would also increase due to the shorter than normal filter run times expected. Shorter run times will lead to more frequent scraping of the sand filter, which limits the biological maturity of the filters and increases the chances of biological and particulate breakthrough. Accordingly, during a deep drawdown of the Detroit Reservoir, elevated turbidity and biological contaminants in the filtered water of the Treatment Plant are at risk of not meeting MCLs.

It is important to note that increased surface water turbidity could also impact groundwater quality of the City's groundwater sources, depending on the level of infiltration occurring in a specific location, which may be impacted by riverbed material, riverbed depth, and surface water quality. Finally, the proposed drawdown may impact the pH of water from the North Santiam River, which would impose a disproportionate burden on many food and beverage businesses served by the City.

e. Case Studies of Deep Drawdown Events

The impact to the City's Treatment Plant as a result of high turbidity is not just a hypothetical. Several water treatment plants designed for low turbidity raw water have been exposed to elevated raw water turbidity as a result of a deep drawdown of an upstream reservoir. These have consistently resulted in significant operational challenges, operational costs, and risks to finish water quality at the treatment plants:

- Deep drawdowns of the Green Peter Dam have occurred for the past two years on the South Santiam River, resulting in abnormally high turbidity levels in the water and leading to severe disruptions at treatment plants in Lebanon and Sweet Home. The City of Lebanon filed a claim for damages against USACE under the Federal Tort Claims Act on October 11, 2024, claiming \$26 million in damages.
- The initial drawdown of the Cougar Reservoir, which feeds the McKenzie River, created severe operational challenges and treatment costs for the City of Eugene's Hayden Bridge Water Treatment Plant, with turbidity ranging from 50 to 200 NTU for a three-month period. Water quality was monitored during fall drawdowns of the Fall Creek Reservoir, showing recorded values of turbidity ranging from 501 to 814 Formazin Nephelometric Units (FNU). Turbidity remained elevated during the drawdown period for all years in which drawdowns were observed, with erosion and re-suspension of sediment as primary causes for the increased turbidity.
- With regard to the City's Treatment Plant, one noteworthy event provides valuable insight to the Treatment Plant's operations when raw water turbidity spikes in the North Santiam River. In February 1996, due to a 50+ year flood event in Northwest Oregon, the North Santiam River turbidity rose to values in excess of 100 NTU, leading to the shutdown of the Treatment Plant for eight days due to concerns of finished water quality not meeting safe drinking water standards. In response, the City issued a stage three water alert prohibiting the use of water outdoors and asking households and businesses to cut water use.

Those cases suggest that the proposed drawdown is likely to result in the type of impacts to the City's Treatment Plant that could shut down the Treatment Plant and jeopardize City's customers' access to safe drinking water.

f. Summary

In summary, the proposed drawdown will result in elevated raw water turbidity for extended periods of time, resulting in significantly shorter filter run times at the Treatment Plant. This, in turn, is likely to produce finished water quality that does not meet all MCLs and/or result

in a shutdown of the Treatment Plant. Despite its best efforts, the City may not be able to provide sufficient alternative water supplies to meet peak demand during the proposed drawdown periods and months following the proposed drawdown if the Reservoir does not fill back up as needed. As a result, the proposed drawdown may result in a public health emergency by jeopardizing access to safe drinking water for hundreds of thousands of residents, and for hospitals, schools and other public services.

II. USACE Did Not Properly Consider the Impacts of the Drawdown to the City's Water Supply

Under the ESA, lead agencies must identify reasonable and prudent alternatives to a proposed action. Those reasonable and prudent alternatives (“RPAs”) are those that can be implemented consistent with the scope of the agency’s legal authority and jurisdiction. 50 C.F.R. § 402.02. In Section 8 of the BiOp, NMFS concluded that the continued operation of the WVS would jeopardize the continued existence of Upper Willamette River (“UWR”) Chinook salmon and UWR steelhead and destroy or adversely modify their designated habitat. As a result, NMFS developed an RPA that it believes would avoid jeopardizing the continued existence for those species and avoid impacts to their habitat. The RPA is in fact comprised of a number of measures related to adaptive management, flow management, water quality management, fish passage, hatchery management, and habitat improvement. In the BiOp, the proposed drawdown is part of RPA 4 addressing fish passage and more particularly RPA 4.12 addressing juvenile downstream passage in the North Santiam Basin. As part of RPA 4.12.2, the BiOp provides the following:

