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YVCOG

YAKIMA VALLEY TRANSPORTATION PLAN

--- YVTP 20/45 ---

Yakima Valley Metropolitan & Regional Transportation Plan



YVCOG

2020 - 2045

Yakima Valley Transportation Plan

- FINAL -

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Section 1

Executive Summary

Introduction

The Yakima Valley Metropolitan and Regional Transportation Plan (M/RTP) establishes the strategic framework for meeting the Yakima Valley region's existing and future transportation needs. The M/RTP serves as the link between local agency transportation plans and the Washington State Transportation Plan (WTP). It was developed with extensive coordination with affected agencies and opportunities for public input. The plan was developed to comply with federal and state requirements to ensure M/RTP projects will be eligible for funding through the widest range of programs.

There are specific federal and state requirements related to regional transportation plans. The federal requirements require preparation of a Metropolitan Transportation Plan (MTP) for the metropolitan area in and around the greater Yakima-Selah-Union Gap-Moxee-Naches urbanized area. The Washington State Growth Management Act (GMA) sets forth the requirements for the Regional Transportation Plan (RTP) for all of Yakima County.

The Yakima Valley Conference of Governments (YVCOG) is responsible for meeting both the federal and state transportation planning requirements for the Yakima County Region. YVCOG's member agencies understand the need to view transportation issues and needs collectively, so the MTP and RTP have been combined into a single regional transportation plan.

Both the federal and state requirements for the MTP and RTP require public participation in developing the plan. YVCOG and its member agencies support public input, because the success of any plan depends on the support of the community it serves.

The combined M/RTP examines the region's transportation needs over the next 25 years. It builds on strategies identified by state and local agencies to address short-, mid-, and long-term transportation needs for the region. The M/RTP is, however, constrained by available funding. Therefore, it identifies the mission, goals, policies, and strategic framework for defining and selecting improvement projects and programs. It is a multimodal plan, with individual projects and strategies often serving more than one travel mode and meeting a range of regional priorities. Strategies for expanding funding for regional transportation needs are also identified.

Yakima Valley Conference of Governments

The Yakima Valley Conference of Governments (YVCOG) is an intergovernmental organization composed of local jurisdictions within Yakima County. The YVCOG was established over 54 years ago to coordinate on regional issues, including transportation.

Since 1974, YVCOG has been designated as the federal Metropolitan Planning Organization (MPO) for the cities of Yakima, Selah, Union Gap, Moxee, and their adjacent unincorporated urbanized areas. Federal regulations require MPOs to develop coordinated transportation plans to ensure regional consistency and efficient use of federal funds.

YVCOG is also designated as the lead agency for the Regional Transportation Planning Organization (RTPO) under the Washington State Growth Management Act (GMA). The RTPO encompasses all of Yakima County. This designation was established in 1991. The map at the end of this section shows the boundaries of the RTPO and MPO. It also shows the local communities covered by the M/RTP.

Agency Collaboration and Regional Priorities

The Yakima Valley region has embraced working collaboratively and cooperatively to identify and address the highest priority regional transportation needs. This cooperation has led to the creation of two regional transportation planning coalitions – TRANS-Action in the metropolitan area and north Yakima County, and Driving Rural Yakima Valley’s Economy (DRYVE) in the mid-lower valley. The M/RTP builds from and supports the WTP, local agency transportation plans, and the TRANS-Action and DRYVE prioritization efforts.

As part of managing the state’s transportation system, WSDOT collaborates with the local partners to identify issues, concerns, and potential solutions. WSDOT employs multimodal, performance-based, practical solution approaches to evaluate and prioritize solutions. These solutions consider all modes and are to be the right project in the right place at the right time. WSDOT sees the MPO as the essential partner in collaboration and prioritization of future state transportation investments.

To guide the development and funding of the regional transportation system, the M/RTP established the following mission, goals and priorities. Implementation of the M/RTP is also guided by a range of policies.

The mission of the M/RTP is:

“To develop and preserve a regional multimodal transportation system that provides for the safe and efficient movement of people and goods; supports the economic growth of the region; and is compatible with land use plans and the environment.”

The highest priorities for the regional transportation system include:

- **Preservation / State of Good Repair**
- **Safety**
- **Economic Vitality**
- **Freight Mobility**
- **Transit Enhancement and Transportation Demand Management**

Transportation Goals and Strategies

The mission and goals in the M/RTP lead to strategies for identifying improvements that best meet the transportation needs of the region. The goals supported by the mission statement include:

- **Preservation / State of Good Repair**

Preservation of the existing transportation system and services will extend the life and utility of prior investments. Preservation of the system includes resurfacing roadways, ensuring safe bridges, resolving drainage problems, and improving overall operations through maintenance of traffic signs, markings, and signals.

“State of Good Repair” (SOGR) is a federally-originated initiative to maintain our transportation resources (transportation networks, equipment, assets, etc.) to their most operational and cost effective capabilities. Use of 1) project-specific practical solutions strategies and designs when developing road or transportation systems, and 2) sharing best practices for maintenance, asset management, recapitalization, and innovative financing strategies, are ways to expend the functional life of our local, state, and federal transportation infrastructure, build or reconstruct facilities based on its specific needs and characteristics, and maximizing the economic benefit of limited financial resources.

- **Safety**

Improving the safety and security of the regional transportation system is paramount to the M/RTP strategies. Almost all of the highest priority improvement projects and programs improve the safety of regional transportation customers and the transportation system. Improvements at freeway interchanges and arterial intersections are designed to reduce collisions. Roadway widening and reconstruction projects include design standards to reduce conflicts between travel modes. The M/RTP can also prioritize improvements that address and improve the region’s emergency preparedness. Enforcement and transportation safety education are identified in the M/RTP strategies.

- **Economic Vitality**

Transportation projects support, enhance, and stimulate the economic development of the region. Optimizing mobility of people and goods on the transportation system supports economic development

by reducing delays, improving operations, opening access to new areas of development, and addressing safety issues.

- **Freight Mobility**

Enhancing freight distribution by truck, rail, and air is a priority for economic recovery and growth. The M/RTP supports future growth in commercial and freight air service by enhancing inter-modal connectivity through-out the region. The M/RTP includes an unfunded but prioritized study that could reduce conflicts between freight and localized traffic in the lower valley, which could increase freight efficiency between an Interstate and State Route and provide residential safety. Railroad grade separation projects and other rail system improvements such as a study for the feasibility of a trans-load facility are also included in the M/RTP.

- **Transit Enhancement and Transportation Demand Management**

Strategies to enhance transit and transportation demand management (TDM) programs are important elements of the M/RTP. These strategies include expanding fixed-route transit, paratransit, and Commute Trip Reduction (CTR) programs in the greater Yakima metropolitan area. Expanding the availability and types of transportation choices in and between communities throughout the Yakima Valley is a priority for the region.

Selah Transit and Union Gap Transit have brought their transit services “in house” to their city operations and continue to review their particular needs and connections with Yakima Transit, the Yakama Nation’s Pahto Public Transit, and People for People’s Community Connector. The Ellensburg-Yakima Commuter Service (operated by Yakima Transit) maintains steady and dedicated ridership. The Confederated Tribes and Bands of the Yakama Nation’s (Yakama Nation’s) Pahto Public Passage began in 2007 and expanded to serve Yakima, Prosser, Sunnyside, Grandview, Wapato, Zillah, Toppenish, Harrah, Goldendale, and White Swan before service ended briefly between 2010-2012. Services have resumed, although the routes are now somewhat reduced as a result of a steady FTA Tribal Transit fund.

Reducing congestion along regional corridors such as I-82 and US 97 or at spot locations such as interchanges and intersections enhances the efficiency and safety of all modes of transportation. Decreasing delays on city arterial systems likewise reduces reliance on the regional highway system for local trips and avoids premature and expensive highway widening. The M/RTP incorporates Transportation Systems Management (TSM) and Intelligent Transportation Systems (ITS) strategies to improve the efficiency and safety of the transportation system. These transportation demand management strategies include controlling access to highways and arterials, improving traffic signals and timing, and continued implementation of driver information systems.

In 2018, the Yakima Valley Conference of Governments received a Washington State Public Transportation Consolidated Grant to develop the “Yakima County Regional Transit Feasibility Study”. The feasibility study will examine best practices for integrating services existing transit systems, consolidate the regions identified public transportation needs/barriers/resources, and generate financial and technically feasible solutions need to address transit gaps in the region. Information gathered will aid policy makers to make informed decisions in building support for targeted rural mobility strategies in Yakima County. This study will begin in January 2020 and is expected to be completed by June 2021.

- **Transportation Improvements and Programs**

The M/RTP includes state highway and local agency regional transportation systems improvements. The projects highlighted in the M/RTP are defined either as being in the fiscally-constrained plan or as being other high-priority projects. Fiscally- constrained projects are those that are likely to receive reasonably anticipated funding to complete, operate, and maintain the project. The maps in Section 6 show the locations of these projects and more detailed descriptions and discussion of these high priority M/RTP projects are presented there as well. The M/RTP also acknowledges other state, regional, and local projects that are regionally significant but are not reasonably expected to be funded at this time. These unfunded improvements are in Appendix F for illustrative purposes.

- **State Highways**

State highways are the foundation of the Yakima Valley regional transportation system. These highways connect the region with other parts of Washington and serve intra-county travel. Therefore, safe and efficient operation is critical.

Because I-82 is such an important transportation corridor to the region, several significant improvement projects are either under way or planned. These include maintenance, safety improvements, interchange upgrades, and planning for future widening of I-82 in the metropolitan area. Key capacity, operational, and safety improvements include major revisions at I-82 interchanges within the metropolitan area. These include addition of capacity, improved signals, and modifications to the on- and off-ramps.

The M/RTP includes a range of improvements along US 12. The most significant operational improvements are in the metropolitan area. Preservation and safety enhancements have been built on this highway since the last M/RTP update and more are identified for the near future in and west of Naches.

Improvements included in this M/RTP update to US 97, SR 22, SR 241, SR 223, and SR 821 focus on preservation, safety, and other spot improvements. These include pavement upgrades, bridge repairs or replacements, and intersection improvements. The lower volume of traffic along these corridors

outside the metropolitan area will not require significant capacity improvements during the 25-year planning horizon.

- **Regional Priorities by Subregion**

The M/RTP summarizes regionally significant, local agency projects by seven subregions as shown on the Plan Subregions map in Section 6.

Northwest Subregion

The Northwest subregion is located along US 12 west of the Yakima metropolitan area. The focus of the transportation improvements and strategies for the Northwest subregion is to improve connectivity to the regional highway and arterial systems. Current high-priority projects with secured funding sources in this region are sponsored by Washington State Department of Transportation (WSDOT) and focus on preserving and upgrading the existing roadways. There are no local agency projects for Yakima County, the City of Tieton, or the Town of Naches with secured funding at the time this M/RTP was drafted.

There is a continued need to expand demand response transit service in this area and to coordinate with existing and rural transit service to regional services and facilities. In addition, expanded promotion of ridesharing is appropriate to serve the forecasted residential growth in the Northwest subregion.

Although there are no secured local projects, there are several planned projects for Naches, Tieton, and Yakima County. WSDOT has secured five projects within the Northwest Region that will address chip seal projects on US 12, SR 410 and SR 821, and two projects on SR 410 to address chronic flooding and riverbank stabilization.

North Subregion

The North subregion covers both rural and urban areas north of the City of Yakima. Transportation projects in the North subregion focus on addressing safety and operations issues in Selah, improving connections to the regional highway system, and improved corridors within the subregion.

WSDOT and City of Selah have secured transportation projects identified in Section 6. Improvements within Selah include widening existing roadways and adding sidewalk to enhance driver safety and walkability. WSDOT has identified nine funded maintenance preservation projects along US12, SR 821, SR 823, and I-82.

West Subregion

The West subregion covers rural and agricultural areas west of the City of Yakima and south of Tieton and Cowiche. The West subregion for the M/RTP is not the same as the west valley area of the City of Yakima which is within the MPO boundaries and is included in the Central subregion.

The low densities and location in the region do not result in any existing or forecast capacity or major operational deficiencies. However, north-south travel in the West subregion is difficult and circuitous because of the lack of continuous arterial routes. Thus, Yakima County and its TRANS-Action partners, at different times in the past, have defined needs for future north-south corridors serving the areas west of Yakima. While not funded and not actively promoted as an identified project with scope for construction in the 25-year M/RTP, segments of these corridors should be preserved and constructed as properties develop. This process will reduce the ultimate agency-funded cost of these improvements.

Additions of demand-responsive and expanded paratransit services are also identified to support transportation needs for the West subregion.

Central Subregion

The Central subregion includes the cities of Yakima and Union Gap. It also includes unincorporated areas of the metropolitan area. Being the heart of the metropolitan area, the Central subregion experiences a wide range of traffic operations, safety, and preservation issues. These issues are a result of significant levels of commuter traffic, access to/from the regional highways, freight movement, and access to regional shopping areas and services. The City of Yakima also is the region's center for major medical centers and the main campus of the community college. The regional airport – McAllister Field – is located along Washington Avenue in the south part of Yakima, west of Union Gap.

WSDOT and the local agencies have agreed to the need for several improvements to interchanges on I-82 and US 12. These needs have been significantly addressed with the reconstruction of the 40th Avenue (US 12) Nob Hill and Valley Mall Boulevard Interchanges over the past 15 years; culminating in the current reconstruction the South Union Gap Interchange expected to be completed in the Summer of 2020. These state highway improvements directly connect with the most significant regional arterials in the Central subregion. Improvements may add turn lanes, widen roadways, improve intersections, improve interchanges, construct new road infrastructure, enhance transit operations, and improve non-motorized facilities.

Improvements for the major east-west arterials are critical to the operation of the regional transportation system. A new east-west connection between unincorporated Terrace Heights and north Yakima along with additional surface street connection will provide access to a new mixed-use development at the gateway to the Yakima Valley. These include improvements in downtown Yakima, connectivity to the I-82 freeway interchanges, access to the airport and adjacent employment areas, and access to major commercial districts. Local agencies have already completed widening parts of the Nob Hill Boulevard, Valley Mall Boulevard, and Ahtanum Road corridors, and these efforts continue along these corridors further into the jurisdiction's road network. The M/RTP establishes a priority for completing the ultimate corridor improvements. Construction of the Union Gap Beltway to improve connections between Ahtanum Road and the airport and I-82 is also a priority in the M/RTP.

Recommended strategies for the three metropolitan transit services Yakima Transit, Union Gap Transit, and Selah Transit, include expanding the hours of operation, improving frequency on high ridership routes, maintaining Sunday service, securing fixed-route service to Ellensburg, expanding demand response service in the growing areas of west Yakima and expanding the vanpool program. The Yakama Nation Transit program that services communities within the reservation included a stop at Union Gap allowing for access to Union Gap and Yakima Transit Routes.

WSDOT, Yakima County, Yakima, and Union Gap all have secured projects addressing connections to Interstate 82 including the South Union Gap Interchange (WSDOT/Union Gap) and the East-West Corridor Project (WSDOT/Yakima/Yakima County) and at SR 12 & N. 16th Avenue Interchange (WSDOT /Yakima). The City of Yakima is undertaking two school route safety projects and an air quality intersection project at Ahtanum Road and 64th avenue. Yakima County has two secured collector/arterial widening projects that complements the E-W Corridor and South Union Gap Interchange projects, respectively.

East Valley Subregion

The East Valley subregion includes the City of Moxee and surrounding rural residential, industrial and agricultural lands. The focus of improvement strategies for the East Valley subregion is on east-west capacity and connections to I-82 and the metropolitan area west of the freeway. Because only two routes – SR 24 and Terrace Heights Road – currently cross the Yakima River, operations and safety of these routes is a priority. Construction of a new east-west corridor over the Yakima River is included in the M/RTP as secured-funding project and is discussed in greater detail in the Central Subregion.

WSDOT has secured two SR 24 road preservation projects east of Moxee.

The City of Moxee has secured new construction funding for a road extension which complements a new intersection on SR 24 at Morrier Lane which will provide new economic development opportunities and provide relief on local roads for freight traffic. The next phase of the Morrier Lane project extends the SR24 / Morrier Lane roadway to complete access to new city industrial zoned lands west of Moxee’s historical city limits.

Expanding transit and ridesharing services in this area and connecting to a wider regional service has been identified as a regional need. A strategy to mitigate some of the growing congestion on SR 24 between Moxee and Yakima is to implement a park-and- ride and commuter transit service between the two communities. A fixed-route transit service could also serve employers in Moxee. A pedestrian/bicycle pathway connecting the City of Moxee to the Yakima Greenway generally along SR 24 is in the early planning stages. Supported by several landowners along SR 24, the City of Moxee and WSDOT, this trail would allow for improved active transportation opportunities east of the Yakima Metropolitan Area.

South Central Subregion

The communities of Toppenish, Wapato, Harrah, and Zillah are within the subregion. West of the Yakima River and I-82, most of the South Central subregion is within the Yakama Nation.

The primary focus of the M/RTP improvements in the South Central subregion is reconstructing and upgrading roadways to accommodate increased traffic volumes and movement of freight. These include multiple intersection improvements on US 97, an at-grade railroad crossing on SR223, rehabilitation to the I-82/Yakima Valley Highway Bridge, and the replacement of the SR22, Yakima River crossing near Toppenish just to name a few. The M/RTP also includes improvements to rebuild and upgrade existing arterials that serve freight and commercial land uses. Extension of several corridors to provide alternative routes for freight and reduce travel distances are also identified as regional priorities. The M/RTP also includes a range of preservation and safety improvements within the South Central subregion.

WSDOT is undertaking six funding secured intersection safety projects along US 97 through the reconstruction of existing 4-leg intersections to new roundabout configurations in addition to 11 secured road preservation project along I-82 and US 97. The Cities of Zillah (Vintage Valley Parkway – new roadway), and Toppenish (Lincoln-Dayton-Beech and Jackson Road Extension -new roadway) have secured construction funding to that will improve accessibility and connectivity enhancements to their respective road networks.

The South Central subregion is served by the Yakama Nation’s Pahto Public Passage and People for People’s Community Connector transit services, which connects Prosser and Yakima. There is a need to expand demand response service in this area and to coordinate with existing and expanded rural transit service to regional services and facilities.

Continued upgrades to 21 miles of track along the Toppenish, Simcoe, and Western Rail line between White Swan and the BNSF mainline northwest of Toppenish. will improve efficiency and safety for rail traffic serving two Yakama Nation sawmills. Rail crossing improvements within Toppenish are also important.

Southeast Subregion

The Southeast subregion includes the communities of Granger, Sunnyside, and Grandview along I-82, and Mabton along SR 22. City arterials and county collector roads connect the communities to the state highways and serve local travel patterns. The improvements focus on regional access and connectivity. They also address existing or forecast safety and operations needs along regional corridors. WSDOT has secured funding for several projects, including, paving/chip seal improvements along SR 22, SR 223, and Interstate 82 and bridge retrofits on SR241 near Mabton. These improvements will greatly enhance safety at rural state-route intersections and improve freight/vehicle traffic in the lower valley.

Yakima County’s Independence Road and Sunnyside’s North 6th Street funding secured reconstruction projects will address safety and accessibility improvements.

The Southeast subregion is served by the People for People Community Connector, which connects Prosser and Yakima. This subregion is also served by People for People paratransit service for the Job Access Transportation program and the Medicaid transportation services program.

Environmental Constraints

The M/RTP identifies potential impacts improvement projects may have on the environment according to the type of project. The environmental constraints analysis for the M/RTP is not intended to identify specific environmental impacts of road projects included in the M/RTP, or to be used in determining environmental mitigation. Instead a matrix of potential impacts is provided to raise awareness of anticipated or potential issues that may affect implementation or costs of transportation projects.

An entire appendix of natural resource maps and tables is included in the M/RTP that highlights locations of environmental designations such as water and wetlands, floodplains, plants and animals, and historic properties. Analysis of specific direct and indirect impacts and potential mitigations will occur as individual transportation projects and programs are further defined and permitted.

YVCOG performed a SEPA Checklist process with a “Determination of Non-Significance” determined on February 3, 2000. Analysis and reports can be located in Section 7 (Environmental Constraints) and Appendix G (*Environmental Documents*) of this document

Financial Constraints

Federal and state regulations for Metropolitan and Regional Transportation Plans require a financial analysis to demonstrate how the transportation improvements and programs can be implemented with reasonably expected funds. The M/RTP is fiscally constrained by only including projects and programs that are reasonably expected to have sufficient funding to complete, operate and maintain. Regional priority projects and programs that have funding assumed for all or part of the identified costs are included in the fiscally constrained list.

Estimates of future transportation revenues are projected to be less than the required amount of funding needed to keep the transportation systems and programs in good repair. Inflation is expected to erode the purchasing power of existing transit revenues to the point that they will not be sufficient to sustain the present level of service in the future without fare and sales tax increases. The difference between the available funding and costs of identified improvement projects and programs requires the region to set priorities and strategies for addressing critical transportation needs.

Total forecasted transportation revenues from all sources for the 2020-2045 period exceed \$2.623 billion. Anticipated expenditures for transportation projects, programs and services within the fiscally constrained plan are approximately \$2.220 billion. Analysis and reports can be located in Section 8 (*Financial Constraints*)

YVTP 20/45 “Your Voice / Your Future” Transportation Survey

During a 6-week period during January and February 2020, YVCOG provided the Yakima County residents with an English and Spanish Transportation Survey that covered areas such as: Passenger Rail Service, Air Travel, Public Transit, Pedestrian & Bike Routes, Alternative & New Transportation, and Voluntary Demographic questions. The online survey was announced through the region’s English and Spanish media outlets (video, audio and written), email, and business cards with scannable links to the online survey. Paper copies of the surveys were available at various transportation committee meetings and five Public Input Events performed in late January. 257 of 265 individual survey respondents resided within Yakima County.

Viewable in Appendix I (**Public Comments**), copies of the survey and the tabulated results are available.

Notable results from the survey include:

- 235 of 263 (89.35%) would utilize passenger rail service if available in Central Washington
- 237 of 261 (91.96%) would support the return of passenger rail service to Yakima County and 83.46% of respondents think elected officials should work on funding for returning service.
- 218 of 259 (84.17%) have flown through the Yakima airport. 68.53% of 252 respondents indicated that they would fly directly to other regional airports if regularly scheduled “short-distance” charter-type service was available in Yakima, with the most interest in Portland/Vancouver followed by Spokane
- 68% of 247 respondents would or would-consider using countywide bus service if available in Yakima County. However, 77.45% of 235 respondents stated that local elected officials should work on developing and funding the expansion of public transit service throughout Yakima County.
- 181 of 231 (78.35%) stated local elected officials should work on developing and funding expansion of pedestrian and bike systems throughout Yakima County.
- Looking at new technology transportation issues, 70.94% of respondents stated that their community should install electronic vehicle charging stations in the next 10 years, 63.64% want their communities to develop guidelines for operating driverless vehicles, and 76.60% of respondents stated that their communities should develop guidelines for operating drones for deliveries, natural disaster response, law enforcement, and search & rescue teams.

Air Quality Analysis

Air quality planning for transportation is focused on meeting the National Ambient Air Quality Standards (NAAQS) and deadlines set by the federal Environmental Protection Agency (EPA), and upon the state Department of Ecology (DOE) guidelines for meeting the standards. YVCOG’s annual Average Daily Vehicle Mileage Traffic (ADVMT) Growth rate of **1.49 %** during the 2020-2045 planning period indicates the regions compliance to meeting air quality standards, analysis and results and can be located on Section 10 (**Air Quality Analysis**) and at the end of Appendix E (**YVCOG Traffic Model Methodology**)

Section 2

Guiding the Development of the Regional Transportation Plan

The Yakima Valley Metropolitan and Regional Transportation Plan (M/RTP) establishes the strategic framework for meeting the Yakima Valley region’s existing and future transportation needs. The M/RTP serves as the link between local agency transportation plans and the Washington Transportation Plan.

The focus of the M/RTP is to provide a basis for jointly selecting the highest priority transportation projects and programs for regional funding and implementation. Transportation facilities and services cross jurisdictional boundaries and the traveling public sees the system as one set of continuous facilities that connect from point A to point B. They do not typically see or care that the state controls one section, Yakima County another, and a local city yet another segment of their trip.

There are specific federal and state requirements related to regional transportation plans. The federal requirements require preparation of a Metropolitan Transportation Plan (MTP) for the urban area in and around the greater Yakima-Selah-Union Gap urban area. The Washington State Growth Management Act (GMA) sets forth the requirements for the Regional Transportation Plan (RTP) for all of Yakima County.

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YVCOG is also designated as the lead agency for the Regional Transportation Planning Organization (RTPO) under the Washington State Growth Management Act (GMA). The RTPO encompasses all of Yakima County. This designation was established in 1991. The MPO RTPO Boundary map at the end of this section shows the boundaries of the RTPO and MPO.

YVCOG is directed by an Executive Committee elected by member agencies during an annual General Membership meeting. The YVCOG Executive Committee also serves on the MPO/RTPO Policy Board. In addition to the YVCOG Executive Committee members, the Policy Board currently includes the regional administrator from the Washington State Department of Transportation (WSDOT), the chief executive officer of People for People (a special needs transportation service provider), and the president of the Yakima County Development Association. State legislators from the 13th, 14th, and 15th legislative districts are all ex-officio members of the Yakima Valley MPO/RTPO Executive Committee and MPO/RTPO Policy Board.

Development of the M/RTP is supported by the MPO/RTPO Technical Advisory Committee (TAC). The TAC is comprised of public works directors, transportation planners and engineers, and other staff from local agencies, Confederated Tribes and Bands of the Yakama Nation, and WSDOT. They provide input on local agency plans, projects, priorities, and other data for the regional transportation plan

Federal and State Transportation Planning Requirements

Federal and state requirements establish the specific needs for the regional transportation plan. The federal and state requirements overlap in many areas, including a goal for promoting multimodal transportation strategies based on land use plans and support of economic growth. Both the federal and state requirements also address public involvement.

Federal Planning Requirements

The Fixing America's Surface Transportation (FAST) Act replaced the Moving Ahead for Progress in the 21st Century (MAP-21) Act as the basis for federal surface transportation planning and funding. MAP-21 built on and expanded planning requirements established in SAFETEA-LU and prior legislation. Continuation of developing Performance Measures required by the FAST Act and implemented by the MPOs and RTPOs across Washington State have been defined and set targets for the implementation of Performance Measures. And although some changes have been recommended when MAP-21 was passed, SAFETEA-LU led to the latest set of established federal rules and regulations and reference to that Act will be kept in this update of the M/RTP.

As of July 1, 2007, metropolitan transportation plans and the Transportation Improvement Programs (TIP) must meet the requirements set forth in SAFETEA-LU and FAST Act in order to be eligible for federal transportation funds.

FAST Act requires MPOs in air quality maintenance areas, such as the greater Yakima metropolitan area, to update the metropolitan transportation plan at least every four years. The Yakima Valley Metropolitan and Regional Transportation Plan was last updated and adopted in March 2016. Therefore, YVCOG and its member agencies are updating the plan to comply with SAFETEA-LU and FAST Act requirements.

SAFETEA-LU created several modifications and new provisions to previous transportation acts. These are summarized as follows:

- Encourages MPOs to consult and coordinate with other planning activities including those associated with growth, economic development, environmental protection, airport operations, and freight movement.
- Promotes consultation with state and local agencies responsible for land use, natural resources, environmental protection, conservation, and historic preservation as related to the MTP.
- Establishes safety and security of the transportation system as separate planning factors.
- Requires plans to add intermodal connectors as a transportation facility.
- Requires plans to include a discussion of potential environmental mitigation activities, in consultation with federal, state, and tribal agencies.
- Requires that projects seeking funding from certain federal transit programs be derived from a locally developed public transit/human services transportation program.
- Requires that representatives of users of pedestrian walkways, bicycle facilities, and the disabled be included as parties to be provided the opportunity to participate in the planning process.
- Requires that public meetings on the MTP are conducted at convenient and accessible locations and times.
- Requires that visualization techniques be used to help describe the plans.
- States that the MTP and related public information are to be available in electronic formats, such as the internet.

SAFETEA-LU required the transportation plan to be based on a 20-year forecast period. This update for the 2020-2045 exceeds the 20-year planning requirement. The plan must cover major roadways, transit, multimodal and intermodal facilities, with emphasis on facilities that serve regional transportation functions. The MTP should address capital projects, operational and management strategies to preserve and enhance the performance and safety of the region's transportation system. The transportation plan needs to include a financial analysis to show how the facility improvements and programs can be implemented. The financial analysis can also identify strategies to increase funding to support implementation of other regional transportation projects or programs.

MAP-21 / FAST-Act Performance Measurement Targets & Concurrences

In 2017, WSDOT and the state’s MPO/RTPOs began a collaborative process to develop various performance measures on a statewide and local level to better gauge local and state impacts and benefits of the region’s transportation network which have received federal funding through 2012’s *Moving Ahead for Progress in the 21st Century* Act (MAP-21) and the 2015’s *Fixing America’s Surface Transportation* (FAST) Act.

The new transportation rules require WSDOT, in coordination with local MPO/RTPO’s to measure and report performance in the following areas: safety, pavement and bridge, system performance/congestion, freight movement, and congestion mitigation and air quality (CMAQ).

These targets and concurrences are defined and explained further in **Section 9 (Performance Measures)** of this document.

Safety

Yakima Valley Conference of Government adopted WSDOT’s recommended initial 2018 Safety Performance Targets in February 2018 followed by WSDOT’s 2019 recommended targets in February 2019, to “reduce the number of traffic fatalities and serious injuries on Yakima Metropolitan Area roadways to zero by 2030”. These targets will be updated annually, based on traffic accident data each year by WSDOT and the Washington State Patrol.

Pavement and Bridges

RCW 47.05 and the Washington State Department of Transportation’s (WSDOT’s) Highway System Plan set the direction for management of infrastructure condition in Washington State, which is to preserve pavements and bridges at lowest life cycle cost. The lowest life cycle strategy for any pavement or bridge is the strategy that maintains acceptable condition at the lowest annualized cost over the life of the asset. WSDOT has demonstrated this by taking a preservation first approach to pavement and bridge management over several decades.

Local agencies manage approximately 31% of the non-Interstate National Highway System (NHS) in Washington State. Using the [Target Setting Framework](#), WSDOT worked with Metropolitan Planning Organizations (MPOs) to establish performance measures and communicate its pavement and bridge management practices, as well as what these practices mean in the context of the National Highway System (NHS). WSDOT has also communicated the annual average state facility needs for pavements and bridges within each MPO boundary. Further supporting asset performance and investments on the NHS, WSDOT Local Programs issued a call for projects specifically focused on asset management practices, for pavements on NHS roadways.

Washington MPOs & WSDOT have agreed to plan and program projects to work towards and achieve Washington pavement and bridge condition targets for infrastructure condition under 23 CFR 490. As required under 23 CFR 515, the specific strategies for pavement and bridge preservation are documented in WSDOT’s [Transportation Asset Management Plan](#), certified by FHWA in May 2018.

System Performance, Freight and CMAQ

In 2018, Washington State Metropolitan Planning Organizations (MPOs) and the Washington State Department of Transportation (WSDOT) set, adopted, and reported to FHWA statewide targets for the Highway System Performance, Freight, and Congestion Mitigation and Emissions performance measures. Washington State MPOs and WSDOT are working to improve the planning and programming process to more fully align funding decisions with performance targets.

In Washington State, many of the projects selected to address mobility are prioritized through the legislative process. For this reason, it is essential that WSDOT, MPOs, regional transportation planning organizations (RTPOs), and local agencies coordinate their transportation planning efforts to develop transportation priorities that contribute towards performance targets and can be shared with lawmakers.

One such way WSDOT and its partner MPOs and RTPOs are working to make performance-supporting projects and programs clear to the legislature is through the Plan Alignment Work Group. A major focus of the group is to increase the consistency between regional plans and WSDOT's statewide plans, which includes sharing and collaboratively perfecting the data and information necessary to identify a comprehensive list of financial forecasts, maintenance needs, and project priorities related to the state system within MPOs and RTPOs.

Another way WSDOT and its partners are assessing performance and target achievement is through the Regional Integrated Transportation Information System (RITIS) data tool. The state's financial participation makes this tool available for WSDOT and MPOs to use the system in evaluating regional targets and to assist in other decision-making processes.

To guide freight investments and improve freight system performance in Washington, WSDOT developed the 2017 Washington State Freight Investment Plan by engaging various freight partners and stakeholders, including MPOs and RTPOs. The Freight Investment Plan identified freight priority projects and described how those priorities would be invested and funded through FFY 2016–2020 National Highway Freight Program (NHFP) funds. Those NHFP investments would be incorporated into STIP and TIPs contributing to improving statewide freight performance on National Highway Freight Network.

Over the coming years WSDOT and its partners will further align planning and programming with performance. All are committed to developing practical approaches to work towards our regional and statewide performance targets.

In May 2018, WSDOT and the state MPO/RTPO's finalized their collaboration on the remaining target areas for review and concurrence by the planning organizations by November 1, 2018. YVCOG presented the WSDOT recommended targets of the remaining measures to its policy board over the summer of 2018. Except for YVCOG's Congestion Mitigation and Air Quality (CMAQ) targets, which are local targets, and based on a 2016 CMAQ call for projects and an annual award of funding between 2017 and 2020, all other performance measure targets are "statewide".

Washington State Planning Requirements

The Washington State Growth Management Act (GMA) sets forth the state requirements for a regional transportation plan (RTP). As noted above, many of the State of Washington regional transportation planning requirements overlap with the federal requirements.

Under RCW 47.80.030, the RTP is to be prepared in cooperation with WSDOT, ports, transit operators, and local governmental agencies in the region. The RTP is required to:

- Be based on least-cost planning methodology that provides the most cost-effective transportation facilities, services, and programs.
- Identify existing and planned transportation facilities and programs that should function as an integrated regional transportation system.
- Establish level of service standards for state highways of regional significance.
- Include a financial plan showing how the regional transportation plan can be implemented.
- Assess regional development patterns and define projects and programs to preserve the existing transportation system, improve the operation of the system, relieve vehicular congestion, and maximize the mobility of people and goods.
- Establish the regional approach to guide the development of an integrated, multimodal regional transportation system.
- Ensure that all transportation projects, programs, and transportation demand management measures in the region that have an impact on regional facilities or services are consistent with the RTP.
- Ensure that the regional Commute Trip Reduction (CTR) plan is consistent with and incorporated into the demand management elements of the RTP.

Additional administrative guidelines are provided by the state to assist the RTPOs in preparing the transportation plan. The guidelines provide minimum standards for the RTP. They cover identification and application of data, identification of projects, financial evaluations, and agency and public coordination activities,

Public Participation

The federal SAFETEA-LU and FAST Act legislation requires the development and implementation of a Public Participation Plan. The Public Participation Plan must be in place prior to MPO adoption of transportation plans addressing FAST Act provisions. FAST Act requires that the Public Participation Plan be developed in consultation with all interested parties. Furthermore, FAST Act requires that public information be made available in electronically accessible format and means, such as the internet. The Public Participation Plan for the 2020-2045 M/RTP update identifies outreach and involvement strategies, such as the project website, news releases, and schedule of public meetings and project meetings with the MPO/RTPO Technical Advisory Committee and Policy Board. The adopted Public Participation Plan and comments are included in Appendix B. As noted below, the Public Participation Plan and all public information notices and materials were posted on the YVCOG website during development of the M/RTP.

Public participation is a key element of the regional transportation planning process. YVCOG developed a Public Participation Plan to:

- Build agreement among stakeholders, interested parties, agencies that make up the YVCOG, and the public.
- Develop a Metropolitan Transportation Plan/Regional Transportation Plan that has the support of the community.
- Ensure the success of the transportation planning effort.

Public Participation Plan Goals

Federal regulations establish the following goals for the public involvement process:

- Maintain a proactive public involvement process.
- Support early and continuing involvement of the public in developing plans.
- Expand Limited English Proficiency (LEP) outreach efforts for non-English speaking populations in Yakima County.
- Provide complete information, timely public notice, and full public access to key decisions.
- Provide timely information about transportation issues and processes to citizens, affected public agencies, representatives of transportation agency employees, private providers of transportation, other interested parties and segments of the community affected by transportation plans, programs and projects.
- Provide reasonable public access to technical and policy information used in the development of plans and open public meetings where matters related to the federal-aid highway and transit programs are being considered.
- Provide adequate public notice of public involvement activities and time for public review and comment at key decision points.
- Consider and respond to public input received during the planning process.
- Seek out and consider the needs of those traditionally underserved by existing transportation systems, including but not limited to low-income and minority households.
- Provide all interested parties with reasonable opportunities to comment on the contents of the transportation plan

In addition, the YVCOG's public participation process for the Metropolitan and Regional Transportation Plan was also designed to:

- Inform the community about the update effort, including the purpose of the plan, and the reasons for the update.
- Obtain input from members of the community, both at key decision points and throughout the planning process.
- Encourage two-way communication between the YVCOG and the community.
- Meet FAST Act requirements for the use of visualization techniques in public participation efforts.
- Ensure that elected officials, staff, and consultants fully understand and consider the concerns of stakeholders, interested parties, and the community.
- Provide a decision-making framework for plan development.
- Build lasting agreements among the parties involved.
- Ensure a broad base of public support for the update.

Public Participation Plan Methods

FAST Act requires that, in carrying out the Public Participation Plan, the MPO shall, to the maximum extent practicable, hold any public meetings at convenient and accessible locations and times, employ visualization techniques to describe plans, and make public information available in electronically accessible format and means, such as the internet, as appropriate to afford reasonable opportunity for consideration of public information.

To meet the goals of the Public Participation Plan and federal requirements, and to ensure that the process is efficient and effective, the following broad strategies were employed:

- Provide multiple methods of public engagement including general dissemination of information through media, large informational meetings, meetings in eight different areas of the region, a project web page, and an on-line public comment system.
- Build on member agencies' existing outreach and communication processes.
- Establish and maintain consistent project messages throughout the planning and implementation processes.
- Emphasize visual communication techniques where appropriate, especially when working with the general public.
- Place a special emphasis on outreach to minorities and the rural population, including translation of project materials into
- Spanish and having Spanish speaking staff at meetings, as needed.

Identification of Stakeholders/Interested Parties

A stakeholder is an individual or group affected by a plan, program, or project, including those who may not be aware they are affected. Stakeholders include the general public; environmental, health, neighborhood, citizen, and civic organizations; traditionally underserved populations such as people with disabilities, low-income, and racial and ethnic minorities; and affected public agencies. FAST Act defines "Interested Parties" as:

- Citizens
- Affected public agencies
- Representatives of public transportation employees
- Freight shippers
- Private providers of transportation
- Representatives of users of public transportation
- Representatives of users of pedestrian walkways and bicycle transportation facilities
- Representatives of the disabled
- Providers of freight transportation services
- Other interested parties

Stakeholders and interested parties are identified based on input from YVCOG member jurisdictions and agencies, past planning processes, and local advocacy groups. In addition to the parties identified above, stakeholders may also include business owners, business groups, and property owners.

Outreach and Public Information

The key components of outreach are established agency public notification procedures, the media, the project website, and project fact sheets. Spanish translations of outreach materials and other information were available as requested.

Notification. All public meetings, key project decision points, and public review comment periods such as issuance of the Draft Metropolitan and Regional Transportation Plan (M/RTP) for comment are preceded by general public notification via newspaper, newsletters, press releases to local media, through member jurisdictions, and through the project website. Notification also is sent directly to identified stakeholders. Notification occurs at least ten days in advance of public meetings.

Media. When appropriate news releases are sent to media contacts to announce the startup of public involvement, key decision points in the planning process, and public review and comment periods such as issuance of the Draft M/RTP for comment. News releases identify sources of further information and opportunities for comment, including information on how to request materials in alternative languages or formats. YVCOG maintains a list of local media outlets including television, radio, and newspapers.

Website. The project website includes an overview of the project, project facts sheets, an online comment form, and notice of upcoming meetings. Materials from project meetings are posted on the website. The Draft and Final Public Participation Plan and the Draft M/RTP also are available on the project website. The project website identifies sources of further information and opportunities for comment, including information on how to request materials in alternative languages or formats.

Fact Sheets. Fact sheets covering key project information are published on the project website, distributed with YVCOG monthly newsletters, and at Yakima Valley MPO/RTPO Technical Advisory Committee and Policy Board meetings. Fact sheets are developed and distributed in association with key project information and decision points as appropriate. Fact sheets also identify sources of further information and opportunities for comment.

Meetings

Meetings of the following committees and the general public are key elements of the public participation process. All meetings are open to the public. In addition to formal meetings scheduled as part of the Plan update, YVCOG staff provides status reports on the update at other meetings and forums such as DRYVE, TRANS-Action, and Mobilizing Public Access to Countywide Transportation (MPACT), as appropriate.

Technical Advisory Committee. YVCOG has an established MPO/RTPO Technical Advisory Committee (TAC) to ensure coordination of the regional transportation planning process. The TAC makes recommendations to the MPO/RTPO Policy Board at key points during the planning process. The TAC has formal input on developing the M/RTP.

Policy Board. The Yakima Valley MPO/RTPO Policy Board is the formal decision-making body for matters relating to regional transportation planning. The Policy Board has the authority to adopt regional transportation plans. The Policy Board meets once per month. The Metropolitan and Regional Transportation Plan 2020-2045 will be presented and discussed at the March 17, 2020 Policy Board meeting. Members of the Policy Board currently include elected officials from member jurisdictions throughout Yakima County, a member at large, and representatives from the Washington State Department of Transportation (WSDOT), the Yakima County Development Association, and the non-profit organization People for People.

Public Input

Opportunities for public input occur throughout the planning process, including during plan development and during the Draft M/RTP comment period. Input received during plan development will be summarized in an appendix and included with the adoption and submittal of the Plan.

Public Input. Input from the public, stakeholders, and interested parties can be obtained via public workshops via an online comment form on the project website, via comment sheets that are available with the Draft Metropolitan and Regional Transportation Plan, and via email and letters addressed to YVCOG. Input in Spanish is accepted throughout the planning process.

Comment Period. Upon issuance of the Draft Metropolitan and Regional Transportation Plan, a comment period of at least 30 days is established prior to adoption of the M/RTP by the Yakima Valley MPO/RTPO Policy Board. If the final M/RTP differs significantly from the Draft M/RTP available for public comment and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts, an additional opportunity for public comment on the revised plan will be made available.

Organization of the Plan

The M/RTP is organized to assist member agencies, WSDOT, the public, and others with:

- Understanding how the M/RTP was developed.
- Defining the region's transportation priorities.
- Summarizing high priority transportation strategies and improvements for various parts of the region.
- Noting potential environmental issues of the projects.
- Identifying funding constraints and options.

The ten sections of the M/RTP address the following elements of the M/RTP:

1. **Executive Summary** – Provides a high-level summary of the development of the M/RTP and the region's high priority transportation strategies.
2. **Guiding the Development of the Regional Transportation Plan** – Summarizes the federal and state requirement for the M/RTP and the public participation process.
3. **Relationship to Other Plans** – Summarizes how the M/RTP builds from and supports other regional, state, and local planning efforts.
4. **Plan Priorities and Framework** – Documents the region's highest transportation priorities which guided the selection of improvement projects and programs.
5. **Transportation Plan Policies and Strategies** – Presents the regional policies which will be used in guiding the implementation of the M/RTP. This section also provides an overview of the types of improvement projects and programs that are the focus of the M/RTP.
6. **Transportation Subregion Improvements and Programs** – Summarizes state and local agency improvement projects included in the fiscally-constrained M/RTP. It also identifies the next highest priority projects, should additional funding be secured. State highway projects in the M/RTP are summarized first because they are the core of the region's transportation system. Regional

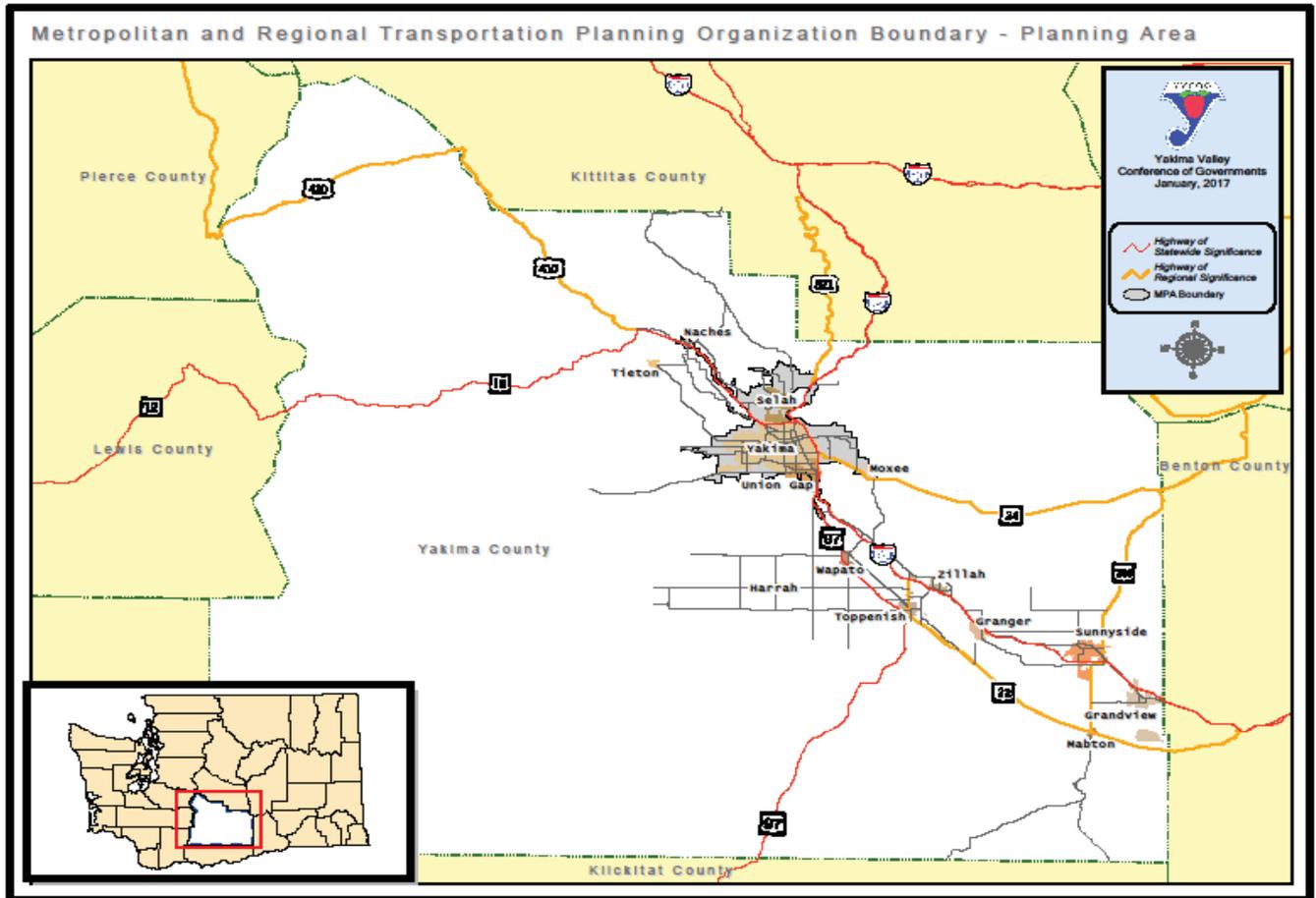
improvements to county and city arterials and collectors are then presented. These are summarized into seven subregions, as shown on the **Overall Plan Subregions** maps at the end of this section and also in Section 6.

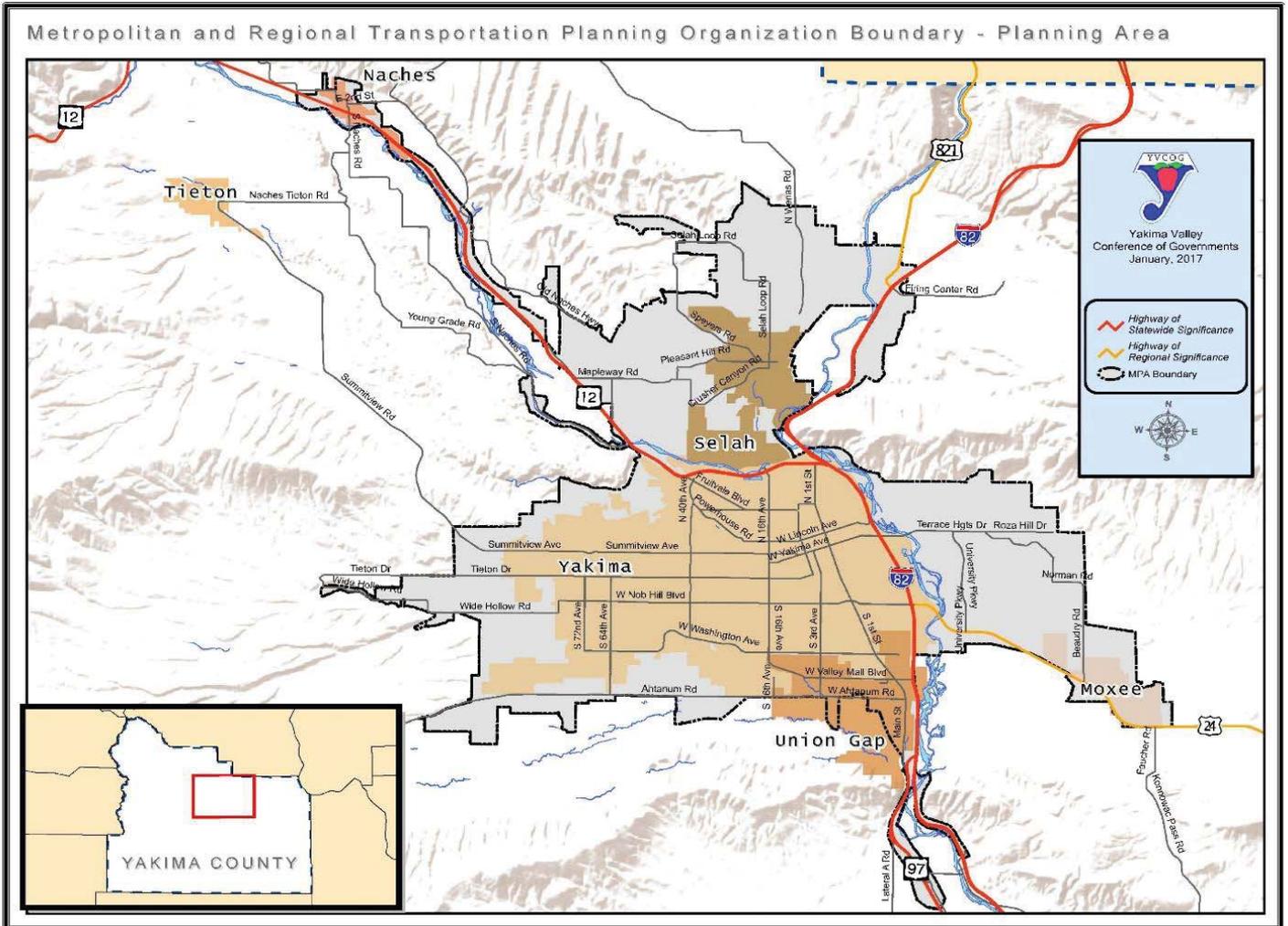
7. **Environmental Constraints Analysis** – Documents the range of potential environmental impacts that may need to be addressed with implementation of improvements identified in the M/RTP. This section also documents the required air quality analysis for the region.
8. **Financial Constraints** – Summarizes the analysis of 25-year revenue projections compared to project costs.
9. **Performance Measures** – Summarizes the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) outline system performance reports for the required Highway Safety/PM1, Bridge and Pavement Condition/PM2, and System Performance and Freight Movement, and Air Quality/PM3 targets.
10. **Air Quality Analysis/Conformity** – Summarizes the projected impacts on air quality derived from traffic impacts by increases to the region’s road network’s average daily traffic between 2020-2045.
11. **Appendices** – The appendices are included and provide background materials that supported development of the M/RTP. These include the Public Participation Plan, documentation of existing transportation conditions, the environmental checklist and constraints analyses, the air quality analysis, financial revenue analyses, and a list of regional transportation improvements and programs covered in the M/RTP.

Plan Updates

Under federal law, the MTP is required to be updated every four years. Therefore, the next scheduled M/RTP update will occur no later than March 2024. YVCOG can, however, amend the M/RTP as changes occur during that time period.

Under the Washington State GMA, the YVCOG is required to review the RTP at least every two years. This review process is intended to keep the M/RTP up-to-date with changes in regional conditions, needs, or funding.





Section 3

Relationship to Other Plans

The 2020-2045 M/RTP is an update to the major planning update effort undertaken to create the 2016-2040 M/RTP to address MAP-21 and FAST Act requirements. This plan builds from 1) local agency plans, 2) the Washington State Transportation Plan (2040 and Beyond), and 3) influences from emerging strategies and principles, such as greenhouse gas reduction, livability, and sustainability, all in a continually unstable funding environment. The M/RTP identifies significant transportation projects and programs based on regional priorities that are consistent with the Goals and Policies of The WTP 2040 and Beyond plan and others as discussed in this section.

The M/RTP builds from the region's history and prior investments in its transportation system. The 2020-2045 plan sets the stage for regional transportation investments that have recently been constructed, are currently under way, or are otherwise committed for the region.

Land use and transportation are synergistic. Thus, while history and current commitments provide the initial basis for the M/RTP, the plan must also consider the effects of future land uses and growth patterns on forecasted transportation performance measures.

Understanding the broad regional travel characteristics assists in developing the M/RTP. In 2003, Yakima County undertook a survey of travel characteristics of area residents. The survey provides insights on socioeconomic factors that affect travel in the region. A summary of findings related to trip rates, travel patterns, and use of alternative modes is summarized.

The Yakima County region has embraced working collaboratively and cooperatively to identify and address the highest priority regional transportation needs. This cooperation has led to the creation of two regional transportation planning coalitions: TRANS-Action in the metropolitan area and Driving Rural Yakima Valley's Economy (DRYVE) in the rural southern valley.

In addition, the M/RTP incorporates key strategies from the Coordinated Public Transit and Human Services Transportation Plan. This plan is a separate MAP-21/FAST Act requirement that focused on transportation issues for special needs populations.

Regional Land Use Growth

While the history of the region establishes the background for the M/RTP, forecast growth patterns will also affect priorities. The Yakima metropolitan area is forecasted to continue as the focal point for residential growth within Yakima County. Employment growth, while focused primarily in the metropolitan area, will affect transportation needs throughout the region, especially along freight routes and within the communities along I-82 and US 97 southeast of the metropolitan area.

Local population dynamics are influenced by an area's employment climate. Generally, population growth is based primarily on migration, driven by people in search of, or taking, new jobs in an area. In a large part, population growth depends on how favorable an area's employment opportunities are in relation to other areas. Stated simply, people follow jobs and in turn create demand for local goods and services, such as housing.

The labor force in an area can be viewed as an indicator of an area's economic vitality. Changes in the labor force provide insight into how an economy is performing and how it has performed over time. The civilian labor force (defined as all persons 16 years of age and older who are either employed or unemployed and actively seeking work) can be seen as a key economic indicator for a region. Fluctuations in labor force growth and decline are influenced by broad economic cycles and the composition of the local industry sectors. Between 2010 and 2018 Yakima County's total labor force grew by about 5.76 percent per year (122,140 to 129,176). The unemployment rate decreased from 9.7 to 6.3 percent during that-same time period.

Changes in the labor force illustrate how an economy is performing but does not highlight changes in the composition of the local industry sectors. Employment data illustrate industry level trends in an area. Between 2010 and 2018, nonagricultural employment in the Yakima County region increased by 0.25 percent per year. The strongest growth occurred in the service- providing sectors, which grew by approximately 4.16 percent per year. These sectors include wholesale and retail trade, professional services, health services, and governmental services. A continuing shift in the composition of the Yakima County Region's economy is further shown by a decrease of 2,000 goods-producing jobs from 2010-2018. The implication of this growth and shift towards the service sector has land use and transportation planning implications.

Typically, jobs in the service sector tend to be located in more urban and metropolitan areas. With more people employed in service-producing industries, the Yakima County Region's population is becoming more urban. This shift is seen in the historical population estimates. **In 2000, 58.1 percent of people lived in incorporated cities. By 2010, this increased to nearly 62.7 percent. The City of Yakima, the largest city in Yakima County, accounted for 32.3 percent of the county's population in 2000 and 35.6 percent by 2010.** Changes in the economic condition within the county over time have driven the locational decisions of people seeking and receiving work in the county.

The existing land use data were derived from the 2018 metropolitan area travel demand model maintained by YVCOG and has had a few updates from local jurisdictions to develop the new region-wide Travel Demand Model. An overview of the land use methodology is provided in Appendix D.

Forecast land uses for 2045 are based on county forecasts and local jurisdiction plans. The resulting household and employment forecasts, and their allocation to specific analysis zones, were further reviewed and refined with agency staff.

For air quality analyses, land use forecasts were also prepared for the year 2045. These forecasts were developed using land use data provided by local agency staff.

The following summarizes the general growth patterns for Yakima County as a whole. Additional discussion of residential and employment growth for seven subregions (see the ***Overall Plan Subregions*** map in Section 6) is presented in Section 6.

Regional Travel Patterns

In 2003, NuStats conducted a household travel survey for Yakima County (Yakima County Household Travel Survey, Draft Final Report, NuStats, June 2003). The survey covered households throughout the county, including the metropolitan area around Yakima, Selah, Union Gap, and Moxee; cities and towns outside of the metropolitan area; and unincorporated areas of Yakima County. The survey was conducted

to assist agencies with understanding the socioeconomic factors that affect travel, which in turn are applied in updating the regional travel demand forecasting model. The resulting survey data and model outputs provide a technical basis for defining transportation improvement needs and for conducting air quality analysis.

The results of the survey provide information on regional travel patterns, which affect the need for transportation improvements. YVCOG has included in their State Fiscal Year 2020 Unified Planning Work Program (SFY 2020 UPWP) an unfunded need for updating travel patterns for their region-wide travel demand model update and to inform our partners in the region about county-wide travel patterns for planning purposes.

Household Characteristics and Trip Rates

The number of people in a household affects the number and types of trips generated. A larger number of people in a household does not directly result in a larger number of trips generated per day. This is due to differences in income levels, the ages of household members, the number of vehicles, the number of licensed drivers, and other factors. Results from the 2003 survey.

- Households in the Yakima/Union Gap/Selah area averaged 2.68 people, while households in Grandview/Sunnyside averaged 3.06 people. The countywide average was 2.87 people per household.
- Households in the Yakima/Union Gap/Selah and Grandview/Sunnyside areas averaged 1.43 workers; the rest of the county averaged 1.68 workers per household.
- The survey results indicate that households in the Yakima/Union Gap/Selah area generates an average of 7.19 trips per day, while households in the Grandview/Sunnyside area generates only 5.78 trips per day on average. The countywide average is 6.96 trips per household.
- Overall, trips between home-to-work (or work-to-home) account for 28 percent of the total trip-making on an average day. Within the Grandview/Sunnyside area, work/home trips account for 34 percent of the total trips. Within the Yakima/Union Gap/Selah area, approximately 25 percent of the daily trips are work/home related.
- Trips between home and shopping or other non-work activities account for 45 percent of the total travel.
- Trips that do not connect to/from a residential home (work to shopping, as an example) comprise the remaining 27 percent.

Travel Patterns

2020 - 2045

In defining regional transportation priorities, it is important to understand the origins and destinations of travel. If most trips stay within their community, then the focus may be on improving local arterials to serve travel needs. If the trips are between communities, access to and from the state highway system and major regional arterials will likely be a higher priority. The 2003 NuStats survey provided the following data on total daily trips that helps guide the M/RTP.

- 84 percent of the trips with a Yakima origin stay within Yakima; another eight percent drive to destinations in Selah, Union Gap, or Moxee.

- 64 percent of the trips originating in Union Gap have destinations in Yakima, with 18 percent connecting to destinations in Union Gap and six percent connecting to Moxee or Selah.
- More than 60 percent of the trips generated in Moxee connect to destinations in Yakima, with 14 percent staying in Moxee and 11 to 12 percent connecting to Selah or Union Gap.
- Only 43 percent of Selah's trips connect to Yakima, while 44 percent stay within Selah. Approximately five percent of the trips originating in Selah connect with Union Gap or Moxee.
- 55 to 70 percent of the trips generated within communities southeast of the Yakima metropolitan area stay within the community.
- Two to six percent of the daily travel generated within Sunnyside, Grandview, Granger, and Mabton have destinations within the four primary cities in the Yakima metropolitan area; however, 10 to 20 percent of the trips from Grandview, Granger, and Mabton connect with Sunnyside.
- Wapato, Zillah, and Toppenish are closer to Yakima; this results in 15 to 30 percent of their trips connecting to the metropolitan area cities. Another 30 to 60 percent of their trips stay within their local communities.
- Naches has relatively limited local services, which results in only eight percent of these trips staying within the community. More than 80 percent of the trips originating in Naches connect with the metropolitan area cities. This reflects the City's direct connection via US 12.
- For Tieton, 20 percent of the trips generally stay within the community, with nearly 45 percent connecting to Yakima and surrounding cities.

These results show the importance of regional accessibility to the Yakima metropolitan area for jobs, services, and other daily travel needs. They also indicate the need for local arterial and highway improvements within the metropolitan area and connecting to communities outside of the metropolitan area.

As noted in the land use forecasts, the Yakima metropolitan area will be the primary growth area for both residents and employment over the next 25 years. The increases in employment in communities outside of the metropolitan area will also attract more trips to those communities, which will likely require transportation improvements.

Travel Modes

Based on the NuStats survey, 94 percent of the trips made by Yakima County households are by automobile. Of these, 81 percent are drivers and 13 percent are auto passengers. Walk trips comprise four percent of the trips and transit and other modes (such as bike) account for two percent of the trips. As discussed later, fixed route transit service was only available in Yakima in 2003, limiting its effectiveness in meeting regional travel demands.

Plans are under way to incorporate freight and transit as new modes into a single countywide travel demand model. The model set is expected to be completed in 2021 in time for the incorporation of Performance Measures into local, state, and federal Plans.

Other Transportation Planning Efforts

The M/RTP builds from and supports the WTP, local agency transportation plans, and the TRANS-Action and DRYVE prioritization efforts. It also builds on and supports the Coordinated Public Transit and Human Services Transportation Plan (HSTP) for the region. The following summarizes how the M/RTP relates to these plans and implementation programs.

Washington Transportation Plan

The Washington State Transportation Commission's Plan (2040 and Beyond) provides the umbrella for all metropolitan and regional transportation plans. The WTP's vision statement is:

“Washington’s transportation system connects people and communities - fostering commerce and economic opportunity for all, operating seamlessly across boundaries, and providing travel options to achieve an environmentally and financially sustainable system.”

As presented in Section 4, the regional priorities set by the Yakima Valley M/RTP align with these state guidelines. The M/RTP priorities focus on preservation, safety, economic vitality, mobility, environment and health, and stewardship. The process for establishing regional priorities and identifying improvement projects within the fiscally constrained M/RTP support and are consistent with these WTP objectives.

Washington State Department of Transportation Strategic Plan

YVCOG support efforts to modernize the transportation industries business model. These efforts aim to bring more inclusivity, best practices, and innovation into how local and state transportation organizations work together. WSDOT's Strategic Plan provides the vision, mission and values that guide the work of the agency. The important work of the agency is focused in three key areas - Inclusion, Practical Solutions and Workforce Development.

Inclusion

Through Inclusion, WSDOT is strengthening our commitment to diversity and engagement in all WSDOT business processes, functions and services to ensure every voice is heard. This goal has both an internal and an external focus to assure that we have an inclusive and diverse workforce while at the same time, meeting our Disadvantaged Business Enterprise goals and creating opportunities for underrepresented populations to do business with us.

Practical Solutions

Practical Solutions prioritizes innovative, timely and cost-effective decisions, with our partners, to operate, maintain, plan and build our multimodal transportation system. It places emphasis on managing assets to appropriate condition and service levels, integrating transportation modes to complement each other. Practical Solutions is about making agency investment and operating decisions based on balancing

transportation, community, economic and land use needs within legal and budgetary constraints. To that end, WSDOT is engaging with partners to plan, operate and deliver complementary system investments.

Workforce Development

WSDOT wants to be an employer of choice and is creating a modern work environment. We're proactively working to find the best possible talent for the agency, while taking steps to retain our quality workforce. As part of our Workforce Development goal, we listen and act on employee feedback and we provide training and other opportunities for development. At the same time, we evaluate systems to achieve and maintain competitive compensation.

Local Agency Transportation Plans

As required by the Growth Management Act (GMA), Yakima County and its cities have prepared and regularly update their comprehensive plans. The comprehensive plans include transportation elements. The transportation elements set the communities' priorities and improvement strategies to address existing and future transportation needs. These plans primarily focus on arterials and collectors within the agency's jurisdiction; however, needs in designated urban growth areas (UGA) and connecting routes in other jurisdictions are also described in some of the plans.

The local transportation elements were reviewed to identify possible improvements and programs for the M/RTP. The M/RTP process combined projects from WSDOT and local jurisdictions into strategies to define the recommended framework for the regional plan (see Section 4) based on the region's priorities and policies. The Cities and County complete their most recent comprehensive plan updates in 2017. The MPO/RTPO Board reviewed the transportation elements within each jurisdiction comprehensive plans for consistency with the regional plans in 2017. Each transportation element was certified by the Board.

The M/RTP project list incorporates all regionally significant local agency projects for reference. The M/RTP must provide a financial analysis demonstrating how the improvements and programs can be implemented; therefore, only the highest priority projects, based on the region's criteria, are included in the fiscally-constrained project list presented in the body of the M/RTP. The M/RTP also identifies projects that are a secondary priority for the regional transportation system, should additional funding become available or changes in regional needs occur prior to the next plan update.

The M/RTP also is consistent with local land use plans and forecasts from the comprehensive plans. This process provides consistency between the local land use plans and the regional transportation system needs. Development of the M/RTP included a review of agency comprehensive plan goals and policies. The objective was to ensure that the M/RTP goals and priorities were in alignment with local plans and policies. The analysis confirmed that local agency goals are consistent with and support the M/RTP goals.

TRANS-Action and DRYVE

TRANS-Action and DRYVE (Driving Rural Yakima Valley's Economy) are coalitions of business leaders, elected officials, agency staff, and community leaders. The purpose of these two groups is very similar. Their goals are to encourage the economic vitality of the region by defining, promoting, and obtaining

funding for key transportation improvements. By working together, they are able to look beyond jurisdictional boundaries to support the regional needs. These objectives are consistent with the WTP, HSTP, M/RTP, and local comprehensive plans. TRANS-Action was established in 2002 and primarily focuses on needs in the metropolitan area. Based on the success of the TRANS-Action process, DRYVE was formed in 2006 to focus on rural needs in the mid to Lower Valley.

Both groups, 501[c]4 non-profit organizations, have identified a range of transportation improvement projects and strategies. Many of these projects are consistent with local agency or state plans. Other projects are newer ideas aimed at economic growth, freight traffic, and regional connectivity. Each of the TRANS-Action and DRYVE projects was evaluated based on the regional priorities and available funding. While not all of TRANS-Action and DRYVE projects are incorporated into the fiscally-constrained M/RTP, they are included in the regional project list (**Appendix F**). This allows the regional leaders to re-evaluate the project priorities and funding programs as part of future plan updates and Transportation Improvement Programs. Local agencies may opt to proceed with some of these projects outside of the regional planning and funding process to meet local or emerging needs that go beyond the regional priority process. YVCOG and member agencies will work together to track the status of the projects and consistency with the M/RTP.

Washington State Department of Transportation (WSDOT) Modal Plans

ACTIVE TRANSPORTATION PLAN

Using an active means of travel such as walking, biking or skateboarding to get from one place to another. Almost everyone uses active transportation at some point in a trip, whether walking to a school or transit bus stop, bicycling to work or boarding to or from home for social or recreational activities. The WSDOT Active Transportation Plan is a way to shape recommendations for policy decisions, investments, and improvements. The plan will consider where the state is now, where our pedestrian and bicycle facilities should go, and how to get there in the coming years. Scheduled for completion in 2020, the Active Transportation Plan coordinates with local and region plans.

HIGHWAY SYSTEM PLAN

The Washington State Highway System Plan (HSP) is the state highway component of the [Washington Transportation Plan \(WTP\)](#). The WTP is the state's overall transportation plan that includes facilities the state owns and those in which the state has an interest, and outlines the policies adopted by the Washington State Transportation Commission. The HSP serves as the basis for the six-year highway program and the two-year biennial budget request to the State Legislature. WSDOT is dedicated to delivering an HSP that implements the Legislature's goals. This is accomplished through the coordination and integration of specific components from many statewide modal and program plans. WSDOT aims first to maintain, preserve, and improve the operating efficiency of the existing highway system before adding to the system.

STATE PUBLIC TRANSPORTATION PLAN

WSDOT produces the [Washington State Public Transportation Plan](#) as a 20-year blueprint to influence decisions and, ultimately, improve transportation performance. People throughout the state rely upon transit, carpools, vanpools, telework, walking and other options to make transportation choices that enable

families, communities, the economy and their environment to thrive. This page provides further information about the plan and the actions partner organizations are taking to achieve the goals and vision.

STATE HUMAN SERVICES TRANSPORTATION PLAN

Along with partners across the state, WSDOT developed the Washington Statewide Human Services Transportation Plan to coordinate the transportation needs and interests of all Washington residents. Created with the help of 14 Regional Transportation Planning Organizations in our state in 2013, the plan serves a number of purposes:

- Identifies service gaps and challenges.
- Compiles and consolidates best practices from around the state and beyond.
- Recommends strategies to improve access to transportation throughout the state.
- Focuses on delivering transportation services to people with special needs; and to those who are unable to transport themselves due to physical or mental limitations, income or age

Coordinated Public Transit and Human Services Transportation Plan (HSTP) / Mobilizing Public Access to Countywide Transportation (MPACT)

FAST-ACT and MAP-21 also requires communities to prepare a coordinated public transit and human services transportation plan to be eligible for certain Federal Transit Administration funding programs. The purpose of this requirement is to improve transportation services for people with special needs. In the Yakima Valley region, People for People led the development of the coordinated public transit and human services transportation plan until 2016. In 2016 the special needs coalition was transformed into Mobilizing Public Access to Countywide Transportation (MPACT) in the form of a formal advisory committee to the YVCOG Transportation Policy Board

The 2018 HSTP was developed based on extensive input from stakeholders and special needs population groups throughout the Yakima County region. The coordinated public transit and human services transportation plan 2018 identifies four primary services needs for the region: ***[SEE 2018 YVCOG's HSTP Document page 52-53]***

- Preserve and expand transportation services for individuals with disabilities, older adults, youth, veterans, and individuals with low-incomes.
- Promote safe and accessible transportation services for individuals with special needs by educating and advocating for special needs transportation.
- Coordinate transportation and human services for increased efficiencies and utilization of resources
- Promote multi-modal transportation alternatives for special needs populations and the general public

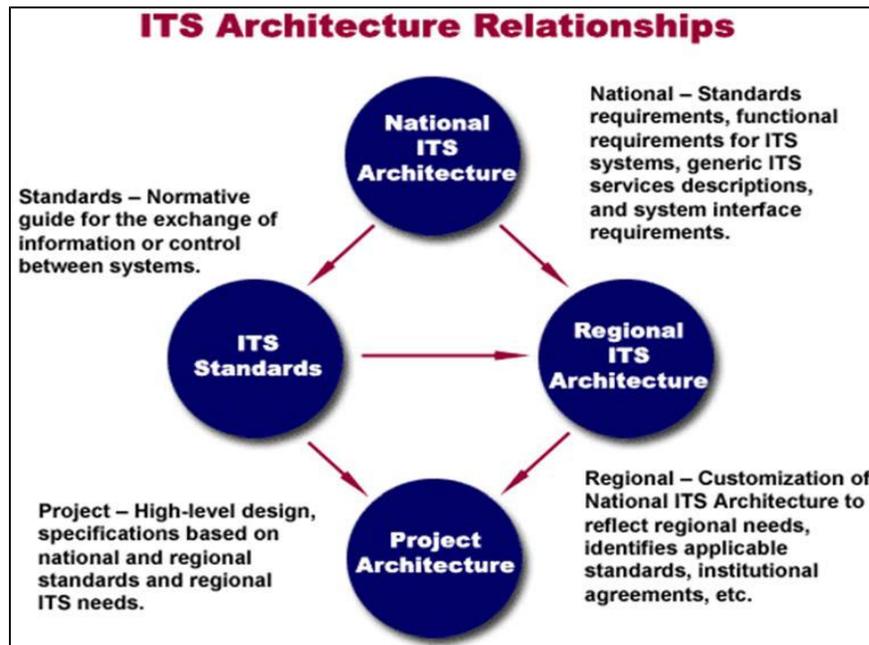
The plan supports preservation and expansion of the existing Community Connector, Pahto Public Passage, dial-a-ride service and transportation to employment for needy families. The plan includes the following measurement rankings which are used to address the needs of the special needs population:

- Preservation – Ensure that current transportation resources remain in place.
- Unmet/Greatest Need – Meets the identified needs of the population.
- Coordination – Assure non-duplication and coordination of resources.
- Effectiveness/Cost Efficient – Transportation resources are available, accessible and adaptable to meet the needs. Transportation resources provide community savings.

The M/RTP identifies how these services and programs fit within the overall transportation system for the Yakima County region.

Yakima Valley Regional ITS Architecture

In 2014, the MPO/RTPO Policy Board adopted the Yakima Valley Regional ITS Architecture. The architecture is a document that describes the Intelligent Transportation Systems (ITS) in the Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO) regions of Yakima County, Washington are currently deployed or are being planned for the near future. By showing what advanced technology systems are in place, this plan can illustrate opportunities for sharing resources and improve overall system functionality.



This regional architecture is built on the U.S. National Architecture version 7.0 and was developed on guidelines suggested by the National ITS Architecture team.

Within Yakima Valley’s MPO boundaries, several key stakeholders have ITS systems. The municipalities of Yakima, Selah, and unincorporated areas of Yakima County all have signalized intersections. Yakima maintains its own signalized intersections and all others are maintained by the Washington State Department of Transportation (WSDOT).

WSDOT owns and maintains the majority of ITS components in the region, including several ITS system elements (fiber, variable message signs, data stations, etc.). WSDOT also collects some remote weather information, which is sent, along with transportation data, to be coordinated out of the WSDOT Traffic Management Center in Yakima. In addition, WSDOT works with the Washington State Patrol (WSP) to share real-time information.

Yakima Transit has ITS components in place and plans to expand systems to provide more dynamic services and improved security to their customers.

Stakeholders within the Yakima Valley's RTPO boundaries maintain a variety of ITS systems, as well. **The cities of Grandview, Sunnyside, Toppenish, Wapato, and Zillah have signalized intersections.**

In the U.S. National ITS Architecture, types of ITS equipment or projects are grouped into "service packages," which can be used to tie one region's architecture to the state or to specific project architectures. Several service packages have been selected to describe the kind of services stakeholders have installed, or plan to install.

Another key purpose of the architecture is to define what standards are used in ITS equipment to make it easier for one system to interact with another. The architecture defines what standards are currently being used and suggests relevant national standards, which may be chosen to help make future projects more accessible to a wider range of stakeholders.

The architecture includes a list of data-sharing agreements within the region, showing how agencies work together to operate and maintain the various ITS systems.

The architecture, along with the broader Turbo database, fulfills the requirements set forth by the U.S. Federal Highway Administration Rule requiring regions with existing ITS applications to have a regional ITS architecture. It will be incorporated into the regional transportation plan update cycle, with any necessary amendments made as needed.

Section 4

Plan Priorities and Framework

A wide range of transportation improvements and strategies have been identified by WSDOT, local agencies, Yakama Nation, Yakima Transit, People for People, and others in the region. As noted previously, TRANS-Action and DRYVE have assembled lists of regional transportation improvements for the upper and lower valleys. When taken together with WSDOT plans and projects, these programs and improvements create a comprehensive, multimodal transportation system to serve the region for 20 or more years.

However, as discussed in Section 8, the total costs of these improvements and programs far outstrip the likely available future funding. Because not all projects and programs can be funded over the next 25 years, the region established priorities for its transportation improvements. The priorities were used in the technical evaluation to establish a framework for the M/RTP. The framework essentially identifies the core transportation needs which other regional improvements will tie into. The framework was defined to help guide the development of a financially-constrained M/RTP; however, the framework for the M/RTP was not constrained by available funding.

Regional Priorities

The M/RTP established five broad priorities for guiding the development of the Yakima Valley regional transportation system. The M/RTP priorities are based on input from DRYVE, TRANS-Action, MPACT Advisory Committee, WSDOT, local agencies, and existing plans. The region's priorities then blend into the priorities of the Washington Transportation Plan (2040 and Beyond), the emerging principles of livability and sustainability, and the Transportation Elements of local agency comprehensive plans. The priorities will be used to help direct available funding, including grant monies, toward specific projects and programs. The regional priorities are generally consistent with the six transportation policy goals of the (2040 and Beyond) document.

The five highest priorities for the Yakima Valley M/RTP are:

Maintenance / Preservation / State of Good Repair

Maintenance and preservation of the existing transportation system and services will extend the life and utility of prior investments. "State of Good Repair" (SOGR) is a federally-originated initiative to maintain our transportation resources (transportation networks, equipment, assets, etc.) to their most operational and cost effective capabilities.

Safety

Improving the safety and security of the regional transportation system.

Economic Vitality

Optimizing mobility of people and goods on the transportation system supports economic development by reducing delays, improving operations, opening access to new areas of development, and addressing safety issues.

Freight Mobility

Enhancing freight distribution by truck, rail, and air is a priority for economic recovery and growth.

Transit Enhancement and Transportation Demand Management

Expanding the availability and types of transportation choices in and between communities throughout the Yakima Valley is a priority for the region to meet the travel demands and provide access to basic services.

While these are the top five goals, the M/RTP also considers a range of other factors in the selection of transportation improvement projects and programs. These factors, some closely aligned with FHWA's livability and sustainability principles, include:

- Regional connectivity
- Costs
- Funding availability
- Non-motorized transportation
- Environmental impacts and mitigation
- Land use plans
- Security and emergency response needs

These factors can influence the measure of benefits of a project or program to the region. The region will strive to ensure that transportation projects and programs enhance communities while maintaining consistency with least-cost planning practices.

The M/RTP will identify federal, state, and regional performance measures and targets against which regional leaders will evaluate the federal, state, and local investments made in the Valley. Some performance measures have already been used in previous YVCOG M/RTPs and remain in place to align the transportation strategies to the region's priorities. The setting of targets was mandated in MAP-21 and is being continued in FAST Act.

In accordance with the federal MAP-21 and FAST-Act transportation bills, WSDOT and state MPO's are required to track safety performance goals as coordination with WSDOT's "Target Zero" Campaign to reduce to "0" fatal and injury accidents by 2030. WSDOT will annually track accident data and share with the MPOs to use in their transportation planning activities to address safety improvements within the YVCOG MPO Boundary. YVCOG may annually concur with state-developed projections as their goals. YVCOG began annual safety performance measure tracking in February 2018.

In accordance with federal MAP-21 & FAST-Act transportation bills; WSDOT and State MPO/RTPOs, coordinated for the development of state (and/or) local performance targets in areas of:

- Bridge State of Good/Poor Repair
- Pavement State of Good/Poor Repair
- CMAQ Air Quality Particulate Reduction Benefits
- Highway System Performance
- Freight Movement

Target reporting windows of 1, 2, or 4 years are dependent on federal requirements. WSDOT will track data and share with MPO/RTPOs. YVCOG began annual Bridge/Pavement/Air Quality/Highway System Performance/Freight Movement performance measure tracking in July and August 2018.

Framework for the Metropolitan/Regional Transportation Plan

A framework for the M/RTP was prepared based on the regional goals. The framework establishes the key improvement projects and programs for the region. Other regional projects and programs were then added to the framework to complete the financially- constrained M/RTP.

The framework for the M/RTP was prepared through evaluation of alternative strategies, which are described below. An evaluation of the alternative strategies was used to identify the most cost-effective improvements to address existing and future transportation demands and deficiencies for the region. The major improvements and programs from each strategy that best achieved the priorities were combined into a recommended regional strategy. Based on review and input from the YVCOG member agencies, the framework for the M/RTP was established. The framework was then used as the basis for identifying other high priority transportation strategies for the region and subareas for the next 25 years. The other projects build on and complement the overall framework for the M/RTP.

Overview of Alternatives Evaluation

Regional priorities are classified into two different types of projects: fiscally constrained and other planned high priorities. Of the two types, only those projects with committed funding are focused on for modelling for the forecast year of 2045. Each jurisdiction was asked to provide their expected local improvements to be included in the 2020 and 2045 base models. Then the identified priority projects with committed funding were added to create the 2045 build scenario. The overall mileage of the highway and arterial system is projected to increase by approximately less than six percent during the next 25 years region-wide.

The vehicle miles of travel within the metropolitan planning area is forecast to grow at a faster rate than the growth in households or employment. This results from more people and cars per household, which in turn results in more trips within the area. The Yakima metropolitan area also is continuing to serve many of the regional needs for residents outside of the metropolitan area. This results in more travel between the metropolitan area and the smaller outlying communities within Yakima County or adjacent counties. The increases in through traffic on I-82 also results in the vehicle miles travel increasing at a faster rate than households and jobs in the MPO planning area.

The total vehicle miles traveled in the metropolitan area do not change significantly with the addition of the widening and new corridor improvements. This means that the widening projects and new corridors serve the desired travel patterns, instead of having traffic divert to avoid congestion in other corridors. Therefore, constructing some of these projects will provide efficient solutions to regional travel needs.

The biggest differences are found in the overall level of congestion in the system. Between 2015 and 2045, the overall level of delays due to congestion is projected to quadruple by 2045. This is a direct result of the 38-42 percent increase in vehicle miles traveled and only a one to two percent increase in the highway and arterial system lane miles in the metropolitan area.

Outside of the metropolitan area, significant regional projects were modelled based on the secured priorities to establish the M/RTP framework. These include improvements that address preservation, safety, and economic growth. Projects that improved access to the regional state highway system or improved flow of freight traffic in communities were identified as part of the framework for the plan.

Plan Framework

Baseline Improvements

Already funded or partially funded significant regional improvement projects and programs that can reasonably expect to receive full funding form the baseline for the M/RTP.

Key Corridor

In addition to the Baseline improvements and Efficiency strategies, the M/RTP framework identifies the need for the creation of several new key corridors or widening of existing corridors to address future transportation demands of the region. These include:

- Development of the new east-west arterial connecting Terrace Heights to developing land just west of I-82 in the City of Yakima. This improvement is taking shape as partners from WSDOT, Yakima County and City of Yakima, with construction phases on connecting segments of the corridor beginning construction in 2019.
- Development of a new “East Selah Road” bridge/river crossing connecting Interstate 82 to the eastern Selah City Limits at the I-82/East Selah Road Interchange
- Upgrades to a proposed freight corridor that connects I-82 with US 97 south of and outside of the metropolitan area.

Transit Enhancement and Transportation Demand Management

The M/RTP framework includes strategies for expanding transit to meet the future travel demands throughout the Yakima Valley region. Strategies to reduce peak period travel demands also are included. The transit and transportation demand management (TDM) strategies include:

- Improving transportation services for people with special needs.
- Expanding fixed-route service coverage in the metropolitan area.
- Extending service hours to address nighttime and weekend needs.
- Targeting service to larger employers or groups of employers.
- Enhancing service to regional destinations such as colleges, medical facilities, and regional commercial areas

Non-motorized Transportation

Many of the improvements in the Baseline scenario will also include enhancements for pedestrians and bicyclists. The framework for the M/RTP supports the completion of high-priority missing links to the non-motorized system, where roadway or other improvements are not identified as high priorities for the region. This will support growth in non-motorized travel options, will improve safety, and will enhance access to transit. YVCOG is involved and continuing to support local and regional programs and projects in the categories of Complete Streets and Safe Routes to Schools.

Other Projects

The M/RTP acknowledges that there are a range of needed improvements (both regional and local) that are desirable to meet the overall, transportation needs of the region. These projects are referenced in the M/RTP to help ensure that the total system needs are acknowledged and to support increases in future funding to help implement these projects.

Section 5

Transportation Plan Policies and Strategies

The overall goal of the M/RTP is:

“To develop and preserve a regional multimodal transportation system that:

- *Provides for the safe and efficient movement of people and goods*
- *Supports the economic growth of the region; and*
- *Is compatible with land use plans and the environment.”*

The priorities and framework for the M/RTP discussed in Section 4 provide the general guidance to help direct available funding for regional transportation improvements. Policies were defined to help guide the region in implementing the plan. The policies focus on the five regional priorities, as well as coordination and implementation of projects and programs. The policies are presented below. The priorities and policies lead to overall improvement strategies, which are summarized in this section.

Policies

YVCOG and its members will apply a range of policies in making decisions related to planning, funding, constructing, and operating the regional transportation system to meet the overall goal. These policies build off of the regional priorities discussed above. They also provide the regional interface between the transportation elements of local agency comprehensive plans and the Washington State Transportation Plan.

The policies cover the five priorities and other major elements of implementing the M/RTP. The policies are organized as follows:

- Agency Coordination and Public Involvement
- Preservation
- Safety
- Economic Development and Freight Mobility
- Congestion Relief
- Alternative Transportation Modes
- Environmental Quality
- Finance and Implementation

1. Agency Coordination and Public Involvement

YVCOG and its members are committed to working together and with affected stakeholders and the general public to successfully implement the M/RTP. This will occur as local, regional, and state transportation plans and improvement programs are updated and implemented. The following policies will be used to assure agency coordination and public involvement:

- 1.1 – Provide for proactive public and stakeholder participation processes during the planning, design, and implementation of transportation projects and programs.
- 1.2 – Promote understanding of how the regional transportation system is constructed and operated by a range of agencies.
- 1.3 - Continue to coordinate planning, design, funding, and implementation of regional transportation projects and programs, based on the M/RTP priorities and policies.
- 1.4 – Develop and share land use and transportation data and resources to maintain a database to support regional transportation decisions.
- 1.5 – Coordinate with WSDOT to ensure consistency and compatibility of local and regional transportation plans with the Washington State Transportation Plan.
- 1.6 – Expand access and outreach to Limited English Proficiency (LEP) populations for broadening public input opportunities.

2. Preservation

Preservation of the region’s existing transportation infrastructure and services is the highest priority of the M/RTP. The following policies are used to guide member agencies in achieving this element of the plan:

- 2.1 – Seek to ensure adequate funding to maintain and upgrade the existing transportation system to minimize life-cycle costs.
- 2.2 – Enhance transportation operations programs to assure the safe and efficient use of the transportation system.
- 2.3 – Seek opportunities to coordinate maintenance and operations programs between agencies to reduce total costs and to improve the system for users.
- 2.4 – Explore alternative processes for maintaining, operating, and upgrading the regional transportation system that can reduce costs or increase benefits.

3. Safety

Improving safety is a critical factor in the success of the regional transportation system. To meet this priority, Yakima Valley MPO/RTPO will apply the following policies:

- 3.1 – Promote education and enforcement of transportation rules and regulations.
- 3.2 – Support improvement projects and programs that resolve existing safety deficiencies, including area of congestion.
- 3.3 – Develop plans and transportation improvement projects that help minimize conflicts between travel modes.
- 3.4 – Promote interaction between emergency response providers and transportation agencies to assist incident management, evacuation, or other emergency programs.

- 3.5 – Complete missing segments of the transportation system to provide alternative routes for all areas of the region.
- 3.6 – Implement improvements to ensure that bridges and other key transportation facilities will better withstand natural disasters.
- 3.7 – Maintain and expand traveler information systems.
- 3.8 – Support the collection and analysis of weather data for addressing snow and ice removal.

4. Economic Development and Freight Movement

The regional transportation system is used by all sectors of the MPO/RTPO economy. Planning, design, and implementation of transportation projects and programs will be guided by the following:

- 4.1 – Support improvements to the regional transportation system that serve movement of freight.
- 4.2 – Work to implement improvements to regional arterials and collector roadways that serve high volumes of freight, provide access to employment centers or serve regional commercial areas.
- 4.3 – Upgrade bridges to eliminate weight restrictions on significant freight routes.
- 4.4 – Implement transportation system improvements that increase the efficiency and opportunities for rail transportation serving the Yakima Valley region.
- 4.5 – Promote projects that reduce delays and improve safety at rail crossings.
- 4.6 – Explore the possible development of intermodal terminals to improve the efficiency of freight movement in the region.
- 4.7 – Implement transportation system improvements that provide regional accessibility to McAllister Field and its surrounding employment centers and other airports in the region.
- 4.8 – Improve transportation facilities that serve tourist destinations.

5. Congestion Relief

Congestion results in delays and added costs in the movement of people and goods. Resolving congestion problems can also resolve some types of safety problems. The following policies will guide the region in evaluating congestion relief in prioritizing transportation improvements:

- 5.1 – Define and implement improvements to provide level of service D or better, when feasible and cost effective.
- 5.2 – Construct intersection and interchange improvements to add capacity, reduce delays, and improve traffic operations.
- 5.3 – Preserve the capacity and throughput of regionally significant highways, arterials, and major collectors by managing and limiting direct access to these facilities.
- 5.4 – Enhance the operations and throughput of regional transportation corridors through application of intelligent transportation systems (ITS) technologies.

- 5.5 – Expand capacity of existing highways and arterials which serve high volumes of traffic and connect with other regional transportation facilities.
- 5.6 – Ensure that improvements that add capacity to the transportation system support alternative transportation modes.
- 5.7 – Work to complete missing links of the regional transportation system.
- 5.8 – Plan for, define, and preserve the right-of-way for future arterials.

6. Alternative Transportation Modes

The regional transportation system is comprised of several modes, including cars, trucks, transit, bicyclists, and pedestrians. In order to provide a multimodal transportation system, the M/RTP establishes the following policies:

- 6.1 – Encourage alternatives to driving alone such as transit, carpools, vanpools, walking, and bicycling.
- 6.2 – Support transportation investments that serve a range of travel modes.
- 6.3 – Expand fixed-route transit service within the Yakima metropolitan area and greater Yakima Valley region.
- 6.4 – Work to increase the frequency and hours of operation of transit services in the region.
- 6.5 – Expand demand-response transit services to developing areas outside of the metropolitan area.
- 6.6 – Improve transit services to educational and medical facilities.
- 6.7 – Support expansion of paratransit services for special needs populations.
- 6.8 – Monitor and expand on Commute Trip Reduction (CTR) programs for affected employers and voluntary worksites.
- 6.9 – Improve systems for pedestrian and bicycle travel as part of capital roadway projects and maintenance programs.
- 6.10 – Complete key links of the regional bicycle system, sidewalks, pathways, or trails.
- 6.11 – Ensure transportation facilities and services comply with the Americans with Disabilities Act (ADA).
- 6.12 – Support restoration of passenger rail service throughout Central Washington

7. Environmental Quality

The transportation system can have positive and negative impacts on the environment. The M/RTP supports enhancing the region's environment.

- 7.1 – Consider potential environmental impacts in the development of transportation projects to minimize possible adverse impacts in a cost-effective manner.

- 7.2 – Promote use of alternative travel modes and transportation demand strategies to reduce the need for widening or constructing new roadways.
- 7.3 – Support land use patterns that reduce travel demands for single-occupant vehicles.
- 7.4 – Pave gravel roads to reduce particulate matter air quality impacts.
- 7.5 – Continue to monitor and implement air quality conformance measures.
- 7.6 – Ensure that transportation projects and programs do not disproportionately impact minority and/or low-income populations.
- 7.7 – Assure that federal and state environmental laws and processes are followed.

8. Finance and Implementation

The M/RTP will only be successful if its projects and programs are funded and implemented. The following policies will guide these decisions.

- 8.1 – Apply the M/RTP priorities as the basis for funding transportation system projects and programs.
- 8.2 – Promote transportation projects and programs that balance costs with benefits.
- 8.3 – Ensure that transportation systems operations, maintenance, and administrative programs are cost effective.
- 8.4 – Support state legislative funding for key transportation system improvements serving the Yakima Valley region.
- 8.5 – Cooperatively work to fund regional transportation improvements.
- 8.6 – Build upon prior investments to improve the transportation system.
- 8.7 – Jointly seek state and federal grants for the highest priority transportation system improvements.
- 8.8 – Apply developer mitigation programs to help fund local and regional transportation projects.
- 8.9 – Seek additional funding for transit, special needs transportation, and transportation demand management programs.
- 8.10 – Support state legislative action to establish funding for county rail districts.

Section 6

Improvements and Programs by Sub-region

Transportation Improvements and Programs

This section of the M/RTP summarizes the high-priority improvement projects and programs based on financial constraints, for the seven subregions shown on the *Yakima Valley Subregions* map. It also identifies other high-priority improvements projects for consideration if additional funding is secured.

Improvement strategies for the state highways in the region are presented first. These highways connect the county and its cities to the rest of Washington State. They also serve the majority of intra-county travel. Other regional improvements on arterials or major collector routes are summarized for subregions of the county.

The *HSS* map in Appendix C shows the state highway system and its classifications. The current federal functional classification of the state highways and region's arterials and collectors are provided in Appendix C. Appendix C also summarizes existing traffic volumes, the classification of freight corridors, and other information on existing transportation conditions. These were used in defining the priorities of the regional transportation system.

State Highways

The state highways form the core of the Yakima Valley regional transportation system. These highways connect the region with other parts of Washington and serve intra-county travel. Therefore, keeping them operating efficiently and safely is critical. WSDOT, local agencies, TRANS-Action and DRYVE have identified a wide range of improvements to these highways to address preservation, safety, congestion, operations, and other transportation system needs. Each of these regional state highway corridors are briefly described below. Improvement strategies and programs that are currently in process and high priority projects over the next 20 years are also identified.

A location and general description of the high priority M/RTP state highway projects is summarized on the project tables at the end of Section 6. Each table also shows the relative time frame for the improvement, with short-term projects targeted for completion by 2023, mid-term by 2035, and long-term by 2045. For each project, a relative cost range is shown as \$, \$\$, or \$\$\$ and an indication of which of the five regional priorities the project or program addresses is shown as a check mark. More detailed project descriptions and cost estimates are summarized in Appendix F.

WSDOT conducts several ongoing regionwide programs to enhance the regional transportation system. These programs supplement the targeted capital improvements and maintenance projects identified for the region's state highway system. These ongoing programs include bridge scour prevention, roadway resurfacing, environmental mitigation, and safety enhancements.

I-82

I-82 is the only interstate highway serving the Yakima County region. It is the backbone of the region's transportation system. To the north, I-82 connects Yakima County to I-90 near Ellensburg. To the south and east, I-82 connects the region to the Tri-Cities and Eastern Oregon. Within Yakima County, the interstate highway provides access and connectivity to the population centers along the corridor from Grandview to Selah. I-82 is classified as a Highway of Statewide Significance (HSS) and is part of the National Highway System (NHS).

I-82 is a multi-lane divided freeway with full access control. Within the Yakima metropolitan area, it serves the region with eight interchanges, including its interchange with US 12. These eight interchanges are located within a distance of approximately 11 miles, with the six interchanges from south Selah to south Union Gap located within a distance of approximately seven miles.

Outside of the metropolitan area, interchanges along I-82 provide access to the smaller communities, agricultural lands, and recreation areas. The distance between interchanges along I-82 south of Union Gap is typically two to five miles.

Existing and Forecast Conditions

Traffic Volumes. Within the Yakima metropolitan area, I-82 carries over 45-53,000 vehicles per day (vpd). North of Selah, existing volumes decrease to 19,000 vpd. South of Union Gap, the interstate highway carries 28-30,000 vpd. Near Sunnyside and Grandview, the volumes are approximately 27,000 vpd.

The 2045 travel forecasts for the metropolitan area show forecast volumes of 65,200 vpd between Union Gap and Selah. This represents an annual increase of around 0.29 percent per year. This is consistent with the annual growth rate between 2013-2016.

Freight Travel. I-82 is classified by the State of Washington as a T-1 freight corridor, which means it carries more than 10 million tons of freight per year. In fact, I-82 through the upper and middle Yakima Valley has some of the highest tonnage in the state, carrying nearly 24 million tons annually before falling to over 16 million tons in the lower Valley. This reflects both through truck traffic and local trucking and freight activities. All T-1 classified facilities are considered strategic freight corridors and receive priority for funding through the Freight Mobility Strategic Investment Board (FMSIB). (See Appendix C for discussion of freight classifications).

A relatively high percentage of the traffic along I-82 is trucks. Within the metropolitan planning area, approximately 14 percent of the daily traffic is trucks. This equates to an average of 6,300-7,400 trucks per day on the freeway through Yakima. North of Selah, trucks account for 20.5% of the total daily traffic volume, with approximately 3,925 trucks per day. Near Sunnyside, trucks comprise about 17 percent of the 23,000 vpd or about 3,900 trucks per day.

Safety and Operations. Existing traffic volumes on I-82 in Yakima County do not, by themselves, result in any significant levels of congestion, even in the metropolitan area. However, the relatively close spacing of the interchanges in the metropolitan area, combined with the high volume of traffic entering and exiting the freeway, and the number of trucks has resulted in safety and operational deficiencies. These deficiencies occur both on the freeway and at the interchange ramps.

The forecast growth in traffic on I-82 by 2045 will result in the freeway mainline operating with increased delays due to volumes during the weekday peak periods, unless improvements are made. The increase in traffic to and from the interchanges will also result in additional safety and operations concerns.

Other Modes. I-82 primarily serves automobile and truck traffic. Inter-city buses use the corridor with connections to Seattle, Spokane, and Wenatchee. The Community Connector, operated by People for People, also uses I-82 for travel within the region.

The I-82 shoulders are open to bicycle use. However, I-82 can be a barrier for non-motorized travel, because people can only cross at existing interchanges or at the Beech Street undercrossing in Yakima. This can result in some out-of-direction travel for non-motorized travel crossing between the east and west sides of the freeway. Interchanges in the metropolitan area provide crossing points, but these have relatively high volumes of traffic, which can impact safety for non-motorized travel. The high traffic volumes near the interchanges also can discourage non-motorized travel.

Transportation Improvement Projects and Strategies

Because I-82 is such an important transportation corridor to the region, several significant improvement projects are either underway or planned. These include maintenance, safety improvements, interchange upgrades, and planning for future widening of I-82 in the metropolitan area. Outside of the Yakima metropolitan area, DRYVE has identified future improvements to interchanges serving Grandview.

Within the Yakima metropolitan area, WSDOT has installed cable median barriers to reduce the number of crossover collisions. WSDOT also has identified paving, bridge deck, and slope stabilization projects to preserve the prior investments in the I-82 freeway. Supporting the overall corridor needs, WSDOT has recently installed weather sensors, cameras, and highway advisory radio to improve driver awareness of adverse roadway conditions. These systems also help improve maintenance response due to poor weather conditions.

A companion improvement to the completed I-82/Valley Mall Blvd. interchange project is the improvement to I-82/US 97/South Union Gap interchange. This project, scheduled for completion in 2020, will complete the interchange by building the missing ramps connecting to/from I-82 and Main Street and northbound US 97 to eastbound I-82. In the future, the interchange will tie into the Union Gap Beltway which will connect between Main Street and Ahtanum Road. This improved interchange and associated arterial will provide access to the regional airport and to the associated industries near the airport. While not funded for construction, this improvement is in the preliminary engineering phase and is a high priority on the long-range M/RTP.

The Yakima and Naches River recreational access project will provide more direct access to the area just south of the US 12/I-82 interchange. This will support the local communities and tourist activities.

By 2045, measures will be needed to make more efficient use of existing facilities to address congestion and operational issues, and to reduce potential crashes for north-south flows in the metropolitan area.

US 12

US 12 is generally a two-lane highway connecting Yakima County with Western Washington via White Pass. It serves both rural and urban area transportation needs and is one of only three year-round passes across the

Cascades in Washington. It also serves recreational traffic. US 12 connects Naches, Tieton, and other communities with I-82 and the Yakima metropolitan area. The US 12 designation follows I-82 between Yakima and Pasco, Washington.

US 12 is part of the National Highway System (NHS) and is also classified as a Highway of Statewide Significance. These classifications make it a higher priority for some state and federal funding sources. US 12 also is designated as a scenic byway by the State of Washington.

From its interchange with I-82 west to N 40th Avenue, US 12 is a four-lane divided freeway with full access control. Three interchanges provide access to the metropolitan area – I-82/1st Street, 16th Avenue, and 40th Avenue. West of 40th Avenue, US 12 is a four-lane divided highway with at grade intersections. In the Naches vicinity, US 12 provides access to local commercial developments and front warehouses. Within the corporate limits, access is the responsibility of the Town of Naches in accordance with state law. West of Naches, US 12 generally has a limited number of intersections and functions as a high-speed rural highway.

Existing and Forecast Conditions

Traffic Volumes. Daily traffic volumes on US 12 in Yakima County range from 31-39,000 vpd near I-82 to under 2,000 vpd at White Pass. Significant volume changes on the highway occur before and after its interchanges in the metropolitan area and in the vicinity of Naches.

The 2045 travel forecasts for the metropolitan area show an annual, compound growth rate of 1.49 percent per year between 2020 and 2045. This compares to the 4-6 percent per year recorded by WSDOT between 2013-2016.

Freight Travel. US 12 is designated as a freight corridor by the State of Washington. The highway is classified as a T-2 Strategic Freight Corridor between South Naches Road and 16th Avenue, and a T-1 from 16th Avenue to I-82. T-2s carry between 4 million and 10 million tons annually. West of Naches, the highway is classified as a T-3 freight corridor, carrying between 300,000 and 4 million tons of freight per year.

Within the Yakima metropolitan area, 11 percent of the daily traffic on US 12 is trucks. This equates to 3,400 to 4,300 trucks per day on the highway. Near Naches, almost 15 percent of the traffic is trucks. West of Naches, trucks comprise 15 percent, or more, of the 4,400 vpd.

The number and percentage of trucks illustrates the regional importance of US 12 to the Yakima County region. The high volume of trucks also can result in traffic delays on hills and curves. Limited passing opportunities and slow vehicle pullouts can lead to passing vehicles taking greater risks.

Safety and Operations. The segment of US 12 from Old Naches Highway to I-82 is a potential location for crash reduction countermeasures. Traffic volumes on Old Naches Highway are continuing to increase with development in and west of Selah. The intersection also services a large number of trucks. The at-grade, signalized intersection of US 12 / Old Naches Highway just west of Yakima ranks within the top ten intersections in the county for number of crashes and is a potential site for crash reduction countermeasures.

Operational issues are likely to develop at intersections of US 12 at major cross streets as volumes continue to increase. The lack of access management in the vicinity of Naches also poses operational concerns and crashes could increase.

Other Modes. US 12 provides access to a range of recreational activities. Bicycling occurs along sections of the highway although alternate, parallel arterials and collectors are designated as non-motorized routes by Yakima County and other agencies. Pedestrian activity also can be fairly significant near Naches. Pedestrians cross the highway at unmarked and uncontrolled locations. Recently, the majority of the planned Greenway Gap to Gap trail system along the old rail line from Naches to Yakima has been completed.

Transportation Improvement Projects and Strategies

The M/RTP includes a range of improvements along US 12. They focus on preservation, safety, and operational needs. The most significant operational improvements are in the metropolitan area. Preservation and safety enhancements are identified for the highway in and west of Naches.

Within the metropolitan area, interchange improvements are identified at I-82 and North 16th Avenue. These improvements will address existing and forecast operational and safety issues.

The enhancement of the intersection at US 12/Old Naches Highway is also a high priority for the region. The intersection will see several ITS enhancements, including cameras, variable message sign, road weather information system, data stations, and a communications system.

WSDOT has several paving and slope stabilization projects scheduled for US 12. These projects are located from north Yakima to Rimrock Lake in the Cascade Mountains. Safety improvements, such as guardrails and repairing bridge decks, are also priorities in the plan. Within Naches, safety and access control improvements are a priority along US 12. These include rumble strips, turn lanes, access controls, and pedestrian facilities.

SR 410

SR 410 connects with US 12 west of Naches. It provides access to and from Western Washington and Mount Rainier National Park via Chinook Pass. It is a State Highway of Regional Significance within Yakima County. The mountain pass is closed during winter months, although 410 provides access to regional recreation areas year-round. SR 410 is a two-lane, undivided highway. There are relatively few local access roads and forest service roads that intersect the highway. SR 410 is a National Scenic Byway and is designated as an All-American Road.

Existing and Forecast Conditions

Traffic Volumes. Within Yakima County, daily traffic volumes on SR 410 range from less than 1,000 vpd to approximately 2,300 vpd at US 12. These volumes are well within the capacity of the highway.

Freight Traffic. SR 410 is a T-3 freight corridor east of Bumping Road and a T-4 west of Bumping Road. T-4s carry between 100,000 and 300,000 tons annually. No commercial trucks are allowed within Mount Rainier National Park. Approximately 7 percent of the daily traffic at its intersection with US 12 is trucks. The vast majority of the truck traffic are single-unit vehicles and not semi-truck-trailer combinations.

Safety and Operations. No significant operations problems have been identified by WSDOT for SR 410. There are no known crash reduction sites.

Other Modes. SR 410 is not a highly used corridor for non-motorized travel. Recreational use during summer months increases pedestrian and bicycle activities along some parts of the corridor.

Transportation Improvement Projects and Strategies

Due to its relatively isolated location in the county, and its low traffic volumes, the M/RTP focuses on preservation, safety and environmental enhancements along SR 410. In addition to constructing a permanent alignment in the Nile Road vicinity, these projects include paving, rock scaling and debris removal, erosion control, reducing roadside obstacles, installing guardrails, and removal of fish passage barriers.

SR 821

SR 821, also known as the Canyon Road, follows the Yakima River between Selah and Ellensburg. It provides an alternative route to I-82 north of Yakima and is located west of the interstate. SR 821 intersects with I-82 at an interchange just north of Selah. In addition to providing a regional connection to Ellensburg, this section of SR 821 provides access to local properties and agricultural lands. It also provides recreational access to the Yakima River. SR 821 is a State Highway of Regional Significance.

Existing and Forecast Conditions

Traffic Volumes. Just north of I-82, SR 821 carries approximately 6,200 vpd. The volumes decrease to 1,800 vpd further north.

Freight Traffic. SR 821 is also a T-3 corridor. It primarily serves local truck traffic. Regional freight typically uses I-82 to connect to and from I-90 and other parts north. Commercial traffic is, however, restricted from using SR 821 during the summer months to reduce conflicts with recreational activities along the river.

Safety and Operations. No significant operations or safety concerns are noted for SR 821 within Yakima County.

Other Modes. SR 821 is not classified as a non-motorized corridor by Yakima County. The corridor does, however, provide for bicycle use and recreational access to the Yakima River, which results in some pedestrian activities along the corridor.

The BNSF Railway operates a rail mainline along this section of the Yakima River and a siding at Pomona. The rail line is located between the river and highway along the section of SR 821 in Yakima County.

