



May 2021
Confluence Parkway Project



Climate Resiliency Technical Study

Prepared for City of Wenatchee

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Confluence Parkway Project

Climate Resiliency Technical Study

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APPENDIX

Appendix A	Project Description
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ABBREVIATIONS

BNSF	Burlington North Santa Fe
Chelan PUD	Public Utility District No. 1 of Chelan County
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
GHG	greenhouse gas
NEPA	National Environmental Policy Act
SEPA	State Environmental Policy Act
WSDOT	Washington State Department of Transportation

1 Introduction and Project Description

The Confluence Parkway Project (Project) is a proposed 2.5-mile bypass corridor that is intended to reduce vehicle congestion on SR 285/North Wenatchee Avenue. The Project is located in the City of Wenatchee (City) in Chelan County. Wenatchee is located in a valley in central Washington at the confluence of the Columbia and Wenatchee rivers. Currently, Wenatchee is the second largest city in central Washington, and is an urban hub for north-central Washington.

The Project extends from the U.S. 2/Euclid Avenue interchange, crosses the Wenatchee River on a new bridge, and extends south to the intersection of North Miller Street and SR 285/North Wenatchee Avenue. The Project area is primarily to the east of the Burlington Northern Santa Fe (BNSF) railroad tracks with a large portion adjacent to the Wenatchee Confluence State Park, including the Horan Natural Area. The Project will provide relief from the current North Wenatchee Avenue Bridge bottleneck and alleviate vehicle congestion in this area. A full project description can be found in Appendix A.

1.1 Design Considerations Related to Climate Change

Incorporation of climate change into design of roadway projects has become standard practice. The bridge design considers future projections related to the long-term effects of climate change including increased rainfall, flood flows, and water velocities. Projections will be included as part of floodplain delineations, flood elevations, scour depths, and runoff quantity, which will be used to design the bridge structure and facilities, including stormwater conveyance systems. For example, the roadway profile will be designed to meet 3-foot flood clearances, and sizing of stormwater treatment facilities will be based on increased volumes. Consideration of climate change effects in these hydraulics/hydrologic analyses provides for bridge and stormwater facility design to be resilient to these effects that the bridge and stormwater facilities are resilient to local trends in climate change.

2 Guiding Regulations, Plans, and Policies

In addition to regulations that are applicable to the National Environmental Policy Act (NEPA) in general, there are regulatory considerations related to the Federal Energy Regulatory Commission's (FERC) license for the Rock Island Hydropower Project. The Public Utility District No. 1 of Chelan County (Chelan PUD) purchased the Wenatchee Confluence State Park and the Horan Natural Area as part of the Rock Island license. Any changes to these recreational resources will require FERC approval.

This section discusses further regulations and guidance that will be considered regarding the Project design and construction.

2.1 Federal

2.1.1 *Climate Change Adaptation Guide for Transportation Systems Management, Operations, and Maintenance (FHWA 2015)*

The Federal Highway Administration (FHWA) recognizes that climate change and extreme weather events pose a significant challenge to the safety, reliability, effectiveness, and sustainability of the national transportation system. In 2014, FHWA issued a directive that establishes FHWA policy on preparedness and resilience to climate change and extreme weather events, in compliance with Executive Order 13653, *Preparing the United States for the Impacts of Climate Change*, issued in 2013. The FHWA directive provides several ways in which “FHWA will integrate consideration of the risks of climate change and extreme weather event impacts and adaptation responses, into the delivery and stewardship of the Federal-aid and Federal Lands Highway programs,” including encouraging state departments of transportation, metropolitan planning organizations (MPOs), tribal governments, and others to develop cost-effective strategies to minimize climate and extreme weather risk.

2.2 State

2.2.1 *Guidance for NEPA and State Environmental Policy Act Project-Level Climate Change Evaluations (WSDOT 2017)*

The Washington State Department of Transportation’s (WSDOT’s) Environmental Services Office developed the first version of this document in 2009 to provide guidance on how to incorporate greenhouse gas (GHG) and climate change into cumulative effects analysis under NEPA and the State Environmental Policy Act (SEPA). The guidance was updated in 2017 to be consistent with the Council on Environmental Quality’s guidance for federal agencies on how to consider the impacts of their actions on global climate change in their NEPA reviews.¹ The guidance relies on the Washington Climate Change Impacts Assessment (University of Washington 2009; updated 2013) in developing future climate scenarios.

2.2.2 *Washington Carbon Pollution Reduction and Clean Energy Action, Governor’s Executive Order 14-04*

In April 2014, Governor Jay Inslee signed Executive Order 14-04 outlining a series of steps to reduce carbon pollution in Washington State and improve energy independence through the use of clean energy. The Executive Order builds upon earlier studies and working group finding to take action in

¹ In 2010, the Council on Environmental Quality released final guidance for federal agencies on how to consider the impacts of their actions on global climate change as part of their NEPA reviews, which was finalized in 2016 as part of the *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. This guidance was withdrawn under Executive Order 13783 of March 28, 2017, but continues to be used by some federal and state agencies.

seven key areas, including the transportation sector. Specific to transportation, WSDOT is leading an effort with other agencies and governments to promote strategies, policies, and investments that support electrification of Washington State's transportation system, lower-emission multi-modal options, and clean fuels.

2.2.3 *Washington's Integrated Climate Response Strategy*

Published in 2012, the response strategy lays out a framework that decision-makers can use to help protect Washington's communities, natural resources, and economy from the impacts of climate change. WSDOT's vulnerability assessment and the recommendation to consider climate in plans and projects are among the actions contained in the state's strategy.

2.2.4 *Limiting GHG Emissions (Revised Code of Washington 70.235)*

Washington has long recognized the urgent threat anthropogenic climate change poses to the state's economic well-being, public health, natural resources, and environment. In 2008, the Washington Legislature recognized the severity of this threat, and established limits on the state's GHG emissions in state law. The Legislature further required the Washington State Department of Ecology to review these limits and make recommendations regarding revisions using the best available science from the University of Washington's Climate Impacts Group.

3 Methodology

Global climate change results from GHG emissions caused by several activities, including fossil fuel combustion, deforestation, and land use change. GHGs play a critical role in the earth's radiation budget by trapping infrared radiation emitted from the earth's surface, which otherwise escapes to space. The most prominent GHGs contributing to this process include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Certain refrigerants, including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs), also contribute to climate change. The greenhouse effect keeps the earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life.

