



CITY OF JOHN DAY

mayor
Ron Lundbom

city manager
Nicholas Green

office manager
Chantal DesJardin

council
Shannon Adair
Gregg Haberly
Dave Holland
Heather Rookstool
Elliot Sky
Paul Smith

January 17, 2022

Re: Applicant Review Comments
City of John Day Draft WPCF Permit

Enclosed are comments from the City's wastewater system improvement engineers, prepared by Kennedy/Jenks Consultants with review by CwM H2O, the City's hydrogeologic engineers.

The City has spent over \$145,000 in additional ground and surface water modeling in preparation for this permit application. This additional analysis was undertaken in order to satisfy DEQ's request for additional information about our initial wastewater condition before any natural treatment or biological cycling in the groundwater and subsequent impacts to both groundwater and surface water, if any, as a result of the proposed treatment plant. This documentation was provided previously in a series of technical memoranda that have been reviewed by both DEQ and the City.

Several findings in the memoranda provided to DEQ warrant reconsideration of the criteria in the permit. Specifically, requiring the city to monitor surface water as a condition of its permit could effectively make the city responsible for any upstream conditions, regardless of where they originate, whether the point of origination can even be determined, or whether the causal factors include natural environmental conditions resulting from climate change or other users' impacts to the surface water quality.

For example, the flow rate of the John Day River during the City's analysis conducted in the summer of 2021 estimated flow rates 10-20 cfs and water levels in the river that were unusually low due to extensive drought conditions. It is unclear how the low flow conditions, coupled with very warm ambient water and air temperatures, may have impacted river water quality or how future drought and other climate change impacts may alter the background levels of specific field parameters such as temperature, dissolved oxygen, nitrogen and phosphorous concentrations, etc.

In April 2019, the flows at the location of the treatment plant exceeded 2,000 cfs – more than 100 times higher than the flows observed in 2021. These extreme fluctuations in background water levels and conditions make it impossible for the City to achieve levels that are background or lower because we cannot obtain consistent background conditions.

Variability in measurements within the John Day River and the river's impact on groundwater are likely independent of the City's wastewater treatment plant, which is not a direct discharger, and would contribute an amount of water



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relative to the John Day River that is too small to quantify, resulting in statistically insignificant data even if it were a direct discharger.

The requirement in a WPCF permit to conduct surface water monitoring has the potential to set a precedent for small, rural utilities that could lead third parties (in addition to DEQ) to take legal action against rural utilities for environmental conditions that cannot be directly attributed to their utility system but that are nevertheless not financially sustainable to defend.

Downstream groundwater sampling also has the potential to implicate the City's utility system for impacts that could be caused by the extensive industrial use occurring between the City's treatment plant and Malheur Lumber.

We concur that a full river and subsurface profile of oxygen measurements, velocities and other parameters would provide a more representative characterization of whole river environment. We are willing to collect instream and groundwater sampling in partnership with DEQ, OWRD, and other relevant state and federal agencies for this reason, but we disagree with making these sampling points a requirement of our WPCF permit.

The City should not be held accountable for changes in surface water conditions or groundwater conditions in a complex riparian environment where our potential contribution is negligible relative to the other environmental conditions and contributors at play. We should only be held accountable for our discharge measured at the point our treated wastewater enters the subsurface infiltration galleries, which we can control and monitor independent of these other factors.

Spot measurements of flow velocity and other conditions within the John Day River channel taken in real time have tremendous scientific value for the watershed but should not be a requirement of a WPCF permit. If included, they could potentially result in fines and costs of operations that are not financially sustainable for our community.

Additional technical commentary is provided in the enclosed report.

Sincerely,

Nicholas Green
City Manager

17 January 2022

Mr. Pat Heins
State Biosolids & Water Reuse Coordinator
Oregon Department of Environmental Quality
700 NE Multnomah St., Suite #600
Portland, OR 97232

Subject: Applicant Review Comments
City of John Day Draft WPCF Permit
KJ Project No. 2076017*00

Dear Mr. Heins:

On behalf of the City of John Day (City), Kennedy/Jenks Consultants (Kennedy Jenks) respectfully submits the following comments on the Applicant Review Draft Water Pollution Control Facilities Permit (WPCF), Applicant Number 948631 and the supporting Fact Sheet submitted to the City on December 22, 2021.

The City greatly appreciates the Department of Environmental Quality's (DEQ) engagement over the past many months regarding the planned wastewater treatment plant improvements. However, the City has significant concerns regarding the proposed limits and requirements set forth in this applicant review draft permit. The City believes several of these limits and requirements are overly restrictive and jeopardize the ability for the community to move forward with plant improvements.

Permit Comments Overview

The City currently operates under WPCF Permit number 43569 with two numerical treatment criteria:

- a. Greater than 85% BOD₅ removal
- b. Maintain an average chlorine residual of 1.0 milligram per liter (mg/l) in the treated effluent.

Additionally, the existing permit requires that all wastewater shall be managed and disposed of in a manner that will prevent:

- A violation of the Groundwater Quality Protection Rules (OAR 340-040); and
- A violation of any permit-specific groundwater concentration limits, established pursuant to OAR 340-040-0030, which have been subsequently incorporated into the permit.