Transportation Improvement Projects and Strategies

The M/RTP improvements along SR 821 focus on preservation and safety projects. WSDOT has identified projects to overlay the pavement, conduct crack sealing, improve signing and striping, remove roadside objects within clear zones, and install guardrails.

SR 823

SR 823 connects Selah and its agricultural processing industries to other state highways. South of Selah, SR 823 directly connects with I-82 just north of US 12. This section is also called Selah Road. Within Selah, SR 823 is called 1st Street, and serves the primary north-south arterial in Selah's downtown. North of Selah, SR 823 connects to I-82 via a short segment of SR 821. The north segment of SR 823 is also called Wenas Avenue, which becomes Harrison Road.

Existing and Forecast Conditions

Traffic Volumes. Within the Selah downtown area, SR 823 carries 14,000 to 35,000 vehicles per day (vpd). These volumes reflect its function as the primary downtown commercial street for Selah. Between Selah and its interchange with I-82, SR 823 carries 35,000 vpd. North of Selah, traffic volumes on the highway are just under 6,000 vpd. Between 2013 and 2016, traffic volumes on SR 823 grew at an average of 0.0-3.5 percent per year.

Freight Traffic. SR 823 is an important freight route connecting local agricultural processing industries with I-82 and other regional transportation corridors. Trucks bring fruits to Selah for processing and then the finished products are trucked out for distribution. Within Selah and connecting to I-82 south of Selah, SR 823 is classified as a T-2 freight corridor. This makes it part of the state's Strategic Freight Corridor system. North of Selah, SR 823 is classified as a T-3 freight route.

Safety and Operations. The new freight bypass is working well. There are no known crash reduction sites on SR 823.

Other Modes. SR 823 is also a transit route, operated by the City of Selah's Transit System. Bus stops are located throughout the City. Within Selah, the highway corridor has sidewalks on both sides of the street. North of Selah, sidewalks are located only on the west side of the highway.

Transportation Improvement Projects and Strategies

The M/RTP supported construction of a new corridor for SR 823 within Selah was completed in 2011. WSDOT will continue to monitor the corridor for capacity effectiveness and potential crash reduction countermeasures.

SR 24

This east-west highway connects the Yakima metropolitan area with Benton County, Hanford, the Tri-Cities, and other Eastern Washington communities. It connects to I-82 at the Nob Hill Blvd interchange. Traveling east from I-82, it serves a range of industrial, agricultural, and residential land uses and connects Moxee to Yakima and I-82. Traffic signals provide traffic control at some intersections between I-82 and Moxee. East of Moxee, the highway serves agricultural land uses and a vast area of undeveloped lands north of the Rattlesnake Hills.

Existing and Forecast Conditions

Traffic Volumes. Traffic volumes on SR 24 vary greatly between the metropolitan area and eastern Yakima County. Near I-82, the highway carries 21,000 vpd. Just west of Moxee, traffic volumes on the highway decrease to 17,000 vpd. East of Moxee, volumes of 3,600 vpd or less reflect the rural nature of the adjacent

land uses. East of its intersection with SR 241 (from Sunnyside), daily traffic volumes are approximately 3,500 vpd.

Traffic volumes on SR 24 between I-82 and Moxee have increased an average of 1.25 to 4.5 percent per year between 2013-2016. Based on the 2045 forecasts, traffic is expected to grow at a rate of 1.49 percent over the next 25 years.

East of Moxee, traffic volumes have grown at less than one-half percent per year since 1996. This reflects the limited change in land uses along the corridor and its relatively low use as an inter-regional connector to the Tri-Cities or other nearby communities. The I-82 freeway provides a higher speed connection for inter-regional travel, reducing the overall traffic volume on SR 24.

Freight Traffic. SR 24 is identified as a Strategic Freight Corridor (T-2) on the Freight and Goods Transportation system for its entire length within Yakima County. Approximately 12 percent of the daily traffic on SR 24 between I-82 and Moxee are trucks. East of Moxee, truck traffic increases to 24 to 34 percent of total volumes.

Safety and Operations. The section of SR 24 near I-82 has experienced significant operations and safety concerns. These impacts are especially critical at intersections with the I-82 interchange ramps and Riverside/University Parkway. Problems at these intersections result from the high volume of traffic accessing I-82 and connecting between the east and west sides of the interstate freeway.

Based on the 2045 forecasts for the metropolitan area, SR 24 will also experience congestion between Riverside/University Parkway and Moxee. The increase in traffic reflects the ongoing commercial, industrial, and residential development in and around Moxee and the limited alternate east-west routes to connect to I-82 from the East Valley.

The intersections of Birchfield Road and Bell Road are both potential crash reduction sites.

Other Modes. SR 24 serves bicyclists and pedestrians, especially near the I-82 interchange, because it is one of a limited number of corridors that cross the freeway and the Yakima River. This part of the corridor also provides access to the Yakima Greenway, parks and the Yakima Arboretum. Further east, the corridor provides access to the Yakima Sportsmen State Park. Non-motorized activity also is relatively high near Moxee, with schools, park, and residential development. Additionally, the Burlington Northern-Santa Fe railroad has a track that parallels a section of SR 24 between Moxee and Birchfield Road.

Transportation Improvement Projects and Strategies

There are plans to signalize the intersections of SR 24 with Morrier Road, Rivard Road, and Faucher Road in Moxee, but there is currently no funding for these projects. The intersection improvements will address safety and operations issues due to the increased growth in and around the City of Moxee. WSDOT has secured funding to construct a southbound right turn lane on Birchfield Road at the SR 24/Birchfield Road intersection.

To alleviate long-term capacity, safety, and operational impacts associated with the growth in the East Valley, the M/RTP supports future widening of SR 24 between Riverside Road/University Parkway and Faucher Road in Moxee. These improvements will provide a consistent 4 lane highway connecting residential and industrial uses in the East Valley to/from I-82 and the rest of the Yakima metropolitan area. This project is not funded. But is identified as a region priority for new revenue.

SR 241

SR 241 is a two-lane north-south highway connecting Mabton and SR 22 in the south to I-82 and Sunnyside, and then to SR 24 in the north. SR 241 provides access to the Sunnyside Municipal Airport and the east side of Sunnyside, which contains some commercial and industrial areas.

Existing and Forecast Conditions

Traffic Volumes. The highest volumes (14,000 vpd) along SR 241 are found between I-82 and the Yakima Valley Highway. North of the Yakima Valley Highway, daily volumes are approximately 4,900 vpd. Further to the north, traffic volumes drop to 1,600 vpd, reflective of the undeveloped areas in the Rattlesnake Hills.

Between the City of Mabton and Alexander Road existing traffic volumes range from 3,000 vpd to 5,200 vpd. The east-west segment of SR 241 along Alexander Road has volumes in the range of 1,800 vpd. This difference in volumes reflects traffic connections to the commercial areas in Sunnyside, which are most directly accessed by the continuation of Mabton-Sunnyside Road, which avoids traveling through the I-82 interchange.

Freight Traffic. SR 241 is classified as a T-3 freight corridor by the State of Washington. It serves local agricultural uses and provides access to I-82. North of I-82, the highway also provides access to the Sunnyside Municipal Airport. Between Sunnyside and SR 24, 13-22 percent of the daily traffic is comprised of trucks. Between the City of Mabton and I-82, seven percent of the traffic is classified as trucks.

Safety and Operations. SR 241 between I-82 and Yakima Valley Highway is a potential location for crash reduction countermeasures. This section of highway has the highest volume of traffic, an at-grade railroad crossing, closely spaced local road intersections, and a freeway interchange which can result in future congestion and queuing problems. Further growth in the area will likely result in potential problems in the future.

The SR 241 / Edison Road and SR 241 / Sheller Road intersections, near the Sunnyside Municipal Airport, are two potential crash reduction sites. Those roadways serve industrial areas.

The section of SR 241 between SR 22 and Duffy Road is a potential site for crash reduction countermeasures. This segment includes the intersection of SR 241/Grandview Pavement Road, which connects to Grandview further to the east.

Other Modes. As noted above, SR 241 provides access to the Sunnyside Municipal Airport. This is a general aviation airport without scheduled commercial passenger or cargo service. It can, however, serve as an alternative airfield if weather or other disruptions restrict use of McAllister Field in Yakima.

SR 241 is not classified as a non-motorized route by Yakima County. The county identifies alternative, lower volume roadways for non-motorized travel near Sunnyside, Mabton, and Grandview.

Transportation Improvement Projects and Strategies

The M/RTP includes projects for maintaining and upgrading safety along the SR 241 highway. WSDOT has a project programmed to repave SR 241 from Mabton to north of the airport within the next few years. The project will also include upgrading signing, striping, and other safety needs.

The Yakima River bridges, located just north of Mabton, will be retrofitted to remove weight restrictions and restore the structural integrity of the bridges.

SR 22

SR 22 essentially parallels the I-82 freeway between Toppenish and Prosser (in Benton County) east of Mabton. It has two travel lanes, with turn lanes at some key intersections. SR 22 connects I-82 to Toppenish and to US 97. The section of the highway north of Toppenish is also called Buena Way. Within Toppenish, the highway is called Elm Street. A couple of intersections within Toppenish, including US 97, are signalized. This section is on the National Highway System and is classified as a Highway of Statewide Significance (HSS) because it connects US 97 to I-82.

East of Toppenish, the highway serves agricultural and rural residential land uses. Much of the highway is within the boundaries of the Yakama Nation.

Existing and Forecast Conditions

Traffic Volumes. The highest traffic volumes on SR 22 are found within Toppenish. Daily traffic volumes within the city range from 11,000 to 13,000 vpd. This reflects the use of the corridor as a city arterial. Between Toppenish and I-82, daily volumes range from 8,900 to 11,000 vpd. These numbers drop to 6,700 vpd near the SR 22 / US 97 Intersection.

Southeast of Toppenish, volumes on SR 22 fluctuate between 5,600 to 6,500 vpd between US 97 and SR 223 (which connects to Granger). East of SR 223, daily volumes are less than 2,000 vpd.

Between 2013-2016, traffic volumes on SR 22 near Toppenish have increased at an annual rate of 1.5 to 3.3 percent.

Freight Traffic. Between I-82 and Toppenish, SR 22 is designated as a T-2 freight corridor by Washington State. Other segments of the highway are classified as T-3 freight routes. The highway primarily serves local farm to market needs between Toppenish and Mabton and Prosser. Between I-82 and Toppenish, SR 22 is part of the Strategic Freight corridor system. This section provides a direct connection between US 97 and I-82, as well as serving local freight needs. Trucks account for 8 percent of the traffic between I-82 and US 97, and 12 to 23 percent south of Toppenish to the County line. The lower percentages are found in or near Toppenish, reflecting the higher volume of general local community traffic.

Safety and Operations. SR 22 between I-82 and Toppenish is a potential crash reduction location. This corridor serves commercial, industrial, and residential traffic between I-82 and Toppenish. This section includes the transition from a high-speed rural highway into a city arterial. There are several locations on SR 22 that are potential sites for crash reduction countermeasures, including the N. Meyers Road / Meyers Road Intersection. There exists an at-grade railroad crossing and schools adjacent to the highway in the Toppenish Area.

Other Modes. The section of SR 22 within Toppenish also supports non-motorized travel. It directly serves schools and parks and provides access to commercial developments.

The BNSF rail line crosses SR 22 in the north part of Toppenish. This crossing is located in relatively close proximity to arterials, which can affect traffic operations when trains are present.

Between Toppenish and the Yakima/Benton County line, SR 22 parallels the BNSF rail line. The rail line is on the north side of the highway. At-grade crossings are located on intersecting streets on the north side of SR 22.

Transportation Improvement Projects and Strategies

The M/RTP builds off of currently planned improvements for SR 22. Projects to protect bridges along the corridor from scour and flood damage are planned by WSDOT. Repaving the highway between Toppenish and SR 223 near Granger is identified to preserve the facility and improve safety performance. This continues the recent pavement upgrade between SR 223 and Prosser.

Reconstructing a 1.5-mile section of SR 22 just south of I-82 also is a priority to address safety performance. This project will enhance mobility for freight, goods, and general travel between Toppenish and I-82.

DRYVE has identified a need for an alternative to SR 22 between US 97 and I-82 for freight movement. The current truck route travels through Toppenish. This section of highway provides access to schools, parks, and facilitates local circulation. The M/RTP identifies improving Meyers Road and Larue Road to connect US 97 to I-82 at the west Zillah interchange. This corridor will help improve operations and safety along SR 22 in Toppenish. This improvement is presented with the South Central subregion projects.

SR 223

SR 223 is a short state highway connecting SR 22 to I-82 at Granger. It is less than four miles long. It is a two-lane facility and all of its intersections are unsignalized.

Existing and Forecast Conditions

Traffic Volumes. Traffic volumes on SR 223 range from 5,200 to 11,000 vpd. The highest volumes are near its interchange with I-82. Along some sections of the highway, traffic volumes have increased by 400 to 800 vpd between 2013-2016. Near I-82, the volumes have increased at an average annual rate of 2.0 to 2.75 percent between 2013-2016.

Freight Traffic. Trucks account for 13 percent of the daily traffic on SR 223. The highway is designated as a T-3 freight route serving 300,000 to 4 million tons of freight per year.

Safety and Operations. No significant safety or operations concerns are currently noted along the highway. However, an increase in traffic volumes may result in increased delays and operations issues in the longer-term future.

Other Modes. SR 223 is not classified as a non-motorized corridor by Yakima County. It does, however, provide the most direct link for bicyclists between Granger and SR 22. Some non-motorized activity also could occur near the commercial areas just south of the I-82 interchange area.

SR 223 crosses the BNSF rail line just north of SR 22. The crossing has automatic gates and lights.

Transportation Improvement Projects and Strategies

No projects are identified in the priority list of this M/RTP for SR 223 in the 25-year planning horizon.

US 97

US 97 connects the Yakima County region with Klickitat County and Oregon. South of Toppenish, it traverses very sparsely developed areas of the Yakama Nation. It intersects with SR 22 in Toppenish, providing a direct connection to I-82 via SR 22. West of its intersection with SR 22 in Toppenish, US 97 parallels I-82 to provide an alternative access connecting with the Yakima metropolitan area at Union Gap. This section of highway provides access to Wapato and adjacent developments. North of Union Gap, the US 97 designation follows I-82 to Ellensburg.

US 97 is designated as a Highway of Statewide Significance (HSS). Between Klickitat County and Toppenish, US 97 is designated as part of the National Highway System (NHS). The HSS and NHS designations raise the priority of funding for improvements to the corridor. US 97 also is designated as a National Scenic Byway.

South of Toppenish, US 97 is generally a two-lane, undivided highway. Hill climb lanes exist along sections of the highway to improve the operation and safety performance of this freight corridor.

West of Toppenish, US 97 is a four-lane, divided highway with limited access control. Frontage roads provide local property access along parts of this segment of the corridor. It has at-grade intersections. Within Toppenish and Wapato, some major intersections are controlled with traffic signals. An interchange provides access to and from I-82 and Main Street within Union Gap.

Existing and Forecast Conditions

Traffic Volumes. Between the south county line and Toppenish, US 97 carries 3,900 to 4,900 vpd. Traffic volumes of 11,000 to 13,000 vpd are found just west of Toppenish. These higher volumes near Toppenish are due to local travel patterns and use of US 97 to access I-82 via McDonald Road/SR 22. Between Wapato and Union Gap, US 97 carries 18,000 to 26,000 vpd, illustrating its use to connect to/from the Yakima metropolitan area.

Traffic volumes near Union Gap are forecast to increase to over 28,000 vpd by 2045. This is approximately a 1.5 percent annual growth rate. This compares to 2.75-3.0 percent historical growth just south of Union Gap. Near Toppenish, historical traffic growth rates have averaged just under 3-4 percent per year between 2013-2016.

Freight Traffic. US 97 is classified as a T-1 freight corridor, carrying almost nine million tons per year. Being classified as a HSS and NHS facility, US 97 in Yakima County is also part of the state's Strategic Freight corridor system. This designation increases potential funding options through the Freight Mobility Strategic Investment Board (FMSIB). Between Union Gap and Toppenish, trucks account for approximately 10 percent of the total daily traffic. Trucks comprise 38 to 40 percent of the daily traffic on US 97 between Toppenish and the south county line.

Safety and Operations. Several collision locations are identified by WSDOT on US 97. These include vehicle crossovers on the highway south of Toppenish, and collisions near major intersections in and between Wapato and Toppenish. No significant capacity concerns have been identified, although operations at major intersections can be impacted by the high volume of truck traffic.

Other Modes. US 97 is not designated by Yakima County as a bicycle route. Other arterials and collectors are designated for bicycle travel between Toppenish and Wapato and Union Gap. The highway corridor does provide access to schools in Toppenish and Wapato.

Between Toppenish and Union Gap, the highway parallels the BNSF rail line. Along most of the corridor, the tracks are located more than one-half mile from the highway, which limits the impact of rail crossings on highway operations. Between Wapato and Union Gap, the rail line and highway are located in fairly close proximity to each other. There are a few, low volume roads crossing the tracks adjacent to this section of US 97. The railroad crosses Jones Road and Lateral A Road north of Wapato, with limited distance between the intersections and rail crossings. A frontage road serves local access and circulation in this part of the corridor.

US 97 crosses the Toppenish, Simcoe, and Western rail line near Branch Road. This rail line serves two sawmills for the Yakama Nation.

Transportation Improvements and Strategies

The focus of improvements along US 97 is preservation and safety. South of Toppenish, the M/RTP incorporates WSDOT projects to repave sections of the highway and replace substandard bridges. Other safety improvements include realigning the roadway near Satus Creek.

Safety and operational improvements are also identified for US 97 between Wapato and Toppenish.

Regional Priorities by Subregion

The regional state highway system, discussed above, connects Yakima County to the rest of Washington and provides for the most significant levels of intra-county travel. Other arterials and collectors connect individual communities with the state highways. They also provide for travel between communities in the region.

The needs for specific transportation improvements and strategies to meet the region's needs are summarized by seven subregions, shown on the Overall Plan Subregions map.

For each subregion, a summary of land use data is presented in graphs and pie charts. The land use summaries are based on boundaries from the regional travel demand model. The land use boundaries take into account census tracts, geographic features, and roadways; they closely match with the rectangular subregions used for presenting the M/RTP improvement projects.

For each subregion, high-priority transportation projects and strategies are summarized. These include the baseline improvements and secured-funding projects that best meet the regional priorities. In addition, high-priority transit and transportation demand management strategies that are appropriate for each subarea are identified. These summaries are intended to highlight those projects and programs that have the highest priorities, given the available funding.

Yakima County and local cities and towns also have a range of ongoing transportation programs to enhance the regional transportation system. Ongoing County programs include roadway overlays, traffic signal installation/upgrades, rural Intelligent Transportation Systems (ITS), and roadway safety projects. Local ongoing programs are targeted to the specific needs of the respective agency. Smaller cities and towns tend to focus on maintaining the local roadway system through overlay and surface treatment programs, while larger agencies have a more extensive and varied transportation system that is reflected by the types of programs conducted. These programs range from local street maintenance to transit facilities and operations.

Northwest Subregion

As shown on the **Northwest Projects** map and associated projects table, the Northwest subregion is located along US 12 west of the Yakima metropolitan area. It extends west of the US 12/SR 410 intersection into the national forest lands. The cities of Naches and Tieton are in this subregion, as is the unincorporated community of Cowiche. Connections to the regional highway system are via US 12 in Naches. The other primary connection to other parts of the region is via Summitview Road which provides a link to west Yakima. Safety and operational improvements are also identified for US 97 between Wapato and Toppenish.

Transportation Needs and Improvement Strategies

The relatively low densities of residential units and employment in the Northwest subregion have not resulted in any significant capacity deficiencies. Forecast growth also will not, by itself, result in roadway capacity issues. Therefore, the focus of the transportation improvements and strategies for the Northwest subregion is to improve connectivity to the broader regional highway and arterial systems. The high priority projects also are focused on preserving and upgrading the existing roadways. These projects will address safety concerns, support freight mobility, and fill in missing links of the non-motorized system. The high-priority strategies for the Northwest subregion are shown on the Northwest_Projects map and associated table.

Roadways. Tieton and surrounding communities are located on a plateau which restricts access to US 12 and other regional facilities. The topography also makes it more difficult for travel to and from west Yakima and the core metropolitan area.

The number of trucks serving the local orchards and related industries can impact traffic operations on the limited number of regional routes, such as Summitview Road and Naches-Tieton Road. Hill climb lanes are provided on a section of Summitview Road southeast of Tieton and Cowiche and on the recently re-constructed Naches-Tieton Road. In addition, the connectivity between the regional corridors within the subregion is limited, which results in more circuitous travel.

The only secured projects in the M/RTP in the NW region are WSDOT projects. There are no local agency projects for Yakima County, the City of Tieton, or the Town of Naches. Of the five WSDOT projects, three are preservation projects – two on US12 and one on SR410. The remaining projects include improvement of US12 Naches to Yakima corridor intersections and corridor enhancements to the US12/Old Naches Highway intersection.

Although there are no secured local projects, there are several planned projects for Naches, Tieton, and Yakima County. Naches includes several planned reconstruction projects to improve local streets. Tieton is planning

several preservation and reconstruction projects for local streets. Yakima County includes several reconstruction projects for rural roads, including the replacement of two bridges.

Non-Motorized. Within the Northwest subregion, alternative modes of transportation, such as walking and biking, are ever-increasing. New and improved regional non-motorized links have been constructed which has encouraged more non-motorized transportation

There is one mile remaining of the Yakima to Naches trail project. This final section is planned to be constructed by the end of 2016. Upon completion, the Greenway trail system will span from Union Gap to Naches.

Transit and Transportation Demand Management (TDM). This subregion does not have fixed route bus service, but is served by People for People paratransit service. Eligibility for the paratransit service is limited to special purposes and services. There is a need to expand demand response service in this area and to coordinate with existing and expanded rural transit service to regional services and facilities. In addition, expanded promotion of carpooling and vanpooling is appropriate to serve the added residential growth in the Northwest subregion. The expanded non-motorized routes also should be promoted as a TDM strategy. Promotion of transportation alternatives to residents and employees in this subregion is essential in efforts to reducing commuter trips. This includes information on carpools, vanpool ridership signups, and materials informing people of other transportation choices.

North Subregion

The North (N) subregion covers both rural and urban areas north of the City of Yakima. Much of the geographic area is in unincorporated Yakima County and is mostly rural. The subregion includes the City of Selah and the unincorporated area of Glead along US 12. Direct connections to the regional highway system are via SR 823 both north and south of Selah. Connections to US 12 are available via the Old Naches Highway at Suntides and at several other unsignalized intersections west of Suntides.

Transportation Needs and Improvement Strategies

Transportation needs in the North subregion focus on addressing safety and operations issues in Selah, improving connections to the regional highway system, and improved corridors within the subregion. The North_Projects map and associated projects table summarize the high priority regional transportation improvements for the North subregion.

Roadways. WSDOT includes six secured projects in the M/RTP, spanning short to long range. There are four preservation projects on US12, and an additional new construction project on the US12/Old Naches Highway interchange. There is an additional preservation project on SR823 to repave and planned safety additions to the I-82/Selah Creek rest area interchange.

The City of Selah has two projects in the M/RTP, both of which are widening projects. The project on East Goodlander will reconstruct the 2-lane road and add a turn lane, sidewalks, and illumination. The other project on Valley View Avenue/South 3rd will widen the 2-lane road and add sidewalks. Both projects will enhance driver safety and walkability.

Non-Motorized. The new construction, widening, and reconstruction roadway projects, discussed above, also will improve non-motorized travel in the North subregion. The projects within Selah will include sidewalks,

while Yakima County projects will provide wider shoulders which can be used for non-motorized travel. The traffic signals and repaving projects also support non- motorized transportation.

New and improved bicycle and pedestrian facilities should be constructed with roadway projects or as separate improvement projects. These will help encourage more non-motorized transportation, including making connections between existing pedestrian and bicycle routes and enhancing the connections to major employer worksites. These new bicycle and pedestrian routes should be compatible with the Americans with Disabilities Act (ADA).

Transit and Transportation Demand Management. Alternative modes of transportation such as transit, carpooling and vanpooling, walking and biking also should be promoted in this subregion. The improved non-motorized facilities encourage more bicycle and pedestrian use within Selah and its major employers. These new bicycle and pedestrian routes should be compatible with the Americans with Disabilities Act (ADA).

The City of Selah is contracting with Medstar Transportation to provide fixed route bus service between Yakima and Selah. Currently there is one fixed route, Monday through Friday; and two morning trips and seven afternoon trips on Saturday. The route has three stops in Selah and five stops in Yakima. Improved headways and frequency on this route is desirable to better serve Commute Trip Reduction (CTR) employers and other transit riders within Selah. Shorter headways also will provide more flexibility which could attract additional ridership. Yakima Transit also contracts with TC Transportation and People for People to provide a complimentary Dial-a-Ride service for persons with disabilities.

There are three CTR-affected worksites in Selah, which are required to meet the requirements of the Commute Trip Reduction Efficiency Act of 2006 (RCW 70.94.521), including reducing drive alone trips by 10 percent and vehicle miles traveled (VMT) by 13 percent for all major employers by 2030. In the last four years, the employers in Selah have held steady at around 21% of trips that did not drive alone. Some strategies that may be used by the City of Selah and the CTR employers to discourage single-occupancy commute trips include:

- Continue offering the guaranteed ride home program.
- Work with Yakima Transit to increase number of vanpools at CTR-affected work sites.
- Work with employers to provide bicycling and walking amenities.
- Work with CTR-affected work sites to offer incentives.
- Encourage employers to provide preferential parking for high-occupancy vehicles.
- Encourage employers to provide subsidies for transit, carpooling or vanpooling.
- Encourage employers to offer alternative work schedules such as compressed work weeks.
- Encourage employers to permit employees to work part or full time at home or at an alternative worksite closer to their homes.

CTR worksites should have a designated Employee Transportation Coordinator training program that addresses issues such as marketing CTR programs to employees, trip planning, and ride matching services. Transit and demand management programs should continue to be promoted to residents and employees within the North subregion to help reduce drive-alone trips.

West Subregion

The West (W) subregion covers rural and agricultural areas west of the City of Yakima and south of Tieton and Cowiche. The land use data for the West subregion primarily covers areas west of the MPO boundaries. The land use data for the West subregion covers existing low density rural residential and agricultural areas west of the Wiley Road corridor. Growth within the MPO area between Tieton Drive and Wide Hollow Road are included in the Central subregion, discussed below. The West subregion for the M/RTP is not the same as the west valley area of the City of Yakima, which is within the MPO boundaries and is included in the Central subregion.

Transportation Needs and Improvement Strategies

The low densities and location in the region do not result in any existing or forecast capacity or major operational deficiencies. East-west connections to and from Yakima are provided by Ahtanum Road, Washington Avenue, Wide Hollow/Nob Hill Road, Tieton Drive, and Summitview Avenue. Travel in some of these corridors requires a series of turns at intersections, because the roads are not continuous.

North-south travel in the West subregion is more difficult and circuitous because few links provide a continuous route. Connections from the West subregion to Cowiche, Tieton, and Naches typically require traffic to wind through a series of short road segments. This results in inefficient travel patterns and may result in some operational deficiencies in the future. The West_Projects map and associated project table are not included because there are no secured funding roads projects in this sub- region for the 2020-2045 M/RTP update.

Roadways. Yakima County and its TRANS-Action partners have defined needs for future north-south corridors serving the areas west of Yakima. While not funded for construction in the 25-year M/RTP, segments of these corridors should be preserved and constructed as properties develop. This process will reduce the ultimate agency-funded cost of these improvements.

The highest priorities are the reconstruction of the North Fork Road Bridges, and the conversion of South 62nd Avenue between Meadowbrook and South Ahtanum Roads from gravel to pavement.

Non-Motorized. The future development on north-south and east-west corridors will create a framework for the long-range non- motorized facilities in the West subregion. These will primarily consist of roadway shoulders for pedestrian and bicycle travel.

Transit and Transportation Demand Management. Due to the low density of development, fixed route transit service is not a realistic strategy for the West subregion. There is a need to expand demand response service in this area and to coordinate with existing paratransit service to connecting to regional services and facilities. The subregion is served by People for People para-transit. The People for People program is limited to special needs transportation and does not provide general transit service for residents in the subregion. Regional carpool, vanpool, and other alternative transportation programs should be promoted within the subregion.

Central Subregion

The Central (C) region covers the core of the metropolitan planning area, including the cities of Yakima and Union Gap and unincorporated portions of the metropolitan area. The Central subregion relies heavily on I-82 and US 12. Access to I-82 is via five interchanges with local arterials – 1st Street, Yakima Avenue, Nob Hill Boulevard, Valley Mall Boulevard, and the South Union Gap interchange. Access to US 12 is available via the 1st

Street, 16th Avenue, and 40th Avenue interchanges. At-grade intersections at Fruitvale Boulevard and Old Naches Highway also provide access to US 12 via Powerhouse Road.

Transportation Needs and Improvement Strategies

Being the heart of the metropolitan area, the Central subregion experiences a wide range of traffic operations, safety, and preservation issues. These issues are a result of significant levels of commuter traffic, access to/from the regional highways, freight movement, and access to regional shopping areas. The City of Yakima also is the region's center for major medical centers and the main campus of the community college. The regional airport – McAllister Field – is located along Washington Avenue in the south part of Yakima, west of Union Gap. The airport and associated industries are major generators of traffic that access I-82 and US 12. The State Fair Park and the Sun Dome are located near I-82 at the Nob Hill Boulevard interchange.

With a significant amount of the region's population and employment, the Central subregion has needs for a wide range of higher priority transportation needs. These needs support access to/from the regional highways and needs within the subregion. These are summarized on the **Central Projects** map and associated project table.

Roadways. WSDOT and the local agencies have committed to several improvements to interchanges on I-82 and US 12. These improvements will directly tie into the most significant arterial improvements in the Central subregion. These projects are further described under the state highway system improvements, presented previously.

The Yakima Cascade Mill Parkway Development and East-West Corridor is a large multi-year/multi-jurisdictional project and is the highlight of the M/RTP. The Yakima Avenue-Terrace Heights corridor is heavily traveled, and the I-82/Yakima Avenue interchange is nearing capacity. Plans for a new street will connect the Terrace Heights neighborhood with Yakima, while modifications to the existing interchange design will relieve congestion. The Terrace Heights street extension will also provide access to the Cascade Mill redevelopment area, improve traffic flow, and encourage economic growth in the region. The specific jurisdiction components are listed below: Yakima County: Yakima County is working to relieve traffic congestion and improve safety along Terrace Heights and the Yakima Avenue Interchange. The county will construct a new east-west corridor including a bridge over the Yakima River. Project Schedule: 2019-2023.

City of Yakima: The city plans to build a north to south city street from Fair Avenue to R Street. Other improvements necessary to provide adequate access to the site include rehabilitation of H Street and a connection to the county's east-west corridor roadway. Environmental clean-up will be primarily funded by the Washington State Department of Ecology. Project Schedule: 2020-2022.

Washington State Department of Transportation: WSDOT plans to improve I-82 between the US 12 interchange and the Nob Hill overpass by maximizing efficient use of existing facilities. Project Schedule: 2024-2026.

To better serve north-south travel patterns in the Central subregion the City of Yakima, the M/RTP identifies the North 1st Street revitalization project, North 1st Street is the northeastern entrance to Yakima from I-82/US12. Yakima includes another secured project that will improve the intersection of East Nob Hill Boulevard and Fair Avenue.

There are also several planned projects within the City of Yakima that includes upgrading roads to current standards to support higher traffic volumes and include adding turn lanes, where needed, to improve traffic safety and operations.

Completion of missing links of other north-south routes in the west part of the City of Yakima or adjacent unincorporated areas also are part of the regional plan. Many of these connections can be constructed as adjacent properties are redeveloped into residential subdivisions. The completion of these corridors will improve circulation and reduce potential operations and safety concerns associated with circuitous arterial routes.

In Union Gap and south Yakima, north-south corridor improvements are identified for Main Street and S. 1st Street. The improvements will reconstruct the corridor from Nob Hill Boulevard to US 97. The projects address existing and future safety and operations deficiencies. The corridor is also a freight route. Main Street connects with the I-82 at the US 97 interchange. A state highway project will complete the interchange by providing direct connections between southbound I-82 and Main Street and from Main Street to north I-82. Main Street also is an extension of S. 1st Street in Yakima, which provides a continuous arterial between US 12 and I-82 through the Central subregion. The Main Street Reconstruction Phase 1 project is secured in the M/RTP for the planning period.

Combined, these improvements will provide an urban arterial corridor providing access to/from the regional highway system, a major commercial district, local industries, and a regional connection to the 16th Avenue corridor and airport.

Ahtanum Road is the most southerly of the east-west arterials serving the Yakima metropolitan area. It connects from Main Street in Union Gap to the foothills in west Yakima County. The corridor serves a variety of land uses including residential developments and agricultural products in the West subregion to industrial developments near the airport and in Union Gap. The corridor is designated as a major freight route. The region has already completed improvements to some segments of the corridor; the M/RTP incorporates improvements to the rest of the corridor. These improvements generally call for completing a five-lane arterial from Main Street in Union Gap to 90th Avenue in Yakima County. Union Gap has a secured project in the M/RTP to resurface West Ahtanum Road.

To further enhance accessibility to I-82 from the Ahtanum Road corridor, the City of Union Gap and TRANS-Action has defined a new corridor between the freeway and Ahtanum near S. 3rd Avenue. This project, known as the Union Gap Beltway, will tie into the I 82/US 97/South Union Gap interchange. This new route will especially support freight connectivity from the Ahtanum Road corridor to the regional highway system. It will shift freight traffic from the Valley Mall Boulevard interchange and nearby arterials. In July 2019 Union Gap was awarded \$6.6 Million in federal transportation funds towards the construction phase of this project.

The M/RTP supports limiting direct property access to Nob Hill Boulevard, Valley Mall Boulevard, Ahtanum Road, and other regional arterials. Limiting direct property access along these arterials will maintain the available capacity for regional through traffic. Limiting direct property access to these regional corridors also reduces the number of potential conflict points, thereby minimizing future safety issues.

A range of other improvements to reconstruct existing arterials are also included in the M/RTP. Most of these arterials serve freight movement, commercial areas, or address safety or operational issues. Projects to upgrade or repair existing bridges are also included.

Non-motorized. The regional arterial widening, and intersection projects will also include non-motorized improvements such as sidewalks, crosswalks, and curb ramps. These facilities will enhance non-motorized travel along major north-south and east-west corridors. Completion of missing links in the arterial system also will improve the connectivity of the non-motorized system.

The Yakima County completed the final phase of Naches Rail-to-Trail with support of the Yakima Greenway which connects Union Gap to Naches via a series of connected asphalt pathway systems.

In addition, sidewalk repair, street sweeping, and installing bike lanes or wide shoulders as part of arterial roadway projects will improve non-motorized transportation in the Central subregion. These improvements will comply with the Americans with Disabilities Act (ADA).

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In addition, sidewalk repair, street sweeping, and installing bike lanes or wide shoulders as part of arterial roadway projects will improve non-motorized transportation in the Central subregion. These improvements will comply with the Americans with Disabilities Act (ADA).

Transit and Transportation Demand Management Programs. In 2019, Yakima Transit operated at maximum service within the Cities of Yakima and Selah: 19 buses along 9 fixed routes; 18 vanpool vans travelling more than 20 miles to or from Yakima; and 25 paratransit vehicles. As a requirement for operating fixed-route service, Yakima Transit provides paratransit (Dial A Ride) services for persons with limited abilities during the same hours as the fixed-route bus service, serving both Yakima and Selah within their respective jurisdictions. Yakima Transit participates with the Washington State Department of Transportation, City of Selah, and Central Washington University in funding a commuter bus service that operates between Yakima (the Yakima Airport) and Ellensburg (Central Washington University). The commuter bus service operates along five stops in Yakima and Selah and two on Central Washington University's campus in Ellensburg. Planned strategies for Yakima Transit include extending service hours later into the evening, increasing frequency on high ridership fixed routes or fixed routes serving high density neighborhoods, and promoting the vanpool program.

The City of Selah contracts with Medstar Transportation for fixed-route bus service in Selah. Currently, two buses operate in maximum service with more frequent half-hour service during the AM and PM peak times, M-F between the hours of 6am and 7pm. Hourly service is operated on the weekends on Saturdays from 9am-

6pm and on Sundays from 8am-4pm. Route 10 operates from the Yakima Transit Center north along Yakima's North First Street, then into and throughout Selah, also connecting the Yakima Firing Center.

In 2019 there were 12 CTR-affected worksites in Yakima required to meet the CTR requirements of the Commute Trip Reduction Efficiency Act of 2006 (RCW 70.94.521), including reducing drive alone trips by 10 percent and VMT by 13 percent for all major employers by 2030. In addition, there were two CTR affected worksites in the City of Union Gap.

Some strategies that may be used by the CTR employers to discourage single-occupancy commute trips include:

- Continue guaranteed ride home program.
- Work with Yakima Transit to increase number of vanpools at CTR-affected work sites.
- Work with employers to provide bicycling and walking amenities.
- Work with CTR-affected work sites to offer incentives.
- Encourage employers to provide preferential parking for high-occupancy vehicles.
- Encourage employers to provide subsidies for transit, carpooling or vanpooling.
- Encourage alternative work schedules such as compressed work week schedules (such as 4/40 or 9/80).
- Encourage employees to work part or full time at home or at an alternative worksite closer to their homes.
- CT worksites should have a designated Employee Transportation Coordinator training program that includes issues such as marketing CTR programs to employees, trip, planning, and ride matching services.

The strategies and programs should effectively promote to be successful. Information about commute alternatives should be distributed regularly to employees. Examples of information to be distributed include:

- Transit system and non-motorized transportation maps.
- Vanpool rider signup information.
- Promotional materials informing people of their transportation choices.

East Valley Subregion

The East Valley (EV) subregion includes the City of Moxee and surrounding rural residential and agricultural lands. In addition, the subregion includes commercial and industrial land uses adjacent to I-82 and along SR 24 and Terrace Heights Road. A slice of the City of Yakima between the Yakima River and I-82 is also within the East Valley subregion. This part of the City of Yakima includes several commercial developments and regional parks. The subregion also includes the low-density areas north, south and east of Moxee. SR 24 and Terrace Heights Road connect the East Valley with interchanges at I-82. These corridors provide the primary access between East Valley and Yakima and Union Gap.

Transportation Needs and Improvement Strategies

The focus of improvement strategies for the East Valley subregion is on east-west capacity and connections to I-82 and the metropolitan area west of the freeway. Because only two routes, SR 24 and Terrace Heights Road, currently cross the Yakima River, the operations and safety of these routes is a priority. In addition, the M/RTP

recognizes the need for improved north-south arterials within the East Valley. These connections will improve circulation, help reduce the volume of local area traffic on the east-west arterials and improve emergency services. The **East Valley Projects** map shows the location of high priority key regional projects for the East Valley subregion and the associated project table summarizes key elements of these projects.

Roadways. Construction of a new east-west corridor over the Yakima River is included in the M/RTP as secured-funding project and is discussed in greater detail in the Central Subregion.

WSDOT has one secured project which will add a southbound right-turn lane at the intersection of Birchfield and SR24.

The City of Moxee has two secured projects for new construction in the M/RTP which are connected. The projects will construct a new intersection on SR 24 in the alignment of the new Morrier Lane. This new intersection will add another access point off of SR24 to the City of Moxee, which will provide new economic development opportunities and provide relief on local roads for freight traffic.

Non-motorized. Recent improvements to University Parkway and current widening of SR 24 include non-motorized facilities. Future widening of SR 24 to Moxee also will support non-motorized transportation. Any improvements will comply with ADA requirements.

Transit and Transportation Demand Management. The East Valley subregion is not served by fixed-route bus service from Yakima Transit. The subregion is served by People for People paratransit service for Medicaid or the Job Access Transportation Program, for people that qualify for these services. There is a need to expand demand response service in this area and to coordinate with existing and expanded rural transit service to regional services and facilities. A strategy to mitigate some of the growing congestion on SR 24 between Moxee and Yakima is to implement a park-and-ride and commuter service between the two communities. The fixed-route service could also serve areas near the larger employers in Moxee.

The City of Moxee has three employers affected by the CTR law. These worksites in Moxee can encourage commute trip reduction by providing incentives or subsidies for employees who use alternative modes of transportation such as carpooling, vanpooling, walking or biking; allowing alternative work schedules; and providing bicycle lockers and shower facilities to employees.

These types of strategies should be effectively promoted in order to be successful. Information about commute alternatives should be distributed regularly to employees. Examples of information to be distributed include non-motorized transportation maps, vanpool rider signup information, and materials informing people of their transportation choices.

South Central Subregion

The communities of Toppenish, Wapato, Harrah, and Zillah are within the South Central (SC) subregion. The subregion extends from South Union Gap to just north of Granger. The portion of the South Central subregion that is west of the Yakima River and I-82 is mostly comprised of Yakama Nation land. The core of the regional transportation system serving this area are the state highways, including I-82, US 97, and SR 22. Yakima County has a system of major collector roads, such as the Yakima Valley Highway, Meyers Road, Fort Road, Branch Road, and Donald-Wapato Road that serve travel within the subregion and connections to the state highway system.

Transportation Needs and Improvement Strategies

The primary focus of the M/RTP improvements in the South Central subregion are reconstructing and upgrading roadways to accommodate more traffic and freight safely. The SouthCentral_Projects maps and associated project table summarize the highest priority improvements, which are discussed below.

Roadways. Several improvements to the state highway system are included in the subregion project lists. These include multiple intersection improvements on US 97, an at-grade railroad crossing on SR223, rehabilitation to the I-82/Yakima Valley Highway Bridge, and the replacement of the SR22.Yakima River crossing near Toppenish just to name a few. The multitude of highway system projects in the SC region will greatly enhance safety for motorists and efficiency for freight movement.

The secured intersection at US 97 and Robbins Road is a proposed Roundabout. This is the first of many planned roundabouts on the US 97 corridor designed to enhance freight mobility in the lower valley. An alternative freight route connecting US 97 to I-82, on the east side of Toppenish, is also included in the M/RTP. This route designated as a regional priority by DRYVE will upgrade Larue and Meyers Road to connect US 97 to I-82 at the west Zillah interchange.

Other M/RTP improvements in the South Central subregion include preservation projects to roadways sections and bridges, along with the installation of a Variable Message Sign which is also an Intelligent Transportation Systems (ITS) project.

Yakima County has one secured project to widen the intersection of Cheyne Road and Highland Drive. This project will greatly enhance safety at this rural intersection that sees several garbage trucks going to the Cheyne Landfill and seasonal agricultural traffic.

The City of Toppenish includes two secured projects in the M/RTP which include the reconstruction of Lincoln Ave., Dayton Ave., and Beech St.; along with a new construction project to extend Jackson St.

The Town of Harrah has several planned preservation and reconstruction projects through the M/RTP. There is one secured project during the planning period to construct new sidewalk on the east side of Harrah Road in front of the school.

The City of Wapato does not have any secured projects in the M/RTP but does include several planned reconstruction projects that will enhance vehicle and pedestrian mobility throughout the city.

The City of Zillah includes one secured project in the M/RTP – the Vintage Valley Parkway Extension – which will significantly improve traffic and freight mobility on the west side of Zillah, along with opening a new corridor for commercial and industrial development.

Non-motorized. The roadway and intersection improvements will also support non-motorized travel, especially near Toppenish. The improvements that shift freight traffic to alternative corridors will also improve non-motorized travel by reducing total traffic and truck traffic along existing routes. Expanding facilities for non-motorized transportation should be incorporated into future roadway improvements and maintenance programs. These will help encourage bicycling and pedestrian travel in the subregion.

Transit and Transportation Demand Management. The South Central subregion is served by the People for People Community Connector, which connects Prosser and Yakima. This subregion is also served by People for People paratransit service for the Job Access Transportation program and the Medicaid transportation services

program. There is a need to expand demand response service in this area and to coordinate with existing and expanded rural transit service to regional services and facilities. In addition, to provide better connections from this area to medical and educational facilities in Yakima, an extension of Community Connector service should be considered within the City of Yakima in areas currently served by Yakima Transit to provide a one-seat ride directly to medical and educational opportunities.

The Yakama Nation has a Tribal Transit system, Pahto Public Passage, which provides a fixed route transportation service for the reservation and surrounding communities. The fixed route system provides traditional scheduled service at designated stops throughout the reservation and connects Yakima, Prosser, Sunnyside, Grandview, Wapato, Zillah, Toppenish, Harrah,

Goldendale, and White Swan. The service improves accessibility to jobs, education, shopping, health care, social services, cultural, and other daily activities.

The South Central subregion should promote alternative modes of transportation such as walking, biking, carpooling, and vanpooling. These traffic demand management strategies should be effectively promoted in order to be successful. Information about commute alternatives should be distributed regularly to employees. Examples of information to be distributed include:

- Non-motorized transportation maps and schedules.
- Vanpool rider signup information.
- Promotional materials informing people of their transportation choices.

Southeast Subregion

The Southeast (SE) subregion includes the communities of Granger, Sunnyside, and Grandview along I-82, and Mabton along SR 22. Similar to the South-Central subregion, state highways are used for much of the travel in this subregion. City arterials and County collector roads connect the communities to the state highways and serve local travel patterns.

Transportation Needs and Improvement Strategies

The ***Southeast Projects*** maps and associated project table summarize the higher priority M/RTP improvements for the Southeast subregion. The improvements focus on regional access and connectivity. They also address existing or forecast safety and operations needs along regional corridors.

Roadways. Regional improvements in the Southeast subregion will address safety and operational needs on highway, arterial, and collector road corridors accessing I-82. In Granger, the M/RTP includes several planned reconstruction and preservation projects throughout the city which will enhance vehicle and pedestrian traffic.

WSDOT has secured funding to rehabilitate and retrofit the bridges on SR 241 near Mabton. This improvement will improve freight /vehicle traffic in the Lower Valley.

Sunnyside includes a secured project for the reconstruction of South 6th Street which will improve the roadway within the commercial district and near an elementary school.

The M/RTP includes the reconstruction and widening of Old Inland Empire Highway as a fiscally-constrained project which will improve the east-west traffic, including freight, through the industrial center of Grandview.

Grandview also shows a planned, but unfunded, project to signalize the intersection of Wine Country Road and McCreadie Road. This intersection is the eastern exit to Grandview off of I-82.

The City of Mabton includes a reconstruction project on Main Street which will greatly enhance vehicle and pedestrian traffic in the downtown. The project also includes a much-needed pedestrian crossing on SR22 which will provide a safe location for children walking to school from south Mabton.

Non-motorized. The roadway reconstruction and widening projects will include sidewalks or improved shoulders which will support non-motorized travel in these communities. These should be designed and constructed to comply with the ADA requirements. New and improved regional non-motorized links should be constructed to encourage more non-motorized transportation, including making connections between existing pedestrian and bicycle routes and adding bicycle and pedestrian routes to major employer worksites. These new bicycle and pedestrian routes should be ADA compatible.

Transit and Transportation Demand Management. The Southeast subregion is served by the People for People Community Connector, which connects Prosser and Yakima. This subregion is also served by People for People paratransit service for the Job Access Transportation program and the Medicaid transportation services program. There is a need to expand demand response service in this area and to coordinate with existing and expanded rural transit service to regional services and facilities. In addition, to provide better connections from this area to medical and educational facilities in Yakima, an extension of Community Connector service in the City of Yakima should be considered to provide a one-seat ride from the rural areas to these destinations.

Additional transit service will be developed to parts of the Southeast subregion through the Yakama Nation's Pahto Public Passage which provides fixed route service throughout the Yakama Reservation and surrounding communities. The service will provide access to employment, education, health care, social services, shopping and other activities.

The Southeast subregion should promote alternative modes of transportation such as walking, biking, carpooling, and vanpooling. These TDM strategies should be effectively promoted in order to be successful. Information about commute alternatives should be distributed regularly to employees. Examples of information to be distributed include distribution of non-motorized transportation maps, vanpool rider signup information, and promotional materials informing people of their transportation choices.

NOTE: Maps and Tables shown in APPENDIX F.

Section 7

Environmental Constraints Analysis

A programmatic-level review of potential environmental constraints was conducted as part of the M/RTP. Environmental constraints may be encountered with planning, design, permitting and construction of future transportation improvement projects identified in the M/RTP. The complete environmental constraints analysis and other supporting environmental documentation is found in Appendix G.

The State Environmental Policy Act (SEPA) provides the context for the analysis of environmental constraints, but specific federal and local regulations are also applicable. Generally, the environmental analysis for the M/RTP looked at the potential for impacts from road construction and improvements. The analysis identified where there may be potential for impacts to:

- Geologic hazard areas.
- Water resources and wetlands.
- Endangered, threatened, sensitive, candidate and priority plant and animal habitat areas.
- Air quality.
- Land use and housing.
- Noise.
- Aesthetics/light and glare.
- Environmental justice.
- Recreation.
- Historic/cultural resources.

Due to the uncertain nature of transportation funding during the next few years, the environmental constraints analysis focused on projects that are currently within the fiscally constrained portion of the plan (see Section 8). The environmental constraints analysis also focused on projects that will significantly add to the footprint of roadways, including projects identified for the state highways, as well as regional transportation projects as summarized into the seven subregions. Several major widening projects are identified in the M/RTP for state highways. In addition, several projects will add to the roadway surface area at intersections. Within the subregions, the M/RTP identifies several major corridors for road widening and/or extensions. Projects in the M/RTP that could significantly add to the footprint of roadways are summarized by subregion.

For M/RTP projects that do not involve significant increases in roadway surface, there may be some potential for temporary construction impacts such as noise and air quality. However, it is generally not expected that there will be environmental constraints associated with these projects that will create significant impacts, lengthen the project approval process, or increase the cost of project design and approval. Projects that will not add roadway surface are discussed under the heading “Maintenance, Upgrades, and Reconstruction Projects.” The M/RTP also includes improvements to transit and trails, which are discussed under “Projects for Improving Alternative Transportation Modes.”

The environmental constraints analysis for the M/RTP is not intended to identify specific environmental impacts of road projects included in the M/RTP, or to be used in determining environmental mitigation. Analysis of

specific direct and indirect impacts and potential mitigations will occur as individual transportation projects and programs are further defined and permitted.

Environmental Elements

A brief summary of each element of the environment for which constraints may exist is presented in a table titled **Overview of Environmental Elements** at the end of this section. Information on applicable regulations and data sources are included in Appendix G.

Potential for Environmental Impacts of Major Improvement Projects

State Highway Projects

The potential for environmental impacts of the fiscally-constrained state highway projects is greatest for those that will considerably add to roadway footprints (impervious surface area) such as the addition of lanes or new highway interchanges. In general, widening projects that will be located near rivers may affect shoreline jurisdiction area, floodplains, habitat area, aesthetic conditions, wetlands where they may exist adjacent to rivers, and to some extent water quality. There is also potential to affect recreation activities where they are located adjacent to these rivers. Some geologic hazard areas may also be affected. Increased noise associated with these projects also has the potential to affect both habitat areas and recreation where they are located in the immediate vicinity. Projects that will add impervious surface area without increasing capacity will have minor impacts and will be less likely to affect land use or housing. Projects located in urban areas are expected to have fewer impacts to the natural environment than projects in rural areas, due to existing levels of urbanization and impervious surface area, and existing disturbance of habitat.

Regional Transportation Projects by Local Agencies

For regional roadways, several major widening projects are identified, as well as several projects that would add to the roadway surface area at intersections. Within these sub-regions, the M/RTP identifies several major corridors for road widening and/or extension. This environmental constraints analysis focuses on these types of major regional transportation projects. In addition, this analysis focuses on fiscally-constrained projects due to the uncertainty of transportation funding in the next few years. The potential impacts of regional transportation projects will be completed by local agencies during project development and pre- design. A brief summary of projects in each subregion is summarized below.

Northwest Subregion

The Northwest subregion is somewhat urbanized but also includes considerable agricultural and less urbanized areas. Regional improvements in this subregion developed by local agencies would generally have minimal environmental impacts. No fiscally-constrained projects adding considerably to roadway footprints were identified in the North Subregion for this analysis.

North Subregion

The North subregion includes the urbanized areas in and around Selah, and considerable agricultural and rural areas to the north. Secured WSDOT projects include numerous paving and chip seal efforts, SR 12 intersection safety improvements at Eschbach and Ackley Roads, and a camera/variable message sign project at Old Naches Road Intersection which generally have minimal environmental impacts. No fiscally-constrained projects adding considerably to roadway footprints were identified in the North Subregion for this analysis.

West Subregion

This subregion includes the western edge of the Yakima urbanized area, and considerable rural and agricultural areas to the west. No fiscally-constrained projects adding considerably to roadway footprints were identified in the West Subregion for this analysis.

Central Subregion

The Central subregion contains the majority of the non-state highway improvement projects that will have the greatest potential for environmental impacts. Most of these projects will be in urban areas that are already developed; therefore, the potential for impacts is relatively low. However, many watercourses exist in this subregion, and could be adversely affected. Many of these projects will not add significant roadway capacity and will not contribute to noise, light or glare, but may include small increases in impervious surface area and associated stormwater runoff. The urban areas in the Central subregion include some plant and animal habitat. The priority habitat areas that exist within the urban areas are primarily located in the immediate vicinity of major watercourses, and aquatic habitat for priority fish species is located in a number of smaller streams in the north, south and southwest portions of this subregion. Where road projects occur near habitat areas, habitat may become further degraded, or connections between some habitat areas could be reduced or eliminated. The urban area also includes some shoreline jurisdiction area adjacent to the Yakima River, Naches River, Ahtanum Creek and Cowiche Creek. Road projects in shoreline jurisdiction areas will need to comply with applicable shoreline regulations. Major watercourses such as the Yakima River and Ahtanum Creek have adjacent floodplain areas, and some road projects will cross floodplains.

Road extension and widening projects that add lanes have the potential to disturb existing land uses if located where additional right-of-way will need to be acquired. These projects can also add noise, light and glare, and will change aesthetic conditions. In some cases, nearby parks or other sensitive uses such as schools and residences could be affected. A variety of historic resources exist within the Yakima urban area, however these are generally concentrated in downtown Yakima. Further study of potential effects on historic resources will be needed as projects are refined. The Yakima urban area also includes concentrations of housing for low income and minority populations, particularly in areas between 1st Street and I-82 and to some extent the area south of West I Street and east of North 5th Avenue, northwest of downtown Yakima.

The East-West Corridor project has significant potential impacts beyond the scope of the Plan and were considered as a part of the partners' (City of Yakima, Yakima County, WSDOT) Interchange Justification Report and subsequent PE, R/W, and Construction phases. Since the 2016-2040 M/RTP the East-West Corridor Project has received legislature-approved "Connecting Washington" funding for the construction of the project. Phase I, near the eastern terminus of the corridor began construction in 2019.

In less densely urbanized portions of this subregion, such as southwest of the Yakima city limits, there is a greater presence of streams and potentially some wetland areas. While terrestrial habitat areas for priority species are limited, there is more potential to disturb habitat, and the presence of priority aquatic habitat areas may require further study. However, there is less potential to affect sensitive land uses in this area.

East Valley Subregion

The East Valley subregion includes the City of Moxee and the surrounding unincorporated areas. Several state highway improvement projects are identified within the East Valley subregion. Moderate impacts and constraints are expected for the regional transportation projects developed by Yakima County, WSDOT, or the City of Moxee including Moxee's Morrier Lane Extension Project that continues the city's 2018 SR 24/Morrier Lane and Duffield improvements. The East-West Corridor project has significant potential impacts beyond the scope of the Plan and will be considered as a part of the partners' Interchange Justification Report and subsequent PE, R/W, and Construction phases. Since the 2016-2040 M/RTP the East-West Corridor Project has received legislature-approved "Connecting Washington" funding for the construction of the project. Phase I, near the eastern terminus of the corridor began construction in 2019.

No fiscally-constrained projects adding considerably to roadway footprints were identified in the East Valley Subregion for this analysis.

South Central Subregion

The South-Central subregion includes the communities of Wapato, Harrah, Toppenish and Zillah. Watercourses and floodplains in this subregion will likely be affected. There may be potential to affect wetlands, and relatively low potential for land use constraints and impacts. The M/RTP includes the City of Toppenish's Lincoln/Dayton/Beech [Roads] Reconstruction and Jackson Street Reconstruction projects and the Town of Zillah's Vintage Valley Parkway Project. Secured WSDOT projects include numerous paving efforts, I-82 Interchange improvements at Thorp, Donald, West Zillah, and East Zillah locations, and new US 97 roundabouts at the intersections of Lateral A, 2nd Avenue (Parker), Jones, West Wapato, and McDonald/Becker to address safety concerns, which generally have a low potential to affect wetlands, land use, housing, noise, aesthetics, and environmental justice when constructed within existing rights of way impact watercourses, wetlands, and floodplains, and is located in a shoreline jurisdiction area. An identified project to repair a bridge on SR 22 would impact watercourses, wetlands, and floodplains, and is located in a shoreline jurisdiction area.

No fiscally-constrained projects adding considerably to roadway footprints were identified in the South Central Subregion for this analysis.

Southeast Subregion

This subregion includes Yakima County's Independence Road Reconstruction Project and several municipal widening and reconstruction projects which generally have a low potential to affect wetlands, land use, housing, noise, aesthetics, and environmental justice when constructed within existing rights of way. Secured

WSDOT projects include numerous “preservation” paving, chip seal, and bridge retrofit projects which will also have limited impact on the surrounding area.

No fiscally-constrained projects adding considerably to roadway footprints were identified in the South Central Subregion for this analysis.

Other High Priority Local Agency Projects

The M/RTP identifies a number of future regional projects that are not included in the fiscally constrained M/RTP that could be implemented by local agencies if additional funding is secured. Potential environmental impacts and constraints associated with these projects are similar to the impacts for other fiscally-constrained M/RTP projects in their respective subregions as discussed above. Projects that increase capacity through widening or extension of existing roads can have the greatest effects. Projects that add impervious surface area without increasing capacity will have more minor impacts and will be less likely to affect land use or housing. Projects located in urban areas are expected to have lesser impacts than projects in rural areas, due to existing levels of urbanization and impervious surface area, and existing disturbance of habitat.

Potential for Environmental Impacts of Other Transportation Programs

The M/RTP establishes preservation, safety, and efficiency of the transportation system as high priorities. WSDOT, Yakima County, and the other local agencies have programs to maintain, operate, and otherwise systematically address transportation needs of the region. These programs address maintenance and reconstruction of existing transportation facilities, and enhancements to address existing environmental impacts. They also address intersection/operations improvements. Programs and projects to enhance use of transit or non-motorized transportation are also addressed in this section. These programs may not trigger project-specific environmental review. However, some of the programs can result in potential impacts to the environment. The table titled *Potential for Positive and Negative Impacts* at the end of this section summarizes the potential environmental constraints that may need to be addressed for these programs. Both potential positive and negative impacts are noted. Potential short-term impacts that are noted are associated with construction and will be temporary.

Maintenance, Reconstruction, Environmental Projects and Area-wide Improvement Programs

The M/RTP includes a number of projects that, based on the project type, are not discussed individually in this summary or **Appendix F**. These include general maintenance and roadway overlay projects, signage modifications, sidewalk completion, lighting improvements, rail crossing improvements, safety improvements such as installation of guardrails, and installation of curbs and gutters, for example. Some of these projects are categorically exempt from environmental review. For others, potential environmental constraints cannot be specifically identified at this level of planning. Others, such as intersection and operational improvements, may result in improved environmental conditions. Some of these projects apply to specific road segments or local areas, while others will be area-wide improvements.

Area-wide projects included in the M/RTP are not analyzed individually because specific locations are not identified. These include roadway overlays, sidewalk improvements, signal timing enhancements, intelligent transportation system, and other area-wide improvement strategies. These project types include improvements that will not result in increased impervious surface area.

Projects for Improving Alternative Transportation Modes

The M/RTP also includes improvements to transit, transportation demand management, and non-motorized transportation. The potential impacts of these are not specifically discussed for two reasons: 1) the nature of transit and trail improvements generally require less physical construction and generally have less potential for adverse impact than road widening or extension projects, and 2) specific alignments for trail improvements and bus routes are not identified. Although specific projects that serve other travel modes are not specifically presented, a general overview of the potential environmental impacts of these project types are listed in ***Potential for Positive and Negative Impacts and Overview of Environmental Elements*** (at the end of this chapter) also provides a summary of potential impacts to environmental elements, similar to the summaries provided above for maintenance and reconstruction type projects, and area-wide improvement programs. Potential short-term impacts that are noted are associated with construction and will be temporary.

Air Quality Analysis

Air quality planning for transportation is focused on meeting the National Ambient Air Quality Standards (NAAQS) and deadlines set by the federal Environmental Protection Agency (EPA), and upon the state Department of Ecology (DOE) guidelines for meeting the standards. Specific federal and state air quality conformity requirements come from the integration of requirements in the Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and are codified in 40 CFR Part 93.

These requirements were also included in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU), and Washington State's Clean Air Act (RCW 70.94 & WAC 173-420-110). The requirements include:

- Frequency of Conformity Determinations (40 CFR 93.104)

YVCOG is responsible for completing the metropolitan transportation plan (MTP), and the metropolitan transportation improvement program (MTIP) for the Greater Yakima metropolitan area. Transportation plans and transportation improvement programs must be demonstrated to meet air quality standards at least every four years – or at any time when changes are proposed.

- Latest Planning Assumptions (40 CFR 93.110)

Nonattainment and maintenance areas must use the most recent planning assumptions in force at the time of the determination when making their conformity determination.

- Interagency Consultation (40 CFR 93.105, 40 CFR 93.112)

Under the approved limited maintenance plans (LMPs) for CO and PM₁₀ there are no motor vehicle emissions budgets. Therefore, a regional emissions analysis is not required. The Environmental Protection Agency (EPA) assumes that VMT growth is not expected to create a violation of NAAQS. However, a conformity determination is still required via the interagency consultation process.

Transportation conformity rules require that YVCOG must demonstrate via the interagency consultation process that the projects included in the transportation plan and the transportation improvement program successfully demonstrate that either singly or taken together, they will not cause the region's air quality to deteriorate nor will they cause or contribute to any new violation of the federal air quality standards for CO or PM₁₀.

The Environmental Protection Agency (EPA) re-designated both the Yakima carbon monoxide (CO) nonattainment area and the PM₁₀ nonattainment area to "attainment" for the National Ambient Air Quality Standards (NAAQS) and approved a limited maintenance plan (LMP) effective December 31, 2002 for CO and March 10, 2005 for PM₁₀. Additionally, on March 9, 2005 an EPA approved boundary change to the PM₁₀ maintenance area to exclude lands belonging to the Yakama Nation went into effect.

Under limited maintenance plans, the motor vehicle emissions may be treated as essentially non-constraining because growth would need to exceed reasonable expectations to create a potential violation of the air quality standards for either PM₁₀ or CO. Under the limited maintenance plans, a regional emissions analysis is not required. Please note that even though a regional emissions analysis is not required, there are still other requirements that the area must meet for conformity. Remaining conformity requirements (as detailed in 40 CFR 93.109) include consultation (40 CFR 93.112), timely implementation of transportation control measures (40 CFR 93.113), and project level analysis (40 CFR 93.116). Individual transportation projects may be required to undergo air quality conformity analysis in order to obtain project approval. Project level analysis is performed by the project sponsor in accordance with state and federal requirements and methodologies. Having attainment status is a recognition that air quality has improved and the probability of future violations of the NAAQS is very low.

In 2018 YVCOG successfully updated its transportation model for purposes of the Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040. The updated model maintains consistency with the previous model as it employs the same underlying assumptions, the same gravity equations, and continues to simulate PM peak hour traffic. The enhancements in the upcoming model, anticipated to be completed for the analysis of this year's 2020-2023 CMAQ Call for Projects, maintains consistency and provides enhancements of: freight data, transit routes, and greater delineation of input land use and employment categories.

The VISUM platform allows YVCOG to continue to track average daily vehicle miles of travel (ADVMT) based on updated information. Through consultation with DOE on July 29, 2008 it was determined that YVCOG would report the annual ADVMT growth rate for the entire PM₁₀ maintenance area. Since the PM₁₀ maintenance area contains the CO maintenance area, YVCOG can use the PM₁₀ maintenance area ADVMT growth rate for the CO maintenance area. If the annual growth rate is less than or equal to 2 percent, the M/RTP conforms to the LMP. If the growth rate exceeds 2 percent, then YVCOG will use the transportation consultation process to determine how to demonstrate conformity. If the growth in ADVMTs is shown to exceed 2 percent per year, further analysis is needed to determine the cause(s). A growth rate higher than 2 percent per year indicates extraordinarily large increases in population, vehicles and traffic, and the air quality impacts of these changes need to be studied more closely. The 2 percent annual ADVMT growth rate matches the ADVMT growth assumptions made in the approved PM₁₀ LMP.

Under the current limited maintenance plans, individual transportation projects may be required to undergo air quality conformity analysis in order to obtain project approval. Project level analysis will continue to be performed by the project sponsor in accordance with state and federal requirements and methodologies.

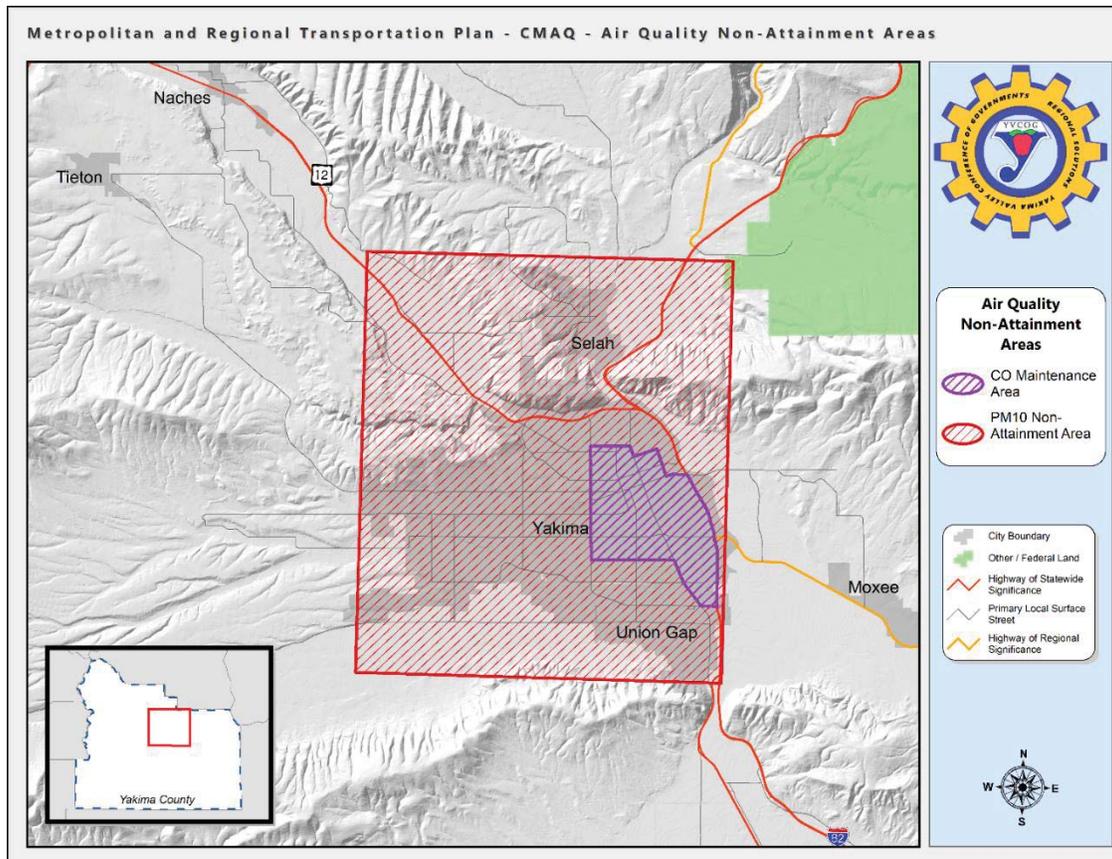
METROPOLITAN TRANSPORTATION MODEL CONVERSION AND UPDATE

The air quality conformity analysis for the 2045 forecast year was conducted for the Build condition, which assumes all capacity-adding projects and those projects changing intersection controls; the build scenario includes the WSDOT and local agency Transportation Improvement Programs (TIPs). In addition, the analysis was conducted based on the projects identified as “secured” in the 2020-2045 Draft M/RTP. Included in the financially constrained plan, the 2045 conformity analysis was performed with the inclusion of the east-west corridor from the City of Yakima to the Terrace Heights community. The 2018 model documentation is in Appendix E.

Carbon Monoxide (CO). A limited maintenance plan is also in place for CO emissions in and around downtown Yakima. The limited maintenance plan does not establish a transportation conformity budget for CO. The limited maintenance plan includes programs to optimize signal timing in downtown Yakima to reduce pollutants and continue CTR programs. It also includes public information measures to encourage voluntary efforts to reduce CO emissions.

Similar to PM₁₀ emissions, the CO conformity analysis was performed for 2020 and 2045.

Conformity. The 2020-2045 M/RTP achieves and maintains the NAAQS as required by the Clean Air Act Amendments of 1990, meets the requirements set forth in WAC 173-420, and the current Yakima limited maintenance plans for both CO and PM₁₀.



Potential for Positive and Negative Impacts					
Project Type	Water Quality	Priority Species Habitat Sites and Areas	Air Quality	Noise (Sensitive Users)	Light and Glare
Maintenance, Upgrades, Reconstruction and Environmental Projects					
Sidewalk and Americans with Disabilities Act	N/A	N/A	Potential Short-term impact	Potential Short-term increase	N/A
Scour Prevention	Potential Short-term impact if best management practices are not followed	Potential Short-term impact to aquatic habitat	N/A	N/A	N/A
School Safety Improvements (signage & striping)	N/A	N/A	Potential Short-term impact	Potential Short-term increase	N/A
Spot Safety Improvements	N/A	N/A	Potential Short-term impact	Potential Short-term increase	N/A
Installation of curb, gutter and drainage System	Potential Improvement	N/A	N/A	N/A	N/A
Installation of Lighting	N/A	N/A	N/A	N/A	Potential Increase
Rail Rehabilitation Projects	N/A	N/A	Potential Short-term impact. Potential Long-term impact due to improved freight transport	N/A	N/A
Rail Crossing Improvements	N/A	N/A	Potential Short-term Impact	Potential Short-term increase	N/A
Studies, design, and creation of management systems	N/A	N/A	N/A	N/A	N/A
Expansion of Public Transportation Service	N/A	N/A	Potential Improvements	Potential Increase, but also potential decrease	N/A
Special Needs Transportation Service	N/A	N/A	Potential Improvements	Potential Increase, but also potential decrease	N/A
Sidewalk Completion	Potential Short-term impact from accidental spills or if best practices are not followed	N/A	Potential Short-term impact. Potential long-term improvement due to enhanced walkability	Potential Short-term increase. Potential long-term decrease	N/A
School Safety Improvements	N/A	N/A	Potential Short-term impact. Potential long-term improvement due to enhanced walkability	Potential Short-term increase. Potential long-term decrease	N/A
Maintenance of Transit Shelters & Benches	N/A	N/A	N/A	N/A	N/A
Pavement resurfacing, overlays, or pavement repair, and paving of alleys	Potential Short-term impact from accidental spills or if best practices are not followed	N/A	Potential Short-term Impact	Potential Short-term increase	N/A
Road Construction (without widening)	Potential Short-term impact to Water Quality from accidental spills or if best practices are not followed	N/A	Potential Short-term Impact	Potential Short-term increase	N/A
Bridge Reconstruction (without widening)	Potential Short-term impact to Water Quality from accidental spills or if best practices are not followed	N/A	Potential Short-term Impact	Potential Short-term increase	N/A

Project Type	Water Quality	Priority Species Habitat Sites and Areas	Air Quality	Noise (Sensitive Users)	Light and Glare
Maintenance, Upgrades, Reconstruction and Environmental Projects					
Intersection Operational Improvements (Including signal installation & signal timing/phasing improvements)	N/A	N/A	Potential Long-term improvement due to decreased intersection delay	Potential Long-term reduction due to decreased intersection delay	Potential Long-term reduction due to intersection delay
Signage Upgrades & Modifications	N/A	N/A	N/A	Potential Short-term Increase	N/A
Intelligent Transportation Systems (ITS)	N/A	N/A	N/A	Potential Short-term Increase	N/A
Striping	N/A	N/A	Potential Short-term Impact	Potential Short-term Increase	N/A
Installation of Guardrails, median barriers, rumble strips, or other safety devices	N/A	N/A	N/A	Potential Short-term Increase	N/A
Removal of Obstructions	N/A	N/A	N/A	Potential Short-term Increase	N/A
Abatement of PM10 particulate matter, paving of roadway shoulders, and paving of gravel roads	Potential Improvement	N/A	Potential Short-term impact. Long-term Improvement	N/A	N/A
Slope Stabilization and/or erosion control, repair, or mitigation	Potential Improvement	N/A	N/A	N/A	N/A
Fish Barrier Improvements	N/A	Improvement to Aquatic Habitat	N/A	N/A	N/A
Noise Reduction (Installation of Noise Barrier)	N/A	N/A	Potential Short-term Impact	Potential Short-term increase, Long-term decrease in noise	N/A
Trail Expansion (Moxee-Yakima Trail / YN Heritage Trail / Lower Valley Trail Extension – Yakima Greenway to Sunnyside-Grandview-Prosser Pathway)	Potential Short-term impact from accidental spills or if best management practices are not followed	N/A	Potential Short-term impact. Potential long-term improvements due to enhanced walkability	Potential Short-term increase, Potential long-term decrease	N/A
Acquisition of Rail Corridor for Future Trail Use	N/A	N/A	N/A	N/A	N/A
Short Line Rail Transmodal Facility Development – Construction of Transmodal loading facilities at various locations	Potential Short-term impact from accidental spills or if best management practices are not followed	N/A	Potential Short-term impact. Potential long-term improvements due to enhanced freight movement	Potential Short-term increases. Potential long-term decrease due to enhanced freight movement	N/A

Overview of Environmental Elements	
ENVIRONMENTAL ELEMENT	PROJECTS WITH POTENTIAL IMPACTS
Aesthetics/Light and Glare	Where changing visual conditions or added light or glare due to road extension or increased capacity, may affect sensitive land uses and/or priority habitat areas.
Air Quality	Conformity with National Ambient Air Quality Standards (NAAQS) was analyzed on an area-wide basis. See the discussion under the Air Quality Analysis below.
Earth/Geological Hazards	Projects that cross or be adjacent to mapped steep slopes, landslide and avalanche risk areas, stream undercutting, and earthquake activity areas. (Suitability of soils to be assessed with project level environmental review and permitting.)
Environmental Justice	Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Projects in immediate proximity of concentrations of poor and/or minority populations, particularly in the vicinity of projects that may generate substantial noise, land use/housing disturbance, land use incompatibility, aesthetic impacts, light and glare, or impacts to recreational resources.
Floodplains	Projects located within mapped floodplains.
Historic and Cultural Resources	Projects in the immediate vicinity of state- or federally-designated historic properties (Washington Heritage Register or National Register of Historic Places). The potential for impacts to archaeological resources will be evaluated at the project level due to sensitive nature of the locations of archaeological resources.
Land Use and Housing	Projects that may have potential for direct disturbance of an existing land use, land use incompatibilities, or the need to relocate housing units. (Actual impacts will likely be fewer than identified where there is existing right-of-way to accommodate road expansion, or where there are intervening topography, buildings or vegetation.)
Noise	Projects located in proximity to residences, habitat areas, parks, schools, and hospitals, which are considered sensitive to noise. All widening and extension projects, and some other improvement or upgrade projects, will result in increased noise during construction.
Plants and Animals	Projects adjacent to terrestrial (land) or aquatic (water) habitat areas for state or federally listed endangered, threatened, or candidate, sensitive, or other vulnerable or important species. (Where a project may affect an identified habitat area, more investigation is required to confirm the actual, current use of the identified area as habitat.)
Recreation	Projects in the immediate vicinity of parks or recreational resources.
Shoreline Use	Projects that may be located within a shoreline jurisdiction area (i.e. within 200 feet of shorelines of the state) and therefore subject to the Washington State Shoreline Management Act (SMA). The SMA is implemented by the shoreline master program in effect in the local jurisdiction.
Water and Wetlands	Projects that cross or will be in the immediate vicinity of rivers, streams or lakes, or in the immediate vicinity of identified wetlands, however the actual presence and location of wetlands must be field verified. (Groundwater issues, stormwater management, and any necessary mitigation for protection of aquifers will be evaluated and determined at the project level.) Floodplains Projects located within mapped floodplains.

Section 8

Financial Constraints

Introduction

This section identified funding mechanisms and types of revenue available for the transportation improvements listed in Section 6 of the Plan. These mechanisms include sources provided through local, state and federal sources. The purpose of the financial analysis is to demonstrate what funding may be reasonably available during the planning horizon of the Plan. There are a variety of approaches that can be taken to develop what may be reasonably available during the planning horizon years.

For the purposes of this M/RTP, YVCOG has examined historical growth rates for various revenue streams used to support transportation operations, maintenance, and capital investments during the plan period. The historical and projected financial information has been obtained from a variety of sources including the Washington State Office of Financial Management, WSDOT Economic Analysis Branch, Yakima County, and various transit agencies. Project costs have been annually adjusted based on WSDOT's cost index or assumed growth rates agreed upon by MPO/RTPO members in the development of this Plan. Projects are described in Current Year dollars.

This analysis should in no way be construed to be an actual forecast of individual programs or projects, but rather an order of magnitude analysis of funds that could be reasonably available for transportation investments during the planning horizon of the Plan. Local jurisdictions, WSDOT, transit agencies and the Washington State Office of Financial Management prepare and release forecasts of revenues and expenditures and should be consulted during the actual development of projects and programs unique to their area of expertise or funding program.

Funding Sources

Detailed descriptions of funding sources can be found in Appendix H. For planning purposes, historical revenues received by local and transit agencies from all sources were used to project estimates of future funding. Anomalies for historical one-time or situational revenues received such as federal ARRA funds, earmarks, and emergency funding for natural disasters were not assumed to be available in future years.

Financial Capacity Analysis Revenues

YVCOG staff developed projections for local, state, and federal revenue based on historical data trends and assumptions developed through the Plan development process with the MPO/RTPO Technical Advisory Committee (TAC). TAC members include representatives from local agency planning and public works, WSDOT, tribal, and transit agencies.

The financial capacity analysis for future years assumes that existing revenue streams will remain in the future, even though they may be only reasonably available for future use. Revenue assumptions for Yakima Transit assumes no increase incremental fare and sales tax increases as a vast majority of ridership are financially challenged.

Cities and Counties

As stated previously, YVCOG staff examined averages over several year bands for the period of 2011-2020. Local jurisdictions within Yakima County, as a group, reported an average of \$61 million per year from various dedicated revenue sources. Non-federal funds are expected to provide the largest percentage of transportation revenue through the planning horizon. The table titled Reasonably Available Revenues 2020-2045 provides the percentage of funding available for local agencies assumed for the period 2020-2045.

Initiatives 976 (2019) and 695 (1999) and Their Impacts

In November 2019, Initiative 976 or the “Car Tab” Initiative was approved by a general election vote to reimpose an annual vehicle license fees (or Motor Vehicle Excise Taxes – MVET) at \$30 per year as was similarly approved by Initiative 695 in 1999. Though I-695 was deemed unconstitutional at the time, the state legislature sighting the will of the people, enacted many of the initiatives fee cutting requirements. This reduction in MVET revenues resulted in a significant reduction in available transportation revenues for local (city / county) and state transportation programs for many years. Over the next 15 years, the state legislature enacted a series of gas tax (increased) funded transportation acts which significantly benefited the state highway system but provided less benefit for local government systems

The state legislature authorized the creation of “Transportation Benefit Districts” (TBDs) in which counties or cities could, through a city or county council resolution or public vote, 1) impose a sales tax increase or 2) add a \$20 TBD fee to the base \$30 vehicle license levels for generating revenue for their respective local jurisdictional transportation systems. This TBD fee could be increased to \$40 only after the \$20 increase was in effect for a minimum of 24 months. Between 2012 and 2017, six regional jurisdictions (Grandview, Mabton, Toppenish, Wapato, Yakima, and Zillah) imposed council TBDs within their city limits to fund maintenance and preservation activities, safety and major improvement projects, or used as match for state and federal transportation grants. Annual city TBD revenues ranged from \$34,000 to \$1.6 Million, depending on the number of licensed vehicles within each respective city.

With passage of I-976, again reducing annual vehicle license revenues to a \$30 base rate and potentially ending the “council-approved” TBD legislation, state and local governments are facing hundreds of millions of dollars in lost transportation revenue. In December 2019, I-976 was challenged in court as to its constitutionality. With the uncertainty of how this legislation will be legally decided, affected jurisdictions are reviewing their transportation planning/prioritization strategies and budget forecasts on how to proceed. For the purposes of this document, revenue forecasts with current jurisdictional TBD’s and state funding levels will be used.

Washington State Department of Transportation

State and federal funding for WSDOT maintenance, preservation, operations, and improvements is subject to biennial appropriations by the legislature. In 2015, Washington State passed a 16-year transportation bill with

identified projects in a program called Connecting Washington. Many of WSDOT’s projects are included in that program.

WSDOT has provided the projected funds available for projects, maintenance and operations of the state-owned system based on state level forecasts assuming no new revenue sources. The Transportation Secretary highlighted the fact that the funding provided for maintenance and preservation for the state highway system is significantly less than needed to keep system in a state of good repair. WSDOT does not have dedicated funding for the Yakima County region. Therefore, historical funding and expenditures are not an appropriate prediction of future funds.

Public Transportation

Currently, public transportation in the Greater Yakima MPO area is supported primarily through the use of Local Option Sales Tax, Federal Transit Administration (FTA) Section 5307 funding, and fare revenue. The local option sales tax is currently set at 3/10ths% for Yakima and Selah, and 2/10ths% for Union Gap. Yakima Transit operates service in Yakima, while Selah and Union Gap Transit contracts with a private operator for service within their respective service areas. Both are city-owned systems, but Selah and Union Gap Transits operates fare-free and does not currently use any FTA funds. FTA funding requires a non-federal match that varies based on how the funds are to be used (capital versus operating expenses). The non-federal matching funds are derived from a variety of sources, but primarily fare box and local option sales tax.

Public transportation services outside of the MPO area are provided using various discretionary grants that are subject to annual or biennial appropriations and competitive grant application processes. These funding sources are not predictable and therefore have not been included as part of the fiscally constrained plan.

For this M/RTP we assume that Yakima Transit will not increase fare rates or the transit tax as a vast majority of their ridership consists of financial challenged users. As they are a free service, neither Selah, nor Union Gap Transit are expected to initiate fares for their service during the period of this plan.

The table below provides the reasonably available financial resources during the planning horizon periods including public transportation.

Table 8-1 Reasonably Available Revenues 2020-2045

	2020-2024	2025-2034	2035-2045	Total
Local	\$343,721,333	\$687,442,667	\$515,582,000	\$1,546,746,000
Federal	\$26,500,000	\$51,048,064	\$55,642,289	\$133,190,353
Transit	\$109,620,351	\$166,696,665	\$329,285,829	\$605,602,845
WSDOT	\$75,144,590	\$150,289,180	\$112,716,885	\$338,150,655
Total	\$554,986,275	\$1,055,476,575	\$1,013,227,003	\$2,623,689,853

* Does not attempt to include potential earmarks from Federal or State legislative actions.

Expenditures

For the purpose of this plan, expenditures include transportation capital costs and operations and maintenance (O&M) for the Yakima County region. Historical expenditures were used to develop approximate percentages of funding available and used for local (non-regional) capital projects, regional projects, and O&M. Preservation of the existing transportation system is a regional priority identified in this plan and reflected in the O&M expenditures. The Plan assumes that 15% of available revenue for local agencies will be used for local (non-regional) capital projects, 35% is available for regional projects, and 50% is available for O&M. The table below summarizes the forecasted expenditures for the period of **2020-2045**.

Table 8-2 Anticipated Expenditures 2020-2045

	2020-2024		2025-2034		2035-2045	
	Capital	O&M	Capital	O&M	Capital	O&M
Roads, Bridges, Highways, and Non-Motorized	\$140,948,757	\$222,682,962	\$485,534,000	\$444,389,955	\$305,369,000	\$341,970,587
Public Transportation	\$27,991,208	\$27,991,208	\$55,982,415	\$55,982,415	\$55,982,415	\$55,982,415
Subtotal	\$168,939,965	\$250,674,170	\$541,516,415	\$500,372,370	\$361,351,415	\$397,953,002
Total	\$419,614,135		\$1,041,888,785		\$759,304,417	

Projects in Fiscally Constrained Plan

The tables on the next page list the short-range, mid-range, and long-range projects in the fiscally constrained plan and are included in this financial analysis. Also included is the list of WSDOT fiscally constrained projects in this financial analysis. For all other priority projects in the metropolitan and regional transportation planning areas please refer to **Appendix F**.

Table 8-3. Regional Short-Range Projects Included in Fiscally Constrained Expenditures			
Metropolitan and Regional Transportation Plan Short-Range Projects			
Years 2020 - 2023			
Project Name	Project Description	Jurisdiction	Project Cost (YOE)
Kittitas & Yakima Counties - Centerline Rumble Stripes	Install Centerline Rumble Stripes	WSDOT	\$353,000
US 12/White Pass Vicinity - Culvert Lining	Project will install culvert linings and repair erosion to maintain culvert flow and prevent deterioration and erosion.	WSDOT	\$871,000
US 12/White Pass Vicinity - Major Drainage Phase 2	Project will restore drainage system features and repair erosion at select locations to maintain culvert flow and prevent deterioration and erosion.	WSDOT	\$897,000
US 12/White Pass Vicinity - Major Drainage Phase 3	Project will restore drainage system features and repair erosion at select locations to maintain culvert flow and prevent deterioration and erosion.	WSDOT	\$3,567,000
US 12/Rimrock Lake Vicinity - Culvert Lining	Project will install culvert linings and repair erosion to maintain culvert flow and prevent deterioration and erosion.	WSDOT	\$880,000
SR 410/E of Chinook Pass Summit - Culvert Lining	Project will install culvert linings and repair erosion to maintain culvert flow and prevent further deterioration and erosion.	WSDOT	\$1,761,000
SR 410/0.75 miles W of East Winter Gate – Culvert Lining	Project will install culvert linings and repair erosion to maintain culvert flow and prevent further deterioration and erosion.	WSDOT	\$645,000
US 12/Wildcat Creek to Windy Point - Chip Seal	Project will chip seal the road per recommendations from the materials report to extend the life of the pavement.	WSDOT	\$1,166,000
US 12/W Naches Vic to Old Naches Highway Vic - Chip Seal	Project will chip seal the road per recommendations from the materials report to extend the life of the pavement.	WSDOT	\$1,542,000
US 12 / Eschbach Rd - Intersection Safety improvement	Construct eastbound left turn acceleration lane on US 12 to prevent freight and passenger vehicle collisions at this intersection.	WSDOT	\$548,000
US 12/Ackley Rd/Clover Lane - Intersection Safety Improvements	Construct eastbound right turn acceleration lane on US 12 to prevent freight and passenger vehicle collisions at this intersection.	WSDOT	\$998,000
SR 823/E Naches Ave to N Wenas Rd Wye - Paving / ADA	Grind and resurface existing roadway to extend the life of pavement and upgrade the curb ramps to meet current standards	WSDOT	\$1,388,000
SR 823/Eleventh Ave to E Fifth Ave Vic - Paving ADA	Grind and resurface existing roadway to extend the life of pavement and upgrade curb ramps to meet current standards	WSDOT	\$527,000
SR 823/N Wenas Wye to SR 821 - Chip Seal	Project will chip seal the road per recommendations from the materials report.	WSDOT	\$392,000
US 12/N 16th Ave Interchange - Mitigate Re-directional Landform	Remove or shield existing re-directional landform to reduce risk of collisions.	WSDOT	\$160,000
SR 24/I-82 to Riverside Rd – Paving	Grind and resurface the existing roadway to extend the life of the pavement.	WSDOT	\$1,369,000
US 97/Union Gap Vicinity - Stabilize Slope	Remove debris and install a rockfall protection fence above existing retaining wall to reduce risk of rocks falling onto roadway and the potential for collisions.	WSDOT	\$439,000
SR 24 / Faucher Road Vic to 1.7 Miles E of Badger Lane - Chip Seal	Project will chip seal road per recommendations from materials report.	WSDOT	\$1,044,000
SR 22/Idaho Ave to US 97 - Paving & ADA	Project will pave the road and upgrade the curb ramps to meet current standards, improving accessibility for all pedestrian.	WSDOT	\$1,148,000
SR 22/US 97 to SR 223 - Chip Seal	Project will chip seal the road per recommendations from materials report.	WSDOT	\$693,000

Project Name	Project Description	Jurisdiction	Project Cost (YOE)
US 97/Dry Creek to Pumhouse Rd Vic - Chip Seal	Project will chip seal the road per recommendations from materials report.	WSDOT	\$1,400,000
US 97/Fort Rd - Intersection Improvements	Project proposes to replace the existing signalized intersection with a double-lane roundabout. Installing a roundabout will reduce conflicts and the risk of collisions.	WSDOT	\$6,014,000
US 97/Pumhouse Rd Vic to SR 22 - Chip Seal	Project will chip seal the road per recommendations from materials report.	WSDOT	\$397,000
I-82/SR 241 Interchange - Paving	Project will pave ramps and crossroad per recommendations from materials report	WSDOT	\$316,000
I-82/Wine Country Rd Interchange - Paving /ADA	Project will pave ramps and crossroad per recommendations from materials report and upgrade the curb ramps to meet current standards	WSDOT	\$833,000
SR 223/SR 22 Intersection to I-82 - Chip Seal	Project will chip seal road per recommendations from materials report	WSDOT	\$535,000
SR 241/E Edison Rd Vicinity to SR 24 - Chip Seal	Project will chip seal road per recommendations from materials report.	WSDOT	\$1,866,000
SR 241/Mabton Vicinity - Retrofit Bridges	Project will design and construct a fix to remove weight restrictions and restore structural integrity of the bridges.	WSDOT	\$11,970,000
SR 241/SR 22 to Sheller Rd Vicinity - Chip Seal	Project will chip seal road per recommendations from materials report.	WSDOT	\$1,401,000
Yakima Valley Transportation Company Preservation	Remove and replace a portion of the existing trolley rail	Yakima	\$60,000
Garfield Elementary Safety Improvements	Constructing sidewalk, improving roadway crossings and installing flashers	Yakima	\$270,000
McClure Elementary Safety Improvements	Install sidewalk, ADA ramps, crosswalks	Yakima	\$270,000
64 th Ave and Ahtanum Road Intersection Improvements	add right turn lane for westbound Ahtanum and install a traffic signal	Yakima	\$575,000
Butterfield Road – Terrace Heights Drive to N. 33 rd Street (vic.)	Reconstruct to 3 lanes w/curb, gutter, sidewalk, illumination. install traffic signal at Terrace Heights Drive	Yakima County	\$860,000
E-W Corridor Right of Way and Construction	Purchase Right of Way and Begin Construction of a new arterial connection between Terrace Heights and North Yakima	Yakima County	\$52,676,800
Ahtanum Road - 26 th to 52 nd Avenue (Vic)	Reconstruct to 3 lanes w/curb, gutter, sidewalk, illumination, bike lanes, and channelization	Yakima County	\$6,375,000
Independence Road – Fordyce to Maple Grove	Reconstruct to rural collector standards	Yakima County	\$1,270,000
Morrier Lane Extension	Construct new 3 lane roadway including pavement, curb, gutter, sidewalk, streetlights, drainage	Moxee	\$2,845,000
Lincoln Ave/Dayton Ave/Beech St. Improvements	Construct new sidewalks. Construct new curb and gutter and storm drainage, and illumination	Toppenish	\$1,900,000
North 6th Street Improvement – Decatur to North Avenue	Construct roadway enhancements and safety improvements, curb, gutter, sidewalk, storm drainage, ADA ramps, landscaping, illumination	Sunnyside	\$3,487,000
Vintage Valley Parkway Extension – End of Road to SR 22 (Buena -Toppenish Road)	Construct new roadway, barrier curb and gutter, multi- use pathway with ADA ramps (where needed), Storm drainage improvements, and street lighting. Widening of Buena-Toppenish Road for right turn lane	Zillah	\$5,704,000
Teapot Dome Park & Ride	Construction of 97 parking spaces with 2 EVC stations, storm drainage, lighting, bus shelter, bike racks	Zillah	\$758,000
Total 2020 – 2023 Regional Capital Projects			\$122,170,800

Table 8-4. Regional Mid-Range Projects Included in Fiscally Constrained Expenditures

Metropolitan and Regional Transportation Plan Mid-Range Projects			
Years 2024 - 2034			
Project Name	Project Description	Jurisdiction	Project Cost (YO€)
US 12/White Pass Vicinity to Indian Creek Vicinity – Paving	Overlay the road with hot mix asphalt to extend the service life of the pavement	WSDOT	\$4,086,000
US 12/Indian Creek Bridge - Replace Bridge Rail	Replace the existing bridge rail to preserve the structural and functional integrity of the bridge.	WSDOT	\$1,283,000
US 12/Rimrock Retreat to Windy Point - Chip Seal	Chip seal road per recommendations from the materials report to extend the life of pavement	WSDOT	\$610,000
US 12 (0.4 Miles W of Oak Creek) - Stabilize Slope	Remove loose rocks, install rockfall protection netting, and apply shotcrete to minimize risk of rocks falling on roadway and potential for collisions	WSDOT	\$1,542,000
US 12/Indian Creek Bridge - Replace Bridge Rail	Replace the existing bridge rail to preserve the structural and functional integrity of the bridge	WSDOT	\$1,283,000
SR 410/American River at Hells Crossing Vicinity - Flood Plain Work	Stabilize the riverbank to protect the highway and reduce the need for emergency repair	WSDOT	\$590,000
SR 410/Rock Creek Vic - Improve Chronic Environmental Deficiency	Construct a larger area for sediment storage and overflow and construct a new structure on SR 410 to minimize risk of future flooding events.	WSDOT	\$4,851,000
SR 410/East Winter Gate to Sawmill Flat Campground Vic - Chip Seal	Chip seal the road per recommendations from the materials report.	WSDOT	\$1,662,000
SR 821/I-82 to Selah Creek - Chip Seal	Chip seal the road per recommendations from the materials report.	WSDOT	\$333,000
US12 / Naches River @ Locust Lane Vicinity - Flood Plain Work	Shift the eastbound lanes away from the river and permanently stabilize the riverbank to protect US 12	WSDOT	\$31,875,000
I-82/Selah Creek Bridge WB - Joint Repair	Replace existing joints to provide a smoother ride and preserve the structural integrity of the bridges.	WSDOT	\$207,000
SR 823/ E Fifth Ave to E Naches Ave - Paving	Grind and resurface the existing roadway to extend the life of the pavement.	WSDOT	\$491,000
I-82/Selah Creek to Yakima Vicinity - Paving	Pave the highway per recommendations from the materials report.	WSDOT	\$7,410,000
I-82/Naches & Yakima River Bridges- Joint Repair	Replace existing joints to provide a smoother ride and preserve the structural integrity of the bridges.	WSDOT	\$1,530,000
I-82/Naches & Yakima River Bridges - Bridge Painting	Clean and paint the existing steel surfaces to preserve the structural integrity of the bridge.	WSDOT	\$16,329,000
I-82/N-W Ramp Over Terrace Heights Way - Deck Rehabilitation	Repair and resurface existing bridge deck to maintain structural integrity, continue safe operation of the highway, and extend life of the bridge.	WSDOT	\$425,000
I-82/Yakima to Union Gap - Corridor Improvements	Increase capacity on I-82 b/n US 12 interchange and SR 24/Nob Hill Blvd interchange, replacing bridges, and improving on/off connections, in conjunction with related City of Yakima and Yakima County system improvements will reduce congestion and risk of collisions.	WSDOT	\$64,413,000
I-82/Nob Hill Blvd Interchange - Paving	Pave ramps per recommendations from the materials report	WSDOT	\$1,254,000
I-82/Yakima River Bridges at Union Gap - Joint Repair	Replace existing joints to provide a smoother ride and preserve structural integrity of the bridges.	WSDOT	\$835,000
SR 24/7.4 Miles W of SR 241 to SR 241 - Chip Seal	Chip seal road per recommendations from the materials report.	WSDOT	\$898,000
SR 22 / Toppenish Vicinity	Bridge Deck repair	WSDOT	\$506,000
SR 22/I-82 to Idaho Ave - Paving	Grind and resurface existing roadway to extend life of the pavement.	WSDOT	\$1,441,000
I-82/Thorp Road Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$899,000
I-82/SR 22 Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$971,000

Project Name	Project Description	Jurisdiction	Project Cost (YOE)
I-82/Donald Road Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$996,000
I-82/West Zillah Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$751,000
I-82/Yakima Valley Highway Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$943,000
US 97/Lateral A Intersection - Intersection Improvements	Replace existing three-leg signal with a roundabout and/or other intersection improvements	WSDOT	\$5,450,000
US 97/West Wapato Rd/West First St - Intersection Improvements	Construct a roundabout to replace the existing traffic signal and improve connections to local roads.	WSDOT	\$9,807,000
US 97/2nd Ave - Intersection Improvements	Replace existing intersection with a double-lane roundabout to reduce risk of intersection-related collisions.	WSDOT	\$5,910,000
US 97/Jones Rd - Intersection Improvements	Replace existing signalized intersection with a double-lane roundabout. Installing a roundabout will reduce conflicts and risk of collisions.	WSDOT	\$5,279,000
US 97/McDonald Rd and Becker Rd - Intersection Improvements	Construct a two-lane roundabout for US 97, McDonald Road, and Becker Road.	WSDOT	\$4,082,000
US 97/Satus Creek Vic to Dry Creek Vic - Chip Seal	Chip seal the road per recommendations from the materials report.	WSDOT	\$1,391,000
I-82/SR 223 Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$510,000
I-82/Granger to Sunnyside EB - Paving	Grind and repave the shoulders to extend the life of the pavement.	WSDOT	\$2,689,000
I-82/W Sunnyside Rd Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$471,000
I-82/Midvale Rd Interchange - Paving	Pave ramps and crossroad per recommendations from the materials report.	WSDOT	\$677,000
I-82/County Line Rd Interchange - Paving	Pave the ramps and crossroad per recommendations from the materials report.	WSDOT	\$725,000
Jackson Street Extension – Juniper Street to Ward Road	Reconstruction of existing street and extension to Ward Road	Toppenish	\$1,770,000
E-W Corridor Construction	Complete construction of supporting and adjacent infrastructure for new arterial connection between Terrace Heights and North Yakima	Yakima County	\$17,256,000
Total 2024 – 2034 Regional Capital Projects			\$204,431,000

Table 8-5 Regional Long-Range Projects Included in Fiscally Constrained Expenditures			
Metropolitan and Regional Transportation Plan Long-Range Projects			
Years 2035 - 2045			
Project Name	Project Description	Jurisdiction	Project Cost (YOE)
US 12/Old Naches Highway - Build Interchange	Construct a new interchange, to separate cross-traffic and improve the overall safety and operation of the highway.	WSDOT	\$38,440,000
Total 2035 – 2045 Regional Capital Projects			\$38,440,000

Transit Enhancement and Transportation Demand Management

Strategies to enhance transit and transportation demand management (TDM) programs are important elements of the M/RTP. These strategies include expanding fixed-route transit, paratransit, and Commute Trip Reduction (CTR) programs in the greater Yakima metropolitan area. Expanding the availability and types of transportation choices in and between communities throughout the Yakima Valley is a priority for the region.

In the mid-2010's, Selah Transit and Union Gap Transit were formed as results from successful Yakima Transit route expansions, and a pilot program was initiated that expanded a commuter transit route into Kittitas County with cooperation from HopeSource, Central Washington University, the City of Ellensburg, and Kittitas County; the "Yakima-Ellensburg Commuter" route found a steady and dedicated ridership and continues today. By 2018, both the City of Selah and Union Gap approved terminating their contract for transit services and took their programs in house.

The Confederated Tribes and Bands of the Yakama Nation's (Yakama Nation's) Pahto Public Passage began in 2007 and expanded to serve Yakima, Prosser, Sunnyside, Grandview, Wapato, Zillah, Toppenish, Harrah, Goldendale, and White Swan before service ended briefly between 2010-2012. Now funded through the Federal Transit Administration's Tribal Transit Program (TTP), free to the general public transit services have since resumed with stops in White Swan, Harrah, Wapato, Toppenish, Union Gap, Goldendale and Georgeville.

In October 2019, People for People expanded upon their State-Funded Rural Mobility Grant "Community Connector" Transit Service that provides multiple daily stops in Union Gap, Wapato, Toppenish, Zillah, Granger, Sunnyside, Grandview, and Prosser, with a new "201" Route that provides daily loop service between Sunnyside, Grandview and Mabton (this city's first transit service). The "201" Route connects with the Community Connector Service, expanding this area's accessibility to neighboring communities in the county.

Reducing congestion along regional corridors such as I-82 and US 97 or at spot locations such as interchanges and intersections enhances the efficiency and safety of all modes of transportation. Decreasing delays on city arterial systems likewise reduces reliance on the regional highway system for local trips and avoids premature and expensive highway widening. The M/RTP incorporates Transportation Systems Management (TSM) and Intelligent Transportation Systems (ITS) strategies to improve the efficiency and safety of the transportation system. These transportation demand management strategies include controlling access to highways and arterials, improving traffic signals and timing, and continued implementation of driver information systems.

The tables 8-6, 8-7 and 8-8 list the short-range, mid- range, and long-range transit projects in the fiscally constrained plan and are included in this financial analysis.

Table 8-6

Metropolitan and Regional Transportation Plan Short-Range Transit Projects			
Years 2020 - 2023			
Project Name	Project Description	Jurisdiction	Project Cost (YOE)
[1] - 24 + 2 WC ADA shuttle	ADA 24 passenger + 2 wheelchair shuttle	Yakama Nation Transit	\$180,000
[1] - 9 + 2 WC ADA shuttle	ADA 9 passenger + 2 wheelchair shuttle	Yakama Nation Transit	\$590,000
Vanpool vehicles	Purchase 8 new 12- to 15-passenger vans	Yakima Transit	\$832,000
Fixed-Route vehicles	Purchase 6 new buses	Yakima Transit	\$7,550,000
Paratransit vehicles	Purchase 14 minivans, 8 cutaways (2020 -2025)	Yakima Transit	\$1,766,000
Total 2020 – 2023 Regional Capital Projects:			\$10,918,000

Table 8-7

Metropolitan and Regional Transportation Plan Mid-Range Transit Projects			
Years 2024 – 2034			
Project Name	Project Description	Jurisdiction	Project Cost (YOE)
Vanpool vehicles	Purchase 12 new 12- to 15-passenger vans	Yakima Transit	\$648,000
Fixed-Route vehicles	Purchase 12 new buses	Yakima Transit	\$6,600,000
Paratransit vehicles	Purchase 6 minivans, 6 cutaways	Yakima Transit	\$1,320,000
Transit Passenger Shelters & Benches	Purchase 30 shelters 50 benches	Yakima Transit	\$277,500
Transit Facility - West Valley	Purchase Land, Build Administration and Maintenance Facility	Yakima Transit	\$25,000,000
Total 2024 – 2034 Regional Capital Projects:			\$33,845,500

Table 8-8

Metropolitan and Regional Transportation Plan Long-Range Transit Projects			
Years 2035 – 2045			
Project Name	Project Description	Jurisdiction	Project Cost (YOE)
Vanpool vehicles	Purchase 25 new 12- to 15-passenger vans	Yakima Transit	\$1,510,000
Fixed-Route vehicles	Purchase 30 new buses	Yakima Transit	\$18,600,000
Paratransit vehicles	Purchase 20 minivans, 15 cutaways	Yakima Transit	\$3,825,000
Transit Passenger Shelters & Benches	Purchase 50 shelters 80 benches	Yakima Transit	\$580,000
Security - Cameras and Accessories	Purchase cameras for buses & facilities along with any accessories	Yakima Transit	\$600,000
East Valley Transit Center and Park & Ride	Purchase land and build a small transit center near "Old Kmart Property" off Nob Hill Blvd and I-82	Yakima Transit	\$4,600,000
Total 2035 – 2045 Regional Capital Projects:			\$29,715,000

Conclusion

The financial analysis developed for this plan indicates financial resources forecast for the short-range, mid-range, and long-range planning time periods are sufficient to support the planned expenditures identified in this plan as shown in the regionwide project list located in **Appendix F**. This is the Master List for the subregions.

Forecasted Revenues and Expenditures 2020-2045				
Time Period	2020-2023	2024-2034	2035-2045	Total
Revenues	\$554,986,275	\$1,055,476,575	\$1,013,227,003	\$2,623,689,853
Expenditures	\$419,614,135	\$1,041,888,785	\$759,304,417	\$2,220,807,337
PROJECTED REVENUE BALANCE	\$135,372,140	\$13,587,790	\$253,922,586	\$402,882,516

Section 9

Performance Measures

Yakima Valley Conference of Governments Metropolitan Planning Organization Transportation Improvement Program Systems

Performance Report

Background

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state Departments of Transportation (DOT) and Metropolitan Planning Organizations (MPO) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule)¹. This regulation implements the transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

In accordance with The Planning Rule and the Washington State Performance Management Agreement between the Washington State DOT (WSDOT) and the Washington State's Metropolitan Planning Organizations, WSDOT and each Washington State MPO must publish a System Performance Report for applicable performance measures in their respective statewide and metropolitan transportation plans and programs. The System Performance Report presents the condition and performance of the transportation system with respect to required performance measures, documents performance targets and progress achieved in meeting the targets in comparison with previous reports. This is required for the following:

- In any statewide or metropolitan transportation plan or program amended or adopted after May 27, 2018, for Highway Safety/PM1 measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after October 1, 2018, for transit asset measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after May 20, 2019, for Pavement and Bridge Condition/PM2 and System Performance, Freight, and Congestion Mitigation and Air Quality/PM3 measures; and
- In any statewide or metropolitan transportation plan or program amended or adopted after July 20, 2021, for transit safety measures.

¹ 23 CFR 450.314

The Yakima Valley MPO Fiscal Year (FY) 2020-2023 Transportation Improvement Program (TIP) was adopted on October 21, 2019. Per the Planning Rule and the Washington State Performance Management Agreement, the System Performance Report for the Yakima Valley MPO's FY 2020-2023 TIP is included, herein, for the required Highway Safety/PM1, Bridge and Pavement Condition/PM2, and System Performance and Freight Movement, and Air Quality / PM3.

Highway Safety/PM1

Effective April 14, 2016, the FHWA established the highway safety performance measures² to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

Safety performance targets are provided annually by the States to FHWA for each safety performance measure. Current statewide safety targets address calendar year (CY) 2019 and are based on an anticipated five-year rolling average (2015-2019). Washington State statewide safety performance targets for 2019 are included in Table 9-1, along with statewide safety performance for the two most recent reporting periods³. The Yakima Valley MPO adopted/approved the Washington State statewide safety performance targets on February 20, 2019.