Direct impacts would occur as a result of the Project. This would include emissions from construction equipment used to construct the roadway. GHG emissions are products of exhaust associated with construction equipment and vehicle operation. GHGs trap heat in the atmosphere and include water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). CO₂ comprises the bulk of the GHG emissions from transportation activities. The potential effects associated with emissions from operation of heavy-duty diesel equipment, dust-generating activities, and trucking activities within major construction areas was qualitatively assessed. The analysis also considered the potential effects associated with changes in traffic conditions during major construction (as a result of changes in traffic patterns during major phases of construction and construction-related trucking activities on

the local roadway network) and after construction, as well as the effect of the proposed Action on area climate resiliency.

4 Study Area and Affected Environment

The study area and affected environment will include the City of Wenatchee and surrounding region. Located at the confluence of the Columbia and Wenatchee rivers near the eastern foothills of the Cascade Range, Wenatchee lies on the western side of the Columbia River. In Chelan County, the climate is characterized by warm, relatively dry summers and freezing, snowy, and partly cloudy winters. Over the course of the year, the temperature typically varies from 21°F to 88°F and is rarely below 8°F or above 97°. Winds within the study area vary throughout the year, but are predominantly from the west, except during the winter when winds are from the north.

There is widespread consensus that global climate change is currently occurring and will continue at an exponential rate in the future if not abated. Effects include increasing temperatures, more precipitation in the form of rain instead of snow, and longer periods of droughts (Wehner et al. 2017). Washington State is currently experiencing the effects of melting glaciers and extreme weather events. Therefore, the affected environment for climate must consider future as well as current conditions. Climate change in the Pacific Northwest is expected to cause the following:

- Increase the average winter precipitation and produce more extreme precipitation.
- Change the timing of precipitation (more rain, less snow).
- Change storm tracks with some extreme storms with higher than normal snow accumulation.

Specific to the transportation network, these climate changes are expected to result in more rock falls, mudslides, sink holes, and road bed failures; increase large-scale river flooding; produce more localized flooding due to poor drainage or higher groundwater table; result in severe wind-related road closures and blown-down trees and signs; and lead to less snow removal, on average (WSDOT 2017).

Specific to the Wenatchee area, grade level highways along rivers are expected to experience flooding due to more precipitation falling as rain and already experience temporary road closures due to wind. Mountain area roadways are anticipated to experience more fires and landslides due to more extreme weather events and the decrease in snowpack. Roads at the base of steep slopes are expected to experience more landslides that can close the roadway for 60 days or more (WSDOT 2011).

5 Environmental Impact Analysis

This section considers the direct impacts of construction and vehicle movements on climate change through direct emissions of GHG and indirect effects of how the proposed Project would be affected by climate change.

5.1 Direct Impacts

Vehicles and construction equipment are a significant source of GHG emissions and contribute to climate change primarily through the burning of gasoline and diesel fuels. The transportation sector is Washington State's most significant contributor of GHG. Nationally, the electricity sector is the largest contributor of GHG. However, because Washington State relies on hydropower for much of its electricity, the electricity sector is a less significant GHG source, thereby resulting in a larger proportion of GHG from the transportation sector. GHG emissions were estimated for both direct and indirect construction work. Using the FHWA's Infrastructure Carbon Estimator spreadsheet tool (FHWA 2020), it is estimated that the Project would result in 75 metric tons of CO₂ per year.

5.2 Indirect Impacts

Indirect impacts are potential effects that would be caused by the Project at a later time or farther distance but are still reasonably foreseeable. The effect of the proposed Project on climate change is expected to be minor and beneficial. The Project will redistribute a portion of the traffic from North Wenatchee Avenue to Confluence Parkway, a new parallel arterial. As detailed in the Confluence Parkway Transportation Discipline Report (KPG 2019) completed for the Project, the addition of Confluence Parkway will result in lower 2040 traffic levels on North Wenatchee Avenue and no net change in forecast total traffic volumes, resulting in lower levels of congestion and improved operations along the North Wenatchee Avenue corridor. When built, the proposed Project would reduce area traffic and congestion, while increasing bike and pedestrian capacity, which will help achieve state climate goals to reduce GHG emissions and increase alternative modes of transportation. In addition, by providing a secondary transportation corridor, the proposed action will improve area transportation resiliency in case of road closures due to fires or mudslides.

The new roadway, bicycle, and pedestrian facilities will be located above anticipated flood levels. The Wenatchee Confluence State Park and the Horan Natural Area are adjacent to the north and south sides of the Wenatchee River, respectively. At the confluence of the Wenatchee and Columbia rivers, the area is an evolving wetland. While the recreation area could potentially flood, this area already floods during times of high river flows. Recreational users are expected to avoid the area during flooding events until water recedes.

Water surface elevations at and near the confluence of the Wenatchee and Columbia rivers are controlled by a combination of Wenatchee River discharge rates and Columbia River discharge rates. The confluence area has been observed as flooded during high Columbia River discharge and moderate or high Wenatchee River discharge. In addition, this area has also been observed to flood during moderate Columbia River discharge and high Wenatchee River discharge.

Informal Chelan PUD observations suggest Wenatchee River extreme discharge has a greater effect on water surface elevations within and upstream of the confluence than does Columbia River

discharge.² As discussed in Section 1.7.3, environmental factors such as trends in flood flows and water velocities from both river systems and rainfall will be incorporated into the floodplain delineations, flood elevations, scour depths, and runoff quantity elements of the baseline data. These aspects of the hydraulic and hydrologic analyses will ensure that the bridge and stormwater facilities are resilient to local trends in climate change.

5.3 Cumulative Impacts

Climate change by its nature is a cumulative impact. The proposed Project would contribute to climate change by releasing GHG emissions during construction; conversely, the Project would contribute to reduced GHG emissions by reducing congestion. The proposed action would increase climate resiliency in the area by providing an alternative travel corridor in case of fires. In addition, by providing more bike and pedestrian pathways, the proposed action increases opportunities for alternative modes of transportation consistent with state climate goals to increase lower-emission multi-modal options.

Construction would result in short-term emissions. GHG emissions generated by Project construction activities will consist of exhaust emissions from the operation of construction equipment and construction vehicles. Construction activities would follow standard environmental controls and practices, which are assumed to be the responsibility of the contractors doing the work. Examples of these practices include using equipment that meets all applicable federal and state requirements, including maintenance standards.

