Conconully Safety of Dams Modification Project Final Environmental Assessment

Utilities and Service Systems Impact Analysis Memorandum

November 2025

Analysis Area

The analysis area for utilities and service systems is the project area, including Conconully Dam, Conconully Reservoir, and the east bank of the reservoir, as shown in **Map 1-1** in **Appendix A** of the environmental assessment (EA). Given the town of Conconully's proximity just north of the project area and the town's role in providing key utilities and services to the project area, this analysis also considers relevant service systems within the town, where applicable.

Affected Environment

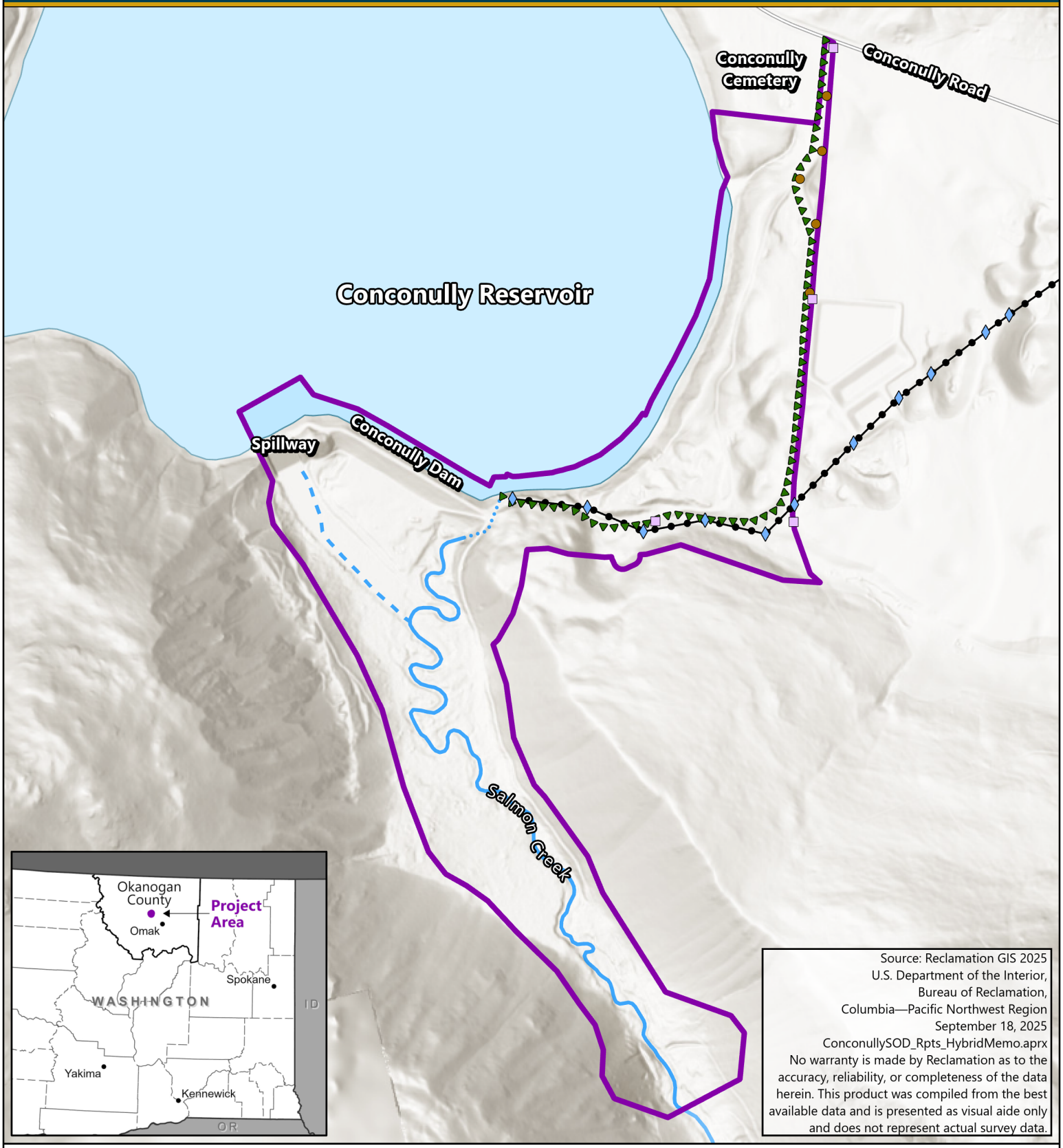
Utilities include electric power lines, water and wastewater pipelines, natural gas pipelines, and fiber-optic cables that serve end users within defined service areas, such as utility districts or municipal boundaries. Service systems are those related to police, fire, health care, and solid waste disposal. For the purposes of this analysis, emergency services, including police, fire, and emergency medical response services, are not addressed in this section.

