

Conconully Safety of Dams Modification Project Draft Environmental Assessment

Transportation and Traffic Impact Analysis Memorandum

June 2025

Analysis Area

The analysis area for transportation is the project area, as shown in **Map 1-1** in **Appendix A** of the environmental assessment (EA), and Conconully Road, including its intersection with the dam access road leading to Conconully Dam.

Affected Environment

Level of Service and Public Access

Conconully Road is the primary public road that leads to the project area. It provides public access to the Conconully Cemetery, recreation areas on and around Conconully Reservoir, and the town of Conconully. It also provides private property access. The Bureau of Reclamation (Reclamation) uses Conconully Road and an intersecting dam access road to reach the Conconully Dam and Salmon Creek. Okanogan County has restrictions on the size of load and speed over vehicles using county roads, including Conconully Road, during winter to prevent deterioration of roadways during adverse weather conditions (Okanogan County 2025).

Level of Service (LOS) is used in traffic analyses to rate roadway segment operations using a ratio of traffic volume to road capacity. The LOS is also used to determine how well a transportation facility operates from a traveler's perspective (WSDOT 2022). LOS ratings for Washington range from A to F, with A being the most free-flowing condition and F being the least free-flowing condition (WSDOT 2022; **Table 1**). The LOS rating decreases with higher traffic volumes, decreased road capacity, or both, which result in greater delays. As discussed in **Section 3.8** of the EA, in 2022 there were 130,397 visitors to Conconully State Park, which is located north of the project area and is accessed by Conconully Road.

Table 1. LOS descriptions

LOS	Description
A	Free-flowing conditions with low volumes and high speeds.
B	Reasonably free flow, but traffic conditions begin to restrict speeds.
C	Stable flow, but individual motorists are affected by the interaction with other motorists.
D	Approaching unstable flow; drivers have little freedom to select their own speeds.
E	Unstable flow; there may be short stoppages.
F	Forced or breakdown of flow, unacceptable congestion, stop-and-go traffic.

Source: WSDOT 2022

The analysis area is within Okanogan County. The LOS standard for rural roads in Okanogan County is LOS C or better during peak travel times (Okanogan Council of Governments 2017). This indicates that speeds would remain a stable flow at 50 miles per hour as part of the LOS C standard, but space to turn is noticeably restricted during construction activities.

Road Conditions

The types of vehicles used on roads in the project area range from compact and standard-sized vehicles to sport utility vehicles and pickup trucks; any combination of these may have trailers. There are also recreational vehicles (also known as motor homes) up to 45 feet in length and log trucks. Heavier vehicles and weather events can damage Conconully Road, which is maintained by Okanogan County.

Wildfire Response

Wildfire is a natural process for the forests that surround Conconully Reservoir. The Okanogan County Emergency Management (OCEM) handles fire management near the project area. The Salmon Creek Fire in August 2024 required the OCEM to close Conconully Road between the Conconully Cemetery and Salmon Creek Road. The fire report estimated 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). Wildfires are discussed further in the Public Health and Safety Memorandum.

Environmental Consequences

Methods and Criteria

Analysis Indicators

- Change in the LOS and public access
- Damage to Conconully Road
- Wildfire evacuation times

Assumptions

- Construction activities would occur 7 days a week.
- Conconully Road has restrictions during winter and may require permits for certain truck weights.

Alternative A – No Action

Under the No Action alternative, no construction activities would take place, and Conconully Road would continue to operate under current access and traffic conditions. There would be no new damage to public roads. Wildfire risk and responses would remain consistent with current conditions.

Under the No Action alternative, the increased risk of dam failure during a seismic event would remain, resulting in the potential for catastrophic downstream flooding. A flooding event would create hazardous driving conditions and would cause emergency crews to restrict public access to the project area on the dam access road during and immediately after the flooding event (to assess damage and repair infrastructure). In addition, emergency crews may temporarily close one or both lanes on Conconully Road. This would result in traffic delays that could temporarily decrease the LOS below C.

Alternative B – Proposed Action

Level of Service and Access

Under Alternative B, temporary impacts on traffic in the analysis area from the movement of construction vehicles and equipment to and from the project area would be most severe on Conconully Road at the intersection with the dam access road. However, these traffic delays would not change the LOS level within the analysis area. To reduce the level of impacts, flaggers would be used to control traffic during construction vehicle ingress and egress at the intersection of the dam access road and Conconully Road (**Appendix F** of the EA). The greatest potential for impacts would be during daylight hours, on weekends, and during the summer when traffic volumes and demands for access to nearby recreation opportunities are highest.