6 Potential Mitigation Measures

Because the Project will be designed to include climate projections to ensure long-term resiliency, no mitigation measures related to climate resiliency are necessary. However, the following measures will help reduce cumulative GHG emissions during construction.

- **Construction Idling Reductions:** Construction contractors will minimize heavy-duty construction idling time to 2 minutes where feasible. Exceptions include vehicles that need to idle to perform work (such as a crane providing hydraulic power to the boom), vehicles being serviced, or vehicles in a queue waiting for work. Idling restrictions will reduce unnecessary GHG emissions.
- **Vegetative Buffers:** Vegetative buffers will be established in areas between the new roadway and recreational areas where feasible. While designed as an air quality measure to reduce dust and odors, vegetative buffers will also result in GHG emission reductions through tree growth.

² Janel Ulrich (Chelan PUD), 2020. Personal communication with Matt Shales (City of Wenatchee). September 28, 2020.

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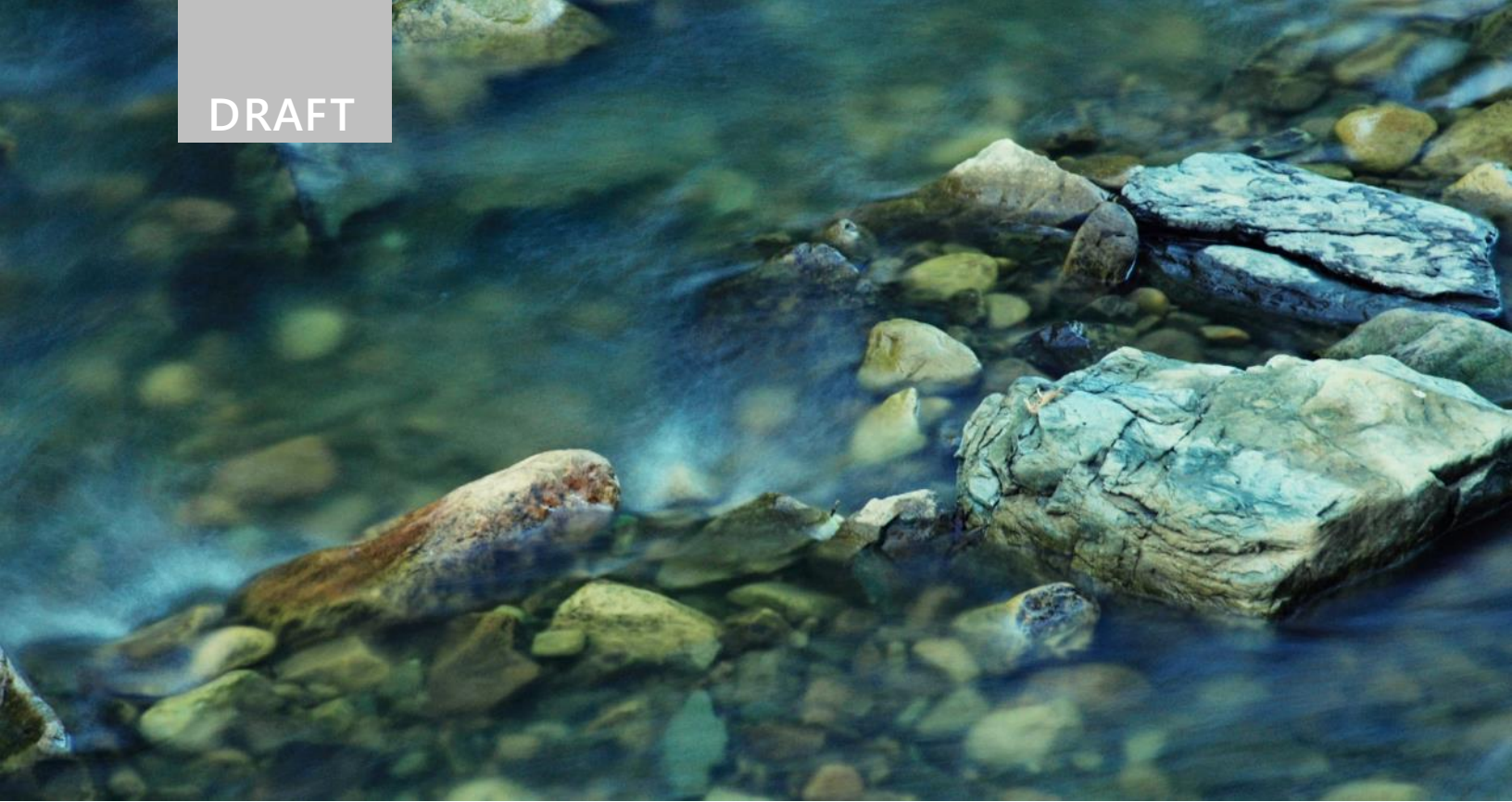
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Appendix A
Project Description

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Project Description

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Confluence Parkway Project

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Figure 2c	Project Study Area – Wenatchee River Crossing
Figure 2d	Project Study Area – Horan Natural Area Vicinity
Figure 2e	Project Study Area – McKittrick Street to North Mission Street

ABBREVIATIONS

ADA	Americans with Disabilities Act of 1990
BNSF	Burlington Northern Santa Fe
Chelan PUD	Public Utility District No. 1 of Chelan County

1 Introduction

The Project is a proposed 2.5-mile bypass corridor that is intended to reduce vehicle congestion on SR 285/North Wenatchee Avenue. The Project is a part of a larger effort known as the Apple Capital Loop Project, which is a network of projects that, together, will complete an integrated highway, transit, and non-motorized trail loop that functions as the backbone of the Wenatchee Valley's transportation system. The Project will provide relief from the current North Wenatchee Avenue Bridge bottleneck and alleviate congestion in this area.

The Project connects the central downtown area with the U.S. 2/Euclid Avenue interchange on the north end of Wenatchee. The Project area is primarily to the east of the Burlington Northern Santa Fe (BNSF) railroad tracks with a large portion adjacent to the Wenatchee Confluence State Park, including the Horan Natural Area. The sections that follow provide a description of key Project elements and construction methods.

1.1 Location

The Project is located in the City of Wenatchee in Chelan County (Figure 1). Wenatchee is located in a valley in central Washington at the confluence of the Columbia and Wenatchee rivers. Currently, Wenatchee is the largest city in north-central Washington and is an urban hub for the region.