“[t]he Action Agencies will test and improve effectiveness of interim juvenile fall drawdown operations through Detroit and Big Cliff Reservoirs and Dams with the following operations in years 2025-2028, and will conduct studies to measure effectiveness, as part of the Adaptive Management process with input from the WATER Technical Teams:

- In the fall, draw Detroit Reservoir elevation down to no more than 50 feet above upper RO for passage (1395 ft), when possible given hydrology and hydropower activity in the North Santiam and other subbasins.
- Design and conduct a study, or use existing data, to optimize RO gate openings at Detroit for survival and reduced harm. While also considering temperature implications downstream, as well as turbidity effects.”

The BiOp does not provide any information regarding alternatives that were considered in place of the Detroit Reservoir drawdown that could have met ESA objectives related to UWR Chinook salmon and UWR steelhead. The BiOp also does not discuss at all how the proposed drawdown would impact users in the basin, including the City. The failure to consider or discuss those impacts is even more glaring due to the fact that the USACE and NMFS know that the resulting elevated turbidity will have dramatic impacts on the City’s drinking water infrastructure. In fact, after USACE implemented a similar drawdown at Green Peter Reservoir in 2023, the cities of Lebanon and Sweet Home experienced extreme operational costs, equipment damage, and were forced to implement costly pretreatment system upgrades due to elevated turbidity levels in the South Santiam River. The cities filed a tort claim against USACE to seek compensation for over \$26 million in damages for Lebanon and over \$11 million for Sweet Home.

While NMFS and USACE have a duty to comply with the ESA, this does not necessarily translate into a duty to move forward with the Detroit Reservoir drawdown. Agencies retain considerable discretion in choosing what specific actions to take in order to implement the mandatory goal of the ESA. NFMS's failure to consider alternatives to the drawdown that would not result in a public health emergency for over 200,000 residents is arbitrary, capricious, and inconsistent with its various mandates under federal law. The City has repeatedly expressed concern about the impacts that a drawdown at Detroit Reservoir would have on its drinking water supplies and NMFS seems to have ignored those impacts altogether.

III. USACE Has a Duty to Comply with All Federal Laws

Moving forward with the drawdown would likely violate NEPA, the CWA, and SDWA. Compliance with one statute (ESA) shall not come at the expense of another.

a. NEPA violation

The consideration of alternatives to a proposed action is the heart of the environmental impact statement. 40 C.F.R. § 1502.14. The alternatives section of an EIS should identify the reasonably foreseeable environmental effects of the proposed action. In doing so, the analysis should "sharply define the issues for the decision maker and the public and provide a clear basis for choice among options." *Id.* As part of its ESA duties, NFMS (the lead agency) must "[r]igorously explore and objectively evaluate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination." 40 C.F.R. § 1502.14(a). NMFS has not addressed how the drawdown would impact water quality in the North Santiam River below Detroit dam and how the proposed action could have lasting effects on the health of the basin beyond the period of the drawdown itself. USACE and NMFS are required to consider and respond to the City's comments as part of its decision-making process and to consider alternatives to the proposed drawdown. Failure to do so would be a violation of NEPA.

b. CWA violation

The goal of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA prohibits the discharge of any pollutant from a point source into navigable waters, unless the discharger possesses a valid permit authorizing the release of the particular pollutant discharged in the specific amount, or concentration, contained in the discharge. 33 U.S.C.A. § 1311. While courts have generally recognized that dams are not point sources and operators may not always be required to obtain a National Pollutant Discharge Elimination System (NPDES), it does not mean that USACE and NMFS have no obligation under the CWA. First, some courts have found that dam operators do not need an NPDES permit when dam operation does not involve an addition of a pollutant to navigable waters. *National Wildlife Federation v. Gorsuch*, 693 F.2d 156 (D.C. Cir. 1982); *National Wildlife Federation v. Consumers Power Co.*, 862 F.2d 580 (6th Cir. 1988); accord *Los Angeles Flood Control District v. Natural Resources Defense Council*, 568 U.S. 78 (2013). Second, USACE has been required to obtain an NPDES permit to account for the discharge of oil, grease, and heated water for certain dams on the Columbia River. In fact, USACE seems prepared to apply for an obtain NPDES permits for certain WVS dams in 2025. Third, USACE's obligations under the CWA may be implicated in this case where USACE's actions will directly result in polluted water being discharged from Detroit Dam, including high turbidity and increased temperature.