Closing the dam access road leading to the dam from Conconully Road would temporarily prevent access to recreational use within the project area. Additionally, the general public would not have vehicle access to the project area past the temporary security gate on the dam access road during the construction period. The temporary security gate would prevent construction vehicle and motorist encounters in the project area and temporarily decrease traffic hazards during construction.

The emergency management protocols would be the same as under the No Action alternative and would be in place during pre-construction and construction activities. Delays for emergency response vehicles would depend on existing traffic conditions during construction activities. Increases in traffic and restricted access would include emergency vehicle service delays during peak travel and summer recreation months.

Reclamation would follow the best management practices (BMPs) (**Appendix F** of the EA) provided for traffic control and construction equipment transportation. The impacts on traffic and

access would be temporary and would not conflict with operations and maintenance of Conconully Road by Okanogan County. While the impacts would temporarily increase impacts on traffic and access, when compared with the existing conditions under the No Action alternative, the impacts would be less severe than those resulting from a potential dam failure.

Road Damage

Alternative B would lead to increases in commuting traffic and heavy machinery transportation along Conconully Road that would potentially damage the existing road surface. Reclamation contractors would follow BMP guidelines and promptly repair ruts, broken pavement, potholes, low areas with standing water, and other deficiencies to maintain road surfacing and drainage in the original or specified condition (**Appendix F** of the EA). While the potential for road damage is greater under Alternative B, when compared with the No Action alternative, these BMPs would reduce impacts on transportation under Alternative B to negligible levels.

Wildfire Response

Similar to the No Action alternative, there is potential for natural wildfires; however, the potential for human-caused ignition of adjacent vegetation due to construction activities would increase under Alternative B. There is only one access route (the dam access road) to the project area for recreationists, residents, construction contractors, and Reclamation staff. Wildfires that occur in or around the analysis area would require immediate evacuation, which could cause congestion along the Conconully Road evacuation route. Reclamation would halt all construction activities in the case of a wildfire and comply with area evacuation orders enacted by Okanogan County's Multi-Hazard Mitigation Plan (Northwest Management Inc. 2022). The risk of congestion during an evacuation event would continue throughout the construction period.

Throughout the construction, post-construction, and reclamation processes, BMPs would be implemented to maintain access and an LOS of C or better by maintaining traffic flow and minimizing obstruction, which would also ensure public safety. The BMPs would also reduce the potential for damaged infrastructure and maintain emergency response access for wildfire events (**Appendix F** of the EA). Such practices would include temporary cones, delineators, concrete safety barriers, barricades, flasher lights, danger signals, signs, temporary fencing, and other temporary traffic-control devices as required to protect workers, public safety, pedestrians, and recreationists on public and private property. The transportation measures would meet the requirements of the Manual on Uniform Traffic Control Devices for Streets and Highways, Part 6 (Temporary Traffic Control; FHA 2023) and Washington Administrative Code 296-155-305 (Signaling and flaggers).

Alternative C

Under Alternative C, impacts on transportation would be the same as those described under Alternative B.

Acronyms

BMP	best management practice
EA	environmental assessment
LOS	level of service
OCEM	Okanogan County Emergency Management
Reclamation	Bureau of Reclamation

References

- FHA (US Department of Transportation, Federal Highway Administration). 2023. Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition, Part 6 – Temporary Traffic Control. Internet website: https://mutcd.fhwa.dot.gov/kno_11th_Edition.htm.
- Northwest Management, Inc. 2022. Multi-Hazard Mitigation Plan Okanogan County, Washington. Internet website: https://cms9files.revize.com/okanoganwa/Document_Center/Department/Emergency%20management/Okanogan_County_HMP_2022_FINAL.pdf
- OCEM (Okanogan County Emergency Management). 2025. Okanogan County Emergency Management. Internet website: https://www.okanogancounty.org/government/emergency_management/about_us.php
- Okanogan Council of Governments. 2017. 2040 Regional Transportation Plan for the Okanogan Region. Internet website: <https://www.ocog.org/project-documents#:~:text=The%20Okanogan%20Council%20of%20Governments%20%28OCOG%29%20presents%20this,as%20safe%2C%20efficient%2C%20cost-effective%2C%20and%20accommodating%20as%20possible.>
- Okanogan County. 2025. Okanogan County Commissioners' Resolution 4 – 2025. Internet website: https://cms9files.revize.com/okanoganwa/Document_Center/Department/Public%20work/Road%20maintenance/004-2025%20Road%20Restrictions.pdf.
- WSDOT (Washington State Department of Transportation). 2022. Level of Service Standard for Washington State Routes and Ferry Routes operated by the State. Internet website: <https://wsdot.maps.arcgis.com/home/item.html?id=3f840aeeb1ba481c905270ca103cd1db#!#>.

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