1.2 Project Elements

1.2.1 Roadway Alignment

Confluence Parkway would be a new two-lane arterial street that would begin at the existing U.S. 2/Euclid Avenue interchange, cross the Wenatchee River on a new bridge, and extend south to the intersection of North Miller Street and SR 285/North Wenatchee Avenue. The corridor would have one vehicle travel lane and bicycle lane in each direction. Two-way left turn lanes would be included between Wenatchee Confluence State Park and the U.S. 2/Euclid Avenue interchange as well as south of the junction of Hawley Street and North Miller Street. All Project elements would meet current design standards, including compliance with the Americans with Disabilities Act of 1990 (ADA), where applicable. New traffic signals, illumination upgrades, and safety measures for at-grade railroad crossings would be part of the Confluence Parkway.

Traffic signals would be installed at, and other modifications made to, the existing U.S. 2/Euclid Avenue interchange to accommodate the additional traffic associated with the Confluence Parkway (Figure 2a). The new roadway would continue southwest along the existing Euclid Road alignment, cross the railroad tracks on a new at-grade railroad crossing at Euclid Avenue, and follow along the existing Isenhardt Avenue alignment. The existing at-grade crossing at Penny Road would remain and the intersection of Confluence Parkway with Euclid Avenue would be upgraded from a three-leg to

four-leg intersection to accommodate the through movement on the Confluence Parkway. From there, the new roadway would continue south along the current alignment of Isenhart Avenue to Olds Station Road (Figure 2b). Olds Station Road would end on the west side of the railroad in a cul-de-sac and the at-grade railroad crossing would be removed.

South of Isenhart Avenue, the new road would turn slightly west and continue through the west side of the existing McDougall & Sons warehouses. The existing Wenatchee Confluence State Park entrance would remain in its current location. Modifications would be required to the southwestern portion of the park for the roadway. The existing Wenatchee Confluence State Park staff housing will be removed and replaced with a new housing facility within the park.

Confluence Parkway would cross the Wenatchee River on a new bridge approximately midway between the existing BNSF rail bridge and the Apple Capital Recreation Loop Trail pedestrian/bicycle bridge (Figure 2c). The bridge would be a combined two-level vehicle and pedestrian bridge. The top portion would consist of a vehicle travel lane and bike lane in each direction, and the bottom would consist of a shared use bicycle and pedestrian path that replaces the existing narrow and aging pedestrian bridge. The new bridge would include three piers in the water, which would likely be in the same alignment as those on the existing railroad bridge. The existing pedestrian bridge would be removed after the new bridge is open.

From the river crossing south to Hawley Street, Confluence Parkway would create a new roadway along the east side of the BNSF railroad tracks, which are east of and parallel to the existing alignment of North Wenatchee Avenue, requiring a portion of the western edge of the Horan Natural Area (Figure 2d). It would join the existing alignment of Hawley Street just south of where Hawley Street currently crosses the BNSF mainline at-grade. The at-grade crossing would be closed, with Hawley Street becoming a cul-de-sac west of the railroad tracks.

Confluence Parkway would follow the existing alignment of North Miller Street (Figure 2e). The existing North Miller Street at-grade railroad crossing would be replaced with a new railroad underpass. New signals would be installed at the Walla Walla Avenue and Maple Street intersections. The existing SR 285/North Wenatchee Avenue and Miller Street intersection would be reconfigured to accommodate the new traffic volumes associated with Confluence Parkway. Approximately 450 feet south of that intersection, a new street would connect Miller Street and North Wenatchee Avenue with traffic signals at each intersection. These improvements in the vicinity of the existing Miller Street/North Wenatchee Avenue intersection represent the southern end of Confluence Parkway.

1.2.2 *Bicycle and Pedestrian Facilities*

Confluence Parkway would include bicycle lanes in each direction along its entirety. Bike lane buffers would be provided in the more developed areas of the Project to the south of the existing Hawley Street railroad crossing.

Between the north end of the Project and the Wenatchee Confluence State Park entrance, there would generally be a planted buffer and sidewalk on both sides of the roadway. The Project does not propose sidewalks between the Wenatchee Confluence State Park entrance on the north and Hawley Street on the south because pedestrians will use the parallel Apple Capital Recreation Loop Trail along this stretch of roadway and there are no business or residential properties to generate a need for pedestrian access at the street. The sidewalk and planted buffer would continue between approximately Hawley Street and the southern extent of the Project at North Miller Street and North Wenatchee Avenue.

Connections would be provided between the roadway pedestrian and bicycle facilities and the Apple Capital Recreation Loop Trail at both Walla Walla Park and Wenatchee Confluence State Park. North of the Wenatchee River, pedestrians would connect from the sidewalk to the existing Apple Capital Recreation Loop Trail and would use the new combined vehicle and pedestrian bridge to cross the river.

On the north side of the Wenatchee River, the Apple Capital Recreation Loop Trail would largely remain in its current configuration. The trail would be rerouted slightly to align with the new combined vehicle and pedestrian bridge. A new connection from the street level to the trail will also be provided at the Wenatchee Confluence State Park entrance in order to separate non-motorized trail users from vehicular access to the park.

The trail would cross the Wenatchee River on a new combined vehicle and pedestrian bridge, with a travel lane for vehicles on the top deck and a bicycle and pedestrian lane below. On the south side of the Wenatchee River, the trail would converge with the roadway, running parallel on its east side with a vegetated berm separating the trail from vehicle traffic. Retaining walls would also be installed in this area where necessary to minimize impacts to the Horan Natural Area. At the north end of the Public Utility District No. 1 of Chelan County (Chelan PUD) maintenance yard, located between Hawley Street and Wenatchee Confluence State Park, the trail would diverge from the road alignment, continuing to the south between the Chelan PUD property and the Horan Natural Area. It would converge back with the existing trail near the intersection of Hawley Street and Miller Street and Walla Walla Point Park.

The existing pedestrian bridge would remain open to the extent possible. Portions of the trail may need to be temporarily rerouted during construction. The City of Wenatchee will provide notice to the bicycle commuters and recreational trail users in advance of trail closures or rerouting.

Demolition of the pedestrian bridge will be scheduled to occur after the new bridge is operational, if feasible.

1.2.3 *Property Acquisition*

The Project would require property acquisition in several areas along the alignment. All acquisitions and relocations would be compliant with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970. A total of approximately 10 acres will be acquired. The acquisition process for most of these properties has not yet begun, except that the City has had preliminary conversations with the owners of the McDougall & Sons warehouses.