USACE and NMFS cannot ignore the CWA goals and mandates just to comply with the ESA. Courts previously rejected an argument by USACE that it was not able to comply with Washington water quality standards because of the Endangered Species Act and stated “the Endangered Species Act and the Clean Water Act ‘should be read together, so that compliance with one statute does not come at the expense of the other.’” *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 132 F.Supp. 2d 876, 891 (D. Or. 2000). USACE’s own policy is to meet downstream water quality standards whenever possible: “[w]hen releases are found to be incompatible with state standards they should be studied to establish an appropriate course of action for upgrading release quality, for the opportunity to improve water quality in support of ecosystem restoration, or for otherwise meeting their potential to best serve downstream water quality needs. Any physical or operational modification to a project (for purposes other than water quality) shall not degrade water quality in the reservoir or project discharges.” *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 92 F. Supp. 2d 1072, 1076 (D. Or. 2000) (quoting USACE’s *Digest of Water Resources Policies and Authorities*, Engineering Pamphlet 1165-2-1, dated February 15, 1996).

c. SDWA Violation

The SDWA, 42 U.S.C.A. §§ 300f et seq., establishes a federally mandated, state-administered regulatory scheme for the protection of drinking water. Its general purpose is to assure that the water supply systems serving the public meet minimum national standards for protection of public health. *Manufactured House. Inst. v. U.S. Env't Prot. Agency*, 467 F.3d 391, 394 (4th Cir. 2006). The Act regulates contaminants in drinking water supplied by public water systems and empowers the EPA to promulgate regulations protecting the quality of drinking water sources in the United States, which regulations specify dangerous contaminants and prescribe either maximum contaminant levels or satisfactory treatment techniques. It delegated to EPA the responsibility for setting the standards for drinking water contaminants, 42 U.S.C.A. § 300g-1. Under the statute, the EPA must regulate the majority of contaminants in drinking water by formulating maximum contaminant level goals (MCLGs), representing its expert determination of “the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.” 42 U.S.C.A. § 300g-1(b)(4)(A). It then must set a maximum contaminant level (MCL) “as close to the [MCLG] as is feasible.” 42 U.S.C.A. § 300g-1(b)(4)(B). Generally, federal agencies are subject to and comply with all federal, state, interstate, and local requirements respecting wellhead protection area, public water systems and any underground injection in the same manner and to the same extent as any person is subject to such requirements. 42 U.S.C.A. § 300j-6(a). The proposed drawdown may impact the City’s surface water and groundwater sources by dramatically increasing turbidity and other pollutants in the North Santiam River. Clean drinking water is a necessity and a failure to provide it can create irreparable harm. *See, e.g., Concerned Pastors for Social Action v. Khouri*, 217 F. Supp. 3d 960, 972 (E.D. Mich. 2016) (“It is abundantly clear that the public relies every day on the ready availability of safe drinking water at the tap. . . . In modern society, when we turn on a faucet, we expect safe drinking water to flow out.”). The action proposed by NMFS and the Corps would jeopardize access to clean drinking water for communities relying on the North Santiam River. USACE needs to take this into account when looking at different RPAs.

IV. Conclusion

As proposed in the BiOp for the WVS, the drawdown of Detroit Reservoir would dramatically increase turbidity in the North Santiam River at the time of the drawdown but also

potentially for months afterwards. This in turn could cause permanent harm to the City's drinking water infrastructure and impact hundreds of thousands of residents and businesses who rely on that water. The drawdown as proposed would violate the CWA and the SDWA, and NMFS and USACE's lack of consideration of those impacts would also violate NEPA. The City understands USACE's obligations under the ESA and is committed to the protection of listed fish species in the WVS and would like to work with USACE to find a solution that is protective of fish and wildlife *and* of the City's water supplies. The City also acknowledges and recognizes the Confederated Tribes of Grand Ronde's and other tribal nations' interest in the WVS and welcomes opportunities to speak with the tribes to find a solution. More specifically, the City's preliminary engineering studies suggest that its Treatment Plant could handle a turbidity of up to 50 NTU for up to 13 days before running into operational issues. As such, the City encourages the Corps to better study a stepped approach to the drawdown that would remain below such turbidity triggers to allow the City and the Corps to respond and adapt to changing water quality conditions and ensure continued access to safe drinking water for the City's residents and businesses.



