Conconully Safety of Dams Modification Project Final Environmental Assessment

Public Health and Safety Impact Analysis Memorandum

November 2025

Analysis Area

The analysis area for public health and safety includes the project area, incorporating Conconully Dam, Conconully Reservoir, and the east bank of the reservoir from the cemetery to the dam, as shown in **Map 1-1** in **Appendix A** of the environmental assessment (EA), and the inundation area below the project area (**Map 1**).

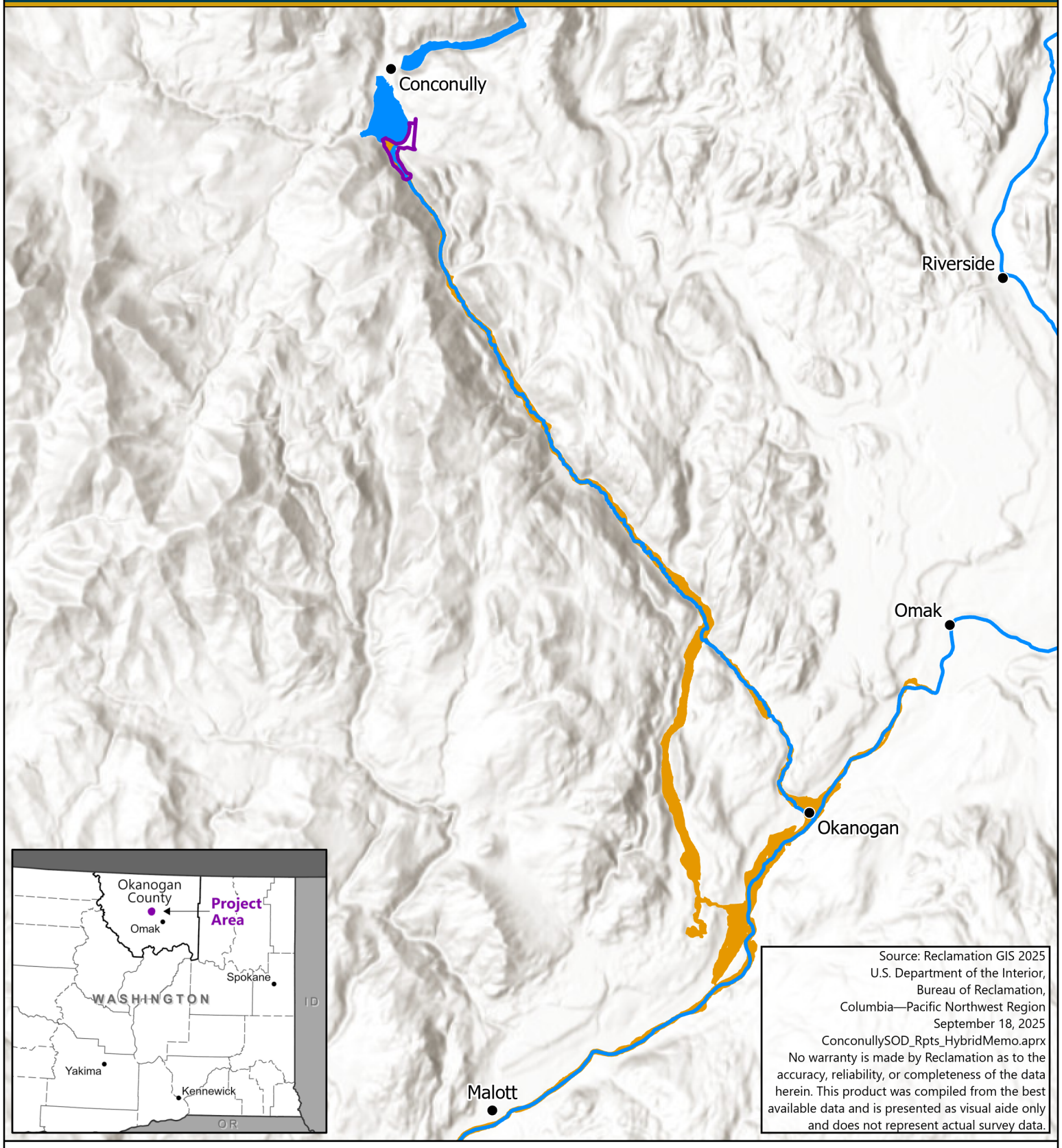
Affected Environment

Hazardous Materials

The term "hazardous materials" is defined by the Comprehensive Environmental Response, Compensation and Liability Act. There are thousands of hazardous materials; in general, they can be categorized as ignitable, corrosive, reactive, or toxic. Release, as defined by the Act, means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of a hazardous substance, including abandonment.