Key property acquisitions including those that require building demolition and/or relocations include the following:

- Three residential structures north of Euclid Court, which currently house commercial businesses, would be acquired and demolished to construct the upgrades to the Penny Road/Isenhardt Avenue intersection. One additional residential structure in this area may need to be demolished, pending further design.
- The McDougall & Sons warehouses, which are used for apple packing, would be acquired, and most structures would be demolished. The existing office space on the north side of the property would be preserved.
- Approximately 1 acre of the Wenatchee Confluence State Park would be acquired between the park entrance and the new Wenatchee River bridge. The existing park staff housing would be relocated.
- Approximately 3 acres of the Horan Natural Area would be acquired for the Confluence Parkway alignment and the relocated Apple Capital Recreation Loop Trail. An additional 1.5 acres of Chelan PUD property between the railroad tracks and the PUD maintenance yard would also be acquired.
- The drive-through of the Taco Bell located on North Miller Street would be acquired. The property could be reconfigured with the drive through located on a different part of the property. Business relocation is not anticipated.
- The following properties would be acquired in their entirety. The buildings would be removed and the businesses would be relocated.
 - The Igloo bar and restaurant located on North Miller Street.
 - Denny's located on North Wenatchee Avenue.
 - Valley North Service Center gas station located on North Miller Street.

1.2.4 *Utilities*

Construction of the Confluence Parkway offers opportunities to consolidate utility corridors for sanitary sewer, water, electrical transmission and distribution, telecommunications service, and

natural gas. Portions of existing utility infrastructure would require relocation in coordination with roadway construction.

The existing sanitary sewer force main beneath the Wenatchee River would be relocated to the new Confluence Parkway Bridge and extend from the existing Olds Station Lift Station to the approximate location of the existing at-grade railroad crossing at Hawley Street. A portion of the 30-inch regional waterline would be relocated from its current location beneath the Wenatchee River to be suspended from the Confluence Parkway Bridge. Aerial electrical transmission, distribution, and telecommunications lines would be relocated parallel to and adjacent to the new roadway. Electrical distribution and telecommunications would be installed underground within the roadway right-of-way where feasible. Natural gas relocations are anticipated at some locations where they would otherwise conflict with new gravity stormwater facilities.

1.2.5 Stormwater

New stormwater facilities would be installed along the entire Project corridor. Conveyance and treatment facilities will be designed to meet the requirements of the August 2019 Stormwater Management Manual for Eastern Washington and Wenatchee City Code Chapter 9.20, as described in the Project Preliminary Stormwater Report (KPG 2021).

1.2.6 Relation to the McKittrick Street/BNSF Grade Separation

The McKittrick Street/BNSF Grade Separation is a planned project with independent utility and logical termini, located in the southern portion of the Confluence Parkway Project vicinity, at the intersection of Hawley and North Miller streets. McKittrick Street currently ends in a "T" intersection with North Wenatchee Avenue. It will be extended to the east as a grade-separated underpass of the railroad tracks. The extension will continue to a planned round-about at the intersection of Hawley and North Miller streets. The portion of the McKittrick Street project west of the railroad tracks is funded and scheduled for construction in 2021. The railroad undercrossing and the connection to North Miller and Hawley streets is currently unfunded. The City of Wenatchee is working to secure additional funds.

1.3 Construction Methods and Timing

1.3.1 Construction Methods

Confluence Parkway would include a combination of new road construction and upgrades to the existing roadway. The existing roadway would be preserved to the largest extent possible and will follow the existing alignment and profile. In many areas, construction would include grinding the roadway and placing asphalt in the travel lanes and constructing planters and sidewalks adjacent to the roadway. In other places, construction of the roadway would include the removal of existing

asphalt and concrete surfaces, clearing and grading of adjacent areas, and placing subgrade material to form a stable roadbed. New road surfaces would be primarily asphalt and concrete.

Fill would be required on both sides of the new bridge and in the area where the roadway would be constructed on a new alignment. Fill would also be required between the BNSF right-of-way and the top of the portion of roadway that borders the west edge of the wetlands in the Horan Natural Area. All fill would come from existing off-site, permitted sources.

Construction equipment could include, but is not limited to, cranes, backhoes, excavators, front loaders, pavement grinders, jack hammers, drilling rigs, pile drivers, trucks, and concrete pumping equipment. Staging areas would be located within the right-of-way and adjacent City-owned parcels where possible to allow for parking, large equipment storage, and material stockpiles.

The new bridge across the Wenatchee River would likely be supported on drilled shaft foundations within the river. Drilled shafts are created by installing a steel casing, excavating the soil and sediment from within the casing, and placing steel and concrete within the excavated casing.

Construction of the bridge foundations, columns, pier caps, and girders would require the installation of a temporary, pile-supported work access trestle. The details would be developed as design progresses and would likely consist of driven steel pipe piles with steel framing that support timber decking. This trestle would allow for heavy equipment to access the foundation locations and for the delivery of construction materials. The bridge deck, barriers, and pedestrian walkway would likely be constructed without the need of the trestle. The existing pedestrian/bicycle trail would remain open during construction of the new bridge.

A large portion of Confluence Parkway, including the new bridge structure, would be constructed without requiring road closures or detours as it will be along a new roadway alignment. It is anticipated that Miller Street would be closed during constructing of the railroad underpass, with local access provided via Maple Street to the south and McKittrick Street to the north. Short-term local detours will be required as needed for improvements along existing roadways. The Apple Capital Recreation Loop Trail would be kept open to the extent possible during construction of the roadway and trail realignment.