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January 12, 2026

Delivered via Electronic mail and U.S. Post

U.S. Army Corps of Engineers
Attn: CENWP-PME-E / Willamette SEIS
P.O. Box 2946
Portland, OR 97208-2946

Re: City of Salem Public Comments on Draft Supplemental Environmental Impact Statement

The purpose of this letter and its supporting attachment is to provide comments from the City of Salem (City) regarding the *Willamette Valley System Operations and Maintenance Draft Supplemental Environmental Impact Statement* (Draft SEIS) that was issued by the U.S. Army Corps of Engineers (USACE) in November 2025. The Draft SEIS fulfills two directives contained in the 2024 Water Resources Development Act: (1) It identifies options to permanently end federal hydropower production at eight Willamette Valley Dams; and (2) It evaluates options to comply with the Biological Opinion (BiOp) by the National Marine Fisheries Service (NMFS) regarding annual deep drawdowns of Detroit Reservoir. The City's comments are specific to the deep drawdowns, in which the level of Detroit Reservoir is proposed to be dropped to a historically low elevation each year to facilitate the out-migration of threatened fish species.

First and foremost, the City continues to support the actions of the USACE, NMFS, and other federal, state, and local agencies intended to enhance habitats and support out-migration of spring Chinook and winter steelhead, both of which are listed as threatened under the Endangered Species Act (ESA). The City also recognizes and respects the historic, cultural, and spiritual interests these species represent to members of the Tribal Nations. Finally, the City acknowledges and appreciates that the Draft SEIS addresses many of the concerns we have expressed to the USACE over the past 12 months. Among the significant commitments made by the USACE in the Draft SEIS that are responsive to our concerns:

- (1) The USACE will "initiate the drawdown closer to late November or early December" (Page 18).
- (2) The deep drawdown will be conducted "in a stepwise manner" (Pages ES-9, 210).
- (3) The duration of the deep drawdown "is set to last for two weeks" (Page 18).
- (4) The incremental deep drawdown approach "would span over three years" (Page 90).

However, the City remains deeply concerned at the absence in the Draft SEIS of any reference to turbidity triggers and accompanying action measures. As described and justified in our comments

EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Women, minorities, and disabled are encouraged to apply • ADA Accommodations will be provided upon request

below and in our previous comments (see Attachment), these two important operational factors must be incorporated into the Final SEIS.

Key Recommendation: Establish a Turbidity Trigger of 10 NTU/12 hours to Cease the Drawdown

It is critical that the USACE adopt a turbidity trigger which, if exceeded over a specified period of time, will cause the immediate cessation of drawdown operations and the resultant return of Detroit Dam and Detroit Reservoir to normal operating conditions. The purpose of the turbidity trigger is to protect human health, protect the City's water treatment system, and protect the City's customers. Once drawdown operations cease, it is anticipated that turbidity levels in the river will decrease over time and normal operations at the City's water treatment plant will be able to resume. Further, to provide time to restore normal operations and to evaluate lessons learned, once the turbidity trigger has been exceeded, drawdown operations should not resume again until the following year. This recommendation is based on years of operational experience coupled with scientific research conducted over the past 12 months.

Additionally, a turbidity trigger should be the minimum safeguard for downstream water users to protect from reasonably foreseeable environmental effects of the proposed action. The Thomas R. Carper Water Resources Development Act of 2024 (WRDA 2024) required that the Corps complete a report on instances in which turbidity concerns have arisen following a drawdown at a reservoir in the Willamette Valley, including "identify(ing) lessons learned associated with turbidity resulting from drawdowns and ... how changes based on those lessons learned are being implemented." Absent completion of the report, the Corps should proceed with the drawdown of Detroit Reservoir under strict guidelines for downstream water quality while data is being collected and analyzed from similar operations in the Willamette Valley. Given that the Corps failed to analyze specific turbidity level effects from the proposed action on downstream users, a strict turbidity trigger that protects downstream users is a reasonably prudent alternative.

The specific recommendation is that the turbidity trigger should be set at a reading of 10 NTU¹ or above, experienced over a period of 12 consecutive hours, as measured at the United States Geological Survey's (USGS) Niagara gauge. (USGS-14181500).

ADDITIONAL BACKGROUND INFORMATION.