The latest safety conditions will be updated annually on a rolling 5-year window and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 9-1. Highway Safety/PM 1, System Conditions and Performance

	Safety Performance Measure for 2019 (YVCOG MPO)	2016 Baseline	2018 Target	Adopted
1	# of Fatalities on All Public Roads	6.4	8.2	Jan. 2020
2	# of Fatalities per 100 Million Vehicle Miles Traveled on All Public Roads	0.752	0.884	Jan. 2020
3	# of Serious Injuries on All Public Roads	32.4	29.9	Jan. 2020
4	# of Serious Injuries / 100 Million Vehicle Miles Traveled on All Public Roads	3.855	3.314	Jan. 2020
5	# of Non-Motorist Fatalities and Serious Injuries on All Public Roads	9.6	8.6	Jan. 2020

² 23 CFR Part 490, Subpart B

³ https://safety.fhwa.dot.gov/hsip/spm/state_safety_targets/

The Yakima Valley MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2020-2023 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, the Washington State Strategic Highway Safety Plan (SHSP), the Washington State Highway Safety Improvement Program (HSIP), the current 2040 Washington State Statewide Transportation Policy Plan (WTP), and the current Yakima Valley Conference of Governments 2020-2045 Metropolitan Transportation Plan (MTP).

- The Washington State SHSP is intended to reduce the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in Washington State. Existing highway safety plans are aligned and coordinated with the SHSP, including (but not limited to) the Washington State HSIP, MPO and local agencies' safety plans. The SHSP guides WSDOT, the Washington State MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across Washington State.
- The WSDOT HSIP annual report provide for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The ultimate goal of the HSIP process is to reduce the number of crashes, injuries and fatalities by eliminating certain predominant types of crashes through implementation of engineering solutions.
- The Washington State WTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
- The Yakima Valley (MPO) 2020-2045 MTP increases the safety of the transportation system for motorized and non-motorized users as required by the Planning Rule. The RTP identifies safety needs within the metropolitan planning area and provides funding for targeted safety improvements.

Safety Performance Measures Inspired Projects 2020 -2023					
Jurisdiction	Project	Project Description	Project CN Yr	MPO / RTPO	Project Cost
WSDOT (Planned)	SR 823 / E. Naches Avenue to N. Wenas Road Wye – ADA Compliance	Upgrade existing curb ramps to meet ADA compliance along SR 823 Corridor	2020 (NHPP & STP)	MPO	\$388,051
WSDOT	US 97 / Union Gap Vicinity – Stabilize Slope	Remove existing debris. Install rock wall fence above existing retaining wall	2023 (NHPP)	MPO	\$419,128
WSDOT	US 12 / Ackley Road & Clover Lane – Intersection Safety Improvements	Construct an EB right turn acceleration lane on US 12	2023 (HSIP)	MPO	\$1,074,250
WSDOT	US 12 / Eschbach Road – Intersection Safety Improvements	Construct an EB right turn acceleration lane on US 12	2023 (HSIP)	MPO	\$740,594
Yakima	Complete Streets Projects	Construct sidewalks at selective locations on Swan Ave., Race St., Prash Ave., Viola Rd, & Powerhouse Rd.	2020 (TIB)	MPO	\$500,000
Yakima	McClure Elementary School Safety Improvements	Construct sidewalks, ADA ramps and crosswalk improvements	2020 (SRTS)	MPO	\$270,000
Yakima	34 th Avenue & Fruitvale Blvd, and 34 th Avenue & River Rd. Roundabouts	Improve intersections of River Rd and Fruitvale Blvd and N. 34 th Avenue by installing roundabouts	2021 (HSIP)	MPO	\$1,012,898
Yakima Co.	Ahtanum Road – S. 26 th Avenue (vic.) to S. 52 nd Avenue (vic.)	Reconstruct 2-lane to 3-lanes w/ multi-purpose bicycle/pedestrian facilities	2020 (TIB)	MPO	\$6,375,000
Yakima Co.	Countywide Traffic Operations & Signal Installation	Install / upgrade traffic signals at various locations and/or traffic operation improvements	2020-23 (Local)	MPO/RTPO	\$1,560,000
Yakima Co.	Countywide Traffic Safety Projects	Construct spot safety improvements throughout county	2020-23 (Local)	MPO/RTPO	\$1,200,000
Total Projected Safety Investment					\$13,539,921

To support progress towards approved highway safety targets, the FY 2020-2023 TIP includes a number of key safety investments. A total of \$13,539,921 has been programmed in the FY 2020-2023 TIP to improve safety within the Yakima Valley MPO region; averaging approximately \$ 3,384,980 per year.

Pavement and Bridge Condition/PM2

Effective May 20, 2017, FHWA established performance measures to assess pavement condition⁴ and bridge condition⁵ for the National Highway Performance Program. This second FHWA performance measure rule (PM2) established six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
4. Percent of non-Interstate NHS pavements in poor condition;
5. Percent of NHS bridges by deck area classified as in good condition; and
6. Percent of NHS bridges by deck area classified as in poor condition.

⁴ 23 CFR Part 490, Subpart C

⁵ 23 CFR Part 490, Subpart D

Pavement Condition Measures

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA established five metrics to assess pavement condition: International Roughness Index (IRI); cracking percent; rutting; faulting; and Present Serviceability Rating (PSR). For each metric, a threshold is used to establish good, fair, or poor condition.

Pavement condition is assessed using these metrics and thresholds. A pavement section is in good condition if three metric ratings are good, and in poor condition if two or more metric ratings are poor. Pavement sections that are not good or poor are considered fair.

The pavement condition measures are expressed as a percentage of all applicable roads in good or poor condition. Pavement in good condition suggests that no major investment is needed. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

Bridge Condition Measures

Bridge condition measures represent the percentage of bridges, by deck area, on the NHS that are in good condition or poor condition. Condition of each bridge is evaluated assessing four bridge components: deck, superstructure, substructure, and culverts. FHWA created a metric rating threshold for each component to establish good, fair, or poor condition. Every bridge on the NHS is evaluated using these component ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified “good”. If the lowest rating is less than or equal to four, the structure is classified “poor”. If the lowest rating is five or six, it is classified “fair”.

To determine the percent of bridges in good or in poor condition, the sum of total deck area of good or poor NHS bridges is divided by the total deck area of bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

Pavement and Bridge Targets

Pavement and bridge condition performance is assessed and reported over a four-year performance period. The first performance period began on January 1, 2018 and runs through December 31, 2021. WSDOT reported baseline PM2 performance and targets to FHWA on October 1, 2018 and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

The PM2 rule requires states and MPOs to establish two-year and/or four-year performance targets for each PM2 measure. Current two-year targets represent expected pavement and bridge condition at the end of CY 2019, while the current four-year targets represent expected condition at the end of CY 2021.

States establish targets as follows:

1. Percent of Interstate pavements in good and poor condition – four-year targets;
2. Percent of non-Interstate NHS pavements in good and poor condition – two-year and four-year targets; and

3. Percent of NHS bridges by deck area in good and poor condition – two-year and four-year targets.

MPOs establish four-year targets for each measure by either agreeing to program projects that will support the statewide targets or setting quantifiable targets for the MPO’s planning area that differ from the state targets.

WSDOT established current statewide two-year and four-year PM2 targets on May 20, 2018. The Yakima Valley MPO adopted/approved the Washington State statewide PM2 targets on July 16, 2018. Table 9-2 presents statewide baseline performance for each PM2 measure as well as the current two-year and four-year statewide targets established by WSDOT.

On or before October 1, 2020, WSDOT will provide FHWA a detailed report of pavement and bridge condition performance covering the period of January 1, 2018, to December 31, 2019. WSDOT and the Yakima Valley MPO will have the opportunity at that time to revisit the four-year PM2 targets.

Table 9-2. Pavement and Bridge Condition/PM2 Performance and Targets

MAP-21 Performance Measures by Program Area		Current Data	2-year Target	4-Year Target	Penalty
Bridges (PM2) 23 CFR Part 490 ID No. 2125-AF53					
% of NHS bridges classified in good conditions (by deck area)		32.8%	30%	30%	No
% of NHS bridges classified in poor conditions (by deck area)		7.8%	10%	10%	Yes
Pavement (PM2) 23 CFR Part 490 ID No. 2125-AF53					
% of Interstate pavement on NHS in good condition		32.5%	N/A	30%	No
% of Interstate pavement on NHS in poor condition		3.6%	N/A	4%	Yes
% of non-Interstate pavement on NHS in good condition		18%	45%	18%	No
% of non-Interstate pavement on NHS in poor condition		5%	21%	5%	No

The Yakima Valley MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2020-2023 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, Washington State’s Transportation Asset Management Plan (TAMP), the Washington State Interstate Preservation Plan, the current 2040 Washington State Statewide Transportation Policy Plan (WTP), and the Yakima Valley (MPO) 2020-2045 Metropolitan Transportation Plan (MTP).

- MAP-21 requires WSDOT to develop a TAMP for all NHS pavements and bridges within the state. WSDOT’s TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of WSDOT’s statewide pavement and bridge condition targets.
- The Washington State Interstate Preservation Plan applied a risk profile to identify and communicate Interstate preservation priorities; this process leveraged a combination of asset management techniques with risk management concepts to prioritize specific investment strategies for the Interstate system in Washington State.
- The WSDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway

operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.

- The Yakima Valley (MPO) 2020-2045 MTP addresses infrastructure preservation and identifies pavement and bridge infrastructure needs within the metropolitan planning area and allocates funding for targeted infrastructure improvements.

To support progress towards WSDOT's statewide PM2 targets, the FY 2020-2023 TIP includes a number of investments that will maintain pavement and bridge condition performance. Investments in pavement and bridge condition include pavement replacement and reconstruction, bridge replacement and reconstruction, new bridge and pavement capacity, and system resiliency projects that improve NHS bridge components (e.g., upgrading culverts).

Bridge Performance Measures Inspired Projects 2020 -2023					
Jurisdiction	Project	Project Description	Project CN Year	MPO / RTPO	Project Cost
WSDOT	SR 241 / Mabton Vicinity – Retrofit Bridges	Rehabilitate / retrofit bridges 241/5 & 241/2 to remove weight restrictions and restore structural integrity	2020 (State - CWA)	RTPO	\$14,604,482
Yakima	Wide Hollow Road Box Culvert	Install box culvert adjacent to Wide Hollow Road to address flooding issues	2020 (State Other)	MPO	\$100,000
Yakima Co.	East-West Corridor – Interstate 82 Turnback's Limits to End of N. Keys Road	Construct new arterial connection including Yakima River Bridge, I-82 access modification & City of Yakima connections	2019-25 (CWA & Local)	MPO	\$52,676,800
Yakima Co.	Countywide Short-Span Bridge Replacement Program	Replace existing deficient span bridges at various locations	2020-23 (Local)	MPO/RTPO	\$1,500,000
Total Projected Bridge Investment					\$68,881,282

A total of \$ 68,881,282 for bridges has been programmed in the FY 2020-2023 TIP to improve conditions; averaging approximately \$ 17,220,320.

Pavement Performance Measures Inspired Projects 2020 -2023					
Jurisdiction	Project	Project Description	Project CN Year	MPO / RTPO	Project Cost
Union Gap (Pending)	West Ahtanum Road Resurfacing	G & O Roadway	PE- 2020 (HIP)	MPO	\$1,957,734
Union Gap	Valley Mall Boulevard Resurfacing	G & O Roadway	2020 (NHFP)	MPO	\$850,000
WSDOT	Asphalt / Chip Seal Preservation (YVCOG Region)	Resurface roadway with chip seal or HMA to preserve structural integrity of roadway	2020-24 (NHPP & STP)	MPO/RTPO	\$8,606,577
Yakima Co.	Overlays – Various Roads	Construct structural overlays on various arterial roads	2020 (CRAB & Local)	RTPO	\$9,000,000
Yakima Co.	Roza Hill Drive – S. 58 th Street (vic.) to Wendt Road	Resurface existing roadway	2021 (Local)	MPO	\$1,230,000
Zillah	Vintage Valley Parkway Reconstruction (Short)	Resurface 2,700 feet of roadway, add sidewalks and ADA ramps	PE-2020 (TIB)	RTPO	\$484,750
Total Projected Pavement Investment					\$22,129,061

A total of \$ 22,129,061 for maintenance for pavement MPO/RTPO-wide in the FY 2020-2023 TIP; averaging approximately \$ 5,532,265 per year.

System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program (PM3)

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System⁶, freight movement on the Interstate system⁷, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program⁸. This third FHWA performance measure rule (PM3) established six performance measures, described below.

National Highway System Performance:

- Percent of person-miles on the Interstate system that are reliable;
- Percent of person-miles on the non-Interstate NHS that are reliable;

Freight Movement on the Interstate:

- Truck Travel Time Reliability Index (TTTR);

Congestion Mitigation and Air Quality Improvement (CMAQ) Program:

- Annual hours of peak hour excessive delay per capita (PHED);
- Percent of non-single occupant vehicle travel (Non-SOV); and
- Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction).

The CMAQ performance measures apply to states and MPOs with projects financed with CMAQ funds whose boundary contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. The Yakima Valley MPO meets air quality standards, therefore, the CMAQ measures do not apply and are not reflected in the System Performance Report.

System Performance Measures

The two System Performance measures assess the reliability of travel times on the Interstate or non-Interstate NHS system. The performance metric used to calculate reliability is the Level of Travel Time Reliability (LOTTR). LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, Mid-day, PM peak, and weekends) that cover the hours of 6 AM to 8 PM each day.

The LOTTR ratio is calculated for each segment of applicable roadway, essentially comparing the segment with itself. A segment is deemed to be reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles take into account the number of people traveling in buses, cars, and trucks over these roadway segments. To determine total person miles traveled, the average daily vehicle miles traveled (ADVMT) on each segment is multiplied by average vehicle occupancy. To calculate the percent of person miles traveled that are reliable, the sum of the number of reliable person miles traveled is divided by the sum of total person miles traveled.

⁶ 23 CFR Part 490, Subpart E

⁷ 23 CFR Part 490, Subpart F

⁸ 23 CFR Part 490, Subparts G and H

Freight Movement Performance Measure

The Freight Movement performance measure assesses reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, Mid-day, PM peak, weekend, and overnight) that cover all hours of the day. For each segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index.

PM3 Performance Targets

Performance for the PM3 measures is assessed and reported over a four-year performance period. For all PM3 measures except the CMAQ Emission Reduction measure, the first performance period began on January 1, 2018, and will end on December 31, 2021. WSDOT reported baseline PM3 performance and targets to FHWA on October 1, 2018 and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022 to December 31, with additional performance periods following every four years.

The PM3 rule requires state DOTs and MPOs to establish two-year and/or four-year performance targets for each PM3 measure. For all targets except CMAQ Emission Reductions, the current two-year and four-year targets represent expected performance at the end of CY 2019 and 2021, respectively.

States establish targets as follows:

- Percent of person-miles on the Interstate system that are reliable – two-year and four-year targets;
- Percent of person-miles on the non-Interstate NHS that are reliable – four-year targets;
- Truck Travel Time Reliability – two-year and four-year targets;
- Annual hours of peak hour excessive delay per capita (PHED) – four-year targets;
- Percent of non-single occupant vehicle travel (Non-SOV) – two-year and four-year targets; and
- CMAQ Emission Reductions – two-year and four-year targets.

MPOs establish four-year targets for the System Performance and Freight Movement. MPOs establish targets by either agreeing to program projects that will support the statewide targets or setting quantifiable targets for the MPO's planning area that differ from the state targets.

WSDOT established statewide PM3 targets on May 20, 2018. The Yakima Valley (MPO) adopted/approved the Washington State statewide PM3 targets on July 16, 2018. Table 9-3 presents statewide baseline performance for each PM3 measure as well as the current two-year and four-year statewide targets established by WSDOT.

On or before October 1, 2020, WSDOT will provide FHWA a detailed report of PM3 performance covering the period of January 1, 2018, to December 31, 2019. WSDOT and the Yakima Valley (MPO) will have the opportunity at that time to revisit the four-year PM3 targets.

The Yakima Valley (MPO) recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2020-2023 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and

described in other State and public transportation plans and processes; specifically, the 2017 Washington State Freight System Plan, the current 2040 Washington State Statewide Transportation Policy Plan (WTP), and the Yakima Valley (MPO) 2020-2045 Metropolitan Transportation Plan (MTP).

1. WSDOT’s Statewide Freight and Logistics Action Plan defines the conditions and performance of the state freight system and identifies the policies and investments that will enhance Washington State’s highway freight mobility well into the future. The Plan identifies freight needs and the criteria Washington State will use to determine investments in freight and prioritizes freight investments across modes.
2. The WSDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
3. The Yakima Valley (MPO) 2020-2045 MTP addresses reliability, freight movement, congestion, [and emissions], identifies needs for each of these issues within the metropolitan planning area, and allocates funding for targeted improvements.

To support progress towards WSDOT’s statewide PM3 targets, the FY 2020-2023 TIP devotes a significant amount of resources to projects that will address passenger and highway freight reliability and delay, [reduce SOV travel, and reduce emissions].

Table 9-3. System Performance & Freight Movement - Performance and Targets

MAP-21 Performance Measures by Program Area	Current Data	2-year Target	4-Year Target
Combined Rule [PM3] 23CFR Part 490 IN No. 2125-AF54			
National Highway System Performance			
% of person-miles traveled on the Interstate System that are reliable	73 %	70%	68%
% of person-miles traveled on the Non-Interstate System that are reliable	77%	N/A	61%
Freight Movement on Interstate System			
Truck Travel Time Reliability (TTTR) Index	1.63	1.70	1.75

Highway System Performance Measures Inspired Projects 2020 -2023					
Jurisdiction	Project	Project Description	Project CN Year	MPO / RTPO	Project Cost
Selah	Valleyview Ave. / South 3 rd St / Southern Ave. / First Street	Reconstruct and Widen, new sidewalks, streetlights & signalization	2023 (STP-us)	MPO	\$2,593,500
WSDOT	US 97 / McDonald Road & Becker Road – Intersection Improvements	Replace existing non-signalized intersection with double-lane roundabout	2021 (HSIP)	RTPO	\$3,865,721
WSDOT	US 97 / Jones Road – Intersection Improvements	Replace existing non-signalized intersection with double-lane roundabout	2022 (HSIP)	RTPO	\$6,249,040
WSDOT	US 97 / Robbins Road – Intersection Improvements	Construct new double-lane roundabout with existing Buster & Ward Roads	2022 (HSIP)	RTPO	\$7,123,161
WSDOT (Planned)	US 97 / 2 nd Avenue (Parker, WA) – Intersection Improvements	Replace existing intersection with double-lane roundabout	2023 (HSIP)	RTPO	\$5,909,772
Yakima	Bravo Company Boulevard	Construct 4-lane roadway w/ median, bike lanes and roundabouts, install sidewalks and illumination	2020 (State Other)	MPO	\$18,000,000
Yakima	64 th Avenue & Ahtanum Road Intersection Improvements	Improve intersection by constructing a westbound right turn lane and installing traffic signal	2021 (CMAQ)	MPO	\$575,001
Zillah	Vintage Valley Parkway Extension	Construct new roadway, sidewalks, ADA ramps and street lighting	2020 (HIP / STP-us)	RTPO	\$6,785,480
Yakima Co.	Ahtanum Road – S. 26 th Avenue (vic.) to S. 52 nd Avenue (vic.)	Reconstruct 2-lane to 3-lanes w/ multi-purpose bicycle/pedestrian facilities	2020 (TIB)	MPO	\$6,375,000
Yakima Co.	East-West Corridor – Interstate 82 Turnback's Limits to End of N. Keys Road	Construct new arterial connection including Yakima River Bridge, I-82 access modification and City of Yakima connections	2019-25 (State CWA & Local)	MPO	\$52,676,800
Yakima Co.	Butterfield Road – Terrace Heights Drive to Hartford Road (vic.)	Reconstruct 2-lane to 3-lanes w/ pedestrian facilities and illumination (complements E-W Corridor Project)	2020 (Local)	MPO	\$1,720,000
Yakima Co.	Terrace Heights Drive - North 33 rd Street to 39 th Street	Widening to 5 lanes and signalizing new intersection	2020 (Local)	MPO	\$2,250,000
Total Projected Highway System Investment					\$114,123,475

A total of \$ 114,123,475 has been programmed in the FY 2020-2023 TIP to address system performance; averaging approximately \$ 28,530,869 per year.

Freight Movement (TTRR) Performance Measures Inspired Projects 2020 -2023					
Jurisdiction	Project	Project Description	Project CN Year	MPO / RTPO	Project Cost
WSDOT	SR 241 / Mabton Vicinity – Retrofit Bridges	Rehabilitate / retrofit bridges 241/5 & 241/2 to remove weight restrictions and restore structural integrity	2020 (State - CWA)	RTPO	\$14,604,482
WSDOT	US 97 / McDonald Road & Becker Road – Intersection Improvements	Replace existing non-signalized intersection with double-lane roundabout	2021 (HSIP)	RTPO	\$3,865,721
WSDOT	US 97 / Jones Road – Intersection Improvements	Replace existing non-signalized intersection with double-lane roundabout	2022 (HSIP)	RTPO	\$6,249,040
WSDOT	US 97 / Robbins Road – Intersection Improvements	Construct new double-lane roundabout with existing Buster & Ward Roads	2022 (HSIP)	RTPO	\$7,123,161
WSDOT	US 97 / SR 22 Intersection Upgrade Signal and Illumination	Upgrade illumination system and rebuild signal system.	2022 (HNPP)	RTPO	\$522,489
WSDOT (Planned)	US 97 / 2 nd Avenue (Parker, WA) – Intersection Improvements	Replace existing intersection with double-lane roundabout	2023 (HSIP)	RTPO	\$5,909,772
Yakima	64 th Avenue & Ahtanum Road Intersection Improvements	Improve intersection by constructing a westbound right turn lane and installing traffic signal.	2021 (CMAQ)	MPO	\$575,001
Yakima Co.	Ahtanum Road – S. 26 th Avenue (vic.) to S. 52 nd Avenue (vic.)	Reconstruct 2-lane to 3-lanes w/ multi-purpose bicycle/pedestrian facilities	2020 (TIB)	MPO	\$6,375,000
Yakima Co.	Butterfield Road - Terrace Heights Drive to Hartford Road (vic.)	Reconstruct 2-lane to 3-lanes w/ sidewalks and illumination	2020 (Local)	MPO	\$1,720,000
Yakima Co.	Independence Road - Fordyce Road to Maple Grove Road	Reconstruct to rural major collector standards	2020 (CRAB & Local)	RTPO	\$1,220,000
Total Projected Freight Movement (TTRR) Investment					\$48,164,666

A total of \$ 48,164,666 has been programmed in the FY 2020-2023 TIP to address truck travel time reliability; averaging approximately \$ 12,041,167 per year.

**Table 9-4
Congestion Mitigation & Air Quality Improvement Program (PM3) - Performance and Targets**

YVCOG MPO & STATE CMAQ Emission Targets (kg/day)			
Pollutant	Period	Statewide	YVCOG MPO
CO	2018-2019	309.000	---
	2018-2021	309.060	3.700
	2014-2017 Baseline	313.160	0.00
PM ₁₀	2018-2019	0.305	---
	2018-2021	224.000	223.838
	2014-2017 Baseline	435.690	153.270
PM _{2.5} (Not Applicable for YVCOG MPO)	2018-2019	54.880	---
	2018-2021	116.540	---
	2014-2017 Baseline	872.970	---
NO _x (Not Applicable for YVCOG MPO)	2018-2019	2.100	---
	2018-2021	8.700	---
	2014-2017 Baseline	36.820	---
All Pollutants	2018-2019	366.285	---
	2018-2021	658.300	227.575
	2014-2017 Baseline	1,658.640	153.270

Air Quality Performance Measures Inspired Projects 2020 -2023					
Jurisdiction	Project	Project Description	Project CN Year	MPO / RTPO	Project Cost
Yakima	64 th Avenue & Ahtanum Road Intersection Improvements	Improve intersection by constructing a westbound right turn lane and installing traffic signal	2021 (CMAQ)	MPO	\$575,001
Zillah	Teapot Dome Park & Ride	Construct 97 stall park & ride facility w/ Level 2 Electronic Vehicle Charging (EVC) Stations, bus shelter and illumination	2020 (WSDOT)	RTPO	\$878,600
Total Projected Air Quality Investment					\$1,453,601

A total of \$1,453,601 has been programmed in the FY 2020-2023 TIP to address Air Quality and Congestion; averaging approximately \$363,400 per year.

Section 10

Air Quality Analysis

AIR QUALITY CONFORMITY

Introduction. Air quality planning for transportation is focused on meeting the National Ambient Air Quality Standards (NAAQS) and deadlines set by the federal Environmental Protection Agency (EPA), and upon the state Department of Ecology (DOE) guidelines for meeting the standards. Specific federal and state air quality conformity requirements come from the integration of requirements in the Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and are codified in 40 CFR Part 93.

These requirements were also included in FAST act, and Washington State’s Clean Air Act (RCW 70.94 & WAC 173-420-110). The requirements include:

- 1. Frequency of Conformity Determinations (40 CFR 93.104)**
YVCOG is responsible for completing the metropolitan transportation plan (MTP), and the metropolitan transportation improvement program (MTIP) for the Greater Yakima metropolitan area. Transportation plans and transportation improvement programs must be demonstrated to meet air quality standards at least every four years – or at any time when changes are proposed.
- 2. Latest Planning Assumptions (40 CFR 93.110)**
Nonattainment and maintenance areas must use the most recent planning assumptions in force at the time of the determination when making their conformity determination.
- 3. Interagency Consultation (40 CFR 93.105, 40 CFR 93.112)**
Under the approved limited maintenance plans (LMPs) for CO and PM₁₀ there are no motor vehicle emissions budgets. Therefore, a regional emissions analysis is not required. The Environmental Protection Agency (EPA) assumes that VMT growth is not expected to create a violation of NAAQS. However, a conformity determination is still required via the interagency consultation process.

Transportation conformity rules require that YVCOG must demonstrate via the interagency consultation process that the projects included in the transportation plan and the transportation improvement program successfully demonstrate that either singly or taken together, they will not cause the region’s air quality to deteriorate nor will they cause or contribute to any new violation of the federal air quality standards for CO or PM₁₀.

- **Public Review and Comment (FAST act)**
A public comment period must be provided prior to taking formal action and reasonable access to technical and policy information must be provided at the beginning of the public comment period.

Discussion. The Environmental Protection Agency (EPA) re-designated both the Yakima carbon monoxide (CO) nonattainment area and the PM₁₀ nonattainment area to “attainment” for the National Ambient Air Quality Standards (NAAQS) and approved a limited maintenance plan (LMP) effective December 31, 2002 for CO and March 10, 2005 for PM₁₀. Additionally, on March 9, 2005 an EPA approved boundary change to the PM₁₀ maintenance area to exclude lands belonging to the Yakama Nation went into effect.

Under limited maintenance plans, the motor vehicle emissions may be treated as essentially non-constraining because growth would need to exceed reasonable expectations to create a potential violation of the air quality standards for either PM₁₀ or CO. Under the limited maintenance plans, a regional emissions analysis is not required. Please note that even though a regional emissions analysis is not required, there are still other requirements that the area must meet for conformity. Remaining conformity requirements (as detailed in 40 CFR 93.109) include consultation (40 CFR 93.112), timely implementation of transportation control measures (40 CFR 93.113), and project level analysis (40 CFR 93.116). Individual transportation projects may be required to undergo air quality conformity analysis in order to obtain project approval. Project level analysis is performed by the project sponsor in accordance with state and federal requirements and methodologies. Having attainment status is a recognition that air quality has improved and the probability of future violations of the NAAQS is very low.

Interagency Consultation and Conformity Determination Process

Conformity guidelines do not define how to make conformity determinations for every situation. It is up to each consultation team to arrive at consensus as how to best demonstrate conformity in a particular maintenance area. There are no motor vehicle emissions budgets in either the CO or PM₁₀ Limited Maintenance Plans (LMPs), YVCOG, in consultation with WSDOT, FHWA, FTA, EPA, and the DOE, determined that reporting VMTs and annual growth rate is sufficient to demonstrate conformity for the Yakima Valley Metropolitan Regional Transportation Improvement Program (MRTIP) was held on October 29, 2019. In order to reach this agreement, several assumptions were made:

- i. Population growth will follow historical trends,
- ii. Land use changes within the maintenance areas will likewise follow historical trends, and
- iii. The updated metropolitan model describes the most current land use and traffic network data available.

Neither the PM₁₀ nor CO LMPs contain transportation conformity emission budgets or maximum VMT growth rates that require regulatory action. This is because the EPA policy for limited maintenance plans does not require out-year emission inventories or transportation conformity budgets for transportation improvement programs.

Working with the DOE in the summer of 2008, YVCOG adopted a common-sense approach in analyzing the ADVMTs that are extracted from the metropolitan area travel demand model. If the growth in ADVMTs is shown to exceed 2 percent per year, further analysis is needed through the interagency consultation process to determine the cause(s) and how to demonstrate conformity. A growth rate higher than 2 percent per year indicates extraordinarily

extraordinarily large increases in population, vehicles and traffic, and the air quality impacts of these significant changes need to be studied more closely. The 2 percent annual ADVMT growth rate matches the ADVMT growth assumptions made in the approved PM₁₀ LMP.

Under the current limited maintenance plans, individual transportation projects may be required to undergo air quality conformity analysis in order to obtain project approval. Project level analysis will continue to be performed by the project sponsor in accordance with state and federal requirements and methodologies.

Planning Assumptions

Assumptions about land use, including the location of jobs, housing and the demographic characteristics, are key elements in making the transportation air quality conformity determination. Using 2016 data as a base year and updated VISUM 17.0 land use inputs, the forecast year 2020 was analyzed for the 2020-2023 MTIP.

Public Review

The YVCOG made the air quality conformity determination available at several physical locations from September 10 – October 9, 2019, as part of the MTIP approval process. Public notices announcing the conformity determination are published in English in two local papers of record -- the *Yakima Herald Republic* and the *Sunnyside Daily Sun News* and in Spanish in a local paper of record – *El Sol*. The conformity determination is also available online YVCOG's website at www.yvcog.org.

YVCOG emailed electronic DRAFT copies of the MTIP document and accompanying air quality conformity determination to those on the interagency consultation and all others requesting it. Additionally, YVCOG staff was available throughout the public comment period to answer questions.

Any comments received on the air quality conformity determination will be recorded. The MPO/RTPO Executive Committee will consider the 2020-2023 air quality conformity determination for adoption prior to submitting to the State Transportation Improvement Program (STIP).

The Metropolitan Transportation Model Update. In 2018, YVCOG successfully updated its transportation model for purposes of the *DRAFT UPDATE of the Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040*. The model software was updated to VISUM 17.0 with a new base year with updated land use and traffic volumes. The updated model maintains consistency with the previous model as it employs the same underlying assumptions, the same gravity equations, and continues to simulate PM peak hour traffic. The anticipated enhancements include more stratified input data and inclusion of transit systems.

The VISUM platform allows YVCOG to continue to track average daily vehicle miles of travel (ADVMT) based on updated information. This feature is particularly important since through the intergovernmental consultation process with WSDOT, FHWA, FTA, EPA, and the DOE it was

determined that reporting ADVMTs and stating their annual growth rate is sufficient to demonstrate conformity for the Yakima Valley MTIP.

Regionally significant projects and projects expected to require federal funding within the four-year TIP (2020-23) period and listed in the **MAP-21 / FAST Act Performance Management Targets & Concurrences** section and viewable in Section 9.

YVCOG compares MTIP project submittals annually to ensure jurisdictional changes to MTIP projects that may impact the model are analyzed. Additions, removals, or major alterations to regionally significant projects not previously considered or included in the regional model are analyzed for reasonableness (including practicality of completion or jurisdictional commitment) in addition to their impacts to per capita vehicle trips (trip generation), vehicle miles traveled, mode shares and “time of day”. These changes are reviewed with the jurisdiction(s) for inclusion in subsequent model updates.

Findings. The ADVMT conformity analysis did not change from the last update of the 2020-2023 MTIP performed last year. YVCOG finds the following annual ADVMT growth rates below:

Table 10-1: Percent Annual Growth Rate

Period	Annual ADVMT Growth Rate
2020-2023	1.6%
2020-2045	1.49 %

- YVCOG’s traffic model methodology and 2040-2045 amendment, can be located at the end of Appendix E (***YVCOG Traffic Model Methodology***)
- YVCOG finds that the annual ADVMT growth rates are within the ranges described in the *Yakima PM₁₀ Nonattainment Area Limited Maintenance Plan* and the *Yakima CO Nonattainment Area Limited Maintenance Plan*.
- Therefore, the YVCOG finds that the projects included in the 2020-2023 MTIP, singly or together, will not cause or contribute to any new violation of the federal air quality standards for CO or PM₁₀.
- In accordance with Fast Act / MAP-21 requirements for reporting performance measures related to Air Quality Targets and Planned/secured projects addressing air quality documents the region’s current efforts to mitigate air quality impacts, found on the last page of Section 9

Statement of Conformity. The 2020 – 2045 Yakima Valley Metropolitan and Regional Transportation Plan (M/RTP) achieves and maintains the NAAQS as required by the Clean Air Act Amendments of 1990, meets the requirements set forth in WAC 173-420, and the current Yakima limited maintenance plans for both CO and PM₁₀.

APPENDIX A

LIST OF ACRONYMS

Yakima Valley Metropolitan and Regional Transportation Plan

List of Acronyms

Acronym	Description
ADA	Americans with Disabilities Act
ARRA	American Recovery & Reinvestment Act of 2019 (Federal Transportation Act)
AVDMT	Average Daily Vehicle Miles Traveled
B&O	Business and Occupation Tax
BIA	Bureau of Indian Affairs
BNSF	Burlington Northern Santa Fe Railroad
CBRW	Columbia Basin Railway Company
CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.R.A.B.	County Road Administration Board (Washington State)
C.S.	Complete Streets (Program)
CTR	Commute Trip Reduction
C.W.	Connecting Washington (WA State Legislature Transportation Funding Program)
DAHP	Department of Archaeology & Historic Preservation (Washington State)
DOE	Department of Ecology (Washington State)
D.R.Y.V.E.	Driving Rural Yakima County's Economy – A coalition of business leaders, elected officials, agency staff and community leaders promoting transportation investment in the southern (rural) Yakima Valley.
EPA	Environmental Protection Agency
ESD	Employment Security Department (State of Washington)
FAA	Federal Aviation Administration
FAST Act	Fixing America's Surface Transportation Act
FEMA	Federal Emergency Management Agency
FGTS	(Washington State) Freight & Goods Transportation System
FMSIB	Freight Mobility Strategic Investment Board
FHWA	Federal Highway Administration
FLUM(s)	Future Land Use Map(s)
FRA	Federal Rail Administration
FTA	Federal Transit Administration
GIS	Geographic Information Systems (Software)
GMA	Growth Management Act (State of Washington)
G.O.	General Obligation Bond
HSP	Highway Systems Plan (State of Washington)
HSS	Highway of Statewide Significance

HSTP	Human Services Transportation Plan
HUD	Housing and Urban Development (Department of)
ICDBG	Community Development Block Grant Program for Indian Tribes and Alaska Native Villages
IRR	Indian Reservation Road (Program)
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991 (Federal Transportation Act)
ITS	Intelligent Transportation Systems
JARC	Jobs Access Reverse Commute
LMP	Limited Maintenance Plan
[C] LOS	[Condition] Level of Service
M/RTIP	Metropolitan & Regional Transportation Improvement Program
M/RTP	Metropolitan & Regional Transportation Plan
MAP – 21	Moving Ahead for Progress in the 21 st Century (Federal Transportation Act)
MO & A	Maintenance, Operations, and Administration
MPACT	Mobilizing Public Access to Countywide Transportation
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHS	National Highway System
NMFS	National Marine Fisheries Service
NO_x	Nitrogen Oxide – Air Quality
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O & M	Operations & Maintenance
OEM	(State) Office of Financial Management
PM₁₀ / PM_{2.5}	Particulate Matter (10 Microns / 2.5 Microns) – Air Quality
PM1	Performance Measures – Federal Targets for Highway Safety
PM2	Performance Measures – Federal Targets for Bridges and Pavement
PM3	Performance Measures – Federal Targets for Highway System Performance, freight, and Congestion Mitigation & Air Quality (CMAQ)
PFP	People for People – Non-Profit transportation and social service agency serving Yakima and other counties.
PPP (YN)	Pahto Public Passage – Yakama Nation’s Tribal Transit Program (available to the general public)
PPP (YVCOG)	Public Participation Plan
PTBA	Public Transportation Benefit Area
RCW	Revised Code of Washington
REET	Real Estate Excise Tax
RTP	Regional Transportation Plan
RTPO	Regional Transportation Planning Organization
SAFETEA-LU	Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (Federal Transportation Act)

SEPA	State Environmental Policy Act
SMA	Shoreline Management Act
S.R.T.S.	Safe Routes to Schools (Program)
S.T / U.G.T. / Y.T.	Selah Transit / Union Gap Transit / Yakima Transit
TAC	Technical Advisor Committee
TDM	Transportation Demand Management
TEA-21	Transportation Efficiency Act for the 21 st Century (Federal Transportation Act)
TIB	Transportation Improvement Board (Washington State)
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TRANS-Action	A Coalition of business leaders, elected officials, agency staff, and community leaders promoting transportation investment in the northern (metropolitan) regions of Yakima County.
TS & W	Toppenish Simcoe & Western Rail Line (Yakima County Owned)
TSM	Transportation Systems Management
USDOT	United States Department of Transportation
UGA / UGB	Urban Growth Area / Boundary
U.S.C.	United States Code
USFWS	United State Fish & Wildlife Service
VMT	Vehicle Miles Traveled
(vpd)	Vehicles Per Day
WAC	Washington Administrative Code
WDFW	Washington Department of Fish & Wildlife
WISAARD	Washington Information System for Architectural and Archaeological Records Data (Database)
WRIA(s)	Water Resource Inventory Area(s)
WSDOT	Washington State Department of Transportation
WSP	Washington State Patrol
WTC	Washington [State] Transportation Commission
WTP	Washington Transportation Plan – WTC’s <i>“2040 & Beyond”</i>
WUTC	Washington Utilities and Transportation Commission
YCOEM	Yakima County Office of Emergency Management
YOE	Year of Expenditure
YN	Yakama Nation
YVCOG	Yakima Valley Conference of Governments

APPENDIX B

YVCOG PUBLIC PARTICIPATION PLAN

Yakima Valley Metropolitan and Regional Transportation Planning Organizations



Prepared by

Yakima Valley Conference of Governments Staff

**Adopted
(June 17, 2019)**

Public Participation Plan

For the 2020-2045 Yakima Valley Metropolitan and Regional Transportation Plan Update

YVCOG Member Jurisdictions:

- City of Grandview
- City of Granger
- Town of Harrah
- City of Mabton
- City of Moxee
- Town of Naches
- City of Selah
- City of Sunnyside
- City of Tieton
- City of Toppenish
- City of Union Gap
- City of Wapato
- City of Yakima
- Yakima County
- City of Zillah
- Washington State Department of Transportation
- Yakima Transit
- Yakima Airport / McAllister Field

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Para obtener información en español sobre este plan de participación pública o sobre el proceso de planificar para el transporte en el región, puede llamar al número 574-1550.

Cover Photos

Washington State Transportation Commission (WTC) Yakima Region Bus Tour (May 15, 2018) – **[Top Left]** Union Gap Public Services Director, Dennis Henne, discusses the City’s future plans for the **South Union Gap Interchange Project** (WSDOT project began construction in the fall of 2018) and Union Gap’s planned “**Beltway Project**”. **[Top Right]** Zillah Officials brief tour participants on the **Vintage Valley Parkway** project planned to begin construction in 2020. **[Bottom Center]** Yakima County Road Engineer Matt Pietrusiewicz and Traffic Engineering Managers share transportation successes and challenges during WTC’s May 2018 Board Meeting in Yakima City Council Chambers.

- Photo Courtesy, Alan Adolf (YVCOG)

The Yakima Valley Conference of Governments (YVCOG) hereby gives public notice that it is the Organization’s policy to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person shall, on the grounds of race, color, sex, or national origin be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any Federal Aid Highway program or other activity for which YVCOG receives Federal financial assistance.

Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with YVCOG. Any such complaint must be in writing and filed with YVCOG’s Title VI Coordinator within one hundred, eighty (180) days following the date of the alleged discriminatory occurrence. For more information, or to obtain a Title VI Discrimination Complaint Form, please visit our website at www.yvcog.org or call Larry Mattson at (509) 574-1550.

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Public Participation Plan - Introduction

Metropolitan Planning Organization (MPO)

The Yakima Valley Conference of Governments (YVCOG) is the lead planning agency for the federally-designated Yakima Valley Metropolitan Planning Organization (MPO). The purpose of the MPO is to “carry out a continuing, cooperative, and comprehensive (3C) multimodal transportation planning process for the Metropolitan Planning Area (MPA) that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight and foster economic growth and development, while minimizing transportation-related fuel consumption and air pollution...” ([23 USC Section 134](#)).

MPOs receive dedicated Federal Highway Funds known as [Title 23 USC](#) Planning Funds (PL) and transit planning funds known as [Title 49 USC Section 53](#) Planning Funds (5303) to carry out their programs. Funding is allocated through the state department of transportation based on a formula as described in [23 CFR 450.308](#) and is distributed on an annual basis tied to each MPO’s annual Unified Planning Work Program.

Agencies participating as members of the MPO include the cities of Moxee, Naches, Selah, Union Gap, and Yakima; Yakima County; Selah Transit, Union Gap Transit; Yakima Transit; and the Washington State Department of Transportation (WSDOT).

Regional Transportation Planning Organization (RTPO)

YVCOG is also the lead planning agency for the state-designated Yakima Valley Regional Transportation Planning Organization (RTPO). One of the purposes of an RTPO is to see that provisions of the Washington State Growth Management Act ([RCW 47.80.023](#)), as further defined under Washington Administrative Code ([WAC](#)) [Section 468-86](#), are met.

The RTPO performs tasks similar to the MPO, but unlike the MPO, the RTPO includes rural and small urban areas outside of the greater metropolitan area. Often a MPO and a RTPO are combined to make transportation planning a coordinated and comprehensive process, as is the case in the Yakima Valley. Early on, the YVCOG member jurisdictions recognized the need, the desirability, and the regional benefits that result from a collaborative forum for transportation planning and decision-making. One of the duties described in this regulation is the responsibility of RTPO to certify that the transportation elements of comprehensive plans adopted by the counties, cities, and towns within their respective regions conform to the requirements of [RCW 36.70A.070](#). RTPOs also certify that the transportation elements of comprehensive plans adopted by counties, cities and towns within each region are consistent with the regional transportation plans adopted by the RTPO.

Agencies participating in the RTPO include those members of the MPO, along with the cities and towns of Grandview, Granger, Harrah, Mabton, Sunnyside, Tieton, Toppenish, Wapato, Zillah, and the Confederated Bands and Tribes of the Yakama Nation.

Purpose of Public Participation and of the Public Participation Plan (PPP)

This Public Participation Plan (PPP) will explain why public involvement is important to the MPO/RTPO, when and how public involvement is going to be solicited in the different transportation planning processes, and what types of information will be gathered during public outreach efforts.

Why public involvement is important locally

Public involvement is integral to good transportation planning. Without meaningful public participation, there is a risk of making poor decisions, or decisions that have unintended negative consequences. Public participation early and often is intended to make a lasting contribution to an area's quality of life. Public involvement is more than an agency requirement or a statutory obligation. Meaningful public participation is designed to inform the planning process about the community's needs and goals early enough to become guiding principles for policies, programs, and project selection.

The fundamental objective of the Yakima Valley MPO/RTPO's public participation plan is to ensure that the concerns and issues of everyone with a stake in transportation decisions are identified and addressed in the development of the planning processes in the Yakima Valley communities.

“Conducting meaningful public participation involves seeking public input at specific and key points in the decision-making process issues where such input has a real potential to help shape the final decision or set of actions.” - Federal Highways Administration (FHWA)¹

The MPO/RTPO is responsible for actively involving all affected parties in an open, cooperative, and collaborative process that provides meaningful opportunities to influence transportation decisions. Decision makers must consider fully the social, economic, and environmental consequences of their actions, and assure the public that transportation programs support adopted land use plans and community values. In consultation with interested parties, MPOs and RTPOs develop and document a participation plan that details strategies for incorporating visualization techniques, using electronic media, holding public meetings, and responding to public input.

Why public involvement is important at the federal and state level

Funding for transportation plans and projects comes from a variety of sources, including the federal government, state governments, special authorities, public or private tolls, local assessment districts, local government general fund contributions (such as local property and sales taxes), and impact fees. In particular, federal funding requires MPOs to use a continuing, cooperative, and comprehensive (3C) approach to transportation planning.

¹FHWA Public Involvement/Public Participation http://www.fhwa.dot.gov/planning/public_involvement/
Federal funding — transferred to the state and later distributed to metropolitan areas — is typically the primary funding source for major MPO plans and projects. Federal transportation funding is made available through the Federal Highway Trust Fund and is supplemented by general

funds. Most FHWA sources of funding are administered by the state Department of Transportation (DOT). Funding for the Yakima Valley MPO is administered by WSDOT. The RTPO funding covers all of Yakima County and is administered solely from WSDOT. The state DOT allocates the money to urban areas (MPOs) and rural areas (RTPOs) based on state and local priorities and needs. Most transit funds for urban areas are sent directly from the Federal Transit Administration (FTA) to the transit operator. Transit funds for rural areas are administered by the state DOT.

Federal funds are made available through a specific process:

Authorizing Legislation: Congress enacts legislation that establishes or continues the existing operation of a federal program or agency, including the amount of money it anticipates being available to spend or grant to states, MPOs, and transit operators. Congress generally reauthorizes federal surface transportation programs over multiple years. The amount authorized, however, is not always the amount that is available to spend.

- **Appropriations:** Each year, Congress decides on the federal budget for the next fiscal year. As a result of the appropriation process, the amount appropriated to a federal program is often less than the amount authorized for a given year and is the actual amount available to federal agencies to spend or grant.
- **Apportionment:** Distribution of program funds among states and metropolitan areas (for most transit funds) using a formula provided in law is called an apportionment. Apportionments are usually made on the first day of the federal fiscal year (FFY = October 1 through September 30) for which the funds are authorized. At that time, the funds are available for obligation (spending) by a state in accordance with an approved State Transportation Improvement Program (STIP). In many cases, the state is the designated recipient of federal transportation funds; in some cases, transit operation are the recipient.
- **Determining Eligibility:** Only certain projects and activities are eligible to receive federal transportation funding. Criteria depend on the funding source.
- **Match:** Most federal transportation programs require a non-federal match. State or local governments must contribute some portion of the project or program cost. This matching level is established by legislation. For the Yakima Valley MPO, the required match for the federal funding administered by WSDOT is 13.5% for both Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding.

YVCOG: Document Review and Outreach Schedule	
Metropolitan / Regional Transportation Plan (M/RTP)	<p>Updated every four years (minimum)</p> <p>Interagency coordination, contribution, and collaboration of documents</p> <p>Notification on YVCOG website of upcoming meetings and public comment opportunities</p> <p>Technical Advisory Committee (TAC), Mobilizing Public Access to Countywide Transportation (MPACT), WSDOT, FHWA/FTA and other comments due to YVCOG for update and review</p> <p>Legal advertisements of public comment period and meetings</p> <p>Drafts and Final posted on YVCOG Website for public comment and review</p> <p>30-day public review period (with public meeting) for comment and review</p> <p>Presented to and approved by YVCOG Transportation Policy Board</p> <p>Adopted document posted on YVCOG Website and at YVCOG Offices</p> <p>Distribute Adopted document to member, state, and federal agencies</p>
Transportation Improvement Program (TIP)	<p>Update annually</p> <p>Interagency coordination, contribution, and collaboration of new document</p> <p>Public Meeting held during 30-day comment period</p> <p>Notification on YVCOG website of upcoming meetings and public comment opportunities</p> <p>Legal advertisements of public comment period and meetings</p> <p>Draft posted on YVCOG Website for public comment and review</p> <p>30-day public review period with public meeting) for comment and review</p> <p>Recommended by TAC Committee and approval, through resolution, by Transportation Policy Board</p> <p>Adopted document posted on YVCOG Website and at YVCOG Offices</p> <p>Distribute Adopted document to member, state, and federal agencies</p>
Transportation Improvement Program (TIP) Amendments	<p>Performed monthly, January through October, as needed</p> <p>Legal advertisements of public comment and review opportunities</p> <p>Minimum 10-day comment period</p> <p>Recommended by TAC Committee and approval, through resolution, by Transportation Policy Board</p> <p>Post amended document on YVCOG website</p>
Public Participation Plan (PPP)	<p>Updated every 4 years prior M/RTIP Update, amend as needed</p> <p>Interagency coordination, contribution, and collaboration of new document</p> <p>Public meetings held during (minimum) 45-day comment period</p> <p>Notification on YVCOG website of upcoming meetings and public comment opportunities</p> <p>Legal advertisements of public comment period and meetings</p> <p>Recommended by TAC Committee and approval, through resolution, by Transportation Policy Board</p> <p>Distribute Adopted document to member, state, and federal agencies</p>

Evaluating the Public Participation Plan

The YVCOG Public Participation Plan represents an ongoing strategy in evaluating its effectiveness in connecting with our regional populations. As part of every public involvement period and outreach effort, YVCOG will explore a variety of methods to outreach to the public, solicit comment, evaluate effectiveness, and respond in a timely manner.

The Public Participation Plan Evaluation Matrix will be used to improve outreach methods and efforts and guide future updates to the Public Participation Plan

PUBLIC PARTICIPATION PLAN EVALUATION MATRIX		
INVOLVEMENT TOOL	MONITORING TOOLS	EVALUATION RESULTS
YVCOG Website	Number of Site Visits Viewed Pages and Downloads Contact / Feedback Option for Visitors	Indicates website use, effectiveness, and ease of navigation
YVCOG Meetings: Policy Board TAC MPACT Open Houses Special Event(s)	Number of Meetings Held Number of Attendees / participants Comments Submitted Results of Discussion / Event(s)	Provides information on meeting effectiveness, attendance, and interest by affected stakeholders and public participants
News Releases	Number of Releases sent out Number of News Articles or public announcements published or broadcasted	Relationship of local media in highlighting transportation plans, activities, and plans
Public Comments & Public Comment Periods	Number of Comments received Review of Comments received	Indicates degree of public interest in transportation planning issues and activities and effectiveness of public participation plan strategies
Email Distribution Lists	Number of People receiving emails or notifications from YVCOG Number of People receiving monthly meeting agendas and packets	Highlights YVCOG Staff's "Stakeholder" networking, recruiting, and retention capabilities
Social Media	Number of "followers" or "likes"	Tracks how many people are following regional transportation issues and activities

Public Participation Techniques

YVCOG utilizes various public participation techniques to educate and solicit input from the public to inform its decision-making process:

YVCOG Public Participation Techniques

<p><u>Public Meetings / Workshops</u></p> <ul style="list-style-type: none"> • Open Houses / Outreach Events • Presentations / Information Booths at other agency events • Host / Co-host workshops, focus groups, meetings, or brainstorming events with stakeholder and community groups • Interactive activities at meetings • Variable meeting times /dates for workshops or outreach events • Offer on-site or call-in interpretation and translations assistance <p><u>Visualization</u></p> <ul style="list-style-type: none"> • Maps / Charts / Illustrations / photographs / Infographics • Web Content and Interactive Links • PowerPoint Presentations • Wi-Fi linkages to internet (where available) <p><u>Surveys</u></p> <ul style="list-style-type: none"> • Printed Surveys provided at meetings and presentations (English & Spanish) • Internet Surveys (English & Spanish) • Personal Interviews <p><u>Focus Groups</u></p> <ul style="list-style-type: none"> • Randomly selected participants discuss various subjects <p><u>Printed Materials</u></p> <ul style="list-style-type: none"> • User-friendly documents written in “Plain Talk” • Maps, posters, charts, photographs, and other visual means of displaying information • Postcards / Event-based Business Cards • Handouts <p><u>Local Media</u></p> <ul style="list-style-type: none"> • Public Notices / Advertisements • New Releases • Purchase display ads and media advertising, as necessary <p><u>Newsletters</u></p> <ul style="list-style-type: none"> • Emailed Newsletters 	<p><u>Internet and Electronic Access to Information</u></p> <ul style="list-style-type: none"> • Website with current content • Ability for public to submit comments via email • Electronic duplication and distribution of open house / workshop materials • Internet Surveys • Provide electronic information prior to public meetings and events • Share internet links with members / stakeholder partners to post on their site(s) <p><u>Other Outreach</u></p> <ul style="list-style-type: none"> • Information / Comment tables and booths at community events and public gatherings • Online Commenting Activities • Participate in member jurisdiction, tribal government, and statewide planning processes • Announcements to member, partner, and stakeholder agencies • Posting Flyers / Staging Information Postcards and Event based Business Cards • Email Blasts <p><u>Public Notification Techniques to Involve Low Income & Minority Communities</u></p> <ul style="list-style-type: none"> • Coordinate with Regional Social Service Organizations, Non-Profit / Foundations, and independent focus groups / committees • Seek ongoing dialogue with groups representing potentially underserved populations; such as elderly, youth, and limited-English proficient populations • Continue facilitation of special needs transportation groups and commute trip reduction committees • Coordinate with community/minority media outlets • Seek opportunities to speak at meetings of groups involving minority/low income and traditionally underserved populations • Notify agencies that work with minorities and low-income populations of agency activities
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<p><u>Techniques to involve Limited-English Proficient (LEP) Populations</u></p> <ul style="list-style-type: none"> • Translate outreach materials, as necessary, and provide translator services, as requested • Include information on website and meeting notices on how to request translation or other assistance • Utilize visualization techniques, such as, maps, charts, and graphics, to illustrate trends, proposed projects, etc. • Utilize diverse media outlets such as radio and printed formats • Partner with language-based social service and general service providers to highlight mutually or complementary based needs, services, or programs that improve mobility access. • Share/post posters, postcards, and business cards with Hispanic Chamber(s) of Commerce, business associations, and private business owner highlighting transportation programs, projects and planning activities 	<p><u>Techniques for Reporting on Public Comments</u></p> <ul style="list-style-type: none"> • Acknowledge every public comment to let commenter know it was received and any action that will be taken as a result • Summarize key themes or elements of public comments in reports to Policy Board and advisory committees • Provide comment summary as an appendix to final report for any project/document requiring a public comment period • Email participants from meeting, surveys, etc., with final project outcomes • Submit agency comments back to commenter
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Tribal Government Consultation

Washington State agencies are required to have effective procedures for relations with Native American tribes. The Washington State Department of Transportation's Centennial Accord Plan implements the consultation policy to provide consistent and equitable standards for working with tribes. The Confederated Bands and Tribes of the Yakama Nation reservation is mostly located within YVCOG's boundary (encompassing Yakima County) with some lands located along the northern boundary of Klickitat County. YVCOG actively coordinates planning activities with the Yakama Nation through participation in various activities.

YVCOG / YAKAMA NATION PLANNING COLABORATIONS	
Technical Advisory Committee	Participates in Monthly Technical Advisory Meetings primarily focused on public works, funding, and transportation planning activities
Mobilizing Public Access to Countywide Transportation (MPACT)	Participates in Quarterly Advisory Meetings primarily focused on special needs transportation, transit, funding and transportation planning activities
Driving Rural Yakima Valley's Economy (D.R.Y.V.E)	Yakama Nation was a founding member of the Transportation Advocacy Committee dedicated to promoting transportation investment in the southern Yakima Valley. YVCOG is a contributing member.
Tribal Transportation Planning Organization (TTPO)	YVCOG is invited and participates in TTPO scheduled meetings when held at Yakama Nation
Miscellaneous Planning Events	Joint attendance at WSDOT, stakeholder, and other transportation-related events, as available.

The Metropolitan and Regional Transportation Plan

(M/RTP) or Long-range Transportation Plan (LRTP)

In metropolitan areas, transportation planning is covered by federal regulations. The transportation plan in the metropolitan area is known as the Metropolitan Transportation Plan (MTP) and is the statement of the ways the metropolitan planning area plans to invest in the transportation system. Per the federal regulation known as [23 USC § 134](#), the Long-range Transportation Plan (LRTP) shall

"... provide for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the metropolitan planning area and as an integral part of an intermodal transportation system for the State and the United States."

The LRTP addresses, for example:

- Policies, strategies, and projects for the future;
- A systems-level approach by considering roadways, transit, non-motorized transportation, and intermodal connections;
- Projected demand for transportation services over at least the next 20 years;
- Regional land use, development, housing, and employment goals and plans;
- Cost estimates and reasonably available financial sources for operation, maintenance, and capital investments; and
- Ways to preserve existing roads and facilities and make efficient use of the existing system.

The metropolitan LRTP and the long-range statewide transportation plan must be consistent with each other. Since Yakima Valley's MPO had air quality violations in the past, the LRTP must be updated every four years. MPOs are encouraged to make special efforts to engage interested parties in the development of the LRTP.

Yakima Valley's MPO also provides the RTPO membership with transportation planning services. The Metropolitan and Regional Transportation Plan elements are combined into one document. The resulting plan is known as a Metropolitan and Regional Transportation Plan (M/RTP or LRTP). The RTPO regulations are State requirements, not federal requirements. The planning area for the RTPO includes all of Yakima County.

A strategic outline for the LRTP is scheduled to be completed by June 30, 2019. This outline will stratify the LRTP into sections with estimated timelines and milestones for each section. Table 1 shows an illustrative list of generic sections and associated outreach efforts that are anticipated when creating a LRTP. Since this Public Participation Plan (PPP) precedes the LRTP, the table is for illustration purposes and may not include all or may include more sections than those resulting from the public process of creating the Yakima Valley M/RTP.

Public outreach will always be preceded by English and Spanish notifications in multiple local newspapers, online notification on YVCOG's website and Facebook page, solicitation from the MPO/RTPO for members to place the same information on their websites or provide links to the MPO/RTPO website, and notification at the regularly scheduled MPO/RTPO Technical Advisory Committee (TAC) and Policy Board (PB) meetings leading up to the event. At public outreach

events, all materials and printed information will be provided by the MPO/RTPO in English. The four-factor analysis performed for the development of the Public Participation Plan will help assess the need for providing materials in Spanish as well.

Table 1. Illustrative List of Generic Long-range Transportation Plan Sections and Associated Public Outreach Efforts

Long-range Plan Section	Deliverable	Type of Public Participation
Evaluation Criteria, Methods and Measures	Evaluation criteria created by which to evaluate individual future scenarios	Open workshops, stakeholder solicitation, charettes, electronic /radio/television media events...
Transportation Deficiencies	Existing and anticipated transportation deficiencies lists and needs lists	Open meetings, open workshops, stakeholder solicitation, charettes, fair booth or open market booth, electronic/radio/television media events...
Strategies	Strategies for addressing, mitigating, or accepting the identified deficiencies	Open workshops, stakeholder solicitation, charettes, electronic/radio/television media events...
Plan Scenarios	Gather, develop and consider plan scenarios that incorporate strategies for the identified deficiencies	Open workshops, stakeholder solicitation, charettes, electronic/radio/television media events...
Adopt Preferred Plan Scenario	Select the scenario approach through consensus	Open meeting

Frequent review of local, state and federal outreach strategies will allow Yakima Valley's MPO/RTPO to freshen the approaches made to involve the public in the long-range transportation planning process.

Public Comment Opportunities for the 2019 Long-range Plan

MPO/RTPO staff anticipates that development discussions will occur at Technical Advisory Committee meetings and Policy Board meetings with increasing frequency from May 2019 through the adoption of the LRTP, scheduled to occur in March 2020.

Opportunities for public input will occur throughout any planning process, including during the LRTP development and during the Draft LRTP comment period. Input from the public, stakeholders, and interested parties will be obtained via an online comment form on the project website, via comment cards that will be available at various public outreach meetings, with printed copies of the Draft LRTP at identified physical locations throughout the region, and via email and letters addressed to YVCOG. Input will be accepted in both English and Spanish.

Copies of the Public Participation Plan, the Draft LRTP and related environmental documents under the State Environmental Policy Act (SEPA) will be available for review at the following locations:

YVCOG

Yakima Valley Regional Library

311 North 4th Street, Suite 204
Yakima, WA 98901

102 N 3rd Street
Yakima, WA 98901

Sunnyside Library
621 Grant
Sunnyside, WA 98944

Input received during plan development will be summarized as part of the Draft LRTP. Input received during the comment period will be summarized in an Appendix maintained as part of the final LRTP.

If the final LRTP differs significantly from the Draft LRTP available for public comment or raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts, an additional opportunity for public comment on the revised plan will be made available.

If you need special accommodations to participate in a meeting or materials in an alternative format, please call YVCOG at 509-574-1550 by 10:00 AM three days prior to the meeting. For TTY users, please use the State's toll-free relay service, 7-1-1, and ask the operator to dial 509-574-1550.

Para obtener información en español sobre este Plan de Participación Pública o sobre el proceso de planificación de transporte en la región, puede llamar al número 574-1550.

Metropolitan (MTIP) & Regional (RTIP) Transportation Improvement Program

In the Metropolitan Transportation Improvement Program (MTIP), the MPO identifies the transportation projects and strategies from the LRTP in the metropolitan planning area to be started over the next four years. All projects receiving federal funding in the MPO area must be in the MTIP. The MTIP allocates the limited transportation resources in the MPO area based on a clear set of short-term transportation priorities.

The Washington State 2020-2023 TIP will begin development in June 2019. As with the LRTP, Yakima Valley's MPO provides the RTPO members with programming services. The metropolitan and regional transportation improvement program elements are being combined into one document. The resulting program is known as a Metropolitan and Regional Transportation Improvement Program (M/RTIP).

The M/RTIP is sent to Washington State Department of Transportation (WSDOT) to be incorporated into the Washington Statewide Transportation Improvement Program (STIP). All projects receiving federal funding must be in the corresponding STIP.

Under federal law, the MTIP:

- Covers a minimum four-year period of investment;
- Is updated at least every four years;
- Is realistic in terms of reasonably available funding and is not just a "wish list" of projects. This concept is known as fiscal constraint;
- Conforms with the Statewide Improvement Program (SIP) for air quality in nonattainment and maintenance areas;
- Is approved by the MPO and the governor; and
- Is incorporated directly, without change, into the Statewide Transportation Improvement Program (STIP).

For the 2020-2023 and future M/RTIPs, YVCOG will hold public meetings during the MPO/RTPO public comment period in addition to the regularly scheduled Technical Advisory Committee (TAC) and Policy Board (PB) meetings (which are also open meetings). Written comments will be solicited by forms included in the available copies of the draft documents at the Yakima Public Library, the Sunnyside Library, and the MPO/RTPO office in Yakima. Electronic comments will be solicited through the YVCOG webpage at www.yvcog.org. At public outreach events, all materials and printed information will be provided by the MPO/RTPO in English. The four-factor analysis performed for the development of Public Participation Plan will help assess the need for providing materials in Spanish as well.

Development of M/RTIPs for jurisdictions and agencies is an annual task in the Unified Planning Work Program (UPWP), and a development schedule such as the example provided is drafted each spring in anticipation of the process. This development schedule is available on the YVCOG webpage as well.

Human Service Transportation Plan (HSTP) and the associated Human Services Transportation Coalition

Recognizing the existing public transportation services in the metropolitan and regional planning areas, and identifying the unmet needs of individuals with disabilities, older adults, and individuals with limited income are a few of the primary objectives in the Human Services Transportation Plan (HSTP). YVCOG began the 2018 HSTP update in December 2017 with members of the Mobilizing Public Access to Countywide Transportation (MPACT) Committee, which succeeded the Yakima Valley Special Needs Coalition in 2016, to investigate the needs of the special needs populations in Yakima County. The MPACT committee presented the 2018 HSTP to the YVCOG Transportation Policy Board who approved the document in June 2018. Work will begin in Fall 2021 for the 2022 HSTP Update.

YVCOG and MPACT reaches out to public and private transportation service providers in and near the combined planning areas as a standing committee of the MPO/ RTPO. This group's membership is composed of the many organizations that provide (social and transportation) services to the special needs populations in the MPO/RTPO areas. It is the intention of MPACT to meet at least quarterly in open meetings to share information and keep each other apprised of emerging legislation and conditions.

The Coalition, with MPO/RTPO staff, develops the HSTP every four years. Midway between HSTP updates, the Coalition creates a ranked project list from a prioritization process. The ranked project list can be submitted to WSDOT for consideration in a statewide transit funding selection process.

As the facilitator of MPACT, YVCOG is responsible for public outreach efforts. As with other metropolitan and regional plans and programs, public outreach will be preceded by an English and Spanish notification in multiple local newspapers, online notification on the website for the MPO/RTPO, solicitation from the MPO/RTPO for members and Coalition members to place the same information on their websites or provide links to the MPO/RTPO website, and notification at the regularly scheduled MPO/RTPO TAC and PB meetings leading up to the event. At public outreach events, all materials and printed information will be provided by the MPO/RTPO in English. The four-factor analysis performed for the development of Public Participation Plan will help assess the need for providing materials in Spanish as well.

As with the LRTP covered earlier in this document, a generic table of potential HSTP sections and their possible associated public outreach activities is summarized for illustrative purposes.

Table 2. Illustrative List of Generic Human Services Transportation Plan Sections and Associated Public Outreach Effort

HSTP Section	Deliverable	Type of Public Participation
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Stakeholder Services & Transportation Providers	Statements of Existing Service Providers both Public and Private	Open meetings, stakeholder solicitation, electronic / radio / television media events...
Emergency Management	Develop emergency management activities available by service providers	Open workshops, stakeholder solicitation, charettes, electronic / radio / television media events.
Common Origins	Use of Census, ACS, OFM and other data sources to communicate demographics with local data gathering.	Surveys, four-factor analysis, Electronic / radio / television media events.
Common Destinations	Use of Census, ACS, OFM and other data sources to communicate demographics with local data gathering.	Surveys, Electronic / radio / television media events...
Existing Transportation Services	Statements of Existing Conditions	Open workshops, stakeholder solicitation, surveys, charettes, electronic / radio / television media events...
Unmet Transportation Needs	Existing and anticipated transportation deficiencies and needs lists	Open meetings, open workshops, stakeholder solicitation, charettes, fair booth or open market booth, electronic/radio/television
Technology	Identify role for improving or mediating needs through possible technology	Open workshops, stakeholder solicitation
Strategies	Strategies for addressing, mitigating, or accepting the identified deficiencies	Open workshops, stakeholder solicitation, charettes, electronic/radio/television media events...
Coordination	Gather, develop and consider coordination scenarios that incorporate strategies for the identified deficiencies	Open workshops, stakeholder solicitation, charettes, electronic/radio/television media events...

Infrequent Studies or Other Prioritization Processes

In addition to these three regularly scheduled periodic tasks (LRTP, M/RTIP, and HSTP), there will be times when the Yakima Valley MPO/RTPO performs outreach for a short-term WSDOT study or transportation surveys. There may also be times when a funding source becomes available that will initiate a prioritization of local or regional projects. Each time, the public outreach portion of a process will be preceded with bilingual newspaper notifications in multiple newspapers and online notification.

Regularly Scheduled Meetings and Opportunities for Public Input

Meetings of the following committees and the general public are identified as part of the public participation process. All meetings are open to the public. See *Appendix B* for a schedule of meetings.

Technical Advisory Committee

YVCOG has established a Yakima Valley MPO/RTPO Technical Advisory Committee to ensure coordination of the regional transportation planning process. The TAC will make recommendations to the Yakima Valley MPO/RTPO Policy Board at key points during any planning process.

MPO/RTPO Policy Board

The Yakima Valley MPO/RTPO Policy Board is the formal decision-making body for matters relating to regional transportation planning. The Policy Board has the authority to adopt regional transportation plans. The Policy Board meets once per month.

Relevant Federal and State Regulations

Federal Regulations cited in this document

23 USC Section 134 – Metropolitan Transportation Planning

23 USC Section 135 – Statewide and nonmetropolitan transportation planning

23 CFR Part 450 – Planning Assistance and Standards

42 USC Chapter 85 – Clean Air Act

Title 23 USC – Federal-Aid Highways

Title 49 USC Section 53 – Public Transportation

State Regulations cited in this document

RCW 47.80 – Regional Transportation Planning WAC Section 468 – Department of Transportation

RCW 36.70A – Growth Management Act

RCW 35.77 – Local 6-year TIP

Meetings for Regional Transportation Planning

Please see schedules on next 2 pages for 2019 meeting dates. The MPO/RTPO/YVCOG meeting dates are advertised every year and can also be found on the YVCOG website at: www.yvcog.org.

The meetings are customarily held as follows:

- **MPO/RTPO TAC Meetings**
(usually 2nd Thursday of each month, 10am - noon)
- **MPO/RTPO Policy Board Meetings**
(usually 3rd Monday each month, 1:30pm – 3:30pm)
- **YVCOG General Membership Meeting**
(3rd Wednesday of Jan / Mar / May / Sep / Oct / Dec, 6:00pm – 8:00pm)

Other Meetings for Public Outreach (as scheduled):

- **TRANS-Action**
(usually held on the 3rd Wednesday of 6 months, 2:00pm – 4:00pm)
- **Driving Rural Yakima Valley's Economy (D.R.Y.V.E.)**
(usually held on the 3rd Thursday of odd months, 1:30pm – 3:30pm)
- **Mobilizing Public Access to Countywide Transportation (MPACT)**
(usually 4th Tuesday of 4 months, 2:30 pm - 3:30pm)



**YAKIMA VALLEY CONFERENCE OF GOVERNMENTS (YVCOG)
MEETINGS SCHEDULED BY MONTH**

* MPO / RTPO POLICY BOARD & YVCOG EXECUTIVE COMMITTEE	** YVCOG GENERAL MEMBERSHIP	*** MPO / RTPO TECHNICAL ADVISORY COMMITTEE
**** January	January	January
February	February (If January is Cancelled)	February
March	March	March
April		April
May	May	May
June		June
July		July
August		August
September	September	September
October	October	October
November		November
December	December	December

*The Metropolitan and Regional Transportation Planning Organization (MPO/RTPO) Policy Board and YVCOG Executive Committee meet at 1:30 p.m. at the YVCOG office, 311 North 4th Street, Suite 204, in Yakima on the **3rd Wednesday** of February, and on the **3rd Monday** of each month thereafter.

** The YVCOG General Membership meets at 6:30 p.m. on the **3rd Wednesday** of January, March, May, September, and October. The December meeting is held on the **2nd Wednesday**. These meetings are held at alternating locations throughout the region.

***The MPO/RTPO Technical Advisory Committee (TAC) meets at 10:00 a.m. at the YVCOG office, 311 North 4th Street, Suite 204, in Yakima on the **2nd Thursday** of each month (unless notified otherwise).

****January YVCOG Executive Committee meeting date changed to **2nd Monday** instead of Wednesday.

Appendix C

Media Distribution

The YVCOG distributes news releases, notices and other materials to the following:

Member Jurisdictions / Agencies

- City of Grandview
- City of Granger
- Town of Harrah
- City of Moxee
- Town of Naches
- City of Selah
- City of Sunnyside
- City of Tieton
- City of Toppenish
- City of Union Gap
- City of Wapato
- City of Yakima
- City of Zillah
- Yakima County
- Yakima Transit
- Yakima Airport / McAllister Field
- Washington State Dept. of Transportation

Partnering Agencies / Organizations

- Benton-Franklin Conference of Governments
- Astria Regional Medical Center
- Department of Ecology
- Department of Social & Health Services
- Employment Security / WorkSource
- Entrust Community Services
- Educational School District (ESD) 105
- Granger Chamber of Commerce
- La Casa Hogar
- People for People Community Services
- Port of Grandview
- Port of Sunnyside
- Southeast Washington Area on Aging
- Toppenish Chamber of Commerce
- WA St. Dept. of Services for the Blind
- Virginia Mason Memorial Hospital
- Yakama Nation / YN Transit
- Yakima County Development Association
- Yakima Co. Office of Emergency Management
- Yakima Chamber of Commerce
- Yakima Greenway Foundation
- Yakima Valley Clean Air Authority
- Yakima Farmworkers Clinic
- Yakima Training Center (JBLM) / D.o.D.
- Zillah Chamber of Commerce

Partnering (Transportation-Related) Businesses

- AB Foods

- Central Washington Home Builders Association (CWHBA)
- Gray & Osborne Engineering
- H.W. Lockner (Seattle)
- Jacobs Engineering
- MedStar Transportation Services
- HLA Engineering and Surveying, Inc.
- ProTran (NEMT)
- Rattlesnake Hills Winery Trail Assoc.
- Tree Top, Inc.
- Washington State Tree Fruit Assoc. (WSTFA)
- Wide Hollow Development, Inc.
- Yakama Forest Products
- Yakama (Nation) Power
- Yakima Association of Realtors
- SOZO Sports Complex

News Media

- Daily Sun News (Sunnyside)
- EL Sol de Yakima [Spanish] Newspaper
- KAPP / KVUE TV (Yakima)
- KIT Radio (Yakima)
- KIMA / KEPR TV (Yakima)
- KNDA [Spanish] Radio (Yakima)
- KNDO / KNDU TV (Yakima)
- MVTV (Mid-Yakima Valley Public Access TV)
- Tri-City Herald Newspaper
- Yakima Herald Republic Newspaper
- Yakima Valley Business Times
- Yakama Nation (YN) Review Newspaper

Transportation Action Committees

- Cowiche Canyon Conservancy
- Driving Rural Yakima Valley's Economy (D.R.Y.V.E)
- Mobilizing Public Access to Countywide Transportation (MPACT)
- TRANS-Action of Yakima County
- Yakima Bikes & Walk

If you would like to, or know of individuals or agencies / organizations that would like to receive information on YVCOG programs and activities, please send an email to alan.adolf@yvcog.org

Appendix D

Otros materiales

"Dícales lo que les va a relatar"
El alcance del Plan de Participación Pública

Durante los próximos 45 días, los empleados de la Conferencia de Gobiernos del Valle de Yakima (YVCOG por sus siglas en inglés) facilitarán varias reuniones públicas de divulgación para discutir el Plan de Participación Pública de YVCOG. Usted puede preguntar, "¿Cuál es el Plan?"

El lanzamiento antes de desarrollar el Plan de Largo Alcance

Como el primer paso en el desarrollar el Plan de Transporte de Largo Alcance de la MPO/RTPO (Organización de Planificación de Transporte Regional y Metropolitano), YVCOG crea el Plan de Participación Pública. El Plan describe cuáles son las reglas que sigue la MPO/RTPO para cumplir con nuestras funciones, y además explica el propósito y la estructura como organización. En el desarrollo del Plan de Largo Alcance, hay muchas oportunidades para que el público se le dé sus comentarios por más de un año. Después de ese período, la YVCOG comenzará a desarrollar el próximo Plan de Largo Alcance.

Para informar al público sobre el proceso de participación pública, el Plan describe cómo el desarrollo del Plan beneficia de los comentarios públicos que den los residentes locales.

Por ejemplo, en la página seis del Plan hay una tabla como ésta pero contiene más filas.

Table 1. Illustrative List of Generic Long-range Transportation Plan Sections and Associated Public Outreach Efforts

Long-range Plan Section	Deliverable	Type of Public Participation
Evaluation Criteria, Methods and Measures	Evaluation criteria created by which to evaluate individual future scenarios	Open workshops, stakeholder solicitation, charettes, electronic/radio/television media events...

Se incluye aquí la primera fila de la tabla. En ella demuestra que la YVCOG compartirá y procurará aportaciones públicas sobre los criterios de evaluación, los métodos de evaluación y las medidas que el MPO/RTPO va a utilizar para determinar el supuesto futuro de transporte. La YVCOG se pondrá en contacto con el público por medio de cualquiera de los eventos en la tercera columna o una combinación de ellos.

Oportunidades de comentarios públicos para el Plan de Largo Alcance

La YVCOG ha mejorado el Plan con más que solo los detalles del Plan de Largo Alcance. Dado que hay procesos recurrentes que la MPO/RTPO gestiona para sus ciudades de membresía, ciudades y agencias, el Plan también incluye los esfuerzos anticipados de divulgación pública para los programas de Mejoramiento del Transporte Metropolitano y Regional y el Plan de Transporte de Servicios.

Cómo hacer un comentario público

Por correo postal:
Yakima Valley Conference of Governments
311 North 4th Street, Suite 204
Yakima, WA 98901

Por correo electrónico:
alan.adolf@yvcog.org

Por teléfono:
(509) 574-1550

Por fax:
(509) 574-1551

Por el sitio web:
www.yvcog.org

El Comité Asesor Técnico (TAC por sus siglas en inglés) y la Junta de MPO/RTPO se reúnen una vez al mes. Esas reuniones están abiertas al público y el calendario de reuniones de 2019 también está en el Plan. La última sección del Plan es un informe con los resultados del análisis de cuatro factores de dominio limitado del inglés. Ese análisis es necesario para que YVCOG pueda identificar qué idiomas de nuestra región deben abordarse durante nuestros esfuerzos de divulgación. Este análisis permite a YVCOG cumplir con el Título VI de La Ley de Derechos Civiles de 1964, asegurando que la organización no discrimina por motivos de origen nacional.

YVCOG cumple con el Título VI del Acta de Los Derechos Civiles de 1964, La Ley de Restauración de Los Derechos Civiles de 1987, y además con todas las reglas y leyes pertinentes a cada uno de sus programas y actividades. Para más información, o para conseguir una forma de reclamación del Título VI, favor de visitar a la página web <http://www.yvcog.org/title6.pdf>

El Título VI requiere que ninguna persona se quede excluida, por razones de raza, color, género, ni origen nacional, de los beneficios de ningún programa ni actividad por los cuales la YVCOG recibe fondos federales, incluso a fondos por parte del programa Ayuda Federal de la Carretera (Federal Aid Highway).

Las copias del Plan de Participación Pública están disponibles por el Internet y por escrito

La YVCOG solicitará comentarios de parte del público a partir del 15 de abril de 2019 hasta el 31 de mayo de 2019. Algunos ejemplos del Plan, junto con formularios de comentarios, estarán listos para revisar desde el 15 de abril de 2019 en el sitio web www.yvcog.org y por escrito en los siguientes locales:

- Las oficinas de YVCOG en 311 N. 4th Street, Suite 204, in Yakima, WA
- La biblioteca de Yakima en 102 N. 3rd Street in Yakima, WA
- La biblioteca de Sunnyside en 621 Grant Avenue in Sunnyside, WA

Se anunciará muy de pronto los sitios en dónde son las juntas públicas

Se espera verlo en alguna de las reuniones públicas programadas en varios sitios por todo el Valle de Yakima. Por favor, visite a la página web www.yvcog.org, o contáctele por correo electrónico a alan.adolf@yvcog.org para recibir los detalles de todas las juntas públicas de divulgación. Por ejemplo, las fechas, locales, y horas de las reuniones programadas.

El calendario de revisión y divulgación de documentos de YVCOG	
El plan para La organización de planificación de transporte regional y metropolitano (M/RTPO por sus siglas en inglés)	<p>Actualizado cada 4 años al mínimo, modifique según sea necesario</p> <p>Coordinación interinstitucional, la contribución y la colaboración de documentos</p> <p>Notificación en el sitio web de YVCOG de la próximas reuniones y las oportunidades para comentarios públicos</p> <p>Comité Asesor técnico (TAC), movilización del acceso público al transporte de abogados (MPACT), WSDOT, FHWA/TLC y otros comentarios debidos a YVCOG para la actualización y la revisión</p> <p>Anuncios legales de un período de comentarios públicos y las reuniones</p> <p>El borrador se publica en el sitio web de YVCOG para los comentarios públicos y las revisiones</p> <p>El período de revisión pública dura 30 días (con reunión pública) para los comentarios y las revisiones</p> <p>Presentado y aprobado por la Junta Directiva de transporte de YVCOG</p> <p>Se publica el documento adoptado en el sitio web de YVCOG y en las oficinas de YVCOG</p> <p>Distribuir el documento adoptado a las agencias miembros, estatales y federales</p>
El programa de mejora del transporte (TIP por sus siglas en inglés)	<p>Se actualiza anualmente</p> <p>La coordinación interinstitucional, la contribución y la colaboración de nuevo documento</p> <p>La reunión pública celebrada durante el período de comentarios de 30 días</p> <p>La notificación en el sitio web de YVCOG de las próximas reuniones y las oportunidades para comentarios públicos</p> <p>Los anuncios legales del período de comentarios públicos y las reuniones</p> <p>Se publica el borrador en el sitio web de YVCOG para los comentarios públicos y las revisiones</p> <p>El período de revisión pública dura 30 días con una reunión pública para los comentarios y las revisiones</p> <p>Se publica el documento aprobado en el sitio web de YVCOG y en las oficinas de YVCOG</p> <p>El documento adoptado se distribuye a las agencias miembros, estatales y federales</p>
Las enmiendas al programa de mejora del transporte (TIP por sus siglas en inglés)	<p>Se hacen las enmiendas mensualmente, de enero hasta octubre, según sea necesario</p> <p>Hay anuncios de los comentarios públicos y las oportunidades de revisión</p> <p>El período mínimo de comentarios dura 10 días</p> <p>El Comité de TAC recomienda aprobar las enmiendas y la Junta Directiva de transporte las aprueba por medio de la resolución</p> <p>Se publica en el sitio web de YVCOG el documento enmendado</p>
El plan de participación pública (PPP por sus siglas en inglés)	<p>Se actualiza cada 4 años antes de la actualización de M/RTIP y se modifique según sea necesario</p> <p>La coordinación interinstitucional, la contribución y la colaboración de los nuevos documentos</p> <p>Las reuniones públicas son celebradas durante (al mínimo) un período de comentarios de 45 días</p> <p>Notificación en el sitio web de YVCOG de las próximas reuniones y las oportunidades para comentarios públicos</p> <p>Anuncios legales de período de comentarios públicos y las reuniones</p> <p>El Comité de TAC recomienda aprobar el plan y la Junta Directiva de transporte lo aprueba por medio de la resolución</p>

	Distribuir el documento adoptado a las agencias miembros, estatales y federales
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LA MATRIZ DE EVALUACIÓN DEL PLAN DE PARTICIPACIÓN PÚBLICA		
Las Herramientas de Participación	Las Herramientas del Monitoreo	Los Resultados de la Evaluación
El sitio web de YVCOG	<ul style="list-style-type: none"> • El número de visitas al sitio web • Las páginas visitadas y descargadas • Las maneras para que los visitantes den comentarios 	Se indica el uso del sitio web, la efectividad y la facilidad de navegación
Las reuniones de YVCOG: <ul style="list-style-type: none"> • La Junta Directiva • TAC • MPACT • La jornada de puertas abiertas • Los eventos especiales 	<ul style="list-style-type: none"> • Cuántas reuniones celebradas • Cuántos participantes • Los comentarios recibidos • Los resultados de los debates y eventos 	Se proporciona información sobre el éxito de las reuniones públicas, la asistencia y el nivel de interés de los participantes
Los comunicados de prensa	<ul style="list-style-type: none"> • El número de lanzamientos mandados • El número de artículos de noticias o anuncios públicos enviados 	Se trata de la relación de los medios locales para resaltar los planes de transporte y las actividades pertinentes
Los comentarios públicos y los periodos de comentarios públicos	<ul style="list-style-type: none"> • El número de los comentarios recibidos • El análisis de los comentarios recibidos 	Se indica el grado de interés público en las cuestiones y actividades de la planificación del transporte y la efectividad de las estrategias del Plan de Participación Pública
Las listas de distribución de correo electrónico	<ul style="list-style-type: none"> • El número de personas que reciben informes por parte de YVCOG • La cantidad de personas que reciben las agendas y los paquetes de información de las reuniones mensuales 	Se destaca la capacidad de YVCOG para fomentar la participación pública
Los medios sociales	<ul style="list-style-type: none"> • La cantidad de aficionados 	Se rastrea cuántas personas siguen las actividades y los problemas de transporte regional

Las técnicas de participación pública de YVCOG

Las reuniones públicas / los talleres

- Jornadas de puertas abiertas/Eventos de divulgación
- Presentaciones/Cabinas de información en los eventos que tienen otras agencias
- Junto con otros grupos interesados de la comunidad, se realizan talleres y eventos para compartir ideas.
- Actividades interactivas en las reuniones
- Tiempos variables de la reunión/las fechas de los talleres o los eventos de divulgación
- Asistencia de interpretación y traducción al español en persona o por teléfono cuando sea necesario

Los medios de visualización incluyen

- Mapas/tablas/ilustraciones/fotos/imagenes con letra
- El contenido en línea y los enlaces interactivos
- Presentaciones de PowerPoint
- Acceso al Internet por WiFi (donde sea disponible)

Las encuestas

- Encuestas impresas en las reuniones y presentaciones (en inglés y español)
- Encuestas en línea (en inglés y español)
- Entrevistas personales

Los grupos de sondeo

- Se selecciona a algunos participantes al azar para discutir varios temas

Los materiales impresos incluyen:

- Documentos en un lenguaje sencillo
- Mapas, carteles, tablas, fotos, y otros medios visuales para mostrar información
- Tarjetas con información acerca de los eventos
- Folletos de información

Los medios de comunicación locales

- Avisos públicos/Anuncios
- Comunicados de prensa
- Comprar la publicidad cuando sea necesario

El boletín informativo

- Enviar los boletines informativos por correo electrónico

Técnicas para involucrar a las poblaciones de poco inglés

- Traducir materiales de divulgación y proporcionar servicios de intérprete cuando sea necesario
- Incluir información sobre el sitio web y los avisos de reunión sobre cómo solicitar un intérprete u otra ayuda
- Utilizar técnicas de visualización como mapas, gráficos y gráficos, para ilustrar tendencias, proyectos propuestos, etc.
- Utilizar medios de comunicación basados en el lenguaje como la radio y los formatos impresos
- Asociarse con los proveedores de servicios sociales para resaltar las necesidades basadas en el acceso mutuo o complementario de los programas que mejoran la movilidad
- Compartir y publicar carteles, postales y tarjetas de negocios con las cámaras hispánicas de comercio, asociaciones de negocios y propietarios de negocios privados destacando programas de transporte, proyectos y actividades de planificación

El internet y el acceso electrónico a la información

- Sitio web que incluye el contenido actual
- Oportunidad para que el público envíe sus comentarios por correo electrónico
- Se copian y se distribuyen los materiales que se usan en las jornadas de puertas abiertas y en los talleres
- Encuestas en línea
- Se proveen los informes electrónicos antes de conducir las reuniones y los eventos públicos
- Se comparten los enlaces del Internet con los miembros de YVCOG y los socios interesados para que los pongan en sus sitios web

Otras actividades de divulgación

- El montar de mesas y cabinas en los eventos públicos y comunitarios
- El hacer varias actividades para recibir comentarios públicos en línea
- El participar en los procesos de la planificación de los miembros de YVCOG, el gobierno tribal y en todo el estado de Washington
- Se mandan los anuncios a las agencias que tienen interés
- El distribuir los volantes y las tarjetas con información acerca de los eventos
- El realizar unas campañas de correo electrónico

Las técnicas de notificación pública a involucrar a comunidades minoritarias y de bajos ingresos

- Se coordina con organizaciones regionales de servicios sociales, sin fines de lucro/fundaciones, y grupos de enfoque/comités independientes
- Se procura tener más discusiones a largo plazo con organizaciones que sirven a grupos de personas excluidos a menudo como los ancianos, los jóvenes y las personas que hablan poco inglés
- Se continua con la facilitación de grupos de transporte de necesidades especiales y comités de reducción de viaje por trayecto
- Coordinar con los medios comunitarios y basados en el lenguaje
- Se busca oportunidades de hablar en reuniones de grupos que impliquen a todo el pueblo y las personas excluidas por costumbre
- Se notifica a las agencias que trabajan con cada grupo de personas y las poblaciones de bajos ingresos acerca de las actividades de la Agencia

Técnicas para informar sobre comentarios públicos

- Responder a cada comentario público para que el comentador sepa que fue recibido y cualquier acción que se tomará como resultado
- Resumir temas o elementos clave de los comentarios públicos en los informes a la Junta Directiva y a los comités consultivos
- Proporcionar un resumen de comentarios como apéndice del informe final para cualquier proyecto/documento que requiera un período de comentarios público
- Enviar correos electrónicos a los participantes de reuniones, encuestas, etc., con los resultados finales del proyecto
- Mandar comentarios de la Agencia de nuevo al comentador

Appendix E

Public Comments

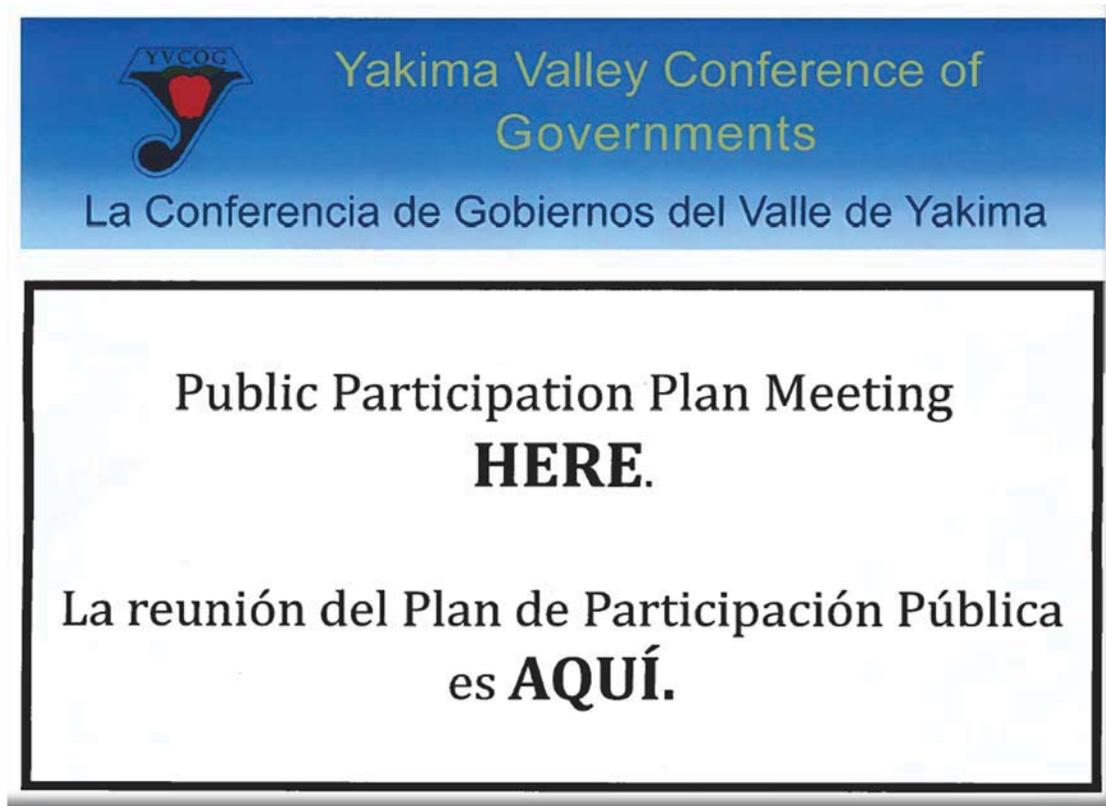
Scheduled Public Participation Plan Outreach Meetings:

Date	Time	City	Location	Address
April 17	8:00-11:00am	Toppenish	YN Legends Casino	580 Fort Road
May 7	5:00 – 7:00pm	Union Gap	Union Gap City Hall	102 W. Ahtanum
May 16	12:00 – 2:30pm	Naches	Naches Train Depot	100 Naches Ave
May 21	1:30 – 4:00pm	Sunnyside	Sunnyside Community Center	1521 S. 1 st Street
May 21	5:00 – 7:00pm (Spanish Speaker Focused)	Sunnyside	Sunnyside Community Center	1521 S. 1 st Street
May 29	5:00 – 7:00pm (Spanish Speaker Focused)	Yakima	YVCOG Offices	311 N. 4 th Street (2 nd Floor Library)
Other Presentations & Outreach Meetings				
Date	Event	City	Location	
April 15	YVCOG Policy Board	Yakima	YVCOG Offices	
April 25	Northwest Community Action Council (Monthly Meeting)	Toppenish	Yakima Valley Farm Workers Clinic Conference Center	
May 20	YVCOG Policy Board	Yakima	YVCOG Offices	

El programa de divulgación 2019

Fecha	Hora	Ciudad	Ubicación	Dirección
el 17 de abril	8:00-11:00 am	Toppenish	YN Legends Casino	580 Fort Road
el 7 de mayo	5:00 – 7:00 pm	Union Gap	Union Gap City Hall	102 W. Ahtanum
el 16 de mayo	12:00 – 2:30 pm	Naches	Naches Train Depot	100 Naches Ave
el 21 de mayo	1:30 – 4:00pm	Sunnyside	Sunnyside Community Center	1521 S. 1 st Street
el 21 de mayo	5:00 – 7:00pm (para hispanohablantes)	Sunnyside	Sunnyside Community Center	1521 S. 1 st Street
el 29 de mayo	5:00 – 7:00pm (para hispanohablantes)	Yakima	YVCOG Offices	311 N. 4 th Street (2 nd Floor Library)
Other Presentations & Outreach Meetings				
Fecha	Evento	Ciudad	Ubicación	
el 15 de abril	La Junta Directiva de YVCOG (Policy Board)	Yakima	Las oficinas de YVCOG	
el 25 de abril	Northwest Community Action Center (reunión mensual)	Toppenish	Centro de conferencias de Yakima Valley Farm Workers Clinic	
el 20 de mayo	La Junta Directiva de YVCOG (Policy Board)	Yakima	Las oficinas de YVCOG	

Samples of Public Meeting signage and handouts in English and Spanish



 **Yakima Valley Conference of Governments**
La Conferencia de Gobiernos del Valle de Yakima

**Public Participation Plan Meeting
HERE.**

**La reunión del Plan de Participación Pública
es AQUÍ.**

Thank You!

We appreciate your comments and help in developing the Yakima Valley Transportation Public Participation Plan. For further viewing, go to www.yvcog.org/ppp19

If you have additional thoughts or questions, please contact us:

Yakima Valley Conference of Governments
311 N. 4th Street, Suite 204
Yakima, WA 98901
509-574-1550
email alan.adolf@yvcog.org



¡Muchas gracias!

Nos interesa mucho lo que opina acerca del Plan de Participación Pública.

Para ver el Plan en español, haga clic y desplácese hacia abajo hasta el Apéndice D:
www.yvcog.org/ppp19

Por favor, manténgase en contacto con nosotros por correo electrónico: alan.adolf@yvcog.org

Yakima Valley Conference of Governments
311 N. 4th Street, Suite 204
Yakima, WA 98901
¡Esperamos hablar con usted otra vez!



Public Comments Received During April 15 - May 31, 2019 Review Period:

No public comments were received during the 4/15/2019 – 5/31/2019 period for the call for public comments.

Suggested Edit	How Comment was Addressed
Recommend Suggestion #	
Recommend Suggestion #	
Recommend Suggestion #	
Recommend Suggestion #	
Recommend Suggestion #	
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Recommend Suggestion #	
Recommend Suggestion #	

APPENDIX C EXISTING TRANSPORTATION FACILITIES

Appendix C - Existing Transportation Facilities

1. Highway and Arterial System

Introduction & Purpose

The regional highway and arterial system consist of federal highways, state highways, county roads, and city streets. RTPO's are responsible for designating the regional system as part of the Regional Transportation Plan. The criteria for establishing the regional system is set forth in RCW 47.80.30. A facility should have one or more of the following characteristics:

- Crosses member county lines.
- Is or will be used by a significant number of people who live or work outside the county in which the facility, service, or project is located.
- Significant impacts are expected to be felt in more than one county.
- Potentially adverse impacts of the facility, service, program, or project can be better avoided or mitigated through adherence to regional policies.
- Transportation needs addressed by a project have been identified by the regional transportation planning process and the remedy is deemed to have regional significance.
- Provides for system continuity.

The following sections provide a description of the Highway and Arterial System components and highlight issues and deficiencies identified.

System Description

The Highway and Arterial System consists of different components serving different transportation users and needs. The following highlights the relevant functional classification systems, historical traffic growth and associated congestion, as well as safety issues.

Functional Classification

Functional classification is the process by which public streets and highways are grouped into classes according to the character of service they are intended to provide.

Generally, highways fall into one of four broad categories-- principal arterials, minor arterials, collector roads, and local roads.

- Arterials provide longer through travel between major trip generators (larger cities, recreational areas, etc.)
- Collector roads collect traffic from the local roads and also connect smaller cities and towns with each other and to the arterials.
- Local roads provide access to private property or low volume public facilities.

Table 1 shows the federal functional classification for the rural and urban areas. Urban area boundaries are fixed primarily to establish eligibility for project funding and are not to be confused with planning area boundaries that are defined for the comprehensive planning process. Urban area boundaries are established by WSDOT in cooperation with Metropolitan Planning Organizations using a set of criteria. All boundaries are approved by Federal Highways Administration (FHWA).

Table 1. Federal Functional Classification (FCC) System	
Rural Areas	Urban Areas
Interstate	Interstate
Principal Arterial or Minor Arterial	Principal Arterial
Major Collector	Minor Arterial
Minor Collector	Collector
Local Access	Local Access

In addition to federal functional classification, the roadway system has the following federal and state classifications:

National Highway System (NHS) – The federal National Highway System designation includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. The NHS includes the following subsystems of roadways:

- Interstate - The Eisenhower Interstate System of highways.
- Other Principal Arterials - These are highways in rural and urban areas which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.
- Strategic Highway Network (STRAHNET) - This is a network of highways which are important to the United States' strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.
- Major Strategic Highway Network Connectors - These are highways which provide access between major military installations and highways which are part of the Strategic Highway Network.
- Intermodal Connectors - These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System.

Highways of Statewide Significance (HSS) – Washington State has designated Highways of Statewide Significance per RCW 47.06.140. These facilities include interstate highways and other principal arterials that are needed to connect major communities in the state. The designation helps assist with the allocation and direction of funding.

Non-HSS Routes – State designation includes state highways that are not classified as HSS. These are also known as State Highways of Regional Significance

National Scenic Byways – Federal designation of byways based on scenic, cultural, historic, natural, recreational, and archaeological qualities. Includes the following classes:

- All American Roads (SR 410 - Enumclaw to Naches)
- National Scenic Byway (US 97 from Kittitas County to Klickitat County)

Local Roadways -

- Approximately 70% of the classified roadways in Yakima County are Major and Minor Collectors.
- Major and Minor Collectors are located in the more rural areas of the County and span longer distances to provide critical connections between the outlying rural communities and the urban centers, including the interstate system.

Existing Traffic Volumes and Congestion

Traffic volumes throughout the Yakima Valley region vary by facility. Table 2 shows existing and historical traffic volumes for state facilities within the region.

Table 2. State Route Annual Average Growth Rates

Route	SRMP ²	2005	2018 ¹	Compound Annual Growth Rate
Interstate 82	34.02	43,000	53,000	1.50%
US – 12	200.96	24,000	31,000	1.84%
State Route 22	0.84	7,800	8,900	0.95%
US – 24	8.68	2,600	3,600	2.35%
US - 97	62.00	6,300	13,000	5.31%

1. Source: WSDOT Traffic GeoPortal (<https://www.wsdot.wa.gov/data/tools/geoportal/?config=traffic>)
2. State Route Mile Post

- State routes within Yakima County have experienced modest growth during the last 15 years.
- I-82 and US-12 carry a majority of the daily traffic in the region with over 84,000 vehicles a day between them.
- US-97 near Toppenish is experiencing the significant growth with approximately 5.3% growth per year and is contrasted by a 2.3% increase along SR-24 partially impacted by increased residential development in the Moxee area over the past 10 years. This is a shift from the US-12 approach to I-82 which has been at 2% in the past M/RTP. The other routes are growing more modestly at less than 1-1.5% per year.
- Currently few roadway capacity deficiencies exist within Yakima County. Over 99% of arterial roadways have a v/c of less than 0.70 (70% of capacity).
- The MPO/RTPO model set shows some approaches to the I-82 are experiencing some congestion. The east approach to the SR-24/I-82 junction is nearing a volume-to- capacity (v/c) ratio of 1.0 or 100% of capacity. More detailed analyses have been performed on the I-82 corridor through the development of the Interchange Justification Report (IJR) for I-82 at Yakima Avenue. According to the FHWA/FTA-approved 2017 IJR:

As East-West traffic in the greater Yakima area continues to grow, trips accessing I-82 are funneled into two interchanges: Yakima Avenue (serving local/intra-regional trips) and Nob Hill Boulevard (serving inter-regional and intra-state trips). These demands are creating safety and operational issues during peak periods at the Yakima Avenue Interchange, including the following design year (2035) impacts:

- I-82, between the Nob Hill Boulevard Interchange and the Yakima Avenue Interchange will operate at LOS E in both directions;
- The diverge area for the WB off-ramp at the Yakima Avenue Interchange will operate at LOS E;
- The EB left from Yakima Avenue to the WB on-ramp will operate at LOS E;
- The NB left onto Yakima Avenue from the WB off-ramp will operate at LOS E;
- The SB left from the EB off-ramp to Yakima Avenue will operate at LOS F;
- The WB left from Yakima Avenue to the EB on-ramp will operate at LOS E;
- The NB left and right turns from the Yakima Avenue J-ramp to the Fair Avenue loop connector will operate at LOS F;
- These levels of services will cause back-ups onto the I-82 mainline; and
- There is an average of 96 collisions per year, including I-82 mainline, ramps and cross street collisions; which is above the statewide and South-Central Region averages for urban areas.

As growth in the area continues, I-82 and Yakima Avenue are expected to be over capacity within the design horizon year, creating a near term growth management concurrency issue impacting economic development opportunities for Yakima County and the City of Yakima.

Collision Data

The Washington State Department of Transportation uses either Collision Analysis Location / Collision Analysis Corridor (CAL/CAC) or Intersection Analysis Location (IAL) criteria to identify and evaluate potential locations for crash reduction.

The following CAL or CAC locations have been identified by WSDOT:

- US 97 5th Avenue vicinity in Parker
- SR 22 Yakima River overflow bridge

The following preliminary Intersection Analysis Locations (pre-IALs) have been identified:

- SR 22 Division Road
- SR 22 N Meyers Road/Meyers Road
- SR 22 SR 223/Chambers Road
- SR 24 Birchfield Road
- SR 24 Bell Road
- US 97 Fort Road/1st Avenue
- US 97 frontage road/median crossover
- US 97 McDonald Road/Becker Road
- US 97 Jones Road/E Jones Road
- SR 241 Allen Road
- SR 241 Edison Road

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Summary

- Historical growth has been modest on most arterial roadways within Yakima County.
- Currently few roadway capacity issues exist. However, poor intersection operations may inhibit mobility within specific corridors.
- Safety issues with auto and truck traffic on urban and rural roadways should be evaluated. Improvements such as truck climbing lanes and pull outs may improve safety in certain locations.

2. Non-motorized Transportation System Introduction & Purpose

Almost every trip begins or ends with a non-motorized transportation component. Non-motorized transportation consists primarily of pedestrian and bicycle travel. A non-motorized transportation component may consist of a sidewalk connecting a parking lot to an office building, or a bike path from a transit stop to a downtown commercial district.

Non-Motorized transportation facilities serves recreation and other travel needs in the region. Non-motorized transportation systems provide alternatives to motorized travel and access to public transit for users who may not have access to a motorized vehicle of their own. In short, the livability of a community can be greatly enhanced or degraded by the existence or lack of an adequate and comprehensive non-motorized transportation system.

System Description

Bicycle Facilities

Bicycle facilities are classified according to WSDOT design standards. The following standards apply to facilities in Yakima County.

- Bike Lane – Bike lanes delineate the rights of way assigned to bicyclists and motorists through lane striping and signage.
- Shared Roadway – Highways and streets without bikeway designations, striping, and signage but where the roadway widths and shoulders are sufficient to allow for safe and efficient movement for cyclists and motorists.
- Signed Shared Roadway – Highways and streets with bikeway designations and signage but no striping.
- Shared Use Path – Bike and pedestrian paths.
- WSDOT has designated three bicycle routes in Yakima Valley (US 12 and US 97)
 - On US 12, there is a one-half mile segment north of SR 410 Junction.
 - On US 12 at N. 16th Avenue connecting the Yakima Greenway Pathway's east and west segments parallel to the highway.
 - On US 97, there is one and one-half mile segment between Mile Post 44.58 and Mile Post 46 that is below standard.
- The bicycle routes compliment the Yakima, Union Gap, and Selah Transit bus routes. All Yakima Transit buses are equipped to handle bicycles.

Pedestrian Facilities

- The Yakima Greenway Pathway shadows the Yakima River from the southern end of the City of Yakima, not far from Union Gap, almost to the City of Yakima. Access across the Yakima River on the north end of the trail provides convenient access to the Greenway for residents of Selah. Parking lots at various points along the trail accommodate visitors who travel to the trail by motor vehicle. The 11-mile Naches Rail to Trail Project (completed in 2017) extended the Greenway North-northwest from the 40th Avenue & Fruitvale Boulevard terminus to the Town of Naches.
- The Sunnyside - Grandview Trail parallels the Gibbon-Granger Rail line and Yakima Valley Highway between the Cities of Sunnyside and Grandview. The trail extends beyond the Yakima County boundary at Grandview and extends to Prosser, WA and beyond.

- Yakima County’s Horizon 2040 Comprehensive Plan (adopted in June 2017) removed bicycle and pedestrian emphasis routes on or along county roadways as a means of classification for adding/maintaining bike/ped facilities and adopted the “Complete Streets” method of reviewing the road corridors specific needs and characteristics as the basis for determining appropriate bike/ped facilities. Yakima County’s new “Trails Plan” document, based on these changes, is expected to be approved early in 2020.
- The City of Moxee has begun basic planning efforts to create a pedestrian/bicycle path connecting the cities sidewalk system along sections of SR 24 and Moxee Rail Line to the Yakima Greenway near University Parkway. Although a final alignment has not been determined; WSDOT, the City of Moxee, the Yakima Greenway Foundation, and interested property owners and stakeholders are actively developing funding and planning strategies.
- In June 2018, the Yakama Nation began an effort to develop a “Heritage Trail” System within the Nation’s boundaries to connect cities and communities. Intended to promote safe transportation alternatives by increasing pedestrian and bicycle access, the proposed system would link future extensions of the Yakima Greenway through the “gap” at Union Gap to Wapato, Toppenish and Mabton along US 97 and SR 22 in addition to linkages to Harrah, White Swan, and Fort Simcoe to the west, and Zillah to the northeast.

Summary

- A comprehensive physical inventory of non-motorized facilities has not been completed or is not readily available. This would provide a basis for identifying missing facilities and/or connections between regional attractions. More of the inventory is being tackled as the Yakama Nation, local cities, and the county update their sidewalk and trails plans

This update of the M/RTP precedes their efforts.