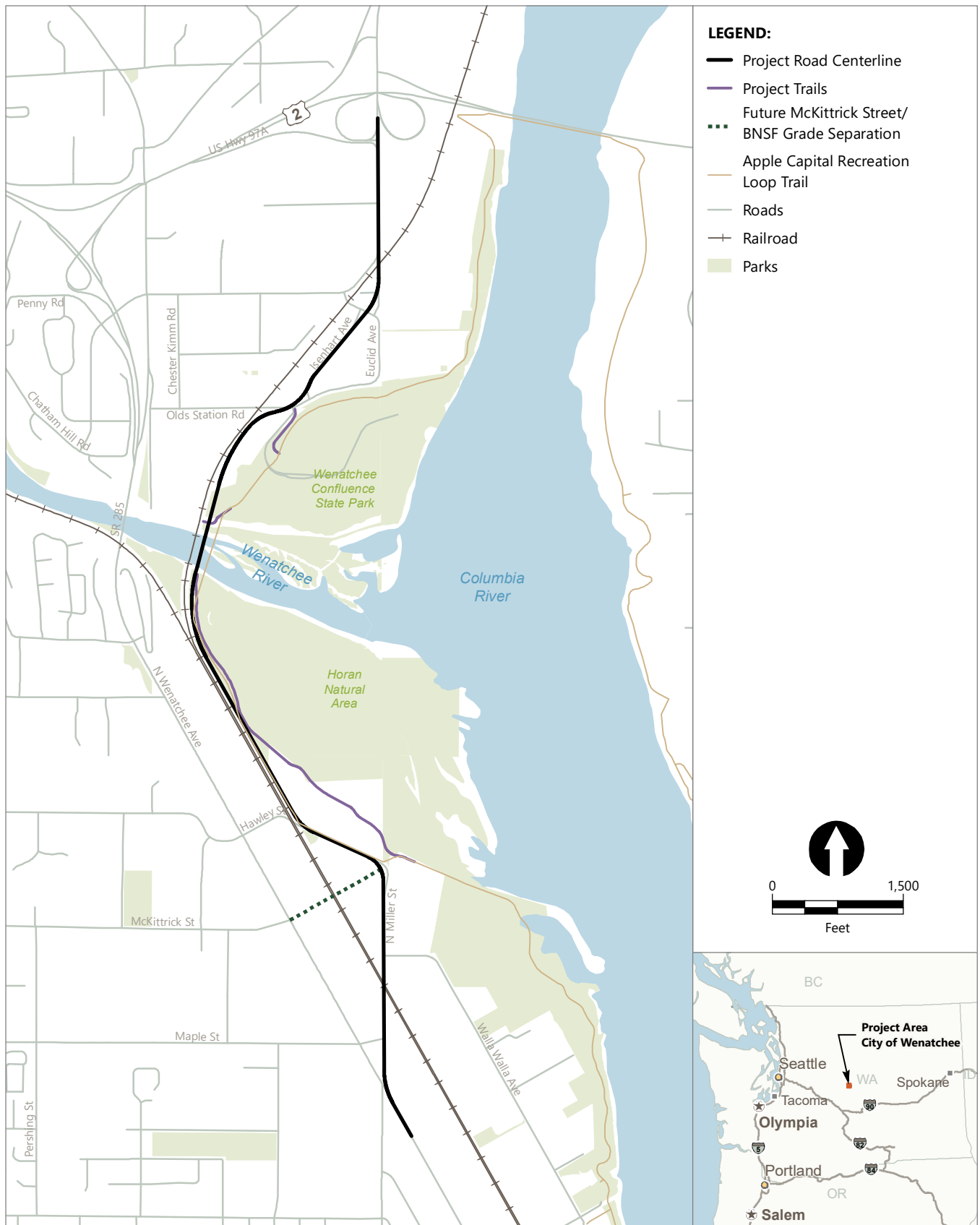
1.3.2 Project Timing

Construction is anticipated to begin in 2025, depending on availability of funding, and will span multiple years. In-water work will be performed within the allowable in-water work windows established by regulatory agencies to minimize potential disturbance of sensitive fish and wildlife species. It is anticipated that the in-water work window will be from July 15 to September 30 of each year. The temporary work access trestle would remain in the water for a period of up to three in-water work windows.

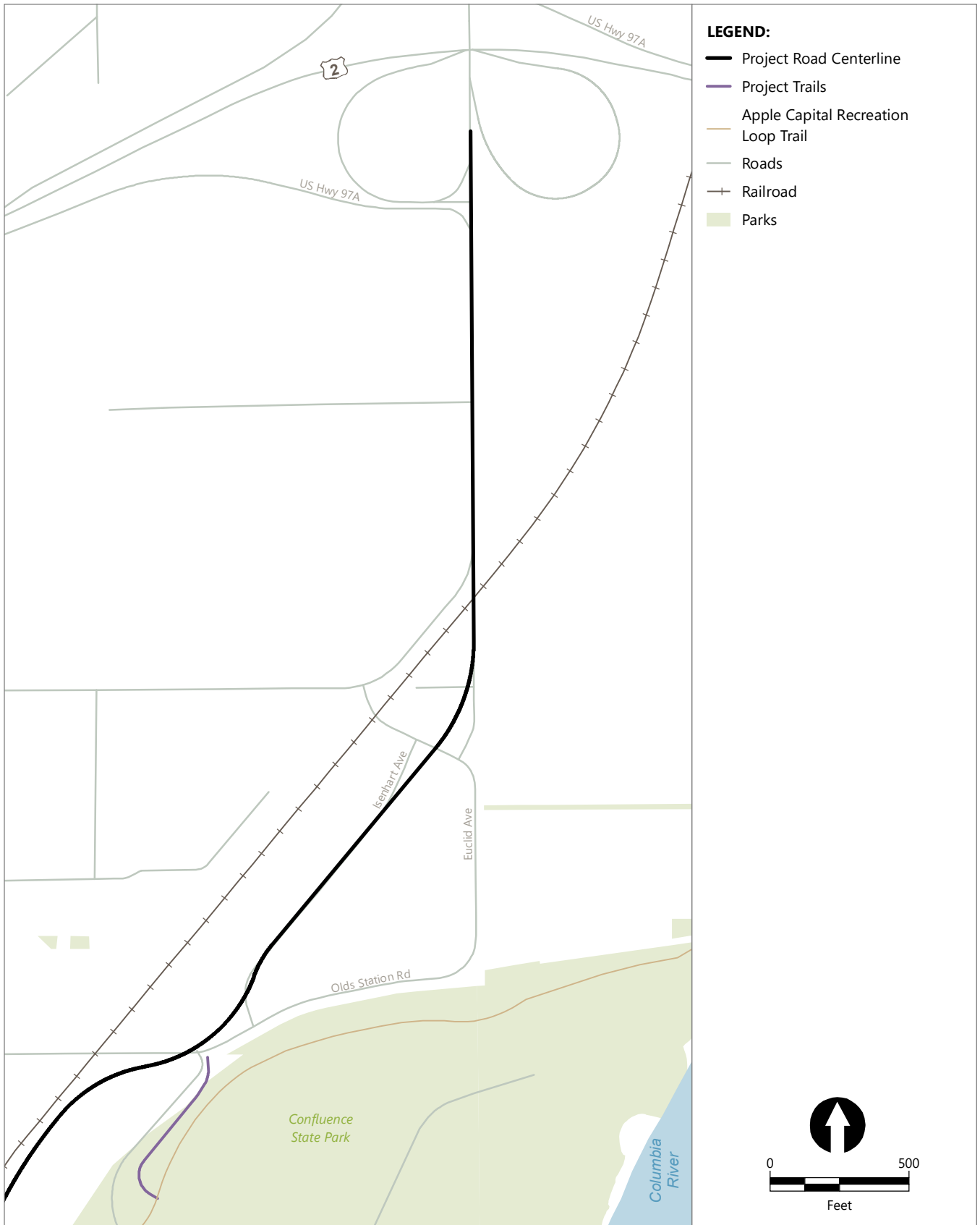
2 References

KPG, 2021. *Confluence Parkway Project Preliminary Stormwater Report*. Draft Prepared for City of Wenatchee. February 2021.