The City's Responsibilities as Regional Water Provider

The City is the only regional water provider in the Mid-Willamette Valley. We are responsible for supplying safe and reliable drinking water to approximately 220,000 individuals and thousands of properties that include hospitals, schools, businesses, industries, irrigators, multifamily housing units, and

¹ Nephelometric Turbidity Units (NTU) and Formazine Nephelometric Units (FNU) are measures of the clarity of the water. The City typically reports turbidity levels in NTU; the USACE typically reports turbidity levels in FNU. Although the two units reflect the same characteristics, the analytical methods used to determine FNU and NTU are different and the two are not numerically interchangeable. Generally, water with turbidity of 10 NTU or 10 FNU or less looks clear. Water with turbidity of 50 NTU or 50 FNU looks cloudy; water with turbidity exceeding 500 NTU or 500 FNU looks muddy.

single-family homes. The City's water service area includes the City of Salem, the City of Turner, four water districts, and portions of unincorporated Marion and Polk counties. In addition, the City must provide water in sufficient quantities for firefighting and other emergency needs. Moreover, the City is the *only* emergency source of drinking water to the 48,000 citizens of the cities of Stayton and Keizer should either, or both, municipalities suffer impairment to their own drinking water systems.

High Turbidity Endangers Treatment System, Places Customers at Risk, Limits Future Growth

At issue is the fact that the deep drawdown of Detroit Reservoir will increase the presence of fine particles in the North Santiam River, the source of drinking water for the region served by the City. These particles pose a significant risk to the City's slow sand filtration treatment system that is located on Geren Island on the North Santiam River near downtown Stayton.

Highly turbid water, if allowed into our treatment system, will clog the sand filters. Run times between filter maintenance periods will be significantly reduced, the cost and time to recondition each filter will substantially increase, and drinking water production from our treatment plant will be considerably diminished. If, to protect the sand filters, the City closes the intake gates from the North Santiam River, our ongoing ability to meet water demand will depend solely on the amount of water stored in reservoirs, water drawn from a handful of wells, and water provided through interties with the City of Keizer. At this writing, the City has embarked on substantial capital investments, expected to cost approximately \$8 million, to prepare for potential disturbances caused by the drawdown. These improvements are not yet complete. With these significant investments, the City believes we can meet winter demand during the 2026 deep drawdown but there is *no assurance* that we will be able to meet future demands, which are expected to grow higher with each passing year. Further, under this mode of operation there is *limited redundancy* in the system. Should a critical component of one or more of these alternative sources of drinking water fail, our ability to supply water may fall below the demand of our many customers. Depending on the severity and duration of the shortfall, the consequences range from temporary inconvenience to untenable and unsustainable risks to life, property, and livelihood.

In addition to limited potentially life-saving redundancy, operating a regional water supply system at or near capacity with no back-up will also create a significant and highly consequential condition – it could *limit opportunities for future growth*. Economic growth invariably relies on a region's ability to reliably provide essential services, water being the most critical of these. No housing deficiency can be addressed if there is insufficient water for new residential development. No new businesses, small or large, will locate in our service area if our ability to provide drinking water is questionable. No water-dependent industry seeking a new location will select Salem if we cannot provide assurances of reliable, year-round water for its production.

How the City Treats Water under Normal Turbidity Conditions

Under normal operating conditions, the City draws raw water from the North Santiam River through intake gates at our facility on Geren Island. This water is treated using slow sand filtration, a highly

reliable, time-tested method for producing drinking water. For sand filters to properly operate, the intake water must have very low levels of turbidity. Typically, the water drawn from the North Santiam River has a turbidity level of less than 10 NTU. At this level, our sand filters can operate for about three months before the filter must be taken offline for cleaning (scraping 0.25 to 0.5 inches from the top layer of sand) and reconditioning (allowing a biological layer of microorganisms to regrow on the surface of the sand).

How the City Treats Water under Elevated Turbidity Conditions

There are naturally occurring, short-term periods during which the turbidity levels in the North Santiam River increase well above 10 NTU. High turbidity is typically caused by storm events, which increase runoff volumes and sediment transport from up-river creeks and streams. The City's operational procedure in anticipation of high turbidity in the river involves filling the slow sand filters to their maximum capacity prior to the arrival of high turbidity and then closing the intake gates. With the gates shut, the filters can operate for about three days until low water levels in the filters required them to be taken offline. Historically, high turbidity levels triggered by storm events have lasted less than three days.