Public Utilities

There is an existing 0.4-mile-long underground sewer line and five sewer manholes within the project area that run along the eastern boundary from Conconully Road (**Map 1**). Sewer and wastewater services are provided by Conconully Wastewater Treatment Plant, the town of Conconully's publicly owned treatment works, which also services the entire town of Conconully and nearby state park. While the sewer line extends through the project area, it does not currently serve any facilities within the project area. Treated wastewater is pumped from the town's treatment facility to the three-cell lagoon system and adjacent spray field, which are located directly east and outside of the project area (Ecology 2015).

CONCONULLY SAFETY OF DAMS MODIFICATION PROJECT

Environmental Assessment



Source: Reclamation GIS 2025
U.S. Department of the Interior,
Bureau of Reclamation,
Columbia—Pacific Northwest Region
September 18, 2025
ConconullySOD_Rpts_HybridMemo.aprx
No warranty is made by Reclamation as to the accuracy, reliability, or completeness of the data herein. This product was compiled from the best available data and is presented as visual aide only and does not represent actual survey data.

Map 1. Utilities

- Project Area
- Telephone Box
- Utility Pole
- Sewer manhole
- Electrical Line
- Fiber Optic Cable
- Outlet Works Tunnel
- Spillway Channel
- Stream

N

0 0.125 0.25 Miles

The project area receives electricity and telecommunication services from the Okanogan County Public Utilities District (Okanogan PUD 2025). There is one existing 0.3-mile single-phase overhead electric power line and five electric utility poles within the project area. The power line runs from Conconully Road across the adjacent property to the east, just south of the three-cell lagoon system, where the power line enters the project area. The line continues west toward the dam's existing control house. There are four telephone riser boxes in the project area; three are located along the eastern project boundary fence line, and one is located along the existing electric power line. There are no existing fiber-optic cables in the project area.

Solid waste disposal near the project area is provided by the Okanogan County Public Works Department, which also provides maintenance of the county road system (Okanogan County 2025).

Water Services Washington (WSW) provides water services near the project area. There are no existing water pipelines or natural gas pipelines in the project area.

The project area is in a zoned rural area (OCBCC 2021). Rural areas typically exhibit lower utility and service system needs due to more dispersed land patterns. Consequently, overall demand for utility and service systems is generally lower in rural areas compared with more urban areas.

According to population projections from the Washington State Office of Financial Management, Okanogan County is expected to experience a 6 percent increase in population between 2020 and 2040, growing from 42,104 people in 2020 to an estimated 44,660 by 2040 (WSOFM 2022). In contrast, the town of Conconully had a population of 194 in 2023, with Washington Demographics projecting a population of 192 by the end of 2025 (Washington Demographics, n.d.). This projection reflects an annual decline of 0.5 percent, which is consistent with the United States Census Bureau's 2023 Population Estimates Program data from 2022 to 2023 (Washington Demographics n.d.).

While countywide growth suggests an increasing regional demand for utilities and services, Conconully remains a small, rural community within Okanogan County. As a result, utility and service system demands within Conconully and the surrounding project area are expected to remain largely unchanged. No major expansions of electricity, telecommunications, water, wastewater, or other utility and service systems near or within the project area are currently anticipated as a result of countywide population growth.

Environmental Consequences

Methods and Criteria

Analysis Indicator

- Changes to loads on existing utilities

Assumptions

- A sewer line is near the proposed borrow area. The largest extent of the borrow area would be up to the sewer line (the borrow area would be developed from the south to the north). The Bureau of Reclamation (Reclamation) is not removing, diverting, or tapping into the sewer line for the project.
- Reclamation facilities currently do not use any WSW services, and they would not use any WSW services during construction or following completion of the proposed work.
- This analysis does not include emergency services such as police, fire, or emergency medical response services.

Alternative A – No Action

Under the No Action alternative, there would be no structural modifications to Conconully Dam, or the outlet works and no other associated construction; operations and maintenance would remain unchanged. As a result, existing infrastructure for utilities and the existing utility loads within the project area would also remain unchanged.

However, the dam would continue to pose an unacceptably high risk of dam failure during a seismic event, as defined by Reclamation's Public Protection Guidelines (Reclamation 2022). In the event of dam failure due to seismic activity, floodwaters would flow down Salmon Creek and could potentially impact areas downstream of the dam, including portions of the canyon. This would result in adverse localized impacts and potential damage to utilities located within or near the flood path, including potential impacts to the distal segments of electrical and telephone lines near the existing gate and control houses. However, flooding would not be expected to impact the sewer line or wastewater treatment lagoons, nor the majority of utilities within the broader project area.