Figures



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Figure 2a
Euclid/SR 2 Interchange to North of Wenatchee Confluence State Park

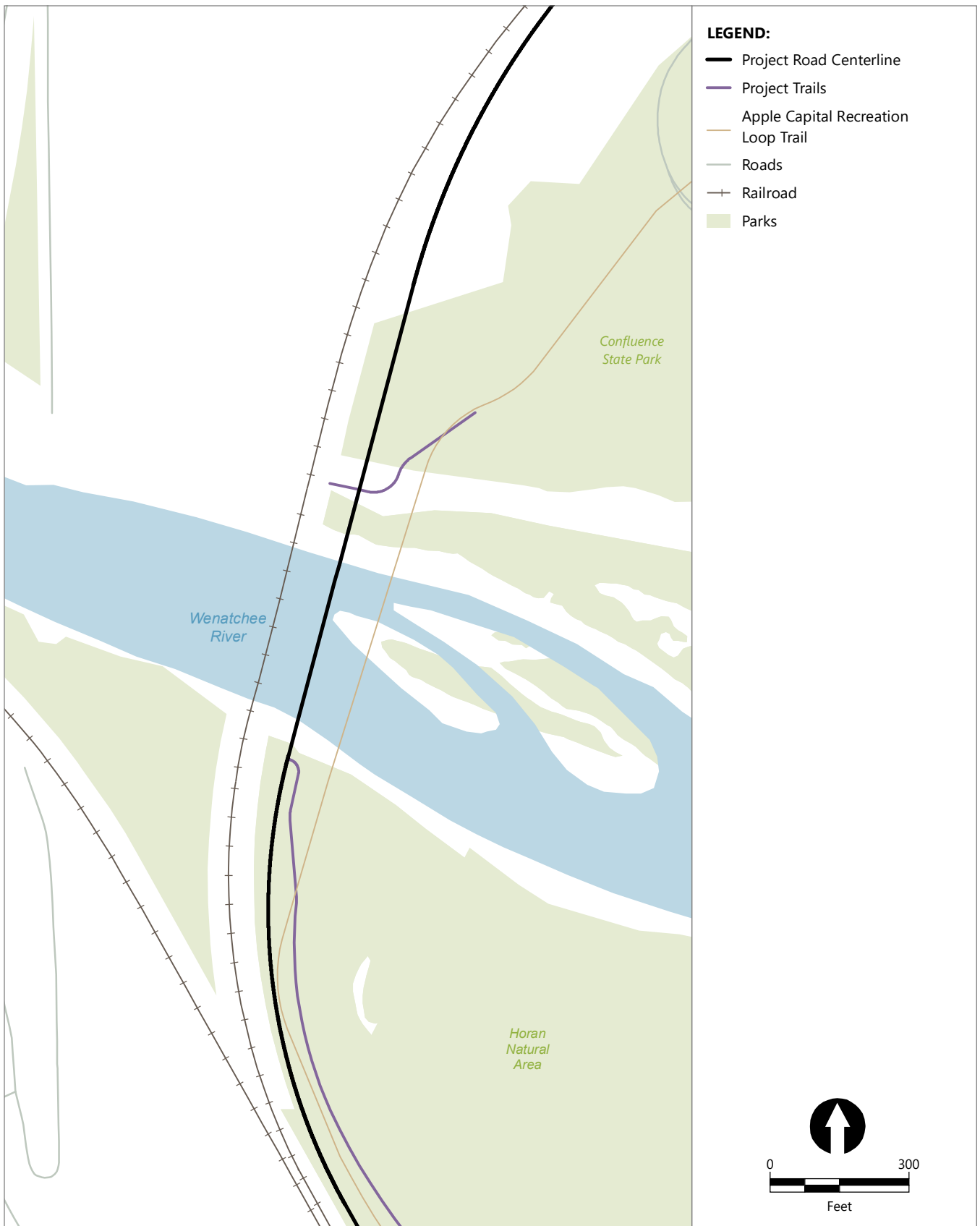
Confluence Parkway
City of Wenatchee



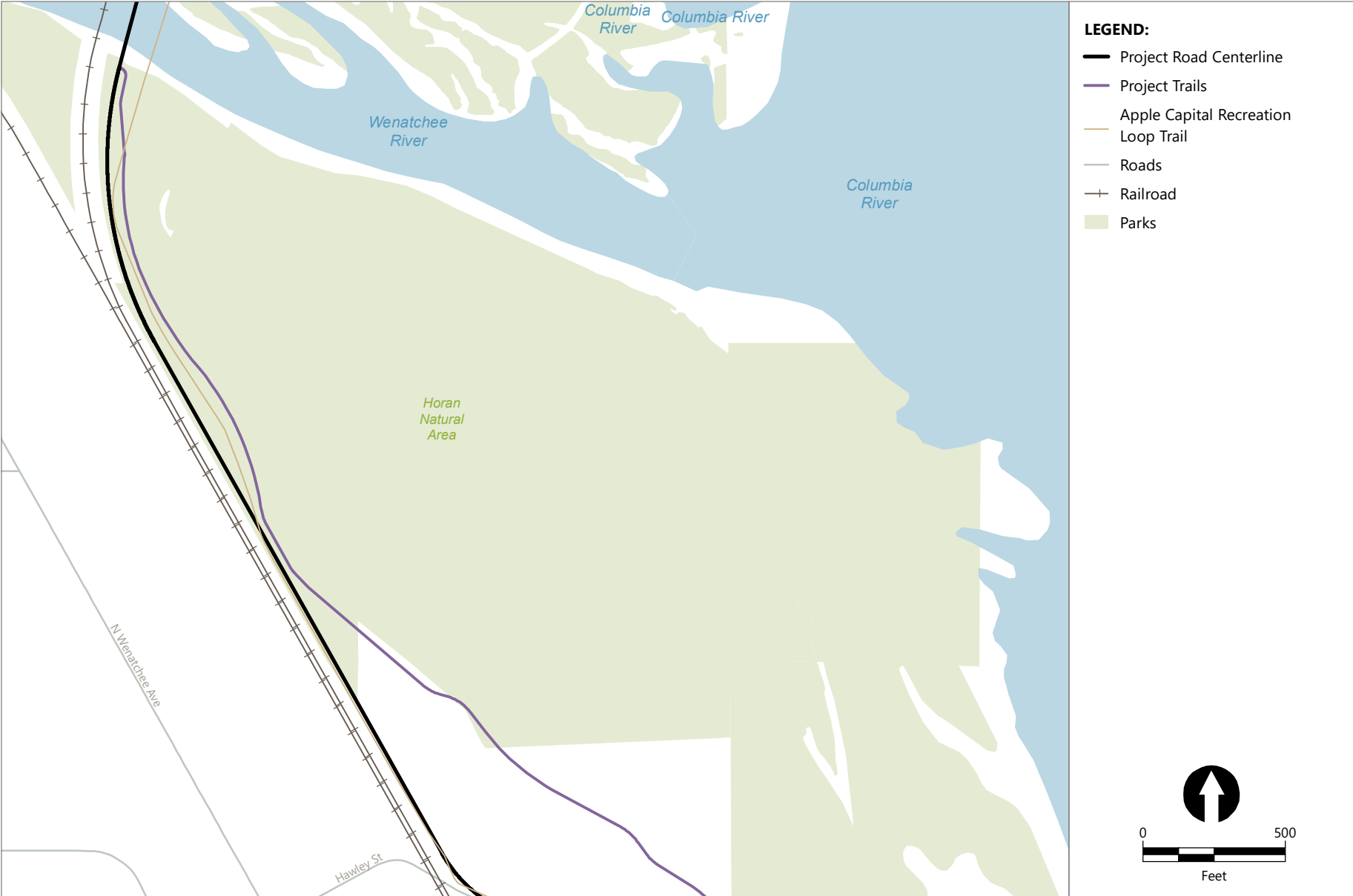
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Figure 2b
Wenatchee Confluence State Park Vicinity