Results of Research on the Consequences of High Turbidity

There is little question that the deep drawdown will elevate turbidity levels in the North Santiam River, both during the initial drawdown, during subsequent drawdowns, and for a significant period of time after each drawdown operation has ended. As stated earlier, typical turbidity levels in the North Santiam River at our intake gates is less than 10 NTU. Of concern is information collected by the USACE during initial drawdowns in 2023 impacting the South Santiam River. Data provided by the USACE showed turbidity levels ranging from roughly 50 FNU (see footnote on Page 2) to over 450 FNU. Data from the most recent drawdown conducted in 2025 indicate sustained turbidity levels had decreased but still ranged between approximately 20 and 80 FNU. The adverse impacts of sustained elevated levels of turbidity in the City's intake from the North Santiam River are summarized below.

1. Short-term Impacts to Our Filters

The City conducted extensive research in 2025 to determine the risks of keeping the intake gates open and allowing highly turbid surface water into a slow sand filtration system. Based on this bench-scale scientific testing, we now know that turbidity levels as low as 50 NTU will reduce the runtime of a slow sand filter from approximately three months to three weeks. Higher turbidity levels will result in even lower runtimes, some of which are less than 24 hours. Additionally, fine particles from highly turbid intake water can penetrate deep into a sand filter, essentially fouling the entire depth of the sand bed well beyond the typical 0.25-0.5 top inches. This will significantly increase the cost and complexity of reconditioning a filter and measurably reduce the life cycle of a filter from four years to less than two months. Restoring a filter to full operational status once the filter has been terminally fouled can require up to six months to drain the water, remove the clogged layer of sand, procure and then replace the bed with new sand, and restore the biological layer in the rebuilt filter bed. The time required to return a filter from failure to full operational status is expected to extend beyond winter drawdown and into the summer months, a period during which water demand will be at its highest. The estimated cost to replace

a filter bed ranges between \$3 million and \$4 million *each*. The City will have no choice but to pass this cost burden to our customers in the form of rate increases.

2. The Longer-term and Recurring Impacts

The adverse impacts of highly turbid water entering the City's sand filtration system extend well beyond the immediate period of the deep drawdown. Rehabilitating filters lost to sustained turbidity is a labor-intensive and expensive endeavor. There are long-term consequences related to increases in operating and capital budgets which will drive utility rates higher. There are challenges related to limited staffing, uncertainty in supply chains and procurement, and indeterminate planning timelines. The time required to restore filters to full operation may extend into the spring and summer months, a period during which water demand is at its highest. Among the potential consequences is the real possibility of compromising the City's ability to meet peak summer demands while, concurrently, adversely impacting the City's ability to prepare for the next deep drawdown later in the same year.

3. Risks of Total Reliance on Alternative Water Sources

If the intake gates remain shut because of high turbidity in the river, or if the sand filters are offline for cleaning and reconditioning post-drawdown, the City must rely on water drawn from groundwater wells, water stored in our reservoirs, and water provided via an intertie with the City of Keizer. Depending on the time of year, the duration of the high turbidity, and the time needed to restore operations of slow sand filter(s), these alternate sources may not be able to meet the demand of our water customers. We estimate that existing alternative water sources – wells, reservoirs, and interties – will meet the projected water demand during the timeframe of the first proposed drawdown. However – and this is a significant consideration – under this mode of operation there is *limited redundancy in the system*. Should a critical component of one or more of these alternative sources fail, our ability to supply water will fall below the demand, creating an unacceptable risk to human health and safety.

Advantages of Implementing Turbidity Triggers and Action Measure

Among the advantages to having turbidity triggers.

Frames Intergovernmental Collaboration

Including this turbidity trigger level and action measure in the Final SEIS will require the City and USACE engage in follow-up conversations to establish details such as: communication protocols, pre-approved authorities for implementation of action steps, reporting requirements, and specific details regarding the immediate and follow-on measures to be taken.

Facilitates Compliance with the Federal Clean Water Act

Adopting turbidity triggers would also allow USACE to reconcile the proposed drawdown action with potential violations of the federal Clean Water Act (CWA). The CWA addresses, among many other things, contaminants in water resources. There is no doubt that causing high levels of turbidity

should be considered a violation of the CWA. Water quality sampling data show that typical turbidity levels at the City’s intake from the North Santiam River are well below 10 NTU. In the EPA-approved Oregon Water Quality Standards “turbidity” is defined as “pollution” and the standard in ORS 340-041-0036 states, in part:

Turbidity (Nephelometric Turbidity Units, NTU): No more than a ten percent cumulative increase in natural stream turbidities may be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity.