- City and County non-motorized facility classifications are not coordinated at a regional level. Facilities are classified differently in the urban and rural areas. Without a coordinated and consistent regional classification system, it is difficult to identify deficiencies and prioritize needed improvements.
- The status of compliance with Americans with Disabilities Act (ADA) regulations is needed. A detailed inventory and upgrade of sidewalks, ramps, etc. is ongoing in Yakima County as a response to an ADA complaint investigation and subsequent remedies.
- CTR work sites are served by a well-developed network of bicycle facilities. With the exception of five of the worksites (Yakima Valley Farmers Clinic, Department of Ecology, City of Moxee, Alexandria Moulding and Yakima Valley Hospital), the sites directly connect to a bicycle network route. (Yakima Hospital is located four blocks away from a signed bike path).
- The majority of CTR work sites are not connected to pedestrian routes. However, because there was no sidewalk inventory to analyze, it is unclear on whether the CTR work sites have sidewalks.

3. Transit System

Introduction & Purpose

The purpose of this section is to provide a description of the current public transportation services within Yakima County and provide a preliminary analysis of the existing system accomplishments and any unmet customer needs. The public transportation system is an important component of the integrated transportation system as it relates to Commute Trip Reduction

System Description

Several different transportation providers provide public transportation services within Yakima County. Services to enhance transit and transportation demand management programs have been developed to better serve the local community needs and reduce overall traffic volumes. These services are divided into several different components including:

- Inter-City Bus Services
- Fixed route transit,
- Rural mobility routes,
- Paratransit, and
- Total Demand Management (TDM) and Commute Trip Reduction (CTR).
- Non-Emergent Medicaid Transportation (NEMT)
- Volunteer – Driver Program

Population Characteristics of Yakima County¹

Yakima County has substantial population segment that is likely to have unmet transportation needs. This population may consist of persons with disabilities, older adults, youth, and individuals with limited incomes. The percentage of individuals falling into one or more of these categories is as follows:

- 8.9% percent have a disability (65 years of age or older)
- 13.7 % percent are 65 years of age or older
- 29.6% percent are under 18 years of age
- 40.1 % Language other than English spoken at home (over 5 years of age (2013-2017)
- 18.1 % percent of individuals have income that falls below poverty level

As the County grows, these percentages indicate that transportation needs will grow with them. The elderly population in particular will grow faster than the general population as baby boomers age and because Yakima has become a more popular destination for retirees. An increased elderly population in particular, will place additional demands on the need for transportation to nursing homes, assisted living facilities, and health care facilities. Limited English Proficiency (LEP) populations continue to grow as economic opportunities allow.

Yakima Transit

Yakima Transit is in its 112th year of operation and has provided many different types of service throughout its existence in the Yakima valley, such as busses, trolleys, and streetcars.

- Since 1907, there have been many changes to the system and also a significant increase in ridership.
- In 2014, transit ridership is exceeded one million passengers annually on its fixed route service.
- Yakima Transit operates nine fixed routes, of which all operate on Saturdays and routes operate on Sundays.

¹ U.S. Census (2018 Estimates)

Union Gap Transit

Union Gap Transit began in 2008 through a 2/10th of 1 % sales tax serving residential, commercial, and retail regions of the city with fixed route, paratransit, and dial-a-ride service. Union has since taken their program in-house, contracting the service to a provider.

Selah Gap Transit

Selah Transit began in 2008 through a contract with Yakima Transit serving residential, commercial, and retail regions of the city with fixed route, paratransit, and dial-a-ride service. In 2017 Selah to their transit service in-house, contracting the service to a provider

- Yakima Transit, Union Gap Transit, and Selah Transit all contract with Medstar Transportation to provide Dial-A-Ride service for persons with disabilities.
- Transit service is operated within the city limits of Yakima, Union Gap, and Selah, respectively, except for a commuter service between Yakima and Ellensburg operated by Yakima Transit.

Hours of Operation for Selah Transit are as follows:

Monday - Friday, 7:00 am – 6:00 pm
 Saturday - 8:00 am - 6:00 pm
 Sundays - 8:00am – 4:00 pm
 Holiday Service Schedule (as announced)

Hours of Operation for Union Gap Transit are as follows:

Monday - Friday, 7:00 am – 6:00 pm
 Saturday - 8:00 am - 6:00 pm
 Sundays - 8:00am – 4:00 pm
 Holiday Service Schedule (as announced)

Hours of operations for Yakima Transit are as follows:

Monday - Friday, 6:15 am – 6:45 pm
 Saturday - 8:45 am - 6:00 pm
 Sundays - 8:45 am – 4:00pm
 Holiday Service Schedule (as announced)

Yakama Nation Transit (Pahto Public Passage)

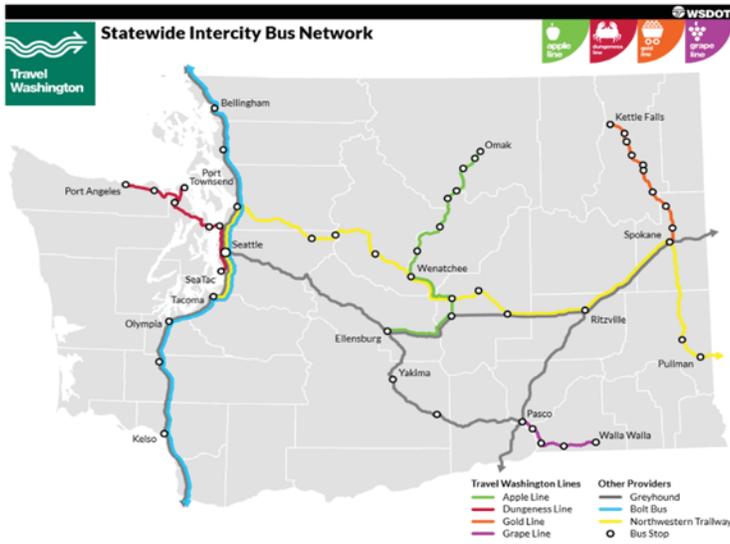
Pahto Public Passage began service in 2007 under a Federal Tribal transit program providing previously non-existent transit service to tribal and general populations in the cities/communities of Harrah, Toppenish, Wapato, and White Swan; in addition to limited routes to Goldendale and the Georgeville in Kittitas County.

Hours of Operation for Yakama Nation Transit are as follows:

Monday - Friday, 6:10 am – 7:20 pm
 Holiday Service Schedule (as announced)

Greyhound / Intercity Bus Transportation

As part of a national strategy to remain operational, Greyhound closed its Yakima Bus Terminal in 2012 ending a process begun in 2004 terminating stops in smaller cities and towns; moving away from its own “brick & mortar” facilities to stops at freeway-accessible convenience stores. As of 2019, Greyhound’s only stops in Yakima County are in Yakima and Sunnyside. However, today Greyhound’s new strategy is to seek partnerships and stops (where possible) at trans-modal facilities to improve cross-modal access (transit terminals, train depots, park & rides, etc).



WSDOT's Travel Washington Intercity Bus Program - This bus service connects rural communities to major transportation hubs and urban centers, filling gaps in the public transportation network and making travel more accessible, reliable and convenient.

- The Federal Transit Administration provides 50 percent of the funds for the program. Greyhound Bus Lines provides local matching funds that pay for the rest.

- WSDOT's Travel Washington Program contracts with private bus operators to provide intercity bus service. Each new route is served by the competitively-selected provider. Operators promote and market their services using WSDOT's Travel Washington brand.

- The Travel Washington intercity bus network will continue to expand as funding becomes available. WSDOT considers the interests of the entire state—with an eye on areas with the fewest transportation options—when selecting new routes.
- Based in part on feedback we received at public forums in 2018 in communities across the state, we're developing new or revised services for Travel Washington

The Yakima County region has been a subject of consideration for a new route. Two routes; Yakima-Centralia (via SR 12 – White Pass) and Yakima-Biggs, OR (via US 97 – Status Pass); were part of the 2018 public forum process. Advantages to each considered route improved access for Yakima region residents to the Portland-Vancouver metropolitan area that presently could only be reached indirectly via routes through either Seattle or Pasco, adding significant time to an otherwise shorter commute. WSDOT and Greyhound's review process of these and other potential routes around the state will likely be ongoing following the adoption of this document.

Residential Areas Needing Service

Based on the TRB's Transit Cooperative Research Program (TCRP) Report 100: Transit Capacity and Quality of Service Manual, 2nd Edition, fixed-route bus service becomes viable with densities of seven persons per acre or better. As shown in the **Population Density – Upper Yakima Valley and Population Density – Lower Yakima Valley** maps at the end of this appendix, the only significant concentrations of high-density residential housing of seven persons per acre or better are located within the City of Yakima. In addition, there are small concentrations of higher density residential areas in Selah, Union Gap, Wapato, Toppenish, Grandview, Zillah, and Sunnyside. This information is intended to be clarified when YVCOG begins its Yakima Valley Regional Transit Feasibility Study as described in the State Fiscal Year Unified Planning Work Program (SFY 2020 UPWP).

Virtually all of the areas with higher density residential concentrations within the Yakima Metropolitan Area are currently served by Yakima, Selah, or Union Gap Transit. The People for People (PFP) Community Connector (Known as "Route 200") between Prosser (in Benton County) and downtown Yakima serves population concentrations in Wapato, Toppenish, Zillah, Granger, Sunnyside, and Grandview. The one area that is unserved currently is Union Gap. In October 2019, PFP began "Route 201", which provides a loop service between Grandview, Sunnyside, and Mabton three times a day connecting to the Community Connector route. This is the first ever transit service available to Mabton residents, and first inner-city loop service for Sunnyside and Grandview.

The Cities of Wapato and Toppenish, Town of Harrah, and community of White Swan, within the boundaries of

the Yakama Nation have free transit service via the Nation's Pahto Public Passage Transit service with linkage to Union Gap Transit at the Valley Mall. Pahto does provide limited dial-a-ride service within their service area.

The growing areas to the west of Yakima have transportation needs, yet the densities are insufficient to support fixed-route transit service. West Yakima areas would be best served by expanded demand response or dial-a-ride service.

The City of Moxee, having experienced significant residential development in the past 10 years, and the unincorporated urban area of Terrace Heights (east of Yakima and Interstate 82) do not currently have transit service despite being located within the Yakima MPO area.

The City of Tieton and Town of Naches (located 10 miles northwest of Yakima), likewise have no access to transit service.

While there does exist a "patchwork quilt" of transit service in Yakima County, the limited service frequencies and lack of multiple transfer opportunities between transit service providers make using these services difficult when needing to travel between destinations for time sensitive appointments, employment, or events, especially when return trips are required.

Traffic Bottlenecks Creating a Transit Need

Existing and projected traffic levels of service show that the majority of the Yakima Transit service area will not experience significant traffic congestion. There are some large exceptions to this, however. The I-82 corridor is being used for both regional and local trips within the Yakima urbanized area, and therefore is subject to congestion at the interchanges. In addition, Selah, Union Gap, and Moxee are connected to Yakima proper via a very limited street network, and therefore are subject to bottleneck traffic.

Transit is necessary to provide an alternative to automobile traffic in the SR 823 corridor in Selah and on the North 1st Street corridor in Yakima/Union Gap. Transit can play a role in reducing congestion along Terrace Heights Drive between that urbanized area and Yakima/Selah/Union Gap, as well as, on SR 24 between Moxee and Yakima.

With limited to no transit service available in other Yakima County jurisdictions and communities, transit service in these areas provide connectivity and access improvements rather than the need to address congestion.

Transit Needs Based on Market Changes

On a nationwide basis, a shift in primary employment type has been taking place. The Yakima urbanized area is no exception to a greater emphasis on service-based jobs. Rural farming areas require pre-dawn and post-dusk workforces, especially during planting and harvest seasons spread out over most of the year. These jobs typically do not have the regular "9 to 5" timeframe, but instead have later hours and weekend hours. Yakima, Selah and Union Gap Transits, in addition to the Nation's and PFP's inter-community services, are currently not positioned to capture this growing market due to the short cut-off for weekend service. There is a demonstrated need for later service on weekdays and Saturdays and for continued service on Sunday.

CTR Employers Needing Service

Several employers with 100 or more employees that are subject to commute trip reduction (CTR) regulations are located within Yakima County. The majority of these employers are located within the Yakima metropolitan area. In addition, there are three CTR employers in Selah, two in Union Gap, and one west of Yakima city limits. These employers further highlight the importance of bringing Yakima/Selah/Union Gap Transit service to these communities. The map titled ***Regional Public Transportation - Transit*** at the end of this appendix shows the locations of large employers in Yakima County and their vicinity to Yakima Transit service. Moxee stands out as having two large employers without transit service in close proximity.

Summary

Yakima Metropolitan Transits is showing sustained ridership throughout the system. Some Southern County communities have limited access to transit, but frequency limitations make regular transit alternatives difficult. Some potential unmet needs include:

- The Yakima (City) Transit and the Yakama Nation Pahto Public Passage Transit Systems are both considering plans for new transit maintenance & operation facilities. Ideally, these facilities would include multi-modal transportation connectivity capabilities to maximize traveler accessibility options.
- In addition to a concise inventory of current transit resources, a countywide review of transit needs, services, routes, financing, and infrastructure opportunities and considerations is needed to determine if some degree of transit service to all interested jurisdictions and organized communities is possible. This process will begin in January 2020 with an 18-month feasibility study of transit in Yakima County.
- Longer service span for both weekdays and weekends. The service and agricultural industry employees need expanded access to service.
- With the increases on the urban area fringes, service area expansion for Yakima Metropolitan Transits may be necessary.
- Where intra-city transit service is available, inner-city service loops should be considered or expanded to improve access and opportunities to municipal residents
- While many of the CTR work sites have access to transit service, the transit service does not connect the commuters from their residential locations to their work site locations. The coverage and frequencies for transit service is limited. These two factors may discourage commuters from using transit.
- Despite the lack of transit services, the 2009-2015 overall drive alone rate for Yakima Valley CTR work sites has ranged between 70-73%. This rate compares favorably to the 2009-2015 overall state drive alone rate which is 58-66 %.
- Support ongoing statewide efforts to provide area residents with greater intercity bus service such as the TRAVEL WASHINGTON Intercity Bus Program. Coordination between current transit providers, city/tribal administrations, and other transportation stakeholders to develop trans-modal facilities to improve cross-modal transportation options should be promoted.

4. Regional Freight and Goods Transportation System

Introduction & Purpose

The Washington State Freight and Goods Transportation System (FGTS) is used to classify state highways, county roads and city streets according to the average annual gross truck tonnage they carry as directed by RCW 47.05.021(4).

The FGTS is primarily used to establish funding eligibility for the Freight Mobility Strategic Investment Board (FMSIB) grants. In addition, it also supports Highways of Statewide Significance (HSS) designations, pavement upgrades, traffic congestion management, and other investment decisions.

The Freight Mobility Strategic Investment Board (FMSIB) is a 12-member Board that reviews, prioritizes, and recommends freight mobility projects of strategic importance.

The RTPO's role is to set forth a regional approach to freight mobility. The regional economy is dependent on the ability to provide and maintain key connecting highways to the region's communities.

System Description

Washington's Strategic Freight Corridors as defined by RCW 47.06A.10 are corridors economic importance within an integrated freight system that have the following characteristics:

- Serves international and domestic interstate and intrastate trade
- Enhances the state's competitive position through regional and global gateways
- Carries four million or more gross tons of freight annually on state highways, city streets and county roads
- Carries five million gross tons annually on railroads
- New links to strategic corridors that enhance freight movement

Table 1 defines the FGTS classification system by annual tonnage.

FGTS Classification	Annual Tonnage
T-1	Greater than 10,000,000 tons
T-2	4,000,000 to 10,000,000 tons
T-3	300,000 to 4,000,000 tons
T-4	100,000 to 300,000 tons
T-5	At least 20,000 tons in 60 days

Routes classified as T-1 or T-2 are considered strategic freight corridors and are given priority for receiving FMSIB funding. See the map series titled FGTS at the end of this appendix. The maps have been divided into Lower Valley, Upper Valley and the Metro area so that detail can be displayed on each map.

One of the eight strategic freight corridors in Yakima County is classified as a T-1 corridor. I-82 is the most significant corridor carrying more than 30 million tons annually. Four corridors carry 5 to 10 million tons annually. Three corridors carry more than 4 million tons.

Railroad	Total Public Road At-Grade Crossings	Total T-1 – T-5 At-Grade Crossings
BNSF Main Line	35	15
Columbia Basin RR (Moxee Branch)	21	7
BNSF (Yakima/Fruitvale Branch)	4	2
Columbia Basin RR (Prosser/Granger Branch)	27	7
Toppenish, Simcoe & Western (Yakima Co.)	22	8

Summary

- The primary freight route (T-1) through the region is the I-82 corridor, carrying over 30 million tons annually.
- At-grade rail crossings present the primary barrier to the movement of freight and goods within County. Approximately 39 of 109 at-grade rail crossings within Yakima County cross T-1 to T-5 Freight Routes with many for crossing private access crossings.
- I-82, US-97, SR-24, and US-12 have the highest percent trucks, ranging from 15% to over 40% percentage trucks. These routes are significant in the overall State and regional freight system.
- US-12 (White Pass) provides an alternate east-west mountain corridor to I-90 (Snoqualmie Pass) and US-2 (Stevens Pass).

5. Air and Rail Transportation System

Introduction & Purpose

The air transportation system in Yakima County complements the rail, motorized, and non-motorized transportation systems in the movement of goods and people.

The primary purpose of the air transportation system in Yakima County is to provide users access to broader national and/or international air transportation systems. In addition to commercial /charter passenger and freight services, airports like those in Yakima County may also facilitate in any one of the following activities:

- Medical Transport (Blood, Tissues, Organs, MEDEVAC)
- Search and Rescue
- Forestry and Wildlife (Firefighting and Wildlife Tracking)
- Recreation

The YVCOG can work to provide and/or facilitate access to the airports for all forms of transportation from within Yakima County.

System Description

Air Transportation System

Three airports provide service to the County of Yakima as illustrated in 5A. The airports include the Yakima Air Terminal – McAllister Field, the Sunnyside Municipal Airport, and the Tieton State (Rimrock) Airport.

The Washington State Department of Transportation (WSDOT) Aviation Division and municipal airports are looking at the advancement of electrical and electrical-hybrid aircraft (seating up to nine passengers) technologies that could allow for regularly or semi-regularly scheduled short distance airport to airport charter-type service (i.e. Yakima-Spokane, Walla Walla–Vancouver, Wenatchee-Tri-Cities, etc.). This point-point service could conceivably utilize air terminal facilities and multi-modal linkages at the airport to continue the travelers commute while freeing up major airport resources.

Yakima Air Terminal – McAllister Field Airport

- The only “Primary Service” airport in the county and the only airport that provides scheduled commercial flights for passengers and cargo. Currently, the Yakima Airport is served by one daily scheduled air carrier (Alaska Airlines) and two non – scheduled [charter] carriers (Sun County Airlines provides charter service to Laughlin NV, and Swift Airlines provides charter service to Wendover, NV). Private charter

(general aviation) service is also available. The Yakima Air Terminal sees approximately 36,797 aircraft operations per year, of which 1,836 are air carrier operations

- An 865-acre airport, the Yakima Air Terminal – McAllister Field is a Federal Aviation Administration (FAA) Part 139 certificated airport with its primary runway (Runway 09/27) classified as an Airport Reference Code (ARC) C-III. Runway 09/27 can accommodate a Boeing 737-800 aircraft or similar. The airport is equipped with Airport Rescue and Fire Fighting (ARFF) capabilities. The terminal building was constructed in 1950. A concourse addition was done in 1968 and a series of expansions and renovations were done between 1997 and 2000. The airport’s master plan states a renovation or replacement is needed by 2020 but based on available funds from the Federal Aviation Administration, the earliest this could occur is 2026 or later.
- In 2016, 72,000 passengers enplaned at the airport on an average of 4 scheduled daily departures. Because of a steady increase in passengers, Alaska Airlines has scheduled three or four flights in and out of Yakima as pilot availability, demand, and aircraft capacity dictated. A 2015 Airport Master Plan updated 20-year forecast shows passenger enplanements increasing to an estimated 123,000 by 2030.
- The Airport is home to McCormick Air Center, a full-service Fix Based Operator (FBO), capable of providing fuel, maintenance and instrument/commercial flight instruction services for general aviation users. Other businesses include:

ALS Ambulance	Airlift Northwest Medivac	CubCrafters
Triumph Group	FedEX / UPS	Reno’s on the Runway
Waterfire	Yakima Aerosport	Food Facility Engineering
Noland Docoto Flying Service	Memorial Cornerstone Medical Facility	
- The City of Yakima estimates that the airport in Yakima supports approximately 1000 jobs resulting in approximately \$8.7 million dollars in labor earnings and \$31.7 million dollars in economic activity for commercial service visitors alone.
- Taxis, rental cars, hotel shuttles, and pick-up/drop-off zones are available to facilitate transport to and from the airport. Yakima Transit routes 7 and 9 also provide service to the airport.
- The primary access routes to the airport are along N. 16th and N. 40th Avenues from the north and Valley Mall Boulevard and Washington Avenue from the east.
- The McAllister Museum of Aviation, a non-profit Airline Industry Service Community Museum founded in 1999 originally opened in 1926 as a flight school by bothers Charlie & Alister McAllister and is one of the longest running flight schools in the Pacific Northwest.

Sunnyside Municipal Airport

- Owned and operated by the City of Sunnyside; the airport sits on 81 acres, and has a 3,422-foot lighted runway experienced 24,000 operations in 2012
- This general aviation airport does not provide scheduled commercial passenger or cargo service.
- The Washington State Department of Transportation Aviation Division estimates that the airport in Sunnyside generates approximately 76 jobs resulting in approximately \$1.2 million dollars in labor earnings and \$4.5 million dollars in economic activity.
- Primary access to the airport is along E. Edison Road

Tieton State (Rimrock) Airport

- Serves aircraft in distress, provides access to the Rimrock recreational area, and serves as a fire fighting post and air search and rescue control point.
- The Airport is located at the end of Tieton Reservoir Road which can be accessed from SR12.

Summary

- Yakima Airport terminal replacement is essential to accommodate a forecasted 70% increase in passenger enplanements within the next 10 years.
- General aviation will continue to be an important component of airport commerce and economic development throughout the county
- Greater utilization of region's short line rail infrastructure can help reduce truck traffic on city, county and state roadway systems.

Rail Transportation System (Freight)

Rail services in Yakima County are provided by BNSF Railway (BNSF), and the Columbia Basin Railroad Company (CBRW). Union Pacific also retains trackage rights in parts of the county.

The maps titled **Washington State – Current & Hypothetical Passenger Rail Service and Washington State – International and Regional Airports** at the end of this appendix illustrates the air and rail system in Yakima County and throughout Washington State.

BNSF Railway (BNSF)

- Owns most of the tracks through Yakima County.
- Leases to CBRW to provide freight rail access to smaller cities and short haul lines in Yakima County.

Columbia Basin Railway Company (CBRW)

- Operates (as Central Washington Railroad) approximately 60 miles of lines in Yakima County leased from BNSF.
- Serves the cities of Grandview, Sunnyside, Toppenish, White Swan, Yakima, Union Gap, Granger, Fruitvale, and Moxee.
- Operates (as Yakima Central Railway) a short-haul line leased from Yakima County, called the Toppenish Simcoe & Western (TS&W) line, between White Swan and Toppenish that principally serves agricultural businesses in the Town of Harrah and two Yakama Nation sawmills west of White Swan.
- WSDOT funded upgrades to the TS&W through 2007 which promoted increased traffic to/from the two Yakama Nation sawmills
- In 2018, The Yakama Nation sawmills produced more than \$51 Million in revenue, 240 local jobs, and \$10.8 Million in wages.
- Since 1994, carloads on the TS&W line have risen from 30 per year to 567 in 2018.
- Types of freight and annual tonnage hauled by the railroads would is not readily available. This information would provide insight into the relative importance of rail and truck freight transportation

in Yakima County.

Rail Transportation System (Passenger)

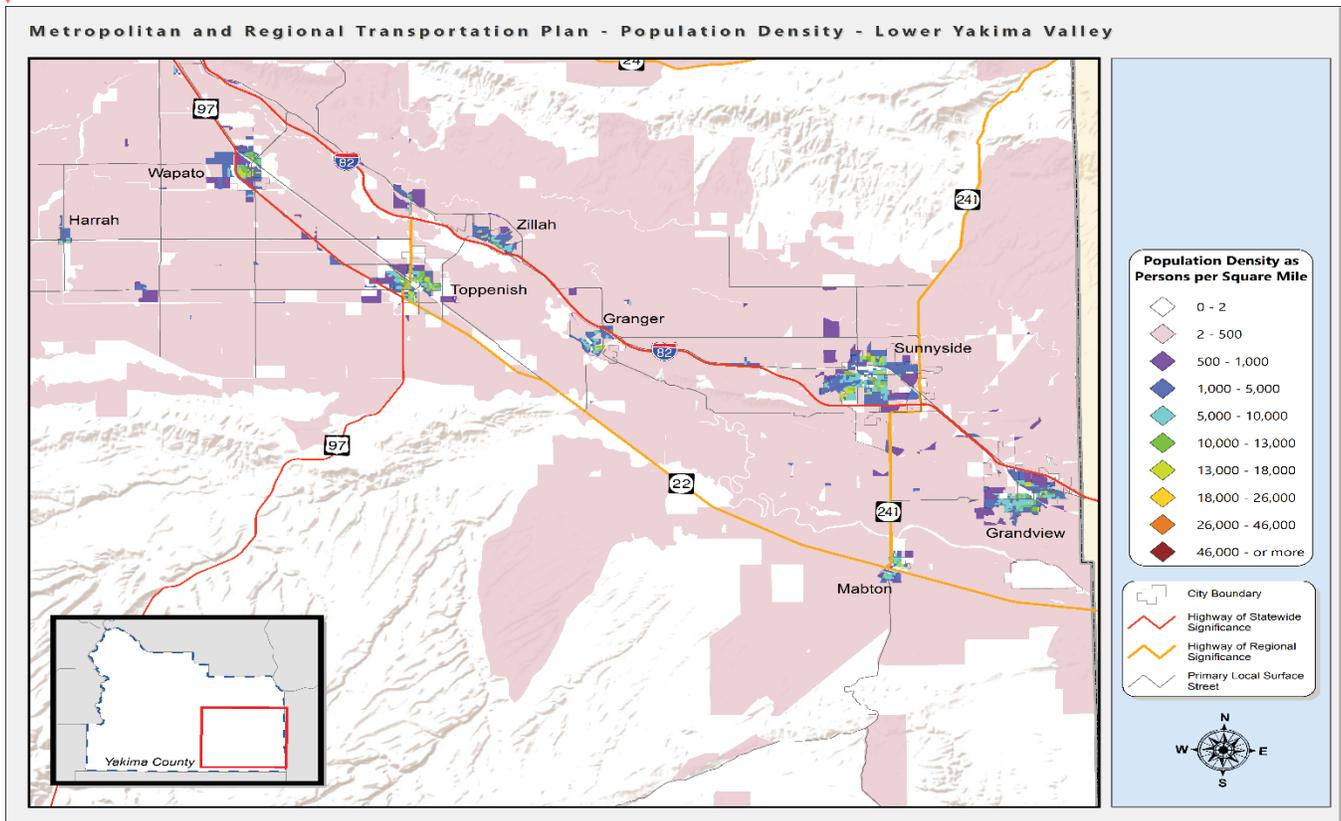
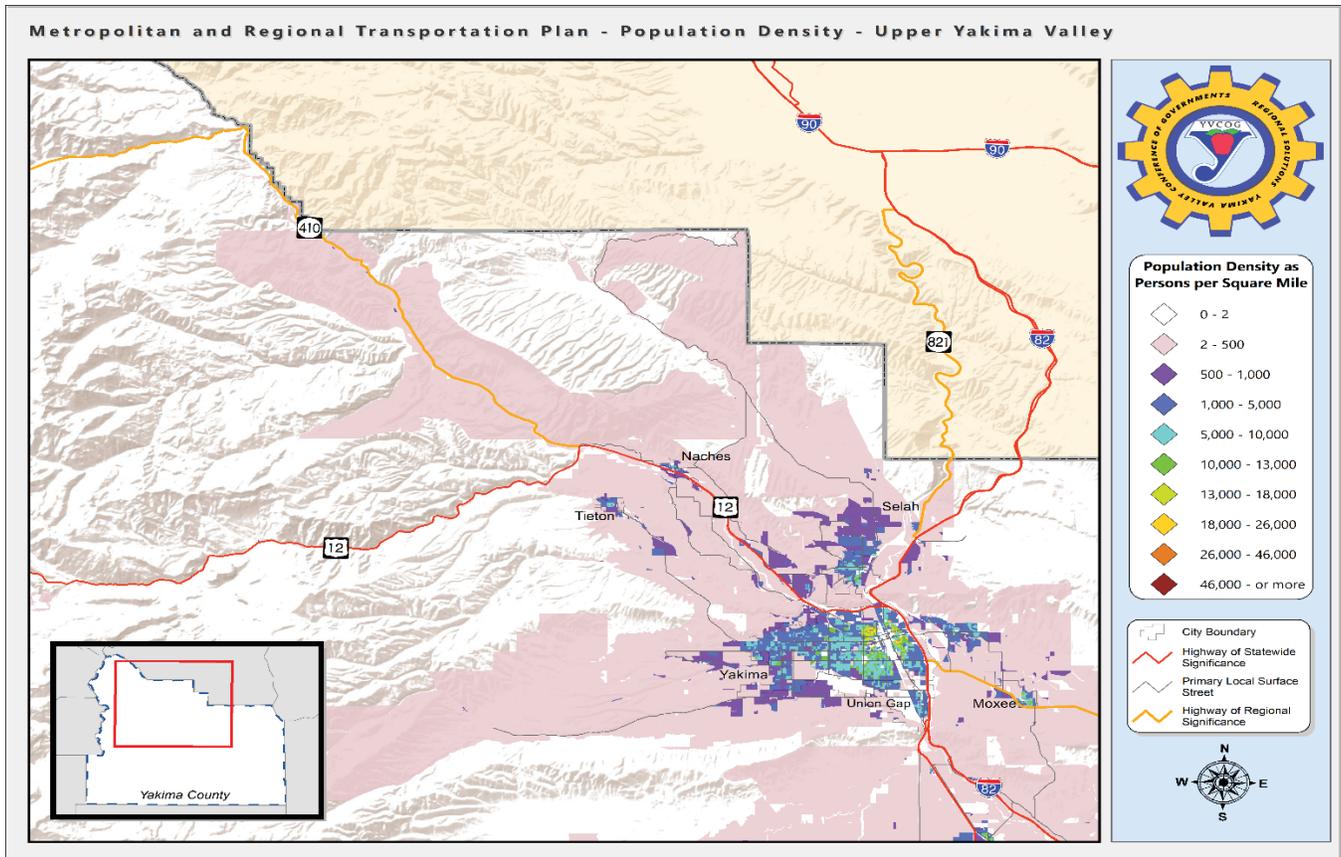
Since October 1981, there has been no passenger rail service available in Yakima County

The 2019 Washington State Legislature (ESHB 1160, Sec 204(3)) directed the Joint Transportation Committee to study the feasibility of an east-west intercity passenger rail system for Washington State. The \$250,000 study will look specifically at the Stampede Pass Corridor and service to Auburn, Cle Elum, Ellensburg, Yakima, Toppenish, Tri-Cities, and Spokane (Note: The Tri-Cities and Spokane currently have passenger rail service through other rail service lines in the state.). The study must include: Potential ridership, identification of operation options and equipment, current infrastructure conditions, (including station locations), and reviews of relevant planning studies. The feasibility study is due back to the legislature by June 20, 2020.

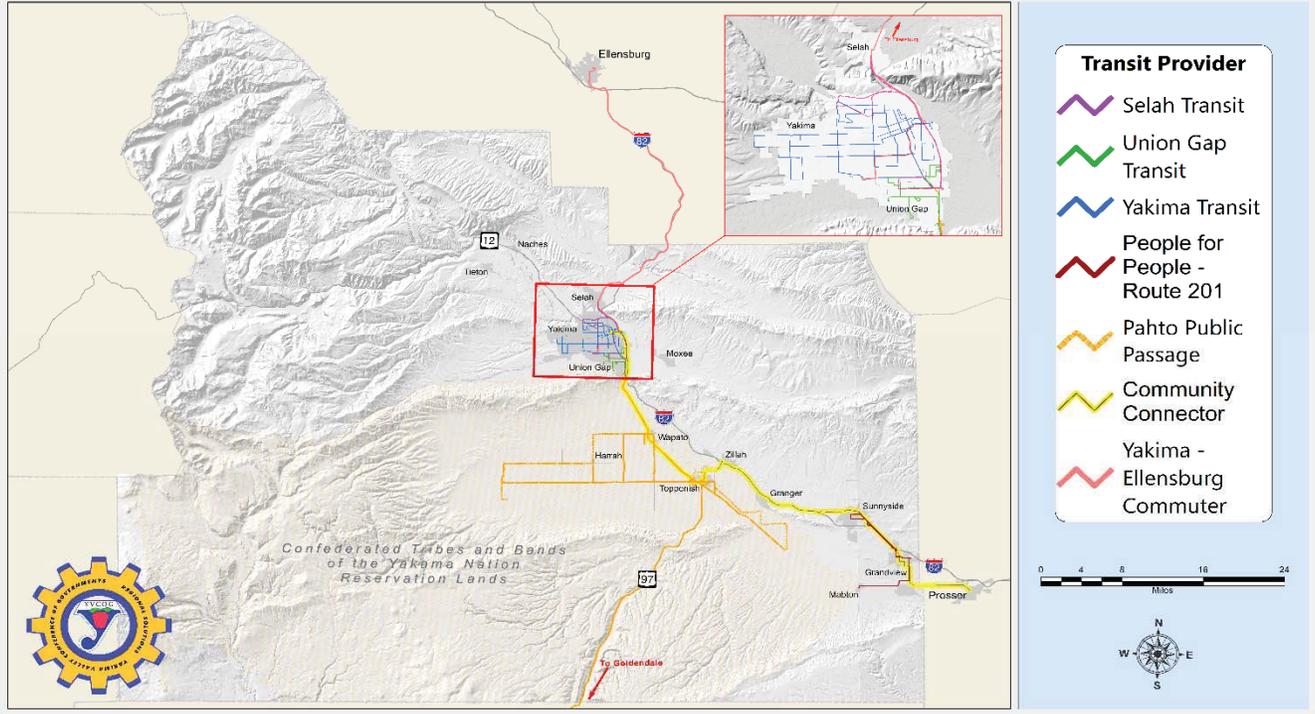
- Former city train depot facilities throughout Yakima County, built prior to ADA guidelines, are not accessible to any other mode of transportation unless updated for other uses. Naches (community center), Yakima (dining, retail), Wapato (food bank) and Toppenish (museum).
- The City of Yakima and surrounding jurisdictions is the largest metropolitan area in the State of Washington without passenger rail service.

Summary

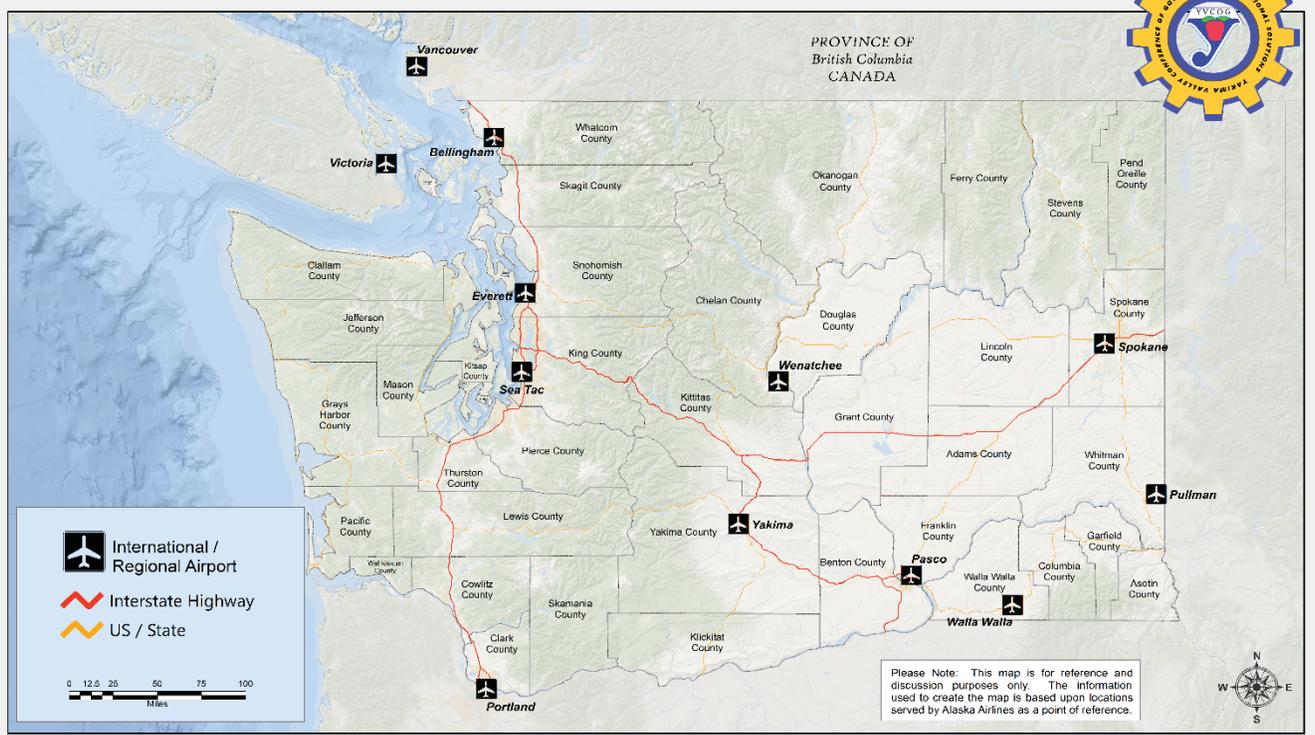
- Train Depots at Yakima and Toppenish, the two projected (returning) stops in Yakima County would require extensive rehabilitation, reconstruction, or relocation to meet current passenger rail accessibility guidelines.
- Considerations to incorporate/accommodate transit, POV, private pay/car rental, bicycle, pedestrian transportation modes into the depot complex would be required.
- Significant improvements to the Stampede Pass Rail Line would be required to restore rail service.
- Arrival / departure times would be based on the current needs and schedules of Amtrak



Yakima Valley - Regional Public Transportation - Transit



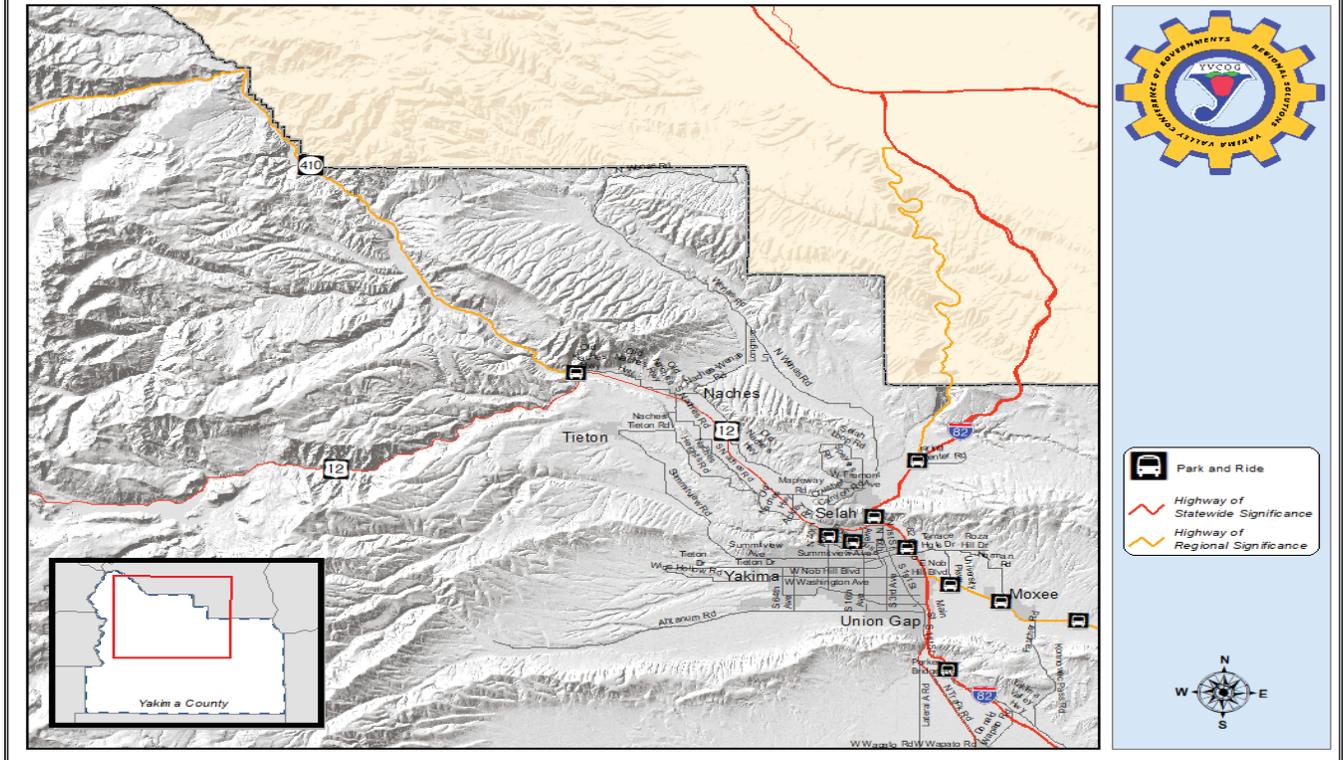
Washington State - International and Regional Airports



Washington State - Current and Hypothetical Passenger Rail Service (Amtrak)



Metropolitan and Regional Transportation Plan - Park and Ride Locations - Yakima Valley



(Washington Statewide Rail System by Owner Map (courtesy, WSDOT 2019 Draft Rail Plan))



- | | | | | | | |
|---|--|--|--|---|---|--|
| <ul style="list-style-type: none"> — BNSF Railway — BNSF/UP — Ballard Terminal Railroad — City of Seattle | <ul style="list-style-type: none"> — City of Tacoma — City of Woodinville — Clark County — Columbia Basin Railroad | <ul style="list-style-type: none"> — Genesee and Wyoming — Mount Vernon Terminal Railway — OmniTrax — Patriot Rail | <ul style="list-style-type: none"> — Port of Benton — Port of Chehalis — Port of Columbia — Port of Longview | <ul style="list-style-type: none"> — Port of Pend Oreille — Port of Royal Slope — Rainier Rail — Snohomish County | <ul style="list-style-type: none"> — Sound Transit — Spokane County — US Department of Energy — US Navy | <ul style="list-style-type: none"> — Union Pacific Railroad (UP) — WSDOT — Watco — Yakima County |
|---|--|--|--|---|---|--|

APPENDIX D

LAND USE METHODOLOGY

Land Use Analysis – Methodology

Comparisons

Since the metropolitan model was updated recently between 2016-2018, the objective for this update was to review land use numbers in that model currently and make adjustments where major inconsistencies were identified. Comparisons of dwelling units and employees were made between the transportation models' figures and Yakima County Assessor data, county jurisdictions' Future Land Use Maps (FLUMs), and State Office of Financial Management (OFM) estimates and projections for 2020 and 2040. Methods used for these comparisons are explained in greater detail below.

Base Year (2015) Comparisons

Dwelling Unit Comparisons

Dwelling unit data in the metropolitan and regional models were aggregated into three residential categories representing single-family (LU1), duplex through four-plex (LU2), and multi-family (LU3) residential as defined below:

LU1 Single Family Residential includes those lands occupied by either a single-family home or a manufactured home on a single lot. Measured in dwelling units.

LU2 Duplex through Four-Plex uses are lots which contain two to four residences on a single parcel of land. Measured in dwelling units.

LU3 Multi-Family Residential uses contain five or more residential units on a parcel of land. Also, this category includes mobile home parks, apartment buildings, and some condominiums. Occupied motel rooms, hotels, and camp areas. Measured in dwelling units.

To check the current model's baseline figures for dwelling units in 2015, two comparisons were made. The first was between the metropolitan model's figures and County Assessor data by metropolitan TAZ (MM_TAZ); the second was between the regional model's figures and OFM dwelling unit estimates for each jurisdiction. Explanations of the methods used for each comparison are described below.

Comparison between Model and Assessor land use data

Using ArcMap, a geographic information system (GIS) software program by ESRI, the number of dwelling units existing currently within each metropolitan TAZ were estimated from Yakima County Assessor parcel data using the following conversion factors:

<u>Existing Land Use</u>	<u>Assessor Use Code</u>	<u>Operand</u>	<u>Conversion Factor</u>
Single-family residential	11	parcel count	1 unit / parcel
Duplex-four-plex residential	12	parcel count	2.5 units / parcel
Multi-family residential	13	acreage sum	15 units / acre
Mobile Home Parks residential	15	acreage sum	7 units / acre

Land Use Analysis – Methodology

Dwelling unit totals for each residential land use category were then compared with the metropolitan model figures for each TAZ. TAZ's with discrepancies of over 100 units were highlighted for further analysis, which consisted of examining 2005 aerial photography to determine which dwelling unit estimates were more likely correct.

Comparison between Model and OFM dwelling unit estimates

TAZs from the regional transportation model were aggregated into districts to approximate geographically the different jurisdictions within the county. Dwelling units within each district were then summed and compared to 2015 OFM population estimates for each jurisdiction. A second check against assessor data was made where large discrepancies existed, and adjustments were made accordingly.

Employment Comparisons

Employment data in the metropolitan and regional models were aggregated into four categories representing industrial and manufacturing (LU4), retail trade (LU5), services, offices (LU6), and public use (LU7) as defined below:

- LU4 Industrial and Manufacturing** uses are included in assessor use codes: 16, 20-39, within a broad range of general or specialty contractors: the production of food, textile, wood, furniture, paper, printing, metal, machinery, electrical and other products. **Wholesale Trade** facilities are described in SIC categories: 51 and include the storage of durable or non-durable goods. Measured in employees.
- LU5 Retail Trade** includes those uses identified in assessor use codes: 52-59 and motels and hotels 16. Retail uses include a broad range of establishments which sell goods directly to the general public, such as restaurants, automotive dealers, home furnishings, food stores or other products. Measured in employees.
- LU6 Services, Offices** includes those uses in assessor use codes: 60-66. Services and offices include banks or other financial institutions, real estate and insurance offices, personal services, such as laundry or cleaning services, business services such as advertising, automotive repairs, health care, legal services and other assorted services. Measured in employees.
- LU7 Public Use** are those land uses which are owned or operated by units of government and provide the administration of public programs, which are identified in assessor use codes of 67-68. Measured in employees.

To check the current model's baseline figures for employees in 2015, two comparisons were made. The first was between the metropolitan model's figures and County Assessor data by metropolitan TAZ (MM_TAZ); the second was between total employment shown in the regional model and an employment estimate calculated from the OFM population estimate for the county. Explanations of the methods used for each comparison are described below.

Land Use Analysis – Methodology

Comparison between Model and Assessor land use data

Using ArcMap, rough estimates of commercial and industrial employees existing currently within each metropolitan TAZ were calculated from Yakima County Assessor parcel data using the following conversion factors:

<u>Existing Land Use</u>	<u>Assessor</u>		<u>Conversion</u>
	<u>Use Code</u>	<u>Operand</u>	<u>Factor</u>
Industrial	21-39, 51	acreage sum	5 employees / acre
Commercial	16, 52-69	acreage sum	6 employees / acre

Conversion factors used above were estimated from employment density studies completed in other areas. The figures used to estimate approximate employment densities are similar to other similar counties. Acreages used in the calculation are gross parcel acres.

Employment totals for each category were then compared with metropolitan model figures for each TAZ (industrial (LU4) and commercial (LU5 + LU6)). TAZ's with discrepancies of over 100 employees were highlighted for further analysis. 2015 aerial photography and assessor information on parcel ownership were examined further to determine where more information was needed.

Comparison between Model and OFM projections

The regional model's figure for county employment (LU4-LU7) was compared with a 2015 employment security department (ESD) estimate for non-agricultural employees within Yakima County and adjustments to each employment category were made proportionately.

Forecast ComparisonsDwelling Unit Comparisons

To check the current model's figures for dwelling units in 2045, two comparisons were made. The first was between the metropolitan model's figures and future land use map (FLUM) designations by metropolitan TAZ (MM_TAZ); the second was between the regional model's figures and Countywide Planning Policy (CPP) dwelling unit allocations for each jurisdiction. Explanations of the methods used for each comparison are described below.

Comparison between Model and FLUM designations

Future residential land use designations within the different jurisdictions were categorized generally as either rural, transitional, low-density, medium-density, high-density or mixed-use. The number of potential dwelling units in 2045 within each metropolitan TAZ was estimated using the following market and conversion factors for each future land use designation:

Land Use Analysis – Methodology

<u>Future Land Use Designation</u>	<u>Market Factor</u>	<u>Conversion Factor (Units / Acre)</u>
Rural Residential	0.5	0.05
Transitional Residential	0.5	0.20
Low-density Residential	0.8	5.00
Medium-density Residential	0.8	7.00
Mixed-Use	0.8	10.00
High-density Residential	0.8	20.00

Comparison between Model and CPP dwelling unit allocations

TAZs from the regional transportation model were aggregated into districts to approximate geographically the different jurisdictions within the county. Dwelling units within each district were then summed and compared to 2045 CPP population allocations for each jurisdiction.

Employment Comparisons

To check the current model's figures for employees in 2045, two comparisons were made. The first was between the metropolitan model's figures and future land use map (FLUM) designations by metropolitan TAZ (MM_TAZ); the second was between the regional model's figure for total county employment and an estimate calculated from the OFM's population forecast for 2045 and an employment ratio. Explanations of the methods used for each comparison are described below.

Comparison between Model and FLUM designations

Future employment land use designations within the different jurisdictions were categorized generally as either industrial or commercial. Metropolitan model TAZs that showed both employment growth **and** employment densities greater than 5 employees per acre were flagged for further analysis.

Comparison between Model and OFM projections

The regional model's figure for total county employment was compared with an estimate calculated from the OFM's population forecast for 2045 and an employment ratio of 42 employees per 1,000 population and adjustments to each employment category were made proportionately. This ratio was based on the current employment to population ratio for the county.

Local Knowledge

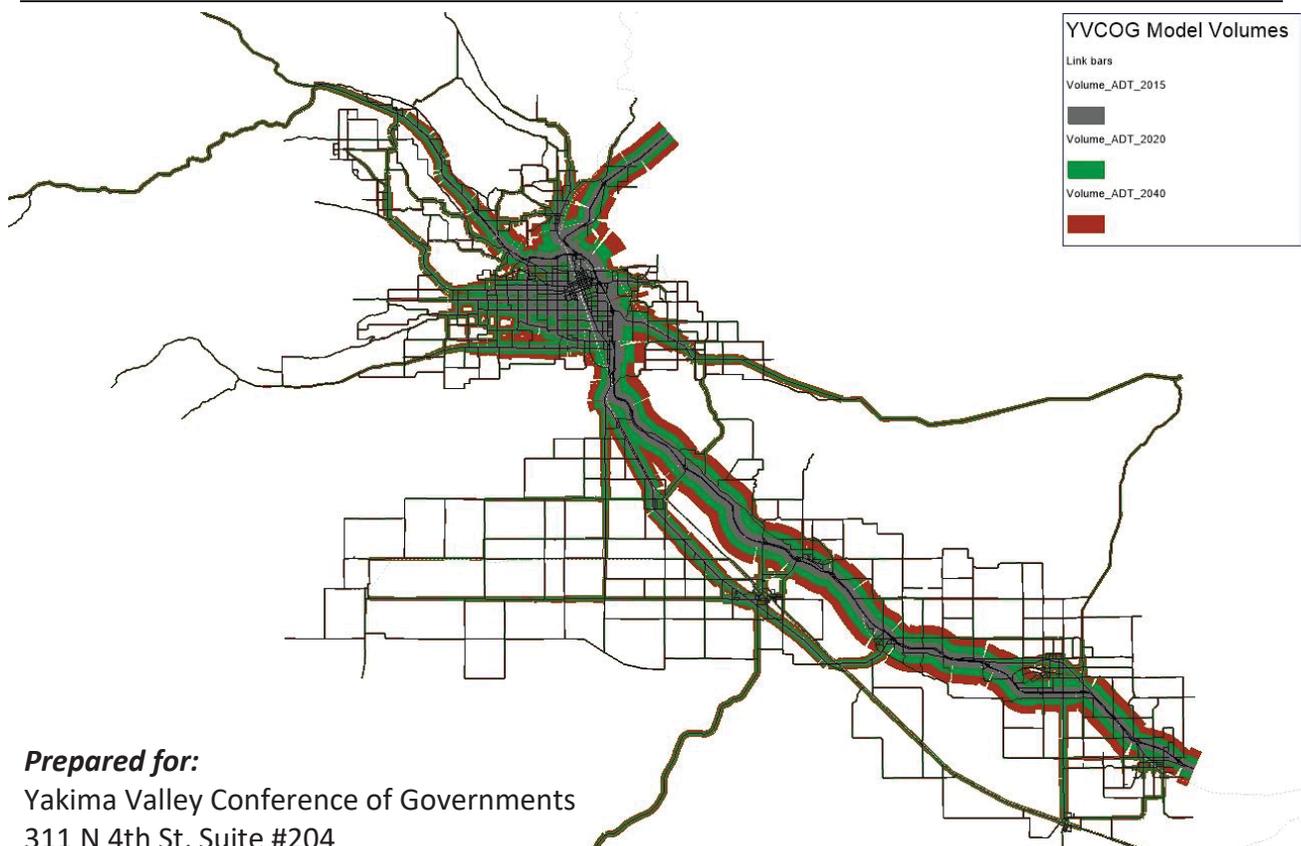
County and city staff in the local jurisdictions reviewed and commented on maps highlighting those TAZs where major inconsistencies existed between the transportation models' figures and Yakima County Assessor data, county jurisdictions' Future Land Use Maps (FLUMs), and State Office of Financial Management (OFM) estimates and projections for 2020 and 2040. Adjustments to the numbers of existing dwelling units and employees and future buildout in TAZs were made according to feedback given by local officials.

APPENDIX E

YVCOG TRAFFIC MODEL METHODOLOGY

YAKIMA VALLEY CONFERENCE OF GOVERNMENTS TRAVEL DEMAND MODEL DOCUMENTATION

2018 Update



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1.0 INTRODUCTION

The Yakima Valley Conference of Governments (YVCOG) with assistance from Eco Resource Management Systems, Inc. (eRMSi), has developed a computer-based transportation planning model for the YVCOG comprising all of Yakima County. This model update combines both the previous YVCOG model and the Yakima County model along with enhancements to include daily person trips, transit, and trucks. The forecast horizon year is extended to 2040.

1.1 Background

The report describes enhancements to the model to augment its capabilities in addressing a wide range of transportation planning activities. The travel model is used to support the development of the COG long-range transportation plans, evaluate proposed growth, and for evaluation of planned project alternatives. The travel model has been and will be used to test the outcomes of forecasted land use change and growth or roadway changes. The knowledge of the procedure used to develop the models and the forecasts is important for the future application of the models. This model will assist in the development and evaluation of future transportation improvement projects, as well as forecast traffic volumes for roadways within the planning area.

This travel demand model (TDM) is a representation of Yakima Valley Conference of Governments, Yakima County, and all the cities within Yakima County, the surface transportation facilities and the travel patterns using these facilities. This computerized transportation model is used to analyze street and intersection congestion and forecast the need for future roadway improvements. The model contains inventories of the existing roadway facilities and of housing, shopping, schools, and employment in the area.

The specific focus of this report is to describe the transportation modeling procedures that have been used to produce representative travel flows for the base year of 2015. Model calibration involves examining multiple factors to adjust model parameters producing a strong comparison between observed data and model produced information. Once calibrated, the model is used to test forecasted changes in growth patterns or changes to the transportation system. This can include changes in number of housing units, employment centers, travel behavior patterns, or roadway improvements.

1.2 The Model Validation Process

Model validation is defined as the process by which base year model results are compared to actual, observed travel pattern data such as traffic counts and transit ridership data. The "base year" for the current planning period and model is 2015; and 2040 is the forecast year. The first part of this report describes how each of the model components was constructed. The second part details the calibration of model parameters until the results closely match base year travel conditions. The third part of the report describes use of the model to produce year 2040 travel forecasts.

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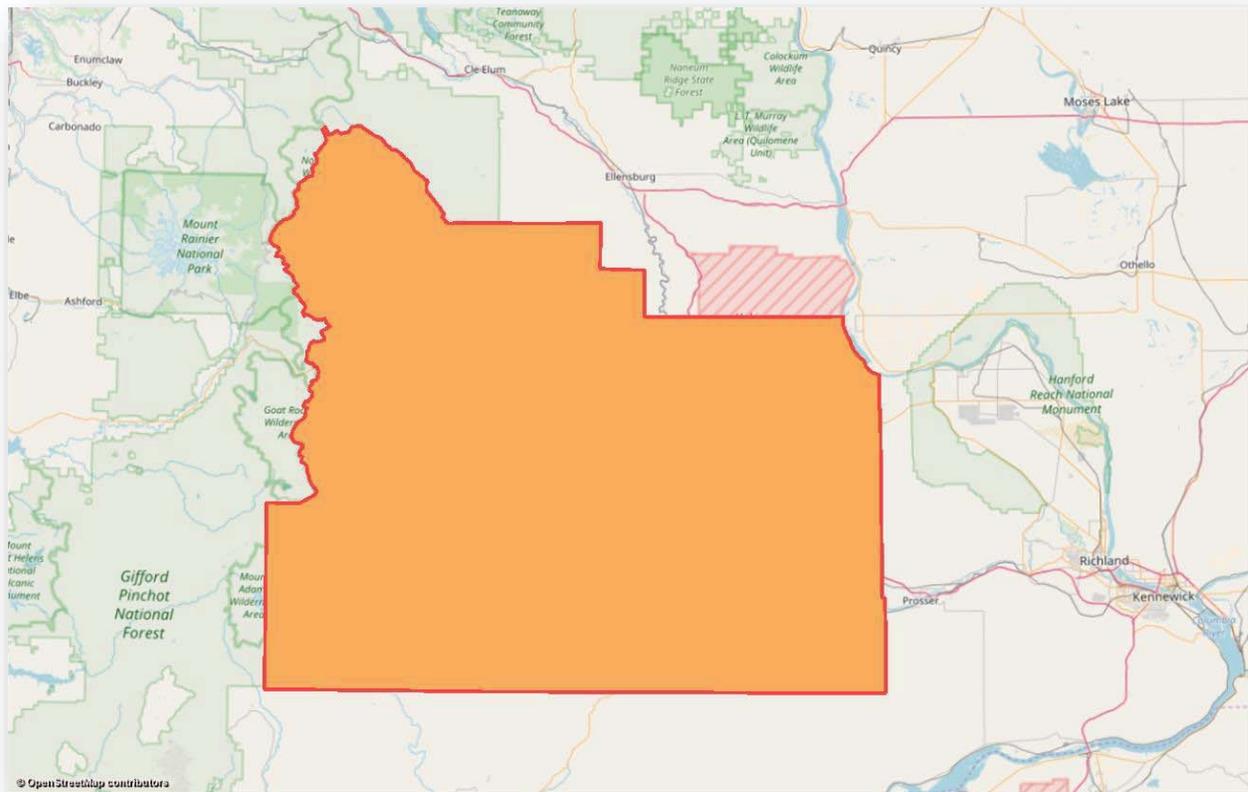
1.3 Model Enhancements

The YVCOG model includes a more detailed Traffic Analysis Zone (TAZ) system, increased detail for the transportation network, integrated transit assignments, and the ability to forecast daily traffic as well as AM peak and PM peak traffic. This includes the update to PTV Vision Software VISUM 17+.

1.4 Model Area

The model area includes all of Yakima County and is contiguous with the county boundaries. The model area is shown in **Figure 1**.

Figure 1 – YVCOG Model Area



YVCOG Model Documentation

1.5 Travel Demand Modeling Process

The modeling process is illustrated below in **Figure 2**. The YVCOG travel model utilizes a traditional four-step modeling process. The four steps are: trip generation, trip distribution, mode choice and trip assignment. This process estimates person trips and then converts to vehicle trips and transit trips. The model uses the morning (AM) time period to distribute the different trip purposes and for mode choice, and then it computes daily vehicle trips. Procedures were developed to assign AM, MD, and PM peak hour travel. The model is calibrated to replicate existing or base-year travel patterns. The model inputs are then modified to represent future conditions, making it possible to project traffic volumes.

The transportation model involves numerous mathematical equations to analyze large amounts of data. Demographic and land use data and forecasts are a major source of data input for the model. Forecasted dwelling units, population and employment are tied into future land use to determine how future trips/traffic volumes will be distributed in the YVCOG model area. The model area is divided into traffic analysis zones (TAZs). There are 595 TAZs within the YVCOG model area, including external connections.

Two inputs into the TDM are the transportation network representing the transportation system and socio-economic data for each TAZ. The transportation network is represented in the model by characteristics representing the mode served, capacity and speed of movement. The socio-economic information is represented in terms of households and employment by type.

Trip generation is a prediction of the number of person trips that are generated by and attracted to each TAZ. Within the model, residential land uses are considered to “produce” trips, and the non-residential land uses are considered to “attract” trips. Variables used to forecast the trip production include the number of households, workers by income stratification, and household location. As the number of households, workers, and income increase, so does the trip production. For non-residential land uses (e.g. industrial, commercial, office, or education), these are typically impacted by the size of the land use, determined by the number of employees. Each type of household and type of employment will have different trip rates used to generate the number of trips. School attendance, measured in students is used for computing attractions as well.

Trip distribution connects the zones that “produce” with the zones that “attract” trips. In other words, for each trip that originates in a zone, a destination zone is found. The trip distribution part of the model is determined by “attractiveness” between the zones. Most of the trips produced in a given zone will be attracted to a surrounding or nearby zone; some will be attracted to moderately distant zones, and a small number will be attracted to very distant locations.

Mode choice is the third step in the four-step modeling process. This is the step where the time and cost of travel by each travel mode is compared. This comparison is used to determine the number of trips taken by vehicle and by public transportation. This includes Yakima Transit, Pahto Public Passage, and Union Gap Transit. Mode choice is also the step used to convert person trips to vehicle trips.

Trip assignment assigns the trips to specific roadway and transit routes and determines the resulting highway volumes and route ridership. The specific route choice decision is based on functions that estimate the travel cost of comparative routes and assign the trips to the travel network. The assignment techniques are based on the general assumption that people will attempt to minimize their travel costs (including time and distance) when traveling to destinations. The assignment algorithms are

YVCOG Model Documentation

also used to adjust the impact of traffic congestion on travel speed and travel time. The trips are assigned based on the least time and distance involved in the trip.

In addition to the above trips that begin and end inside the YVCOG model area; there are external trips from outside the area. There are three variations on external trips: external-external, external-internal and internal-external. External-external trips pass through the model area without stopping. Internal-external trips originate in the model area and travel outside the model area. External-internal trips originate outside the model area and travel to the model area. The number of external trips is derived from a combination of traffic count data and from the Yakima County External Travel Survey (2003).

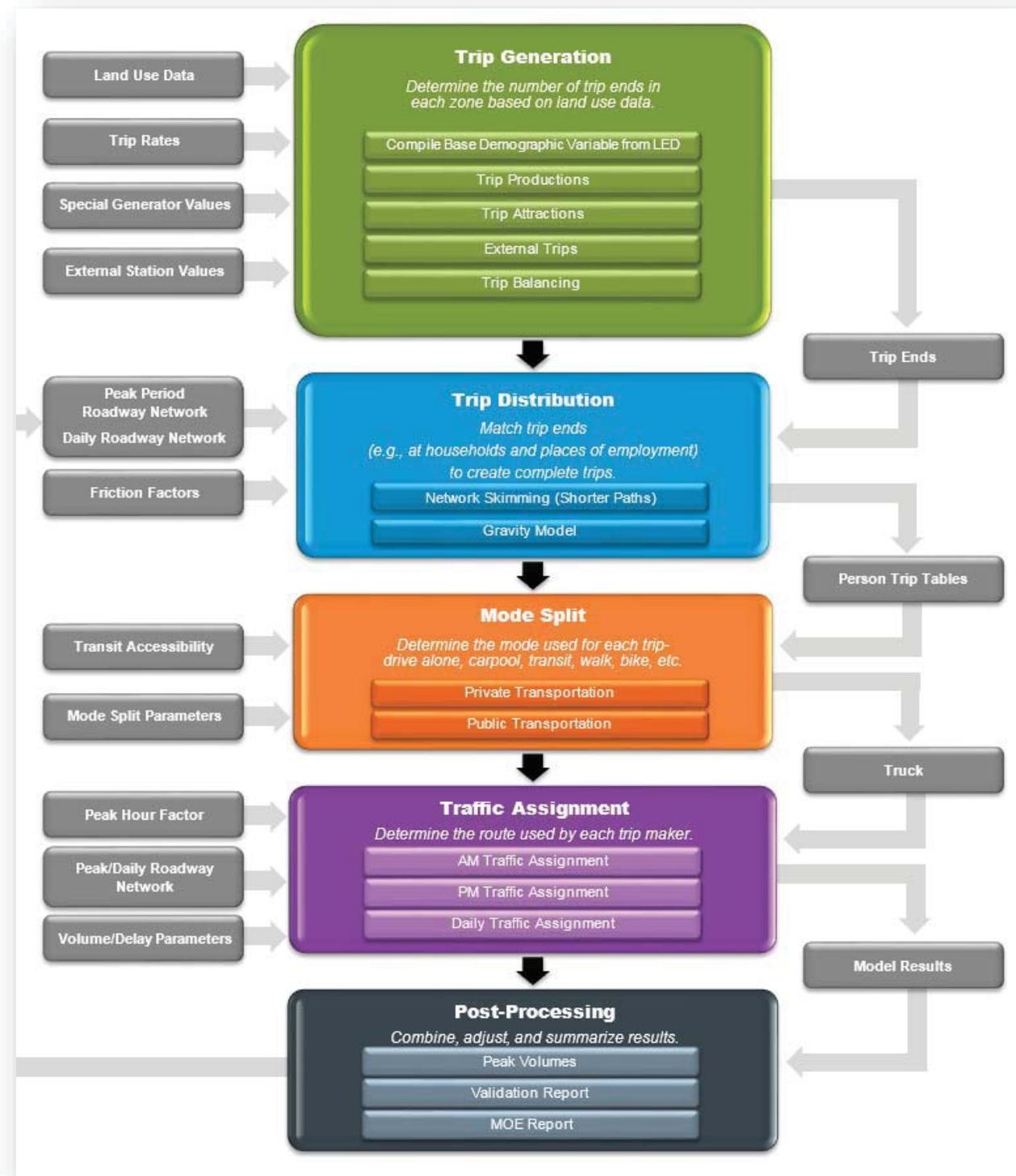
Commercial/freight vehicle travel is included in the model. Commercial vehicles are those other than passenger cars or light trucks. The trip generation and distribution for truck trips is performed separately but integral to the model procedures. The truck trips are included in the total volume of traffic that is assigned to the network and can impact the distribution and assignment of private vehicle trips.

As part of the calibration process, the numerous mathematical equations in the transportation model were adjusted until the model outputs replicated existing travel and the performance statistics within nationally accepted targets. Following calibration, future year 2040 socio-economic data was then entered for each TAZ and external station. The model is then used to produce year 2040 traffic and transit ridership projections.

Beneficial to the model development process was using the YVCOG model with Yakima County counts taken in 2017 for additional locations. The draft model calibration and forecasts are to be reviewed during hands-on training sessions in February 2018.

YVCOG Model Documentation

Figure 2 – Modeling Process



YVCOG Model Documentation

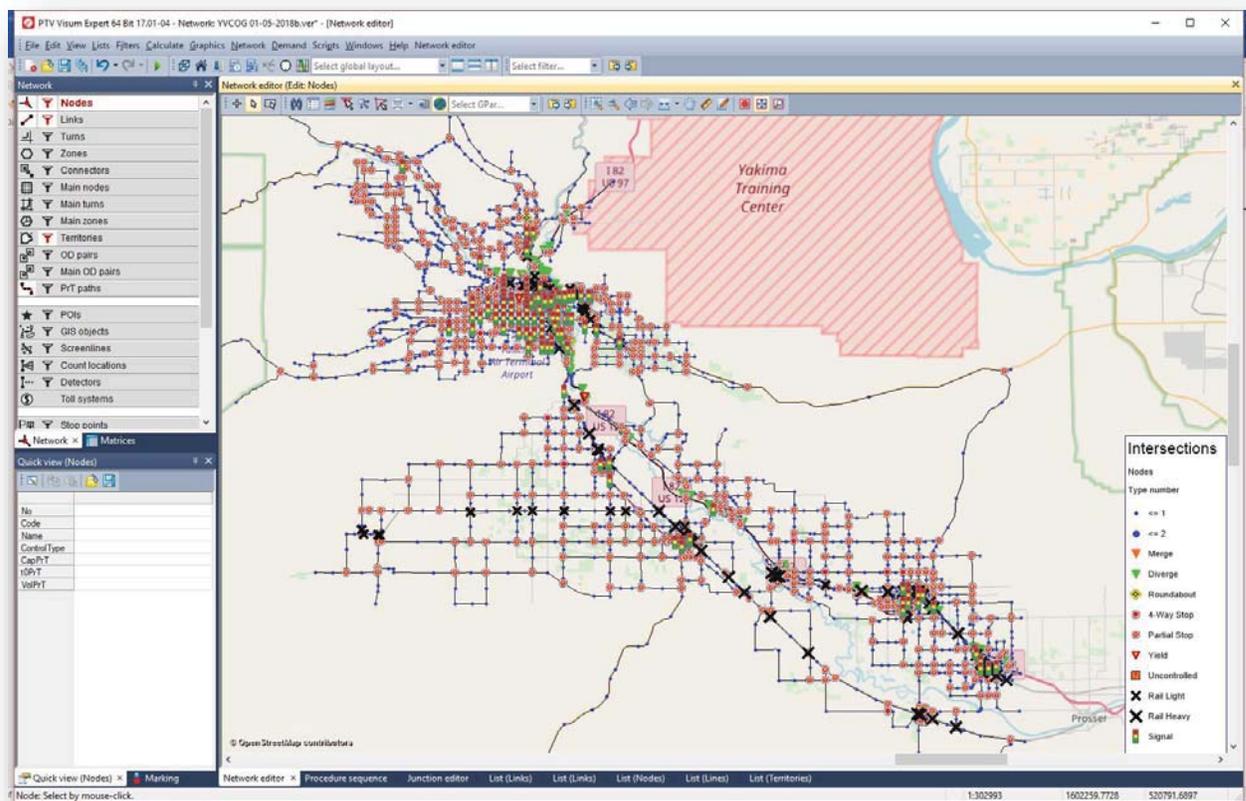
2.0 TRAVEL DEMAND MODEL DEVELOPMENT

This section describes the modeling software used, the development of the transportation network, the process used to collect the base year socio-economic data and the parameters used to calibrate the TDM to replicate year 2015 traffic conditions. Each of these steps are further described in the following sections.

2.1 Software

The model was developed using Visum version 17.01+. Visum is a Windows-based multimodal transportation modeling application. It includes features such as a graphical user interface, allowing information to be transferred to geographic information system (GIS) formats. PTV develops and distributes Visum and describes this product as one that provides a comprehensive software system for travel demand modeling and network data management. Designed for multimodal analysis, Visum can integrate relevant modes of transportation into one consistent network model. The commands that Visum uses to complete the modeling steps described in this document are listed in a section of the model called Procedure Sequence. The Visum model geographic interface and Procedure Sequence used to run the YVCOG model are shown in **Figure 3** and **Figure 4**.

Figure 3 – Visum Graphic Interface



YVCOG Model Documentation

Figure 4 – Procedure Sequence

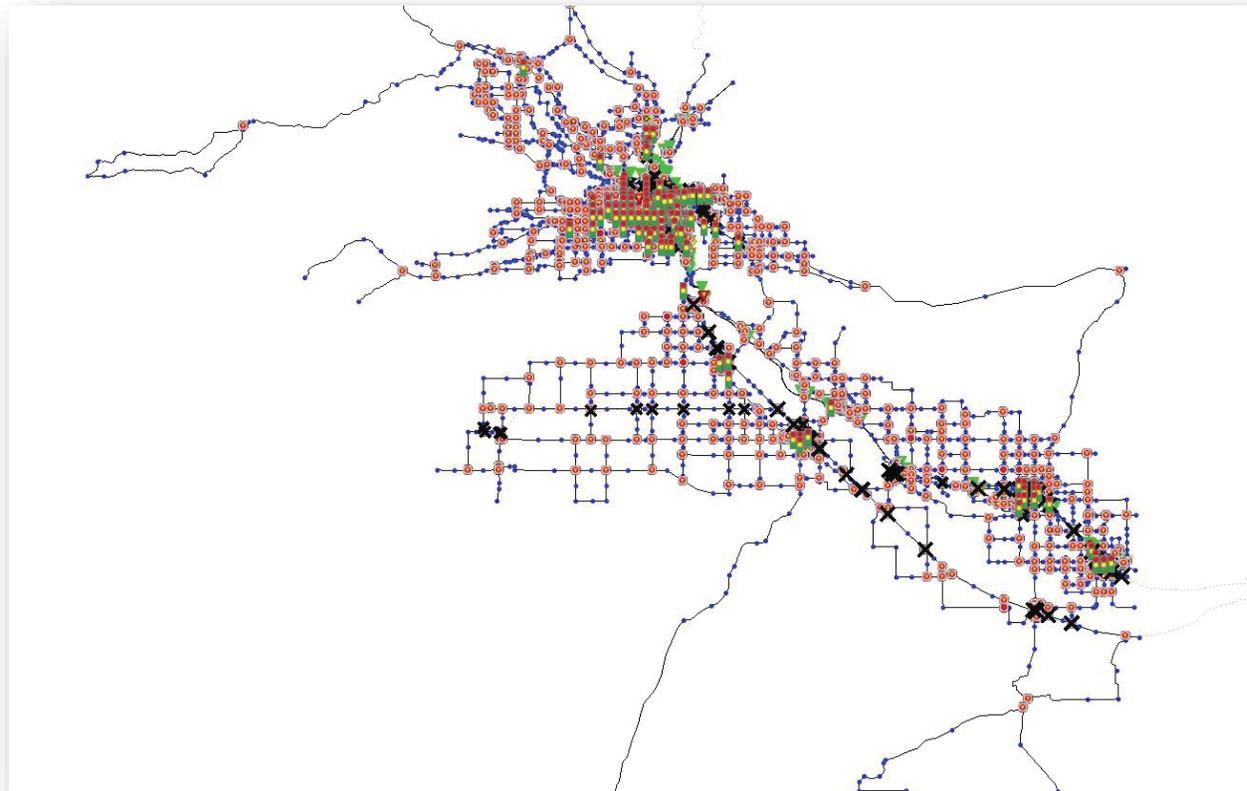
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1		<input type="checkbox"/>	Group Full Procedure Updated 01-23-2018 ...	2 - 3		Full Procedure Updated 01-23-2018
4		<input type="checkbox"/>	Group Count Completion from ATR_Count_2014 POI ...	5 - 15		Count Completion from ATR_Count
16		<input type="checkbox"/>	Group Count Completion from Crab_Mobility Counts ...	17 - 21		Count Completion from Crab_Mobility
32		<input type="checkbox"/>	Group Update Count ADT for Validation ...	33 - 67		Update Count ADT for Validation
68		<input type="checkbox"/>	Group Intersect LEHD for Land Use Checking ...	69 - 89		Intersect LEHD for Land Use Check
90		<input checked="" type="checkbox"/>	Group Move 2015 Demographics to Active Set ...	91 - 113		Move 2015 Demographics to Active
114		<input checked="" type="checkbox"/>	Group Compute Link and Node Capacities ...	115 - 144		Compute Link and Node Capacities
145		<input checked="" type="checkbox"/>	Group Trip Generation ...	146 - 223		Trip Generation
224		<input checked="" type="checkbox"/>	Group Trip Distribution	225 - 288		Trip Distribution
225		<input checked="" type="checkbox"/>	Read filter		Internal.Zones.fl	Distribution for Internal Zones Only
226		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW11
227		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW12
228		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW13
229		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW14
230		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW11
231		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW12
232		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW13
233		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW14
234		<input checked="" type="checkbox"/>	Trip Generation Balancing			Trip Generation Balancing HBW11
235		<input checked="" type="checkbox"/>	Int assignment		All	MPA OFF
236		<input checked="" type="checkbox"/>	Edit attribute	Zones - MethodConnShares		
237		<input checked="" type="checkbox"/>	Calculate PrT skim matrix	A-C AM_Car		Average Skim Matrices
238		<input checked="" type="checkbox"/>	Calculate PrT skim matrix	A-C AM_Car		Set Run and Dwell Times
239		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(NO) = 225; -(0.3 * Matrix(NO) = 225) + 0.3$		
240		<input checked="" type="checkbox"/>	Set run and dwell times		Headway-based	
241		<input checked="" type="checkbox"/>	PuT assignment	B Bus		
242		<input checked="" type="checkbox"/>	Trip distribution	All M demand strata		Uauto for Mode Choice
243		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(NO) = 234; -2 * 1 - 0.06201 * Matrix(227) - 0.$		Utransit for Mode Choice
244		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(235); -2.50 * (1 - 0.023 * (0.5 * Matrix(229) + 0.5$		Transit Pct
245		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(93); -exp(Matrix(235)) / (exp(Matrix(233)) + exp$		
246		<input checked="" type="checkbox"/>	Set Matrix Diagonal			
247		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(NO) = 30; -Matrix(NO) = 10 * Matrix(NO)$		HBW11 Transit
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255		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(NO) = 38; -Matrix(NO) = 18 * Matrix(NO)$		NWB Transit
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257		<input checked="" type="checkbox"/>	Combination of matrices and vectors	$Matrix(NO) = 31; -Matrix(NO) = 31 * Matrix(NO)$		HBW12 Transit Adjusted

YVCOG Model Documentation

2.2 Transportation Network

The initial input to the travel demand modeling process is to provide a geographical roadway network comprised of nodes and links. The YVCOG network is shown in **Figure 5**. A link is a directional description of connection between beginning and ending node points. Each link contains attribute data that defines the operation of that link. A node is the location where two or more links come together to form the network. Additional data is coded to describe the node operation. The network can define different transport systems. In the YVCOG model the transport systems include car, truck, bus, rail, and walk.

Figure 5 – YVCOG Transportation Network



YVCOG Model Documentation

2.2.1 Link Attributes

Each street in the model is represented by a link or a group of links. Each link contains directional attribute data that defines the operation of that link. A link is a directional description of connection between beginning and ending node points. Visum includes multiple attributes for each link that can be used to describe operation. The primary link attributes used to define the link operation are listed in **Table 1**. Additional attributes for working with the base and forecast networks were created. All additional network attributes are listed in Appendix A.

Table 1 – Link Attributes

Attributes	Description
Type number	Link type corresponding to facility type
Tsys set	Permitted transportation systems to use this link
Length	Length, including curvature
Number of lanes	Number of lanes by direction
Capacity PrT	Link capacity
v0 PrT	Free flow speed
TModelSpecial	Designates stopped leg for partial stop control
TWLTL	Designates Two-Way Left Turn Lane
Count_AM_Pk	AM Peak traffic count
Volume_AM	AM Peak model volume
Count_PM_Pk	PM Peak traffic count
Volume_PM	PM Peak model volume
Count_ADT	Daily traffic count
Volume_ADT	Daily traffic volume
Volume capacity ratio PrT (AP)	Volume-to-capacity ratio
(Full list of attributes)	See Appendix A

Link Type

The link types are shown in link attributes and were used to define link capacities and to set the volume-delay functions used in the car and truck (highway) assignment process. The YVCOG area functional classification was reviewed and compared with the adopted functional classification system available from WSDOT. The facility type/functional classification are listed in **Table 2**. Note that types 7 and 8 were added to the standard functional classification to denote links that are important for model operation but not included in the standard federal functional classification. There is also a division for urban and rural facilities so the model could be coded for differences in operation.

Table 2 – Link Type

Type	Facility Type Name
7	Local
8	Ramps
41	Interstate-Rural
42	Other Freeways & Expressways-Rural
43	Principal Arterial-Rural

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Type	Facility Type Name
44	Minor Arterial-Rural
45	Major Collector-Rural
46	Minor Collector-Rural
47	Local-Rural
51	Interstate-Urban
52	Other Freeways & Expressways-Urban
53	Principal Arterial-Urban
54	Minor Arterial-Urban
55	Major Collector-Urban
56	Minor Collector-Urban
57	Local-Urban
99	Rail

Length

Link length, along with speed, is used to compute link travel time. During assignment, delays are computed for each link using the volume-delay function defined by the Link Type. The link length is automatically computed by Visum, but it can be manually adjusted if needed.

Number of Lanes

The number of lanes is coded on all links by direction for each link in the network. This attribute is used to compute directional capacity in the model.

TWLT

The presence of a Two-Way Left Turn Lane (TWLT) is coded for each direction of a two-way link by using the number "1". This is used to add an hourly directional capacity of 150 vehicles per hour to the link. Two-Way Left Turn Lanes have varying impacts on link capacity based upon the number of driveways and number of left turning vehicles, so this model rule of adding capacity equal to what is normally used for a left turn lane at a signal is helpful for modeling, but for more detailed capacity impacts, further study of each location should be made.

Link Capacity

Capacity is computed in terms of vehicles per hour (vph) for each link, directionally. Due to the number of links contained in the YVCOG model, it wasn't possible to complete individual capacity analyses on each link to calculate specific capacities. This model used a global link capacity system based on functional classification/ facility type based on research completed from the 2010 Highway Capacity Manual and experience with other models. These capacity values reflect standard industry practice. **Table 3** shows the link capacities by link type. The procedure steps compute the link capacities by multiplying the per lane capacity by the number of lanes. The capacity added by the TWLT is added to that computed based upon the number of lanes.

Hourly capacity is used for hourly assignments. Daily capacity, used for ADT assignment, is computed by multiplying the hourly capacity times the Link Type Peak_Factor. This factor can be adjusted by link type for future use but is currently set at 10.0 for all link types.

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Note that Rail is given a capacity of 1. Although the rail lines are in the model, and are used for grade crossing delays, they are not used for traffic assignment, so don't need capacities.

Table 3 – Link Capacities

Type	Facility Type	Hourly Capacity (vphpl)
7	Local	800
8	Ramps	1,500
41	Interstate-Rural	1,800
42	Other Freeways & Expressways-Rural	1,600
43	Principal Arterial-Rural	1,400
44	Minor Arterial-Rural	1,200
45	Major Collector-Rural	1,000
46	Minor Collector-Rural	800
47	Local-Rural	600
51	Interstate-Urban	2,000
52	Other Freeways & Expressways-Urban	1,800
53	Principal Arterial-Urban	1,600
54	Minor Arterial-Urban	1,400
55	Major Collector-Urban	1,200
56	Minor Collector-Urban	1,000
57	Local-Urban	800
99	Rail	1

Speed

Base or free-flow link speeds (v0 Prt) are entered in Visum in miles per hour. Speeds, along with link length, have a direct influence on the computation of travel times during model runs. As part of this update, the base speeds were given a rigorous review. Google Streetview was used to identify current posted speeds and to review conditions. These speeds were then used in the program to depict the free-flow conditions on the roadways.

During the calibration process, roadway operating speeds from the model were reviewed to justify modifications to the posted speed limit coded in the model as well as link and node delay coefficients. These modifications were made to reflect conditions and traveler perceptions of the existing conditions.

TModelSpecial

Visum uses an attribute value of "0" or "1" to designate the intersection leg that has a stop sign for partial stop or yield controlled intersections. Although the stop or yield sign is at the node, the approach link that is stopped needs to have this designation to properly place the delays to the correct turn movements. All approaches should be designated with a "0" unless they have a partial stop or yield control, then they should be designated with a "1". This coding was checked for all intersections.

Count Data

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Count data from multiple years and multiple sources has been entered into the YVCOG Visum model. This is discussed more in section 2.2.4.

Volume XX YYYY

User defined link variables to compile the base year (YYYY=2015) and forecast year (2020 and 2040) and scenario (EC for Expected and Committed and Plan for Planned) have been created and incorporated into the procedures. These can be saved for daily volumes (XX=ADT) or peak hour volumes (AM, MD, and PM) depending upon the procedure selections.

ID Lookup

A user defined link variable was defined to provide unique identifier for directional volume outputs. This was used when adding Yakima County traffic count data from 2017 to facilitate directional data input. This unique directional identifier can be used with the Microsoft Excel VLookup function for reporting volumes for further analysis.

Future Years and Projects

User defined variables have been created for each of the possible network scenarios (2015, EC, Plan) plus projects for the key network attributes. For links, these include TypeNumber, Number of lanes, Speed (VOPrt), TWLTL, and TModelSpecial. These are used in the model run procedures to modify the network for expected changes.

2.2.2 Nodes

The beginning and end points of each link are called nodes. A node can be an intersection or an intermediate point between intersections. In Visum, all nodes are coded with data, which defines the operating characteristics of that node. Nodes are classified according to intersection control type and roadway functional classification. It is important for car and truck assignment that the node (and the turns through that node) reflect the delays due to node type and traffic volumes. The node attribute table used in the YVCOG model is shown in **Table 4**.

Table 4 – Node Attributes

Attributes	Description
Type No	Node Type number designating operation
Type_Name	Node type name
ControlType	Intersection control
t0 Prt	Base node time
Volume PrT	Volume of the node
K1_Value	constant added to the capacity calculation
K4_Value	constant multiplier in the capacity calculation
Capacity PrT	Node Capacity
Analysis_ID	ID number to be used for intersection analysis
VolPrt	Intersection Volume
(Full List of Attributes)	See Appendix A

Node Type

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The node types were coded in the model dependent upon the intersection control. Delay equations are defined by node type. **Table 5** lists the node types used in the YVCOG model. The node types include railroad crossings in addition to intersections of distinct types. A lookup table was created using the variable name of Type_Name to display the name that corresponds to the node type.

Table 5 – Node Types

Node Type	Description
1	Shape Node
4	Merge
5	Diverge
9	Roundabout
10	All-Way Stop
11	Partial Way Stop
12	Yield
13	Uncontrolled
14	RR-Light Use
15	RR-Heavy Use
20	Signal

Partial stop and Yield intersections require that the link attribute of TModelSpecial is coded on the proper approach link. This was checked during model calibration. When changes are made this link variable that is associated with nodes should be checked.

Node Capacity

Capacities at all nodes are used in Visum to compute delays based upon traffic congestion at the intersections. Capacity is computed within the model run procedure steps for consistency. This methodology was used to calculate model node capacities at each node. The node capacity equation is:

$$Cap = K_1 + K_4 (Entering Cap)$$

where:

Cap = Intersection capacity

K1 = Capacity constant added or subtracted in computation

K4 = Capacity factor multiplied by sum of entering link capacities

Entering Cap = Sum of entering capacities from all links entering the node

The K4 coefficient is used to simulate the effect that a green time-to-cycle length (G/C) ratio has at an intersection. For modeling purposes, it was assumed that when like roadway classes meet, the G/C ratio is fairly even, and as the roadway meets lesser class roadways, the green time, or G/C ratio, increases on the major facility. K4 is increased by 0.1 when the Geometrics box is checked to reflect the additional capacity added by the intersection channelization and addition of auxiliary lanes. K4 is automatically computed by the model run procedures based upon node type, entering link types, and number of intersection legs.

Future Years and Projects

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User defined variables have been created for each of the possible network scenarios (2015, EC, Plan) plus projects for the key network attributes. For nodes, this variable is the TypeNumber. This is used in the model run procedures to modify the network for expected changes. Note that the number of left turn lanes is described in section 2.2.3.

2.2.3 Turns and Turn Penalties

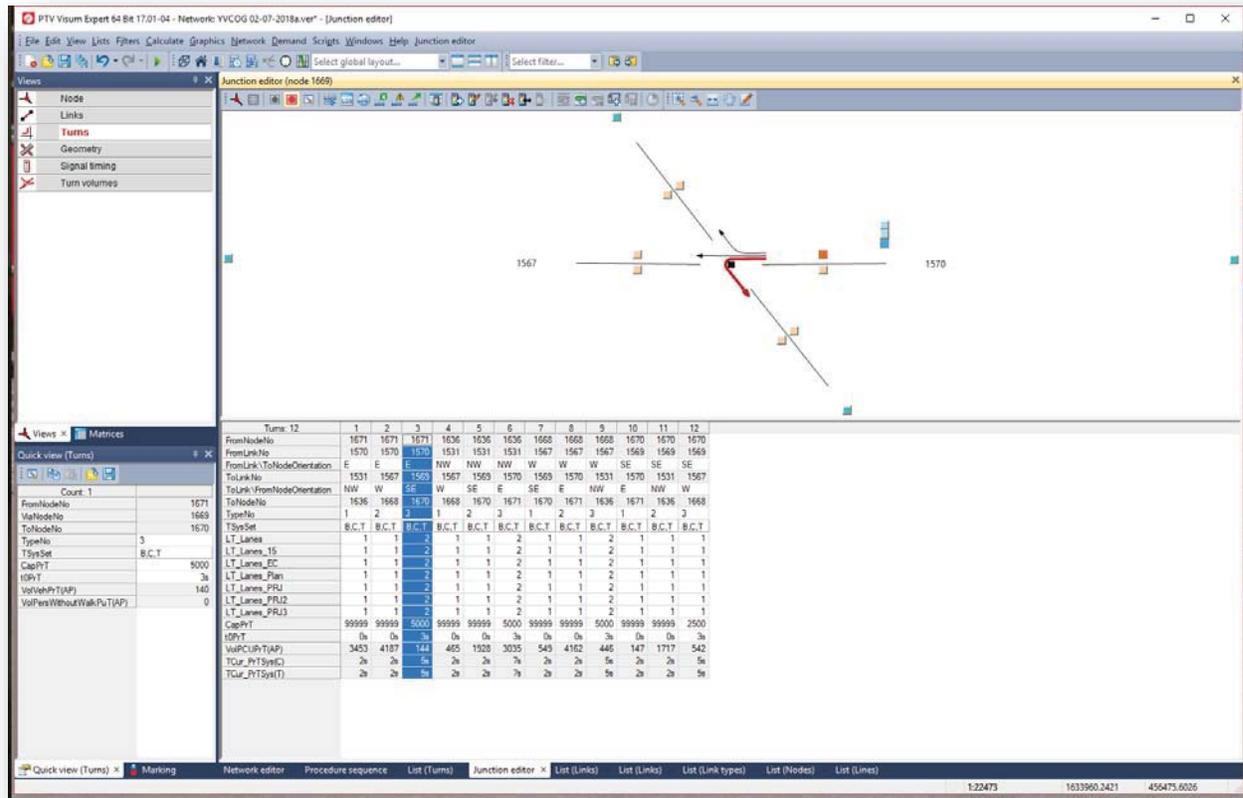
At some locations on a network it may not be possible to execute a certain turn movement or there can be a capacity constraint, due to the drivers' perceptions of potential safety concerns. In these cases, the turns for the restricted transport system were not allowed for certain turns.

Also, within the YVCOG model, turn penalties were used to penalize left turns through the network. An additional delay of three seconds per vehicle was assigned at left turn movements at all signalized, partial stop, and yield controlled intersections. These additional delays improved model operation to eliminate any excessive "stair-stepping" movements which might cause alternating right and left turns through the network.

LT Lanes

Capacities of left turn lanes at signals, yield, and partial way stop control intersections is dependent upon the number of left turn lanes. Because this is dependent upon the intersection approach, this must be coded in the turns section of the node junction interface as shown in **Figure 6**. Similar to other important variables, this can be coded for the base year 2015 network as well as future planned networks. This will require attention to detail for each scenario. The benefit is that the model is responsive to the change in the number of left turn lanes.

Figure 6 – Coding of LT Lanes



User defined variables, listed in Appendix A, are created for turns to both enter turn counts and to save peak volumes and adjustments. Because there were not recent turn counts used for model calibration, adjusted turn volumes are not saved. However, similar to the link volume saving options, the forecast network can be used to save the turn volumes for all intersections. If the output turn volumes are to be used for analysis, it is recommended that the analyst first compare the base year volumes with recent turn counts and make post-processing adjustments as needed before using the model outputs.

2.2.3 Connectors

Visum uses the distinct object called Connectors. These are used to connect the zone (see section 2.3.1 TAZ Structure) to the transportation network. Trips that start and end at the zones must have a way to reach the transportation network during the assignment step. The connector objects connect the zone centroid (a central point in the zone) to a node on the network. Every zone must be connected to the network with one or more connectors to the network.

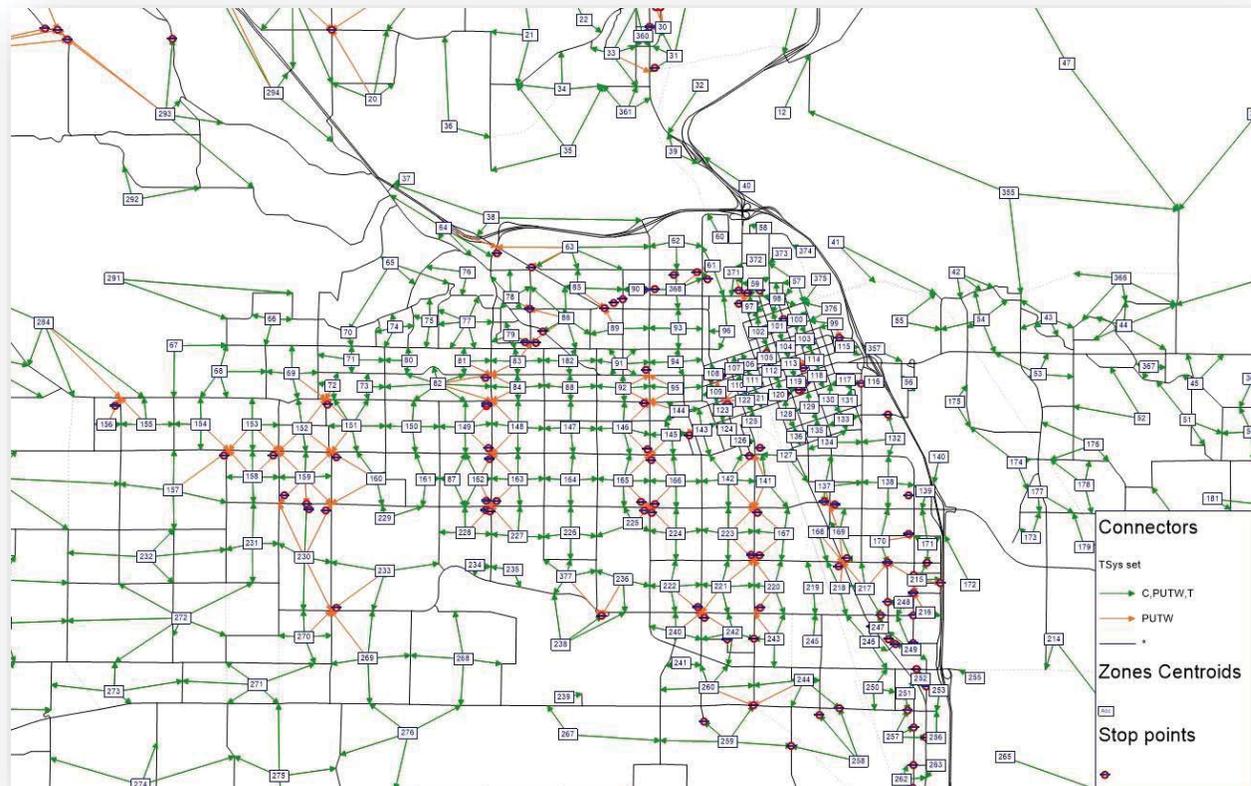
Connectors were first developed for vehicle traffic, including cars and trucks. These reflect access points for the zone and may connect to a node on the network or sometimes, where traffic control or turn restrictions are important, a stub link was added to connect the connector to the network. These connectors will allow car, truck, and walk access to transit. These are general to midblock locations.

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An additional set of connectors was added which connect the zone centroids to the transit stops. These were added for walk access only when they were at transit stops where there would not be car or truck access.

Figure 7 shows the pattern of connectors for the base year model. The orange connectors are for walk access to transit only. The green connectors are used for walk access to transit plus car and truck trips.

Figure 7 – Connector Locations



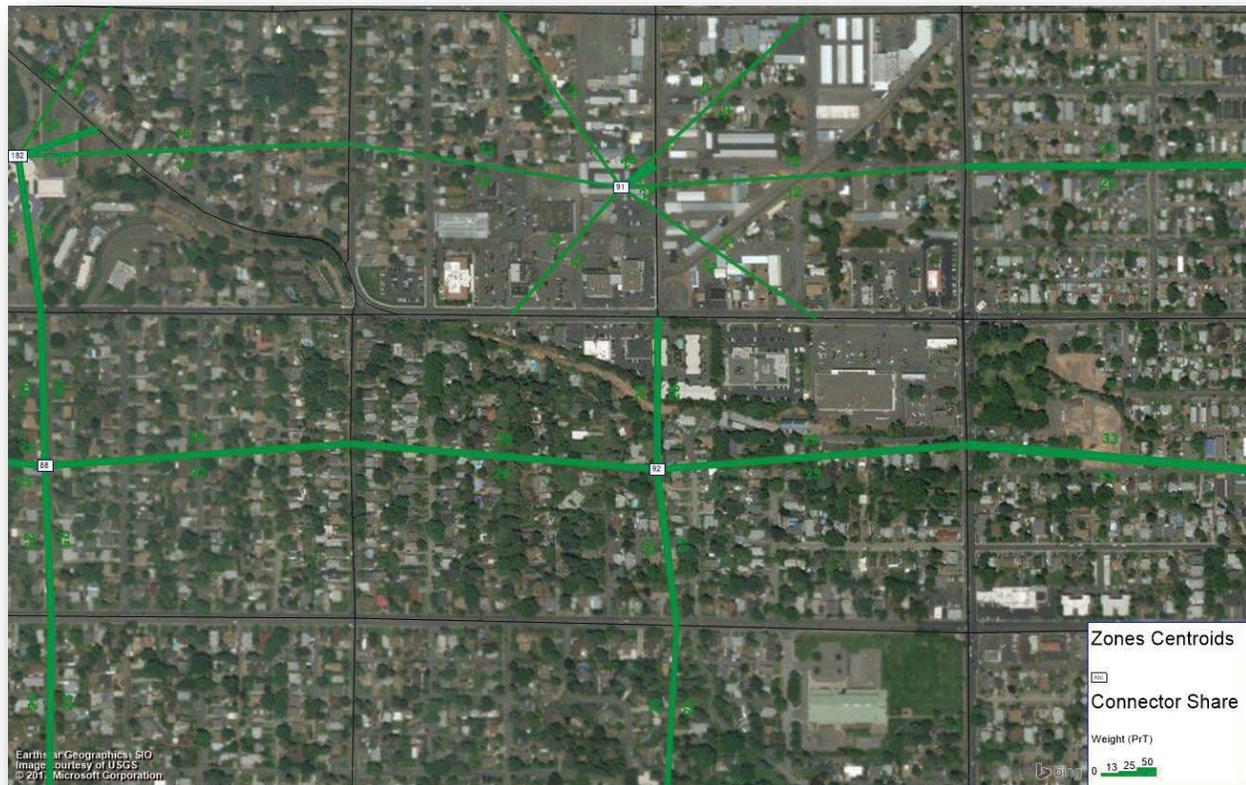
Multi-Point Assignment (MPA)

The YVCOG model uses connector weights to implement Multi-Point Assignment (MPA). Typically, travel demand models will route traffic through the connector that provides the shortest path route. In actuality, travelers will use an access point to or from the zone based upon their location in the zone. There is not always easy access through a zone allowing the traveler to choose the shortest path.

Visum allows the modeler to specify weights that correspond to percentages of origin and destination traffic using each connector. This feature has been shown to provide better assignments and model more realistic model results. Each zone was evaluated, using aerial photos from Bing Maps and Google Maps to assign weights to each connector. These were evaluated during model calibration and adjustments were made as necessary. An example of MPA connector weights are shown, centering around Traffic Analysis Zones 91 and 92, in **Figure 8**.

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Figure 8 – MPA Connector Weights



2.2.4 Count Data

Traffic count data was entered into the model from various years, supplied by YVCOG, Yakima County, County Road Administration Board (CRAB) and WSDOT.

WSDOT ATR (Annual Traffic Report) counts were compiled up through the county year 2014. These were counts supplied to YVCOG by WSDOT. These included ADT and truck percentages.

Yakima County coordinated the processing of counts from the CRAB Mobility Database for use in the model. These counts were for ADT and included all counts CRAB Mobility counts within Yakima County. For purposes of the model, only counts from 2012 and later were used. Yakima County GIS processed the data so it could be spatially located and imported into VISUM. These counts were imported as POIs (described more in section 2.2.5) and connected to the links for further processing. The count data from before 2012 that is in the CRAB Mobility database was also imported as POI data but it was not connected to the links. The earlier data is spatially located in a layer that can be displayed but the additional effort to connect this data to the links was not conducted. Additional counts from 2017 were later supplied by Yakima County and these are added to the model for validation.

YVCOG supplied count data from their count program for other roadways. These counts included daily volumes and peak hours. These counts were processed by YVCOG GIS so the data was spatially located and compiled so that it could be imported into VISUM. These counts are also coded by year.

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Where there were multiple counts at one location, the most recent count was used. For validation comparisons and creation of forecast adjustments, one set of counts for each period was created. These were named Count_ADT, Count_AM_Pk, and Count_PM_Pk. The count variables are described in Appendix A.

2.2.5 POIs

Points of Interest (POI) layers were used in the development of the YVCOG model. Abbreviated as POIs, they are data layers, shown in **Figure 9**, that may contain any geographic data that may be used as input or reference.

For example, a POI layer was imported with the CRAB Mobility data as discussed in the section 2.2.4 on Traffic Counts. This data was then connected with the network links. The transit data had locations on the routes, the stop locations, and other useful data. Many of the POI layers are retained from earlier model iterations that used NAVTEQ data.

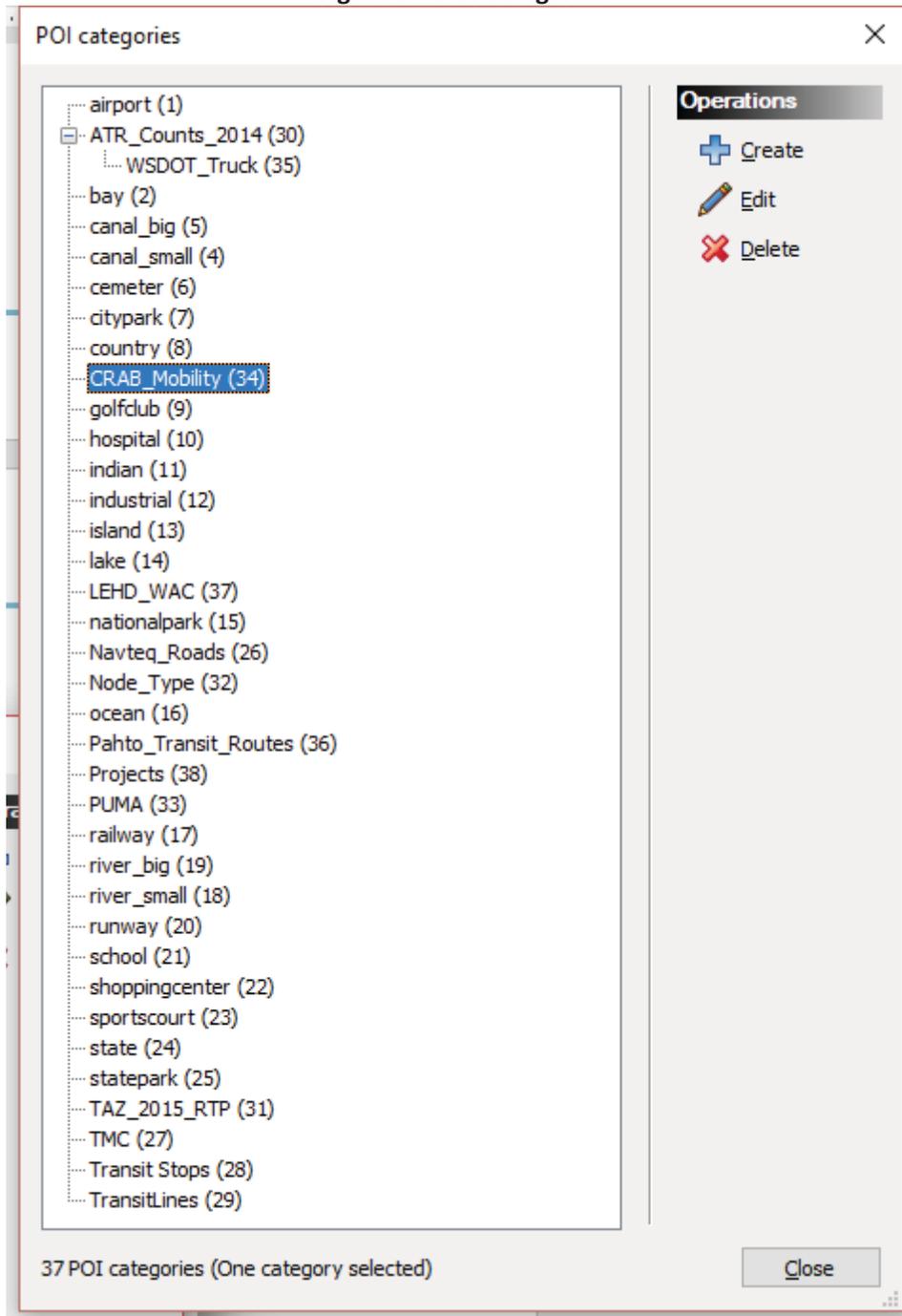
LEHD data was imported for checking of employment data for trip generation described in section 2.3.

A POI layer was created named Node_Type that was used to hold the names of the node types. Because Visum does not have a Node Type table, this was created to automatically look up the node type name to assist the user and to document the names.

This POI data is not required for use to run the model, it was used in development. It is documented here for future reference and potential future use with future updates. The user defined variables associated with these POI layers are listed in Appendix A.