Alternative B – Proposed Action

There are no existing municipal water pipelines or water utilities in the project area, and the temporary cofferdam and unwatering proposed under Alternative B would not impact established water supply systems. Additionally, Alternative B would not require use of WSW services, nor would any use of WSW services be required following completion of the proposed work. As such, there would be no impacts on water utilities under Alternative B. A sump pump would be required to discharge water into adjacent uplands for infiltration into the ground or to place water into a Baker Tank for settling prior to discharge into Salmon Creek; this pump would be powered either via a diesel generator or through on-site electricity. Impacts on electric utilities and existing electric loads to support the single, temporary sump pump would be temporary and negligible. Additionally, spillway pumps or siphons would be required to move water over the spillway during construction and the non-irrigation season, to ensure sufficient flow to Salmon Creek to support essential fish habitat. Where electrical pumps would be needed to supply the water required; pumps would be powered continuously from early October to early April for up to 4 years, using either electricity via onsite power, or via onshore diesel generators. If powered using onsite power, impacts on utilities and existing electrical loads to support the spillway pumps would be minor. The impacts would be localized and temporary in duration.

Temporary sewer options (for example, portable toilets) would be used in the project area during construction. Reclamation would not expand, add, remove, divert, or tap into the existing sewer line. As such, there would be no impacts on existing sewer lines or systems.

Temporary lighting would be used during construction, as ambient conditions require, to increase visibility and safety during workday hours. No permanent outdoor lighting would be installed at any dam facility once construction is complete. The existing telephone line and riser boxes would remain in place and would be available to provide service to temporary administrative trailers in the administrative/storage/staging area during the construction period. Given that most of the construction-related electrical demands, such as those for the temporary spillway pumps, the administrative/storage/staging area, and construction lighting would be temporary, the impacts on existing electric utility loads would be minor. The impacts would be localized and temporary in duration.

Electrical demand during construction is not anticipated to impact overall electric loads; the only permanent change in the electric load would result from the permanent upgrades (that is, single-phase to three-phase power) needed to support instrumentation and controls within the control house. However, under Alternative B, all electric loads, both during construction and permanently, would remain within the system's current capacity. There would be no moderate or major adverse impacts on the overall system or electric utility infrastructure in the project area. Additionally, Reclamation would implement BMPs for the installation of any underground utilities by coordinating with the Washington Utility Notification Center prior to construction (**Appendix F** of the EA).[1] This would reduce further impacts on existing infrastructure for utilities in the project area by ensuring that publicly owned underground lines would be marked prior to excavation, minimizing accidental damage to existing lines.

There would be no developed recreational facilities that would require electric, telecommunications, sewer, or water utilities under Alternative B. There would be no changes in utility demand or adverse impacts on utility loads from restoring the borrow area to a state amenable to the development of future recreational facilities.

Alternative C – Preferred

The impacts under Alternative C would be the same as those described under Alternative B.

[1] Washington Utility Notification Center website: http://www.callbeforeyoudig.org/washington/index.asp.

Acronyms

EA	environmental assessment
Reclamation	Bureau of Reclamation
WSW	Water Services Washington

References

OCBCC (Okanogan County Board of County Commissioners). 2021. Okanogan County Comprehensive Plan. Final Adopted December 29, 2021. Internet website: https://cms9files.revize.com/okanoganwa/Document_Center/Department/pLANNING/Comp%20Plan/Comp%20Plan%20adopted/Okanogan%20County%20Comprehensive%20Plan.pdf

Okanogan County. 2025. Public Works Department. Internet website: https://www.okanogancounty.org/government/public_works/index.php.

Okanogan PUD (Okanogan Public Utilities District). 2025. Electric Service Area. Internet website: https://www.okanoganpud.org/electric

Reclamation (U.S. Bureau of Reclamation). 2022. Public Protection Guidelines: a Risk Informed Framework to Support Dam Safety Decision-Making. Bureau of Reclamation, Dam Safety Office, Denver, Colorado.

Washington Demographics. n.d. Conconully Demographic Statistics. Internet website: https://www.washington-demographics.com/conconully-demographics.

Ecology (Washington Department of Ecology). 2015. Fact Sheet for State Permit ST-0005528. April 29, 2015. Town of Conconully Publicly Owned Treatment Works. Internet website: file:///C:/Users/hillgartnerm/Downloads/ST0005528-2015-2020FactSheet.pdf

WSOFM (Washington State Office of Financial Management). 2022. Growth Management Act population projections for counties: 2020-2050. County Projections, Five-Year Intervals. Internet website: https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections/growth-management-act-population-projections-counties-2020-2050.