The turbidity levels reported by the USACE during drawdown operations on the South Santiam River clearly violated federally approved state water quality standards. There is little doubt that turbidity levels in the North Santiam River during the deep drawdown will rise above “natural stream turbidities” by more than 10 percent. From a regulator perspective, once a violation in water quality standards has occurred, among the correction actions is to cease the activity causing the violation. The Oregon Department of Environmental Quality may consider a turbidity trigger and corrective action to stop the drawdown as appropriate measures which will allow the USACE to avoid liability related to violations of state and federal law.

Supports Compliance with the Federal Safe Drinking Water Act

Adopting turbidity triggers would also allow USACE to reconcile the proposed drawdown action with potential violations of the federal Safe Drinking Water Act (SDWA). The Safe Drinking Water Act (SDWA) requires persons to protect public water systems. The Draft SEIS does little to address potential violations of the SDWA. The proposed drawdown is expected to contaminate the City’s source of drinking water, potentially contaminate the City’s water treatment system, and generally impair the City’s ability to provide safe drinking water, any one of which could constitute a violation of the SDWA.

SUMMARY OF RECOMMENDATIONS AND CONCLUSION

Six Recommendations

While there is much to be commended in the Draft SEIS, the City presents to the USACE six specific recommendations for incorporation into the Final SEIS.

Recommendation #1: Acknowledge the Significance of Increased Turbidity

The City disputes that the proposed drawdown of Detroit Reservoir, even following a stepwise approach, would cause only a “moderate increase in sediment and turbidity levels” in the North Santiam River (see Page ES-9). The word “moderate” is subjective and situational. Based on our best professional judgement, which is now backed up by extensive research and bench-scale testing, levels of turbidity as low as 50 NTU – a measure potentially viewed as “moderate” by some – will have

significant and sustained consequences to our treatment systems. For the Final SEIS, a more accurate sentence would read:

For water quality and drinking water, the deeper drawdown of Detroit Reservoir would cause ~~a moderate~~ an increase in sediment and turbidity levels downstream of Detroit Reservoir during the operation. This increase will threaten the operation of the slow sand filtration systems operated by the City of Salem and the City of Stayton.

Recommendation #2: Establish the Need for a Turbidity Trigger and USACE Response

A stepped approach alone is insufficient to protect human health and safety for communities relying on the North Santiam River for drinking water, firefighting, industrial production, and commercial purposes. The USACE *must* adopt in the Final SEIS a clear turbidity trigger consisting of a NTU level that, if exceeded over a specific period of time, will require cessation of the drawdown operation. A turbidity trigger with mandated actions will provide a degree of certainty and significantly enhance the City's ability to develop contingency and recovery plans. This recommendation comes with a commitment by the City to work with the USACE and to share information, data, and research results to help support a turbidity trigger that protects public health, lowers risks, supports long-term objectives of the drawdown, and reflects current scientific research and sound engineering practices.

Recommendation #3: Establish a Turbidity Trigger of 10 NTU over 12 Hours to Cease Operations

The City's specific recommendation, which is consistent with multiple conversations with the USACE and supported by scientific research, is that a firm turbidity trigger of 10 NTU should be established in the Final SEIS. Based on the anticipated variability of turbidity in the North Santiam River during the drawdown, the City further recommends that a time duration of 12 hours be incorporated as part of the trigger. Once this trigger is reached, the USACE should cease all drawdown activities for that year and allow the City's water treatment system to recover and resume full operation. Based on the studies and research conducted, the City strongly recommends that the USACE establish in the Final SEIS a turbidity trigger as follows:

The USAC will immediately take steps to cease the deep drawdown operation and restore Detroit Dam and Detroit Reservoir to normal operations the moment turbidity levels in the North Santiam River, as measured at the USGS Niagara gauge, have been at or above 10 NTU for 12 consecutive hours.

Recommendation #4: Evaluate Merits of Delaying Implementation

The Final SEIS should evaluate potential environmental impacts if the deep drawdown is delayed for one, two, or three years hence. Doing so would provide the City additional time to develop and test

wells currently under construction to determine if they have sufficient yield to provide resiliency and mitigate risks to life, property, and livelihood.