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Figure 9 – POI Categories



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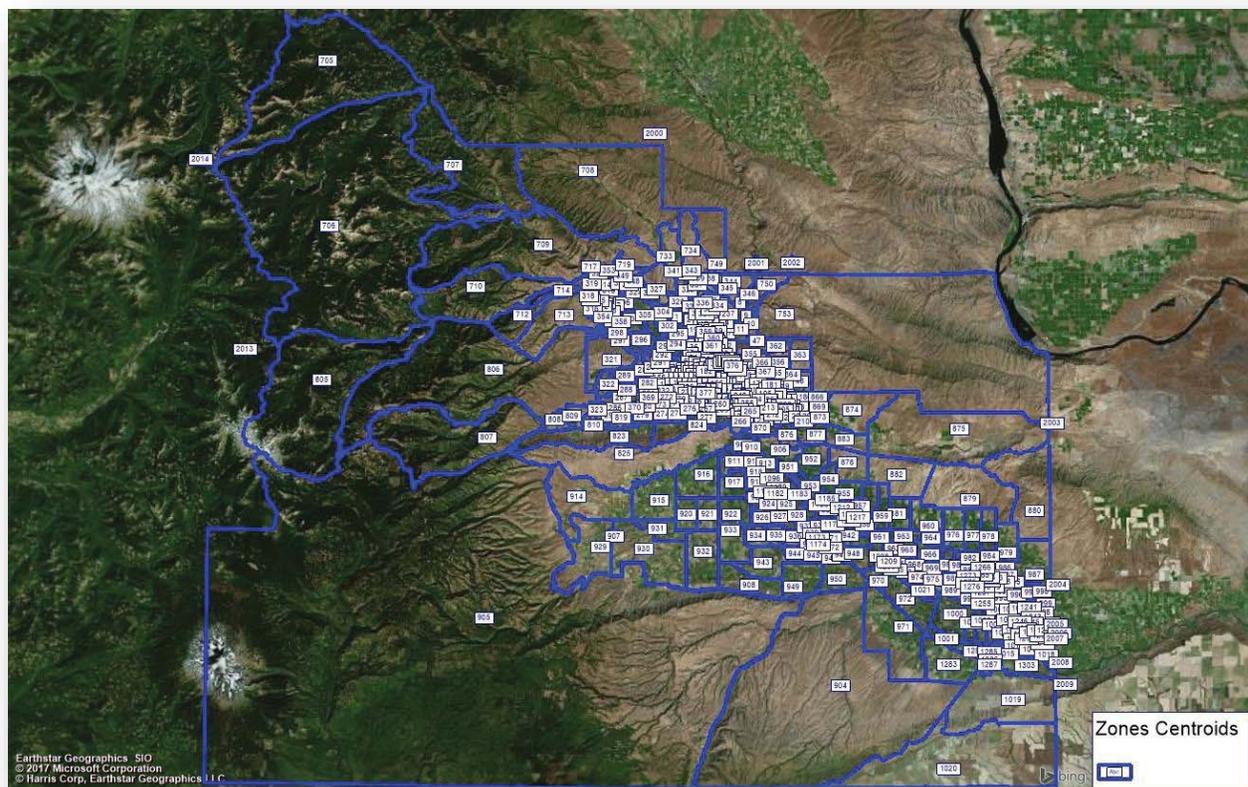
2.3 Socio Economic Data

An important input to the travel demand modeling process is to develop a system of smaller geographic areas called Transportation Analysis Zones (TAZs). These subdivide the entire model area and are used to collect the socio-economic data used for trip generation. The socio-economic data is compiled for the types of households, types of employment, and students within each TAZ. Other additional information for trip generators are also included. These steps are described in this section of the report.

2.3.1 TAZ Structure

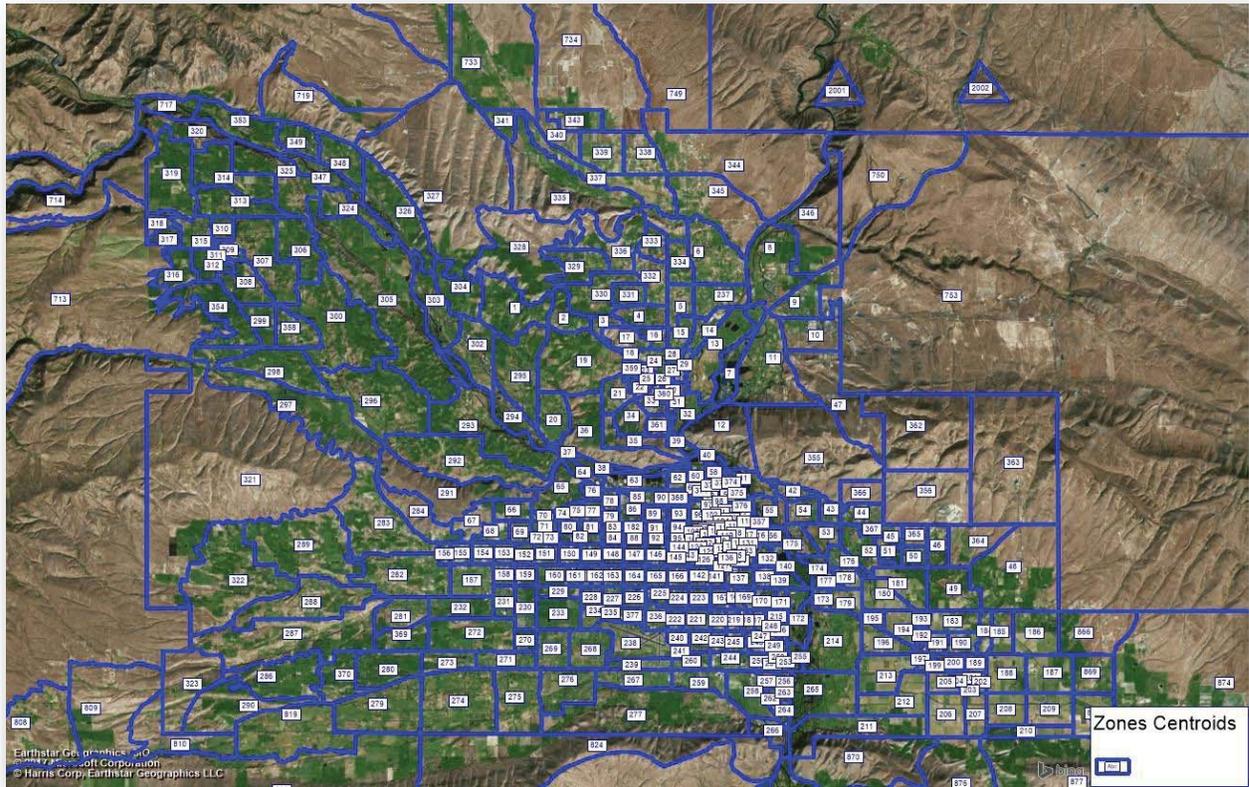
The TAZs used in this update to the model are refined from earlier versions of the model. The previous Yakima County model was enhanced with the detail of the previous YMATS model in the upper valley. Zone boundaries were reviewed and many adjustments were made to match natural and other boundaries with many subdivided and adjusted. There are now 580 internal zones and 15 external zones. External zones are used to represent the area placed along roadways entering and leaving the model area. The TAZs are shown in **Figure 10**, with more detail in the upper valley, in **Figure 11**, and more detail in the lower valley shown in **Figure 12**.

Figure 10 – Traffic Analysis Zones



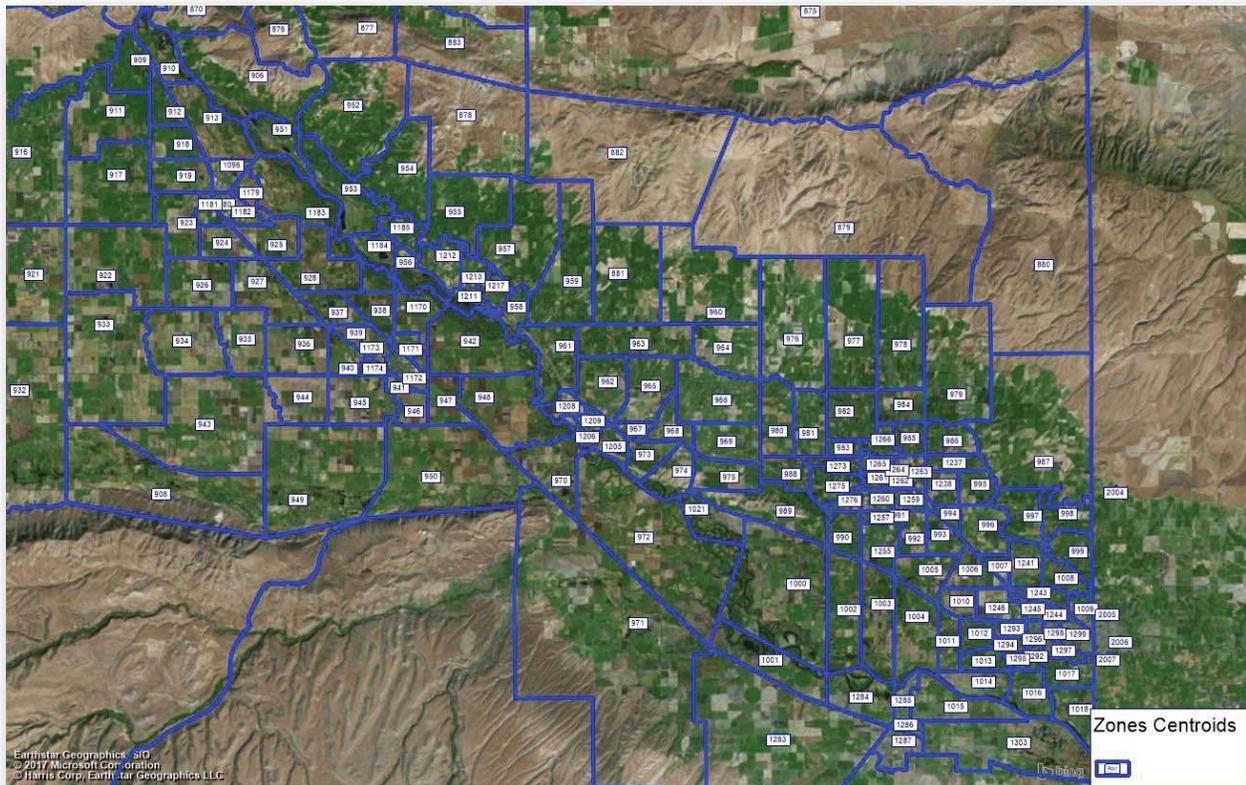
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Figure 11 – Upper Valley Traffic Analysis Zone Detail



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Figure 12 – Lower Valley Traffic Zone Detail



2.3.3 Travel Demand

Travel demand analysis is based on the concept that travel is a derived demand of the people and activities in the region. Zonal demographic data, such as households and numbers of employees, is directly related to demand for transportation. Economic characteristics, such as jobs by industry, jobs by income level, and number of students, are linked with supply of an activity.

The travel demand modeling process is enhanced when employment can be stratified into specific sectors, as each sector has different trip generation characteristics. The YVCOG TDM uses employment categories based on North American Industry Classification System (NAICS) codes as well as including three (3) income level stratifications. These were imported from the LEHD (Longitudinal Employer-Household Dynamics) Origin-Destination Employment Statistics (LODES) from the US Census Bureau.

Dwelling unit information was supplied by the YVCOG and compared with data from the U.S. Bureau of the Census. For modeling purposes, the NAICS codes were combined into previously used demographic variables. The number of employees by income group for both residential and employment locations were used for better home to work distributions. Variables used for the YVCOG model land uses data input are listed in **Table 6**.

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Table 6 – YVCOG Land Use Variables

LU Variable	Description
SFDU	Single Family Residential includes those lands occupied by either a single family home or a manufactured home on a single lot. Measured in dwelling units.
MFDU_2TO4	Duplex through Four-Plex uses are lots which contain two to four residences on a single parcel of land. Measured in dwelling units.
MFDU	Multi-Family Residential uses contain five or more residential units on a parcel of land. Also, this category includes mobile home parks, apartment buildings, and some condominiums. Measured in dwelling units.
Hotel/Motel	Hotel/Motel includes those uses in assessor use codes 16 and 17, and camping areas. Measured in number of rooms per facility or camp sites in camping area.
AG	This includes Ag/Forestry/Mining with the uses included in assessor use codes: 81-83, 85, 87-88, 92, 95 and generally relate to agricultural production, services, timber tracts and products, and mining extraction activities. Areas with more intensive use and higher trip rate. Measured in acres.
FORESTRY	This includes Ag/Forestry/Mining with the uses included in assessor use codes: 81-83, 85, 87-88, 92, 95 and generally relate to agricultural production, services, timber tracts and products, and mining extraction activities. Areas with lower use and lower trip rate. Measured in acres.
INDUSTRIAL	Industrial and manufacturing uses are included in assessor use codes: 20-39, within a broad range of general or specialty contractors: the production of food, textile, wood, furniture, paper, printing, metal, machinery, electrical and other products. Wholesale trade facilities are described in assessor code: 51 and include the storage of durable or non-durable goods. Measured in employees.
MEDICAL	Those uses providing a medical service, such as hospitals, clinics, and doctor's offices. Measured in employees.
PUBLIC_USE	Those land uses which are owned, or operated by units of government and provide the administration of public programs, which are identified in assessor use codes of 67-68. Measured in employees.
RETAIL	Those uses identified in assessor use codes: 52-59. Retail uses include a broad range of establishments which sell goods directly to the general public, such as restaurants, automotive dealers, home furnishings, food stores or other products, and active recreation such as fitness centers and golf courses. Measured in employees.
SERVICES	This includes those uses in assessor use codes: 60-66 and 69. Services and offices include banks or other financial institutions, real estate and insurance offices, personal services, such as laundry or cleaning services, business services such as advertising, automotive repairs, health care, legal services and other assorted services. Measured in employees.
SCHOOLS	School Administration. Measured in employees.
ELEM/MID_SCHOOL	Elementary/Middle School Measured in students.
HIGHSCHOOL	High School Measured in students.
CC/TRADE	College/Trade School Measured in students.
PNR	Park and Ride Lots Measured in number of parking spaces.

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The land use variables are very important for operation of the model as they are the source of travel demand. These input variables were supplied and checked by the member agencies and YVCOG. However, obtaining reliable data for all of these variables can be difficult. During model calibration, some of these values were questioned so the LEHD (Longitudinal Employer-Household Dynamics) data from the US Census Bureau was imported into a POI field (discussed in section 2.2.5) for comparison and further checking in areas of concern.

The Yakima County Household Travel Survey, July 2003, details trip generation rates using a cross-classification system for households based upon Household Size (1, 2, 3, 4+ occupants), Number of workers (0, 1, 2, 3+), and four income stratifications. The PUMS (Public Use Micro Survey) data from the 2010 US Census was used to estimate the stratification of the households in each zone into 49 subcategories (removing the illogical classifications such as household size of 1 with more than 1 worker) for trip generation purposes. These variables are named using the household size (HH), number of workers (W), and income quartile (I). The number of households with a household size of 1, workers of zero, and income quartile 1, would be designated in variable HH1W0I1. The number of households with a household size of 4+, workers of 3+, and income quartile 4, would be designated in variable HH4W3I4.

2.4 External Data

Trips generated by external zones fall into two categories. Traffic that travels from external zone to external zone, or through the network, is called a through trip. These movements are designated as X-X trips in VISUM, which stands for external to external travel. The primary characteristic of these trips is that they travel through the network but do not stop or start within an internal zone.

The second trip type generated by an external zone is the one that begins at an internal zone and ends in an external zone, or vice versa. These trips are often designated as I-X and X-I trips (for Internal to external, or external to Internal).

The Yakima County External Travel Survey, August 2003, had studied the percentage of trips traveling through the county between major externals. The percentages from the study were used to allocate the through trips from each external zone. The remainder of the trips from the traffic counts were allocated to I-X and X-I trips. These were adjusted based upon current counts and refined during model calibration. External zones are listed in **Table 7**.

Table 7 – External Zones

Zone	Name
2000	Wenas Road North
2001	SR 821
2002	I-82 North
2003	SR 24
2004	Factory Road and others
2005	McCreadie Road
2006	I-82 East
2007	Yakima Valley Highway
2008	Old Prosser Road
2009	SR 22

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Zone	Name
2010	Alderdale Road
2011	Glade Road
2012	US 97 South
2013	US 12 West
2014	Hwy 410

2.5 Trip Generation

Trip generation is the first formal step of the four-step travel demand modeling process. The number of trips generated by each zone is calculated by applying trip generation rates or equations to the zonal socioeconomic data. This procedure, called trip generation, is a compilation of several mathematical formulas that determine the number of trips produced and attracted to each model zone. This update to the YVCOG model generates person trips and then after trip distribution and mode choice a final step is made to convert these person trips to vehicle trips based upon vehicle occupancy.

When a trip generation model (such as the one used in Visum) is applied to origins and destinations, different trip purposes exhibit different travel characteristics. For example, the characteristics of a home-to-work trip are different from a non-home-based trip. Therefore, it is important that the model generate different trip productions (origins) and attractions (destinations) for different trip purposes so that different travel characteristics can be accounted for in the gravity model as well as making sure that the home-based-work productions are matched with the home-based work attractions.

Trip generation is completed within Visum. A spreadsheet summarizing the trip generation rates and calculations is provided in Appendix B.

2.5.1 Trip Productions

The YVCOG model generates trip productions for eight (8) different trip demand strata. Trip productions are calculated for the three Home-Based-Work stratifications, Home-Based-School, Home-Based-College, Home-Based-Other, Non-Home-Based and Truck trips. Person trip rates were developed for the model for trip generation and then after trip distribution and mode choice, these trips were converted to vehicle trips before assignment. Productions and attractions were developed for each the Upper and Lower Valley areas to account for differences in trip generation.

Home-Based Work (HBW): Trips that have one trip-end at home and one trip-end at work. The YVCOG model carries four stratifications for income through the trip generation, distribution, and mode choice procedures to better match the trip productions and attractions for these income stratifications. These are labeled in the model as HBW_I1, HBW_I2, HBW_I3, and HBW_I4. Trip productions are generated using the all the household cross classification variables except the ones with zero workers (remember these are home to work trips) and External to Internal volumes.

Home-Based Other (HBO): All other trips that are produced at the home end but are not destined direction to work are called home-based other. These were also stratified by income quartile and labeled as HBO_I1, HBO_I2, HBO_I3, and HBO_I4. Trip productions are generated using the all the household cross classification variables including the ones with zero workers and External to Internal volumes.

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Non-Home-Based (NHB): Trips that do not begin or end at home. This uses the variables SFDU, MFDU_2to4, MFDU, Hotel/Motel, AG, Forestry, Industrial, Medical, Public_Use, Retail, Services, Schools, ELEM/MID_SCHOOL, HIGH SCHOOL, CC/TRADE, PNR, and External-Internal.

Truck (Truck): Trips that were made by trucks. Trip Productions are generated using the variables SFDU, MFDU_2to4, MFDU, Hotel/Motel, AG, Forestry, Industrial, Medical, Public_Use, Retail, Services, Schools, ELEM/MID_SCHOOL, HIGH SCHOOL, CC/TRADE, PNR, and External-Internal.

Note that for all home-based trips, the home end is considered the production end and the non-home end is considered the attraction end, regardless of the direction of the trip. Directional peaking factors for each trip purpose are used to obtain the correct values and directionality in the peak-hour modeling.

The trip production rates employed in the YVCOG travel demand model are also then compared with the vehicle trip rate on the ITE Trip Generation Manual. The vehicle occupancy rate used to convert the person trip rate to the vehicle trip rate was based on NCHRP Report 716 "Travel Demand Forecasting: Parameters and Techniques" and our previous model experience. The full list of county trip production rates is provided in the Appendix B to this report.

2.5.2 Trip Attractions

Trip attractions are generally places of employment or schools. Attractions are estimated based on the trip-generation characteristics of the land uses within the TAZs and (like productions) are broken out by trip purpose.

Home-Based Work (HBW): Trips that have one trip-end at home and one trip-end at work. The YVCOG model carries four stratifications for income through the trip generation, distribution, and mode choice procedures to better match the trip productions and attractions for these income stratifications. These are labeled in the model as HBW_I1, HBW_I2, HBW_I3, and HBW_I4. Trip attractions are generated using the variables Hotel/Motel, AG, Forestry, Industrial, Medical, Public_Use, Retail, Services, SCHOOLS, ELEM/MID_SCHOOL, HIGH SCHOOL, CC/TRADE, PNR, and Internal-External. The total attraction rate for HBW is apportioned between the income stratifications for each the Upper Valley and the Lower Valley based upon the productions for each area. This is to account for the differences.

Home-Based Other (HBO): All other trips that are produced at the home end but are not destined direction to work are called home-based other. These were also stratified by income quartile and labeled as HBO_I1, HBO_I2, HBO_I3, and HBO_I4. Trip attractions are generated using the variables Hotel/Motel, AG, Forestry, Industrial, Medical, Public_Use, Retail, Services, SCHOOLS, ELEM/MID_SCHOOL, HIGH SCHOOL, CC/TRADE, PNR, and Internal-External. The total attraction rate for HBO is apportioned between the income stratifications for each the Upper Valley and the Lower Valley based upon the productions for each area. This is to account for the differences.

Non-Home-Based (NHB): Trips that do not begin or end at home. Trip Attractions are generated using the variables SFDU, MFDU_2to4, MFDU, Hotel/Motel, AG, Forestry, Industrial, Medical, Public_Use, Retail, Services, Schools, ELEM/MID_SCHOOL, HIGH SCHOOL, CC/TRADE, PNR, and External-Internal.

Truck (Truck): Trips that were made by trucks. Trip Attractions are generated using the variables SFDU, MFDU_2to4, MFDU, Hotel/Motel, AG, Forestry, Industrial, Medical, Public_Use, Retail, Services, Schools, ELEM/MID_SCHOOL, HIGH SCHOOL, CC/TRADE, PNR, and External-Internal.

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The trip attraction rates used in the YVCOG model were primarily derived from the rates provided in ITE Trip Generation Manual, from NCHRP 716, and from other travel demand models for similar sized urban areas. Trip attraction rates were adjusted during the calibration phase to reflect local trip-making characteristics and to more closely match the calibrated trip productions.

Because the model is a “closed system,” productions and attractions for each trip purpose must be balanced when external trips are included. For the YVCOG model, balancing of productions and attractions was first conducted when developing the trip rates. The Household Travel Survey displayed trends of different trip generation being made in the upper valley area and lower valley area that was not explained by the different income stratifications. During calibration, this was seen in the model as well. Therefore, two sets of trip generation rates were developed, one for the upper valley area and one for the lower valley. During model trip generation, the upper valley trip generation is first balanced to the higher totals of the trip productions and attractions, and the lower valley trip generation is first balanced to the lower totals of the trip productions and attractions. Then, before the start of trip distribution, the productions and attractions are adjusted to the average of the production and attraction totals for each purpose.

Due to differential growth, future forecasts do not always ensure that the same balance will be achieved. For the forecasts, this same procedure of trip balancing is used for consistency. Balancing was implemented at the start of the distribution step and productions and attractions were adjusted to the average of the two values for each purpose after the steps described above.

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2.6 Trip Distribution

Trip distribution is the process of allocating the generated trips between various zones within the network. The product of the distribution is a trip table that lists the number of trips between the model's zones. The YVCOG model applies the Visum software's "gravity" model to distribute the peak hour and daily trips between TAZs. The travel forecasting gravity model is built on Isaac Newton's theory that, all else being equal, the attraction between two masses will be proportional to the size of the masses and inversely proportional to the distance between the masses. In a travel forecasting model, the number of trips in a TAZ (for a trip purpose) is used to reflect the size of the mass, and a combination of travel time and distance (called impedance) is used to represent the distance factor in the gravity model.

The trip distribution model contains parameters that adjust the relationship between travel time and distance based on trip purpose. The YVCOG model uses a Utility Function method to calculate travel time impedance matrices. The utility function coefficient values are listed in **Table 8**. During trip distribution, a separate trip table is constructed for each trip purpose.

The form of gravity model used in Visum is:

$$T_{ij}^p = P_i^p \frac{A_j^p * U(t_{ij}) * K}{\sum A_j^p * U(t_{ij}) * K}$$

where:

- T_{ij}^p = Person trips between zones i and j
- P_i^p = Productions (origins) at zone i
- A_j^p = Attractions (destinations) at zone j
- tij = Impedance (distance and travel time_ between the zones
- K = constant
- $U(t_{ij})$ = Utility Function, a function of the travel impedance zone i and zone j, often a specific function of impedance variables (represented compositely as t_{ij}) obtained from the model networks. TModel Utility Function Equation $U(t_{ij}) = 1 / (U_b + c * U_a)$, a,b = exponents.

Table 8 – Gravity Model Coefficients

Trip Type	a	b	c
HBW_I1	-0.05	2.20	5
HBW_I2	-0.05	2.20	5
HBW_I3	-0.05	2.15	5
HBW_I4	-0.05	2.15	5
HBO_I1	-0.05	2.75	5
HBO_I2	-0.05	2.75	5
HBO_I3	-0.05	2.70	5
HBO_I4	-0.05	2.65	5
NHB	-0.05	2.85	5
Truck	-0.05	2.30	5

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The impedance is averaged with each feedback loop to include congested travel paths as well as terminal time to and from each zone. All demand strata are distributed with the AM Peak hour car impedance matrix.

During model calibration, it was found that the model was distributing too many trips between the lower valley and the upper valley, when many of these trips will stay within the two areas. A structural impedance constant was added to discourage this interaction. Truck trips had a coefficient of two (2), HBW trips had a coefficient of two (2), HBO trips had a coefficient of four (4), and NHB trips had a coefficient of ten (10). This was to account for the difference in the perceived impedance of trips. Home to work trips tend to travel longer and the structural impedance constant is not as important. Non-home-based trips are shorter, and they will tend to stay on their side of the gap, so the structural impedance constant is greater.

There are up to ten (10) distribution feedback loops to reach distribution impedance matrix convergence. What this means is that after the model distribution and mode choice is run, the trips are assigned to the network, then new travel times between zones are developed. These updated travel times are used to update the trip distribution and mode choice. By iterating through these steps, the distribution and mode choice are balanced with the travel times. This better reflects perceptions of the travelers. It also makes the model more responsive to improvements and changes. A previous criticism of some travel demand models is that they are not responsive to “induced” travel. The inclusion of the feedback loops makes the model responsive to these changes.

2.7 Mode Choice

Mode choice is the step in the demand modeling process where demand by segment is apportioned to a method of travel. In the YVCOG base model, demand is divided between the private transport system (automobiles) and public transport (bus service).

The method for the mode split is a direct proportion by trip purpose where the aggregate demand is matched to field observation in the base model. In the YVCOG model, the relative travel impedances (or costs) were used to divide the trips between using private automobiles or the bus system. A standard Logit function was used to divide the trips based upon skim (impedance) matrices describing the ability to travel by mode between all zone pairs.

2.7.1 Transit Network

Transit network development in Visum requires the following essential components:

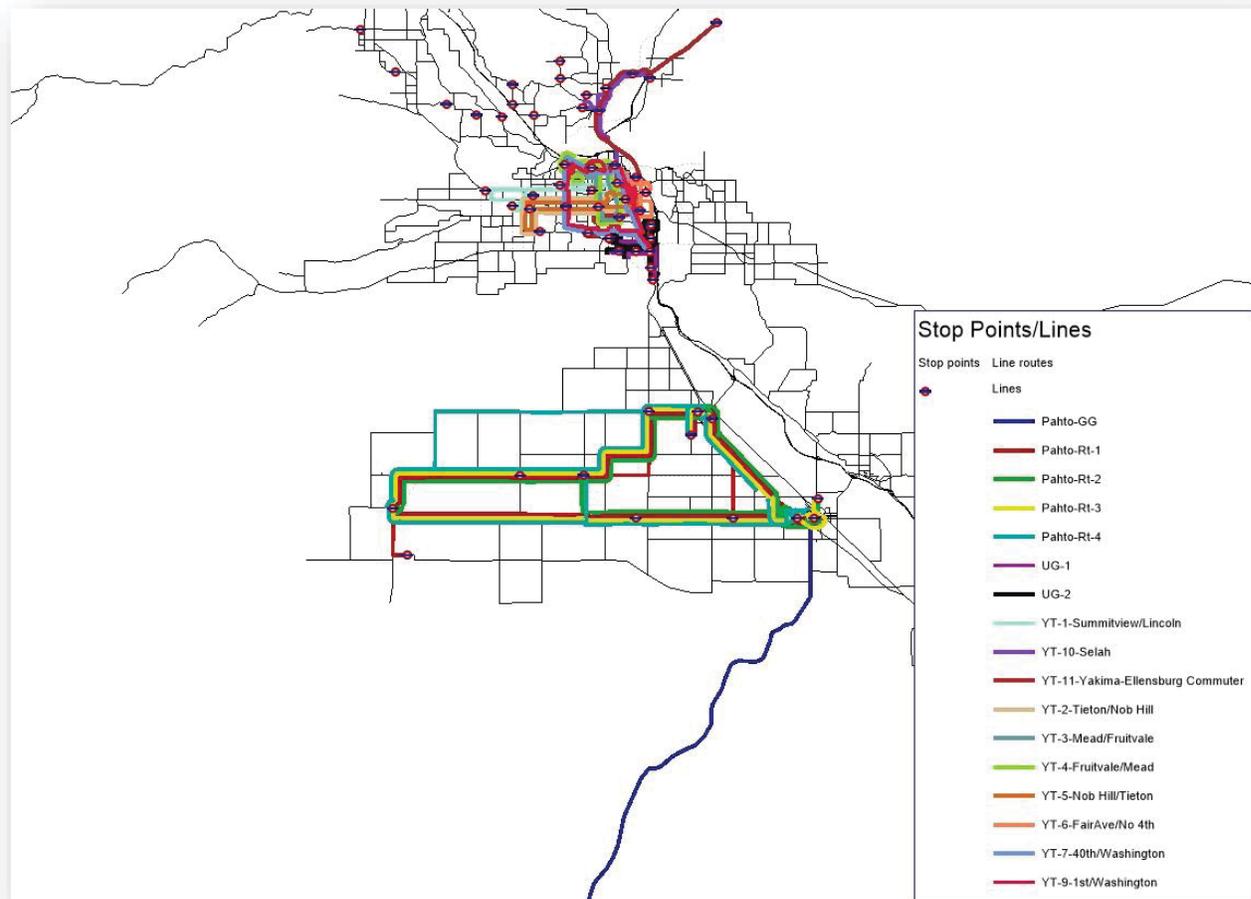
- 1) Transit stops
- 2) Transit line route course
- 3) Transit line time profiles for line haul time
- 4) Transit line headways

The definition of transit lines and stops in the transit network were derived from the data from Yakima Transit, which includes Selah and Union Gap, and Pahto Passage. These were all updated with the most current routes in 2017. The specifics of each route, including stop points, route course, time profiles and

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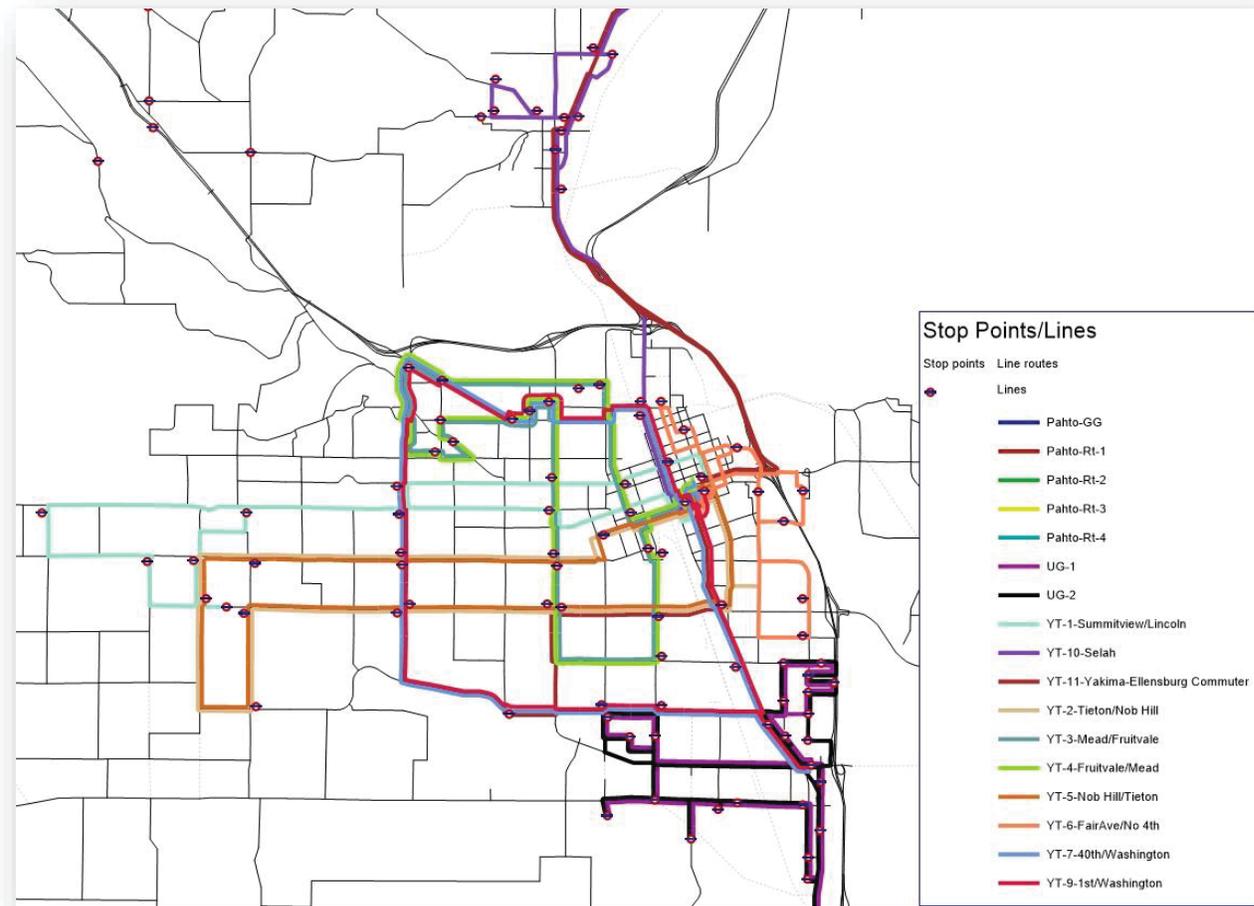
headways. Detailed descriptions were helpful in coding of the transit network. The transit network used in the YVCOG model is shown in **Figure 13**, with additional detail in the City of Yakima, Selah, and Union Gap areas shown in **Figure 14**.

Figure 13 – YVCOG Model Bus Routes



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Figure 14 – Yakima, Selah, and Union Gap Transit Routes



2.7.2 Demand Development

The most common method for development of mode split demand is the multinomial logit model. According to this model, a utility term is calculated for each of the modes competing for a share. The utility term commonly consists of variables such as travel time, travel cost, various dummy variables and a mode bias constant. The coefficients for each of these terms is typically estimated by using data available in a travel survey conducted through the agency on a sample of residents in the area. In the absence of an available travel survey, the coefficients from a 'similar' region or area are typically adopted for the calculation of the mode choice. In order to adjust the mode split to some observed data, the mode choice constants are then adjusted to match target mode shares.

The household travel survey for the region was conducted before there was significant transit use so the sample size was very small and not particularly reliable. The model was tested with coefficients that we have used in other models with a similar mode choice percentage. Details such as walk times with zone connectors

Bus transit skim matrices were developed for journey time, in-vehicle time, transfer wait time, weighted origin wait time, weighted transfer wait time, and walk time. Transit skims collected are shown in **Figure**

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15. The coefficients were adjusted until the output aggregate ridership from the traffic assignment step matched the ridership counts.

Figure 15 – Transit Skims for Mode Choice

Parameters: Assignment procedure: Headway-based (VIPS+)

Basis | Search | Impedance | Skim matrices

Aggregation

Function: Avg value

Weighted by volumes:

Quantile: 50 %

Analyzed OD pairs: All

Skims

Number	Calculate	Save to file	Open	Skim
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Journey time
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ride time
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	In-vehicle time
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PuT Aux time
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Origin wait time
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Transfer wait time
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weighted origin wait time
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weighted transfer wait time
9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Walk time
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Access time
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Egress time
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Perceived journey time
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Number of transfers

Settings for journey time equivalent

Additionally calculate skim data per analysis time interval

Output file

File name: []

Example :

Format: Format V

Means of transport no. (Tour-based model): 3

Separator: Blank

Confirm overwriting:

OK Cancel

Coefficients for the mode choice matrix functions are shown in **Table 9**. A structural constant of 2.00 was used on the Car mode to calibrate the total ridership to closely match the daily boarding count data available.

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Table 9 – Mode Choice Coefficients

Car/Transit	Skim Matrix	Coefficient
Car	Distance	0.06201
Car	Travel Time	0.023
Car	Out of Vehicle Time	0.057
Transit	In Vehicle Time	0.023
Transit	Journey Time	0.023
Transit	Walk Time	0.057
Transit	Transfer Wait Time	0.057
Transit	Origin Wait Time	0.057
Transit	Fare	1.170

The mode choice step also includes the conversion of person trips to vehicle trips for the private transport system (cars). Average vehicle occupancy (AVO) was used for person-to-vehicle conversions. The AVO for the YVCOG model was derived from NCHRP 365, Tables 37 and 38. Factors based upon the average occupancy were applied after the mode split procedure to further develop the vehicle matrices and are shown in **Table 10**.

Table 10 – Average Vehicle Occupancy

Trip Type	Average Vehicle Occupancy
HBW (all)	1.10
HBO (all)	1.65
NHB	1.65

2.8 Highway Assignment

Highway assignment is a process in which the trips distributed in the trip distribution stage and allocated to cars and adjusted for occupancy in the mode choice stage are assigned on the highway network. Highway assignment thus involves allocating the trips going from one zone to another onto the various paths available between those zones.

In the assignment portion of the travel model run, the distributed trips on the trip table are allocated to the shortest travel paths between each zone. During the final stage of the Link and node congestion is modeled in an assignment using link and node volume delay functions.

Visum provides several traffic assignment methods. The equilibrium Bi-conjugate Frank Wolfe (BFW) is a further development of both the FW and the Lohse method was used for model traffic assignment. This procedure models the learning process of road users using the network. Starting with an "all or nothing assignment," drivers consecutively include information gained during their last journey for the next route search. Several shorter routes are searched for in an iterative process whereby the impedance is deduced from the impedance of the current volume and the previously estimated impedance. The BFW is a new improvement in Visum 17+ and is based upon the publication of Mitradjieva, Lindberg et al (2013). Compared to the Equilibrium_Lohse method, convergence is enhanced through the relative

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game with the same number of iterations by one to two orders of magnitude. The assignment process is completed when the maximum number of iterations of 200 is reached or the impedance on each link reaches equilibrium. In application, this assignment method selected and tested for use by the YVCOG model because of its responsiveness to intersection delays and that it is multi-threaded for efficient operation usually converges within ten (10) iterations.

Travel impedance is calculated for each travel path using travel time and delay obtained from the network, travel length from the network, and toll impedance. The equations are listed below.

For private vehicles:

$$97 * (\text{link and node travel time}) + 3 * \text{length}$$

For trucks:

$$97 * (\text{link and node travel time}) + 3 * \text{length}$$

The travel time from the network are based upon a base travel time and then estimates of delay that increase as the traffic volume increases. This is captured using volume-delay functions for each roadway classification and each node classification. While several volume delay functions are available, the YVCOG model uses a variation of the standard Bureau of Public Roads (BPR) function, which is based on the original BPR equation shown in below:

$$T_C = T_F \left(1 + \alpha \left(\frac{V}{C} \right)^\beta \right)$$

Where:

T_c= Congested travel time

T_f= Freeflow travel time

V = Traffic volume

C = Highway design (practical) capacity

α = Coefficient alpha

β = Exponent beta

The TMODEL_LINKS function uses the same form as the BPR function but replaces design capacity with ultimate roadway capacity. The TMODEL_LINKS function also replaces the coefficient alpha and the exponent beta with calibrated values that vary by facility type and include a step function to better model the impacts of increased delay once a defined saturation (v/c) threshold has been crossed. Coefficients for the link volume delay functions are shown in **Table 11**. Similar functions for node delay using the TMODEL_NODES function are shown in **Table 12**.

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Table 11 – Link Volume Delay Functions

Link Type	Name	sat <= satCrit					satCrit	sat > satCrit			
		a	b	d	f	a'		b'	d'	f'	
7	Local	0.0	4.0	0.25	0.35	0.65	0.0	10.0	0.25	0.35	
8	Ramps	0.0	4.0	0.25	0.15	0.85	0.0	10.0	0.25	0.15	
41	Interstate-Rural	0.0	4.0	0.25	0.25	0.75	0.0	10.0	0.25	0.25	
42	Other Freeways & Expressways-Rural	0.0	4.0	0.25	0.25	0.75	0.0	10.0	0.25	0.25	
43	Principal Arterial-Rural	0.0	4.0	0.25	0.25	0.75	0.0	10.0	0.25	0.25	
44	Minor Arterial-Rural	0.0	4.0	0.25	0.30	0.70	0.0	10.0	0.25	0.30	
45	Major Collector-Rural	0.0	4.0	0.25	0.30	0.70	0.0	10.0	0.25	0.30	
46	Minor Collector-Rural	0.0	4.0	0.25	0.35	0.65	0.0	10.0	0.25	0.35	
47	Local-Rural	0.0	4.0	0.25	0.35	0.65	0.0	10.0	0.25	0.35	
51	Interstate-Urban	0.0	4.0	0.25	0.15	0.85	0.0	10.0	0.25	0.15	
52	Other Freeways & Expressways-Urban	0.0	4.0	0.25	0.25	0.75	0.0	10.0	0.25	0.25	
53	Principal Arterial-Urban	0.0	4.0	0.25	0.25	0.75	0.0	10.0	0.25	0.25	
54	Minor Arterial-Urban	0.0	4.0	0.25	0.30	0.70	0.0	10.0	0.25	0.30	
55	Major Collector-Urban	0.0	4.0	0.25	0.30	0.70	0.0	10.0	0.25	0.30	
56	Minor Collector-Urban	0.0	4.0	0.25	0.35	0.65	0.0	10.0	0.25	0.35	
57	Local-Urban	0.0	4.0	0.25	0.35	0.65	0.0	10.0	0.25	0.35	
		tCur = (t0 + a) * (1 + d * (sat + f)^b) when sat <= satCrit									
		tCur = (t0 + a') * (1 + d' * (sat + f')^b') when sat > satCrit									

Table 12 – Node Volume Delay Functions

Node Type	Name	sat <= satCrit					satCrit	sat > satCrit			
		a	b	d	f	a'		b'	d'	f'	
1	Shape Node	0.0	0.01	0	0.00	1.00	0.0	0.0	0	0.00	
4	Merge	0.0	3.80	15	0.10	0.90	0.0	5.8	15	0.10	
5	Diverge	0.0	0.01	0	0.00	1.00	0.0	0.0	0	0.00	
9	Roundabout	1.0	3.60	15	0.15	0.85	3.0	5.8	15	0.15	
10	All-Way Stop	1.0	3.60	15	0.15	0.85	3.0	5.8	15	0.15	
11	Partial Way Stop	1.0	3.60	15	0.15	0.85	3.0	5.0	15	0.15	
12	Yield	0.0	3.60	15	0.20	0.80	1.0	6.0	15	0.20	
13	Uncontrolled	1.0	3.60	15	0.25	0.75	4.0	6.0	15	0.25	
14	RR-Light Use	0.0	3.60	15	0.10	0.90	0.0	6.0	15	0.10	
15	RR-Heavy Use	1.0	3.60	15	0.10	0.90	3.0	6.0	15	0.10	
20	Signal	1.0	3.60	15	0.05	0.95	3.0	5.0	15	0.05	
		tCur = (t0 + a) + (d * (sat + f)^b) when sat <= satCrit									
		tCur = (t0 + a') + (d' * (sat + f')^b') when sat > satCrit									

2.9 Transit Assignment

Transit assignment maps the public transit trip demand onto the transit network. The multinomial logit model was used to develop the transit trip table and assignment.

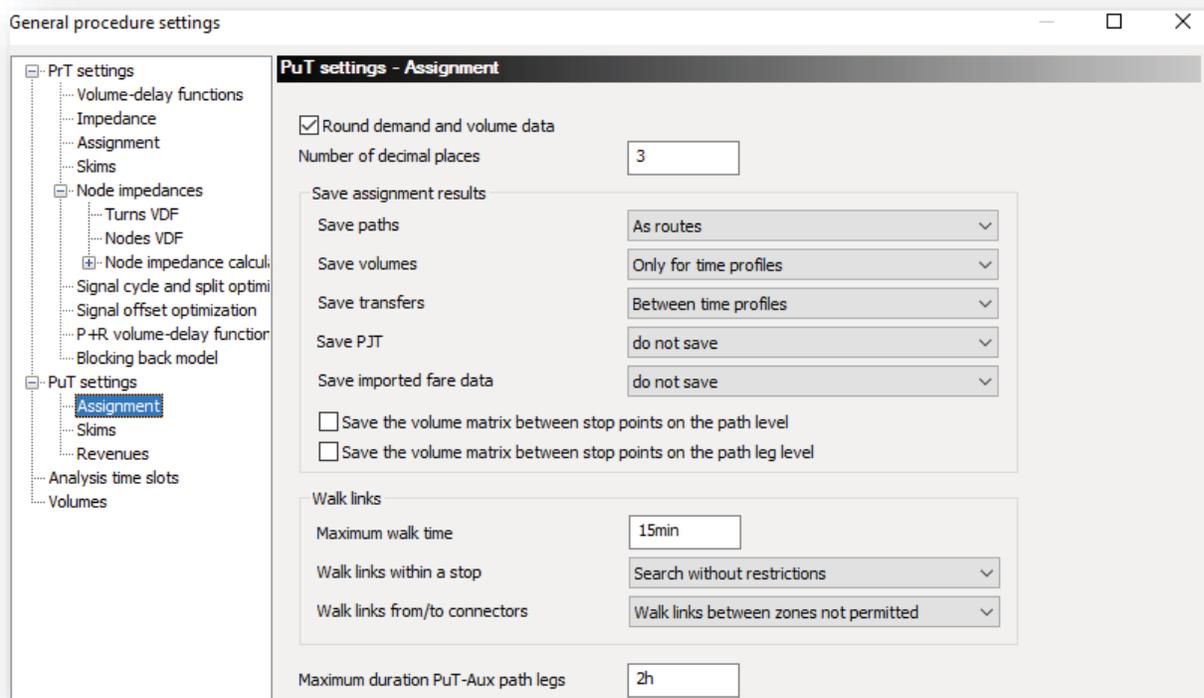
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The following count data was used for estimation of demand:

- PuT passenger trips unlinked per line
- PuT passenger miles per line
- Boarding/alighting passengers at stop areas
- Skim data distribution, e.g. journey distance distribution

Once the line ridership from the assignment of the transit trip table matched reasonably with the observed line ridership, the matrix was adopted as the final daily transit trip matrix. The parameters used for the transit assignment are as shown in **Figure 16**. Important in these settings is to save the assignment parameters to three (3) decimal places and to set the maximum walk time to a reasonable value. For the YVCOG model this was set at 15 minutes. It should be noted that the zone centroid connectors have already been set to connect adjacent zones directly to the stop areas, so the 15 minute walk times would include additional walk time along a roadway link.

Figure 16 – Transit Assignment Parameters



Impedance used for selecting the transit route is based upon Perceived Journey Time (PJT). This was kept simple with all values set at the modeled time but twice the walk time, origin wait time, and transfer wait time plus 5 minutes for a transfer. These weights are shown in **Figure 17**.

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Figure 17 – Perceived Journey Time

Parameters: Assignment procedure: Headway-based (VIPS+) X

Basis | Search | **Impedance** | Skim matrices

Impedance	=	<input type="text" value="1.0000"/>	*	PJT [min]	
	+	<input type="text" value="0.0000"/>	*	Fare points	<input type="text" value="v"/>
Perceived journey time	=	<input type="text" value="1.0000"/>	*	In-vehicle time	* <input type="text" value="1.0"/>
PJT	+	<input type="text" value="1.0000"/>	*	PuT-Aux ride time	
	+	<input type="text" value="1.0000"/>	*	Access time	
	+	<input type="text" value="1.0000"/>	*	Egress time	
	+	<input type="text" value="2.0000"/>	*	Walk time	
	+	<input type="text" value="2.0000"/>	*	Origin wait time	<input type="text" value="Formula"/>
	+	<input type="text" value="2.0000"/>	*	Transfer wait time	* <input type="text" value="1.0"/>
	+	<input type="text" value="5min"/>	*	Number of transfers	
	+	Boarding penalty PuT			<input type="text" value="0.0"/>
	+	Boarding penalty PuT-Aux			<input type="text" value="0.0"/>
	+	Mean delay			<input type="text" value="0.0"/>

The logit model produced results that were close but did not match current ridership levels. This type of a result is indicative that the data and functions available for use in the model do not adequately explain the reasons for the choice to use transit. To better reflect ridership in the YVCOG model would require providing additional data such as the quality of access to the transit system at individual bus stops.

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3.0 MODEL CALIBRATION

After all data has been collected, coded, and entered in Visum, the calibration process begins. In this task, the data and the model rules are refined so that the model closely simulates existing travel patterns and volumes. Model calibration and validation is an iterative process of adjusting various model parameters to best replicate known traffic volumes, transit ridership and travel patterns. Calibration is performed by conducting a series of simulation runs, evaluating the results and adjusting parameters. The calibration is considered complete when the results of the simulation runs are statistically similar to the traffic count volumes and other measures of travel behavior. Based on the comparison of the model results with national calibration standards, the YVCOG existing year network can be considered calibrated and validated for the base year and may be used for forecasting traffic.

The series of calibration simulation runs involves review of the assumptions used to construct the model. In the distribution portion of the simulation, the exponents to the distance function of the gravity model are examined. During the assignment portion of the simulation, the assumptions for link speeds, capacities, and delay parameters are studied. Between each run, different parameters are evaluated and necessary adjustments made to the "rules" so that the desired results (i.e., calibration) are reached. Before any adjustments to the YVCOG model parameters were made, they were justified either through the collected travel pattern data or through the judgment of eRMSi staff and their experience with transportation planning models and travel conditions throughout the model area.

Two documents that play a central role in the calibration and validation steps are:

- NCHRP 716 Travel Demand Forecasting: Parameters and Techniques (2012)
- Travel Model Validation and Reasonableness Checking Manual 2nd Ed. (2010)

Several tests were applied to make sure that the YVCOG base model was calibrated and valid:

- Screenline Analysis
- Percent Assignment Error
- Root Mean Square Error (RMSE)
- Coefficient of Determination (R^2)

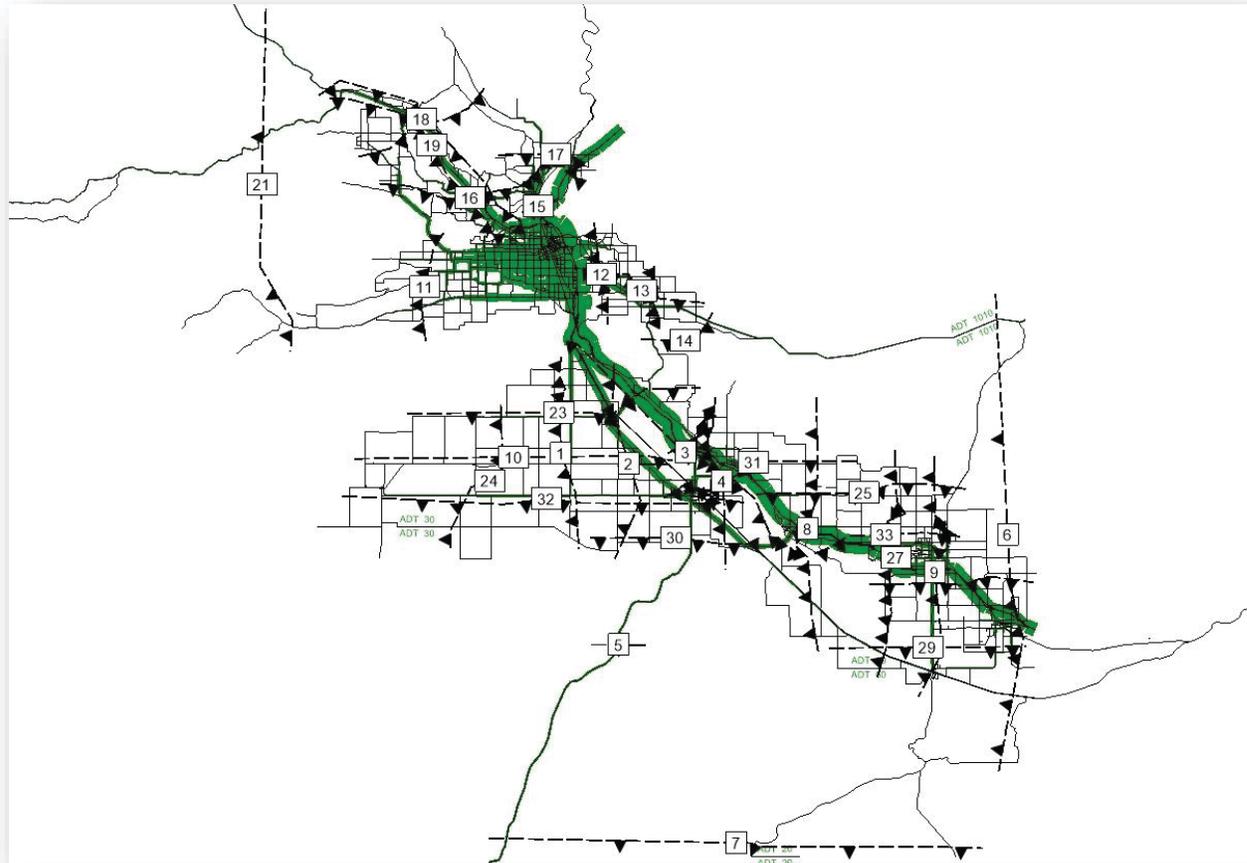
3.1 Screenline Analysis Percent Assignment Error

The assigned 2015 daily traffic volumes were compared with the counted daily traffic volumes for 33 screenlines. These screenlines are imaginary lines drawn across the network compiling and comparing both traffic counts and assigned traffic volumes individual links. These were designed to capture major flows throughout the model area and adjusted slightly as needed to capture traffic count locations. These were compared both with allowable values from Figure A-9 of *National Cooperative Highway Research Program Report NCHRP 255, Highway Traffic Data for Urbanized Area Project Planning and Design*. The screenline locations are shown in **Figure 18** Screenline Locations.

Screenline count totals were compared with the modeled traffic for the same links. When a screenline crossed does not have a count, the model volume for that link is not included in the summary so the totals are not skewed.

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Figure 18 - Screenline Locations



Each of the screenlines is enumerated in **Table 13** showing the count total and the model totals for comparison. Also shown are the number of links with counts and the total number of links. Although care was taken to adjust the screenlines to include link counts, not all links had counts available. The percentage difference for each screenline is shown along with the allowable percentage deviation from Figure A-9 in NCHRP 255. It can be seen that all percentage deviations are less than the allowable percentages. The total of all screenlines shows the model to be about 4% higher than the counts at these same locations. Additionally, the GEH statistic was used to evaluate these screenlines. Typically, the GEH should be less than 10 and, even better, less than 5. All screenlines were within these guidelines as well.

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Table 13 – Screenline Totals and Deviations

No.	Screenline Name	Count	Model	# Counts	# Links	% Diff	Allow %	GEH/Link
1	NS-LV-W/o Lateral A	14,098	12,030	16	24	-15%	55%	1.4
2	NS-LV-W/o Wapato Rd	45,488	41,390	14	38	-9%	34%	1.7
3	EW-LV-S/o I-82	44,046	41,779	8	14	-5%	36%	1.2
4	NS-LV-E/o Toppenish	35,236	39,480	16	22	12%	38%	1.7
5	EW-LV-US 97	3,600	3,741	2	2	4%	68%	0.5
6	NS-LV-Eastern Model Edge	26,842	24,557	16	30	-9%	42%	1.1
7	EW-LV-Southern Model Edge	4,258	4,268	6	6	0%	68%	0.0
8	NS-LV-Mid Lower Valley	24,788	30,720	16	26	24%	46%	2.8
9	NS-LV- E/o Sunnyside	30,861	35,835	22	42	16%	40%	1.8
10	EW-LV-N/o Branch Rd	13,000	13,653	2	24	5%	55%	1.3
11	NS-UV-W/o Prop Westside Conn	10,572	11,170	8	20	6%	55%	0.6
12	NS-UV-W/o I-82	27,177	31,718	18	26	17%	42%	2.0
13	EW-UV-N/o SR-24	4,774	5,304	14	26	11%	68%	0.6
14	EW-UV- SE of Moxee	4,392	6,215	6	6	42%	68%	3.2
15	EW-UV-South Selah	52,000	53,491	4	8	3%	33%	1.0
16	EW-UV-N/o Yakima	33,188	32,632	18	40	-2%	40%	0.2
17	EW-UV-N/o Selah	28,488	27,500	12	20	-3%	42%	0.5
18	EW-UV-S/o Tieton	6,376	5,101	8	22	-20%	61%	1.9
19	NS-UV-S/o SR-12	9,760	10,290	6	12	5%	61%	0.7
20	NW-UV-E/o SR-12	38,634	36,886	14	28	-5%	38%	0.8
21	NS-UV-Western Model Edge	4,678	5,673	6	6	21%	68%	1.8
22	NS-UV-E/o Moxee	6,800	7,720	8	8	14%	61%	1.2
23	EW-LV-N/o Wapato Rd	33,676	35,818	13	32	6%	40%	1.0
24	NW-LV-W/o Tecumseh Rd	6,056	7,470	8	16	23%	61%	1.9
25	EW-LV-N/o Gurley Rd	29,376	33,515	18	20	14%	42%	1.7
26	EW-LV-Near Buena	26,710	28,555	6	12	7%	42%	1.4
27	NS-LV-W/o Sunnyside	26,996	31,018	22	36	15%	42%	1.6
28	EW-LV-S/o Sunnyside	42,268	39,664	20	24	-6%	36%	0.9
29	EW-LV-S/o Grandview	9,771	11,007	12	16	13%	61%	1.1
30	EW-LV-N/o SR-223	11,094	14,200	8	14	28%	55%	3.1
31	EW-LV-N/o Toppenish	59,762	58,588	24	48	-2%	31%	0.3
32	EW-LV-S/o Fort Rd	15,770	17,050	14	32	8%	50%	0.8
33	EW-LV-N/o Sunnyside	29,128	31,870	16	30	9%	42%	1.2
Total	All	759,663	789,908	401	730	4%	15%	

3.2 Percent Assignment Error

The assigned 2015 daily traffic volumes were compared with the counted daily traffic volumes for individual links. **Table 14** lists the percent assignment error, which is the difference between the assigned traffic volumes and the counted traffic volumes divided by the counted volumes. The report Travel Model Validation and Reasonableness Checking Manual, 2nd Ed., presents the error limits used for various models. This analysis employs the values recommended by the Federal Highway Administration (FHWA) in their 1990 report, Calibration and Adjustment of System Planning Models.

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The computed percent deviation is compared to the suggested error limits in **Table 14**. The percent error of the traffic assignment for the total network was 2% low whereas, the screenlines were 4% high. These two methods of analysis, with one high and one low show that the model is bracketing the observed counts. The deviations for the individual functional classification groups were within acceptable tolerances for all functional classification groups.

Table 14 – Percent Deviation by Functional Class

Functional Class	Count	Model	% Deviation	Suggested Range*
Freeway	1,552,300	1,589,033	2%	7%
Principal Arterial	611,876	550,273	-10%	10%
Minor Arterial	484,470	458,943	-5%	15%
Collector	935,927	931,438	0%	25%
Total	4,006,977	3,912,702	-2%	

*Source: Calibration and Adjustment of System Planning Models, Federal Highway Administration, December 1990

3.3 Root Mean Square Error (RMSE)

Another measure of the model's ability to assign traffic volumes is the percent root mean square error (RMSE). The RMSE measures the deviation between the assigned traffic volumes and the counted traffic volumes; the calculation is shown as below:

$$\% \text{ RMSE} = 100 \times \frac{\sqrt{\frac{\sum(\text{Assignment Errors})^2}{\text{Number of Links}}}}{\text{Average Count}}$$

The percent RMSE indicates a degree of deviation between the assigned and counted traffic volumes. Currently, there are no national standards for model verifications of RMSE. NCHRP 365 includes the recommendation that % RMSE be below 35. The recommended range is based upon daily count values. Due to larger percentage variations in small numbers, the recommended % RMSE is higher when the counted values are lower.

The evaluation is shown in **Table 15**. The range of counts less than 5,000 per day is less than the midpoint of the recommended range. All other count ranges are much less than the recommended range, which is very good. Due to the high number of lower counts in the YVCOG model the total % RMSE is slightly less than the total recommended value. This evaluation shows that the model matches the counts very well.

Table 15 – Model % RMSE Evaluation

Count Range	Model % RMSE	Recommended Range
< 5,000	48	45-55
5,000 - 10,000	20	35-45
10,000 - 20,000	13	27-35
20,000+	9	<= 20
Total	34	<= 35

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3.4 Coefficient of Determination (R^2)

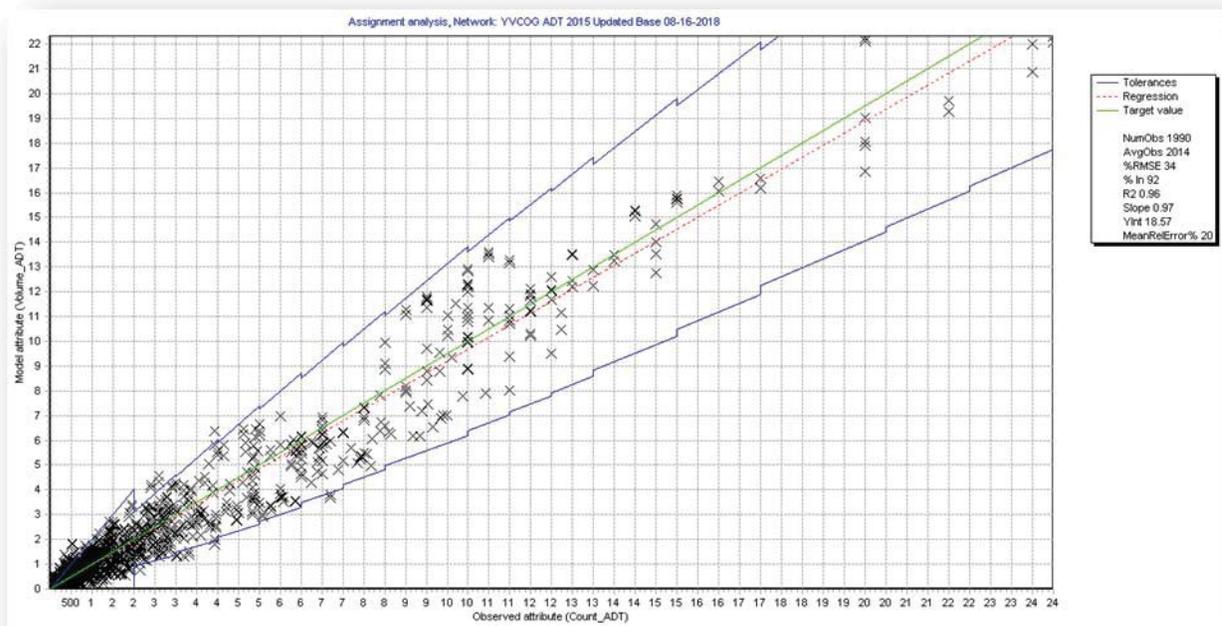
Coefficient of Determination, or R^2 is another tool to measure the overall model accuracy. The R^2 or “goodness of fit” statistic shows how well the regression line represents the assignment data. In statistics, R^2 is a number that indicates the proportion of the variance in the dependent variable that is predictable from the independent variable.

For travel models, the industry has typically sought to achieve a R^2 of 0.88 or higher. A value of 1.00 is perfect, but even if traffic counts were compared against themselves, the daily variation would not allow for a regression coefficient of 1.00.

The scattergram used for evaluation show link ground counts on the X-axis and assigned volumes on the Y-axis. On the “goal” line, the assignment volume is equal to the ground count. The linear “regression” line shows the best straight-line estimate of the assignment volume for any count. The “allowable” curves show the maximum allowable errors according to the graph discussed from Travel Model Validation and Reasonableness Checking Manual.

Figure 19 shows the scattergram analysis for the Daily assignment. This shows an R^2 of 0.96 for all counts which is much better than the recommended standard of 0.88.

Figure 19 – Assignment Analysis for ADT



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3.5 Transit Assignments

Daily transit assignments were compared with available data. This was sometimes available for each line but usually for the total system average ridership. Coefficients were adjusted until the totals were comparable to the count data. The total daily base year ridership of the scheduled routes is shown in **Table 16**.

Table 16 – Base Year Daily Transit Ridership

LINE NAME	Directed Length	Passenger Trips
Pahto-GG	62mi	16
Pahto-Rt-1	96mi	62
Pahto-Rt-2	54mi	64
Pahto-Rt-3	55mi	57
Pahto-Rt-4	76mi	49
UG-1	15mi	91
UG-2	16mi	184
Yakima-Prosser Community Connector	98mi	29
YT-1-Summitview/Lincoln	17mi	410
YT-10-Selah	19mi	133
YT-11-Yakima-Ellensburg Commuter	35mi	116
YT-2-Tieton/Nob Hill	15mi	847
YT-3-Mead/Fruitvale	14mi	525
YT-4-Fruitvale/Mead	14mi	168
YT-5-Nob Hill/Tieton	15mi	628
YT-6-FairAve/No 4th	12mi	129
YT-7-40th/Washington	15mi	476
YT-9-1st/Washington	15mi	829

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4.0 FUTURE YEAR FORECASTS

This section describes the process used to develop future forecasts. The results of the initial 2040 traffic assignment are also described.

4.1 Demographic Forecasts

Population and employment projections by TAZ were prepared by local agency staff with the guidance and assistance of YVCOG staff for 2020 and 2040. These were forecast using the same demographic variables described in Table 6 in section 2.3. The model procedures further allocate these into the cross-classification stratification variables used for trip generation using the same proportions as in the base year model.

Both the 2020 demographic forecasts and the 2040 demographic forecasts are included in the model set and can be used simply by selecting either the Group Use 2020 Demographics or the Group Use 2040 Demographics. The forecast data by TAZ received from the local agencies and YVCOG was checked for growth. During model development, some demographic values were updated based upon other data sources and the forecast data was updated to reflect the base year changes. Finally, all zones were checked for all demographic stratifications and all values for the future forecast years were adjusted to have at least as much housing and employment as in the base year.

In addition, special project-based demographics can be added to any zone for a specific project. Demographic variables to test a potential project can be added to any zone using the procedure steps 228 through 245 as shown in **Figure 20**. Note that procedure steps 158, 182, or 205 can be used to test 2015, 2020, and 2040 demographics respectively. The project variables will be added to the selected set.

Figure 20 – Adding Project Specific Demographic Values

Number: 641	Execution	Active	Procedure	Reference object(s)	Variant/file	Comment
158		<input type="checkbox"/>	Group Use 2015 Demographics ...	159 - 181		Use 2015 Demographics
182		<input type="checkbox"/>	Group Use 2020 Demographics ...	183 - 204		Use 2020 Demographics
205		<input type="checkbox"/>	Group Use 2040 Demographics ...	206 - 227		Use 2040 Demographics
228		<input checked="" type="checkbox"/>	Group ADD Project Demographics	229 - 245		ADD Project Demographics
229		<input checked="" type="checkbox"/>	Read filter		Highland Development.fil	
230		<input checked="" type="checkbox"/>	Edit attribute	Zones - SFDU		SFDU
231		<input checked="" type="checkbox"/>	Edit attribute	Zones - MFDU		MFDU
232		<input checked="" type="checkbox"/>	Edit attribute	Zones - MFDU_2TO4		MFDU 2 to 4
233		<input checked="" type="checkbox"/>	Edit attribute	Zones - Hotel/Motel		Hotel/Motel
234		<input checked="" type="checkbox"/>	Edit attribute	Zones - INDUSTRIAL		Industrial
235		<input checked="" type="checkbox"/>	Edit attribute	Zones - Medical		Medical
236		<input checked="" type="checkbox"/>	Edit attribute	Zones - Retail		Retail
237		<input checked="" type="checkbox"/>	Edit attribute	Zones - Services		Services
238		<input checked="" type="checkbox"/>	Edit attribute	Zones - PUBLIC_USE		Public Use
239		<input checked="" type="checkbox"/>	Edit attribute	Zones - Ag/Forest/Mining		Ag/Forest/Mining
240		<input checked="" type="checkbox"/>	Edit attribute	Zones - SCHOOLS		School Admin
241		<input checked="" type="checkbox"/>	Edit attribute	Zones - ELEM/MID_SCHOOL		Elementary/Middle School
242		<input checked="" type="checkbox"/>	Edit attribute	Zones - HIGHSCHOOL		High School
243		<input checked="" type="checkbox"/>	Edit attribute	Zones - CC/TRADE		College/Trade School
244		<input checked="" type="checkbox"/>	Edit attribute	Zones - PNR		Park and Ride Lots
245		<input checked="" type="checkbox"/>	Edit attribute	Zones - Tot_Emp		Check Total
246			Group Choose Network ...			Choose Network

Additional growth tests can also be evaluated by editing or replacing any of the land use values for a zone with updated values.

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4.2 Network/Scenario Assumptions

The YVCOG model was designed to make forecasts straightforward. Every link, node, and connector have a set of variables for the 2015 year plus settings for an Expected and Committed (EC) Network and a Planned (Plan) network, along with project specific variables. The EC and Plan networks are still holding places and have not been populated with data beyond the base 2015 network. However, each of the potential future projects as designated by YVCOG has been coded by project number and network detail. These projects can be selected for testing individually, in groups using filters in the procedure steps. The choices to

Node variables that can be changed include the Type Number (to designate intersection control).

Turn variables that can be changed include the LT_Lanes variable for setting the number of left turn lanes.

Link variables that can be changed by year include Type Number (functional classification, resulting in changes in capacity), Number of Lanes, VOPrt (speed), TModelSpecial (to change the designation of intersection stop control), and TWLTL (Two-Way Left Turn Lanes).

The Connector variable is the share weight. This allows the model to be responsive to changes in land use and access within or at the edges of the zone.

The procedure steps to reset the network variables to the 2015 Base Year and to use Projects numbered 1 through 67 are shown in the **Figure 21**. This uses procedure steps 247-255 and 274-283. Note the setting of the filter in step 275. A project filter can be loaded and then set to include the projects desired for testing. Remember to set the project number restrictions for Nodes, Links, Turns, and Connectors.

Figure 21 – Setting Network to Include Projects

Number	Execution	Active	Procedure	Reference object(s)	Variant/file	Comment
246			Group Choose Network ...			Choose Network
247		<input checked="" type="checkbox"/>	Group Use 2015 Network	248 - 255		Use 2015 Network
248		<input checked="" type="checkbox"/>	Edit attribute	Nodes - TypeNo		
249		<input checked="" type="checkbox"/>	Edit attribute	Turns - LT_Lanes		
250		<input checked="" type="checkbox"/>	Edit attribute	Links - TypeNo		
251		<input checked="" type="checkbox"/>	Edit attribute	Links - NumLanes		
252		<input checked="" type="checkbox"/>	Edit attribute	Links - VOPrt		
253		<input checked="" type="checkbox"/>	Edit attribute	Links - TModelSpecial		
254		<input checked="" type="checkbox"/>	Edit attribute	Links - TWLTL		
255		<input checked="" type="checkbox"/>	Edit attribute	Connectors - Weight(PrT)		
256		<input type="checkbox"/>	Group Use EC Network ...	257 - 264		Use EC Network
265		<input type="checkbox"/>	Group Use Plan Network ...	266 - 273		Use Plan Network
274		<input checked="" type="checkbox"/>	Group Use Selected Projects with Filter	275 - 283		Use Selected Projects with Filter
275		<input checked="" type="checkbox"/>	Read filter		Project 1-67.fil	Set and Check Filter!
276		<input checked="" type="checkbox"/>	Edit attribute	Nodes - TypeNo		
277		<input checked="" type="checkbox"/>	Edit attribute	Turns - LT_Lanes		
278		<input checked="" type="checkbox"/>	Edit attribute	Links - TypeNo		
279		<input checked="" type="checkbox"/>	Edit attribute	Links - NumLanes		
280		<input checked="" type="checkbox"/>	Edit attribute	Links - VOPrt		
281		<input checked="" type="checkbox"/>	Edit attribute	Links - TModelSpecial		
282		<input checked="" type="checkbox"/>	Edit attribute	Links - TWLTL		
283		<input checked="" type="checkbox"/>	Edit attribute	Connectors - Weight(PrT)		
284		<input type="checkbox"/>	Group Use Selected Project2 with Filter ...	285 - 293		Use Selected Project2 with Filter
294		<input type="checkbox"/>	Group Use Selected Project3 with Filter ...	295 - 303		Use Selected Project3 with Filter

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Projects are designated by the numerical variable Project_ID. Because of the dynamic nature of the model, some newer project may not be listed here, as it may change after this documentation is published. The projects and Project_ID numbers are documented in the POI Category 38, Projects. The current list is shown in **Table 17**.

Table 17 – Potential Improvement Projects

Project_ID	Agency	Project Name
1	Union Gap	Main Street Reconstruction Phase 1
2	WSDOT	I-82 South Union Gap Construct Ramps
3	Yakima	North 1st St Revitalization
4	Toppenish	S-6 Lincoln Ave/Dayton Ave/Beech St
5	Toppenish	S-6 Lincoln Ave/Dayton Ave/Beech St
6	WSDOT	US12/Low Rd Intersection Safety Improvements
7	WSDOT	US 97/2nd Ave
8	WSDOT	US 97/Lateral A
9	WSDOT	US 97/Kays Rd
10	WSDOT	US 97/S Wapato Rd/S Camas Ave
11	WSDOT	US 97/SR 22
12	Moxee	Morrier Ln/SR 24
13	Selah	S-4 East Goodlander Rd
14	Union Gap	South Union Gap Interchange
15	Yakima	Spring Creek Rd Reconstruction
16	Yakima	Bravo Company Blvd
17	Yakima	80th Ave Bridge
18	WSDOT	US 97/Fort Rd
19	WSDOT	US 97/Jones Rd
20	WSDOT	US 97/Robbins Rd
21	WSDOT	US 97/W Wapato Rd/W First St
22	Yakima County	Summitview Rd
23	Grandview	P-12 Wine Country Rd & McCreddie Rd
24	Sunnyside	P-26 Yakima Valley Highway
25	Sunnyside	P-38 13th St and E Edison Signal
26	Yakima County	P-40 Independence Rd
27	Yakima County	P-43 Beckner Road
28	Granger	P-52 Bailey Ave Extension
29	Sunnyside	P-64 16th St
30	WSDOT	S-39 US 97/McDonald Rd/Becker Rd Intersection
31	Zillah	S-7 Vintage Valley Pkwy Extension
32	WSDOT	S-48 US 97 Passing Lanes
33	Wapato	P-122 US 97/ 9th Street Wapato
34	Yakima County	P-134 South Wapato Rd & McDonald Rd Safety
35	Yakima County	P-165 Beaudry Rd-Norman Rd Bridge

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Project_ID	Agency	Project Name
36	Selah	S-10 Valley View Widening
37	Selah	P-199 Park Ave Widening
38	Selah	P-202 Southern Ave Widening
39	Selah	P-203 West Goodlander Rd
40	Selah	P-219 East Goodlander & Lancaster
41	Yakima County	P-223 Old Naches Hwy
42	Yakima County	P-224 Mapleway Rd
43	WSDOT	S-67 SR 24 Yakima to Moxee
44	Union Gap	P-227 Longfibre Rd Extension Phase 3
45	Union Gap	P-228 Valley Mall Blvd & Goodman Rd
46	Union Gap	P-233 Regional Beltway Phase 2
47	Union Gap	P-237 Goodman Rd
48	Union Gap	P-246 East Washington Ave Extension
49	Yakima	P-255 E Yakima Ave & Fair Ave
50	Yakima	P-264 E H Street Ext
51	Yakima / County	P-267/ P-295 E-W Corridor
52	Yakima	P-268 Butterfield Rd
53	Yakima	P-278 E Washington Intersection
54	Yakima	P-281 Longfibre Rd & Washington Ave
55	Yakima	P-282 E Nob Hill Blvd & S 18th St
56	Yakima	P-285 S 72nd & Washington
57	Yakima	P-289 34th & Fruitvale
58	Yakima County	P-296 Ahtanum Rd
59	Yakima County	P-297 Maple Ave Reconstruction
60	Yakima County	P-298 Ahtanum Rd Reconstruction
61	Yakima	P-299 SR 12 / 16th Ave Interchange
62	Yakima	P-300 Tieton Dr & S 5th
63	Yakima	P-301 Powerhouse Rd & Englewood
64	Yakima	P-302 S 48th & Summitview Signal
65	WSDOT	I-82 Auxiliary Lanes
66	WSDOT	I-82 Auxiliary Lanes
67	WSDOT	Terrace Heights Interchange CD/Ramps
68	Yakima County	EW Corridor-Beaudry Connection

If the modeler wishes to include a project, or multiple projects, in a model run, the proper filter file needs to be set for the Group labeled **Group Use Projects with Filter**. Remember to **Set and Check Filter!** In step 275 before proceeding with the run. It is recommended that an existing project filter file be first loaded and checked and then a new filter file created for project testing. If you are coding a new project, the Project_ID and project variables for each node, link, turn, and connector must be coded.

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4.3 Traffic Forecasts

The model is ready to be used for future year and project analysis by selecting the network (with possible network projects added) and demographic socio-economic sets. **Figure 22** shows the model run procedures used to make a 2040 forecast year model run with a set of transportation improvement projects. Each of the groups contain a set of steps that are run when the box is checked.

The first set of groups, numbered through step 139, were used for Network Development and Maintenance. These steps are not needed to run the forecast model but they are retained in the model for possible future use.

Figure 22 – Forecast Model Run Procedures

Number: 661	Execution	Active	Procedure	Reference object	Variant/file	Comment
1			Group Full Procedure Updated 09-25-2018 ...			Full Procedure Updated 09-25-2018
2			Group Start of Development Tools ...			Start of Development Tools
3		<input type="checkbox"/>	Group Count Compilation from ATR_Count_2 ...	4 - 14		Count Compilation from ATR_Count_2014 POI
15		<input type="checkbox"/>	Group Count Compilation from Crab_Mobility ...	16 - 30		Count Compilation from Crab_Mobility Counts
31		<input type="checkbox"/>	Group Update Count ADT for Validation ...	32 - 69		Update Count ADT for Validation
70		<input type="checkbox"/>	Group Update AM and PM Counts for 2017 C ...	71 - 75		Update AM and PM Counts for 2017 Counts
76		<input type="checkbox"/>	Group Intersect LEHD for Land Use Checking ...	77 - 97		Intersect LEHD for Land Use Checking
98		<input type="checkbox"/>	Group Create 2020 XX and Externals ...	99 - 104		Create 2020 XX and Externals
105		<input type="checkbox"/>	Group Create 2040 XX and Externals ...	106 - 111		Create 2040 XX and Externals
112		<input type="checkbox"/>	Group Move Current Network to 2015 Value ...	113 - 120		Move Current Network to 2015 Values
121		<input type="checkbox"/>	Group Move Current Network to EC Values ...	122 - 129		Move Current Network to EC Values
130		<input type="checkbox"/>	Group Move Current Network to Plan Values ...	131 - 138		Move Current Network to Plan Values
139			Group End of Development Tools ...			End of Development Tools
140			Group Start Model Choices - Choose Demogr ...			Start Model Choices - Choose Demographic Set
141		<input type="checkbox"/>	Group Reset Volume and Territory Fields ...	142 - 167		Reset Volume and Territory Fields
168		<input type="checkbox"/>	Group Use 2015 Demographics ...	169 - 191		Use 2015 Demographics
192		<input type="checkbox"/>	Group Use 2020 Demographics ...	193 - 214		Use 2020 Demographics
215		<input checked="" type="checkbox"/>	Group Use 2040 Demographics ...	216 - 237		Use 2040 Demographics
238		<input type="checkbox"/>	Group ADD Project Demographics ...	239 - 255		ADD Project Demographics
256			Group Choose Network ...			Choose Network
257		<input checked="" type="checkbox"/>	Group Use 2015 Network ...	258 - 265		Use 2015 Network
266		<input type="checkbox"/>	Group Use EC Network ...	267 - 274		Use EC Network
275		<input type="checkbox"/>	Group Use Plan Network ...	276 - 283		Use Plan Network
284		<input checked="" type="checkbox"/>	Group Use Selected Projects with Filter ...	285 - 293		Use Selected Projects with Filter
294		<input type="checkbox"/>	Group Use Selected Project2 with Filter ...	295 - 303		Use Selected Project2 with Filter
304		<input type="checkbox"/>	Group Use Selected Project3 with Filter ...	305 - 313		Use Selected Project3 with Filter
314		<input checked="" type="checkbox"/>	Group Compute Link and Node Capacities ...	315 - 345		Compute Link and Node Capacities
346		<input checked="" type="checkbox"/>	Group Trip Generation ...	347 - 424		Trip Generation
425		<input checked="" type="checkbox"/>	Group Trip Distribution ...	426 - 513		Trip Distribution
514			Group Choose Final Assignments ...			Choose Final Assignments
515		<input checked="" type="checkbox"/>	Group Final AM Assignment ...	516 - 523		Final AM Assignment
524		<input checked="" type="checkbox"/>	Group Final MD Assignment ...	525 - 533		Final MD Assignment
534		<input checked="" type="checkbox"/>	Group Final PM Assignment ...	535 - 543		Final PM Assignment
544			Group End of Peak Assignments ...			End of Peak Assignments
545		<input checked="" type="checkbox"/>	Group Compute Daily Link and Node Capacity ...	546 - 570		Compute Daily Link and Node Capacities
571		<input checked="" type="checkbox"/>	Group Final ADT Assignment ...	572 - 581		Final ADT Assignment
582			Group Choose Volume Storage or Analysis Va ...			Choose Volume Storage or Analysis Variables
583		<input type="checkbox"/>	Group 2015 Validation and Adjustments ...	584 - 608		2015 Validation and Adjustments
609		<input type="checkbox"/>	Group 2020 Volumes ...	610 - 620		2020 Volumes
621		<input checked="" type="checkbox"/>	Group 2040 Volumes ...	622 - 632		2040 Volumes
633		<input type="checkbox"/>	Group EC Volumes ...	634 - 644		EC Volumes
645		<input type="checkbox"/>	Group Plan Volumes ...	646 - 656		Plan Volumes
657		<input type="checkbox"/>	Group Adjusted Volumes ...	658 - 661		Adjusted Volumes

Forecast model step choices begin at step 140. First, select one of the three demographic groups, starting with 168, 192, or 215 for 2015, 2020, or 2040, respectively. You can optionally add additional project demographics using the group starting at step 238.

Then select the 2015 network group starting with 257. To add network projects, with checking the filter for Project_ID starting with step 284. If there are additional options for any project, these can be coded

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using the Project2 or Project 3 ID. The additional options were not used at the time of writing this documentation.

Groups starting with 314, 346, and 425 are all part of the forecast model run and should be always selected. These include the demographic stratification, trip generation, trip distribution, mode choice, and feedback.

Groups starting with 515, 524, and 534 allow the modeler to run the detailed assignments for the AM Peak, Mid-Day Peak, and PM Peak. Although all of these assignments are not required to be run. If you only want to run the ADT assignment in step 571, make sure and reset the daily capacities in step 545 first.

The group starting with step 583, 2015 Validation and Adjustments, only needs to be run during the model development or update of the base year calibration. This creates the adjustments to be used in the Forecast Year Adjustments group starting with number 657.

The saving of the volume assignments can be made into the desired fields using steps 609, 621, 623, or 645 depending upon your analysis.

4.4 Transit Forecasts

The YVCOG model produces forecast transit assignments for the current set of transit lines. These are based upon the demographic forecasts as well as background road network improvements. The transit operating speeds are automatically updated during the assignment steps and the mode choice is applied accordingly.

4.5 Summary Results

Draft model runs were reviewed by YVCOG. The model was run for 2015, 2020 with expected 2020 projects, and 2040 with expected 2040 projects. The territory summaries were compiled to show the expected growth in Vehicle Miles of Travel (VMT), Vehicle Hours of Travel (VHT) and Average Speed (VMT/VHT). Average speed by area is helpful for evaluating relative future travel conditions. A higher speed usually shows less congested travel and greater mobility. The summary for the cities and the entire county is shown in **Table 18**.

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Table 18 – Summary Statistics

Area	2015			2020			2040		
	VMT	VHT	Avg Speed	VMT	VHT	Avg Speed	VMT	VHT	Avg Speed
Grandview	93,039	2,546	37	102,311	2,849	36	145,666	4,544	32
Granger	21,712	526	41	24,623	632	39	30,167	834	36
Harrah	767	21	37	806	22	37	981	27	36
Mabton	8,267	241	34	8,761	258	34	11,904	374	32
Moxee	16,903	407	42	19,851	476	42	26,012	650	40
Naches	17,365	410	42	19,056	457	42	23,748	600	40
Selah	60,311	2,355	26	67,522	2,709	25	89,515	3,946	23
Sunnyside	162,276	4,454	36	177,232	4,960	36	244,176	7,712	32
Tieton	3,844	109	35	4,032	115	35	4,663	132	35
Toppenish	28,924	950	30	34,824	1,184	29	41,932	1,483	28
Union Gap	204,819	6,658	31	243,224	7,330	33	278,283	8,938	31
Wapato	21,614	704	31	22,134	720	31	23,446	789	30
Yakima	1,222,795	39,307	31	1,340,287	43,443	31	1,705,248	62,022	27
Zillah	27,133	620	44	30,060	712	42	38,581	992	39
Yakima County	4,890,183	118,163	41	5,424,653	132,278	41	6,942,426	182,291	38
PM10 Area	1,857,911	56,690	33	2,066,052	63,243	33	2,648,885	89,895	29
CO Area	404,686	14,304	28	429,389	15,183	28	528,745	20,608	26

Change by forecast year was compiled with this same data. It is expected that VMT and VHT will increase in the future and even with transportation improvements, the average speed will decrease. It should be noted that small changes may appear as large percentage changes if the base year values were smaller. The values shown in both tables for Yakima County include the entire county and not just the unincorporated areas. The percentage changes are shown in **Table 19**.

Table 19 – Percentage Change in Summary Statistics

Area	2015 to 2020 % Change			2020 to 2040 % Change			2015 to 2040 % Change		
	VMT	VHT	Avg Speed	VMT	VHT	Avg Speed	VMT	VHT	Avg Speed
Grandview	10.0%	11.9%	-1.7%	42.4%	59.5%	-10.7%	56.6%	78.5%	-12.3%
Granger	13.4%	20.2%	-5.6%	22.5%	32.0%	-7.2%	38.9%	58.6%	-12.4%
Harrah	5.1%	4.8%	0.3%	21.7%	22.7%	-0.8%	27.9%	28.6%	-0.5%
Mabton	6.0%	7.1%	-1.0%	35.9%	45.0%	-6.3%	44.0%	55.2%	-7.2%
Moxee	17.4%	17.0%	0.4%	31.0%	36.6%	-4.0%	53.9%	59.7%	-3.6%
Naches	9.7%	11.5%	-1.5%	24.6%	31.3%	-5.1%	36.8%	46.3%	-6.5%
Selah	12.0%	15.0%	-2.7%	32.6%	45.7%	-9.0%	48.4%	67.6%	-11.4%
Sunnyside	9.2%	11.4%	-1.9%	37.8%	55.5%	-11.4%	50.5%	73.1%	-13.1%
Tieton	4.9%	5.5%	-0.6%	15.6%	14.8%	0.8%	21.3%	21.1%	0.2%
Toppenish	20.4%	24.6%	-3.4%	20.4%	25.3%	-3.9%	45.0%	56.1%	-7.1%
Union Gap	18.8%	10.1%	7.9%	14.4%	21.9%	-6.2%	35.9%	34.2%	1.2%
Wapato	2.4%	2.3%	0.1%	5.9%	9.6%	-3.3%	8.5%	12.1%	-3.2%
Yakima	9.6%	10.5%	-0.8%	27.2%	42.8%	-10.9%	39.5%	57.8%	-11.6%
Zillah	10.8%	14.8%	-3.5%	28.3%	39.3%	-7.9%	42.2%	60.0%	-11.1%
Yakima County	10.9%	11.9%	-0.9%	28.0%	37.8%	-7.1%	42.0%	54.3%	-8.0%
PM10 Area	11.2%	11.6%	-0.3%	28.2%	42.1%	-9.8%	42.6%	58.6%	-10.1%
CO Area	6.1%	6.1%	0.0%	23.1%	35.7%	-9.3%	30.7%	44.1%	-9.3%

Growth rates were computed for each of these territories and are shown in **Table 20**.

YVCOG Model Documentation

Table 20 – Annual Growth Rates

Area	2015 to 2020 Growth Rate			2020 to 2040 Growth Rate			2015 to 2040 Growth Rate		
	VMT	VHT	Avg Speed	VMT	VHT	Avg Speed	VMT	VHT	Avg Speed
Grandview	1.9%	2.3%	-0.3%	1.8%	2.4%	-0.6%	1.8%	2.3%	-0.5%
Granger	2.5%	3.7%	-1.1%	1.0%	1.4%	-0.4%	1.3%	1.9%	-0.5%
Harrah	1.0%	0.9%	0.1%	1.0%	1.0%	0.0%	1.0%	1.0%	0.0%
Mabton	1.2%	1.4%	-0.2%	1.5%	1.9%	-0.3%	1.5%	1.8%	-0.3%
Moxee	3.3%	3.2%	0.1%	1.4%	1.6%	-0.2%	1.7%	1.9%	-0.1%
Naches	1.9%	2.2%	-0.3%	1.1%	1.4%	-0.3%	1.3%	1.5%	-0.3%
Selah	2.3%	2.8%	-0.5%	1.4%	1.9%	-0.5%	1.6%	2.1%	-0.5%
Sunnyside	1.8%	2.2%	-0.4%	1.6%	2.2%	-0.6%	1.6%	2.2%	-0.6%
Tieton	1.0%	1.1%	-0.1%	0.7%	0.7%	0.0%	0.8%	0.8%	0.0%
Toppenish	3.8%	4.5%	-0.7%	0.9%	1.1%	-0.2%	1.5%	1.8%	-0.3%
Union Gap	3.5%	1.9%	1.5%	0.7%	1.0%	-0.3%	1.2%	1.2%	0.0%
Wapato	0.5%	0.5%	0.0%	0.3%	0.5%	-0.2%	0.3%	0.5%	-0.1%
Yakima	1.9%	2.0%	-0.2%	1.2%	1.8%	-0.6%	1.3%	1.8%	-0.5%
Zillah	2.1%	2.8%	-0.7%	1.3%	1.7%	-0.4%	1.4%	1.9%	-0.5%
Yakima County	2.1%	2.3%	-0.2%	1.2%	1.6%	-0.4%	1.4%	1.7%	-0.3%
PM10 Area	2.1%	2.2%	-0.1%	1.3%	1.8%	-0.5%	1.4%	1.9%	-0.4%
CO Area	1.2%	1.2%	0.0%	1.0%	1.5%	-0.5%	1.1%	1.5%	-0.4%

5.0 SUMMARY AND CONCLUSIONS

This report describes the methodology used, the calibration of the 2015 Travel Demand Model (TDM) for the Yakima Metropolitan Planning Organization (YVCOG). Model development and the preparation of this report was completed by Eco Resource Management Systems, Inc. (eRMSi). The model results compare favorably with national calibration standards, and the YVCOG existing year network can be considered calibrated and validated for the base year and may be used for forecasting traffic.

YVCOG Model Documentation (Amendment)

This amendment factors an additional five years to the 2016 Model's forecast period of 2020 - 2040 to 2045 and establishing the percent changes of Vehicle Miles Traveled (VMT), Vehicle Hours Traveled (VHT) and Average Speed. As in the original document values shown in tables for Yakima County include the entire county and not just the unincorporated areas.

Between 2040 and 2045: VMT increases by 0.29%, VHT increases by 0.38% and Average Speed Drops by 0.09%.