Confluence Parkway
City of Wenatchee



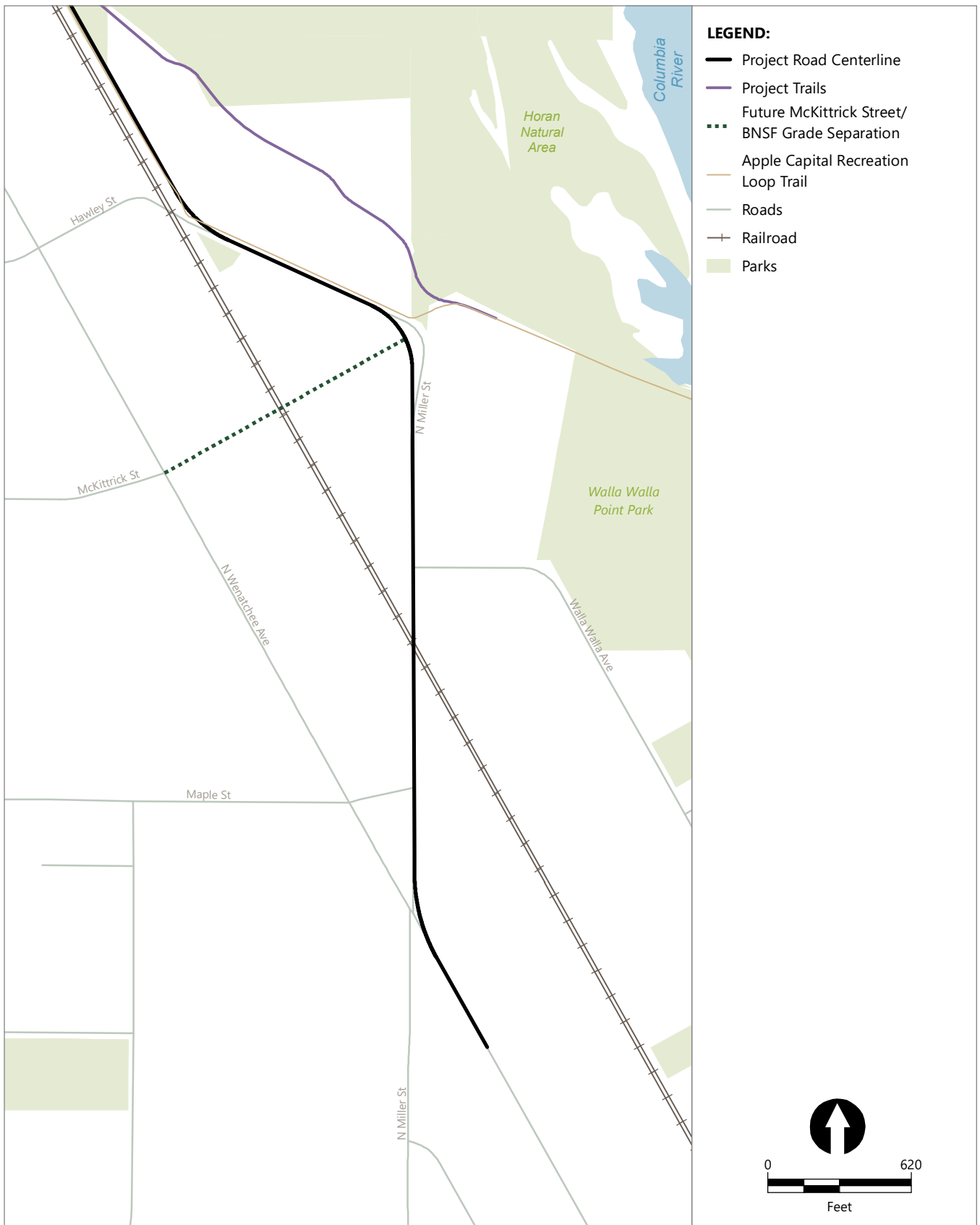
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Figure 2d
Horan Natural Area Vicinity
Confluence Parkway
City of Wenatchee



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Figure 2e
McKittrick Street to North Mission Street

Confluence Parkway
City of Wenatchee