A hazardous material survey was conducted in the project area in 2024 (Purchase 2024). Material samples from the dam tender house indicated that coated surfaces contained lead-based paint. Additional sampling is required to determine whether other hazardous materials are present within the project area. The Bureau of Reclamation (Reclamation) does not expect to encounter any other hazardous materials during construction or other surface-disturbing activities.

Under the Clean Water Act, the Spill Prevention, Control, and Countermeasure (SPCC) rule requires facilities to develop, maintain, and implement an oil spill plan to prevent discharge of oil into navigable waters or adjoining shorelines. The SPCC would apply only when the shell capacity equals 1,320 gallons or greater of water. See **Section 3.2** in the EA, for more information on water quality.



Source: Reclamation GIS 2025
U.S. Department of the Interior,
Bureau of Reclamation,
Columbia—Pacific Northwest Region
September 18, 2025
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Map 1. Maximum Inundation Area

Project Area
Town
River
Waterbody
Inundation area

N

0 5 10 Miles

Public Health and Safety

Conconully Dam is an active site, where the Okanogan Irrigation District personnel who conduct the day-to-day operations would be those most likely exposed to weather and other safety concerns during daily operations.

The existing dam access road stemming from Conconully Road serves as the only access point to Conconully Dam. Local residents and recreationists use this road to access the project area. Emergency services use Conconully Road to respond to emergency calls and fire responses at locations around the reservoir. The Okanogan County Emergency Management (OCEM) is responsible for the coordination of the emergency and disaster needs of Conconully Dam (OCEM 2025).

Wildfires can occur in the project area and the lands that surround Conconully Reservoir. Changes in climate have increased the potential for wildfires and the danger to the public from the fires and resulting smoke (Reisen et al. 2015; Xu et al. 2020). In August 2024, the Salmon Creek Fire required the OCEM to close Conconully Road between the Conconully Cemetery and Salmon Creek Road. The fire report indicated 815 acres of burned area with no evacuations required. The OCEM issued a Level 1 Advisory to indicate low risk and advised cautionary travel on Conconully Road and Salmon Creek Road (OCEM 2025).

Dam Failure

Conconully Dam was constructed in 1910 as part of the Okanogan Project. The current dam embankment and foundation materials have been determined by Reclamation to be susceptible to liquefaction and increased risk of failure in the event of seismic activity. The geotechnical and risk analyses indicated that existing risks were at an unacceptable level based on Reclamation's Public Protection Guidelines (Reclamation 2022). Based on these findings, Reclamation proposed to modify the dam to reduce the seismic risks to the dam.

Environmental Consequences

Methods and Criteria

Analysis Indicators

- Presence of hazardous materials over reportable quantities being used, stored, or potentially released
- Increased traffic on Conconully Road due to construction activities and hauling materials
- Increased risk of dam failure due to seismic risk

Alternative A – No Action

Under the No Action alternative, the dam modifications would not occur, and therefore, there would be no construction or construction-related increase in noise, traffic, or presence of heavy equipment. No additional hazardous wastes would be brought on site and no hazardous wastes would be generated beyond what occurs as part of routine operations and maintenance activities.

Therefore, under the No Action alternative, there would be limited potential for those routinely present in the project area to be exposed to safety concerns such as increased noise and traffic or hazardous materials.

Conconully Dam would continue to pose an unacceptable level of risk to people, property, and the environment in the event of seismic failure associated with liquefaction of embankment and foundation materials. The threat of dam failure would increase over time. Dam failure would impact over 3,400 acres below the dam, including the town of Okanogan and areas along United States (U.S.) Route 97 (**Map 1**) (Reclamation GIS 2025). Reclamation would continue to maintain emergency operational procedures, and the OCEM would implement emergency management protocols in the event of dam failure to reduce impacts on public health and safety.