Table 18 (Amended) - Summary Statistics

Area	2015			2020			2040			2045		
	VMT	VHT	Ave. Speed									
Grandview	93,038	2,246	37	102,311	2,849	36	145,666	4,544	32	146,074	4,562	32
Granger	21,712	526	41	24,623	632	39	30,167	834	36	30,251	837	36
Harrah	767	21	37	806	22	37	981	27	36	984	27	36
Mabton	8,267	241	34	8,761	258	34	11,904	347	32	11,937	348	32
Moxee	16,903	407	42	19,851	476	42	26,012	650	40	26,085	653	40
Naches	17,365	410	42	19,056	457	42	23,748	600	40	23,814	602	40
Selah	60,311	2,355	26	67,522	2,709	25	89,515	3,946	23	89,766	3,961	23
Sunnyside	162,276	4,454	36	177,232	4,960	36	244,176	7,712	32	244,860	7,742	32
Tieton	3,844	109	35	4,032	115	35	4,663	132	35	4,676	133	35
Toppenish	28,924	950	30	34,824	1,184	29	41,932	1,483	28	42,049	1,489	28
Union Gap	204,819	6,658	31	243,224	7,330	33	278,283	8,938	31	279,062	8,973	31
Wapato	21,614	704	31	22,134	720	31	23,446	789	30	23,512	792	30
Yakima	1,222,795	39,307	31	1,340,287	43,443	31	1,705,248	62,022	27	1,710,023	62,264	27
Zillah	27,133	620	44	30,060	712	42	38,581	992	39	38,689	996	39
Yakima Co.	4,890,193	118,163	41	5,424,653	132,278	41	6,942,426	182,291	38	6,961,865	183,002	38
PM10 Area	1,857,911	56,690	33	2,066,052	63,243	33	2,648,885	89,895	29	2,656,302	90,246	29
CO Area	404,686	14,304	28	429,389	15,183	28	528,745	20,608	26	530,225	20,688	26

Table 19 (Amended) – Percent Change in Summary Statistics

Area	2015 to 2020 % Change			2020 to 2045 % Change			2015 to 2040 % Change			2015 to 2045 % Change		
	VMT	VHT	Ave. Speed									
Grandview	10.0%	11.9%	-1.7%	42.4%	59.9%	-10.7%	56.6%	78.5%	-12.3%	56.8%	78.8%	-12.3%
Granger	13.4%	20.2%	-5.6%	22.5%	32.0%	-7.2%	38.9%	58.6%	-12.4%	39.0%	58.8%	-12.4%
Harrah	5.1%	4.8%	0.3%	21.7%	22.7%	-0.8%	27.9%	28.6%	-0.5%	28.0%	28.7%	-0.5%
Mabton	6.0%	7.1%	-1.0%	35.9%	45.0%	-6.3%	44.0%	55.2%	-7.2%	44.1%	55.4%	-7.2%
Moxee	17.4%	17.0%	0.4%	31.0%	36.6%	-4.0%	53.9%	59.7%	-3.6%	54.1%	59.9%	-3.6%
Naches	9.7%	11.5%	-1.5%	24.6%	31.3%	-5.1%	36.8%	46.3%	-6.5%	36.9%	46.5%	-6.5%
Selah	12.0%	15.0%	-2.7%	32.6%	45.7%	-9.0%	48.4%	67.6%	-11.4%	48.5%	67.9%	-11.4%
Sunnyside	9.2%	11.4%	-1.9%	37.8%	55.5%	-11.4%	50.5%	73.1%	-13.1%	50.6%	73.4%	-13.1%
Tieton	4.9%	5.5%	-0.6%	15.6%	14.8%	0.8%	21.3%	21.1%	0.2%	21.4%	21.2%	0.2%
Toppenish	20.4%	24.6%	-3.4%	20.4%	25.3%	-3.9%	45.0%	56.1%	-7.1%	45.1%	56.3%	-7.1%
Union Gap	18.8%	10.1%	7.9%	14.4%	21.9%	-6.2%	35.9%	34.2%	1.2%	36.0%	34.3%	1.2%
Wapato	2.4%	2.3%	0.1%	5.9%	9.6%	-3.3%	8.5%	12.1%	-3.2%	8.5%	12.1%	-3.2%
Yakima	9.6%	10.5%	-0.8%	27.2%	42.8%	-10.9%	39.5%	57.8%	-11.6%	39.6%	58.0%	-11.6%
Zillah	10.8%	14.8%	-3.5%	28.3%	39.3%	-7.9%	42.2%	60.0%	-11.1%	42.3%	60.2%	-11.1%
Yakima Co.	10.9%	11.9%	-0.9%	28.0%	37.8%	-7.1%	42.0%	54.3%	-8.0%	42.1%	54.5%	-8.0%
PM10 Area	11.2%	11.6%	-0.3%	28.2%	42.1%	-9.8%	42.6%	58.6%	-10.1%	42.7%	58.8%	-10.1%
CO Area	6.1%	6.1%	0.0%	23.1%	35.7%	-9.3%	30.7%	44.1%	-9.3%	30.8%	44.3%	-9.3%

Table 20 (Amended) – Annual Growth Rates

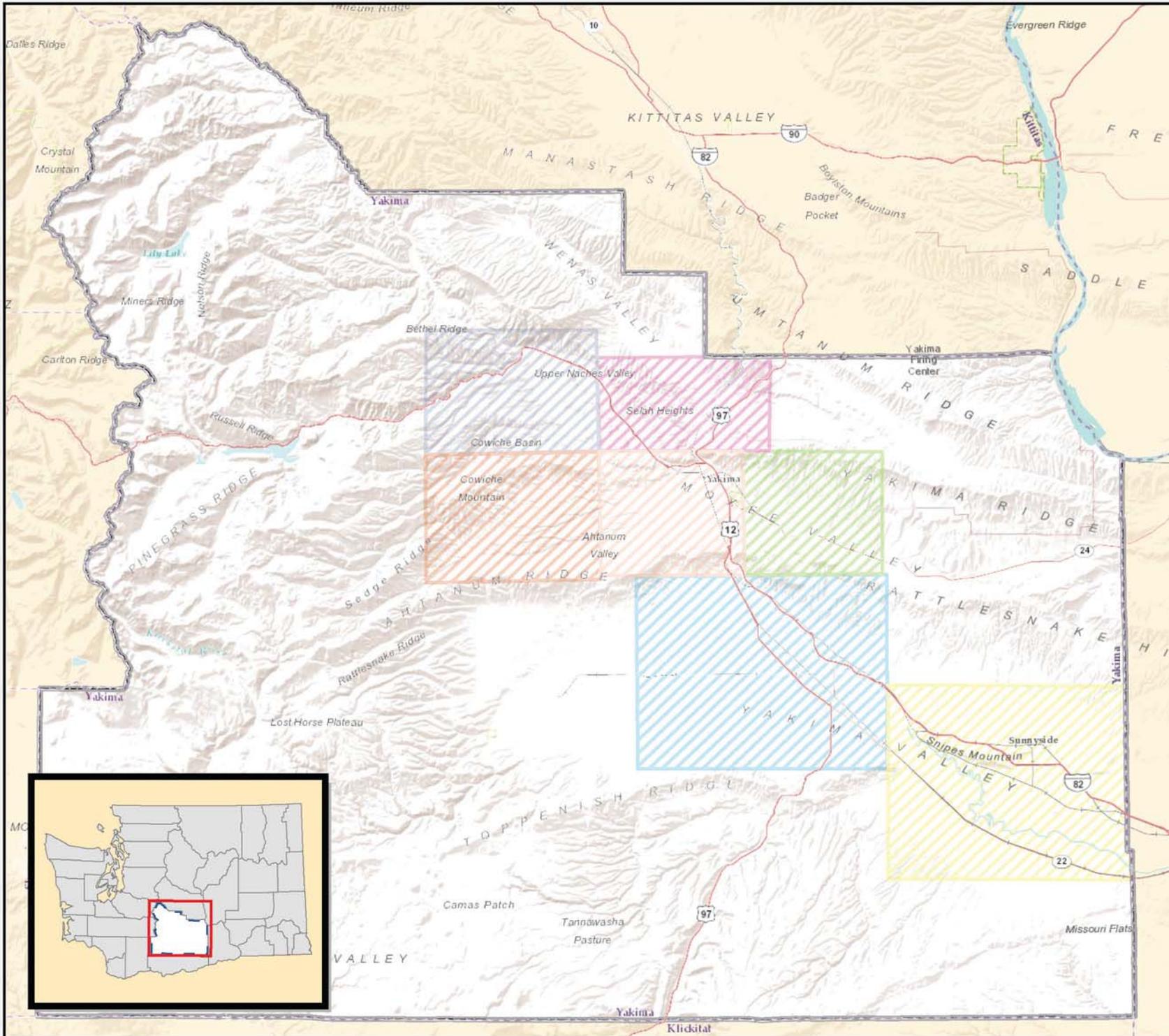
Area	2015 to 2020 Growth Rates			2020 to 2040 Growth Rates			2015 to 2040 Growth Rates			2015 to 2045 Growth Rates		
	VMT	VHT	Ave. Speed	VMT	VHT	Ave. Speed	VMT	VHT	Ave. Speed	VMT	VHT	Ave. Speed
Grandview	1.9%	2.3%	-0.3%	1.8%	2.4%	-0.6%	1.8%	2.3%	-0.5%	1.805%	2.309%	-0.500%
Granger	2.5%	3.7%	-1.1%	1.0%	1.4%	-0.4%	1.3%	1.9%	-0.5%	1.304%	1.907%	-0.500%
Harrah	1.0%	0.9%	0.1%	1.0%	1.0%	0.0%	1.0%	1.0%	0.0%	1.003%	1.004%	0.000%
Mabton	1.2%	1.4%	-0.2%	1.5%	1.9%	-0.3%	1.5%	1.8%	-0.3%	1.504%	1.807%	-0.300%
Moxee	3.3%	3.2%	0.1%	1.4%	1.6%	-0.2%	1.7%	1.9%	-0.1%	1.705%	1.907%	-0.100%
Naches	1.9%	2.2%	-0.3%	1.1%	1.4%	-0.3%	1.3%	1.5%	-0.3%	1.304%	1.506%	-0.300%
Selah	2.3%	2.8%	-0.5%	1.4%	1.9%	-0.5%	1.6%	2.1%	-0.5%	1.604%	2.108%	-0.500%
Sunnyside	1.8%	2.2%	-0.4%	1.6%	2.2%	-0.6%	1.6%	2.2%	-0.6%	1.604%	2.209%	-0.599%
Tieton	1.0%	1.1%	-0.1%	0.7%	0.7%	0.0%	0.8%	0.8%	0.0%	0.802%	0.803%	0.000%
Toppenish	3.8%	4.5%	-0.7%	0.9%	1.1%	-0.2%	1.5%	1.8%	-0.3%	1.504%	1.807%	-0.300%
Union Gap	3.5%	1.9%	1.5%	0.7%	1.0%	-0.3%	1.2%	1.2%	0.0%	1.203%	1.205%	0.000%
Wapato	0.5%	0.5%	0.0%	0.3%	0.5%	-0.2%	0.3%	0.5%	-0.1%	0.301%	0.502%	-0.100%
Yakima	1.9%	2.0%	-0.2%	1.2%	1.8%	-0.6%	1.3%	1.8%	-0.5%	1.304%	1.807%	-0.500%
Zillah	2.1%	2.8%	-0.7%	1.3%	1.7%	-0.4%	1.4%	1.9%	-0.5%	1.404%	1.907%	-0.500%
Yakima Co.	2.1%	2.3%	-0.2%	1.2%	1.6%	-0.4%	1.4%	1.7%	-0.3%	1.404%	1.707%	-0.300%
PM10 Area	2.1%	2.2%	-0.1%	1.3%	1.8%	-0.5%	1.4%	1.9%	-0.4%	1.404%	1.907%	-0.400%
CO Area	1.2%	1.2%	0.0%	1.0%	1.5%	-0.5%	1.1%	1.5%	-0.4%	1.103%	1.506%	-0.400%

APPENDIX F

REGIONWIDE

PROJECT MASTER LIST

Metropolitan and Regional Transportation Plan - Project SubRegions - Yakima Valley

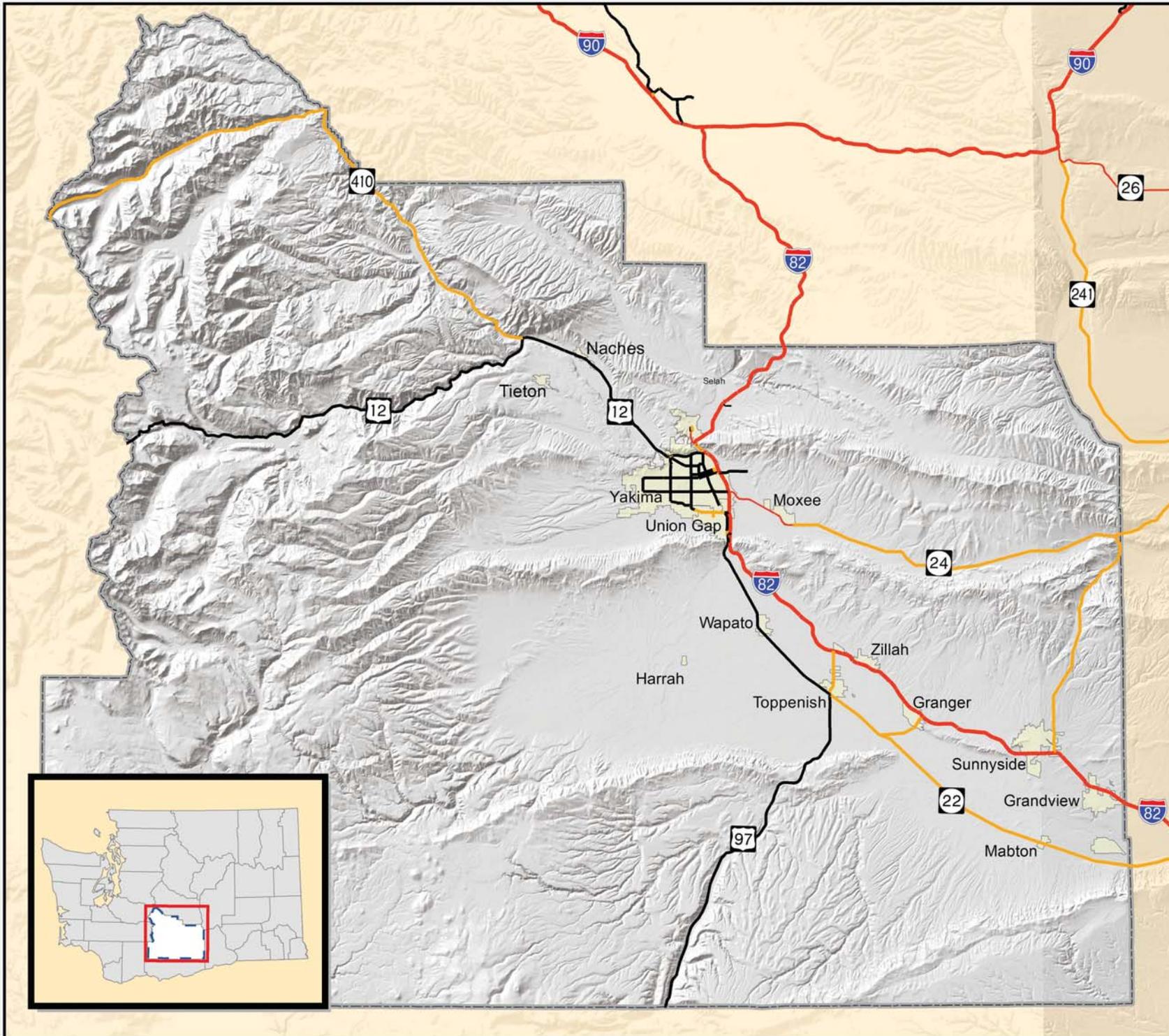


SubRegions

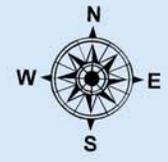
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-  Central
-  East Valley
-  North
-  South Central
-  Southeast
-  West

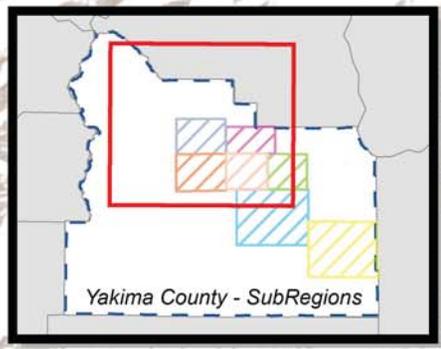
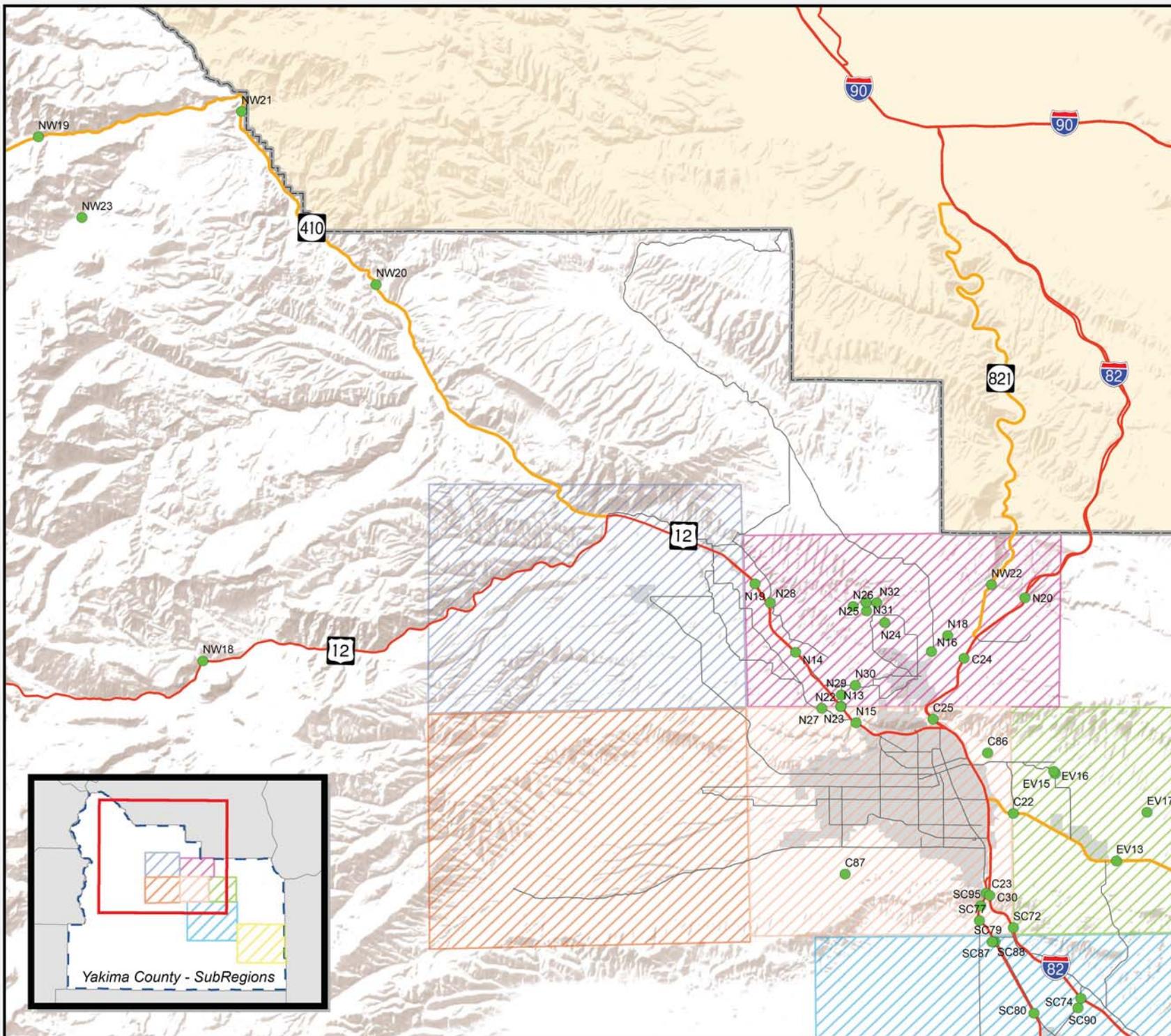


Metropolitan and Regional Transportation Plan - National Highway System (NHS) within the Yakima Valley



- National Highway System by Functional Class**
-  Interstate
 -  Freeways and Expressways
 -  Principal Arterial - Other
 -  Minor Arterial
 -  Major Collector
 -  Other

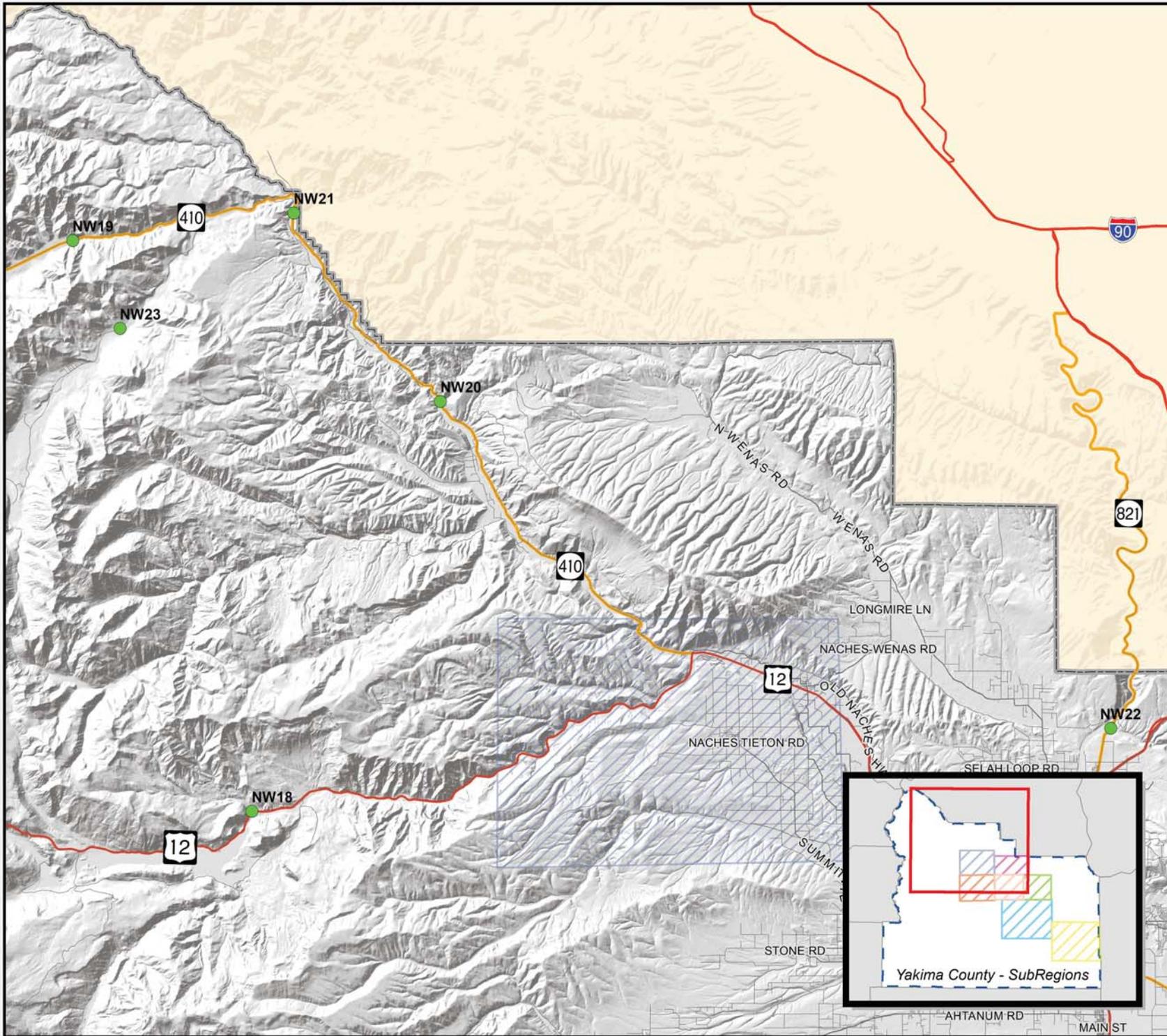




- Project Location
- City Boundary
- Highway of Statewide Significance
- Highway of Regional Significance
- Primary Local Surface Street



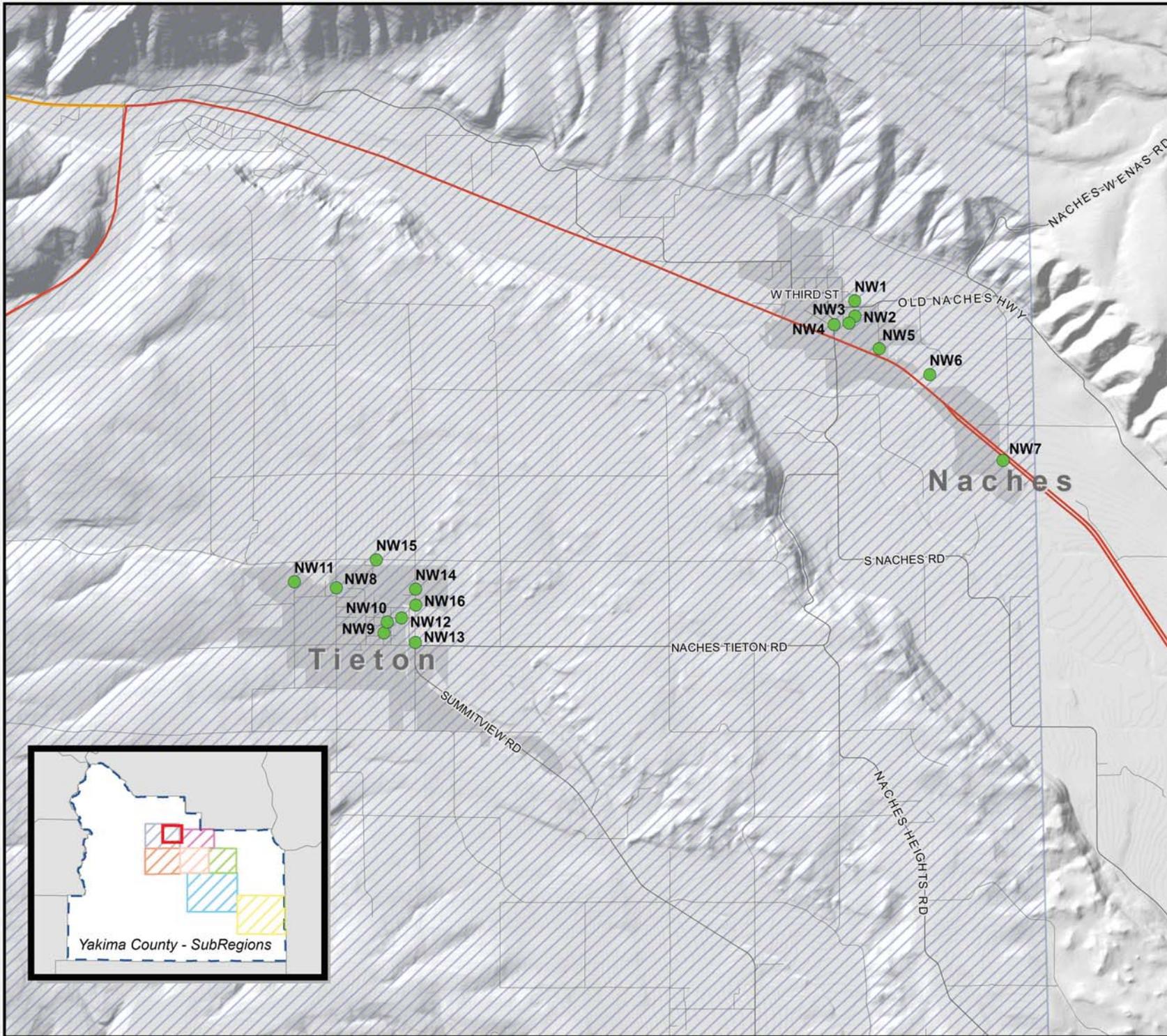
Metropolitan and Regional Transportation Plan - Northwest SubRegion - Other Projects



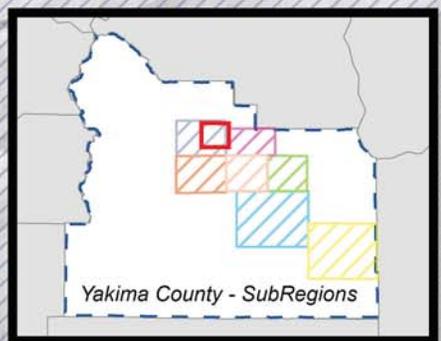
- Project Location
- Highway of Statewide Significance
- Highway of Regional Significance
- Primary Local Surface Street



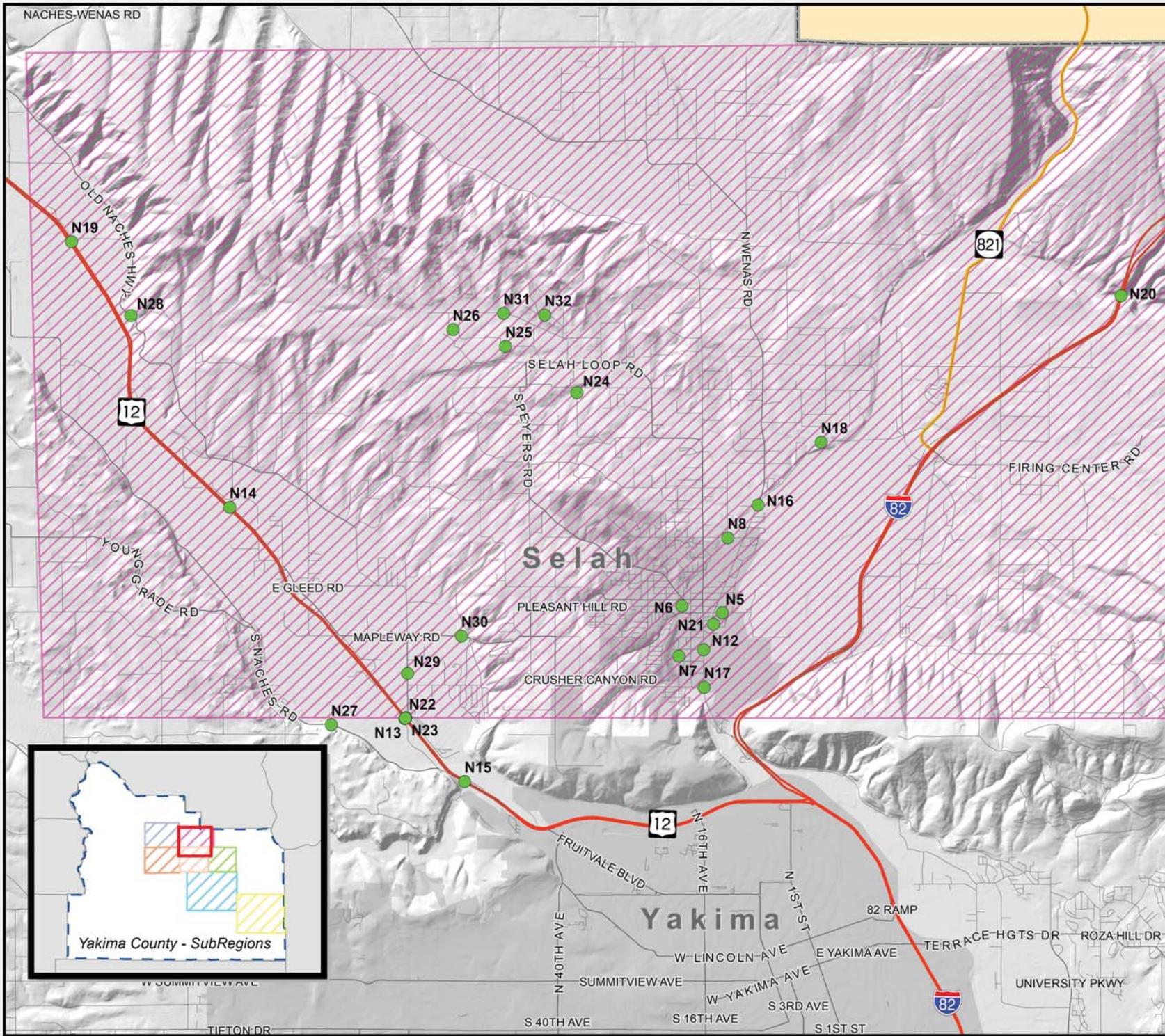
Metropolitan and Regional Transportation Plan - Northwest SubRegion - Naches / Tieton and Vicinity



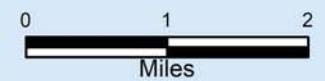
-  Project Location
-  City Boundary
-  Highway of Statewide Significance
-  Highway of Regional Significance
-  Primary Local Surface Street



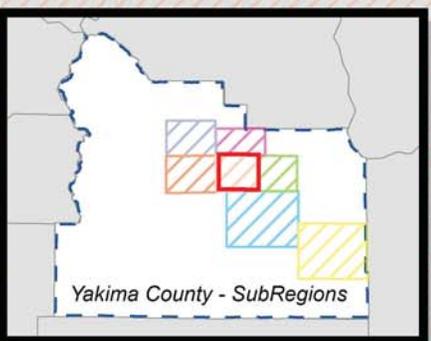
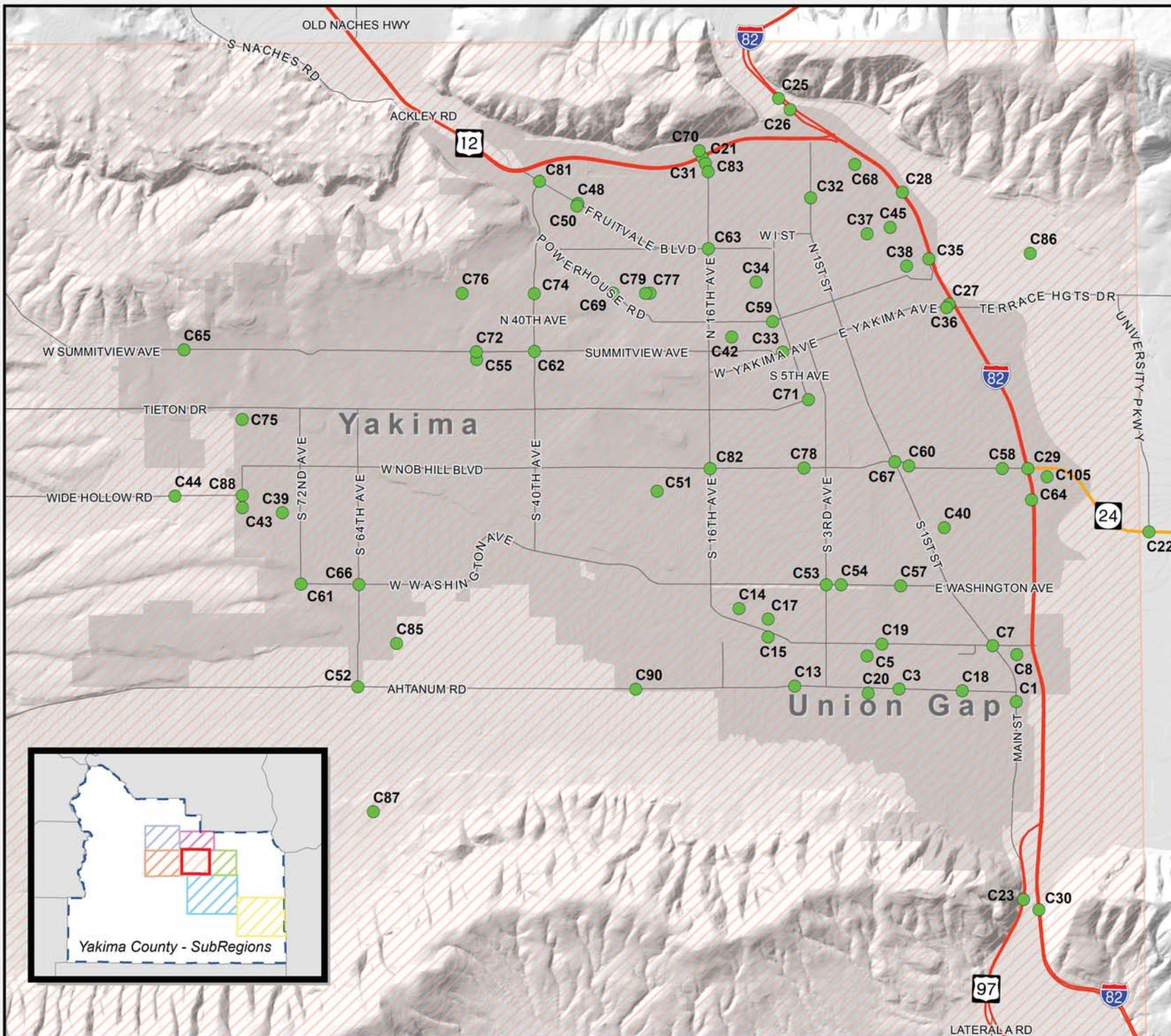
Metropolitan and Regional Transportation Plan - Central SubRegion - Selah and Vicinity



- Project Location
- City Boundary
- Highway of Statewide Significance
- Highway of Regional Significance
- Primary Local Surface Street



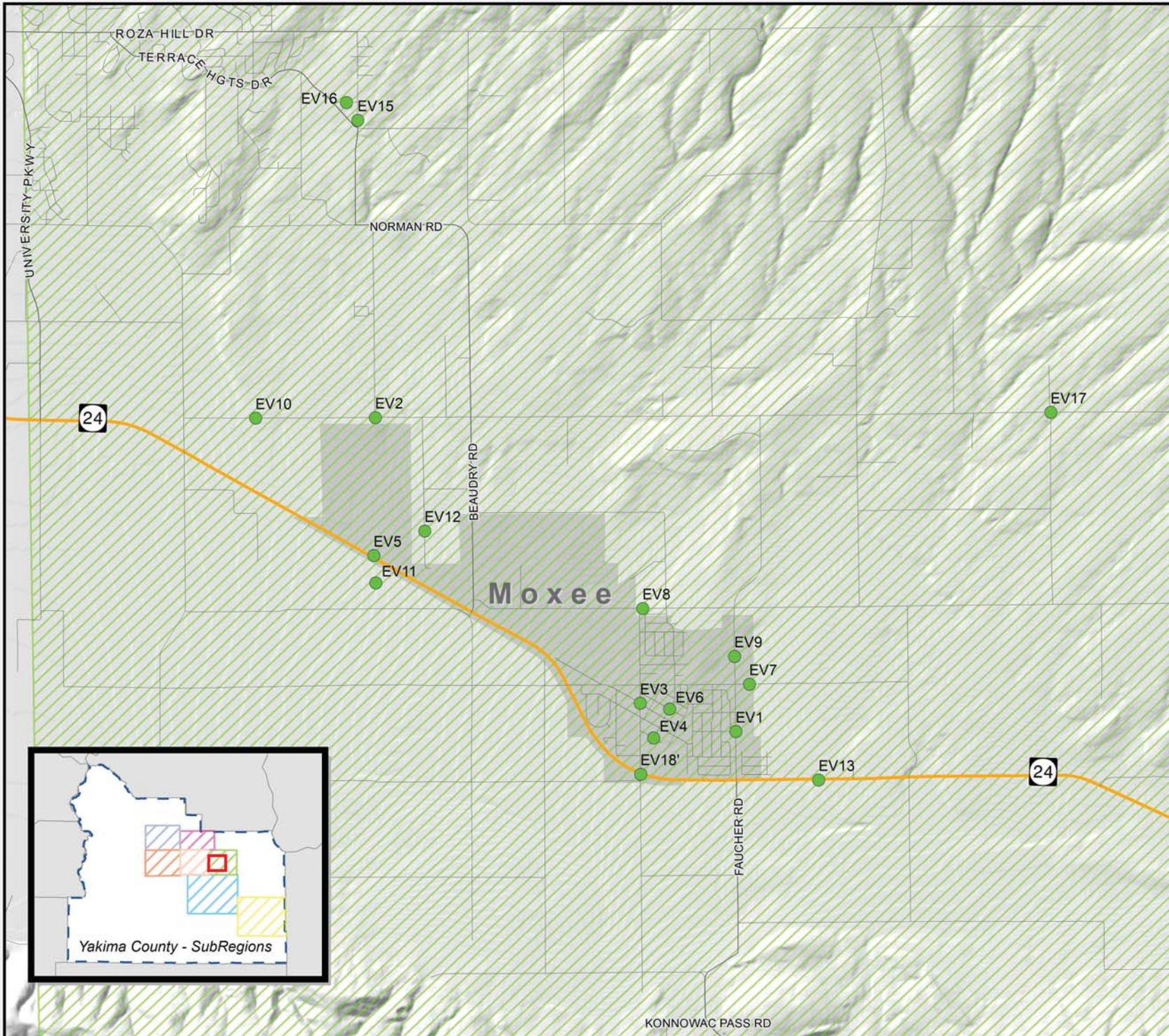
Metropolitan and Regional Transportation Plan - Central SubRegion - Yakima / Union Gap and Vicinity



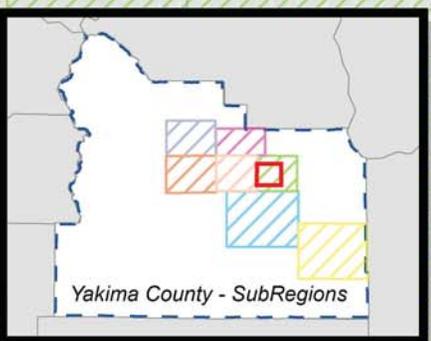
- Project Location
- City Boundary
- Highway of Statewide Significance
- Highway of Regional Significance
- Primary Local Surface Street



Metropolitan and Regional Transportation Plan - EastValley SubRegion - Moxee and Vicinity



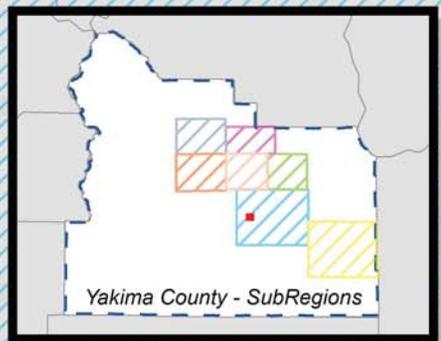
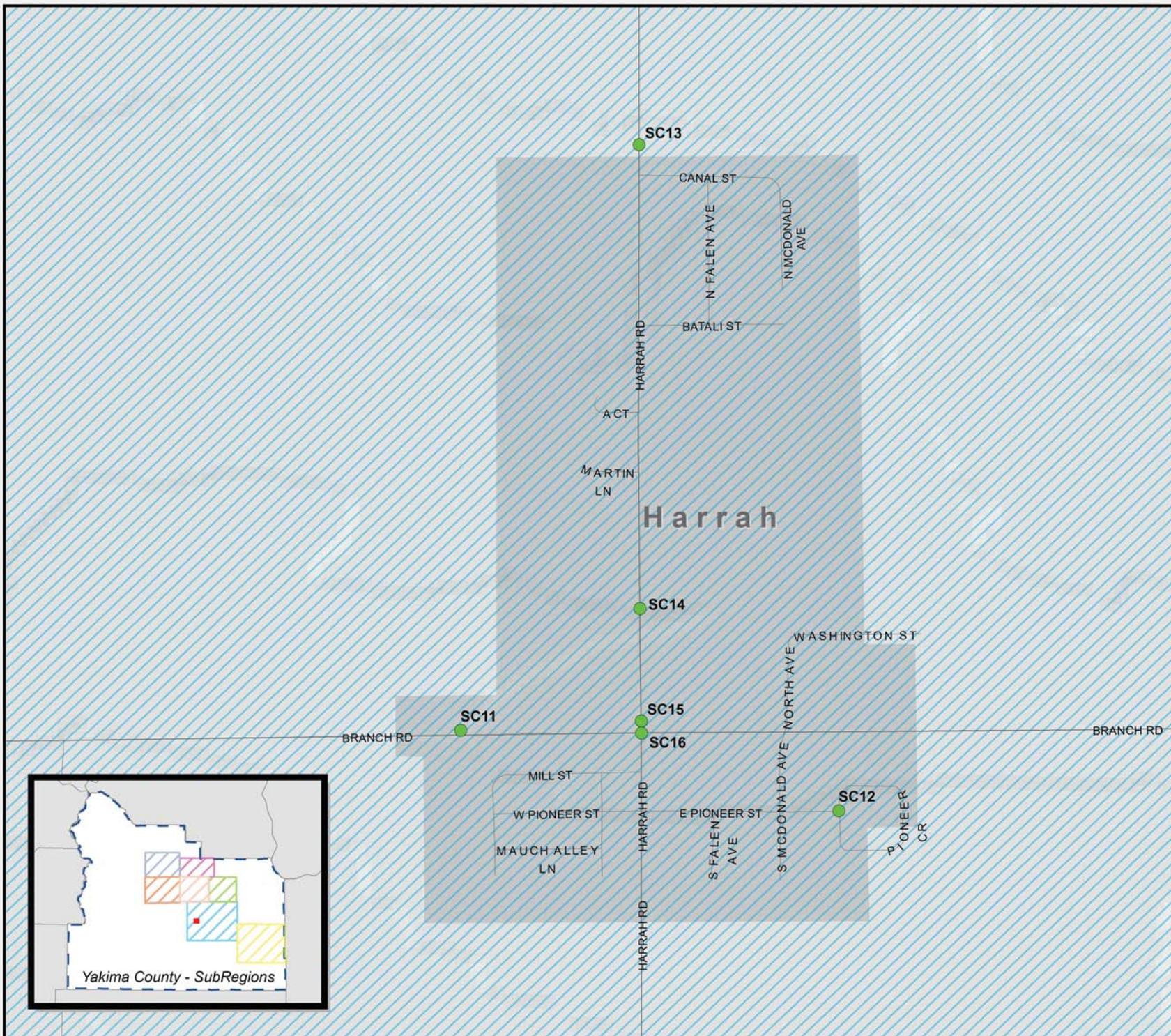
- Project Location
- City Boundary
- ~ Highway of Statewide Significance
- ~ Primary Local Surface Street
- ~ Highway of Regional Significance



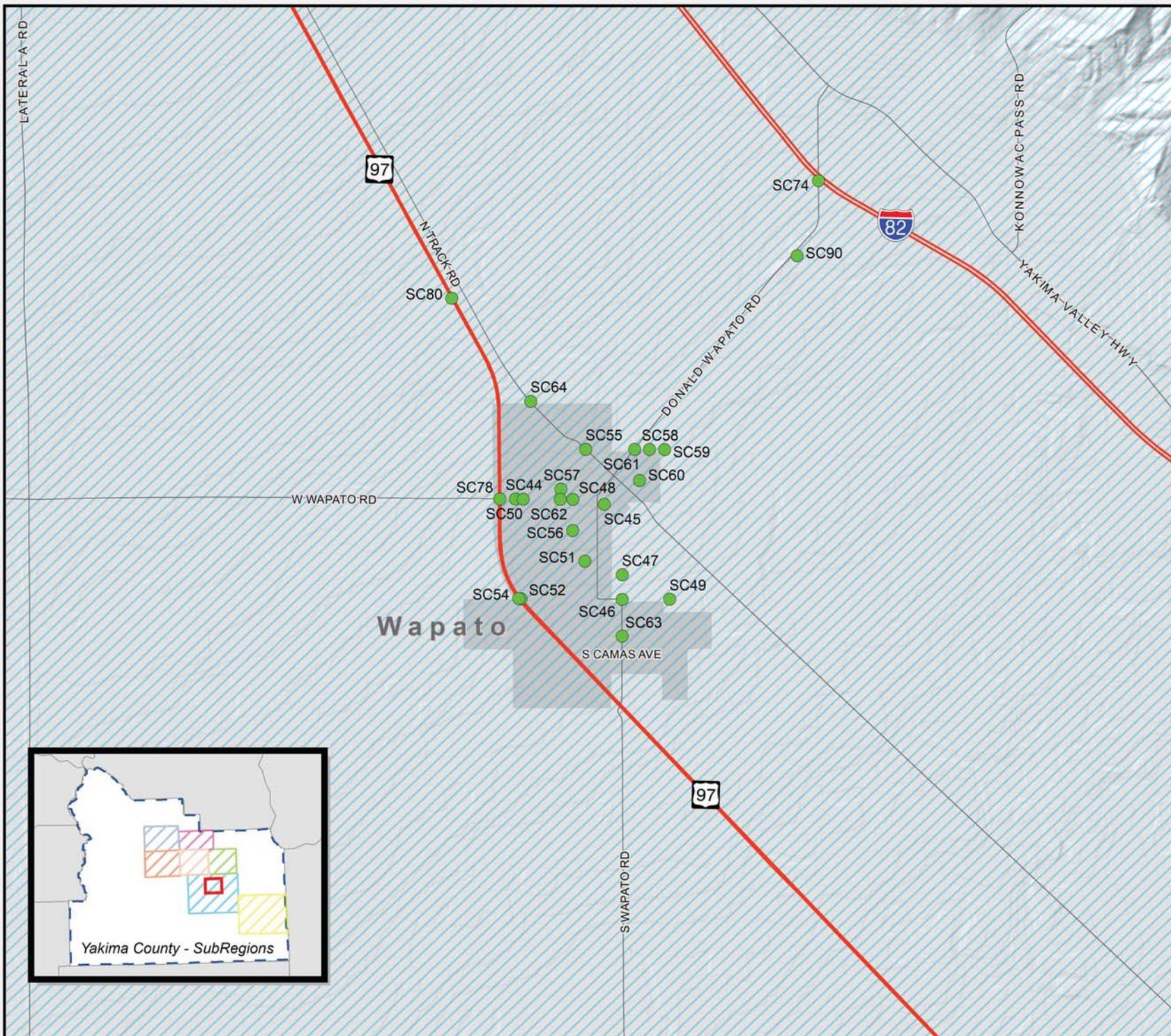
Metropolitan and Regional Transportation Plan - SouthCentral SubRegion - Harrah and Vicinity



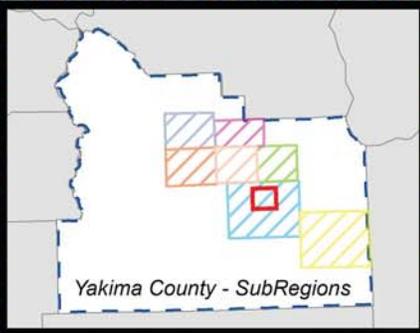
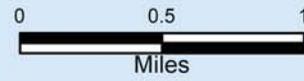
-  Project Location
-  City Boundary
-  Highway of Statewide Significance
-  Highway of Regional Significance
-  Primary Local Surface Street



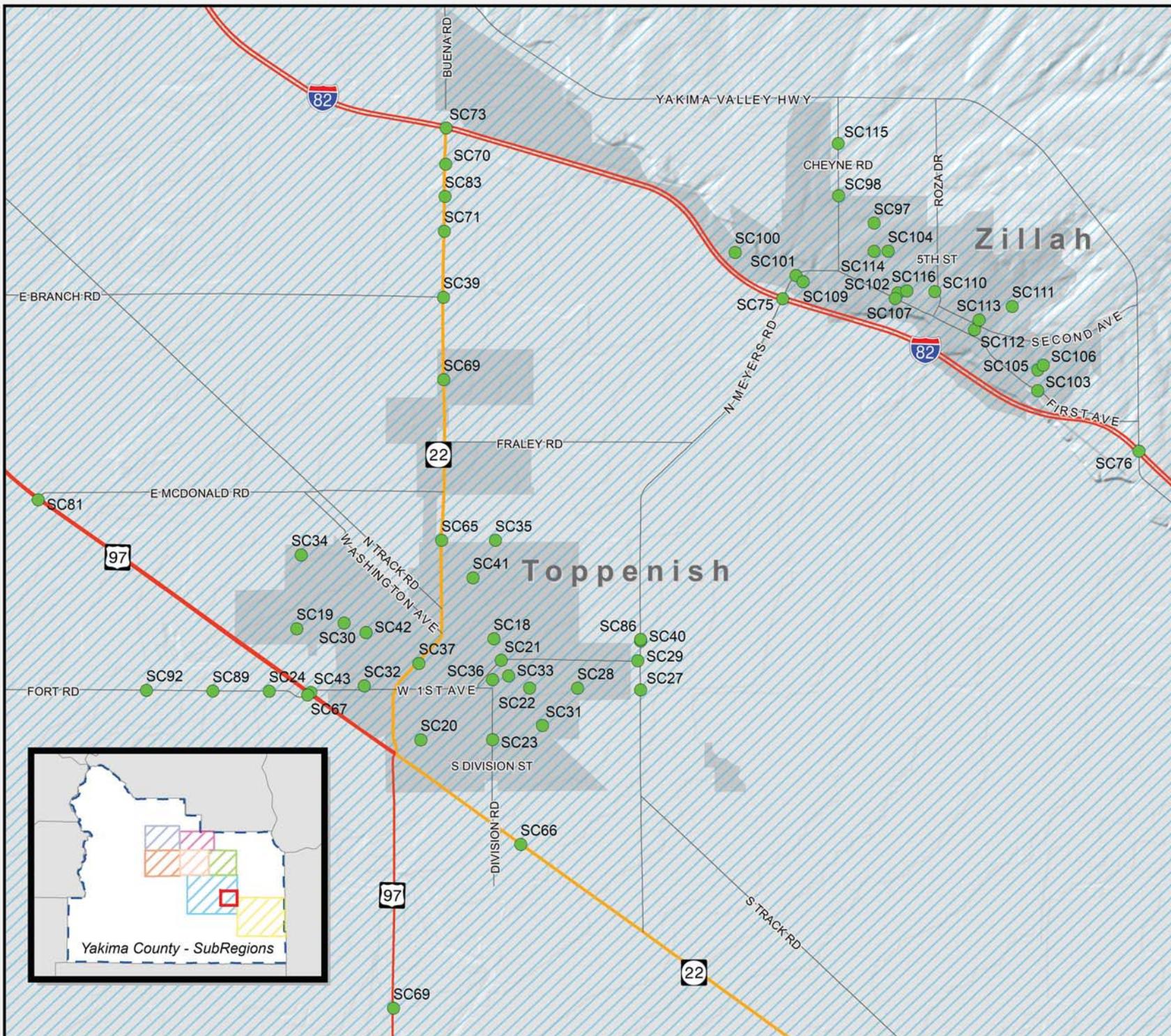
Metropolitan and Regional Transportation Plan - SouthCentral SubRegion - Wapato and Vicinity Projects



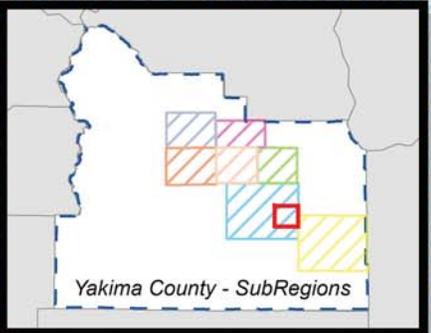
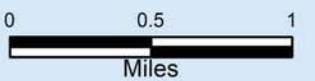
- Project Location
- City Boundary
- ⚡ Highway of Statewide Significance
- ⚡ Highway of Regional Significance
- ⚡ Primary Local Surface Street



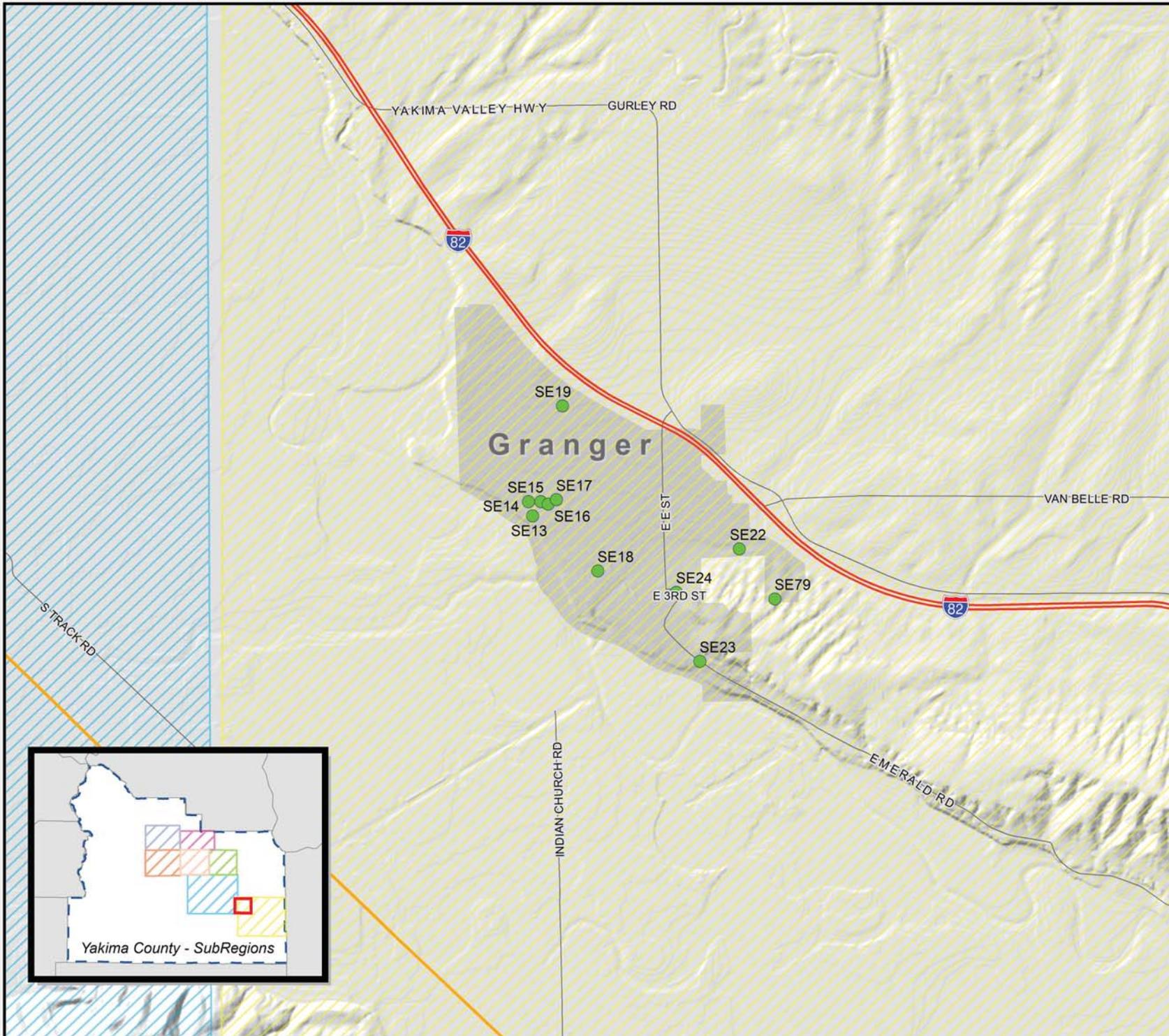
Metropolitan and Regional Transportation Plan - SouthCentral SubRegion - Zillah / Toppenish and Vicinity



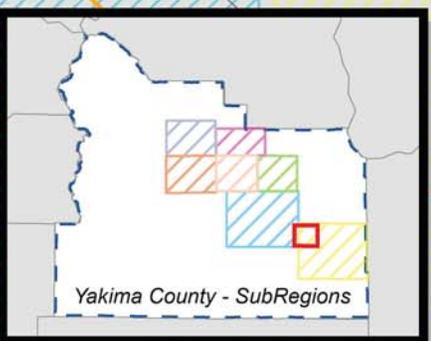
-  Project Location
-  City Boundary
-  Highway of Statewide Significance
-  Highway of Regional Significance
-  Primary Local Surface Street



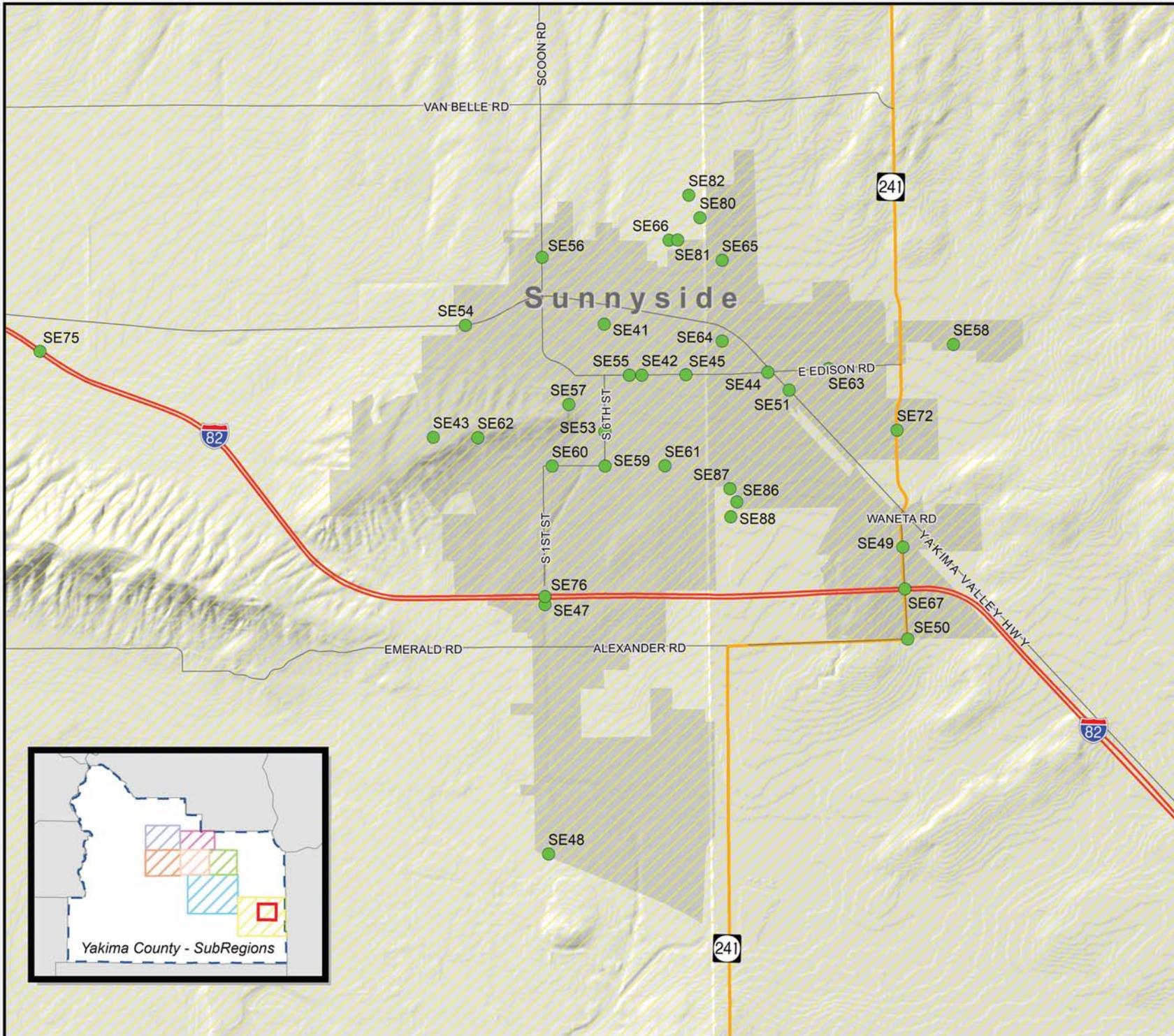
Metropolitan and Regional Transportation Plan - Southeast SubRegion - Granger and Vicinity



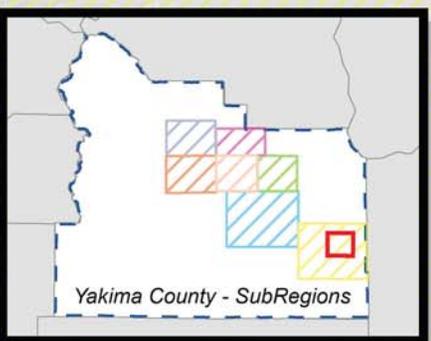
- Project Location
- City Boundary
- ~ Highway of Statewide Significance
- ~ Highway of Regional Significance
- ~ Primary Local Surface Street



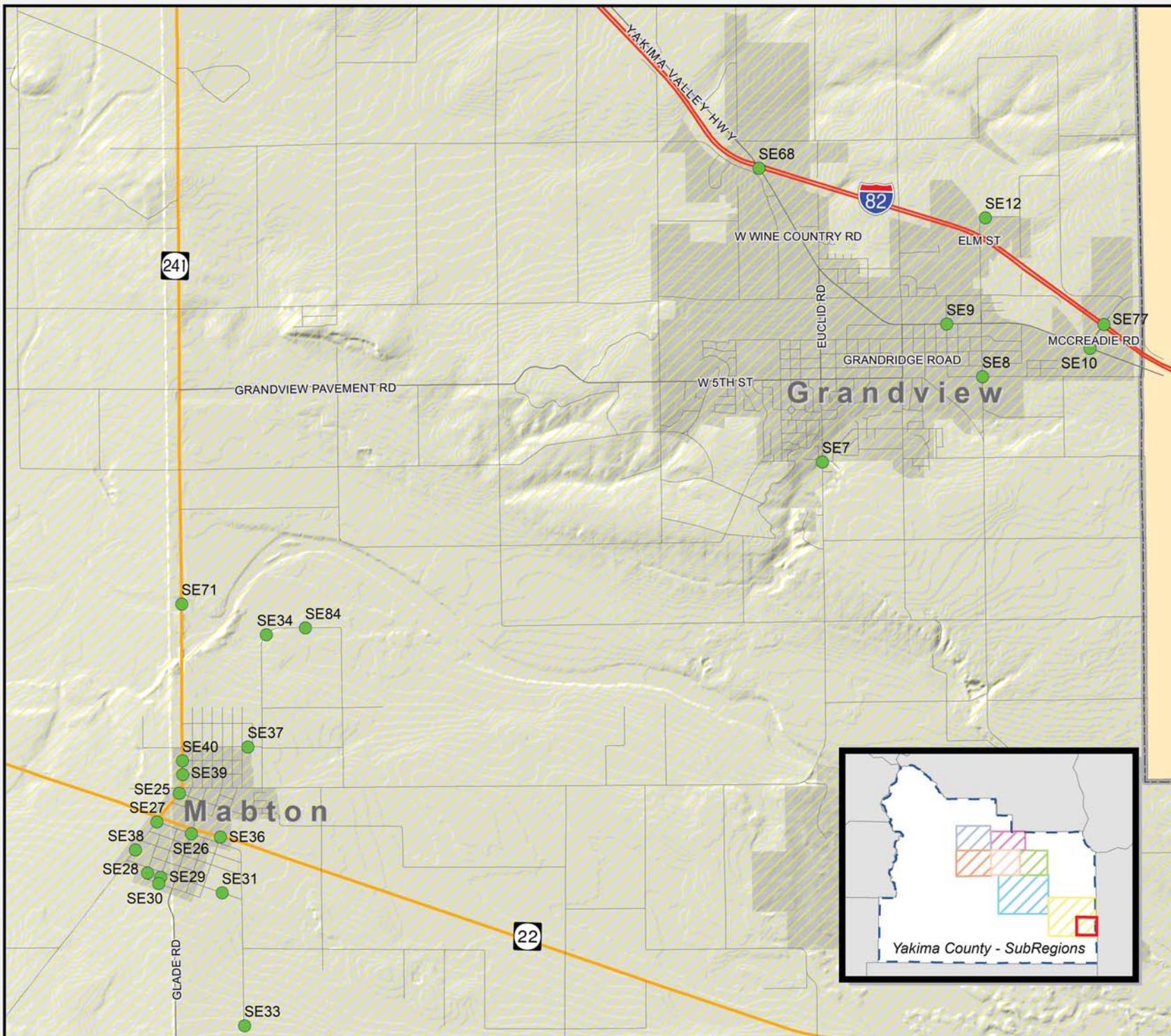
Metropolitan and Regional Transportation Plan - Southeast SubRegion - Sunnyside and Vicinity



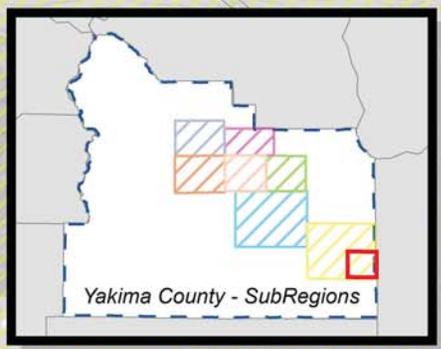
-  Project Location
-  City Boundary
-  Highway of Statewide Significance
-  Highway of Regional Significance
-  Primary Local Surface Street



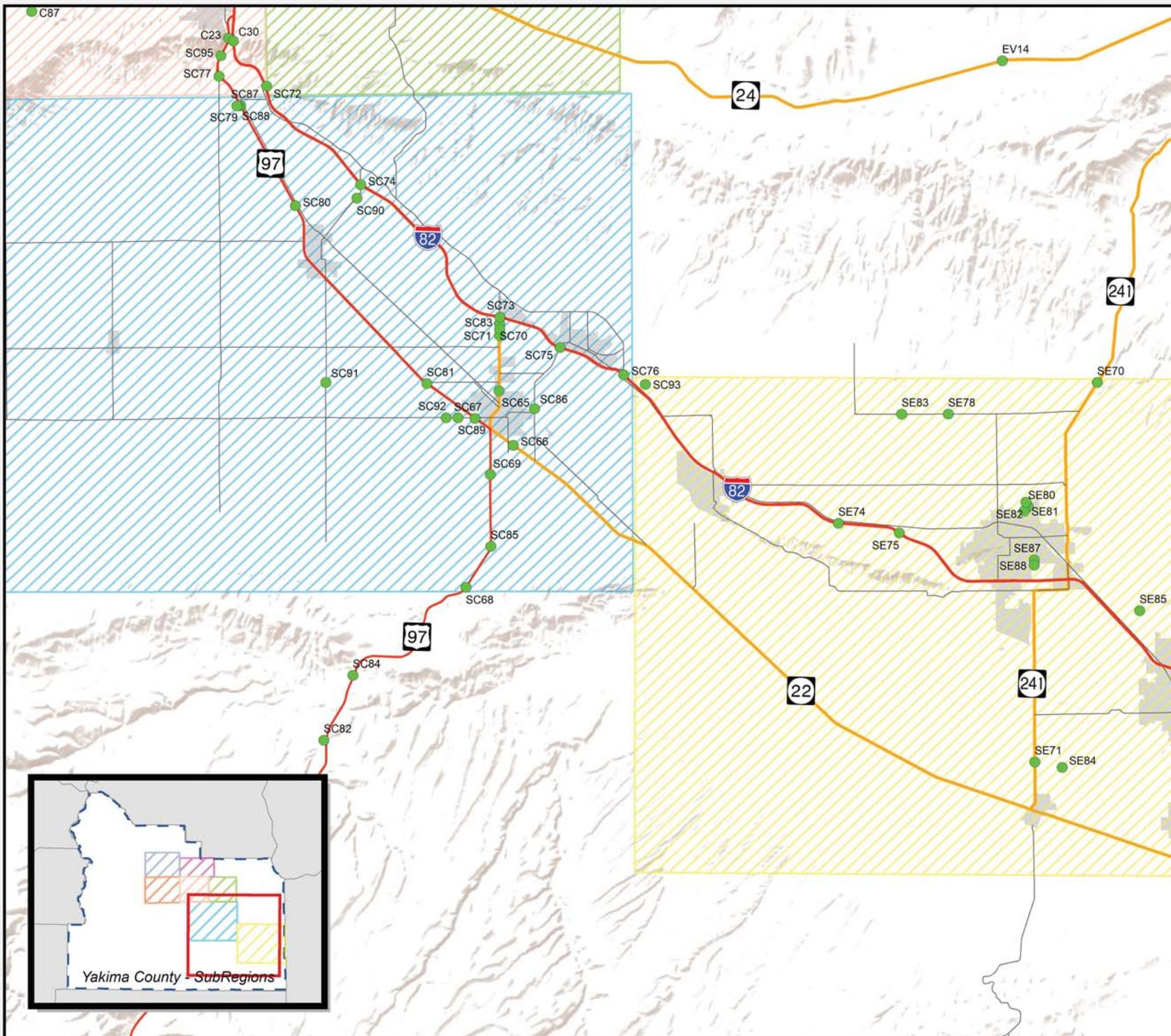
Metropolitan and Regional Transportation Plan - Southeast SubRegion - Grandview / Mabton and Vicinity



-  Project Location
-  City Boundary
-  Highway of Statewide Significance
-  Highway of Regional Significance
-  Primary Local Surface Street



Metropolitan and Regional Transportation Plan - State and County Projects - Lower Yakima Valley



- Project Location
- City Boundary
- Highway of Statewide Significance
- Highway of Regional Significance
- Primary Local Surface Street



Appendix F - 2020 Regionwide Project List - Master List per Sub Region

Map Sub-region	Secured Funds b/n 2019-2022 = Financially Constrained ----- Otherwise a Priority Project	Lead Agency	Priority	Secured or Planned?	RTPO	Project Name	From	To	Project Description	Project Type	Cost Estimate (in Millions)	Year of Expenditure Estimate (in millions)	\$ - Up to \$2 Million	Short Term (2019-2023)
					MPO / RTPO								\$\$ - \$2 - \$10 Million	Mid Term (2024-2035)
					MPO								\$\$\$ - > \$10 Million	Long Term (2035-2045)
Fiscal Constraint Status	Lead Agency	Priority	Secured or Planned?	MPO or RTPO?	Project Name	From	To	Project Description	Project Type	Cost Estimate (in Millions)	Year of Expenditure Estimate (in millions)	Monetary Scale	Time Frame	
Multi-Regional	Other High Priority Projects	WSDOT		Planned	RTPO	I 82 Shoulder Paving	I 82 Corridor	Rehabilitate aging asphalt shoulders along these concrete routes	Maintenance/ Preservation	55.000	63.250	\$\$\$	Mid	
Multi-Regional	Fiscally Constrained	WSDOT		Secured	RTPO	Kittitas & Yakima Counties Centerline Rumble Stripes	Various	Install Centerline Rumble Stripes	Safety	0.343	0.343	\$	Short	
Multi-Regional	Other High Priority Projects	Yakima County	TBD	Planned	MPO/RTPO	Countywide Traffic Safety Projects- Local Selection	Countywide	Construct Spot Safety Improvements	Safety	0.600	0.692	\$	Short	
Multi-Regional	Other High Priority Projects	Yakima County	TBD	Planned	MPO/RTPO	Overlays-Various Roads	Countywide	Construct Structural Overlays on arterial roadways	Maintenance/ Preservation	5.750	5.750	\$\$	Short	
Multi-Regional	Other High Priority Projects	Yakima County	TBD	Planned	MPO/RTPO	Countywide Traffic Signals upgrades- local selection	Countywide	Install traffic signals at various locations and/or traffic operation improvements	Intersection/ Operations	0.300	0.300	\$	Short	
Multi-Regional	Other High Priority Projects	Yakima County	31	Planned	MPO	Countywide Sidewalk ADA retrofit projects	Countywide	Retrofit non-compliant sidewalks with required ADA compliant improvements at various locations.	Reconstruction	1.200	1.200	\$\$	Short	
Multi-Regional	Other High Priority Projects	Yakima County	30	Planned	MPO	Countywide L.E.D. streetlight upgrade project	Countywide	Replace existing streetlight fixtures with high efficiency LED fixtures at various locations	Safety	0.180	0.180	\$	Short	
Total Projected Cost										63.373	71.715			
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/White Pass Vicinity - Culvert Lining	US 12 White Pass	This project will install culvert linings and repair erosion to maintain culvert flow and prevent deterioration and erosion.	Preservation	0.871	0.871	\$	Short	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/White Pass Vicinity - Major Drainage Phase 2	US 12 White Pass	This project will restore drainage system features and repair erosion at select locations to maintain culvert flow and prevent deterioration and erosion.	Preservation	0.879	0.877	\$	Short	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/White Pass Vicinity - Major Drainage Phase 3	US 12 White Pass	This project will restore drainage system features and repair erosion at select locations to maintain culvert flow and prevent deterioration and erosion.	Preservation	3.567	3.567	\$\$	Short	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/Rimrock Lake Vicinity - Culvert Lining	US 12 Rimrock Lake	This project will install culvert linings and repair erosion to maintain culvert flow and prevent deterioration and erosion.	Preservation	0.880	0.919	\$	Short	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	SR 410/E of Chinook Pass Summit - Culvert Lining	Chinook Pass Summit Vic	This project will install culvert linings and repair erosion to maintain culvert flow and prevent further deterioration and erosion.	Preservation	1.761	1.827	\$	Short	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	SR 410/0.75 miles W of East Winter Gate - Culvert Lining	East Winter Gate	This project will install culvert linings and repair erosion to maintain culvert flow and prevent further deterioration and erosion.	Preservation	0.645	0.645	\$	Short	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/White Pass Vicinity to Indian Creek Vicinity - Paving	White Pass Vicinity to Indian Creek Vicinity	This project will overlay the road with hot mix asphalt to extend the service life of the pavement	Preservation	4.086	4.086	\$\$	Mid	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/Indian Creek Bridge - Replace Bridge Rail	US 12 Indian Creek	This project will replace the existing bridge rail to preserve the structural and functional integrity of the bridge.	Preservation	1.283	1.414	\$	Mid	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/Rimrock Retreat to Windy Point - Chip Seal	Rimrock Retreat to Windy Point	This project will chip seal the road per recommendations from the materials report to extend the life of the pavement.	Preservation	0.610	0.610	\$	Mid	
Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12 (0.4 Miles W of Oak Creek) - Stabilize Slope	US 12 0.4 Miles W of Oak Creek	This project will remove loose rocks, install rockfall protection netting, and apply shotcrete to minimize the risk of rocks falling on the roadway and the potential for collisions.	Safety	1.542	1.542	\$	Mid	

Mountains	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/Indian Creek Bridge - Replace Bridge Rail	US 12 Indian Creek	This project will replace the existing bridge rail to preserve the structural and functional integrity of the bridge.	Preservation	1.283	1.414	\$	Mid
									Total Projected Cost	17.407	17.772		

NW - 1	Other High Priority Projects	Naches	3	Planned	MPO	Sinclair Avenue, 2nd to 3rd Street Improvements	Second Street	Third Street	Grading, drainage, asphalt concrete pavement, curbs, gutters, sidewalks	Reconstruction	0.286	0.286	\$	Short
NW - 2	Other High Priority Projects	Naches	2	Planned	MPO	Sinclair Avenue, 1st to 2nd Street Improvements	First Street	Second Street	Grading, drainage, asphalt concrete pavement, curbs, gutters, sidewalks	Reconstruction	0.257	0.257	\$	Short
NW - 3	Other High Priority Projects	Naches	4	Planned	MPO	First Street Improvements	Moxee Avenue	Sinclair Avenue	Widen roadway, grading, asphalt concrete pavement, curbs, gutters, sidewalks	Widening	0.223	0.223	\$	Short
NW - 4	Other High Priority Projects	Naches	1	Planned	MPO	Naches Ave. Resurfacing	US12	Second Street	Grind & overlay, new ADA sidewalk ramps, and pavement markings	Restoration	0.237	0.237	\$	Short
NW - 5	Other High Priority Projects	Naches	7	Planned	MPO	Naches Trail Lighting - Final Phase	Shafer Avenue	Elementary School	Install pedestrian lights along the Naches Trail	New Construction	0.300	0.300	\$	Short
NW - 6	Other High Priority Projects	Naches	6	Planned	MPO	Kel-Lowry Road Improvements	Old Naches Highway	Bonlow Drive	Reconstruct existing roadway and extend roadway to Bonlow Drive including grading, curb and gutter, sidewalk, hot mix asphalt, street lights, storm drainage, and related improvements	Reconstruction	1.782	1.782	\$\$	Mid
NW - 7	Other High Priority Projects	Naches	5	Planned	MPO	US 12 Pedestrian Bridge	South side of US 12 near Allan Rd. to north side of US 12 near Allan Road		Construction of complete pedestrian bridge across US 12 near Allan Road including hard surface pathways to connect to existing facilities	New Construction	1.545	1.545	\$\$	Long
NW - 8		Tieton	1	Planned	RTPO	Franklin Road Sidewalk Improvements	Arkansas Avenue	Vineyard Drive	Curb, gutter, sidewalk, and storm	Reconstruction	0.450	0.450	\$	Short
NW - 9		Tieton	2	Planned	RTPO	Elm Street Sidewalk Improvements	Naches Avenue	Tieton Avenue	Sidewalk, storm, and curb ramps	Reconstruction	0.170	0.170	\$	Mid
NW - 10	Other High Priority Projects	Tieton	3	Planned	RTPO	Downtown Revitalization	City Square	City Square	Reconstruct sidewalks with bulbouts on outside perimeter of City Square	Reconstruction	1.000	1.000	\$	Mid
NW - 11	Other High Priority Projects	Tieton	4	Planned	RTPO	Pongola Road BST	Rozenkranz Road	Pongola Road	Double Shot BST Pongola Road	Preservation	0.050	0.050	\$	Mid
NW - 12	Other High Priority Projects	Tieton	5	Planned	RTPO	Wisconsin Avenue Seal Coat	North Tieton Road	Maple Street	Seal Coat existing Roadway	Preservation	0.020	0.020	\$	Mid
NW - 13	Other High Priority Projects	Tieton	6	Planned	RTPO	North Tieton Road Seal Coat	Naches Avenue	City Limits	Seal Coat existing Roadway	Preservation	0.025	0.025	\$	Mid
NW - 14		Tieton	7	Planned	RTPO	North Tieton Road Multi-use Pathway	Naches Tieton Rd	Rosencranz Road	New multi-use pathway	New construction	0.675	0.850	\$	Mid
NW - 15		Tieton	8	Planned	RTPO	Rosencranz Road Multi-use Pathway	Franklin Road	North Tieton Road	New multi-use pathway	New construction	0.650	0.820	\$	Mid
NW - 16	Other High Priority Projects	Tieton	9	Planned	RTPO	Bridge on North Tieton Road	Bridge		Reconstruct bridge	Reconstruction	0.600	0.994	\$	Long
NW - 17	Other High Priority Projects	Tieton	10	Planned	RTPO	Greenway Extension	Naches to Tieton		New multi-use pathway	New construction	8.000	9.000	\$	Long
NW - 18	Fiscally Constrained	WSDOT		Secured	RTPO	US 12/Wildcat Creek to Windy Point - Chip Seal	Wildcat Creek to Windy Point		This project will chip seal the road per recommendations from the materials report to extend the life of the pavement.	Preservation	1.166	3.140	\$\$	Short
NW - 19	Fiscally Constrained	WSDOT		Secured	RTPO	SR 410/American River at Hells Crossing Vicinity - Flood Plain Work	Hells Crossing Vicinity		This project will stabilize the river bank to protect the highway and reduce the need for emergency repairs.	Resiliency	0.590	0.563	\$	Mid
NW - 20	Fiscally Constrained	WSDOT		Secured	RTPO	SR 410/Rock Creek Vic - Improve Chronic Environmental Deficiency	Rock Creek Vic		This project will construct a larger area for sediment storage and overflow, and construct a new structure on SR 410 to minimize the risk of future flooding events.	Resiliency	4.851	4.975	\$\$	Mid
NW - 21	Fiscally Constrained	WSDOT		Secured	RTPO	SR 410/East Winter Gate to Sawmill Flat Campground Vic - Chip Seal	East Winter Gate to Sawmill Flat Campground Vic		This project will chip seal the road per recommendations from the materials report.	Preservation	1.662	1.738	\$	Mid
NW - 22	Fiscally Constrained	WSDOT		Secured	RTPO	SR 821/I-82 to Selah Creek - Chip Seal	I-82 to Selah Creek		This project will chip seal the road per recommendations from the materials report.	Preservation	0.333	0.356	\$	Mid
NW - 23	Other High Priority Projects	Yakima County	TBD	Planned	RTPO	Bumping River Road	M.P. 2.10	M.P. 4.50	Excavate and repair subgrade, new base, and resurface-spot	Reconstruction	0.397	0.397	\$	Short
Total Projected Cost											25.269	29.178		

N - 1	Other High Priority Projects	Selah		Planned	MPO	Overlays - Various Roads	Various Roads		Construct structural overlays on arterial roadways	Preservation	0.335	0.345	\$	Short
N - 2	Other High Priority Projects	Selah		Planned	MPO	Street Asset Amenities, Route Maintenance, Repair, Improvements	Citywide		Maintenance of shelters, benches, and signage throughout our route system	Transit	0.100	0.105	\$	Short
N - 3	Other High Priority Projects	Selah		Planned	MPO	School Safety Projects	Various Locations		Citywide crossing flashers, sidewalks, signing	Safety	0.080	0.084	\$	Short
N - 4	Other High Priority Projects	Selah		Planned	MPO	ADA Improvements	Citywide		Replace or install ADA ramps at intersections	Non-Motorized	0.025	0.026	\$	Short
N - 5	Other High Priority Projects	Selah	9	Planned	MPO	East Naches Avenue	Wenas Road east	Railroad Avenue	Drainage, replace curb & gutter, sidewalks, grading & paving, illumination	Reconstruction	1.389	1.597	\$\$	Mid
N - 6	Other High Priority Projects	Selah	10	Planned	MPO	North Fourth Street	Fremont	West Naches Avenue	Curb & gutter, sidewalk on one side, cut fill, retaining wall on one side, clearing, curbing & paving	Reconstruction	0.495	0.569	\$	Mid
N - 7	Other High Priority Projects	Selah	11	Planned	MPO	Valley View Avenue & South Fifth Street	S 3rd & Valley View Avenue	S 5th Street & Southern Avenue	Curb & gutter, sidewalk on one side, cut fill, retaining wall on one side, clearing, curbing & paving	Reconstruction	2.284	2.627	\$\$	Mid
N - 8	Other High Priority Projects	Selah	13	Planned	MPO	East Goodlander / Lancaster	Spot Improvement		Traffic Signalization	Signalization	0.325	0.374	\$	Mid
N - 9	Other High Priority Projects	Selah		Planned	MPO	Transit Operating/ Capital Expenditures	Citywide		Supplemental funding for transit service operating expenses	Transit	0.568	0.653	\$	Mid
N - 10	Other High Priority Projects	Selah		Planned	MPO	Sealcoat Program/ Various Roads in MTP area	Various Roads		Sealcoat various roads at various locations to be determined by the Pavement Management Plan to reduce PM10	Preservation	0.300	0.309	\$	Mid
N - 11	Other High Priority Projects	Selah		Planned	MPO	Roadway Citywide Shoulder Improvements	Citywide		Citywide shoulder improvements - PM10 abatement	Environmental	0.175	0.186	\$	Mid
N - 12	Other High Priority Projects	Selah	4	Planned	MPO	East Naches Road Extention	Jim Clements Way	I-82 Ramps	Reconstruct existing roadway and extend new roadway to the east including crushed surfacing, HMA, curb and gutter, sidewalk, new bridge, lights, and storm drainage.	Reconstruction / New construction	30.000	34.778	\$\$\$	Mid
N - 13	Fiscally Constrained	WSDOT		Secured	MPO	US 12/W Naches Vic to Old Naches Highway Vic - Chip Seal	W Naches Vic to Old Naches Highway Vic		This project will chip seal the road per recommendations from the materials report to extend the life of the pavement.	Preservation	1.542	6.898	\$\$	Short
N - 14	Fiscally Constrained	WSDOT		Secured	MPO	US 12 / Eschbach Rd - Intersection Safety improvement	US 12 & Eschbach Rd		This project will construct an eastbound left turn acceleration lane on US 12 to prevent freight and passenger vehicle collisions at this intersection.	Safety	0.548	0.741	\$	Short
N - 15	Fiscally Constrained	WSDOT		Secured	MPO	US 12/Ackley Rd/Clover Lane - Intersection Safety Improvements	Ackley Road/Clover Lane and US 12		This project will construct an eastbound right turn acceleration lane on US 12 to prevent freight and passenger vehicle collisions at this intersection.	Safety	0.998	1.074	\$	Short
N - 16	Fiscally Constrained	WSDOT		Secured	MPO	SR 823/E Naches Ave to N Wenas Rd Wye - Paving / ADA	E Naches Ave to N Wenas Rd Wye		This project will grind and resurface the existing roadway to extend the life of the pavement and upgrade the curb ramps to meet current standards	Preservation	1.388	1.388	\$	Short
N - 17	Fiscally Constrained	WSDOT		Secured	MPO	SR 823/Eleventh Ave to E Fifth Ave Vic - Paving / ADA	Eleventh Ave to E Fifth Ave Vic		This project will grind and resurface the existing roadway to extend the life of the pavement and upgrade the curb ramps to meet current standards	Preservation	0.527	0.527	\$	Short
N - 18	Fiscally Constrained	WSDOT		Secured	MPO	SR 823/N Wenas Wye to SR 821 - Chip Seal	N Wenas Wye to SR 821		This project will chip seal the road per recommendations from the materials report.	Preservation	0.392	0.392	\$	Short
N - 19	Fiscally Constrained	WSDOT		Secured	MPO	US12 / Naches River @ Locust Lane Vicinity - Flood Plain Work	Locust Lane	Lowe Road	Shift the eastbound lanes away from the river and permanently stabilize the river bank to protect US 12	Resiliency	31.875	33.045	\$\$\$	Mid
N - 20	Fiscally Constrained	WSDOT		Secured	RTPO	I-82/Selah Creek Bridge WB - Joint Repair	Selah Creek Bridge		This project will replace the existing joints to provide a smoother ride and preserve the structural integrity of the bridges.	Maintenance	0.207	.256	\$	Mid
N - 21	Fiscally Constrained	WSDOT		Secured	MPO	SR 823/ E Fifth Ave to E Naches Ave - Paving	E Fifth Ave to E Naches Ave		This project will grind and resurface the existing roadway to extend the life of the pavement.	Preservation	0.491	0.491	\$	Mid
N - 22	Other High Priority Projects	WSDOT		Planned	MPO	US 12 / Old Naches Hwy Intersection- ITS	Intersection-Old Naches Highway & US12		Install cameras, variable message sign, road weather information system, data stations, communications system	Corridor Enhancement	0.455	0.592	\$	Long
N - 23	Other High Priority Projects	WSDOT		Secured	MPO	US 12/Old Naches Highway - Build Interchange	Old Naches Highway		Constructing a new interchange, we will separate cross-traffic and improve the overall safety and operation of the highway.	Safety	38.440	38.440	\$\$\$	Long
N - 24	Other High Priority Projects	Yakima County	38	Planned	RTPO	McKee Road reconstruction Taylor Road Vic	0.70	0.80	Reconstruct gravel road to standard 30ft BST Roadway	Reconstruction	0.100	0.100	\$	Short

N - 25	Other High Priority Projects	Yakima County	45	Planned	RTPO	Parish Road	Selah Loop Rd	End of Road	Reconstruct gravel road to reduced standard BST section	Reconstruction	0.685	0.685	\$	Short
N - 26	Other High Priority Projects	Yakima County	43	Planned	RTPO	Poulin road	Parish Road	Collins Road	Reconstruct gravel road to 30' paved road	Reconstruction	0.236	0.272	\$	Mid
N - 27	Other High Priority Projects	Yakima County	16	Planned	RTPO	South Naches Road	Powerhouse Road	Young Grade	Reconstruct to county standard 40ft road, improve horizontal and vertical alignment	Reconstruction	0.150	0.178	\$	Mid
N - 28	Other High Priority Projects	Yakima County	26	Planned	RTPO	Old Naches Highway Bridge #460	Bridge		Reconstruct existing bridge	Reconstruction	0.240	0.284	\$	Mid
N - 29	Other High Priority Projects	Yakima County	7	Planned	MPO	Old Naches Highway	SR 12	Mapleway Road	Reconstruct to 4 lanes w/curb, gutter, sidewalk, illumination, bike lanes and channelization	Reconstruction	0.450	0.519	\$	Mid
N - 30	Other High Priority Projects	Yakima County	8	Planned	MPO	Mapleway Road	Selah Heights Road	Old Naches Highway	Reconstruct to 4 lanes w/curb, gutter, sidewalk, illumination, bike lanes and channelization	Reconstruction	0.600	0.692	\$	Mid
N - 31	Other High Priority Projects	Yakima County	42	Planned	RTPO	Collins Road	Grabenstein road	Poulin Road	Reconstruct gravel road to 30ft paved roadway	Reconstruction	0.440	0.480	\$	Mid
N - 32	Other High Priority Projects	Yakima County	46	Planned	MPO	Selah Ridge Road Reconstruction Project	Collins road	End of Road	Standard 30ft BST Roadway	Reconstruction	0.245	0.245	\$	Mid
Total Projected Cost											116.085	128.696		

C - 1	Other High Priority Projects	Union Gap	5	Planned	MPO	Main Street Reconstruction	W.Franklin Street	S. City Limits	Reconstruct, widen, curb, gutter, sidewalk, ACP, storm drainage, illumination, signalization	Reconstruction	3.100	3.100	\$\$	Short
C - 2	Other High Priority Projects	Union Gap	5	Planned	MPO	Downtown Future Initiatives	North City Limits	South City Limits	Sidewalk modifications & other improvements to be determined	Non-Motorized	0.010	0.010	\$	Short
C - 3	Other High Priority Projects	Union Gap	9	Planned	MPO	Regional Beltway Phase 2	Longfibre Road	HWY 97	New construction, 3-lane w/left turn lane, curb, gutter, storm, pathway/ bicycle lanes	New Construction	5.000	5.000	\$\$	Short
C - 4	Other High Priority Projects	Union Gap	11	Planned	MPO	Sealcoat Program/ Various Roads in MTP area	Various Roads		Sealcoat various roads at various locations to be determined by the Pavement Management Plan to reduce PM10	Preservation	0.300	0.309	\$	Short
C - 5	Other High Priority Projects	Union Gap	14	Planned	MPO	Goodman Road	Ahtanum Road	Valley Mall Boulevard	Construct structural overlays on arterial roadways	New Construction	3.100	3.100	\$\$	Short
C - 6	Other High Priority Projects	Union Gap	15	Planned	MPO	School Safety Projects	Various Locations		Citywide crossing flashers, sidewalks, signing	Safety	0.080	0.080	\$	Short
C - 7	Other High Priority Projects	Union Gap	18	Planned	MPO	Old Town Road Reconstruction	Main Street	Valley Mall Boulevard	Reconstruction, curb, gutter, sidewalk	Reconstruction	0.463	0.505	\$	Short
C - 8	Other High Priority Projects	Union Gap	19	Planned	MPO	North Rudkin Road Reconstruction	East Mead Avenue	I-82 Valley Mall Blvd Int.	Partner with City of Yakima to reconstruct roadway including excavation, curb and gutter, sidewalk, crushed surfacing, hot mix asphalt, storm drainage, and illumination	Reconstruction	1.193	1.300	\$\$	Short
C - 9	Other High Priority Projects	Union Gap	20	Planned	MPO	Roadway Citywide Shoulder Improvements	Citywide		Citywide shoulder improvements - PM10 abatement	Environmental	0.175	0.186	\$	Short
C - 10	Other High Priority Projects	Union Gap	22	Planned	MPO	Citywide Transportation Planning Projects	Citywide		Various transportation, traffic operations, and safety related planning activities and main street revitalization plan	Planning/Safety	0.050	0.054	\$	Short
C - 11	Other High Priority Projects	Union Gap	23	Planned	MPO	Storm Drain / Vegetation	Citywide		Citywide Storm Drain Maintenance	Preservation	0.040	0.040	\$	Short
C - 12	Other High Priority Projects	Union Gap	24	Planned	MPO	Signal Upgrades - Local Selection	Citywide		Upgrade signals	Intersection/Operations	0.225	0.245	\$	Short
C - 13	Other High Priority Projects	Union Gap	10	Planned	MPO	Ahtanum Road Reconstruction Phase 2	Goodman Road	16th Avenue	Reconstruct and widen to include curb, gutter, sidewalk, HMA, storm drainage, illumination, bridge, and culvert replacement	Reconstruction	4.554	4.827	\$\$	Mid
C - 14	Other High Priority Projects	Union Gap	16	Planned	MPO	South 12th Avenue	Valley Mall Boulevard	Wide Hollow Creek	Reconstruct roadway including excavation, curb and gutter, sidewalk, crushed surfacing, hot mix asphalt, storm drainage improvements, and illumination	Reconstruction	0.350	0.383	\$	Mid
C - 15	Other High Priority Projects	Union Gap	26	Planned	MPO	South 10th Avenue - North/South Connector - 2 Phases	Ahtanum Road	West Washington Road	New roadway construction, reconstruction of existing roadway, replace existing bridge, improve intersection and signalization at Pioneer Street	New Construction	7.000	8.115	\$\$	Mid
C - 16	Other High Priority Projects	Union Gap	27	Planned	MPO	Pathway/Sidewalk Project	Citywide		Construct sidewalk/pathways at various locations	Non-Motorized	1.100	1.265	\$\$	Mid
C - 17	Other High Priority Projects	Union Gap		Planned	MPO	10th Avenue Bridge Replacement	Wide Hollow Creek		Replace existing Bridge	Reconstruction	0.700	0.700	\$	Mid
C - 18	Other High Priority Projects	Union Gap		Planned	MPO	Ahtanum Road Reconstruction	Goodman Road	E. Main St.	Reconstruct and widen to include curb, gutter, sidewalk, HMA, storm drainage, and illumination.	Preservation	2.000	2.000	\$\$	Mid
C - 19	Other High Priority Projects	Union Gap		Planned	MPO	Valley Mall Resurfacing	S. 3rd Ave.	W. Washington Ave.	Grind and overlay existing roadway including, paving fabric, HMA, new stripin, and installation of signal detection loops.	Preservation	2.000	2.000	\$\$	Mid
C - 20	Other High Priority Projects	Union Gap	21	Planned	MPO	Goodman Road Bridge	Wide Hollow Creek		Replace existing Bridge	Reconstruction	2.265	2.619	\$\$	Long
C - 21	Fiscally Constrained	WSDOT		Secured	MPO	US 12/N 16th Ave Interchange - Mitigate Redirectional Landform	US 12 & 16th Ave Interchange		This project will remove or shield the existing redirectional landform to reduce the risk of collisions.	Safety	0.160	0.161	\$	Short
C - 22	Fiscally Constrained	WSDOT		Secured	MPO	SR 24/I-82 to Riverside Rd - Paving	I-82 to Riverside Rd		This project will grind and resurface the existing roadway to extend the life of the pavement.	Preservation	1.369	1.369	\$	Short

C - 23	Fiscally Constrained	WSDOT		Secured	MPO	US 97/Union Gap Vicinity - Stabilize Slope	Union Gap		This project will remove debris and install a rockfall protection fence above the existing retaining wall to reduce the risk of rocks falling onto the roadway and the potential for collisions. This project will remove debris and install a rockfall protection fence above the existing retaining wall to reduce the risk of rocks falling onto the roadway and the potential for collisions.	Safety	0.439	0.421	\$	Short
C - 24	Fiscally Constrained	WSDOT		Secured	MPO	I-82/Selah Creek to Yakima Vicinity - Paving	Selah Creek to Yakima Vicinity		This project will pave the highway per recommendations from the materials report.	Preservation	7.410	7.410	\$\$	Mid
C - 25	Fiscally Constrained	WSDOT		Secured	MPO	I-82/Naches & Yakima River Bridges- Joint Repair	Selah Gap		This project will replace the existing joints to provide a smoother ride and preserve the structural integrity of the bridges.	Preservation	1.530	1.530	\$	Mid
C - 26	Fiscally Constrained	WSDOT		Secured	MPO	I-82/Naches & Yakima River Bridges - Bridge Painting	Selah Gap		This project will clean and paint the existing steel surfaces to preserve the structural integrity of the bridge.	Preservation	16.329	16.329	\$\$\$	Mid
C - 27	Fiscally Constrained	WSDOT		Secured	MPO	I-82/N-W Ramp Over Terrace Heights Way - Deck Rehabilitation	I-82 & Terrace Heights Way		This project will repair and resurface the existing bridge deck to maintain structural integrity, continue safe operation of the highway, and extend the life of the bridge.	Preservation	0.425	0.425	\$	Mid
C - 28	Fiscally Constrained	WSDOT		Secured	MPO	I-82/Yakima to Union Gap Corridor Improvements	US 12 to SR 24		This project will increase capacity on I-82 between the US 12 interchange and the SR 24/Nob Hill Blvd interchange, replacing bridges, and improving on/off connections. This project in conjunction with related City of Yakima and Yakima County system improvements will reduce congestion and the risk of collisions.	Congestion	64.413	64.413	\$\$\$	Mid
C - 29	Fiscally Constrained	WSDOT		Secured	MPO	I-82/Nob Hill Blvd Interchange - Paving	Nob Hill Blvd Interchange		This project will pave the ramps per recommendations from the materials report	Preservation	1.254	1.254	\$	Mid
C - 30	Fiscally Constrained	WSDOT		Secured	MPO	I-82/Yakima River Bridges at Union Gap - Joint Repair	Yakima River Bridges at Union Gap		This project will replace the existing joints to provide a smoother ride and preserve the structural integrity of the bridges.	Preservation	0.835	0.835	\$	Mid
C - 31	Other High Priority Projects	WSDOT		Planned	MPO	US 12 / 16th Ave I/C-interchange modifications	Interchange		Improve pedestrian safety at existing interchange	Interchange	3.200	4.160	\$\$	Long
C - 32	Other High Priority Projects	Yakima	1	Planned	MPO	North 1st Street Revitalization	MLK Boulevard	N Street	Reconstruct and improve existing road w/pavement and lane markings, illumination, median islands, pedestrian environment improvements	Reconstruction	11.000	11.000	\$\$\$	Short
C - 33	Fiscally Constrained	Yakima	4	Secured	MPO	Yakima Valley Transportation Company Preservation	Intersection of Yakima Avenue and 6th Avenue		Remove and replace a portion of the existing trolley rail		0.060	0.060	\$	Short
C - 34	Fiscally Constrained	Yakima	3	Secured	MPO	Garfield Elementary Safety Improvements	Various Improvements in the vicinity of Garfield Elementary		Constructing sidewalk, improving roadway crossings and installing flashers	Safety	0.270	0.270	\$	Short
C - 35	Other High Priority Projects	Yakima	56	Planned	MPO	I-82 & Lincoln Avenue Interchange	East "G" Street	I-82	Reconstruct/ extend off-ramp from existing I-82 off-ramp for Lincoln Avenue to East "G" Street	Reconstruction	1.000	1.030	\$\$	Short
C - 36	Other High Priority Projects	Yakima	45	Planned	MPO	East Yakima Avenue & Fair Avenue Signalization	East Yakima Avenue	Fair Avenue	Install Traffic Signal	Intersection/ Operations	1.000	1.030	\$\$	Short
C - 37	Other High Priority Projects	Yakima	9	Planned	MPO	East "H" Street Extension, Phase 1	1st Street	7th Street	Reconstruct and widen existing roadway, including water, sewer, curb, gutter, sidewalk, street lighting and storm drainage system	Reconstruction	6.000	6.500	\$\$	Short
C - 38	Other High Priority Projects	Yakima	8	Planned	MPO	Bravo Company Boulevard	H' Street	'D' Street	Construct a new road, water, sewer, curbs, gutters, sidewalks for future development	New Construction	16.992	16.992	\$\$\$	Short
C - 39	Other High Priority Projects	Yakima	47	Planned	MPO	S. 75th Avenue Improvements	Mead Avenue	Nob Hill Boulevard	Construct new two-lane roadway and widen portions of existing roadway, install curb, gutter, sidewalk, street lighting and drainage system	New Construction	1.500	1.600	\$\$	Short
C - 40	Other High Priority Projects	Yakima	34	Planned	MPO	E Mead Avenue Reconstruction	Rudkin Road	Fair Avenue	Partner with City of Union Gap, reconstruct, excavate ballast, top course, curb, gutter, storm water, ACP	Reconstruction	2.400	2.500	\$\$	Short
C - 41	Other High Priority Projects	Yakima	22	Planned	MPO	18th Street Underpass	Yakima Avenue	18th Street	Repair or replace 18th Street underpass	Reconstruction	2.860	3.000	\$\$	Short
C - 42	Other High Priority Projects	Yakima	18	Planned	MPO	Northside Alley Pavers	16th Avenue	6th Avenue	Pave the east/west alleys between Folsom Avenue and Fruitvale Boulevard	Environmental	0.500	0.500	\$	Short

C - 43	Other High Priority Projects	Yakima	15	Planned	MPO	S. 80th Avenue Box Culvert	Wide Hollow Road	Plath Avenue	Install box culvert adjacent to the 80th Avenue Bridge to reduce flooding issues	New Construction	0.500	0.500	\$	Short
C - 44	Other High Priority Projects	Yakima	16	Planned	MPO	Wide Hollow Road Box Culvert	89th Avenue	88th Avenue	Install box culvert adjacent to the Wide Hollow Road Bridge to reduce flooding issues	Reconstruction	0.500	0.500	\$	Short
C - 45	Other High Priority Projects	Yakima	10	Planned	MPO	E. H Street Extension	Bravo Co. Boulevard	I-82	Construct new roadway, water, sewer, curb, gutter, sidewalk, street lighting and drainage system	New Construction	3.500	3.500	\$\$	Short
C - 46	Other High Priority Projects	Yakima		Planned	MPO	Fixed route Bus Services to Moxee along SR-24 Corridor	Moxee Demonstration Route		Demonstration project to determine ridership potential to/from Moxee incl stops at 2 Park & Rides on SR-24	Transit	0.262	0.278	\$	Short
C - 47	Other High Priority Projects	Yakima		Planned	MPO	Fixed route Bus Services to Moxee along SR-24 Corridor	Moxee Demonstration Route		JARC funded demonstration project to determine ridership potential to and from Moxee including stops at 2 Park & Rides on SR-24	Transit	0.262	0.278	\$	Short
C - 48	Other High Priority Projects	Yakima	12	Planned	MPO	34th Avenue and Fruitvale	Intersection: 34th Avenue and Fruitvale Blvd.		Install Roundabouts	Intersection / Operations	1.200	1.200	\$	Short
C - 49	Fiscally Constrained	Yakima	11	Secured	MPO	Cowiche Canyon Trail	Powerhouse Road	Cowiche Canyon Trail Trailhead	Construct trail including two bridges	New Construction	2	2.2	\$\$	Short
C - 50	Fiscally Constrained	Yakima	17	Secured	MPO	West River Road Reconstruction	40th Avenue	34th Avenue	Reconstruct and widen roadway to three lanes, install curb, gutter, sidewalks, street lights and drainage	Reconstruction	1.536	1.536	\$\$	Short
C - 51	Fiscally Constrained	Yakima	25	Secured	MPO	McClure Elementary Safety Improvements	Various Improvements in the vicinity of McClure Elementary		Install sidewalk, ADA ramps, crosswalks	New Construction	0.270	0.300	\$	Short
C - 52	Fiscally Constrained	Yakima	23	Secured	MPO	64th Avenue and Ahtanum Road Intersection Improvements	Intersection of 64th Avenue and Ahtanum Road		Add right turn lane for westbound Ahtanum and install a traffic signal	New Construction	0.575	0.600	\$	Short
C - 53	Other High Priority Projects	Yakima	46	Planned	MPO	South 3rd Avenue & Washington Avenue Signal	Intersection: South 3rd Avenue & Washington Avenue		Signal Upgrade	Intersection/Operations	0.227	0.227	\$	Mid
C - 54	Other High Priority Projects	Yakima	29	Planned	MPO	South 1st Street and East Washington Avenue Intersection Improvement	Intersection: South 1st Street & East Washington Avenue		Realign intersection, widen E. Washington to accommodate additional lane, upgrade traffic signal	Intersection/Operations	2.000	2.200	\$\$	Mid
C - 55	Other High Priority Projects	Yakima	35	Planned	MPO	South 48th Avenue Reconstruction	Summitview Avenue	Nob Hill Boulevard	Reconstruct and widen, install curb, gutter, sidewalk street lighting and drainage system	Reconstruction	3.090	3.300	\$\$	Mid
C - 56	Other High Priority Projects	Yakima	39	Planned	MPO	Yakima Downtown Future Initiatives Phase 5	1st Street	9th Street	Install historic lighting, sidewalk modification, other improvements, exact locations TBD	Non-Motorized	6.000	6.000	\$\$	Mid
C - 57	Other High Priority Projects	Yakima	30	Planned	MPO	Longfibre Road & Washington Avenue	Intersection: Longfibre Road & Washington Avenue		Construct left-turn lanes on Washington Avenue and Longfiber Road	Reconstruction	1.023	1.250	\$\$	Mid
C - 58	Other High Priority Projects	Yakima	40	Planned	MPO	East Nob Hill Boulevard and South 18th Street	Intersection: East Nob Hill Boulevard & South 18th Street		Widen south leg for double LT from west bound Nob Hill, curb, gutter, sidewalk, upgrade traffic signal system, possibly tie to WSDOT project	Intersection/Operations	0.878	1.000	\$\$	Mid
C - 59	Other High Priority Projects	Yakima	37	Planned	MPO	West Lincoln Avenue and MLK Boulevard Realignment	West 5th Ave	Custer Street	Realignment of West Lincoln Avenue, sidewalks, curb, gutter, illumination	Reconstruction	3.783	4.123	\$\$	Mid
C - 60	Other High Priority Projects	Yakima	31	Planned	MPO	East Nob Hill Boulevard Reconstruction	South 6th Street	South 18th Street	Reconstruct and widen existing Roadway; Intersection Improvements	Reconstruction	9.442	10.642	\$\$\$	Mid
C - 61	Other High Priority Projects	Yakima	42	Planned	MPO	South 72nd Avenue and West Washington Avenue Intersection	Intersection: South 72nd Avenue & West Washington Avenue		Intersection improvement - install traffic signal or construct roundabout	Intersection/Operations	1.000	1.200	\$\$	Mid
C - 62	Other High Priority Projects	Yakima	32	Planned	MPO	40th Avenue and Summitview Avenue Signal	Intersection: 40th Avenue & Summitview Avenue		Signal upgrade, radius improvements, turn lane extension	Intersection/Operations	0.844	0.895	\$	Mid
C - 63	Other High Priority Projects	Yakima	33	Planned	MPO	16th Avenue and Fruitvale Boulevard	Intersection: 16th Avenue & Fruitvale Boulevard		Replace traffic signal system, increase curb radii, install ADA ramps	Intersection/ Operations	1.269	1.400	\$\$	Mid
C - 64	Other High Priority Projects	Yakima	49	Planned	MPO	Rudkin Road Reconstruction	East Viola Avenue	Rainier Place	Reconstruct, excavate ballast, top course, curb, gutter, sidewalk Partner with City of Union Gap, additional sewer force main	Reconstruction	2.232	2.350	\$\$	Mid
C - 65	Other High Priority Projects	Yakima	54	Planned	MPO	88th Avenue	Tieton Drive	Summitview Avenue	Construct curb, gutter, sidewalk, Stormwater runoff treatment on the east side of 88th	Non-Motorized	0.405	0.417	\$	Mid
C - 66	Other High Priority Projects	Yakima	55	Planned	MPO	64th Avenue Roadway Widening	Washington Avenue	Nob Hill Boulevard	Widen roadway, curb, gutter, sidewalks, illumination, drainage	Widening	2.081	2.143	\$\$	Mid
C - 67	Other High Priority Projects	Yakima	61	Planned	MPO	S. 1st Street and Main Street	Nob Hill Boulevard	Barker Mill Bridge	Study to determine strategies for improving this section of the corridor	Joint Study with Union Gap	0.137	0.137	\$	Mid
C - 68	Other High Priority Projects	Yakima		Planned	MPO	Cascade Mill Parkway, Phase 2	'R' Street	'H' Street	Construct a new road, water, sewer, curbs, gutters, sidewalks for future development	New Construction	8.500	8.500	\$\$	Mid

C - 69	Other High Priority Projects	Yakima	36	Planned	MPO	Powerhouse Road and Englewood Avenue	Intersection: Powerhouse Road & Englewood Avenue		Intersection realignment, curb, gutter, sidewalk, safety flashing signal, possible roundabout	Reconstruction	0.700	0.728	\$	Mid
C - 70	Other High Priority Projects	Yakima	28	Planned	MPO	SR12 & 16th Avenue Interchange	16th Avenue	SR12	Upgrade interchange by constructing a roundabout	Reconstruction	1.000	1.250	\$\$	Long
C - 71	Other High Priority Projects	Yakima	38	Planned	MPO	Tieton Drive and South 5th Avenue Intersection Project	Intersection: Tieton Drive & 5th Avenue		Replace traffic signal with roundabout	Reconstruction	1.470	1.500	\$	Long
C - 72	Other High Priority Projects	Yakima	41	Planned	MPO	South 48th Avenue and Summitview Avenue Signalization	Intersection: 48th Avenue & Summitview Avenue		Install Traffic Signal	Intersection/ Operations	0.693	0.755	\$	Long
C - 73	Other High Priority Projects	Yakima	48	Planned	MPO	South 66th Avenue	Scenic Drive	Summitview Avenue	Reconstruct and widen roadway, curb, gutter, sidewalk, drainage system and utilities	Reconstruction	1.288	1.365	\$\$	Long
C - 74	Other High Priority Projects	Yakima	43	Planned	MPO	40th Avenue and Englewood Avenue	Intersection: 40th Avenue & Englewood Avenue		Replace traffic signal poles, upgrade controller	Intersection/ Operations	0.500	0.500	\$	Long
C - 75	Other High Priority Projects	Yakima	52	Planned	MPO	South 80th Avenue - Tieton Drive to Zier Road	Tieton Drive	Zier Road	Major widening, curb, gutter, sidewalk	Widening	2.519	2.670	\$\$	Long
C - 76	Other High Priority Projects	Yakima	50	Planned	MPO	Englewood Avenue - N. 40th Avenue to N. 56th Avenue	North 40th Avenue	N 56th Avenue	Widen roadway, curb, gutter, sidewalk	Widening	3.411	3.718	\$\$	Long
C - 77	Other High Priority Projects	Yakima	51	Planned	MPO	Englewood Avenue - North 24th Avenue to North 16th Avenue	North 16th Avenue	North 24th Avenue	Widen roadway, curb, gutter, sidewalk, water and sewer lines	Widening	3.855	4.202	\$\$	Long
C - 78	Other High Priority Projects	Yakima	44	Planned	MPO	West Nob Hill Boulevard Sidewalks	South 16th Avenue	South 6th Street	Install missing sidewalks on south side of Nob Hill	Non-Motorized	1.000	1.100	\$	Long
C - 79	Other High Priority Projects	Yakima	53	Planned	MPO	Englewood Avenue	24th Avenue	40th Avenue	Reconstruct roadway, widen, curb, gutter, sidewalks, sewer, water and illumination	Reconstruction	3.854	4.316	\$\$	Long
C - 80	Other High Priority Projects	Yakima	60	Planned	MPO	North/ South Connector	Ahtanum Road	Summitview Extension	Corridor study to determine the best location for a north/south limited access route in West Valley	Study	0.500	0.500	\$	Long
C - 81	Other High Priority Projects	Yakima	58	Planned	MPO	40th Avenue Corridor	SR12	Washington Avenue	Study to determine strategies for improving the 40th Avenue corridor	Study	0.200	0.200	\$	Long
C - 82	Other High Priority Projects	Yakima	59	Planned	MPO	Nob Hill Boulevard Corridor	I-82	South 16th Avenue	Study to determine strategies for improving the Nob Hill Boulevard corridor	Study	0.200	0.200	\$	Long
C - 83	Other High Priority Projects	Yakima	57	Planned	MPO	16th Avenue Corridor	SR12	Washington Avenue	Study to determine strategies for improving the 16th Avenue corridor	Study	0.200	0.200	\$	Long
C - 84	Other High Priority Projects	Yakima		Planned	MPO	Westside Transit Center	Park & Ride Facility - West Side		Construct a West Side Transit Center (park & ride)	Transit	16.000	16.960	\$\$\$	Long
C - 85	Other High Priority Projects	Yakima	Conceptual	Planned	MPO	Occidental Road Construction	58th Avenue	64th Avenue	Construct roadway	New Construction	0.100	0.109	\$	Long
C - 86	Fiscally Constrained	Yakima County	4	Secured	MPO	Butterfield Road	Terrace Heights Drive	North 33rd Street	Reconstruct to 3 lanes w/curb, gutter, sidewalk, illumination, install traffic signal at Terrace Heights Drive	Reconstruction	0.240	0.262	\$	Short
C - 87	Other High Priority Projects	Yakima County	TBD	Planned	RTPO	South 62nd Ave.	Meadowbrook Road	South Ahtanum Road	Reconstruct gravel road to 30ft paved roadway	Reconstruction	0.045	0.050	\$	Short
C - 88	Other High Priority Projects	Yakima County	10	Planned	RTPO	Wide Hollow Road	Yakima City Limits	Cottonwood Canyon Road	Reconstruct to rural collector standards	Reconstruction	0.550	0.550	\$	Mid
C - 89	Fiscally Constrained	Yakima County	1b	Secured	MPO	E-W Corridor Right of Way and Construction	1st Street (Yakima)	Butterfield Road (Terrace Heights)	Purchase Right of Way and Begin Construction of a new arterial connection between Terrace Heights and North Yakima	New Construction	0.500	15.000	\$\$\$	Mid
C - 90	Fiscally Constrained	Yakima County	3	Secured	MPO	Ahtanum Road	South 26th Ave.	South 52nd Ave	Reconstruct to 3 lanes w/curb, gutter, sidewalk, illumination, bike lanes, and channelization	Reconstruction	0.150	0.173	\$	Short
C - 91	Other High Priority Projects	Yakima County	1c	Secured	MPO	E-W Corridor Construction	Adjacent and Supporting Infrastructure		Construct supporting and adjacent infrastructure for the new arterial connection between Terrace Heights and North Yakima	New Construction	0.500	29.000	\$	Mid
C - 92	Other High Priority Projects	Yakima Transit		Planned	MPO	Vanpool Vehicles Acquisition	(City of) Yakima Transit Service Area		Purchase 8 new 12-to-15 passenger vans	New Vehicle Acquisition	0.832	0.832	\$	Short
C - 93	Other High Priority Projects	Yakima Transit		Planned	MPO	Fixed Route Vehicle Acquisition	(City of) Yakima Transit Service Area		Purchase 6 new Buses	New Vehicle Acquisition	7.550	7.550	\$\$	Short
C - 94	Other High Priority Projects	Yakima Transit		Planned	MPO	Para-Transit Vehicle Acquisition	(City of) Yakima Transit Service Area		Purchase 14 Minivans, 8 Cutaways (2020-2025)	New Vehicle Acquisition	1.766	1.776	\$	Short

C - 95	Other High Priority Projects	Yakima Transit		Planned	MPO	Vanpool Vehicles Acquisition	(City of) Yakima Transit Service Area	Purchase 12 new 12-to-15 passenger vans	New Vehicle Acquisition	0.648	0.648	\$	Mid
C - 96	Other High Priority Projects	Yakima Transit		Planned	MPO	Fixed Route Vehicle Acquisition	(City of) Yakima Transit Service Area	Purchase 12 new Buses	New Vehicle Acquisition	6.600	6.600	\$\$	Mid
C - 97	Other High Priority Projects	Yakima Transit		Planned	MPO	Para-Transit Vehicle Acquisition	(City of) Yakima Transit Service Area	Purchase 6 Minivans, 6 Cutaways	New Vehicle Acquisition	1.320	1.320	\$	Mid
C - 98	Other High Priority Projects	Yakima Transit		Planned	MPO	Transit Passenger Shelters & Benches	(City of) Yakima Transit Service Area	Purchase 30 Shelters and 50 Benches	New Construction & Equipment	0.278	0.278	\$	Mid
C - 99	Other High Priority Projects	Yakima Transit		Planned	MPO	Transit Facility - West Valley Area	(City of) Yakima Transit Service Area	Purchase Land, Build Administration Building & Maintenance Facility in West Yakima Region	New Construction	25.000	25.000	\$\$\$	Mid
C - 100	Other High Priority Projects	Yakima Transit		Planned	MPO	Vanpool Vehicles Acquisition	(City of) Yakima Transit Service Area	Purchase 25 new 12-to-15 Passenger Vans	New Vehicle Acquisition	1.150	1.150	\$\$	Long
C - 101	Other High Priority Projects	Yakima Transit		Planned	MPO	Fixed Route Vehicle Acquisition	(City of) Yakima Transit Service Area	Purchase 30 new Buses	New Vehicle Acquisition	18.600	18.600	\$\$\$	Long
C - 102	Other High Priority Projects	Yakima Transit		Planned	MPO	Para-Transit Vehicle Acquisition	(City of) Yakima Transit Service Area	Purchase 20 Minivans, 15 Cutaways	New Vehicle Acquisition	3.825	3.825	\$\$	Long
C - 103	Other High Priority Projects	Yakima Transit		Planned	MPO	Transit Passenger Shelters & Benches	(City of) Yakima Transit Service Area	Purchase 50 Shelters and 80 Benches	New Construction & Equipment	0.580	0.580	\$	Long
C - 104	Other High Priority Projects	Yakima Transit		Planned	MPO	Security - Cameras & Accessories	(City of) Yakima Transit Service Area	Purchase cameras for buses and facility along with any accessories	New Equipment	0.600	0.600	\$	Long
C - 105	Other High Priority Projects	Yakima Transit		Planned	MPO	East Valley Transit Center and Park & Ride	(City of) Yakima Transit Service Area	Purchase Land and build a small transit center near "Old K-Mart Property" off Nob Hill Blvd & I-82	New Construction	4.600	4.600	\$\$	Long
Total Projected Cost										340.991	393.970		