Recommendation #5: Focus on a Long-term Strategy of Implementing Structural Solutions

Our read of the BiOp, the Final Programmatic Environmental Impact Statement², the Draft SEIS, and various reports and evaluations, is that the long-term strategy does not focus on year over year deep drawdowns. However, the long-term strategy *requires implementation* of structural remedies designed to facilitate out-migration of threatened species. The current Draft SEIS considers annual deep drawdowns of Detroit Reservoir as an “Interim Operation” that will occur “until the long-term solution for downstream fish passage and water temperature management at the respective location is in place and operational” (Page 17). We agree, but as written in the Draft SEIS, as implied in recent public meetings, and as demonstrated by the years that have passed since the structural solutions were first proposed, implementation of structural measures have not been a priority. The Final SEIS should clearly state the intention of the USACE to pursue all means available to secure funding, initiate project planning, and ultimately construct what is expected to be the long-term strategy to support the out-migration of threatened species. Until these measures are in place, the financial burden and high-risk scenarios are being borne not by the responsible federal agencies but by local jurisdictions and our ratepayers.

Recommendation #6: Employ Adaptive Management with Each Annual Drawdown

The underlying Biological Opinion for the Willamette Valley System requires development of an Adaptive Management Plan that includes “decision criteria” that guide strategies (see Section 2.5.10 of the BiOp). At issue for the City is a pressing need for the USACE to incorporate decision criteria that can be modified over time based on new information, changes in conditions, and lessons learned. More specifically, decision criteria should consider changes in risks and consequences from year to year. To illustrate, consider two scenarios:

- (1) The City’s risk assessment is based, in part, on historic winter water demand. If the City adds a new industrial customer with a high, year-round water demand, the risks/consequences assessment must be reevaluated.
- (2) The City’s water system relies on a wide range of factors and components to deliver safe drinking water to our customers. If, prior to commencing a deep drawdown, one or more of our critical components has failed, decision criteria should be in place that delays or cancels that year’s deep drawdown.

² “Willamette Valley system operations and maintenance: Final environmental impact statement.” United States Army Corps of Engineers. Portland District. April 2025.

In the context of Adaptive Management, there is the ambiguity in the Draft SEIS regarding the duration of the drawdown, which “is set to last two weeks” (Page 18) and the timespan of the incremental steps toward the ultimate desired elevation in the reservoir which “would span over three years” (Page 90). For our purposes of operational planning and risk management, the City requires assurances that the duration of the deep drawdown “~~is set to last~~ will not exceed two weeks” and the incremental drawdown approach “would span ~~over~~ at least three years.” Further, a requirement for the USACE to conduct additional analysis, reviews, and consultation with affected parties should be incorporated into the Final SEIS to provide assurances that the USACE will employ both science-based *and* risk-based decision making during the course of adaptively managing the drawdown operations over the years.

Conclusion

In conclusion, the City is grateful that the Draft SEIS addresses several of the concerns we have expressed over the past year in our conversations with the USACE regarding the risks each deep drawdown will present to our water treatment plant and our customers. However, the absence of any references to turbidity triggers and action measures is deeply troubling. Clear triggers and actions are essential for the City’s operational and contingency planning. Establishing mutually acceptable triggers and action measures also represents the best way forward for providing assurances to our current and future regional customers that safe drinking water will continue to be reliably delivered. Lastly, turbidity triggers and action measures will facilitate the USACE’s compliance with the federal Clean Water Act, federal Safe Drinking Water Act, and Oregon State Water Quality Standards, among other regulations. Simply put, the risks to the City’s water supply created by the deep drawdown are too high and consequences of failure are too staggering to accept without some kind of documented assurances that the drawdown operations will cease before the high levels of turbidity have resulted in highly consequential harm to our treatment system and our customers have been placed at risk.

The City is committed to working with the USACE and others to evaluate and, ultimately, to implement measures that support downstream passage of juvenile species, protect habitat and water quality, ensure water demands are met, and provide for the many users of the North Santiam River.

Sincerely,



Krishna Namburi
City Manager

Attachment: “City of Salem Public Comments on USACE’s Proposed Detroit Reservoir Drawdown.”
Letter. Salem, Oregon. June 20, 2025