Alternative B – Proposed Action

Hazardous Materials

Under Alternative B, various hazardous materials would be required during construction; these materials could include used oil, hydraulic fluid, diesel fuel, solvent-based paints, and cleaning chemicals. Contractors would be required to list the proper handling and storage procedures for hazardous materials, including petroleum products (**Appendix F** of the EA). Hazardous materials would be removed from the project area and recycled whenever possible. Hazardous materials that are not recycled would be disposed of at appropriately permitted treatment or disposal facilities. These materials would be transported in accordance with 49 Code of Federal Regulations (CFR) 171–179 and the Hazardous Waste Management regulations (40 CFR 260).

The dam tender house would be removed under Alternative B, including the lead-based paint on cabin surfaces. Reclamation would require the contractor to follow the regulations included in CFR 1926.62 for lead removal and 40 CFR 402/404 for the safe removal of lead-based paints to limit lead exposure and ensure the health of construction workers. Adherence to CFR 1926.62 and associated lead removal regulations would minimize the risk of lead exposure during removal of these structures and maintain the health of construction works.

Implementation of best management practices (BMPs; **Appendix F** of the EA) would reduce the risk of hazardous materials being released to negligible levels.

Public Health and Safety

Under Alternative B, construction activities would have the potential to create temporary, adverse safety risks for work crews. Construction activities would increase workplace hazards due to heavy equipment and the excavations that would create holes and trenches. Work crews would follow Occupational Safety and Health Administration guidelines for safety measures during construction activities to reduce impacts on safety to negligible levels. There would be no public access to the project area during construction; therefore, there would be no public safety risk associated with construction activities.

Construction vehicles would use Conconully Road to access the project area. At the beginning of the construction period, a project area entrance gate would be installed near the start of the dam

access road, within 170–470 feet from Conconully Road to prevent public access during the construction period (**Map 2-2** in **Appendix A** of the EA). There would be a temporary increased risk of accidents at the intersection of the dam access road and Conconully Road due to construction vehicles entering and exiting the roadway; however, the distance of the project area entrance gate from Conconully Road would prevent construction vehicles blocking the intersection and the project area entrance gate would prevent construction vehicle and motorist encounters in the project area. Projected traffic would remain within the level of service for Conconully Road (see Transportation Memorandum). Additionally, the implementation of traffic-control BMPs (**Appendix F** of the EA), such as minimizing interference or congestion of local traffic, would minimize the risk of interaction between public traffic and the construction traffic and decrease the potential for accidents during peak hours. Implementation of traffic-control BMPs would reduce impacts on public safety to negligible levels.

Equipment, machinery, or tools used during construction activities can cause sparks, increasing the potential for a fire to occur. The risk of fire from construction activities would last throughout the duration of construction activities. To reduce this risk, Reclamation's contractor would implement BMPs, such as education on wildfire ignitions and responses for construction crews (see **Appendix F** of the EA). BMPs associated with responding to potential fires, such as creating a fuel break and requiring fire tools and water trucks, would also be implemented. The implementation of BMPs would reduce the risk of fires from construction activities to negligible levels.

In the case of a wildfire, Reclamation's contractor would halt all construction activities comply with area evacuation orders enacted by Okanogan County's Multi-Hazard Mitigation Plan (Northwest Management Inc. 2022). Emergency response vehicles would be permitted to access the project area during a wildfire in the event of on-site injuries.

Dam Failure

Under Alternative B, the risk of dam failure associated with seismic activities would be the same as under the No Action alternative during the construction period. The OCEM protocols would continue to be followed for emergency response planning during this time. However, the corrective actions that would be put in place under Alternative B would reduce dam failure risk levels to an acceptable level per Reclamation's Public Protection Guidelines (Reclamation 2022). Alternative B would have a permanent, beneficial impact on public health and safety compared with the No Action alternative.

Alternative C – Preferred

Impacts on public health and safety under Alternative C would be the same as those described under Alternative B.

Acronyms

BMP	best management practice
CFR	Code of Federal Regulations
EA	environmental assessment
OCEM	Okanogan County Emergency Management
Reclamation	Bureau of Reclamation
SPCC	Spill Prevention, Control and Countermeasure
U.S.	United States

References

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