EV - 1	Other High Priority Projects	Moxee	3	Planned	MPO	Faucher Road Half- Street	Moxee Avenue	East Charron Road	Reconstruct with new pavement, curbs, gutters, sidewalks, drainage, illumination	Reconstruction	0.522	0.522	\$	Short
EV - 2	Fiscally Constrained	Moxee	4	Secured	MPO	Morrier Lane Extension	Birchfield Rd	Mieras Rd	Construct new 3 lane roadway including pavement, curb, gutter, sidewalk, street lights, drainage	New	2.845	2.845	\$\$	Short
EV - 3	Other High Priority Projects	Moxee	2	Planned	MPO	Moxee Ave	Rivard Rd	Faucher Rd	Grind and overlay	Overlay	0.400	0.400	\$	Short
EV - 4	Other High Priority Projects	Moxee	1	Planned	MPO	Iler St	Park	Charron Rd	Grind and overlay	Overlay	0.497	0.497	\$	Short
EV - 5	Other High Priority Projects	Moxee	6	Planned	MPO	SR 24 Pathway	University Parkway	Morrier Lane	Construct multi use pathway and safety fencing	New	1.065	1.065	\$	Mid
EV - 6	Other High Priority Projects	Moxee	5	Planned	MPO	Yakima Ave	Iler Street	Tacoma Street	Reconstruct with new pavement, curbs, gutters, sidewalks, drainage and illumination	Reconstruction	0.350	0.350	\$	Mid
EV - 7	Other High Priority Projects	Moxee	7	Planned	MPO	East Charron Road Improvements	Faucher Road	East City Limits	Reconstruct with new pavement, curbs, gutters, sidewalks, drainage, illumination	Reconstruction	1.169	1.169	\$	Long
EV - 8	Other High Priority Projects	Moxee	8	Planned	MPO	Postma Road Improvements	Rivard Road	East City Limits	Widen and reconstruct with curb, gutter and sidewalk	Reconstruction	0.809	0.809	\$	Long
EV - 9	Other High Priority Projects	Moxee	9	Planned	MPO	Faucher Road Improvements	East Charron Road	North City Limits	Reconstruct with new pavement, curbs, gutters, sidewalks, drainage and illumination	Reconstruction	1.689	1.689	\$	Long
EV - 10	Other High Priority Projects	Moxee	10	Planned	MPO	Mieras Road Improvements	Birchfield Road	Ekelman Road	Reconstruct with new pavement, curbs, gutters, sidewalks, drainage, illumination	Reconstruction	5.569	5.569	\$\$	Long
EV - 11	Other High Priority Projects	Moxee	11	Planned	MPO	Morrier Lane South	SR 24	Postma Rd	Construct new 3 lane roadway including pavement, curb, gutter, sidewalks, drainage	New	3.000	3.000	\$\$	Long
EV - 12	Other High Priority Projects	Moxee	12	Planned	MPO	Ekleman Rd	School Road	South End of Road	Reconstruct with new pavement, curbs, gutters, sidewalks, drainage and illumination	Reconstruction	1.576	1.576	\$	Long
EV - 13	Fiscally Constrained	WSDOT		Secured	RTPO	SR 24/Faucher Road Vic to 1.7 Miles E of Badger Lane - Chip Seal	Faucher Road Vic to 1.7 Miles E of Badger Lane		This project will chip seal the road per recommendations from the materials report.	Preservation	1.044	1.038	\$	Short
EV - 14	Fiscally Constrained	WSDOT		Secured	RTPO	SR 24/7.4 Miles W of SR 241 to SR 241 - Chip Seal	7.4 Miles W of SR 241 to SR 241		This project will chip seal the road per recommendations from the materials report.	Preservation	0.898	0.898	\$	Mid
EV - 15	Other High Priority Projects	Yakima County	50	Planned	MPO	Bridle Way	Bittner Road	End of pavement	Reconstruct gravel road to standard 30ft paved roadway	Reconstruction	0.260	0.840	\$	Short
EV - 16	Other High Priority Projects	Yakima County	51	Planned	MPO	Bridle Lane	Terrace Heights Drive	Bridle Way	Reconstruct gravel road to standard 30ft paved roadway	Reconstruction	0.190	0.147	\$	Short
EV - 17	Other High Priority Projects	Yakima County	49	Planned	MPO	Mieras Road Reconstruction Project	Coombs Road	End of Road	Reconstruct gravel road to standard 30ft BST Roadway	Reconstruction	0.970	0.970	\$	Mid
EV - 18	Other High Priority Projects	Multiple Jurisdictions		Planned	MPO	Moxee Trail Project	University Parkway	Moxee Park Vicinity	Construct a paved pedestrian / bicycle pathway along the SR 24 Corridor	New	8.600	8.600	\$\$\$	Mid
Total Projected Cost											31.453	31.984		

SC - 1	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Sidewalk Improvements	N/A	N/A	Reconstruct sidewalk, curb and gutter, vegetation removal/replace	Reconstruction/ Preservation	0.500	0.500	\$	Short
SC - 2	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Pavement Rehabilitation	N/A	N/A	Resurfacing, grind, and overlay	Preservation	0.500	0.500	\$	Short
SC - 3	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Surfacing Improvements	N/A	N/A	Seal coat, fog seal	Preservation	0.500	0.500	\$	Short
SC - 4	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide ADA Improvements	N/A	N/A	ADA upgrades	New Construction/ Reconstruction	0.500	0.500	\$	Short
SC - 5	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Transportation Alternatives	N/A	N/A	Transportation alternatives upgrades including trails	New Construction/ Reconstruction	0.500	0.500	\$	Short
SC - 6	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Safety Improvements	N/A	N/A	Safety upgrades to roadway and sidewalk network, including traffic calming and signage upgrades (as need)	New Construction/ Reconstruction	0.500	0.500	\$	Short
SC - 7	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Illumination Improvements	N/A	N/A	Illumination upgrades	New Construction/ Reconstruction	0.500	0.500	\$	Short
SC - 8	Other High Priority Projects	Harrah		Planned	RTPO	City-Wide Stormwater Improvements	N/A	N/A	Stormwater upgrades	New Construction/ Reconstruction	0.500	0.500	\$	Short
SC - 9	Other High Priority Projects	Harrah		Planned	RTPO	City Equipment Acquisition	N/A	N/A	Equipment acquisition	Purchase	0.500	0.500	\$	Short
SC - 10	Other High Priority Projects	Harrah		Planned	RTPO	Chipseal - Various Streets	Various Streets		Chipseal	Preservation	0.029	0.029	\$	Mid
SC - 11	Other High Priority Projects	Harrah		Planned	RTPO	Branch Road Chipseal	East City Limits	West City Limits	Chipseal	Preservation	0.020	0.020	\$	Mid
SC - 12	Other High Priority Projects	Harrah		Planned	RTPO	Fill Cracks in Pioneer Circle	E. End of Pioneer St.	E. End of Pioneer St.	Fill Cracks	Preservation	0.004	0.004	\$	Mid
SC - 13	Other High Priority Projects	Harrah		Planned	RTPO	Harrah Road Chipseal	N. City Limits	S. City Limits	Chipseal	Preservation	0.017	0.017	\$	Mid
SC - 14	Other High Priority Projects	Harrah		Planned	RTPO	North Harrah Road Sidewalk Extension	Elementary School	City Limits	Continue ADA Standard Sidewalks on East Side of Roadway	New Construction	0.020	0.035	\$	Mid
SC - 15	Other High Priority Projects	Harrah		Planned	RTPO	Harrah Bus Shelters	Harrah / Branch Intersection Vicinity		Shelter Located Close to Harrah / Branch Road Intersection	New Construction	---	---	\$	Mid
SC - 16	Other High Priority Projects	Harrah		Planned	RTPO	Harrah & Branch Rds Flashing Speed Signs	N, S, E. & W Town Limits		Intallation of Flashing Speed Limit Signage	New Construction	---	---	\$	Mid
SC - 17	Other High Priority Projects	Harrah		Planned	RTPO	Harrah Bicycle Path	Within City Limits - where property is available		Asphalt Bicycle Pathway	New Construction	---	---	\$	Mid
SC - 18	Fiscally Constrained	Toppenish		Secured	RTPO	Lincoln Ave/Dayton Ave/Beech St. Improvements	N. FSt to N. L St	Elm St to Zillah Ave	Construct new sidewalks. Construct new curb and gutter and storm drainage, and illumination	Reconstruction	1.900	1.900	\$	Short
SC - 19	Fiscally Constrained	Toppenish	5	Secured	RTPO	Jackson Street Extension	Juniper Street	Ward Road	Reconstruction of existing street and extension to Ward Road	New Construction	1.770	1.507	\$\$	Mid
SC - 20	Other High Priority Projects	Toppenish		Planned	RTPO	4th Avenue Improvements	S. Elm Street	Bolin Drive	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.100	1.435	\$	Mid
SC - 21	Other High Priority Projects	Toppenish		Planned	RTPO	Asotin Avenue Improvements	Buena Way	E. Toppenish Avenue	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	2.000	2.687	\$\$	Mid
SC - 22	Other High Priority Projects	Toppenish		Planned	RTPO	Asotin Avenue Improvements	E. Toppenish Avenue	E. 1st Street	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.500	2.015	\$\$	Mid
SC - 23	Other High Priority Projects	Toppenish		Planned	RTPO	4th Avenue Improvements	Bolin Drive	S. Division Street	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.500	2.015	\$	Mid
SC - 24	Other High Priority Projects	Toppenish		Planned	RTPO	Elmwood Road Extension	Elmwood Road	97/22 Round about	New construction of street, connecting Elmwood to 97/22 roundabout	New Construction	5.000	6.719	\$\$	Mid
SC - 25	Other High Priority Projects	Toppenish		Planned	RTPO	Downtown Revitalization	Downtown Business District		Bulb-outs, ADA improvements, storm drain improvements, reconstruct roadway.	Reconstruction	10.000	13.439	\$\$\$	Mid
SC - 26	Other High Priority Projects	Toppenish		Planned	RTPO	Mural Route Improvements	City Wide		Construct new sidewalks. Construct new curb and gutter and storm drainage improvement as needed	Reconstruction	1.000	1.343	\$	Mid
SC - 27	Other High Priority Projects	Toppenish		Planned	RTPO	E 1st Avenue Improvements	L Street	S. G Street	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.500	3.140	\$	Long

SC - 28	Other High Priority Projects	Toppenish		Planned	RTPO	E 1st Avenue Improvements	S. G Street	S. Division Street	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.700	3.559	\$	Long
SC - 29	Other High Priority Projects	Toppenish		Planned	RTPO	E Toppenish Improvements	Asotin	L Street	Grind and overlay	Preservation	0.700	1.465	\$	Long
SC - 30	Other High Priority Projects	Toppenish	6	Planned	RTPO	S. Juniper Street and Jackson Street Improvement	Magnolia Street	Monroe Avenue	Reconstruct both streets including planning and re-use of grindings, grading, install missing segments of curb and gutter and sidewalk, new hot mix asphalt, street lights and storm drainage improvements	Reconstruction	5.590	5.590	\$\$	Long
SC - 31	Other High Priority Projects	Toppenish		Planned	RTPO	Wishkoski Way Extension	SR22	Wishkoski Way	Construct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	New Construction	2.000	4.187	\$	Long
SC - 32	Other High Priority Projects	Toppenish		Planned	RTPO	King Lane Improvements	Guyette Lane	W. 1st Avenue	Construct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	New Construction	2.000	4.187	\$	Long
SC - 33	Other High Priority Projects	Toppenish		Planned	RTPO	Railroad Depot Improvements	10 Asotin Avenue	---	Various Improvements to make passenger rail stop available	Reconstruction	5.000	10.468	\$\$	Long
SC - 34	Other High Priority Projects	Toppenish		Planned	RTPO	Berger Lane Improvements	Berger Lane to Brooks Lane	Adams Avenue	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.500	3.140	\$	Long
SC - 35	Other High Priority Projects	Toppenish		Planned	RTPO	Idaho Avenue Improvements	Buena Way	N. D St.	Construct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	New Construction	5.000	10.468	\$\$	Long
SC - 36	Other High Priority Projects	Toppenish		Planned	RTPO	S. Division Street Improvements	S. Toppenish Avenue	City Limits	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	3.500	7.328	\$\$	Long
SC - 37	Other High Priority Projects	Toppenish		Planned	RTPO	Madison Avenue Sidewalks	S. Elm St	W. 1st Avenue	Construct new sidewalks. Construct new curb and gutter and storm drainage improvement as needed	Reconstruction	0.250	0.523	\$	Long
SC - 38	Other High Priority Projects	Toppenish		Planned	RTPO	City Wide ADA Improvements	City Wide		Construct new sidewalk ADA ramps. Construct new curb and gutter and storm drainage improvement as needed	Reconstruction	2.000	4.187	\$\$	Long
SC - 39	Other High Priority Projects	Toppenish		Planned	RTPO	Evergreen Hwy Bridge Project	I 82	E. Branch Rd	Replace failing bridges and widen SR22 between I82 and E Branch Road	Reconstruction	15.000	31.406	\$\$\$	Long
SC - 40	Other High Priority Projects	Toppenish		Planned	RTPO	L Street Improvements Project	Lincoln Avenue	East First Avenue	Widen Existing Roadway; Intersection Improvements for Freight Bypass Project	Widening	1.000	2.093	\$	Long
SC - 41	Other High Priority Projects	Toppenish		Planned	RTPO	N. Fir Street Reconstruction	Franklin	Idaho	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.250	2.617	\$\$	Long
SC - 42	Other High Priority Projects	Toppenish		Planned	RTPO	Monroe Reconstruction Improvements	S. Hawthorn	Juniper Street.	Reconstruct roadway, new gravel surfacing, hot mix asphalt, curb and gutter, sidewalk, and storm drainage improvements	Reconstruction	1.500	3.140	\$	Long
SC - 43	Other High Priority Projects	Toppenish		Planned	RTPO	Fort Road Intersection	Fort Road	US 97	Construct roundabout for intersection	Reconstruction	25.000	52.344	\$\$\$	Long
SC - 44	Other High Priority Projects	Wapato	1	Planned	RTPO	Resurfacing West 1st Street	Wapato Street	US 97	Resurface the existing roadway and repair some failing sections	Reconstruction	0.579	0.579	\$	Short
SC - 45	Other High Priority Projects	Wapato	2	Planned	RTPO	Trader Street Improvements	West 1st Street	East 3rd Street	Reconstruct curb, gutter, sidewalk, illumination	Reconstruction	0.200	0.200	\$	Short
SC - 46	Other High Priority Projects	Wapato	3	Planned	RTPO	9th Street Sidewalk Improvements	South Camas	Wasco	Install curb, gutter, sidewalk, ADA ramps for school children	Non-Motorized	0.265	0.273	\$	Short
SC - 47	Other High Priority Projects	Wapato	4	Planned	RTPO	Resurface 9th Street and S. Camas	7th Street	9th Street	Resurface street	Preservation	0.160	0.160	\$	Short
SC - 48	Other High Priority Projects	Wapato	6	Planned	RTPO	North Wasco Avenue and Sitcum Avenue Improvements	W. First Street	Sitcum Ave. + 600 feet	Pave roadway and add curb, gutter, sidewalk	Reconstruction	0.766	0.766	\$	Short
SC - 49	Other High Priority Projects	Wapato	7	Planned	RTPO	French Lane & Kateri Lane Improvements	South Camas Ave.	Blessed Kateri Appts	Pave roadway and add curb, gutter, sidewalk	Reconstruction	0.840	0.840	\$	Short
SC - 50	Other High Priority Projects	Wapato	8	Planned	RTPO	North Ahtanum Avenue Improvements	W. First Street	N. end of Ahtanum	Pave two lane road, curb, gutter, sidewalk	Reconstruction	0.555	0.555	\$	Short
SC - 51	Other High Priority Projects	Wapato	11	Planned	RTPO	Resurfacing of South Satus Avenue	E. 6th Street	E. 10th Street	Grind/overlay curb, gutter sidewalk	Reconstruction	0.402	0.402	\$	Short

SC - 52	Other High Priority Projects	Wapato	12	Planned	RTPO	9th Street Pavement Overlay	Highway 97	S. Wasco Ave.	Grind and overlay	Reconstruction	0.365	0.365	\$	Short
SC - 53	Other High Priority Projects	Wapato		Planned	RTPO	ADA Improvements	Citywide		Replace or install ADA ramps at intersections	Non-Motorized	0.025	0.026	\$	Short
SC - 54	Other High Priority Projects	Wapato	5	Planned	RTPO	U.S. Highway 97 and 9th Street Intersection Improvements	Intersection: US 97 and 9th Street		Install roundabout or traffic signal	New Construction	1.200	1.200	\$\$	Mid
SC - 55	Other High Priority Projects	Wapato	9	Planned	RTPO	North Track Road Reconstruction	W. A Street	City Limits	Reconstruct curb, gutter, sidewalk, utilities	Reconstruction	1.225	1.225	\$\$	Mid
SC - 56	Other High Priority Projects	Wapato	10	Planned	RTPO	South Wasco Avenue Improvements	W. 1st Street	W. 10th Street	Grind/overlay curb, gutter sidewalk	Reconstruction	0.490	0.490	\$	Mid
SC - 57	Other High Priority Projects	Wapato		Planned	RTPO	Asphalt Overlay on Local Streets	2nd, 3rd, 4th, 5th Streets	9th Street	Overlay local access streets as prioritized by surface rating system	Preservation	0.115	0.118	\$	Mid
SC - 58	Other High Priority Projects	Wapato		Planned	RTPO	Central Street Improvements	East "A" Street	East Wapato Road	Curb, gutter, sidewalk, drainage, illumination, paving	Reconstruction	0.565	0.582	\$	Mid
SC - 59	Other High Priority Projects	Wapato		Planned	RTPO	Lincoln Street Improvements	East "A" Street	East Wapato Road	Curb, gutter, sidewalk, drainage, illumination, paving	Reconstruction	0.510	0.541	\$	Mid
SC - 60	Other High Priority Projects	Wapato		Planned	RTPO	Harding Street Improvements	Donald Road	Track Road	Curb, gutter, sidewalk, drainage, illumination, paving	Reconstruction	0.425	0.476	\$	Mid
SC - 61	Other High Priority Projects	Wapato		Planned	RTPO	East "A" Street	Donald Road	Lincoln Street	Curb, gutter, sidewalk, drainage, illumination, construction of roadway	New Construction	0.630	0.687	\$	Mid
SC - 62	Other High Priority Projects	Wapato		Planned	RTPO	Resurfacing Yakima Avenue	South 1st Street	South 3rd Street	Resurface and rebuild the roadway as needed, curb, gutter, sidewalk	Reconstruction	0.480	0.509	\$	Mid
SC - 63	Other High Priority Projects	Wapato		Planned	RTPO	Intersection School Signal - Camas Street	Intersection: Camas & Dove Lane		Install a school signal at this location	Non-Motorized	0.200	0.212	\$	Mid
SC - 64	Other High Priority Projects	Wapato	13	Planned	RTPO	Trail Construction along North Track Road	City limits	City Limits	Pave asphalt trail	Reconstruction	0.335	0.335	\$	Long
SC - 65	Fiscally Constrained	WSDOT		Secured	RTPO	SR 22/Idaho Ave to US 97 Paving & ADA	Idaho Ave to US 97		This project will pave the road and upgrade the curb ramps to meet current standards, improving accessibility for all pedestrian.	Preservation / ADA	1.148	1.150	\$	Short
SC - 66	Fiscally Constrained	WSDOT		Secured	RTPO	SR 22/US 97 to SR 223 - Chip Seal	US 97 to SR 223		This project will chip seal the road per recommendations from the materials report.	Preservation	0.693	0.686	\$	Short
SC - 67	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/Fort Rd - Intersection Improvements	Fort Rd Intersection		This project proposes to replace the existing signalized intersection with a double-lane roundabout. Installing a roundabout will reduce conflicts and the risk of collisions.	Safety	6.014	8.772	\$\$	Short
SC - 68	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/Dry Creek to Pumphouse Rd Vic - Chip Seal	Dry Creek to Pumphouse Rd Vic		This project will chip seal the road per recommendations from the materials report.	Preservation	1.400	1.455	\$	Short
SC - 69	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/Pumphouse Rd Vic to SR 22 - Chip Seal	Pumphouse Rd Vic to SR 22		This project will chip seal the road per recommendations from the materials report.	Preservation	0.397	0.401	\$	Short
SC - 70	Fiscally Constrained	WSDOT		Secured	RTPO	SR 22 / Toppenish Vicinity	Bridge		Bridge Deck repair	Maintenance / Preservation	0.506	0.582	\$	Mid
SC - 71	Fiscally Constrained	WSDOT		Secured	RTPO	SR 22/I-82 to Idaho Ave - Paving	I-82 to Idaho Ave		This project will grind and resurface the existing roadway to extend the life of the pavement.	Preservation	1.441	1.441	\$	Mid
SC - 72	Fiscally Constrained	WSDOT		Secured	RTPO	I-82/Thorp Road Interchange - Paving	Thorp Road Interchange		This project will pave the ramps and crossroad per recommendations from the materials report.	Preservation	0.899	0.899	\$	Mid
SC - 73	Fiscally Constrained	WSDOT		Secured	RTPO	I-82/SR 22 Interchange - Paving	SR 22 Interchange		This project will pave the ramps and crossroad per recommendations from the materials report.	Preservation	0.971	0.971	\$	Mid
SC - 74	Fiscally Constrained	WSDOT		Secured	RTPO	I-82/Donald Road Interchange - Paving	Donald Road Interchange		This project will pave the ramps and crossroad per recommendations from the materials report.	Preservation	0.996	0.996	\$	Mid
SC - 75	Fiscally Constrained	WSDOT		Secured	RTPO	I-82/West Zillah Interchange - Paving	West Zillah Interchange		This project will pave the ramps and crossroad per recommendations from the materials report.	Preservation	0.751	0.751	\$	Mid
SC - 76	Fiscally Constrained	WSDOT		Secured	RTPO	I-82/Yakima Valley Highway Interchange - Paving	East Zillah Interchange		This project will pave the ramps and crossroad per recommendations from the materials report.	Preservation	0.943	0.943	\$	Mid
SC - 77	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/Lateral A Intersection - Intersection Improvements	Lateral A Intersection		This will replace the existing three-leg signal with a roundabout and/or other intersection improvements	Safety	5.450	5.674	\$\$	Mid

SC - 78	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/West Wapato Rd/West First St - Intersection Improvements	West Wapato Rd/West First St		This project will construct a roundabout to replace the existing traffic signal, and improve connections to local roads.	Safety	9.807	9.983	\$\$	Mid
SC - 79	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/2nd Ave - Intersection Improvements	2nd Ave Intersection		This project proposes to replace the existing intersection with a double-lane roundabout to reduce the risk of intersection-related collisions.	Safety	5.910	5.910	\$\$	Mid
SC - 80	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/Jones Rd - Intersection Improvements	Jones Rd Intersection		This project proposes to replace the existing signalized intersection with a double-lane roundabout. Installing a roundabout will reduce conflicts and the risk of collisions.	Safety	5.279	5.308	\$\$	Mid
SC - 81	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/McDonald Rd and Becker Rd - Intersection Improvements	McDonald Rd and Becker Rd		This project will construct a two-lane roundabout for US 97, McDonald Road, and Becker Road.	Safety	4.082	3.866	\$\$	Mid
SC - 82	Fiscally Constrained	WSDOT		Secured	RTPO	US 97/Satus Creek Vic to Dry Creek Vic - Chip Seal	Satus Creek Vic to Dry Creek Vic		This project will chip seal the road per recommendations from the materials report.	Preservation	1.391	1.369	\$	Mid
SC - 83	Other High Priority Projects	WSDOT		Planned	RTPO	SR 22 / Yakima River Crossing at Toppenish- Replace Bridges	SR 22 Corridor		Replace Bridges	Reconstruction	46.000	46.000	\$\$\$	Long
SC - 84	Other High Priority Projects	WSDOT		Planned	RTPO	US 97 / Toppenish to Goldendale	Toppenish	Goldendale	Construct Passing Lane	Reconstruction	20.000	20.000	\$\$\$	Long
SC - 85	Other High Priority Projects	WSDOT		Planned	RTPO	US 97 / South of Toppenish-VMS	US 97 Corridor		Install variable message sign just south of Toppenish for drivers about to enter Satus Pass	Corridor Enhancement	0.200	0.260	\$	Long
SC - 86	Other High Priority Projects	Yakima County	18	Planned	RTPO	North Meyers Road	Lincoln Avenue	I-82	Widen Existing Roadway	Widening	1.960	2.080	\$\$	Short
SC - 87	Other High Priority Projects	Yakima County	39	Planned	RTPO	2nd Ave. (Parker)	Main Street	Yakima Street	Reconstruct gravel road to 30' pavedway	Reconstruction	0.170	0.196	\$	Short
SC - 88	Other High Priority Projects	Yakima County	40	Planned	RTPO	Yakima Street Reconstruction	2nd	5th Ave	Reconstruct gravel road to reduced standard BST section	Reconstruction	0.090	0.090	\$	Short
SC - 89	Other High Priority Projects	Yakima County	2	Planned	RTPO	Fort Road reconstruction	0.08 mi W. of Teo Road	Campbell Road	Reconstruct existing rural two lane roadway to Yakima County rural 2 and major connector standard	Reconstruction	0.875	0.875	\$	Mid
SC - 90	Other High Priority Projects	Yakima County	17	Planned	RTPO	Donald Wapato Bridge #395 to Wapato City limits	Bridge #395	Wapato City Limits	Reconstruct to county standard 40' road, improve horizontal and vertical alignment	Reconstruction	0.495	0.588	\$	Mid
SC - 91	Other High Priority Projects	Yakima County	19	Planned	RTPO	South Wapato Road and McDonald Road intersection safety	2.73	3.11	Realign and straighten S. Wapato road at intersection with McDonald Rd approximately 1,300 feet in each direction	Reconstruction	0.690	0.690	\$	Mid
SC - 92	Other High Priority Projects	Yakima County	20	Planned	RTPO	Fort Road	Robbins Road	Campbell Road	Reconstruct to Yakima County major collector standards	Reconstruction	0.350	0.392	\$	Mid
SC - 93	Other High Priority Projects	Yakima County	48	Planned	RTPO	Durham Road	Division Road	Orchardvale Road	Reconstruct gravel road to 30ft paved roadway	Reconstruction	0.365	0.392	\$	Mid
SC - 94	Other High Priority Projects	Yakima County	TBD	Planned	RTPO	Hoffer Road	Campbell Road	End of road	Reconstruct gravel road to 30ft paved roadway	Reconstruction	0.325	0.354	\$	Mid
SC - 95	Other High Priority Projects	Yakima County	18	Planned	RTPO	Freight Express Route	Construct a new arterial connection from I-82 south to Toppenish to SR97		Construct new roadway with grade separation over BNSF Mail Line Rail	New Construction	18.095	18.095	\$\$\$	Long
SC - 96	Fiscally Constrained	Zillah		Secured	RTPO	Teapot Dome Park & Ride	First Ave.		Construction of 97 parking spaces with 2 EVC stations, storm drainage, lighting, bus shelter, bike racks	Construction	0.758	0.775	\$	Short
SC - 97	Other High Priority Projects	Zillah	3	Planned	RTPO	Merclyn Lane Overlay	Edson	EOR	Roadway surfacing overlay	Preservation	0.065	0.065	\$	Short
SC - 98	Other High Priority Projects	Zillah	9	Planned	RTPO	Cutler Way Reconstruction	Cheyne Road	5th Street	Reconstruction of roadway, drainage	Reconstruction	0.500	0.560	\$	Short
SC - 99	Other High Priority Projects	Zillah		Planned	RTPO	Sealcoat - Various Streets	Various Streets		HMA Overlay	Preservation	0.604	0.658	\$	Short
SC - 100	Fiscally Constrained	Zillah	2	Secured	RTPO	Vintage Valley Parkway Extension	End of road	SR-22 Buena-Toppenish Road	Construction of new roadway, barrier curb and gutter, multi-use pathway with ADA ramps (where needed), Storm drainage improvements, and street lighting. Widening of Buena-Toppenish Road for right turn lane	Construction	5.704	5.704	\$\$	Mid

SC - 101	Other High Priority Projects	Zillah	1	Planned	RTPO	Vintage Valley Road Reconstruction-short	W. First Ave.	End road	Resurfacing of approx. 2700 LF of roadway, barrier curb and gutter, sidewalks with ADA ramps (where needed) and storm drainage improvements	Reconstruction	1.100	1.100	\$\$	Short
SC - 102	Other High Priority Projects	Zillah	5	Planned	RTPO	Second Street Sidewalks	First Avenue	Second Ave.	Construct 6 foot sidewalks along west and east side of street	Construction	0.040	0.040	\$	Mid
SC - 103	Other High Priority Projects	Zillah	7	Planned	RTPO	First Ave. Resurfacing Improvements	Pearson Street	East City limits	Resurfacing of approx. 3200 LF of roadway, install barrier curb and gutter, and storm drainage improvements	Reconstruction	0.775	0.775	\$	Mid
SC - 104	Other High Priority Projects	Zillah	11	Planned	RTPO	Dean Street Resurfacing and Improvements	Carlsonia Ave	Fourth Street	Resurfacing of approx. 500 LF of roadway, sidewalks on west side of roadway	Reconstruction	0.290	0.290	\$	Mid
SC - 105	Other High Priority Projects	Zillah	13	Planned	RTPO	Pearson Street Reconstruction	First Avenue	Second Ave.	Reconstruction of approx. 1300 linear feet, barrier curb and gutter, storm drainage improvements, sidewalks with ADA ramps (where needed), and street lighting	Reconstruction	0.950	0.950	\$	Mid
SC - 106	Other High Priority Projects	Zillah	17	Planned	RTPO	Chenaur Drive Resurfacing	Pearson Street	Sunset Way	Resurfacing of approx. 1500 LF of roadway	Preservation	0.085	0.085	\$	Mid
SC - 107	Other High Priority Projects	Zillah	20	Planned	RTPO	Second Street Reconstruction	First Avenue	Second Ave.	Resurfacing of approx. 1200 LF of roadway, barrier curb and gutter, sidewalks with ADA, Storm Drainage improvements	Reconstruction	0.456	0.456	\$	Mid
SC - 108	Other High Priority Projects	Zillah	21	Planned	RTPO	Zillah West Road Sidewalks	W. First Ave.	EOR	Install sidewalks on north and south side of road	Construction	0.070	0.070	\$	Mid
SC - 109	Other High Priority Projects	Zillah	22	Planned	RTPO	Zillah West resurfacing	W. First Ave.	EOR	Resurface approx. 900 LF of roadway	Reconstruction	0.600	0.600	\$	Mid
SC - 110	Other High Priority Projects	Zillah	4	Planned	RTPO	Third Avenue Resurfacing	Reo Drive	Fifth Street	Resurfacing of approx. 2950 LF of roadway, install ADA where needed	Preservation	0.703	0.703	\$	Long
SC - 111	Other High Priority Projects	Zillah	8	Planned	RTPO	Schoentrup Lane Drainage Control	Concord Street	End road	Construction of 1600 LF of sidewalk or barrier curb along Schoentrup Lane	Construction	0.040	0.040	\$	Long
SC - 112	Other High Priority Projects	Zillah	10	Planned	RTPO	Eighth Street Resurfacing	First Avenue	Second Ave.	Resurfacing of 1000 LF of roadway, Stormwater improvements, and sidewalks	Reconstruction	0.130	0.130	\$	Long
SC - 113	Other High Priority Projects	Zillah	14	Planned	RTPO	Fifth Street Resurfacing	Second Ave	Glenwood Drive	Resurfacing of approx. 900 LF	Preservation	0.350	0.350	\$	Long
SC - 114	Other High Priority Projects	Zillah	15	Planned	RTPO	Edson Street Reconstruction	Carlsonia Ave	End road	Reconstruction of 1000 LF of roadway and storm drainage improvements	Reconstruction	0.440	0.440	\$	Long
SC - 115	Other High Priority Projects	Zillah	16	Planned	RTPO	Cheyne Road Improvements	Cutler Way	Yakima Valley Hwy	Reconstruct and widen approx. 1600 LF of roadway. Add storm drainage, street light, bike lanes, and sidewalks	Reconstruction	0.850	0.850	\$\$	Long
SC - 116	Other High Priority Projects	Zillah	19	Planned	RTPO	Second Avenue Reconstruction	Begin Street	Second Street	Reconstruction of approx. 1000 LF of existing 2 lane roadway, barrier curb and gutter, sidewalk with ADA ramps (where needed) storm drainage improvements	Reconstruction	0.575	0.575	\$	Long
SC - 117	Other High Priority Projects	Yakama Nation (Transit)		Planned	RTPO	[5] - Upgraded shelters	Various Yakama Nation Bus Stop locations		5 bus shelters with benches. A canopy cover and just a bench	new facility construction	0.015	0.015	\$	Short
SC - 118	Other High Priority Projects	Yakama Nation (Transit)		Planned	RTPO	bus garage and bus office space	Yakama Reservation		Pahto Public Passage bus garage and office space	new facility construction	0.800	0.800	\$	Short
SC - 119	Fiscally Constrained	Yakama Nation (Transit)		Secured	RTPO	[1] - 24 + 2 WC ADA shuttle	Yakama Reservation		ADA 24 passenger + 2 wheelchair shuttle	new shuttle purchase	0.180	0.180	\$	Short
SC - 120	Fiscally Constrained	Yakama Nation (Transit)		Secured	RTPO	[1] - 9 + 2 WC ADA shuttle	Yakama Reservation		ADA 9 passenger + 2 wheelchair shuttle	new shuttle purchase	0.590	0.590	\$	Short
SC - 121	Other High Priority Projects	Yakama Nation (Transit)		Planned	RTPO	[3] - 24 + 2 WC ADA shuttles	Yakama Reservation		ADA 24 passenger + 2 wheelchair shuttle	new shuttle purchase	0.540	0.540	\$	Short
SC - 122	Other High Priority Projects	Yakama Nation (Transit)		Planned	RTPO	[1] - 9 + 2 WC ADA shuttle	Yakama Reservation		ADA 9 passenger + 2 wheelchair shuttle	new shuttle purchase	0.070	0.070	\$	Short
SC - 123	Other High Priority Projects	Yakama Nation (Safety Cmte.)		Planned	RTPO	Heritage Corridor Trail	Yakama Reservation		Intercity bicycle / pedestrian trail system within nation boundaries	New	TBD	TBD	\$\$\$	Long
Total Projected Cost											263.746	350.219		

SE - 1	Other High Priority Projects	Grandview	11	Planned	RTPO	City-Wide Surfacing Improvements	N/A	N/A	Seal coat, fog seal	Preservation	0.500	0.500	\$	Short
SE - 2	Other High Priority Projects	Grandview	12	Planned	RTPO	City-Wide ADA Improvements	N/A	N/A	ADA upgrades	New Construction/ Reconstruction	0.500	0.500	\$	Short
SE - 3	Other High Priority Projects	Grandview	14	Planned	RTPO	City-Wide Safety Improvements	N/A	N/A	Safety upgrades to roadway and sidewalk network, including traffic calming	New Construction/ Reconstruction	0.500	0.500	\$	Short
SE - 4	Other High Priority Projects	Grandview	15	Planned	RTPO	City-Wide Transportation Alternatives	N/A	N/A	Transportation alternatives upgrades including trails	New Construction/ Reconstruction	0.500	0.500	\$	Short
SE - 5	Other High Priority Projects	Grandview	16	Planned	RTPO	City-Wide Stormwater	N/A	N/A	Stormwater upgrades	New Construction/ Reconstruction	0.500	0.500	\$	Short
SE - 6	Other High Priority Projects	Grandview	17	Planned	RTPO	City Equipment Acquisition	N/A	N/A	Equipment acquisition	Purchase	0.500	0.500	\$	Short
SE - 7	Other High Priority Projects	Grandview		Planned	RTPO	SanitarySewer Trunk Main Replacement	Groom Lane to Yakima River		Replace the 21-inch sewer main to the WWTP.	Reconstruction	4.000	4.000	\$\$	Short
SE - 8	Other High Priority Projects	Grandview	8	Planned	RTPO	Highland Road Improvements	Elm east	City Limits	Widen, curb, gutter, sidewalk, drainage, illumination, and surface	Widening	2.588	3.000	\$\$	Mid
SE - 9	Other High Priority Projects	Grandview	7	Planned	RTPO	Birch Avenue Improvements	Wine Country Road south	East Third Street	Curb, gutter, drainage	Reconstruction	0.410	0.475	\$	Mid
SE - 10	Other High Priority Projects	Grandview		Planned	RTPO	Intersection Upgrade	Wine Country Road/ Exit 75		Install a new round-about on Wine Country Road	Reconstruction	1.000	1.000	\$	Mid
SE - 11	Other High Priority Projects	Grandview		Planned	RTPO	Yakima Valley Highway #1327 Bridge	Yakima Valley Highway		Replace bridge and install provisions for pedestrian mobility	Replacement	1.500	2.016	\$\$	Mid
SE - 12	Other High Priority Projects	Grandview		Planned	RTPO	Elm Street E, #3 Bridge Replacement	Elm Street		Replace bridge and install provisions for pedestrian mobility	Replacement	1.250	2.128	\$\$	Long
SE - 13	Other High Priority Projects	Granger		Planned	RTPO	West Boulevard N	Barker Avenue	Campground Road	Construct a new road and intersection, curbs, gutters, and sidewalk on one side.	New Construction	1.000	TBD	\$	Short
SE - 14	Other High Priority Projects	Granger		Planned	RTPO	Peterson Avenue	Dean Avenue	West Boulevard N	Construct a new road and intersection, curbs, gutters, and sidewalk on one side.	New Construction	0.250	TBD	\$	Short
SE - 15	Other High Priority Projects	Granger		Planned	RTPO	Dean Avenue	Barker Avenue	Peterson Avenue	Construct a new road and intersection, curbs, gutters, and sidewalk on one side.	New Construction	0.200	TBD	\$	Short
SE - 16	Other High Priority Projects	Granger		Planned	RTPO	Barker Avenue	West Boulevard N	Railroad Avenue	Construct a new road and intersection, curbs, gutters, and sidewalk on one side.	New Construction	0.400	TBD	\$	Short
SE - 17	Other High Priority Projects	Granger		Planned	RTPO	Railroad Avenue	~ 123 feet south of Barker	Barker Avenue	Construct a new road and intersection, curbs, gutters, and sidewalk on one side.	New Construction	0.050	TBD	\$	Short
SE - 18	Other High Priority Projects	Granger		Planned	RTPO	Main Street	West 1st Street	Bridge	Reconstruct road including sidewalk on both sides, parking both sides, center island lighting.	Reconstruction	1.605	TBD	\$	Mid
SE - 19	Other High Priority Projects	Granger		Planned	RTPO	2nd Ave. N. and Ruehl Road Reconstruction	Mentzer Ave.	W. Hudson Road	Reconstruct road with curb and gutter both sides. Asphalt concrete paved roadway. Drainage improvements and some sidewalks	Reconstruction	1.500	1.500	\$\$	Mid
SE - 20	Other High Priority Projects	Granger		Planned	RTPO	Sidewalks - Various Locations	Various Locations		Replace 4 blocks of sidewalk, both sides	Non-Motorized	0.200	0.212	\$	Mid
SE - 21	Other High Priority Projects	Granger		in progress	RTPO	Sealcoat - Various Streets	Various Locations		Sealcoat	Preservation	0.051	0.051	\$	Mid
SE - 22	Other High Priority Projects	Granger		Planned	RTPO	Bailey Avenue Extension	South of Bailey Avenue	Cherry Hill Road	Construct a new road and intersection, curbs, gutters, sidewalks, and railroad and drainage crossing	New Construction	0.200	0.200	\$	Mid
SE - 23	Other High Priority Projects	Granger		Planned	RTPO	Emerald Road Safety Improvements	County Line	0.41 miles from County Line	Construct a guardrail	Safety	0.100	0.100	\$	Long
SE - 24	Other High Priority Projects	Granger		Planned	RTPO	Emerald Road Reconstruction	County Line	SR223	Reconstruct road including bike lanes, sidewalk on one side	Reconstruction	1.000	1.000	\$\$	Long
SE - 25	Other High Priority Projects	Mabton	2	Planned	RTPO	B Street Reconstruction	Boundary Road	6th Street	Street and sidewalk rehabilitation and illumination	Reconstruction	1.301	1.301	\$\$	Short
SE - 26	Other High Priority Projects	Mabton	4	Planned	RTPO	Park & Ride	NE Corner of Main & South Street		Construct a park & ride.	Transit	0.015	0.015	\$	Mid
SE - 27	Other High Priority Projects	Mabton	5	Planned	RTPO	South Street Reconstruction	Boundary Road	Main Street	Reconstruct South Street	Reconstruction	0.100	0.100	\$	Mid
SE - 28	Other High Priority Projects	Mabton	6	Planned	RTPO	2nd Street Overlay	Pine Street	Maple Street	Overlay	Preservation	0.020	0.020	\$	Mid
SE - 29	Other High Priority Projects	Mabton	7	Planned	RTPO	3rd Street Overlay	Pine Street	Maple Street	Overlay	Preservation	0.020	0.020	\$	Mid
SE - 30	Other High Priority Projects	Mabton	8	Planned	RTPO	Maple Street Overlay	Main Street	2nd Street	Overlay	Preservation	0.045	0.045	\$	Mid
SE - 31	Other High Priority Projects	Mabton	10	Planned	RTPO	Pine Street Overlay	6th Street	Allison Road	Upgrade Pine Street from gravel road to hard surface	Reconstruction	0.100	0.100	\$	Mid
SE - 32	Other High Priority Projects	Mabton	11	Planned	RTPO	Fern Street Overlay	SR22	Pine Street	Upgrade gravel road to hard surface	Reconstruction	0.030	0.030	\$	Mid
SE - 33	Other High Priority Projects	Mabton	12	Planned	RTPO	Allison Road Overlay	End of Pavement	City Limits	Upgrade Allison Road from gravel road to hard surface	Reconstruction	0.100	0.100	\$	Mid
SE - 34	Other High Priority Projects	Mabton	16	Planned	RTPO	Vance Road BST	Cemetery	Treatment Plant	BST existing roadway	Preservation	0.100	0.100	\$	Mid
SE - 35	Other High Priority Projects	Mabton	17	Planned	RTPO	Citywide Chipseal	Various Streets		Chipseal	Preservation	1.050	1.050	\$\$	Mid
SE - 36	Other High Priority Projects	Mabton	1	Planned	RTPO	Mabton Schools Safe Route	5th Ave.	6th Ave.	Sidewalk bulb-outs, signage revisions, improve crossing at SR22 Curb, gutter, sidewalk	Reconstruction	0.560	0.560	\$	Long
SE - 37	Other High Priority Projects	Mabton	9	Planned	RTPO	Monroe Street Construction	7th Avenue	Vance Road	Construct a new street.	New Construction	0.110	0.110	\$	Long

SE - 38	Other High Priority Projects	Mabton	13	Planned	RTPO	Boundary Road	SR22	Pine Street	Reconstruct Boundary Road	Reconstruction	0.590	0.590	\$	Long
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APPENDIX G

ENVIRONMENTAL DOCUMENTS

- Determination of Non Significance
 - SEPA Checklist
 - Environmental Constraints

Yakima Valley Conference of Governments
STATE ENVIRONMENTAL POLICY ACT (SEPA)
Determination of NonSignificance

February 03, 2020

Lead Agency: Yakima Valley Conference of Governments
Agency Contact: Alan Adolf
 Transportation Program Manager
Alan.adolf@yvcog.org
 311 N. 4th St, Ste. #204
 Yakima, WA 98901
 (509) 574-1550

Description of Proposal:

The Yakima Valley Conference of Governments (YVCOG) has developed the 2020-2045 Yakima Valley Metropolitan and Regional Transportation Plan (M/RTP). The 2020-2045 M/RTP is required to maintain the region's eligibility to receive federal and state funding for transportation improvement projects. The M/RTP was last updated in 2016.

This document is a long-range plan for both the Yakima Valley and the Yakima metropolitan area for the next 25 years.. The M/RTP includes a list of potential future transportation projects in the region. These include state highway and regional improvement projects to be implemented by the State, Yakima County and the cities and towns with the County.

The Plan includes an Environmental Constraint Analysis Section, that supplements the SEPA checklist by identifying the potential for direct impacts to geologic hazard areas; water resources and wetlands, endangered threatened, sensitive, candidate and priority plant and animal habitat areas; air quality; land use and housing; noise; aesthetics/light and glare; environmental justice ; recreation; and historic/cultural resources. The Analysis focuses on projects that would add to the roadway surface area. Projects are summarized in seven subareas. The Analysis also generally discusses potential impacts of project types that would add to the roadway surface area, as well as area-wide improvement programs.

Location of Proposal – Yakima County, and Cities and Towns within the County

Yakima Valley Conference of Governments has determined that this proposal will not have a significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). We have reviewed the attached Environmental Checklist and other information for file with the lead agency. This information is available at: www.yvcog.org/

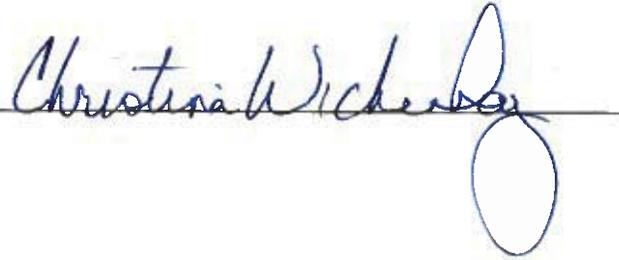
This determination is based on the following findings and conclusions:

- There I no comment period for this DNS
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.
- This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below.

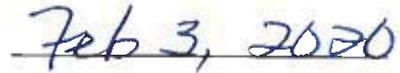
This DNS is issued under WAC 197-11-355 and the comment period will end on February 19, 2020

Christina Wickenhagen
Executive Director
christina.wickenhagen@yvcog.org
311 N. 4th St, Ste. #204
Yakima, WA 98901
(509) 574-1550

Signature



Date



SEPA

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[HELP\]](#)

1. Name of proposed project, if applicable:
2020 -2045 Yakima Valley Metropolitan & Regional Transportation Plan
2. Name of applicant:
Yakima Valley Conference of Governments (YVCOG)

3. Address and phone number of applicant and contact person:

Alan Adolf, Transportation Program Manager
 Yakima Valley Conference of Governments
 311 N. 4th Street, Yakima, WA 98901
 (509) 574-1550

4. Date checklist prepared: January 6, 2020

5. Agency requesting checklist: YVCOG

6. Proposed timing or schedule (including phasing, if applicable):

Proposal is for adoption of a long-range transportation plan. Adoption is proposed to occur in March 2020.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Capital facilities planning and other planning and funding activities will be completed by YVCOG member agencies and WSDOT to further define the scope and timing of transportation improvement projects identified in the Yakima Valley Metropolitan and Regional Transportation Plan 2020-2045 (M/RTP). Design and construction of transportation improvement projects that are identified in the M/RTP will occur in the future and project specific environmental review will be undertaken by the respective governmental agency. The timing of these projects will depend on a variety of factors and will be defined through the planning processes of the agencies involved.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

An Environmental Constraint Analysis was prepared as part of the M/RTP: Yakima Valley Metropolitan and Regional Transportation Plan 2020-2045.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

The proposal is a long-range planning document and is not project-specific. No construction will occur as a direct result of adoption of the M/RTP. The M/RTP identifies a number of future road widening and extension projects. Specific locations and any pending permits or proposals affecting those locations will be identified with project-level design and permitting.

10. List any government approvals or permits that will be needed for your proposal, if known.

Adoption by the Yakima Valley Metropolitan and Regional Transportation Planning Organization (MPO/RTPO). Review by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for compliance with federal metropolitan planning requirements.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Adoption of the Yakima Valley Metropolitan and Regional Transportation Plan 2020-2045 is proposed. The M/RTP is an integrated document containing a long-range regional transportation plan for the Yakima County region, and a long-range metropolitan transportation plan for the greater Yakima metropolitan area. The planning area is within Yakima County and includes the urban areas within Yakima County and the transportation corridors connecting these areas. The M/RTP includes a long-range forecast of population growth, and provides direction for prioritizing regional and metropolitan-area transportation projects. It also includes program-level identification of specific potential improvements, such as corridor widening,

extension projects, upgrades and maintenance to the existing transportation system., public transit and non-motorized transportation improvements. Transportation demand management measures such as commuter trip reduction are also a component of the M/RTP. An update to the M/RTP is required by state and federal regulations and is needed to maintain the region's eligibility for federal funding. The M/RTP was last updated in 2016.

As part of the program-level list of future, potential improvements, the M/RTP identifies a number of regional projects on state-owned facilities, including widening of highways and arterials, construction of new corridors, and widening and constructing new freeway interchanges. In addition, the M/RTP includes maintenance, preservation, and operational improvement projects that are less likely to cause impacts. Regional projects of more local importance are summarized by seven subregions (Northwest, North, West Valley, Central, East Valley, South Central, and Southeast). For each subregion, a number of maintenance and improvement projects are identified that will not generally result in adverse impacts beyond typical short-term impacts associated with construction. In addition, several major corridors are identified for potential road widening and/or extension projects. Chapter 7 of the Draft M/RTP and the Environmental Constraints Analysis provides more detail on the potential impacts of future transportation improvement projects identified in the M/RTP. This checklist provides programmatic review of the M/RTP and its list of potential transportation improvements. Because most maintenance projects and projects that do not increase road surface area will not likely result in adverse environmental impacts, the checklist focuses on programmatic level review of the major regional projects and the corridors identified for road widening and/or extension.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The planning area for the 2014-2040 M/RTP is entirely within Yakima County and includes the urban areas within Yakima County and the transportation corridors connecting these areas. See the Metropolitan and Regional Transportation Plan Study Area and Subregion Map included with the Environmental Constraints Analysis.

B. Environmental Elements

1. Earth

a. General description of the site: (circle one):

Flat, rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)?

The planning area and corridors identified for road projects include a variety of terrain types. Slopes associated with specific transportation improvement projects will be addressed with project-level design and permitting.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Yakima County soils are found in the Yakima County Soil Survey. Soil types associated with specific transportation improvement projects will be determined within project-level design and permitting.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
Soil stability associated with specific transportation improvement projects will be addressed with project-level design and permitting.
- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.
This non-project action. Grading and filling associated with specific transportation improvement projects will be determined with project-level design and permitting.
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
This is a non-project action. The potential for erosion associated with specific transportation improvement projects will be addressed during project-level design and permitting.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
This is a non-project action. Changes in the amount of impervious surface associated with specific transportation improvement projects will be addressed during project-level design and permitting.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
This non-project action. If needed, measures will be determined during project-level design and permitting of future transportation improvement projects.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
None as a result of this non-project action. The potential for emissions associated with transportation improvement projects will be addressed with project-level design and permitting.

An air conformity analysis was conducted for the proposed M/RTP, that considered the list of future projects within the metropolitan area in the draft M/RTP. This showed an average daily vehicle miles traveled rate of only 1.49%, well below the 2% review threshold. The analysis was conducted for the years 2020 and 2045 based upon federal requirements. YVCOG is required to monitor and report Vehicle Miles Travelled (VMT) as a lesser step than calculating CO and PM₁₀ as permitted annually by WSDOT, FHWA, FTA, EPA and Department of Ecology during the Air Quality conformity review.

Analysis and results can be found in Section 10 (Air Quality Analysis) and appendix E (YVCOG Traffic Model Methodology).

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
The potential affect of any off-site sources of emission on transportation improvement projects will be addressed with project-level design and permitting. Emissions from non-mobile sources (agricultural burning, point sources of industry, etc.) may degrade air quality in the Yakima Valley so as to result in violations of the National Ambient Air Quality Standards (NAAQS). If non-attainment status is designated, it can affect future transportation projects and funding.
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

If needed, measures will be determined with project-level design and permitting of future transportation improvement projects. Transportation conformity determinations are made as part of each Yakima Metropolitan Transportation Improvement Program (TIP) update. The TIP is updated annually.

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.
The planning area and corridors identified for road widening and/or extension includes the Yakima and Naches rivers, Cowiche and Ahtanum creeks, and numerous smaller creeks. All Yakima Valley rivers eventually flow into the Columbia River.
- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.
A number of projects are in the vicinity of surface water bodies, and future projects in some of these corridors will likely be within 200 feet of a surface water body, including the Yakima and Naches rivers. Some road segments where widening or extension will occur will cross streams or rivers. The potential affect of future transportation improvement projects on surface water bodies will be addressed during project-level design and permitting.
- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None as a result of this non-project action. If fill or dredging is required for future transportation improvement projects, they will be reviewed during project-level design and permitting.
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
Not as a result of this non-project action. If surface water withdrawals or diversions are required as part of future transportation improvement projects, they will be reviewed during project-level design and permitting.
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
Future roadway projects which may occur in or near the 100-year floodplain will be reviewed under critical area/flood plain regulations.
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
N/A

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.
N/A
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the

general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

N/A

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Future road projects will incorporate Stormwater retention facilities, as needed.

2) Could waste materials enter ground or surface waters? If so, generally describe.

N/A

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

N/A

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Measures to reduce water runoff will be addressed at the project level.

4. Plants

a. Check the types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

Orchards, vineyards or other permanent crops.

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

None

c. List threatened and endangered species known to be on or near the site.

None

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None, future projects will address landscaping at the project level.

e. List all noxious weeds and invasive species known to be on or near the site.

None, noxious weeds and invasive species will be addressed at the time of future project review.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.

N/A

c. Is the site part of a migration route? If so, explain.

N/A

d. Proposed measures to preserve or enhance wildlife, if any:

Wildlife considerations will be part of future project review, as necessary

e. List any invasive animal species known to be on or near the site.

None known

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

None as a result of this non-project action.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Future projects may incorporate solar energy

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None as a result of this non-project action. Future projects may incorporate solar energy or other conservation features.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

None known at this time.

1) Describe any known or possible contamination at the site from present or past uses.

N/A

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

N/A

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

N/A

- 4) Describe special emergency services that might be required.

N/A

- 5) Proposed measures to reduce or control environmental health hazards, if any:

N/A

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

None as a result of this non-project action. Future projects will have construction and project related noise.

- 3) Proposed measures to reduce or control noise impacts, if any:

None.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Yakima County includes a variety of land uses, including, but not limited to, residential, commercial, industrial, agricultural and recreational.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

N/A

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

N/A

- c. Describe any structures on the site.

N/A

- d. Will any structures be demolished? If so, what?

N/A

- e. What is the current zoning classification of the site?

Each jurisdiction with projects will hav the zoning districts for their project.

- f. What is the current comprehensive plan designation of the site?
Each jurisdiction with projects will have the comprehensive plan designation for their project.
- g. If applicable, what is the current shoreline master program designation of the site?
N/A
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
N/A
- i. Approximately how many people would reside or work in the completed project?
The current population of Yakima County is 251,446 (2018 OFM Estimate).
- j. Approximately how many people would the completed project displace?
N/A
- k. Proposed measures to avoid or reduce displacement impacts, if any:
N/A
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Each jurisdiction will evaluate this during the project development.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
N/A

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None as a result of this non-project action.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
c. None as a result of this non-project action.
- c. Proposed measures to reduce or control housing impacts, if any:
None as a result of this non-project action.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
N/A
- b. What views in the immediate vicinity would be altered or obstructed?
N/A
- d. Proposed measures to reduce or control aesthetic impacts, if any:
N/A

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None as a result of this non-project action. Future projects may incorporate street or other lighting.
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
None as a result of this non-project action.
- c. What existing off-site sources of light or glare may affect your proposal?
None as a result of this non-project action.
- d. Proposed measures to reduce or control light and glare impacts, if any:
None as a result of this non-project action.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
There are several designated and informal recreational opportunities in Yakima County.
- b. Would the proposed project displace any existing recreational uses? If so, describe.
N/A
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None as a result of this non-project action.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.
There are designated buildings, structures, and sites on or eligible for listing in national, state, or local registers throughout Yakima County.
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.
There are several landmarks and features throughout the County, including on the Reservation of the Confederated Tribes and Bands of the Yakama Nation.
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.
None as a result of this non-project action. Future projects will incorporate appropriate measures, as necessary.
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
N/A

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

This plan identifies secured and planned projects. See Appendix F of the 2020-2045 MRTPO plan for a list of projects by sub-region.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

There are areas within Yakima County and cities within the county that are served by public transit.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

N/A

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

There are several new projects proposed. See Appendix F of 2020-2045 MRTPO plan.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Potential sources would be rail or air transportation.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Not known at this time. When completed, future projects will be included into the County-wide model.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

- h. Proposed measures to reduce or control transportation impacts, if any:

None as a result of this non-project action. Future projects will be designed to minimize transportation impacts to the landscape.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Not as a result of this non-project action.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

N/A

16. Utilities

- a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

N/A

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

N/A

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:



Name of signee

Alan Adolf

Position and Agency/Organization Transportation Program Manger

Date Submitted:

January 06, 2020

D. Supplemental sheet for nonproject actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The proposed M/RTP includes a list of potential, future transportation improvements over a 25-year planning period through 2045. Improvements that add impervious surface area, such as road widening and/or extension projects, will result in increased stormwater runoff. However, stormwater management features will be determined with project-level design and permitting.

Construction and operation of transportation improvements will include increases in noise and emissions to air. Construction-related increases will be short-term. Any improvement projects that add capacity will result in longer-term increases in noise and emissions associated with vehicle trips. However, operational improvement projects are intended to reduce vehicle idling, noise, and emissions to air.

Construction of transportation improvements may involve the temporary use of hazardous substances typical of road construction and maintenance (e.g., asphalt paving). It is also probable that vehicles carrying hazardous substances will use future roadways.

Proposed measures to avoid or reduce such increases are:

If needed, measures will be determined with project-level design and permitting of future transportation improvement projects. By identifying these potential impacts in the plan, we are alerting project designers of the need to address these impacts as part of project development.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The M/RTP identifies a number of future roadway extension and widening projects that, if constructed, will have some potential to affect plants, wildlife, and aquatic habitat. Projects with the greatest potential for effects are those crossing priority habitat areas or rivers and streams containing priority aquatic habitat. See Section 7, Environmental Constraints Analysis for a programmatic-level summary of potential impacts of major projects on priority habitat areas.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

By identifying where the potential impacts are at the planning level, we are alerting project designers of the need to address these early in project development.

3. How would the proposal be likely to deplete energy or natural resources?

Construction of future transportation improvement projects may result in increased vehicle travel, which is associated with the use of energy and natural resources. Vehicles using future transportation improvement projects are expected to operate primarily on gasoline and diesel, but may also operate on bio-diesel, ethanol, electricity, or a combination of these renewable energy sources. However, the proposed M/RTP includes strategies for transportation demand management/commute trip reduction measures, non-motorized transportation facilities, and public transportation, all of which have the potential to conserve energy.

Proposed measures to protect or conserve energy and natural resources are:

The proposed M/RTP includes strategies for transportation demand management/commute trip reduction measures, non-motorized transportation facilities, and public transportation, all of which have the potential to conserve energy.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The M/RTP identifies a number of future roadway extension and widening projects that, if constructed, will have some potential to affect sensitive or protected areas. See the accompanying Environmental Constraints Analysis for a summary of potential transportation improvement projects with the potential to affect priority habitat areas, parks, historic sites, wetlands, and floodplains.

Proposed measures to protect such resources or to avoid or reduce impacts are:

By identifying potential impacts early in the planning process, we are alerting project designers of the need to address these impacts as part of project development.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Yakima Valley Metropolitan and Regional Transportation Plan 2020-2045 Environmental Constraints Analysis

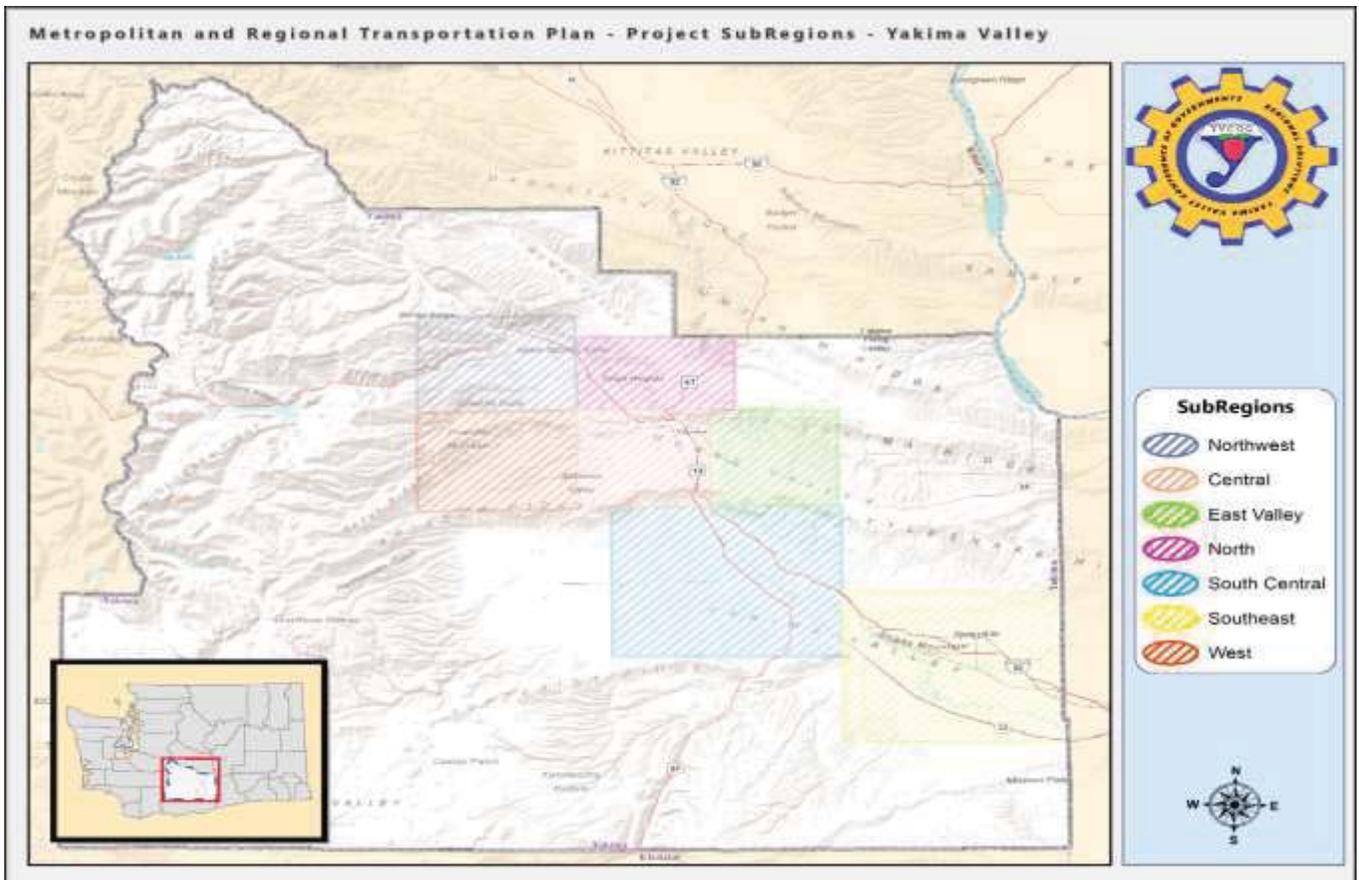
Introduction

This environmental constraints analysis provides a programmatic-level review of the potential environmental constraints that may be encountered with planning, design, permitting and construction of future transportation improvement projects identified in the Yakima Valley Metropolitan/Regional Transportation Plan 2020-2045 (M/RTP). It is provided so that potentially affected agencies have an opportunity to comment.

The State Environmental Policy Act (SEPA) provides the context for this environmental constraints analysis; however, additional applicable regulations are discussed as they relate to the various elements of the environment. Generally, the analysis looks at the potential for impacts from road construction and improvements. The analysis identifies where there may be potential for impacts to geologic hazard areas; water resources and wetlands; endangered, threatened, sensitive, candidate, and priority plant and animal habitat areas; air quality; land use and housing; noise; aesthetics/light and glare; environmental justice; recreation; and historic/cultural resources.

The environmental constraints analysis focuses on projects identified for regional roadways, as well as regional transportation projects that are summarized into seven subregions (see Figure 1). Projects listed under the subregions are also considered of regional significance and support the overall M/RTP. The seven subregions are:

- Northwest – includes the City of Tieton and Town of Naches and the surrounding unincorporated areas,
- North – includes the City of Selah and the surrounding unincorporated areas,
- West – includes the largely unincorporated area west of Yakima,
- Central – includes the Cities of Yakima and Union Gap and the surrounding unincorporated areas, including Terrace Heights,
- East Valley – includes the City of Moxee and the surrounding unincorporated areas,
- South Central – includes the Cities of Wapato, Zillah, and Toppenish, the Town of Harrah, and the surrounding unincorporated areas,
- Southeast – includes the Cities of Sunnyside, Grandview, Mabton, and Granger, and the surrounding unincorporated areas.



For regional roadways, several major widening projects are identified, as well as several projects that would add to the roadway surface area at intersections. Within these subregions, the M/RTP identifies several major corridors for road widening and/or extension. This environmental constraints analysis focuses on these types of major regional transportation projects. In addition, this analysis focuses on fiscally constrained projects due to the uncertainty of transportation funding in the coming years prior to the next M/RTP update. There may be some potential for temporary construction impacts, such as noise and air quality associated with some of these projects. However, it is generally not expected that there would be environmental constraints associated with these projects that would create significant impacts, lengthen the project approval process or increase the cost of project design and approval. Projects that would not add roadway surface are discussed under the heading *Maintenance, Reconstruction, Environmental Projects, and Area-Wide Improvement Programs*. The M/RTP also includes improvements to transit and trails, which are discussed under *Projects for Improving Alternative Transportation Modes*.

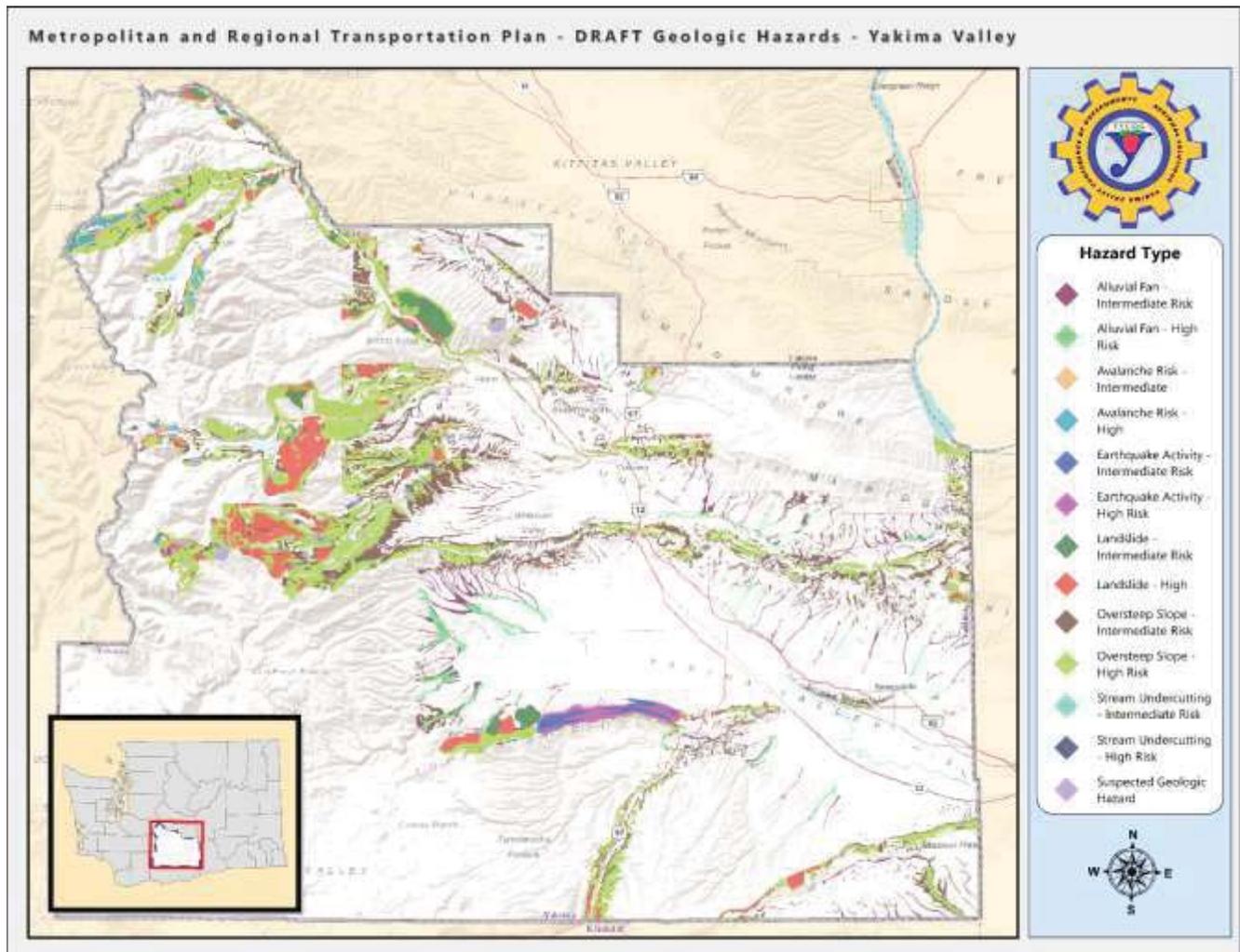
This environmental constraints analysis is intended to provide review of the project list proposed for this M/RTP. It is not intended to identify specific environmental impacts of road projects included in the M/RTP, or to be used in determining environmental mitigation. Analysis of specific direct and indirect impacts and potential mitigations will occur as specific projects are further defined and permitted.

The following is a brief discussion of each element of the environment for which constraints may exist. Following the discussion of environmental elements is a summary of the potential for environmental impacts that would occur with implementation of projects included in the M/RTP.

Overview of Environmental Elements

Earth/Geologic Hazards

Yakima County mapped geologic hazard areas countywide, including steep slopes, landslide and avalanche risk areas, stream undercutting, and earthquake activity areas, as part of its critical areas ordinance (CAO) update process. This analysis describes where future road projects that may be included in the M/RTP would cross or be adjacent to identified geologic hazard areas. Other earth-related conditions such as the suitability of soils for road construction and improvement projects would be assessed with project-level environmental review and permitting. According to Yakima County's Geohazards Map, the urban areas of the County have relatively few geologic hazard areas. Figure 2 is the County Geohazards Map.

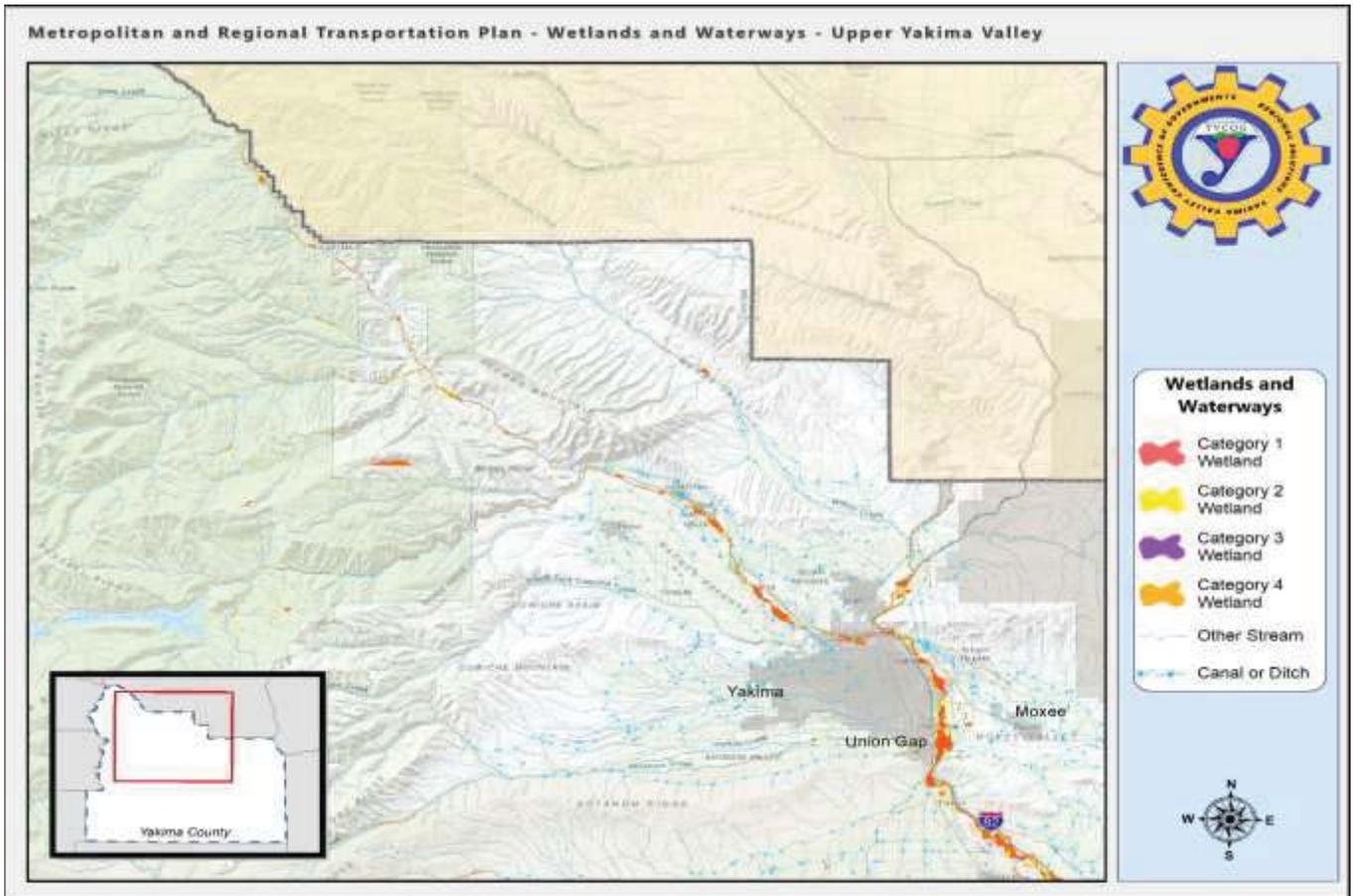
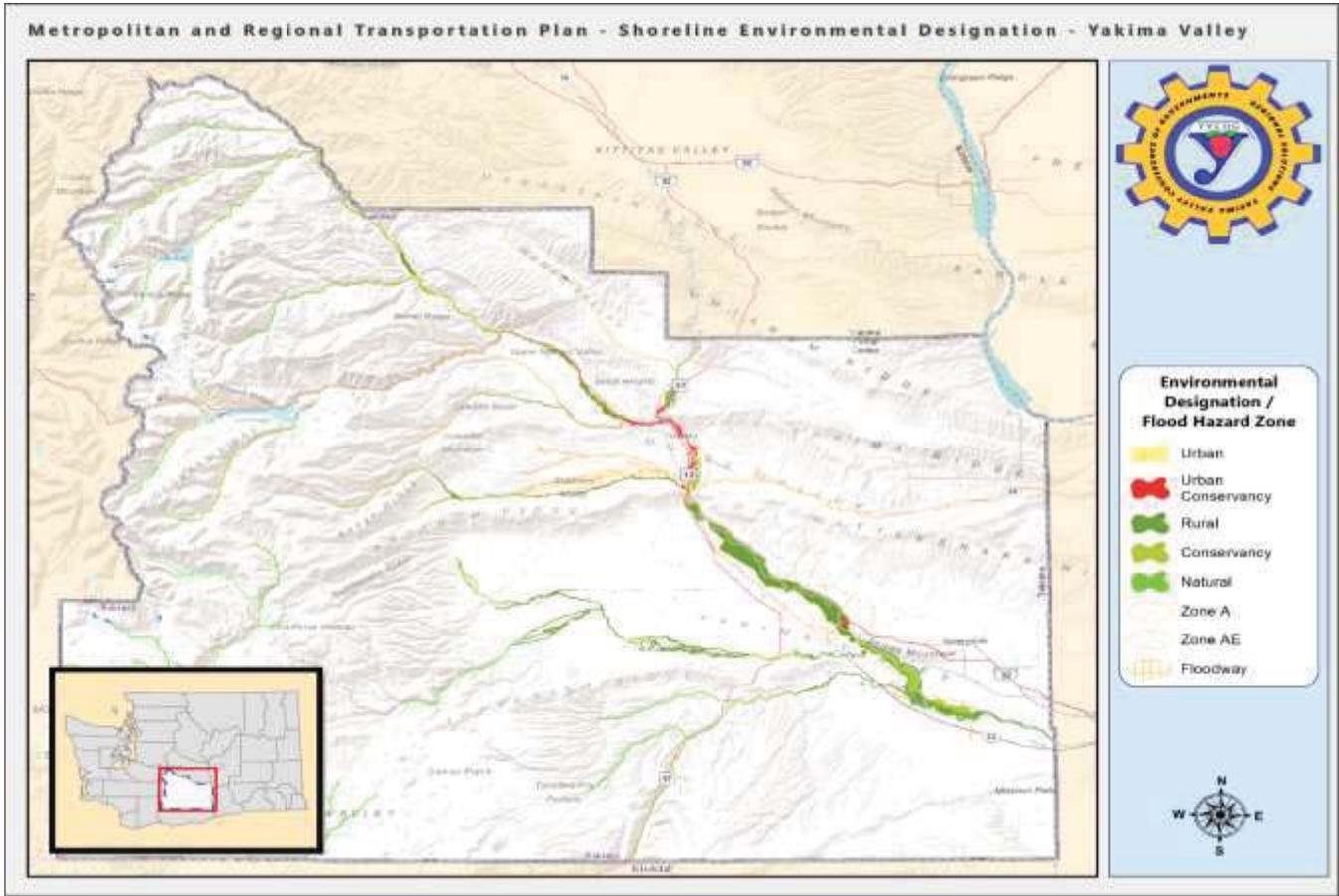


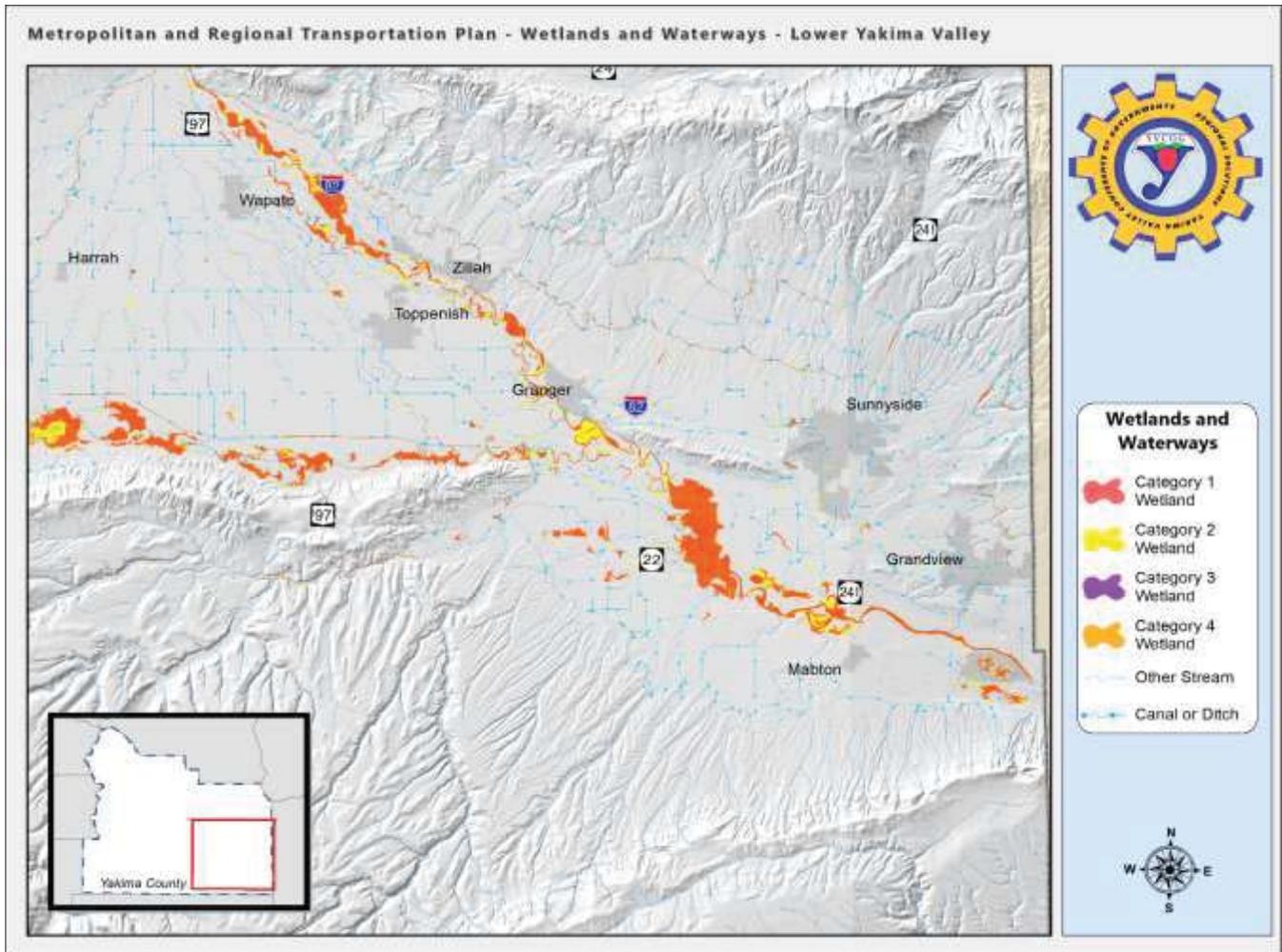
Water and Wetlands

Surface water resources in Yakima County include the Yakima River, Naches River, several lakes, and numerous streams and wetlands. Surface water resources are regulated by the various jurisdictions within the Yakima County region, based on each jurisdiction's CAO and shoreline master program. Yakima County has mapped surface water resources countywide as part of its CAO update. "**Shoreline Environmental Designation**" Map depicts surface waters in the County, and "**Wetlands and Waterways**" (Upper and Lower Valley) Maps depicts inventoried wetlands.

The approximate location and extent of wetlands are shown on maps maintained by Yakima County, which may include information from the National Wetlands Inventory produced by the U.S. Fish and Wildlife Service and soil maps produced by United States Department of Agriculture National Resources Conservation Service that are useful in helping to identify potential wetland areas. These maps are to be used as a guide for Yakima County, project applicants and/or property owners, and may be continuously updated as wetlands are more accurately identified, located and delineated. However, the actual presence and location of wetlands must be field verified. This analysis indicates where projects would occur in the immediate vicinity of an identified surface water resource based on the Yakima County mapping. Wetlands are listed as a constraint in this analysis where Yakima County and NWI maps identify a wetland. It should be noted that wetlands are rated based on categories that reflect the functions and values of each wetland. Wetland categories shall be based on the criteria provided in the Washington State Wetland Rating System for Eastern Washington, 2014 Update (Ecology Publication #14-06-030 - <https://fortress.wa.gov/ecy/publications/SummaryPages/1406030.html>) as determined using the appropriate rating forms contained in that publication. If a wetland may be affected by a future transportation project, field investigation will be needed to determine the wetland's extent and classification.

Groundwater resources can be found in many areas of the Yakima County region. Yakima County has mapped critical aquifer recharge areas countywide as part of its CAO update. The map was developed through a geographic information system (GIS) analysis using the methodology outlined in the Washington Department of Ecology - "Guidance Document" (<https://fortress.wa.gov/ecy/publications/SummaryPages/0510028.html>- Publication 05-10028). The majority of the urban portions of the Yakima County region, and potential road projects, are located within critical aquifer recharge areas of moderate or high importance. Groundwater issues, stormwater management, and any necessary mitigation for protection of aquifers will be evaluated and determined at the project level.





Floodplains

Special flood hazard areas identified by the Federal Emergency Management Agency (FEMA), in a scientific and engineering report entitled "The Flood Insurance Study for Yakima County, Washington and Incorporated Areas" dated November 18, 2009. "Floodplain" means a land area adjoining a river, stream, watercourse or lake which has been determined likely to flood. The extent of the floodplain may vary with the frequency of flooding being considered. "Floodplain" is synonymous with the one hundred-year floodplain and means that land area susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. They have multiple functions, including flood control, water quality, and aquifer recharge. Development in floodplains can disrupt their natural function and can result in harm to people and damage to property. Floodplains are regulated as part of each jurisdiction's CAO or flood damage preventions ordinances. Yakima County mapped floodways and 100-year floodplains countywide, based on Federal Emergency Management Agency (FEMA) mapping. This analysis preliminarily identifies where major projects are within an identified floodway or 100-year floodplain. Figures 5 and 6 are natural resources maps from the County Comprehensive Plan for the upper and lower valley, respectively, but also depict mapped floodplains in the region.

Plants and Animals

The U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and Washington Department of Fish and Wildlife (WDFW) categorize species as endangered, threatened, or candidates proposed for listing. WDFW maintains a geographic database of habitats crucial to many species known as priority habitats. These include habitats for threatened, endangered, candidate, or sensitive species, as well as other species considered important or vulnerable. WDFW-identified habitat areas are considered advisory because where a project may affect an identified habitat area, more investigation is required to confirm the actual, current use of the identified area as habitat.

A number of state and federal listed plant and animal species are found in the Yakima County region. This analysis is based on the current WDFW Habitat and Species Map for Yakima County and Vicinity. Additional sources include Yakima County's Comprehensive Plan natural resources maps (included as Figures 5 and 6), and the City of Yakima Comprehensive Plan map of habitat areas. This analysis identifies where transportation projects are proposed to occur within or in the immediate vicinity of an identified endangered, threatened, sensitive, candidate, or priority species habitat area or site, including terrestrial and aquatic (water) habitat areas. Effects on aquatic habitat can include noise and shading of bridges (particularly with road projects that cross streams or rivers), and indirect water quality impacts. Effects on terrestrial habitat areas can include noise, light and glare, and reduction and fragmentation of habitat.

Shoreline Use

Land Use constraints of potential road projects generally relate to three potential issues:

- 1) Direct disturbance of an existing land use, and
- 2) Impacts to housing will occur if there is direct disturbance (need to relocate) of housing units.
- 3) Disturbance of shoreline uses and environments

This analysis also identifies where corridors may be within shoreline jurisdiction areas (i.e., within 200 feet of shorelines of the state), and therefore subject to the Washington State Shoreline Management Act (SMA). The SMA is implemented by the shoreline master program in effect in the local jurisdiction (e.g. Grandview, Granger, Mabton, Naches, Selah, Toppenish, Union Gap, Wapato, Yakima, Yakima County and Zillah).

Land Use/Housing

Disturbance of existing land uses can occur with road extension or widening projects if the existing right-of-way is not adequate to accommodate the project, and additional right-of-way. It should be noted that for corridors identified for widening or extension, the amount of right-of-way, or the need for future right-of-way was not identified as part of this analysis. Actual impacts may be fewer in number than identified in this analysis, and it is possible that impacts can be avoided or mitigated during project planning and design phases.

Land use incompatibilities may occur when a transportation project results in significant traffic adjacent to a sensitive use, such as residential uses, schools, or parks. This analysis notes where some potential for such impacts may exist; the analysis is based on existing land use as identified in the local jurisdictions Comprehensive Plans that were updated in 2017. The Comprehensive Plans includes maps of existing land use throughout Yakima County. Future land use is of a more general nature and given the long-term nature of both future land use plans and the M/RTP, future land use constraints were not specifically considered.

This analysis identifies where there is potential for road extension/widening corridors to impact sensitive uses due to immediate proximity. It is possible that topography, road design, the exact location and orientation of sensitive uses within a parcel, and other factors could reduce the potential for impacts. However, these specific circumstances are not identified in this analysis.

Noise

All widening/extension projects, and some other improvement/upgrade projects, will result in increased noise during construction. All projects that would extend roads or increase existing capacity can result in increased operational noise due to increased use by vehicles. However, the potential for noise impacts also depends on the type of land use where the noise is heard. Residences, habitat areas, parks, schools, and hospitals are considered sensitive to noise. Generally, projects where noise constraints should be considered are the same as those identified as having potential for land use compatibility impacts. Where projects substantially increase noise adjacent to concentrations of poor or minority populations, the increase in noise may be considered an environmental justice issue (see Environmental Justice below).

Noise is generally regulated by the local jurisdiction; however, the Federal Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) have adopted criteria for evaluating noise impacts of federal and state funded highway projects. The guidelines are used to determine whether noise abatement is needed as part of a transportation project. The criteria identify noise level thresholds based on the category of the receiving land use.

Aesthetics/Light and Glare

All projects that extend roads or increase existing capacity can result in increased light and glare due to increased use by vehicles during evening and nighttime hours. The effects of future road and transit projects will be less in urban areas where roads and traffic already exist. Additionally, road extension projects will result in conversion of undeveloped areas to new roadways and can be viewed as an impact to aesthetic conditions. Road widening can also impact aesthetic conditions, depending on the added width and existing aesthetic conditions adjacent to the widened roadway. River crossings will also have potential for aesthetic/light and glare impacts, and light and glare can be an issue in identified habitat areas (see Plants and Animals).

Environmental Justice

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. A 1994 Presidential Executive Order directed every federal agency to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on "minority populations and low-income populations." The need to consider environmental justice is also embodied in federal regulations that affect this transportation planning process, including: Title VI of the Civil Rights Act of 1964; the National Environmental Policy Act of 1969 (NEPA); laws governing the use of federal aid (Section 109(h) of USC Title 23), and FAST Act.

If future projects disproportionately adversely affect areas with concentrations of poor or minority populations, such as with substantial noise, land use/housing disturbance, land use incompatibility, aesthetic impacts, substantial light and glare, or impacts to recreational resources, these impacts could be considered in conflict with the purpose of environmental justice regulations.

Methodology

The analysis of potential environmental justice impacts is based on data from the 2010 U.S. Census. Thematic census maps were generated for this analysis showing the percentage of persons below the poverty level using the most current data from the US Census American Community Survey (ASC) and the Office of Financial Management (OFM) and the percentage of persons who are Hispanic or of a race other than white. The geography used was census block groups. The block group represents the smallest geography for which the most important data is readily available (i.e., both for race/ethnicity and poverty).

The percentages in each of the census block groups were then compared to statistics for the Yakima County region as a whole. The purpose of this analysis is to ensure that road projects do not disproportionately affect minorities or low-income people within the planning area. Table 1 shows the proportion of poor and minority population in Washington State as a whole, and the Yakima County region as a whole. Minority population statistics are for persons who are Hispanic and for persons of a race other than white, as reported in the Census. As shown in Table 1, the percentages of both poor and minority populations are higher in the Yakima County region than in Washington State as a whole.

Table 1
Proportion of Poor and Minority Population

	Percent of Persons Living in Poverty	Percent of Persons Who Are Hispanic or Latino	Percent of Persons Who Are Non- White
Washington State	10.3%	12.9%	32.0%
Yakima County Region	18.1%	49.9 %	57.3%

Source: 2018 US Census Quickfacts, 2010 U.S. Census

The intent of this analysis is to show where a potential for environmental justice impacts exists. Further analysis will be needed at the project level to determine whether there are actual environmental justice impacts. It should also be noted that, prior to the design and permitting of individual projects, more current data may be available to allow a more current assessment of impacts.

Recreation

At the state level, the SEPA process requires consideration of impacts to parks and recreation. At the federal level, Section 4(f) of the Department of Transportation Act of 1966, as amended by FAST Act, prohibits the FHWA and other DOT agencies from approving the use of land from a significant publicly owned public park, recreation area, wildlife or waterfowl refuge unless there is no feasible and prudent alternative, and all possible planning is done to minimize harm to the property resulting from the use.

Historic and Cultural Resources

Cultural resources can include both historic properties and archaeological sites. Section 106 of the National Historic Preservation Act of 1966 requires consideration of cultural resources as part of federal funding and permitting decisions. Section 4(f) of the Department of Transportation Act of 1966, as amended by FAST Act, also addresses historic resources. At the state level, SEPA requires consideration of these resources.

Archaeological Resources

The Washington State Department of Archaeology and Historic Preservation (DAHP) maintains records of archaeological resources within the State of Washington. There are a number of archaeological resources in Yakima County. The locations of archaeological resources are generally kept confidential. Research regarding the proximity of a future road project to any known archaeological resources will be in consultation with DAHP on any project-specific environmental review and permitting. With construction of road projects, the potential may exist for finding cultural resources. The actual potential can be assessed based on the location, soil, depth of excavation, and other conditions of a specific project. Project-level environmental review and permitting will require investigation regarding the presence or potential for finding archaeological resources.

Historic Resources

Historic resources are identified in the National Register of Historic Places (NRHP) and the Washington Heritage Register. Major corridor widening and/or extension projects can be checked against the DAHP Washington Information System for Architectural and Archaeological Records Data (WISAARD) database, which contains National Register and Washington Heritage Register sites. During a jurisdiction's planning/permitting activities for their projects development, the projected affected work area or corridor can be checked against the National Register Information System, a database of NRHP-listed properties and properties that have been determined to be eligible for listing.

¹ At the time of this writing, the Census 2020 population and economic data were not yet available for Yakima County.

Air Quality

Air quality is regulated by the U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology, and the Yakima Regional Clean Air Authority. There are federal standards for six criteria pollutants: particulate matter (PM₁₀ and PM_{2.5}), ozone (O₃), carbon monoxide (CO), sulfur dioxide, nitrogen oxides, and lead. The EPA last issued new standards for particulate matter in 2006, with O₃ standards being updated in 2008 and 2015.

Vehicle emissions are part of the emissions that contribute to regional air quality (other sources of pollution include agricultural burning, and point sources such as industry). Additionally, the construction of transportation improvements can result in temporary, localized increases in pollutants. The pollutants of primary concern for transportation projects in the Yakima Valley are PM₁₀ and CO, and to a lesser degree O₃.

An air quality conformity analysis was conducted to test conformity with the National Ambient Air Quality Standards (NAAQS) on an area-wide basis. The analysis was conducted for 2020 and 2045 (years) based on the requirements of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA- LU). The analysis was run for PM₁₀ and CO.

The Yakima Urban Area is currently under a maintenance status for both PM₁₀ and CO. The designated maintenance areas for the two pollutants vary. The designated PM₁₀ area includes the areas in and around Yakima, Selah, Gleed, and Union Gap, while the CO area includes primarily the downtown Yakima and areas immediately adjacent.

The air quality conformity analyses were conducted for the planning period, as well as for the Baseline condition (year 2020), which assumes no new capacity projects beyond those currently included in WSDOT and local agency Transportation Improvement Programs (TIPs). The analyses were conducted based on the high-priority projects in the MPO planning area and identified as "secured" in the 2016 M/RTP.

PM₁₀ emissions were calculated for the analysis years based upon the forecasted annual vehicle miles traveled (VMT) on paved and unpaved roadways in the maintenance area. Total VMT and the corresponding PM₁₀ levels are forecast to increase between 2020 and 2045. A large contributor to this budget is road dust, not tailpipe emissions. The total VMT for the PM₁₀ area is forecast to increase by percent 1.49% between 2020 and 2045. Analysis and results can be found in Section 10 (Air Quality Analysis – Table 10-1) and Appendix E (YVCOG Traffic Model Terminology – Tables 18, 19, and 20).

The M/RTP includes several types of improvements that will help reduce future levels of PM₁₀. These include reducing the amount of travel through transportation demand management (TDM) and commute trip reduction (CTR) programs. These programs encourage use of transit, vanpools, carpools, bicycles, and walking. Future increases in alternative modes will help reduce the total VMT for the region. This will reduce both road dust and tailpipe emissions. The Yakima Valley region is also working to reduce the mileage of unpaved roadways. Local agencies in the metropolitan area have annual programs to pave or otherwise overlay existing gravel roadways. The M/RTP also supports acquisition and use of street cleaners to cut down on the PM₁₀ levels from travel on paved roadways. These actions will help the region minimize future PM₁₀ emissions from mobile sources. Intersection operational improvements that are part of the M/RTP can help to reduce potential air quality impacts; these are accounted for in the calculated emissions.

The conformity analysis for CO tested whether the M/RTP would result in increases or decreases of CO emissions for the region. CO emission rates are based on travel speed as well as VMT and take

into account the changing vehicle fleet as older vehicles are replaced by newer ones. There is currently no set budget for CO in the Yakima metropolitan area. The total CO that would be produced in the region in each of the future analysis years is calculated to be less than in the Baseline year (2015). Therefore, the M/RTP projects will have a positive effect on reducing CO levels over Baseline conditions.

It should be noted that all projects that involve construction have the potential to generate short-term air quality impacts. The longer-term effects on air quality are accounted for in the conformity analysis. Individual transportation projects may be required to undergo analysis for conformity with the NAAQS, and project level analysis will be performed at the time of project development.

References

- City of Yakima, Yakima Urban Area Comprehensive Plan 2025, December 2006. National Register of Historic Places (NRHP), National Register Information System database (NRIS) (website), <http://www.nr.nps.gov/>.
- Washington State Department of Archaeology and Historic Preservation (DAHP), Washington Information System for Architectural and Archaeological Records Data (WISAARD) (website), <http://www.dahp.wa.gov/pages/wisaardIntro.htm>.
- Washington State Department of Ecology, Priority lists for project development under the Total Maximum Daily Load (TMDL) Program (website), http://www.ecy.wa.gov/programs/wq/tmdl/priority_clnup_plns.html.
- Washington State Department of Fish and Wildlife, Habitats and Species Map for Yakima County and Vicinity.
- Yakima County, Horizon 2040, Adopted June 27, 2017
- U.S. Census (website), www.census.gov.