The City intends to continue to operate in a manner that is fully protective of the environment, prevent the violation of the Groundwater Quality Protection Rules, Oregon Administrative Rules Chapter 340 Division 40 (OAR 340-040), and prevent violation of permit-specific groundwater concentration limits.

The effluent criteria in the proposed new WPCF permit far exceed the criteria of their existing permit. The effluent criteria as currently stated would require the highest level of wastewater treatment

currently available in the marketplace, tertiary treatment with full Class A Recycled Water disinfection standards across the full design flow of the treatment plant. The City requests the treatment criteria, specifically total coliform, be revisited in the context of the existing aged treatment plant which is operating under a much less stringent permit while still satisfying the protection of groundwater quality.

Permit Comments

1. **Schedule A, Part 3 Table A1 Groundwater Concentration Limits:** Concentration limits listed for BOD₅, TDS, and Total-N define concentration limits at the compliance point that are tied to background levels of these constituents. Background levels for these constituents are not known, will be difficult to determine, and may vary over time. Additionally, other influences may act upon the treated effluent between the effluent infiltration gallery and compliance point that the City is unable to control. The City requests the proposed effluent concentrations for BOD₅, TDS, and Total-N be defined as a single concentration, not tied to background levels, and the compliance point be located at the 'end of pipe' going into the infiltration gallery. Also, 'end of pipe' compliance should eliminate the need for groundwater monitoring if end of pipe constituents as presented in the draft permit remain at groundwater standards.
2. **Schedule A, Part 4.a:** "Treated and used according to the criteria listed in Table A1" should reference Table A2.
3. **Schedule A, Part 7. Effluent Benchmarks for Outfall 001 – Total Coliform:** The proposed effluent value for total coliform of 2.2 organisms/100 ml is consistent with Class A Recycled Water classified for direct contact use. The City's proposed treatment system will utilize a non-discharge via a sub-surface effluent infiltration gallery without potential for direct contact use. This proposed limit is overly restrictive considering the requirements set forth in the City's existing WPCF permit and the planned upgrades of the treatment plant (i.e., tertiary treatment, and the extensive groundwater evaluation work completed by our consultant, CwM-H2O, which shows that the proposed plant and sub-surface discharge pose minimum temperature and nitrate impacts to the John Day River). The City requests the testing criteria be modified to more accurately reflect water quality protection goals for this discharge and total coliform limit be applied only to the Recycled Water Outfall 002.
4. **Schedule B, Part 1 Reporting Requirements – Groundwater Monitoring:** The City requests the Due Date proposed be modified to recognize that the City can submit the first set of Groundwater Monitoring data only after the Groundwater Monitoring Plan has been approved by DEQ. The first set of Groundwater Monitoring data may not be submitted by the 15th of the following month after quarter end if the Groundwater Monitoring Plan has not yet been approved by DEQ.
5. **Schedule B, Part 1 Reporting Requirements – Surface Water Monitoring Plan:** The City requests the Surface Water Monitoring Plan be removed from the Reporting Requirements. The WPCF permit is a non-discharging permit and therefore a surface water monitoring plan is unnecessary for this type of permit. The groundwater evaluation work completed prior to the issuance of this applicant review permit coupled with the proposed treatment technologies support the request to remove this Reporting Requirement. [even if included, not significantly

6. **Schedule B, Part 1 Reporting Requirements – Surface Water Monitoring:** The City requests the Surface Water Monitoring requirement be removed from the Reporting Requirements. The WPCF permit is a non-discharging permit and therefore surface monitoring is unnecessary for this type of permit. The groundwater evaluation work completed prior to the issuance of this applicant review permit coupled with the proposed treatment technologies support the request to remove this Reporting Requirement.
7. **Schedule B, Part 1 Reporting Requirements – Industrial User Survey:** The City requests the Due Date be modified so it is due 12 months after the effective date of the permit.
8. **Schedule B, Part 3 Monitoring and Reporting – Table B2 Influent Monitoring Requirements:** Please clarify if in the Minimum Frequency of ‘Weekly’ for BOD₅, TSS, and pH, ‘Weekly’ refers to 1 per week.
9. **Schedule B, Part 3 Monitoring and Reporting – Table B2 Influent Monitoring Requirements, Septage:** The Item or Parameter noted as “Septage” should be changed to “Hauled Waste”
10. **Schedule B, Part 3 Monitoring and Reporting – Table B3 Effluent Monitoring Requirements:** Please clarify if the Minimum Frequency of ‘Weekly’ listed for BOD₅, TSS, pH, and Total Coliform refers to 1 per week.

Fact Sheet Comments

1. **Table 2-1 List of Outfalls:** The Design Flow and Existing Flow do not match flow projections included within the report titled *John Day Wastewater System Improvements*, Addendum 1 to the 2019 Preliminary Engineering Report Titled, dated 2021. The revised flow projections list the Current Average Annual Flow as 0.236 MGD and the Future (2042) Average Annual Flow as 0.282 MGD.

The City appreciates the opportunity to comment on the Applicant Review Draft WPCF and the supporting Fact Sheet. We look forward to working with you to resolve the comments identified in this comment letter.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Michael Humm, P.E.
Project Manager
Senior Associate Engineer



Mark Cullington
Vice President