APPENDIX H

LONG RANGE PLAN UPDATE

YVCOG Long Range Plan Update - WSDOT Project List as of 11/1/2019

Data sources: 2019 Project Delivery Plan (funded projects), 2018 WSDOT South Central Region Priorities for New Revenue list (unfunded projects)

PIN	Project Title	Route	Sub Pgm	Rev Pkg	Total	Prior	2019	2020-23 Total	2024-29 Total	2030-45 Total	Future (unfunded)
Improvement Projects					70,411,869	1,748,712	641,767	14,615,255	16,321,305	37,084,829	
524103G	SR 241/Sunnyside Vicinity Improvements - Local Lead	241	I1	PEF	500,000	0	0	500,000	0	0	
500000E	SR 10 Et Al/Kittitas and Yakima Co - Centerline Rumble Strips	000	I2	PEF	343,983	0	0	343,983	0	0	
501208J	US 12/Old Naches Highway - Build Interchange	012	I2	Nickel	38,440,011	1,355,182	0	0	0	37,084,829	
501216X	US 12/Eschbach Rd - Intersection Safety Improvements	012	I2	PEF	740,594	0	0	720,623	19,970	0	
501216Z	US 12/Ackley Rd/Clover Lane - Intersection Safety Improvements	012	I2	PEF	1,074,250	0	0	1,037,755	36,495	0	
509703Z	US 97/Lateral 1 - Intersection Improvements	097	I2	PEF	369,959	18,160	59,216	292,584	0	0	
509704S	US 97/Lateral A Intersection - Intersection Improvements	097	I2	PEF	5,673,572	99,743	0	389,019	5,184,810	0	
509704V	US 97/McDonald Rd and Becker Rd - Intersection Improvements	097	I2	PEF	3,890,722	170,128	487,182	3,233,412	0	0	
509705F	US 97/SR 22 - Intersection Improvements	097	I2	PEF	194,564	0	23,286	171,277	0	0	
509705H	US 97/Robbins Rd - Intersection Improvements	097	I2	PEF	7,123,161	97,815	0	801,210	6,224,136	0	
509705O	US 97/Jones Rd - Intersection Improvements	097	I2	PEF	6,249,040	0	0	6,114,444	134,596	0	
509706C	US 97/Progressive Road - Intersection Improvements	097	I2	PEF	348,057	0	55,327	292,730	0	0	
582301X	SR 823/Eleventh Ave to E Fifth Ave Vic - ADA Compliance	823	I2	PEF	100,537	1,501	2,355	0	96,682	0	
582301Y	SR 823/E Naches Ave to N Wenas Rd Wye - ADA Compliance	823	I2	PEF	388,051	6,185	6,802	0	375,064	0	
541001O	SR 410/Rock Creek Vic - Improve Chronic Environmental Deficiency	410	I4	PEF	4,975,368	0	7,598	718,218	4,249,552	0	
Improvement Projects funded by 2015 Connecting WA					64,413,000	0	0	7,021,000	57,392,000	0	
508209W	I-82/Yakima to Union Gap - Corridor Improvements	082	I1	CWA	64,413,000	0	0	7,021,000	57,392,000	0	
Unfunded future Improvement Projects					284,100,000	0	0	0	0	0	284,100,000
	SR 24 University Parkway to Moxee		I1		25,000,000			0	0		25,000,000
	US 12/Naches to Yakima - Corridor Safety Improvements		I2		2,500,000			0	0		2,500,000
	US 12 Ackley Road Intersection - Safety Improvements		I2		1,500,000			0	0		1,500,000
	US 12 Cowiche Creek Bridge - Replace Bridge		I4		17,000,000			0	0		17,000,000
	SR 821 & SR 823 Intersection - Intersection Improvements		I2		5,500,000			0	0		5,500,000
	I-82 Nob Hill Blvd to South Union Gap - Add Lanes		I1		8,000,000			0	0		8,000,000
	US 97 Toppenish to Klickitat County Line - Construct Passing Lanes		I2		18,500,000			0	0		18,500,000
	I-82 Selah Creek to Umtanum Ridge WB - Truck Climbing Lane		I2		11,500,000			0	0		11,500,000
	SR 821 Selah to Ellensburg - Active Transportation Improvements		I2		4,300,000			0	0		4,300,000
	Yakima Vicinity - Freight Movement Study		I1		900,000			0	0		900,000
	US 97 Union Gap - Construct Beltway Connection		I3		10,000,000			0	0		10,000,000
	US 12 East of White Pass - Add Passing Lanes		I2		6,000,000			0	0		6,000,000
	SR 823 Southern Ave - Intersection Improvements		I1		5,500,000			0	0		5,500,000
	SR 241 North of Sunnyside to SR 24 - Corridor Safety Improvements		I2		7,000,000			0	0		7,000,000
	I-82 East Selah Yakima River Crossing - Feasibility Study		I1		900,000			0	0		900,000
	I-82 Union Gap Vicinity - Yakima River Crossing		I1		150,000,000			0	0		150,000,000
	I-82 Exit 44 - Safety Rest Area		I2		10,000,000			0	0		10,000,000
Preservation Projects					79,534,837	86,399	706,072	12,691,520	65,777,806	273,041	
501216J	US 12/Wildcat Creek to Rimrock Retreat - Paving	012	P1	PEF	3,547,880	0	0	0	3,547,880	0	
501216K	US 12/W Naches Vic to Old Naches Highway Vic - Paving	012	P1	PEF	8,540,450	0	0	0	8,540,450	0	
501216R	US 12/White Pass Vicinity to Indian Creek Vicinity - Paving	012	P1	PEF	4,172,875	0	0	31,684	4,141,191	0	

YVCOG Long Range Plan Update - WSDOT Project List as of 11/1/2019

Data sources: 2019 Project Delivery Plan (funded projects), 2018 WSDOT South Central Region Priorities for New Revenue list (unfunded projects)

PIN	Project Title	Route	Sub Pgm	Rev Pkg	Total	Prior	2019	2020-23 Total	2024-29 Total	2030-45 Total	Future (unfunded)
501218K	US 12/Rimrock Retreat to Windy Point - Chip Seal	012	P1	PEF	661,664	0	0	0	661,664	0	
502202R	SR 22/Idaho Ave to US 97 - Paving	022	P1	PEF	1,087,333	0	0	0	1,087,333	0	
502202T	SR 22/US 97 to SR 223 - Chip Seal	022	P1	PEF	685,908	137	0	685,770	0	0	
502202W	SR 22/I-82 to Idaho Ave - Paving	022	P1	PEF	1,530,900	0	0	0	1,530,900	0	
502402F	SR 24/Faucher Rd to 1.7 Miles E of Badger Ln - Chip Seal	024	P1	PEF	1,748,870	0	0	85,057	1,663,813	0	
502402V	SR 24/7.4 Miles W of SR 241 to SR 241 - Chip Seal	024	P1	PEF	955,326	0	0	0	955,326	0	
502403R	SR 24/I-82 to Riverside Rd - Paving	024	P1	PEF	1,484,100	0	0	14,750	1,469,350	0	
508210C	I-82/Selah Creek to Yakima Vicinity - Paving	082	P1	PEF	7,558,512	0	0	0	7,558,512	0	
509703I	US 97/W Wapato Rd Vicinity to Wapato Canal NB - Paving	097	P1	PEF	2,181,203	0	20,981	2,160,222	0	0	
509705R	US 97/Satus Creek Vic to Dry Creek Vic - Chip Seal	097	P1	PEF	1,454,548	0	0	0	1,454,548	0	
509705T	US 97/Pumphouse Rd Vic to SR 22 - Chip Seal	097	P1	PEF	959,947	0	0	959,947	0	0	
522301I	SR 223/Indian Church Road Vic to I-82 - Chip Seal	223	P1	PEF	730,516	0	0	730,516	0	0	
522301M	SR 223/SR 22 Intersection to Indian Church Rd Vicinity - Chip Seal	223	P1	PEF	315,781	0	0	2,710	313,071	0	
524102U	SR 241/E Edison Rd Vicinity to Roza Canal Bridge - Chip Seal	241	P1	PEF	519,577	0	0	4,566	515,011	0	
524103A	SR 241/2.7 Miles S of Wautoma Rd to SR 24 - Chip Seal	241	P1	PEF	563,235	0	0	4,835	558,400	0	
524103D	SR 241/SR 22 to Sheller Rd Vicinity - Chip Seal	241	P1	PEF	1,478,120	0	0	1,476,709	1,410	0	
524103E	SR 241/Roza Canal Br to 2.7 Miles S of Wautoma Rd - Chip Seal	241	P1	PEF	911,638	0	0	5,834	905,804	0	
541003X	SR 410/East Winter Gate to Sawmill Flat Campground Vic - Chip Seal	410	P1	PEF	1,737,820	0	0	0	1,737,820	0	
582101Y	SR 821/I-82 to Selah Creek - Chip Seal	821	P1	PEF	355,899	0	0	0	355,899	0	
582301U	SR 823/E Naches Ave to N Wenas Rd Wye - Paving	823	P1	PEF	1,400,130	22,591	215,340	0	1,162,198	0	
582301V	SR 823/Eleventh Ave to E Fifth Ave Vic - Paving	823	P1	PEF	541,603	7,228	4,186	0	530,189	0	
582302B	SR 823/E Fifth Ave to E Naches Ave - Paving	823	P1	PEF	511,759	0	0	0	511,759	0	
501215Z	US 12/Indian Creek Bridge - Replace Bridge Rail	012	P2	PEF	1,414,136	0	0	0	1,402,337	11,799	
508210B	I-82/N-W Ramp Over Terrace Heights Way - Deck Rehabilitation	082	P2	PEF	433,702	0	0	0	433,702	0	
508210D	I-82/Selah Creek Bridge WB - Joint Repair	082	P2	PEF	271,581	0	0	0	271,581	0	
508210J	I-82/Yakima River Bridges at Union Gap - Joint Repair	082	P2	PEF	835,250	0	0	17,470	817,780	0	
508210K	I-82/Naches River Bridge EB - Joint Repair	082	P2	PEF	827,100	0	0	0	827,100	0	
508210L	I-82/Yakima River Bridge N of Yakima WB - Joint Repair	082	P2	PEF	702,700	0	0	12,419	690,281	0	
508210M	I-82/Yakima River Bridge WB - Bridge Painting	082	P2	PEF	4,194,117	0	0	0	4,121,019	73,098	
508210N	I-82/Yakima River Bridge EB - Bridge Painting	082	P2	PEF	4,661,430	0	0	0	4,612,200	49,230	
508210O	I-82/Naches River Bridge WB - Bridge Painting	082	P2	PEF	3,163,280	0	0	0	3,126,936	36,344	
508210P	I-82/Naches River Bridge EB - Bridge Painting	082	P2	PEF	4,661,430	0	0	0	4,558,860	102,570	
501208I	US 12/White Pass Vicinity - Culvert Lining	012	P3	PEF	871,010	0	0	843,802	27,208	0	
501208Z	US 12/Rimrock Lake Vicinity - Culvert Lining	012	P3	PEF	918,570	0	0	892,355	26,215	0	
501210H	US 12/White Pass Vicinity - Major Drainage Phase 3	012	P3	PEF	3,810,334	56,441	465,564	3,288,329	0	0	
501215M	US 12/0.4 Miles W of Oak Creek - Stabilize Slope	012	P3	PEF	1,573,408	0	0	0	1,573,408	0	
502202U	SR 22/Idaho Ave to US 97 - ADA Compliance	022	P3	PEF	175,792	0	0	0	175,792	0	
502402Y	SR 24/I-82 to Riverside Rd - ADA Compliance	024	P3	PEF	395,740	0	0	8,448	387,292	0	
508208X	I-82/Selah Creek Rest Areas - Replace Lighting System	082	P3	PEF	1,598,709	0	0	0	1,598,709	0	
509703N	US 97/SR 22 Intersection - Upgrade Signal and Illumination	097	P3	PEF	522,489	0	0	522,489	0	0	
509704Y	US 97/Union Gap Vicinity - Stabilize Slope	097	P3	PEF	429,127	0	0	429,127	0	0	
541002X	SR 410/0.6 miles E of Chinook Pass Summit - Culvert Lining	410	P3	PEF	884,720	0	0	188,597	696,123	0	
541002Y	SR 410/1.0 miles E of Chinook Pass Summit - Culvert Lining	410	P3	PEF	981,360	0	0	185,411	795,949	0	
541003Z	SR 410/0.75 miles W of East Winter Gate - Culvert Lining	410	P3	PEF	573,260	0	0	140,473	432,787	0	

YVCOG Long Range Plan Update - WSDOT Project List as of 11/1/2019

Data sources: 2019 Project Delivery Plan (funded projects), 2018 WSDOT South Central Region Priorities for New Revenue list (unfunded projects)

PIN	Project Title	Route	Sub Pgm	Rev Pkg	Total	Prior	2019	2020-23 Total	2024-29 Total	2030-45 Total	Future (unfunded)
Preservation Projects funded by 2015 Connecting WA					14,604,482	411,524	464,416	13,728,542	0	0	
524103C	SR 241/Mabton Vicinity - Retrofit Bridges	241	P2	CWA	14,604,482	411,524	464,416	13,728,542	0	0	
Unfunded future Preservation Projects					184,000,000	0	0	0	0	0	184,000,000
	US 12 White Pass Corridor - State of Good Repair		P1 & P3		106,000,000			0	0		106,000,000
	SCR Region Wide - ITS State of Good Repair		P3		5,000,000			0	0		5,000,000
	SR 22 Yakima River Bridge - Replace Bridge		P2		46,000,000			0	0		46,000,000
	SR 241 North of Sunnyside to SR 24 - Reconstruct Snow Fence		P3		2,000,000			0	0		2,000,000
	SCR Region Wide - Interchange Paving		P1		16,000,000			0	0		16,000,000
	I-82 Selah Creek Rest Area WB - Replace Building		P3		3,000,000			0	0		3,000,000
	I-82 Ellensburg to Yakima - Replace Conc Panels & Dowell Bar Repair		P1		6,000,000			0	0		6,000,000
Total (Funded & Unfunded Improvement and Preservation)					697,064,188	2,246,635	1,812,255	48,056,317	139,491,111	37,357,870	468,100,000

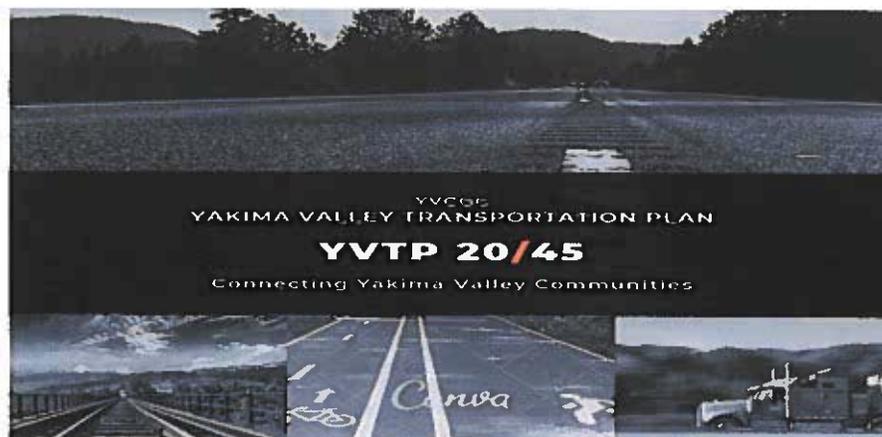
APPENDIX I

PUBLIC COMMENTS

Appendix I Public Comments

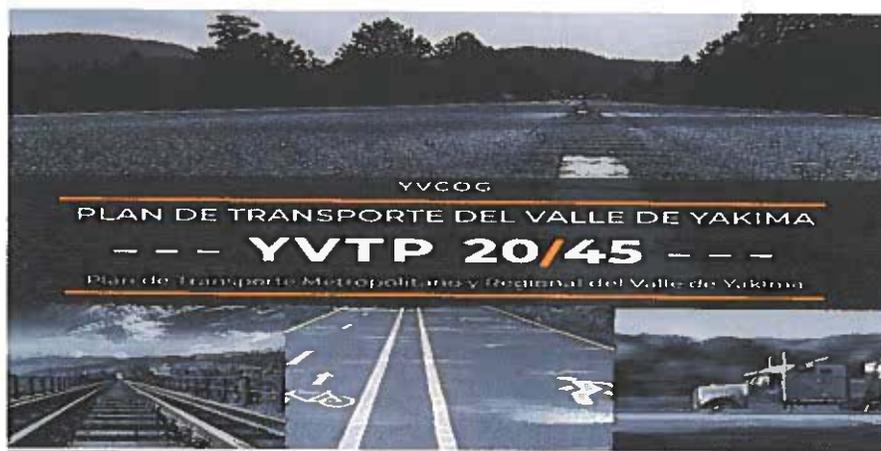
Scheduled 2020-2045 Long Range Plan Outreach Meetings

Date	Time	City	Location	Address
January 22, 2020	2:00pm – 4:30pm	Grandview	Grandview Community Center	812 Wallace Way
January 27	6:30 – 6:00pm	Yakima	Yakima Greenway Foundation Offices	111 S. 18 th Street,
January 28	5:00 – 7:30pm	Yakima	YVCOG Offices	311 N. 4 th Street
January 29	9:00am – 12:00pm	Yakima	Yakima Valley College Student Union Building	South 16 th Avenue & Nob Hill Blvd.
January 30	5:00 – 7:30pm	Zillah	Zillah Community Center	119 1 st Avenue
Other Presentations & Outreach Meetings				
Date	Event	City	Location	
Nov 14, 2019	MPO/RTPO TAC Meeting	Yakima	YVCOG Offices	
Nov 20	DRYVE / TRANS-Action Committee (Annual) Meeting	Union Gap	WSDOT Offices	
Nov 26	Mobilizing Public Access to Countywide Transportation Cmte.	Yakima	YVCOG Offices	
Dec 11	YVCOG General Membership Meeting	Yakima	Oxford Suites Hotel	
Dec 16	YVCOG Policy Board Meeting	Yakima	YVCOG Offices	
Jan 9, 2020	MPO/RTPO TAC Meeting	Yakima	YVCOG Offices	
Jan 15	YVCOG Policy Board Meeting	Yakima	YVCOG Offices	
Jan 27	Yakima Greenway Gen. Board Mgt.	Yakima	Yakima Greenway Offices	
Jan 30	DRYVE / TRANS-Action Committee Gen. Membership Meeting	Zillah	Zillah Community Center	



Reuniones de alcance largo programadas para 2020-2045:

Fecha	Hora	Ciudad	Ubicación	Dirección
el 22 de enero	2:00pm – 4:30pm	Grandview	Centro Comunitario Grandview	812 Wallace Way
el 27 de enero	4:00 – 6:00pm (para hispanohablantes)	Yakima	Las oficinas de Fundación Yakima Greenway	111 S. 18 th Street,
el XX de enero	5:00 – 7:30pm	Yakima	Las oficinas de YVCOG	311 N. 4 th Street
el XX de enero	10:30am – 1:00pm	Yakima	Yakima Community College	South 16 th Avenue & Nob Hill Blvd.
el XX de enero	5:00 – 7:30pm	Zillah	Centro Comunitario Zillah	119 1 st Avenue
otras presentaciones y reuniones de divulgación				
Fecha	Evento	Ciudad	Ubicación	
el 14 de noviembre	Reunión MPO/RTPO/TAC	Yakima	Las oficinas de YVCOG	
el 20 de noviembre	Reunión Anual del Comité de DRYVE/TRANS-Acción	Union Gap	Las oficinas de WSDOT	
el 26 de noviembre	comité de movilización del acceso público al transporte	Yakima	Las oficinas de YVCOG	
el 11 de diciembre	Reunión General de Membresía de YVCOG	Yakima	Oxford Suites Hotel	
el 16 de diciembre	La Junta Directiva de YVCOG (Policy Board)	Yakima	Las oficinas de YVCOG	
el 9 de enero	Reunión MPO/RTPO/TAC	Yakima	Las oficinas de YVCOG	
el 15 de enero	La Junta Directiva de YVCOG (Policy Board)	Yakima	Las oficinas de YVCOG	
el 27 de enero	Reunión de la Junta General de Yakima Greenway	Yakima	Las oficinas de Fundación Yakima Greenway	
el 30 de enero	Reunión del Comité de DRYVE/TRANS-Acción	Zillah	Centro Comunitario Zillah	





**Yakima Valley Conference of Governments
(YVCOG)**

PROJECT: MPO/RTPO PROGRAMS

EVENT: REUNIONES DE ALCANCE LARGO PROGRAMADAS PARA 2020-2045
(GRANDVIEW, WA - GRANDVIEW COMMUNITY CENTER - 2:30 - 4:30PM)

DATE: EL 22 DE ENERO

Public agencies often monitor attendance to ensure equal opportunity. We appreciate your providing information on gender, race and/or disability. This information is optional and will only be used to monitor attendance at public meetings and for affirmative action purposes, as specified by law (23 CFR 200).

Name (Please print or write clearly)	Affiliation (if applicable)	Email	Phone	Please check the appropriate boxes		
Gretchen Chronis	City of Grandview	gretchen@grandview.wa.us	509-882-9219	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other	
Jose Chavez	Centerpoint	cntrptls@aol.com	509 457-2870	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
Elitza Sanchez	SE WA ALTC	sanchez@ashs.wa.gov	965-2105	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	



Yakima Valley Conference of Governments (YVCOG)

PROJECT: MPO/RTPO PROGRAMS

EVENT: 2020-2045 LONG RANGE PLAN PUBLIC EVENT (YAKIMA, WA)

(YAKIMA GREENWAY FOUNDATION OFFICES - 12:30 - 4:00PM)

DATE: JANUARY 27, 2020

Public agencies often monitor attendance to ensure equal opportunity. We appreciate your providing information on gender, race and/or disability. This information is optional and will only be used to monitor attendance at public meetings and for affirmative action purposes, as specified by law (23 CFR 200).

Name (Please print or write clearly)	Affiliation (if applicable)	Email	Phone	Please check the appropriate boxes	
HEAN ADOLF	YVCOG	ANADOLF@YVCOG.ORG	574 1550	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
JAMES AXLING	YVCOG	JAMES.AXLING@YVCOG.ORG	574 1550	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
KELIE CORNAGLIA	Yak Greenway	YAKIMAKELIE@HOTMAIL.COM		<input type="checkbox"/> Male <input type="checkbox"/> Disabled	<input checked="" type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
JOSÉ CHAVEZ	Centerpoint Language Svcs	CTRPLS@AOL.COM	457 2870	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
Phil Hoge	Yakima Bikes & Walks	YAKIMA.BIKES@GMAIL.COM	910-5275	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Eric Anderson	Yakima Greenway	MTNRUN1@GMAIL.COM	961-4660	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Liz Fontana	Yakima Greenway	LIZ.FONTANA@GMAIL.COM	225-0312	<input type="checkbox"/> Male <input type="checkbox"/> Disabled	<input checked="" type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Steve Wilmes	Yak Greenway	SWILMES@CATHOLICCHARITIES.ORG	759-4677	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Mike Wilson	"	MWILSONDC@AOL.COM	453-5726	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Will Hollingsburg	STAY/Greenway	stay.org@gmail.com	930 4566	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other



Yakima Valley Conference of Governments (YVCOG)

PROJECT: MPO/RTPO PROGRAMS

EVENT: 2020-2045 LONG RANGE PLAN PUBLIC EVENT (YAKIMA, WA)

(YVCOG OFFICES – LIBRARY – 5:00 – 7:30PM)

DATE: JANUARY 28, 2020

Public agencies often monitor attendance to ensure equal opportunity. We appreciate your providing information on gender, race and/or disability. This information is optional and will only be used to monitor attendance at public meetings and for affirmative action purposes, as specified by law (23 CFR 200).

Name (Please print or write clearly)	Affiliation (if applicable)	Email	Phone	Please check the appropriate boxes	
Mike Shuttleworth	YVCOG			<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Nellie Chavez	YVCOG	cntrpt1s@aol.com	(509) 457-2870	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
Holly Anna Littlebull	YAKAMA NATION	hollyanna.littlebull@yakama.com	830.6639	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input type="checkbox"/> Disabled	<input checked="" type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
Shane Andreas	YVCOG		509-961-5841	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other



Yakima Valley Conference of Governments (YVCOG)

PROJECT: MPO/RTPO PROGRAMS

EVENT: 2020-2045 LONG RANGE PLAN PUBLIC EVENT (YAKIMA, WA)

(YAKIMA COMMUNITY COLLEGE STUDENT UNION BUILDING - 9:00AM - 12:30PM)

DATE: JANUARY 29, 2020

Public agencies often monitor attendance to ensure equal opportunity. We appreciate your providing information on gender, race and/or disability. This information is optional and will only be used to monitor attendance at public meetings and for affirmative action purposes, as specified by law (23 CFR 200).

Name (Please print or write clearly)	Affiliation (if applicable)	Email	Phone	Please check the appropriate boxes		
RAY IVESON	YVC WORKSHOP	neetjpg@gmail.com	N/A	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> White <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> Other
Jose Chavez		Crtrplk@201.com		<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> White <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> Other
Ken Baur	YVC Grounds	kbaur93@msn.com		<input type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> White <input type="checkbox"/> Hispanic <input type="checkbox"/> Other
Tyler Staudenmaier	YVC Grounds	Tyler.staudenmaier@bk		<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> White <input type="checkbox"/> Hispanic <input type="checkbox"/> Other
Moses Hamilton	YVCC	nm...	509-759-3340	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input checked="" type="checkbox"/> Asian/Pacific Islander <input checked="" type="checkbox"/> Black <input type="checkbox"/> White <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> Other
Nate Andreas	YVCC	andreas.nathan@yahoo.com	(509)-388-3585	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> White <input type="checkbox"/> Hispanic <input type="checkbox"/> Other
Jan Ollivier	PFP	jollivier@pfp.org		<input type="checkbox"/> Male <input type="checkbox"/> Disabled	<input checked="" type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> White <input type="checkbox"/> Hispanic <input type="checkbox"/> Other
Sarah MacNeil	YVCC			<input checked="" type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> White <input type="checkbox"/> Hispanic <input type="checkbox"/> Other
Laura Yolo		laurajyolo@gmail.com		<input type="checkbox"/> Male <input type="checkbox"/> Disabled	<input checked="" type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> White <input checked="" type="checkbox"/> Other <i>Asian</i>
				<input type="checkbox"/> Male <input type="checkbox"/> Disabled	<input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> White <input type="checkbox"/> Hispanic <input type="checkbox"/> Other



**Yakima Valley Conference of Governments
(YVCOG)**

PROJECT: MPO/RTPO PROGRAMS

EVENT: REUNIONES DE ALCANCE LARGO PROGRAMADAS PARA 2020-2045
(ZILLAH, ZILLAH COMMUNITY CENTER – 5:00 – 7:30 PM)

DATE: EL 30 DE ENERO DE 2020

Public agencies often monitor attendance to ensure equal opportunity. We appreciate your providing information on gender, race and/or disability. This information is optional and will only be used to monitor attendance at public meetings and for affirmative action purposes, as specified by law (23 CFR 200).

Name (Please print or write clearly)	Affiliation (if applicable)	Email	Phone	Please check the appropriate boxes		
Grace Sexton	RFP	gsexton@pfp.org	895-8215	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input checked="" type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
Dale Lacombe	H/A Engineering Land Surveying	dlacombe@hla.com	946-7000	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input checked="" type="checkbox"/> Disabled	<input checked="" type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
LANCE HOYT	City of Toppenish	Lance.Hoyt@cityoftoppenish.us	509-865-1633	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other	
Ardele Steele	City of Zillah	ASteele@cityofzillah.us	829-5151	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input checked="" type="checkbox"/> Black <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	
				<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Disabled	<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other	

FOR IMMEDIATE RELEASE

DATE: January 16, 2020



Contact: Chris Wickenhagen
Telephone: 509-574-1550
email: chris.wickenhagen@yvcog.org
website: <https://www.yvcog.org/>

Yakima Valley Conference of Governments
 - Connecting Yakima Valley Communities –

YVCOG Long Range Transportation Plan: PUBLIC INPUT EVENTS

What should transportation in the Yakima Valley look like in the future?

More roads? Wider roads? Trains? Planes? Bus? Walking? Biking? Drones? Or....?

Transportation is changing rapidly, and our valley is directly impacted. How do we deliver and transport our bountiful agricultural products to the world? How do we travel for work, fun and relaxation?

These decisions impact our financial and economic future. It affects our health and quality of life.

YVCOG invites you to attend public input events. YOU can help develop Yakima Valley's future transportation plans.

Scheduled 2020-2045 Long Range Plan Public Input Events

Date	Time	City	Location	Address
January 22, 2020	2:00pm – 4:30pm	Grandview	Grandview Community Center	812 Wallace Way
January 27	12:30pm – 4:00pm	Yakima	Yakima Greenway Foundation Offices	111 S. 18 th Street,
January 28	5:00pm – 7:30pm	Yakima	YVCOG Offices	311 N. 4 th Street
January 29	9:00am – 12:00pm	Yakima	Yakima Valley College Student Union Building	South 16 th Avenue & Nob Hill Blvd.
January 30	5:00pm – 7:30pm	Zillah	Zillah Community Center	119 1 st Avenue

For more information, please contact Alan Adolf at 509-574-1550, or email alan.adolf@yvcog.org

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PARA PUBLICACIÓN INMEDIATA

FECHA: 16 de enero de 2020



Contacto: Chris Wickenhagen
Teléfono: 509-574-1550
Correo electrónico: chris.wickenhagen@yvcog.org
Página web: <https://www.yvcog.org/>

Conferencia de Gobiernos del Valle de Yakima
 - Conectando Comunidades del Valle de Yakima –

Plan de largo plazo para transporte de YVCOG: Oportunidades para comentarios públicos

¿Cómo debería ser el transporte en el Valle de Yakima en el futuro?

¿Más caminos? o caminos más anchos? ¿Los trenes? ¿Aviones? ¿Autobús? ¿Para caminar?
 ¿Ciclismo? ¿Drones? ¿O....?

El transporte está cambiando rápidamente, y nuestro valle se ve directamente afectado. ¿Cómo entregamos y transportamos nuestros abundantes productos agrícolas al mundo? ¿Cómo viajamos por trabajo, diversión y relajación?

Estas decisiones impactan nuestro futuro financiero y económico. Afecta nuestra salud y calidad de vida.

YVCOG le invita a opinar sobre algunas opciones de transporte. USTED puede ayudarnos a crear buenos planes de transporte para mejorar el futuro del Valle de Yakima.

HORARIO 2020-2045 Los eventos en el Plan de Largo Plazo

FECHA	Tiempo	Ciudad	Ubicación	Dirección
El 22 de enero, 2020	2:00pm – 4:30pm	Grandview	Grandview Community Center	812 Wallace Way
El 27 de enero	12:30pm – 4:00pm	Yakima	Yakima Greenway Foundation Offices	111 S. 18 th Street,
El 28 de enero	5:00pm – 7:30pm	Yakima	YVCOG Offices	311 N. 4 th Street
El 29 de enero	9:00am – 12:00pm	Yakima	Yakima Valley College Student Union Building	South 16 th Avenue & Nob Hill Blvd.
El 30 de enero	5:00pm – 7:30pm	Zillah	Zillah Community Center	119 1 st Avenue

Para más información pongáse en contacto con Alan Adolf: 509-574-1550, o email alan.adolf@yvcog.org

Public Comments Received During February 5 – March 5, 2020 Review Period:

Public comments received during the 2/5 – 3/5/2020 period for the call for public comments.

Suggested Edit(s) / Comments	How Comment was Addressed
Recommend Edits / Comments #1	
Will Hollingbery - Single Track Alliance of Yakima (STAY) – 27Jan20 – Public Comment Event via Email	Data to be shared for review and possible inclusion in future 2024-2045 Long Range Plan Update, per Mr. Hollingsbery's concurrence as STAY group addresses internal planning efforts.
Shared plans for future "Rattlesnake Hills Trail Proposal" under development by STAY Group.	
Recommend Edits / Comments #2	
Jan Ollivier – Transportation Director – People for People Community Services – 29Jan20 - MPACT Committee Meeting.	Copy of Yakima County area map shows confirmed "Park & Ride" facilities included in Appendix C (Existing Transportation Facilities).
Suggested Map displaying confirmed "Park & Ride" facilities located in Yakima County.	
Recommend Edits / Comments #3	
Robert Peterson, Airport Director, Yakima Air Terminal – McAllister Field – 14Feb20 – Email	Correction to "Swift Airlines", "865-Acre Airport" and projected air terminal's (renovation/replacement) to 2026 performed. "McAllister Museum" added to "Yakima Air Terminal" name.
<ul style="list-style-type: none"> • Page 167 – Correct "Xtra" Airlines to "Swift Airlines", correct "800" to "865"-acre airport, correct expected year to renovate or replace air terminal from 2023 to 2026, and add "McAllister Field" to Yakima Air Terminal name. • Page 167 (3rd bullet) – List other airport businesses as shared in Mr. Peterson's correction attachment. 	
Included ALS Ambulance, Airlift Northwest, Cubcrafters, Triumph Group, FEDEX/UPS, Yakima Aerosport, Noland Decoto Flying Service, Memorial Cornerstone, Wildfire Restaurant, and Reno's on the Runway to [Bullet 3, page 167]	
Recommend Edits / Comments #4	
Sharlene Bakeman – Planning and Freight Program Manager, Federal Highway Administration (FHWA) – 18Feb20 Phone Call and email on 4Mar2020	Updated EPA Standard year to 2015 for O ₃ (Ozone) Mike Boyer (WA Dept of Ecology).
<ul style="list-style-type: none"> • Page 294 (first paragraph) – Update EPA Standards reference to most current update year • Page 294 (6th Paragraph) – Include missing ADVMT rate increase percentage in sentence and include analysis and results reference location elsewhere in document. • Appendix G – SEPA Checklist (Air Quality) – include analysis and results reference location elsewhere in document. 	Included "Air Quality" analysis and results references in pages 294 and Appendix G – SEPA Checklist, in Section 10 (Air Quality Analysis) and Appendix E (YVCOG Traffic Model Methodology, Tables 18, 19, and 20)
Recommend Edits / Comments #5	
Gary Wilt, Board Member – All Aboard Washington, 22Feb20 – Email / AAWA Approved Comment Letter received 3 Mar2020	<ul style="list-style-type: none"> • Included "Support restoration of passenger rail service throughout Central Washington" to Alternative Transportation Modes (Trans Plan & Strategies Policies). • Included "Support state legislature action to establish funding for county rail districts" to Finance and Implementation (Trans Plan & Strategies Policies) • Removed Genie Tours reference and replaced with "The City of Yakima and surrounding jurisdictions is the largest metropolitan area in Washington State without passenger Rail service. • Removed Stampede Tunnel reference and replaced with "Significant improvements to the Stampede Pass Rail line would be required to restore rail service.
<ul style="list-style-type: none"> • Page 49 – Recommends addition of "Support restoration of passenger rail service throughout Central Washington" to Alternative Transportation Modes (Trans Plan & Strategies Policies) • Page 50 – Recommends addition of "Support state legislature action to establish funding for county rail districts" to Finance and Implementation (Trans Plan & Strategies Policies) • Page 167 – Remove reference to "Genie Tours coordinating bus service with AMTRAK between Seattle & Pasco, and correct reference to "raising Height of Stampede Pass Tunnel" 	

Recommend Edits / Comments #6	
Janet Matkin – Communications Manager, WSDOT Rail, Freight & Ports Division – 18Feb2020 – Email	<ul style="list-style-type: none"> •Ms. Matkin’s response concurred with Mr. Wilt’s recommended correction on page 167.
Correspondence response to clarification of Mr. Wilts “Genie Tours” correction on page 167 of Public Review Draft of LRP Document.	<ul style="list-style-type: none"> •Removed Genie Tours reference and replaced with “The City of Yakima and surrounding jurisdictions is the largest metropolitan area in Washington State without passenger Rail service.
Recommend Edits / Comments # 7	
Paul Gonseth, WSDOT SCR Regional Planning Engineer, March 5 th Letter via email from John Gruber, WSDOT Transportation Planning Specialist – 5Mar2020	<ul style="list-style-type: none"> •Corrected 36 wording and text corrections as requested and outlined in WSDOT’s 5Mar2020 response letter. Copy of letter viewable in this appendix.
6 Page letter recommending 36 wording and text corrections	
Recommend Edits / Comments #8	
Trevor Davis-Court and Paul Krueger, WSDOT Rail, Freight and Ports Office via email from Cliff Hall, Sr. Transportation Planner, WSDOT Tribal & Regional Office – 5Mar2020	<ul style="list-style-type: none"> •Revised language as requested referring to “The 2017 Washington State Freight Rail Plan •Replaced references to “Burlington Northern Santa Fe” to “BNSF Railway”. •Utilized “Central Washington Railroad” in referring operator name for lines with Yakima county and “Yakima Central Railway” for the Yakima County Owned Toppenish, Simcoe and Western Rail Line. •Made corrections to passage based on Mr. Wilts (#5) recommendations.
<ul style="list-style-type: none"> •Page 119 – Use correct reference regarding current freight plan from “Statewide Freight & Logistics Plan” to “The 2017 Washington State Freight System Plan” •Page 167 – Replace references to Burlington Northern & Santa Fe to “BNSF Railway” •Page 167 – Use correct (respective) operator name references of the Columbia Basin Railroad for railways within Yakima County and the Toppenish Simcoe and Western rail line. •Page 168 – Revise language regarding clearance height of Stampede Pass Tunnel as related to passenger rail and statement that Stampede Pass line would require improvements rather than “rehabilitation” 	

Alan Adolf

From: Single Track Alliance Of Yakima <stay.org@gmail.com>
Sent: Monday, January 27, 2020 10:34 PM
To: Alan Adolf
Subject: yvcog trail plan comment submittal
Attachments: RHTP CURRENT.docx; RHTP_Overview-Aerial.pdf; 50 miles of single track.jpg

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Alan,

Thanks for talking about the current 2045 plan draft. I have attached some documents which outline the plan overall. Let me know if you have any questions or comments or if you need any more information.

Take care,

Will Hollingbery

50 miles of singletrack

colored lines exist
thin black lines are proposed trails
thick black lines are double track road

Legend

- Bery Milkshake
- Blue Banjo
- Feature 3
- Fruitloop coaster
- Hole In The Wall
- Iron Fist
- OG Turns
- Shoot The Moon
- Squirrel
- The Ditch
- Trail to two trees
- Two Trees
- Windy Point

Google Earth

©2010 Google



1 mi

Alan Adolf

From: Peterson, Robert <Rob.Peterson@yakimaairterminal.com>
Sent: Thursday, February 13, 2020 4:46 PM
To: Alan Adolf
Subject: RE: <<<REMINDER>>> YVCOG's 2020-2045 Long Range Plan Public Comment Period
Attachments: 20200213164000.pdf

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Alan,

Good afternoon.

I had the opportunity to review the long range plan and would like to provide a few additions/edits. Please see my comments attached (page 167). Also, I would recommend changing the referencing throughout the document from "McAllister field" to Yakima Air Terminal-McAllister Field. Long story behind that one and will never only use one or the other.

Businesses on airport property include:

ALS ambulance
Airlift Northwest Medivac
Cub Crafters
Triumph
Memorial Cornerstone Medical Facility
Food Facility Engineering
FedEx
UPS
Renos on the Runway
Waterfire

Let me know if I can help further.

Sincerely,

Robert Peterson, C.M.

Airport Director
Yakima Air Terminal-McAllister Field
2406 W. Washington Avenue, Suite B
Yakima, WA 98903

(509) 575-6149 (Office)

(509) 575-6185 (Fax)

www.flyykm.com

rob.peterson@yakimaairterminal.com

Swift Airlines

carrier (Alaska Airlines) and two non-scheduled [charter] carriers (Sun County Airlines provides charter service to Laughlin NV, and Xtra Airlines provides charter service to Wendover, NV). Private charter (general aviation) service is also available. The Yakima Air Terminal sees approximately 36,797 aircraft operations per year, of which 1,836 are air carrier operations

865

- An 800-acre airport, the Yakima Air Terminal ^{McAllister Field} is a Federal Aviation Administration (FAA) Part 139 certificated airport with its primary runway (Runway 09/27) classified as an Airport Reference Code (ARC) C-III. Runway 09/27 can accommodate a Boeing 737-800 aircraft or similar. The airport is equipped with Airport Rescue and Fire Fighting (ARFF) capabilities. The terminal building was constructed in 1950. A concourse addition was done in 1968 and a series of expansions and renovations were done between 1997 and 2000. The airport's master plan states a renovation or replacement is needed by 2020 but based on available funds from the Federal Aviation Administration, the earliest this could occur is 2023 or later.

2026

- In 2016, 72,000 passengers enplaned at the airport on an average of 4 scheduled daily departures. Because of a steady increase in passengers, Alaska Airlines has scheduled three or four flights in and out of Yakima as pilot availability, demand, and aircraft capacity dictated. A 2015 Airport Master Plan updated 20-year forecast shows passenger enplanements increasing to an estimated 123,000 by 2030.
- The Airport is home to McCormick Air Center, a full-service Fix Based Operator (FBO), capable of providing fuel, maintenance and instrument/commercial flight instruction services for general aviation users.
- The City of Yakima estimates that the airport in Yakima supports approximately 1000 jobs resulting in approximately \$8.7 million dollars in labor earnings and \$31.7 million dollars in economic activity for commercial service visitors alone.
- Taxis, rental cars, hotel shuttles, and pick-up/drop-off zones are available to facilitate transport to and from the airport. Yakima Transit routes 7 and 9 also provide service to the airport.
- The primary access routes to the airport are along N. 16th and N. 40th Avenues from the north and Valley Mall Boulevard and Washington Avenue from the east.
- The McAllister Museum of Aviation, a non-profit Airline Industry Service Community Museum founded in 1999 originally opened in 1926 as a flight school by bothers Charlie & Alister McAllister and is one of the longest running flight schools in the Pacific Northwest.

ALS Ambulance
AirLift Northwest

Cub crafters

Triumph

Memorial Cornish

Food Facility Engin

Fed Ex
UPS

Pen's on the Runway

Water Fire

Sunnyside Municipal Airport

- Owned and operated by the City of Sunnyside; the airport sits on 81 acres, and has a 3,422-foot lighted runway experienced 24,000 operations in 2012
- This general aviation airport does not provide scheduled commercial passenger or cargo service.
- The Washington State Department of Transportation Aviation Division estimates that the airport in Sunnyside generates approximately 76 jobs resulting in approximately \$1.2 million dollars in labor earnings and \$4.5 million dollars in economic activity.
- Primary access to the airport is along E. Edison Road

Alan Adolf

From: Bakeman, Sharleen (FHWA) <sharleen.bakeman@dot.gov>
Sent: Wednesday, March 4, 2020 11:18 AM
To: Alan Adolf
Cc: Kunic, Matthew (FHWA)
Subject: RE: AQ Conformity Analysis -- Ecology contact

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Hi Alan –

I'm not sure where we've left this conversation. I note that Mike Boyer provided you the links on the various pollutants below, and indicates he doesn't need to see the draft AQ section. Normally, I would only review your final as well, but had wanted (in our call last month) to give you early feedback.

Bottom line, if you can fill in the missing information in that paragraph we discussed: ?

*PM₁₀ emissions were calculated for the analysis years based upon the forecasted annual vehicles miles traveled (VMT) on paved and unpaved roadways in the maintenance area. Total VMT and the corresponding PM₁₀ levels are forecast to increase between 2020 and 2045. A large contributor to this budget is road dust, not tailpipe emissions. The total VMT for the PM₁₀ area is forecast to **increase by percent** between 2020 and 2045.*

And if you can understand that it doesn't matter if the budget is made up of road dust or emissions (?), it's still a total budget and number. A lot of transportation folks try to say "hey, it's not us, it's dust!" but I remind them that we're all under the same glass dome. Colorado's dust is made up of ground sand and salt from snowy roads and emissions – that's just how it is. Tacoma's PM_{2.5} nonattainment status resulted mostly due to wood smoke. We're all under the same glass dome.

SO! My rambling is my effort to say: clean up the text, and if you aren't surpassing your total budget, regardless of the origin of the numbers, you're likely good to go. (Without knowing the percent increase above, hard to see your numbers.)

My final thought is to suggest (in the near future) updating your reliance on 2008 as a baseline set of assumptions (referred to as "...YVCOG adopted a common-sense approach in analyzing the ADVMTs extracted from the metropolitan area travel demand model.") While you're probably fine for now, it's always good to be current in your assumptions and not be surprised, right? And we need to be sure that your assumptions on growth are tracking clearly between both your Limited Maintenance Plan AND foundational sources like Census, etc., so that we can agree with you when you say "labor force grows by X percent, anticipated VMT growth therefore is Y %." Bottom line is that you, or your new staff, or your consultants, need to be sure to track and cite your data and sources for our future reference. This is the number one challenge we as the interagency AQ review team have in making determinations. If we can't understand where numbers come from, we have to stop and have it explained for us and shown to us.

Enough for now – sorry to drag on. The call is next week, so I just wanted to jot this down for you because I figure you're getting everything ready for that call.

Thanks!

Sharleen

Sharleen Bakeman | Planning & Freight Program Manager | ESF-1 | FHWA Washington Division | Desk 360-753-9418



Stay Safe Out There!

From: Boyer, Michael (ECY) <mboy461@ECY.WA.GOV>
Sent: Wednesday, February 19, 2020 12:20 PM
To: Alan Adolf <alan.adolf@yvcog.org>
Cc: Bakeman, Sharleen (FHWA) <sharleen.bakeman@dot.gov>
Subject: RE: AQ Conformity Analysis -- Ecology contact

Alan,

I'm forwarding references for the most recently published EPA NAAQS. In many cases, EPA has not revised the standards since 2006. The 2015 O3 standard is more stringent than the 2008 O3 standard.

EPA NAAQS: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

PM10 & PM 2.5: <https://www.epa.gov/pm-pollution/table-historical-particulate-matter-pm-national-ambient-air-quality-standards-naaqs>

EPA last published PM10 and PM2.5 standards in 2012.

O3: <https://www.epa.gov/ground-level-ozone-pollution/table-historical-ozone-national-ambient-air-quality-standards-naaqs>

EPA last published O3 standards in 2015.

CO: <https://www.epa.gov/co-pollution/table-historical-carbon-monoxide-co-national-ambient-air-quality-standards-naaqs>

EPA last published the CO standard in 2015.

Lead: <https://www.epa.gov/lead-air-pollution/table-historical-lead-pb-national-ambient-air-quality-standards-naaqs>

EPA last published lead standards in 2016

NO2: <https://www.epa.gov/no2-pollution/table-historical-nitrogen-dioxide-national-ambient-air-quality-standards-naaqs>

EPA last published NO2 standard in 2012.

SO2: <https://www.epa.gov/so2-pollution/table-historical-sulfur-dioxide-national-ambient-air-quality-standards-naaqs>

EPA last published SO2 standard in 2019.

I don't need to see a preview of AQ section for the Long Range Plan.

Mike Boyer

Senior Diesel Programs Specialist

Air Quality Program

WA Dept of Ecology

360-407-6863

michael.boyer@ecy.wa.gov

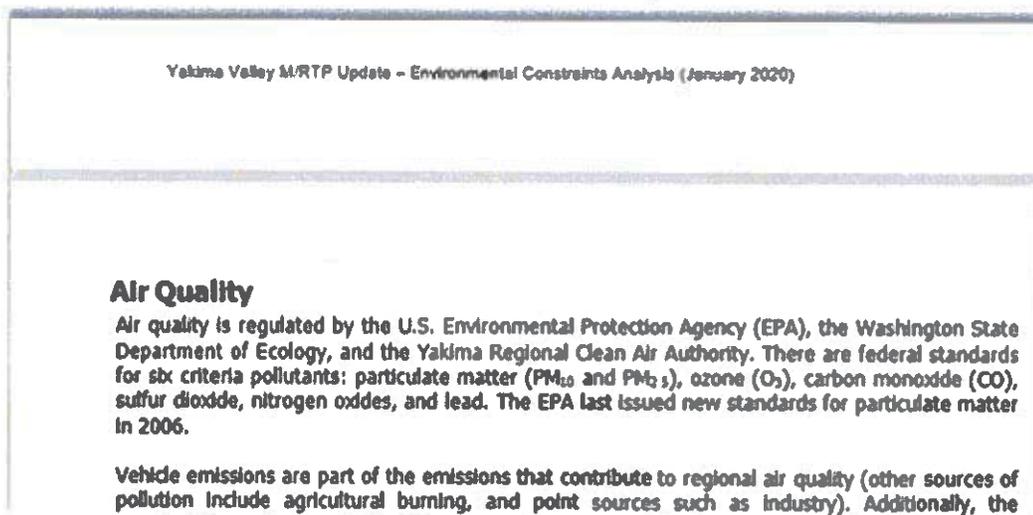
http://www.ecy.wa.gov/programs/air/cars/diesel_exhaust_information.htm

From: Alan Adolf <alan.adolf@yvcog.org>
Sent: Wednesday, February 19, 2020 10:08 AM
To: Boyer, Michael (ECY) <mboy461@ECY.WA.GOV>
Subject: FW: AQ Conformity Analysis -- Ecology contact

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Good Morning Mike.

Sharleen and I were just discussing some suggestions (corrections) to my first Long Range Plan Document <https://www.yvcog.org/wp-content/uploads/2020/02/COMPLETE-PLAN.pdf> . The one's more specific to you referenced Air Quality in the Environmental constraints Analysis (electronic page 294 of 307 – see below) Due to staffing limitations, the pages are not specifically on the document itself yet, but can be found (followed) on the PDF page counter. Specific page numbers will be a part of the final document.



Specifically with regards to the last sentence of the first paragraph. Are the 2006 Standards still correct with referencing this document? Sharleen thought it best to ask you now so I can start working on edits.

Also, our SEPA review comment period ends today and will be making a slight "crossing-referencing" addition document before sign off. Would you like a copy of that before any review committee meeting is sent? Possibly have available to you by end of week or early next.

Thanks in advance.

Alan Adolf

Transportation Program Manager
 Yakima Valley Conference of Governments
 311 N. 2nd Street, Ste. 204
Alan.adolf@yvcog.org
 (509) 759-7981

From: Bakeman, Sharleen (FHWA) <sharleen.bakeman@dot.gov>
Sent: Wednesday, February 19, 2020 9:54 AM

To: Alan Adolf <alan.adolf@yvcog.org>
Cc: Kunic, Matthew (FHWA) <matthew.kunic@dot.gov>
Subject: AQ Conformity Analysis -- Ecology contact

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Here's Mike Boyer's contact info. Thanks for the chat today, Alan – good luck on getting all of this done!

michael.boyer@ecy.wa.gov
360-407-7534
State Department of Ecology Air Quality Program Manager

Sharleen

Sharleen Bakeman | Planning & Freight Program Manager | ESF-1 | FHWA Washington Division | Desk 360-753-9418



Stay Safe Out There!

Alan Adolf

From: Matkin, Janet <MatkinJ@wsdot.wa.gov>
Sent: Tuesday, February 18, 2020 3:27 PM
To: Alan Adolf
Cc: WSDOT Rail Inbox; Linda Howell; LaBoe, Barbara
Subject: FW: Transit Service in lieu of Passenger Rail (Seattle-Yakima-Pasco)

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Hello Alan,

Thank you for your questions regarding bus service from Yakima that connects to Amtrak service in Seattle.

Amtrak does not have any affiliated or contracted bus service between Pasco, Yakima, and Seattle. While Greyhound connects these cities each day; there is no formal coordination between that bus service and Amtrak.

There is currently Amtrak service in Pasco that is a stop on Amtrak's Empire Builder line between Chicago, Spokane and Portland. The Pasco Amtrak station is also the Greyhound station. However, there is no Amtrak service in Yakima.

Greyhound bus service is available from Yakima to both Seattle and Portland. The Greyhound station in Seattle is about six blocks from King Street Station, where Amtrak Cascades service is available. Greyhound service is also available from Yakima to Portland, with the bus stopping at Portland's Union Station, which also services the Amtrak trains.

Bellair Airporter also offers a daily bus between Yakima and Sea-Tac International Airport, but it does not stop at King Street Station.

Please let us know if you have further questions.

Thanks,

Janet Matkin

Communications Manager
 WSDOT Rail, Freight and Ports Division
 360-705-7966 (desk)
 253-350-9516 (cell)
MatkinJ@wsdot.wa.gov

From: Alan Adolf <alan.adolf@yvcog.org>
Sent: Thursday, February 13, 2020 2:08 PM
To: WSDOT Rail Inbox <Rail@WSDOT.WA.GOV>; Howell, Linda <Howell@wsdot.wa.gov>
Subject: Transit Service in lieu of Passenger Rail (Seattle-Yakima-Pasco)

Good Afternoon.

I received a comment from Gary Wirt with All Aboard Washington on a point in our 2020-2045 M/R Long Range Plan currently under review that I could use either of your assistance/clarification on.

Alan Adolf

From: John R. Rohrbaugh
Sent: Monday, March 2, 2020 3:43 PM
To: Alan Adolf; Jodi Smith
Subject: FW: LRTP Draft comments
Attachments: AAWA comments final - YVCOG Jan Draft 2020-2045 LTP.pdf

Did you already receive these comments? They came via the 'info' YVCOG email account.

jrr

From: garywirt@allaboardwashington.org <garywirt@allaboardwashington.org>
Sent: Sunday, March 1, 2020 5:08 PM
To: YVCOG INFO <info@yvcog.org>
Subject: LRTP Draft comments

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Attached comments are submitted for your consideration on behalf of The Board of Directors, All Aboard Washington.

Regards,

Gary Wirt



(775) 292-2000
 P.O. Box 70381
 Seattle, WA 98127
 allaboardwashington.org



All Aboard Washington
 (360) 529-5552
 PO Box 70381
 Seattle, WA 98127-0381
 www.aawa.us

February 22, 2020

The following is submitted in response to Yakima Valley Conference of Governments (YVCOG) request for comments regarding draft Yakima Valley Transportation Plan 20-45, January 2020.

1. Page 49 of 307; Section 5, Transportation Plan Policies and Strategies, §6 Alternative Transportation Modes.

Recommendation: Include a subparagraph stating "Support restoration of passenger rail service through Central Washington"

2. Page 50 of 307; Section 5, Transportation Plan Policies and Strategies Policies, §8 Finance and Implementation

Recommendation: Include a subparagraph stating: "Support state legislative action to establish funding for County Rail Districts.###"

Discussion: Although State law provides for jurisdictions to establish Rail Districts, there is no established funding mechanism. AAWA has previously proposed (thus far unsuccessfully) legislation for that purpose and plans to do so again during the 2021 legislative session.

3. Page 169 of 307; Appendix C - Existing Transportation Facilities, Item 5, Air and Rail Transportation System, Rail Transportation (Passenger)

Draft Document states that: "Amtrak provides thruway service (bus service) by coordinating with Genie Tours. Service from the City of Yakima to the Pasco and Seattle Amtrak Stations."

Comment: To our knowledge, there is no Amtrak thruway bus service to or from Yakima.

Recommendation: Delete the sentence; or revise the sentence to read: "There is no existing public transportation connecting Yakima County residents with passenger rail service."

Include a statement that Yakima is the largest metropolitan area in Washington without passenger rail service.

4. Page 169 of 307; Appendix C - Existing Transportation Facilities, Item 5, Air and Rail Transportation System, Rail Transportation (Passenger)

Draft Document states that: "Improvements to the Stampede Pass Rail line would require significant rehabilitation and raising of the Stampede Pass tunnel to accommodate current passenger rail cars."

Discussion: While it is correct to state that significant improvements are required before passenger rail service could resume over the Stampede Pass route, raising the height of the tunnel is not a requirement.

The BNSF Stampede Pass tunnel is arched, like most railroad tunnels, with a vertical clearance of 22 feet and a width of 16 feet. Amtrak "Hi-Level" coaches, in service 1951 - 2018, were used by Amtrak on the Stampede Pass route until service was discontinued in 1981. The vertical height of these coaches is 15' 6". *Cascades* Talgo trainsets have a vertical height of 13.1' (4 m), width 9.65'. Amtrak Superliner coaches, currently in use, have a height of 16' 2" (8" higher than the Hi-Level coaches).

Nothing in the 2001 Washington State DOT East-West Feasibility Study¹ indicates that any of these passenger rail cars would be unable to pass through the tunnel. Notably, the study does state that the tunnel "...does not currently have sufficient clearance to accommodate double-stack containers, tri-level auto cars, and certain trailer-on-flatcar loads."² Finally, of the estimated \$350 million capital costs required to implement passenger rail service over the route, raising the height of the tunnel is not mentioned or included.³ The 2001 study concludes that passenger rail service is physically and operationally feasible along the Stampede Pass route.⁴

Certainly, the capability & capacity of the route would be improved by raising the height of the tunnel. However, there are no apparent tunnel-related limitations that preclude today's passenger trains from using the tunnel in its current configuration.

Recommendation: Revise the statement to read as follows,

"Significant improvements to the Stampede pass Rail line would be required to restore passenger rail service."

5. General comments:

5.1 All Aboard Washington (AAWA) acknowledges that restoration of passenger rail service will require extensive planning and funding. AAWA plans to continue its efforts to convince our elected officials to invest in better passenger rail service in the 2021 biennial legislative session. Meanwhile, it would be beneficial to include some passenger rail aspects in long term transportation planning. For example, it appears that plans could be developed for a Yakima intermodal facility that would include passenger rail service, and perhaps associated land acquired if necessary. These actions are desirable from the standpoint of obtaining grants and matching funds based on intermodal operability. Simply stated, let's start planning and preparing for passenger rail now and not wait another 20 years.

5.2 Rail travel has historically been one of the most environmentally friendly modes of travel. Compared to air travel, rail emits between 5 and 12 times less carbon dioxide (CO2) than air and 3 to 5 times less

¹ Washington State Department of Transportation; HDR Engineering Inc. *East-West Passenger Rail Study: A Preliminary Analysis* (2001).

² Ibid., 17

³ Ibid., 42

⁴ Ibid., 43

than automobiles.⁵ Washington state is required to limit overall emissions of greenhouse gasses in the state by 2035 to 25% below 1990 levels. In May 2019, Governor Jay Inslee signed an unprecedented suite of clean energy legislation into law, ushering in aggressive timelines for decarbonizing Washington state's economy and transforming the state's energy landscape.⁶ Therefore, it is suggested that a statement recognizing the carbon reduction advantages to be gained by passenger rail should be included at an appropriate place in the document.#

⁵ Washington State Department of Transportation, *Ultra-High-Speed Ground Transportation Business Case Analysis*, (2019), §3.6

⁶ *Ibid.*

Alan Adolf

From: Gruber, John <GruberJ@wsdot.wa.gov>
Sent: Thursday, March 5, 2020 4:35 PM
To: Alan Adolf
Cc: Paul Gonseth
Subject: Yakima Valley Transportation Plan 2020-2045 -- WSDOT Comments
Attachments: Yakima Valley Transp Plan_2020-2045_WSDOT Response.docx; YV Transportation Plan_2020-2045_WSDOT Response.pdf

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Here is our signed response letter and the Word document you can use to copy and paste.

I'm here until 5:30 pm if you have any questions. I'm not in tomorrow, but Paul is here.

*John Gruber
(509) 577-1636
Transportation Planning Specialist
WSDOT South Central Region*



South Central Region
2809 Rudkin Road
Union Gap, WA 98903-1648
509-577-1600 / FAX: 509-577-1603
TTY: 1-800-833-6388
www.wsdot.wa.gov

March 5, 2020

Yakima Valley Conference of Governments
311 N 4th St #204
Yakima, WA 98901

Attention: Alan Adolf, Transportation Planning Manager

Subject: Yakima Valley Transportation Plan 2040-2045

We have reviewed the proposed Yakima Valley Transportation Plan 2020-2045 and have the following comments.

1. On page 5 in the Agency Collaboration and Regional Priorities section, please add the following language after the first paragraph in this section:

“As part of managing the state’s transportation system, WSDOT collaborates with the local partners to identify issues, concerns, and potential solutions. WSDOT employs multimodal, performance-based, practical solution approaches to evaluate and prioritize solutions. These solutions consider all modes and are to be the right project in the right place at the right time. WSDOT sees the MPO as the essential partner in the collaboration and prioritization of future state transportation investments.”

2. On page 8, please “Construction of a new interchange at US 12/ Old Naches Highway is highlighted as a high priority” (second paragraph in the State Highways section). On page 252, project N-23 should not be identified as “Fiscally Constrained” since there is no funding for the project.
3. On page 9, please remove the last phrase in last sentence in the North Subregion section “... and a new planned interchange construction project at the intersection of I-82 and East Selah Road that would create a new connection between I-82 and Eastern Selah over the Yakima River”. WSDOT does not have this identified as a project.

I-82

4. Please remove the last paragraph in the I-82 Transportation Improvement Projects and Strategies section on page 54, and replace it with the following:

“By 2045, measures will be needed to make more efficient use of existing facilities to address congestion and operational issues, and to reduce potential crashes for north-south flows in the metropolitan area.

section the last two sentences ~~“This improvement is in the fiscally constrained project list. To address the safety hazard near SR 241, WSDOT has recently installed centerline rumble strips.”~~ with “This project is not funded, but is identified as a region priority for new revenue.”

SR 241

10. In the SR 241 Safety and Operations section on page 60, please remove the first sentence ~~“The most significant potential for safety and operational problems are between I-82 and the SR 241/Yakima Valley Highway intersection.”~~ and replace with “SR 241 between I-82 and Yakima Valley Highway is a potential location for crash reduction countermeasures”.

Also in the SR 241 Safety and Operations section, please replace the entire second paragraph with:

“The SR 241/Edison Road and SR 241/Sheller Road intersections, near the Sunnyside Municipal Airport, are two potential crash reduction sites. These roadways serve industrial areas.”

In the third paragraph, please remove ~~“WSDOT also has identified a segment of SR 241 (Mabton-Sunnyside Road) north of Mabton as having a history of collisions.”~~ with “The section of SR 241 between SR 22 and Duffy Road is a potential site for crash reduction countermeasures.”

11. In the SR 241 Other Modes section on the bottom of page 60, please remove the second paragraph “A shortline rail line operated by Central Washington Railroad crosses SR 241 just south of the Yakima Valley Highway intersection can result in reduced operational and safety performance due to the close spacing of the crossing and the Yakima Valley Highway intersection and traffic queues at the signals.”
12. In the SR 241 Transportation Improvement Projects and Strategies section on page 61, the second sentence says “Widening of the intersections of SR 241 with Edison Road and Sheller Road are needed to support growth of the industrial land uses near the airport. These improvements will address the existing safety deficiencies.” WSDOT has not identified any operational issues at these intersection locations. If future analysis identifies the need for modifications, more detailed analysis will be needed to identify potential solutions are actually effective. As stated above in #10, both of the intersections have been identified as potential crash reduction sites. The safety language should be updated to say they have are potential crash reduction sites, but should not say they have safety deficiencies.

SR 22

13. In the SR 22 Safety and Operations section on pages 61 and 62, please make the following removals (shown in strikethrough) and additions (shown in blue text):
- “Safety and Operations. SR 22 between I-82 and Toppenish is a potential crash reduction location. ~~Safety and operational issues have been identified on SR 22 between I-82 and north Toppenish.~~ This corridor serves commercial, industrial, and residential traffic between I-82 and Toppenish. ~~Safety problems have been documented on SR 22 just east of Toppenish.~~ This section includes the transition from a high-speed rural highway into a city arterial. There are several intersections on SR 22 that are potential sites for crash reduction countermeasures, including the N. Meyers**

The following preliminary Intersection Analysis Locations (pre-IALs) have been identified:

- SR 22 Division Road
- SR 22 N Meyers Road/Meyers Road
- SR 22 SR 223/Chambers Road
- SR 24 Birchfield Road
- SR 24 Bell Road
- US 97 Fort Road/1st Avenue
- US 97 frontage road/median crossover
- US 97 McDonald Road/Becker Road
- US 97 Jones Road/E Jones Road
- SR 241 Allen Road
- SR 241 Edison Road

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Other Comments

19. Most places in the document, identifies U.S. Highway 97 as "US 97", which is the preferred designation by WSDOT. In some locations, US 97 is referred to as "SR 97". We would like to see US 97 identified as "US 97" in the document for consistency and as a more accurate description of the highway. The locations are pages 11, 61, 81, 155, 157, 159, 162, 261, and 263.
20. On page 54 in the Transportation Improvement Projects and Strategies section in the third paragraph, we want to clarify that the I-82/South Union Gap Interchange project is scheduled to be completed in 2020.
21. On pages 54-55 in the US 12 section, one key feature not mentioned is US 12 White Pass is one of only three year-round passes across the Cascades in Washington.
22. On page 55 in the first paragraph, one of the three US 12 interchanges providing access to the Yakima metropolitan area is "1st Street" (not 1st Avenue).
23. On page 56 in the Freight Traffic section for SR 410, our current information indicates there are only 7% trucks on SR 410 at the US 12 intersection.
24. On page 58 in the Other Modes section for SR 823, Yakima Transit does not operate within Selah.

Alan Adolf

From: Hall, Cliff <HallCli@wsdot.wa.gov>
Sent: Thursday, March 5, 2020 2:16 PM
To: Alan Adolf
Subject: YVCOG Draft 2020-2045 MTP Comments_WSDOT Rail Freight and Ports Comments.xlsx
Attachments: YVCOG Draft 2020-2045 MTP Comments_WSDOT Rail Freight and Ports Comments.xlsx

Importance: High

CAUTION : This email originated from outside of this organization. Please exercise caution with links and attachments.

Hi Alan,
I received these comments from our Rail, Freight, and Ports Division.
Let me know if you have any questions.

Cliff

**2020-2045 YAKIMA VALLEY METROPOLITAN AND REGIONAL TRANSPORTATION PLAN
COMMENT FORM**

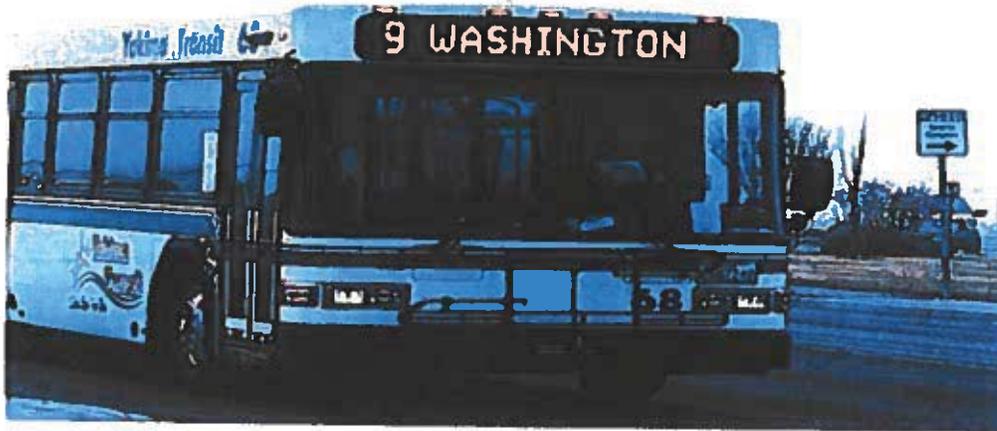
Return comments to: **Cliff Hall**
 Comment due date: **March 2, 2020**

Page No.	Line No.	Comment	Commenter	Response to Comment	Next Steps
119		There is no "Statewide Freight and Logistics Action Plan". The 2017 Washington State Freight System Plan is the comprehensive freight plan for Washington.	Trevor Davis court, WSDOT Rail, Freight and Ports	Correction made to YVCOG 2020-2045 MRTP - 6Mar2020	
167		Replace Burlington Northern & Santa Fe with BNSF Railway, which is the current formal name of the railroad.	Paul Krueger, WSDOT Rail Freight and Ports	Correction made to YVCOG 2020-2045 MRTP - 6Mar2020	
167		The lines leased by Columbia Basin Railroad in Yakima County are operated as the Central Washington Railroad. Suggest including this for clarity.	Paul Krueger, WSDOT Rail Freight and Ports	Correction made to YVCOG 2020-2045 MRTP - 6Mar2020	
167		Columbia Basin no longer operates the Toppenish Simcoe & Western. Columbia Rail now operates this line as the Yakima Central Railway.	Paul Krueger, WSDOT Rail Freight and Ports	Correction made to YVCOG 2020-2045 MRTP - 6Mar2020	
168		Most single-level passenger rail cars could pass through the tunnel without a problem. Higher clearance in the Stampede Pass tunnel may be needed if accommodating equipment taller than single-level passenger rail cars.	Paul Krueger, WSDOT Rail Freight and Ports	revisions made to YVCOG 2020-2045 MRTP - 6Mar2020	
168		It would be more accurate to state that the Stampede Pass line would require improvements than a rehabilitation	Paul Krueger, WSDOT Rail Freight and Ports	similar comment by AAWA, Revision made 6Mar2020	

https://www.yakimaherald.com/news/local/community-members-invited-to-share-thoughts-about-yakima-valley-transportation/article_058917e-f8de-68d-ba3e-eeccadc97c30.html

Community members invited to share thoughts about Yakima Valley transportation

Yakima Herald-Republic
Jan 2, 2020



Yakima Transit's route nine bus drives away from the northbound Washington Avenue and South 40th Avenue stop Monday, Dec. 9, 2019, in Yakima, Wash.
Amanda Ray / Yakima Herald-Republic

The Yakima Valley Conference of Governments wants community feedback about future transportation options.

"Transportation is changing rapidly, and our valley is directly impacted," the YVCOG press release noted. "How do we deliver and transport our bountiful agricultural products to the world? How do we travel for work, fun and relaxation?"

Those decisions impact the Valley's financial and economic future, as well as residents' quality of life, the press release said.

The survey is available at <https://www.surveymonkey.com/r/2045LTP>.

Those who would like a printed copy of the survey can contact Alan Adoff at 509-574-1550, or email alan.adoff@yvco.org

Reach Lex Talamo at ltalamo@yakimaherald.com or on Twitter, @LexTalamo.

Lex Talamo

YAKIMAHERALD.COM
FRIDAY, JANUARY 3, 2020

LOCAL / STATE

PAGE 3A

which she says has recently risen in price. While she did not have previous figures on hand, Haga said the price for a feral cat was \$25, housed cats were \$130 and dogs were \$210. She emphasized that this was all inclusive, meaning home medicine and pain control were covered in the cost.

Haga's love for animals stems from being raised on a farm, according to a news release Thursday by the YHS announcing her recent hire. It said she has experience leading programs and teams, handling daily operations and helping staff, board members and

SEE LEADER PAGE 6A

that we possess. Certain wildflowers to be our primary source of being farmers, and so we came up with this and did a lot of research and found that this had really great potential in this area."

The goats are bred for most, noxious weed control and grazing. Heard said the ultimate goal is to get into wildfire prevention with the herd. While living on the West Side, Heard said they owned pygmy goats as pets and learned that the animals enjoyed munching on trees.

"Being surrounded by trees, we knew that giving them the branches helped them with their digestion, gave them vitamins and helped with their resistance to parasites," she said. "They will actually eat all of the needles, and they will eat the bark."

"People seem to be very excited to donate to the cause," she said. "I've been driving around and doing it, but I think at this point because I've backtracked and circled over, I might need to put a box out front for trees at the end of the driveway and come down and get them."

Heard said the next step is to acquire a woodchipper to grind down the remaining trunks so that they can use it for bedding for the goats to rest upon. The goats make quick work of the trees they get. She said the trees that were donated from Dudy's Nursery were consumed within 24 hours.

"They do love them," she said. "Obviously living here in the valley, trees are definitely something we don't have close to us."

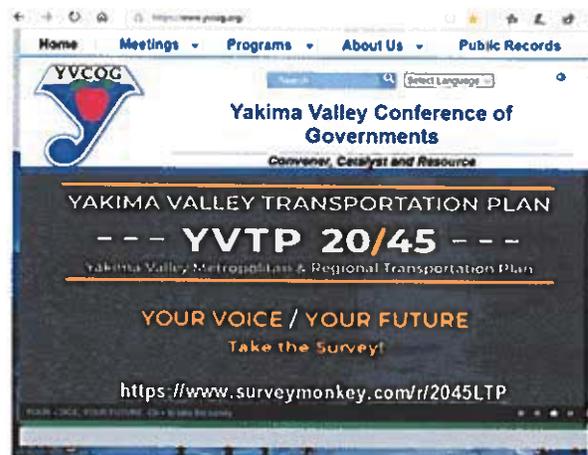
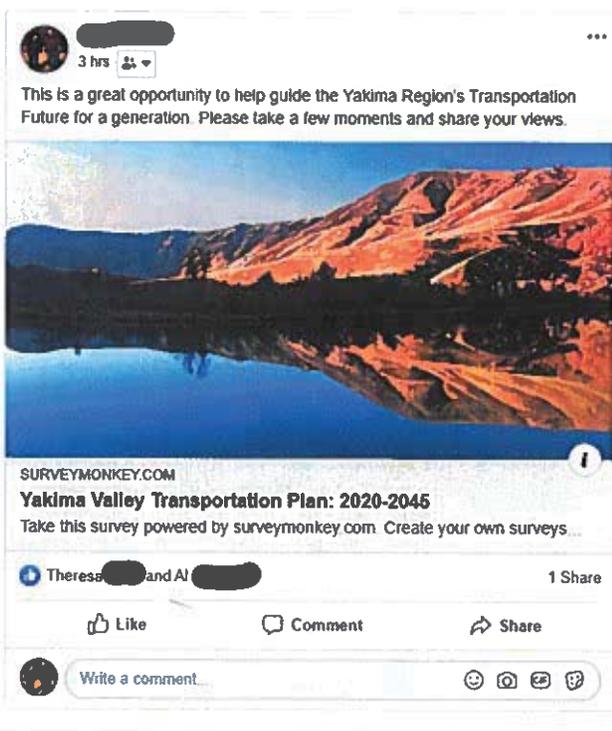
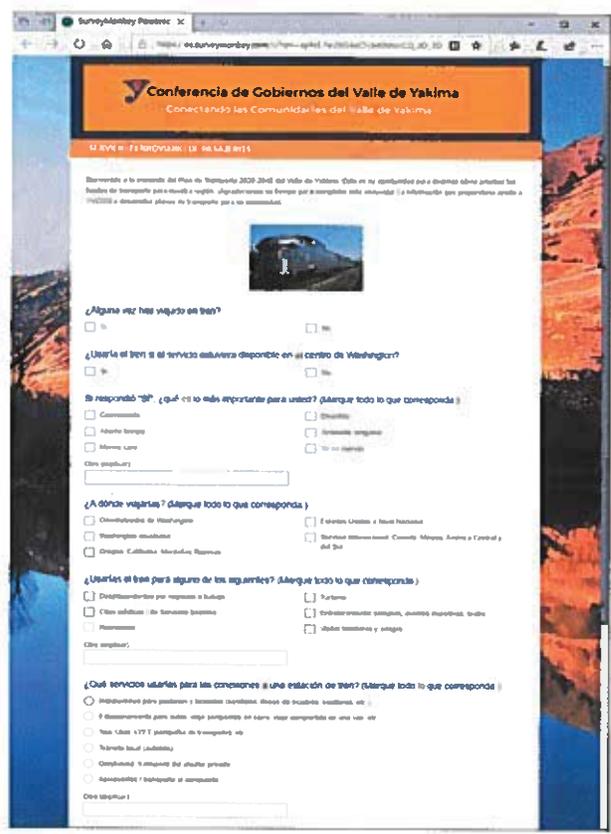
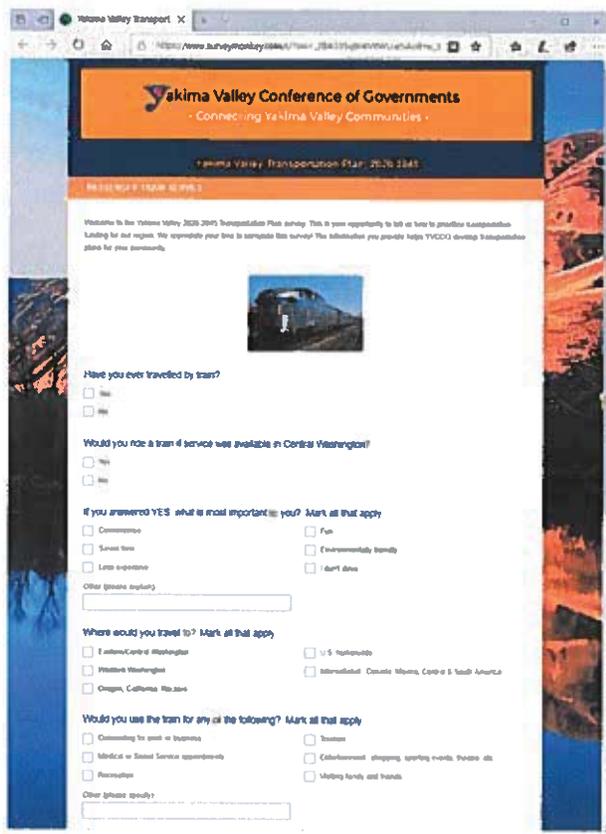
Share your thoughts on transportation

The Yakima Valley Conference of Governments wants community feedback about future transportation options. "Transportation is changing rapidly, and our Valley is directly impacted," the YVCOG news release noted. "How do we deliver and transport our bountiful agricultural products to the world? How do we travel for work, fun and relaxation?"

Those decisions impact the Valley's financial and economic future, as well as residents' quality of life, the news release said.

YVCOG encourages residents to fill out an online survey about transportation, a process that should take about 10 minutes. The survey is available at <https://www.surveymonkey.com/r/2045LTP>. Those who would like a printed copy of the survey can contact Alan Adoff at 509-574-1550, or email alan.adoff@yvco.org.

— Yakima Herald-Republic



YVTP 20/45
YVCOG 2020-2045
Long Range Transportation Plan



Agendas & Minutes



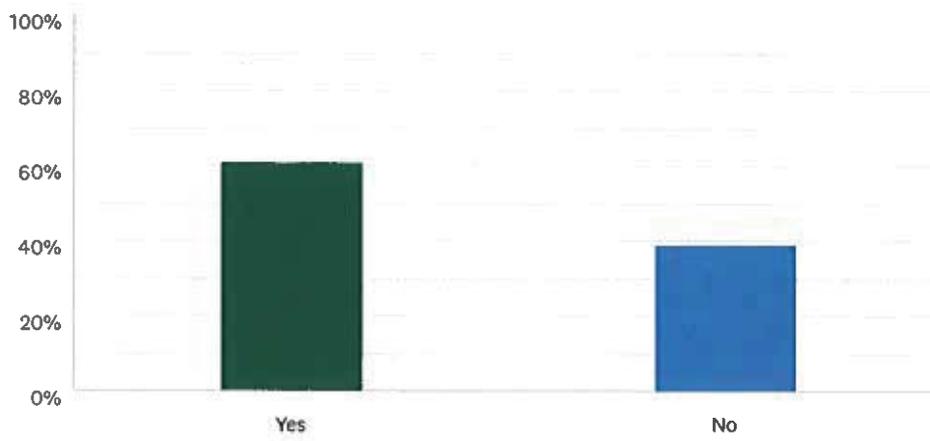
Contact Us
311 North 4th St #204
Yakima, WA 98901
email: info@yvcog.org
Tel: 509-574-2340
Fax: 509-574-1551

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Q1 Have you ever travelled by train?

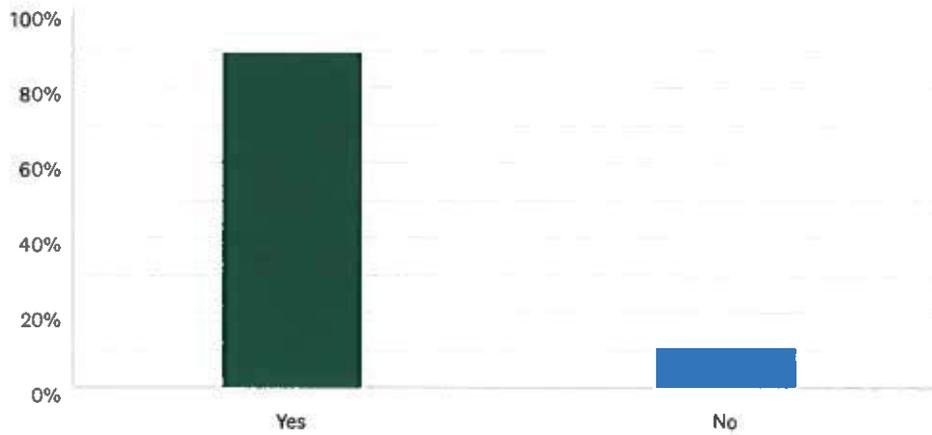
Answered: 265 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	60.75%	161
No	39.25%	104
Total Respondents: 265		

Q2 Would you ride a train if service was available in Central Washington?

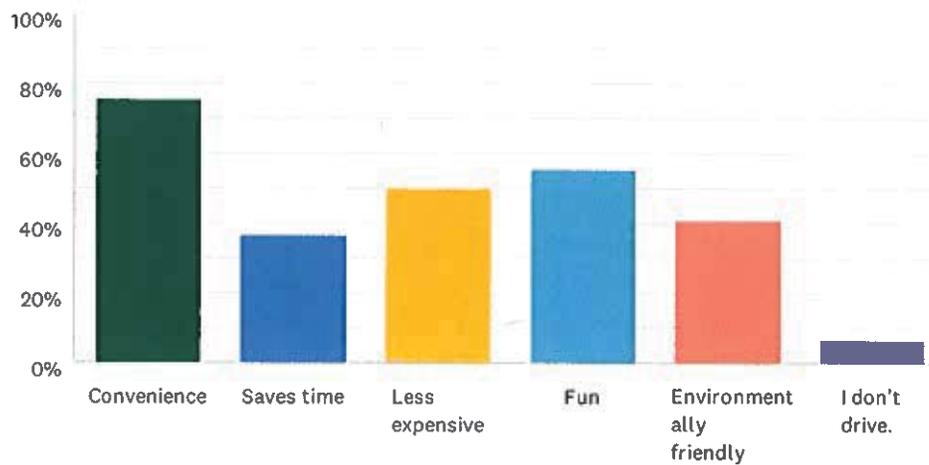
Answered: 263 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	89.35%	235
No	10.65%	28
Total Respondents: 263		

Q3 If you answered YES, what is most important to you? Mark all that apply.

Answered: 235 Skipped: 30



ANSWER CHOICES	RESPONSES	
Convenience	75.32%	177
Saves time	36.60%	86
Less expensive	49.79%	117
Fun	55.32%	130
Environmentally friendly	40.85%	96
I don't drive.	6.38%	15
Total Respondents: 235		

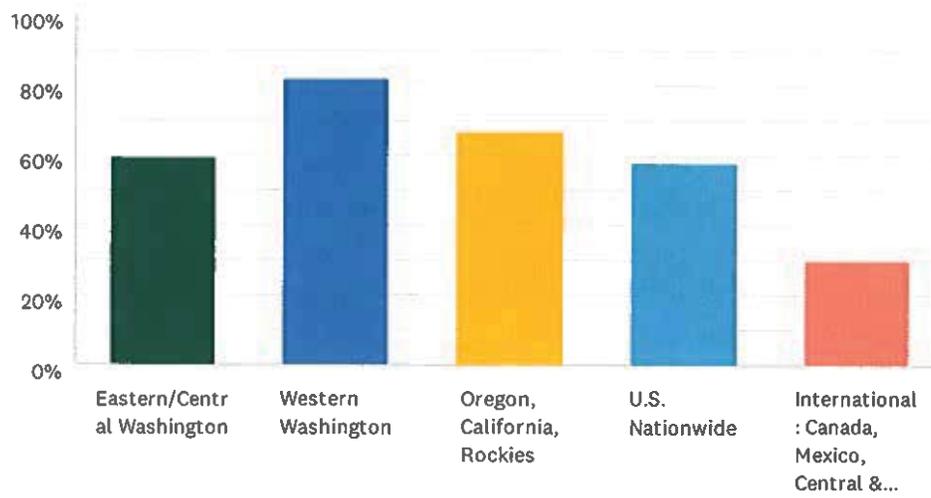
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE EXPLAIN)	DATE
1	I had a great job at CBC in Pasco. I had to quit my job because the commute was too far from Toppenish. I often would run into the same train twice on my commute and fantasized about the opportunity to sit back, read, nap on my commute to work on a passenger train.	2/11/2020 8:39 AM
2	Less traffic congestion thereby reducing pollution from autos.	2/10/2020 11:14 AM
3	Good connections to other forms of travel	2/6/2020 6:23 AM
4	only if clean	1/31/2020 10:15 AM
5	My time would be productive instead of driving.	1/30/2020 10:59 PM
6	Relaxing - Scenic - Educational	1/30/2020 11:40 AM
7	More Sane than highway travel. more relaxing (regular train not high speed!!)	1/30/2020 11:00 AM
8	Depending on cost, may or may not use.	1/30/2020 9:25 AM
9	I am losing my vision and don't drive outside of a 11 mile radius	1/29/2020 6:57 PM
10	My main concern is that the transportation exists at all.	1/29/2020 9:01 AM
11	Able to walk around during travel	1/14/2020 7:38 PM
12	It's nice to not have to drive and to be comfortable while traveling	1/13/2020 11:01 AM
13	Option if roads are wintery	1/10/2020 1:19 PM
14	I worked for Sound Transit. It cost \$45k per person per year. You can pay people to stay at home instead!	1/5/2020 12:14 PM
15	No winter driving over the mountains	1/5/2020 6:10 AM
16	I wouldn't have to deal with decisions or traffic. Just ride	1/4/2020 10:06 AM
17	Schedule is available online. Ticketing can be purchased online.	1/3/2020 11:31 AM
18	My wife does not drive.	1/3/2020 10:25 AM
19	more comfortable (ability to move/stretch), I don't like to drive	1/3/2020 10:00 AM
20	Helps with travel during the winter.	1/3/2020 9:38 AM
21	Avoids the hassle of driving I-90.	1/3/2020 9:27 AM
22	Pending expensive Gas Price	1/3/2020 9:26 AM
23	More productive time.	1/2/2020 5:47 PM

Q4 Where would you travel to? Mark all that apply.

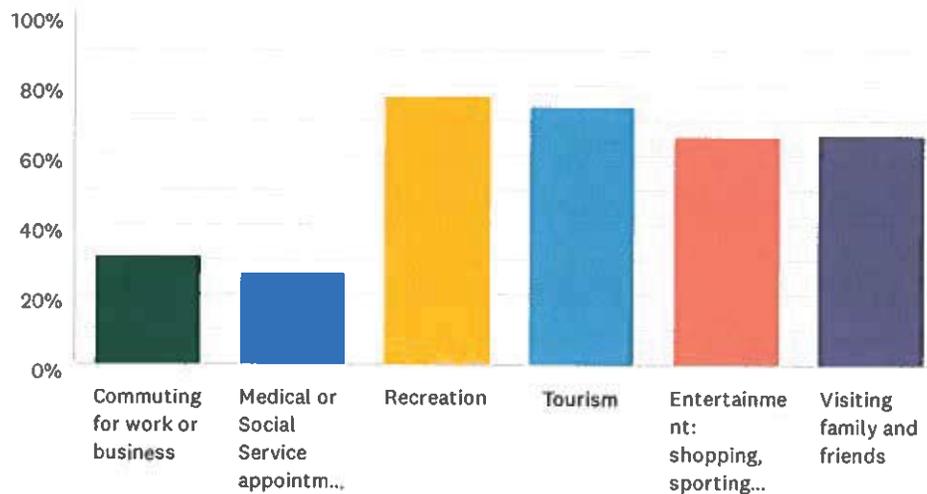
Answered: 242 Skipped: 23



ANSWER CHOICES	RESPONSES
Eastern/Central Washington	59.50% 144
Western Washington	81.82% 198
Oregon, California, Rockies	66.94% 162
U.S. Nationwide	57.85% 140
International: Canada, Mexico, Central & South America	30.17% 73
Total Respondents: 242	

Q5 Would you use the train for any of the following? Mark all that apply.

Answered: 244 Skipped: 21

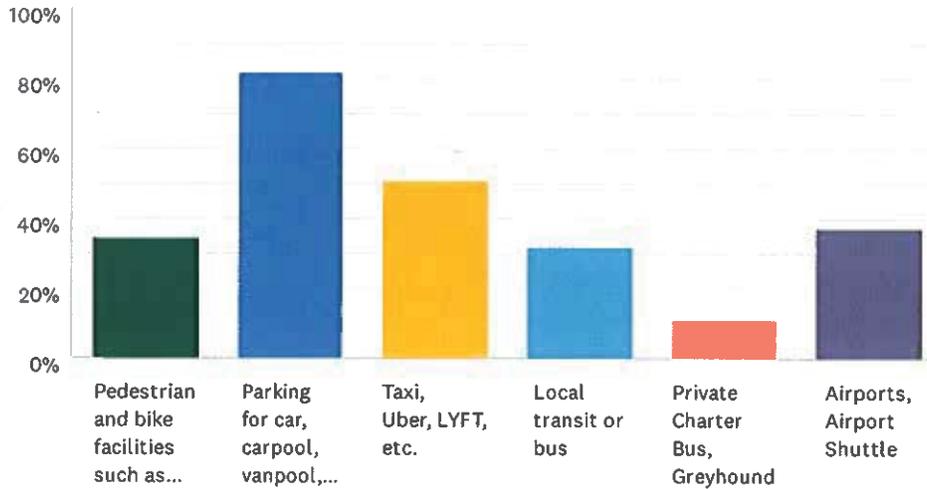


ANSWER CHOICES	RESPONSES	
Commuting for work or business	31.15%	76
Medical or Social Service appointments	25.82%	63
Recreation	77.05%	188
Tourism	74.18%	181
Entertainment: shopping, sporting events, theatre, etc.	65.57%	160
Visiting family and friends	65.98%	161
Total Respondents: 244		

#	OTHER (PLEASE SPECIFY)	DATE
1	In town train transit would be excellent.	1/31/2020 9:04 AM
2	Comfortable seats most important to	1/31/2020 8:57 AM
3	None	1/6/2020 9:17 AM
4	N/A	1/6/2020 6:23 AM
5	I would use it everywhere possible.	1/3/2020 10:25 AM
6	Connection to train service at King Street Station	1/3/2020 9:27 AM
7	Connecting to flights at SeaTac, Pasco, or Yakima	1/2/2020 7:19 PM

Q6 What services would you use for connections to a train station? (Please select all that apply)

Answered: 242 Skipped: 23

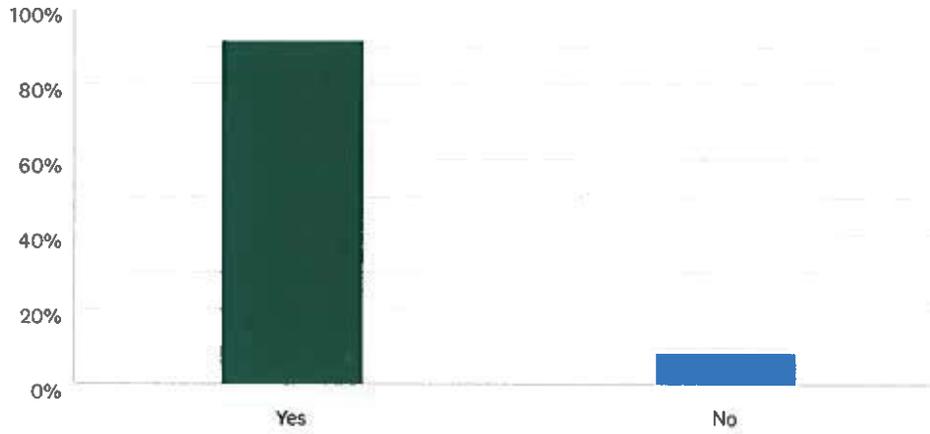


ANSWER CHOICES	RESPONSES	
Pedestrian and bike facilities such as trails, bike lanes, lockers, etc.	34.71%	84
Parking for car, carpool, vanpool, etc.	82.23%	199
Taxi, Uber, LYFT, etc.	50.83%	123
Local transit or bus	31.82%	77
Private Charter Bus, Greyhound	11.16%	27
Airports, Airport Shuttle	37.60%	91
Total Respondents: 242		

#	OTHER (PLEASE SPECIFY)	DATE
1	Comfortable seats most important	1/31/2020 8:57 AM
2	Getting rides from friends.	1/30/2020 6:49 PM
3	Friends will drop off/pick up.	1/30/2020 11:40 AM
4	car ride to station then drop off	1/9/2020 9:05 AM
5	None	1/6/2020 9:17 AM
6	N/A	1/6/2020 6:23 AM
7	Family transportation	1/5/2020 1:12 AM
8	Hitchhike	1/3/2020 1:39 PM
9	Uber	1/3/2020 10:48 AM
10	Everything should be connected in a multimodal transportation system.	1/3/2020 10:25 AM
11	Yeah uber and lyft if we had it	1/3/2020 10:05 AM

Q7 Would you support the return of passenger train service to Yakima County?

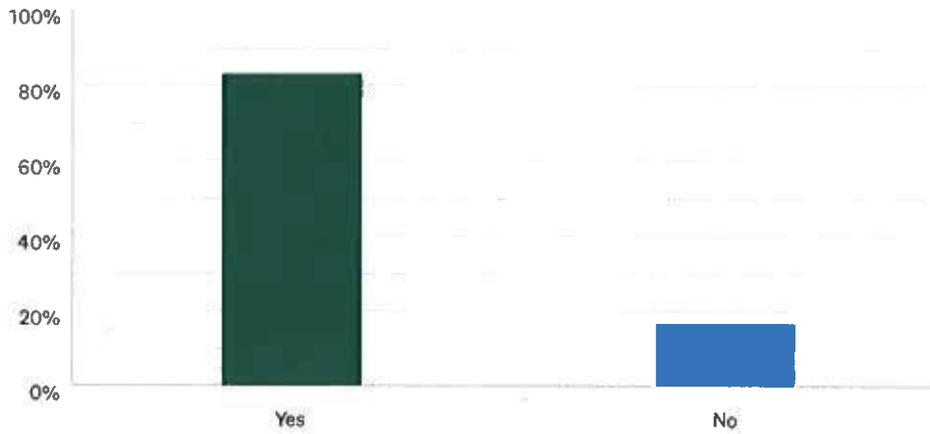
Answered: 258 Skipped: 7



ANSWER CHOICES	RESPONSES	
Yes	91.86%	237
No	8.53%	22
Total Respondents: 258		

Q8 Should our local, state and federal elected officials work on funding for the return of passenger train service to Central Washington?

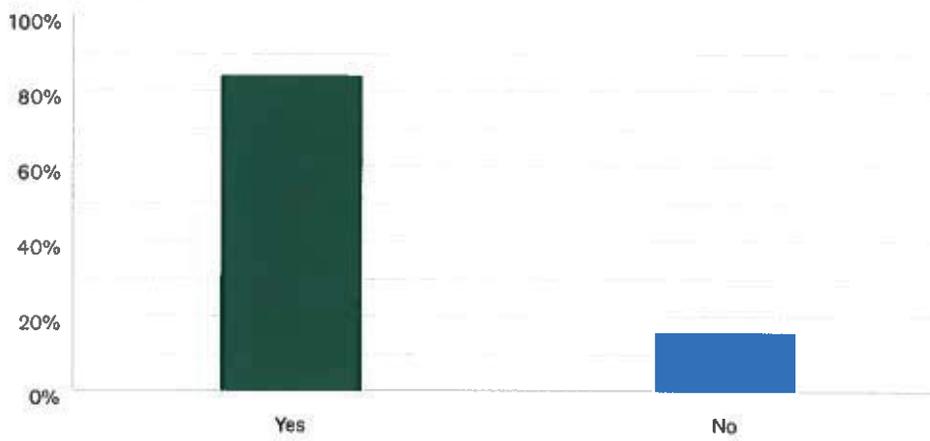
Answered: 254 Skipped: 11



ANSWER CHOICES	RESPONSES	
Yes	83.46%	212
No	16.54%	42
Total Respondents: 254		

Q9 Have you ever flown into or out of the Yakima airport?

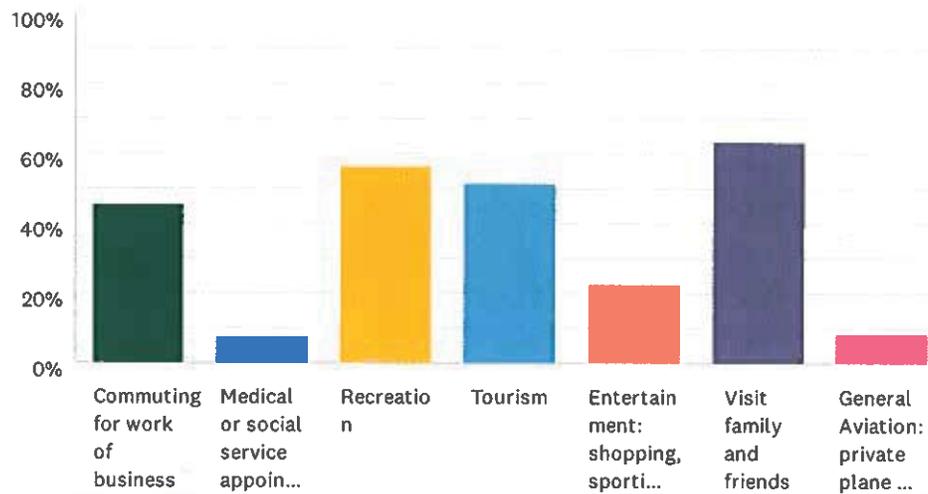
Answered: 259 Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	84.17%	218
No	15.83%	41
Total Respondents: 259		

Q10 If you answered YES, for what purposes? Mark all that apply.

Answered: 219 Skipped: 46

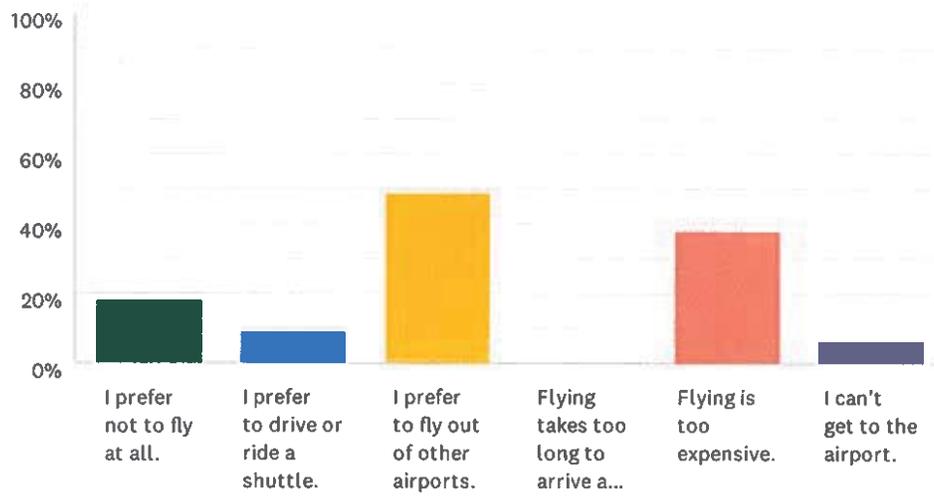


ANSWER CHOICES	RESPONSES
Commuting for work of business	45.66% 100
Medical or social service appointments	7.31% 16
Recreation	56.62% 124
Tourism	51.60% 113
Entertainment: shopping, sporting events, theater	22.37% 49
Visit family and friends	63.47% 139
General Aviation: private plane or charter	8.68% 19
Total Respondents: 219	

#	OTHER (PLEASE SPECIFY)	DATE
1	Work, training	2/2/2020 8:12 PM
2	Attending occasional work-related conferences. I wouldn't call that commuting because it is not regular.	1/30/2020 11:03 PM
3	To connect with other flights out of SeaTac.	1/30/2020 6:54 PM
4	Fun flight to Boomstown, Nevada	1/6/2020 10:26 AM
5	Military	1/6/2020 6:24 AM
6	Vacation	1/5/2020 12:03 PM
7	sightseeing of our valley	1/4/2020 11:24 AM
8	Cost has become prohibitive, and connections are difficult. It is generally less expensive to drive to SeaTac than it is to fly out of Yakima. This is sad. Also, routine flights from Yakima are frequently cancelled, causing missed connections. I can't make travel plans with that type of uncertainty.	1/3/2020 11:10 AM
9	Connecting flights	1/3/2020 9:29 AM

Q11 If you answered NO, why not? Mark all that apply.

Answered: 45 Skipped: 220



ANSWER CHOICES	RESPONSES	
I prefer not to fly at all.	17.78%	8
I prefer to drive or ride a shuttle.	8.89%	4
I prefer to fly out of other airports.	48.89%	22
Flying takes too long to arrive at my destination.	0.00%	0
Flying is too expensive.	37.78%	17
I can't get to the airport.	6.67%	3
Total Respondents: 45		

Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	IF YOU PREFER OTHER REGIONAL AIRPORTS, WHICH ONES?	DATE
1	Tri cities, seatac	1/30/2020 1:16 PM
2	I Do Not Fly	1/30/2020 11:01 AM
3	Seatac airport, the prices are extreemly high.	1/29/2020 9:06 AM
4	I am new to Yakima	1/25/2020 7:48 AM
5	Pasco, WA.	1/16/2020 3:30 PM
6	Pasco is almost equidistant, is cheaper and better connections	1/14/2020 9:56 PM
7	SeaTac	1/10/2020 1:28 PM
8	Pasco, I live in Kennewick	1/6/2020 9:49 AM
9	PDX	1/6/2020 6:45 AM
10	Pasco Wa, it connects to major hubs such as Denver, Salt Lake or Minneapolis/Chicago p	1/5/2020 12:19 PM
11	SeaTac	1/4/2020 3:23 PM
12	Its faster to drive to Seattle and not sit in a 3 hour lay over	1/3/2020 10:06 AM
13	Too small	1/3/2020 9:09 AM
14	Pasco	1/2/2020 7:21 PM

Q12 When flying in this region, what is your destination? Mark all that apply.

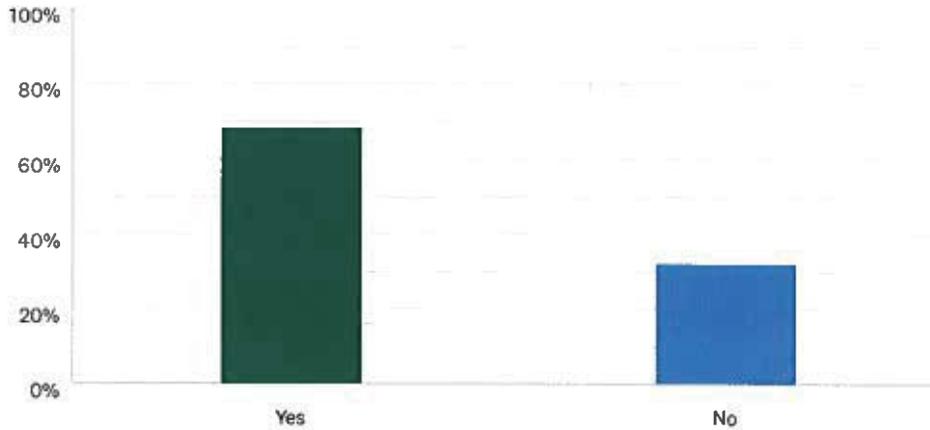
Answered: 249 Skipped: 16



ANSWER CHOICES	RESPONSES	
Eastern Washington	10.04%	25
Central Washington	10.04%	25
Pacific NW, Alaska, Rockies	43.37%	108
Within the United States	84.74%	211
International	34.94%	87
Total Respondents: 249		

Q13 If a regularly scheduled, SHORT DISTANCE charter-type service was available through Yakima, would you consider using it?

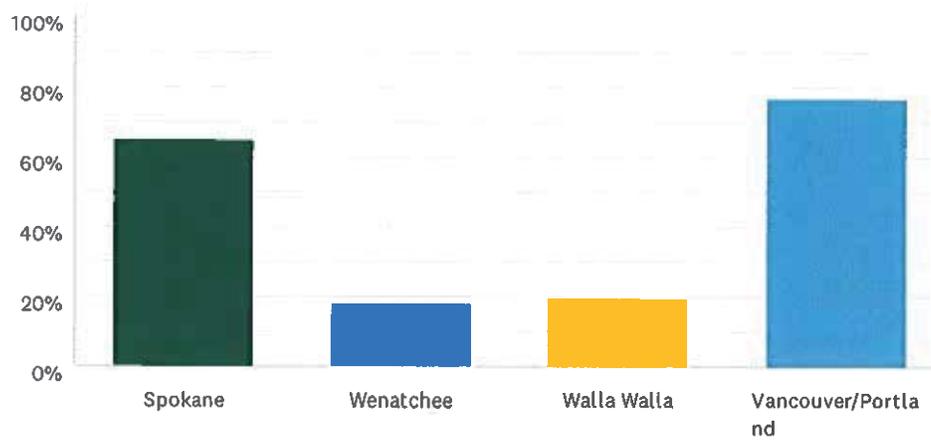
Answered: 251 Skipped: 14



ANSWER CHOICES	RESPONSES	
Yes	68.53%	172
No	31.87%	80
Total Respondents: 251		

Q14 If YES, where would you fly? Mark all that apply.

Answered: 174 Skipped: 91



ANSWER CHOICES	RESPONSES	
Spokane	64.94%	113
Wenatchee	17.82%	31
Walla Walla	19.54%	34
Vancouver/Portland	77.01%	134
Total Respondents: 174		

Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE SPECIFY)	DATE
1	Arizona and Nevada	1/31/2020 9:04 PM
2	Seattle...	1/31/2020 1:02 AM
3	Seattle	1/30/2020 11:03 PM
4	SeaTac. Bellingham, if that's considered short distance.	1/30/2020 6:54 PM
5	Seattle	1/30/2020 5:39 PM
6	Let's discuss YKM-DEN direct!	1/30/2020 11:42 AM
7	Bend, OR, Boise, ID	1/30/2020 11:37 AM
8	Seattle	1/29/2020 10:41 AM
9	Pullman	1/29/2020 8:49 AM
10	Bellingham	1/27/2020 10:08 PM
11	Seattle	1/27/2020 10:14 AM
12	Seattle	1/27/2020 8:39 AM
13	Seattle	1/22/2020 3:13 PM
14	Seattle	1/14/2020 9:56 PM
15	Seattle	1/9/2020 8:34 AM
16	Las Vegas (understand it's not a short distance)	1/7/2020 3:48 PM
17	Pullman/Clarkston/Lewiston	1/7/2020 1:53 PM
18	Olympia	1/7/2020 8:24 AM
19	olympia	1/7/2020 7:54 AM
20	Family in Spokane.	1/6/2020 10:26 AM
21	Pasco	1/6/2020 9:49 AM
22	Portland	1/6/2020 9:28 AM
23	Seattle	1/6/2020 6:52 AM
24	SeaTac	1/6/2020 6:04 AM
25	northwest	1/6/2020 4:53 AM
26	Seattle	1/5/2020 12:03 PM
27	Everett (Paine Field), Bellingham	1/5/2020 6:12 AM
28	Boise, Bend	1/3/2020 7:16 PM
29	Seattle	1/3/2020 4:40 PM
30	Eugene, Oregon	1/3/2020 4:13 PM
31	Seattle	1/3/2020 11:37 AM
32	Major hub cities where you can connect with other airlines WITHOUT having to go through SEA-TAC	1/3/2020 11:18 AM
33	Seattle	1/3/2020 11:17 AM
34	Portland, Las Vegas. Generally, the need is to connect with other flights at a larger airport, but the cost must be more reasonable.	1/3/2020 11:10 AM
35	Seattle	1/3/2020 10:54 AM
36	Seattle	1/3/2020 10:53 AM

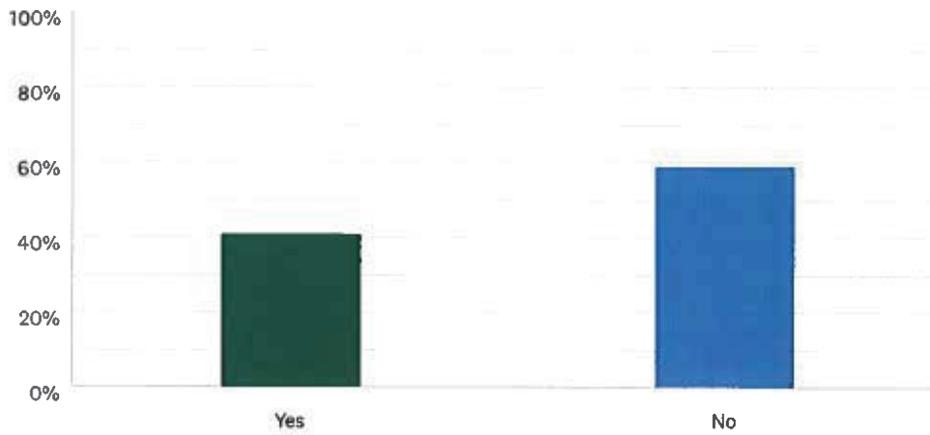
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

37	Really its barely reliable to Seattle	1/3/2020 10:06 AM
38	Seattle	1/3/2020 9:39 AM
39	california, arizona	1/3/2020 9:38 AM
40	Destination west side of mountains	1/3/2020 9:29 AM
41	Seattle	1/3/2020 9:01 AM
42	Seattle	1/3/2020 8:47 AM
43	Seattle	1/3/2020 8:43 AM
44	Bellingham	1/3/2020 8:39 AM
45	Seattle	1/3/2020 8:12 AM
46	Seattle, Everett, Olympia	1/2/2020 5:05 PM

Q15 Have you ever used public transit in Central Washington?

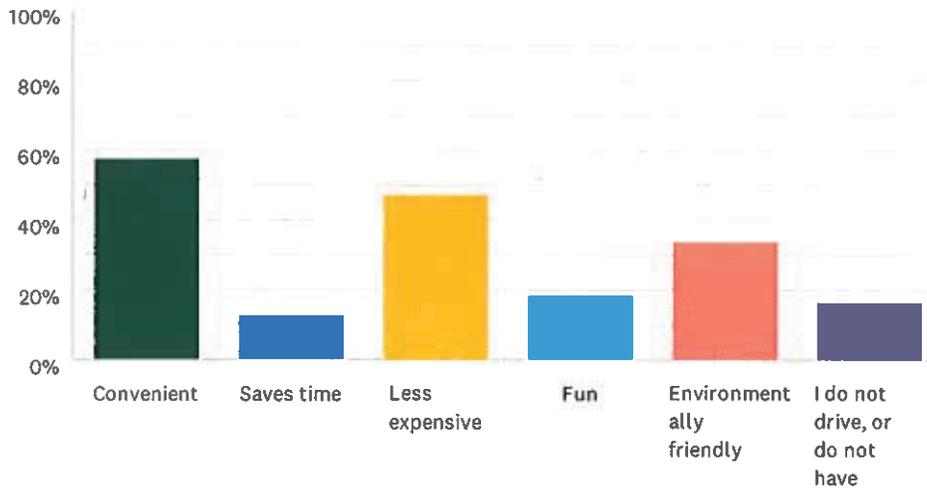
Answered: 248 Skipped: 17



ANSWER CHOICES	RESPONSES	
Yes	40.73%	101
No	59.27%	147
Total Respondents: 248		

Q16 If you answered YES, why do you ride the bus? Mark all that apply.

Answered: 97 Skipped: 168



ANSWER CHOICES	RESPONSES	
Convenient	57.73%	56
Saves time	12.37%	12
Less expensive	47.42%	46
Fun	18.56%	18
Environmentally friendly	34.02%	33
I do not drive, or do not have a car	16.49%	16
Total Respondents: 97		

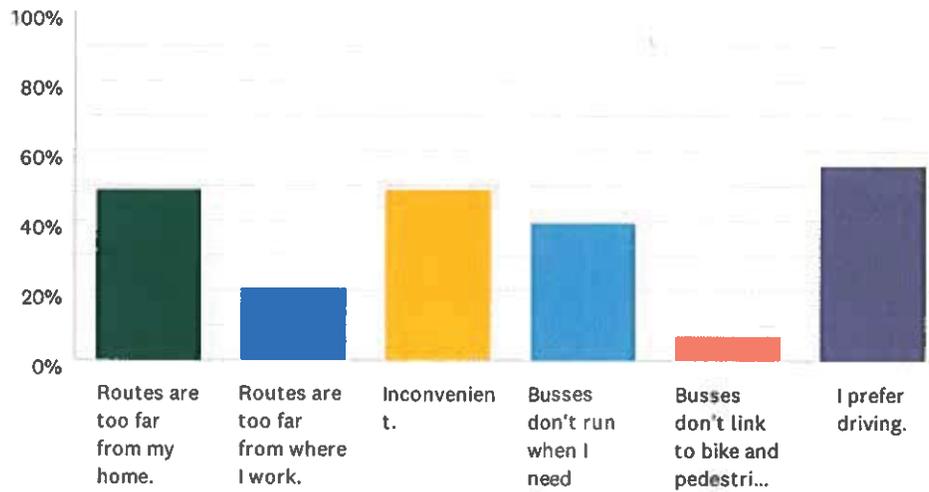
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE SPECIFY)	DATE
1	Meetings & medical appointments when my car is unavailable and destination is too far or too icy to use bicycle.	1/30/2020 11:11 PM
2	BUT Yakima Transit is so limited to frequency & hours!	1/30/2020 11:50 AM
3	Don't have the stress of driving	1/30/2020 11:39 AM
4	Met wife who drove earlier, needed only one car at destination and for drive home	1/14/2020 10:00 PM
5	At that time I wasn't driving	1/10/2020 10:37 AM
6	checking drivers	1/9/2020 9:01 AM
7	Trip to Dr. appointment.	1/6/2020 1:58 PM
8	When I was young and didn't drive	1/6/2020 11:47 AM
9	N/A	1/6/2020 6:26 AM
10	College	1/4/2020 10:23 AM
11	Did not have a car available at the time.	1/3/2020 11:34 AM
12	Safer in poor weather.	1/3/2020 10:55 AM
13	My wife does not drive.	1/3/2020 10:29 AM
14	To try a incorporate it in my dally commute	1/3/2020 10:10 AM
15	it was awful. slow and full of undesirables	1/3/2020 9:44 AM
16	I did not want to drive in winter conditions	1/3/2020 9:41 AM
17	Sometimes I don't have a personal vehivle available	1/3/2020 9:34 AM
18	When I moved to Yakima, I used Greyhound Bus.	1/3/2020 7:33 AM
19	Ride it to the Central WA State Fair	1/2/2020 5:05 PM

Q17 If you answered NO, why not? Mark all that apply.

Answered: 162 Skipped: 103



ANSWER CHOICES	RESPONSES	
Routes are too far from my home.	48.77%	79
Routes are too far from where I work.	20.37%	33
Inconvenient.	48.77%	79
Busses don't run when I need them.	39.51%	64
Busses don't link to bike and pedestrian paths.	6.79%	11
I prefer driving.	56.17%	91
Total Respondents: 162		

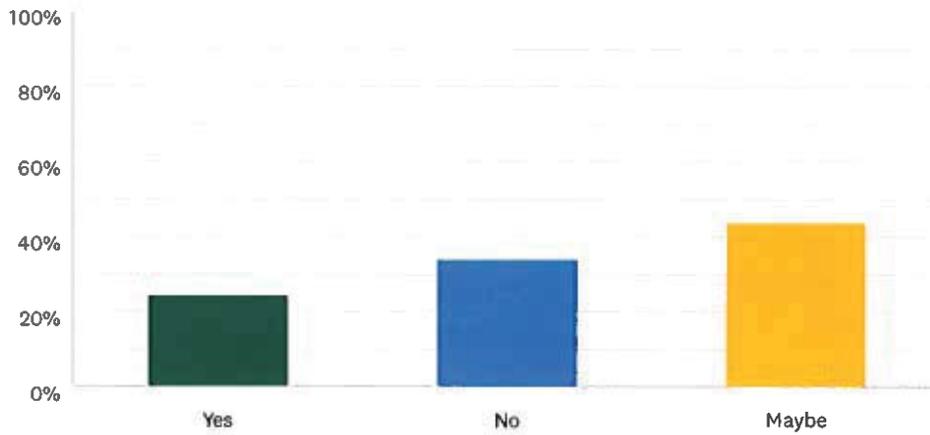
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE SPECIFY)	DATE
1	There is no public transportation in Toppenish.	2/11/2020 8:56 AM
2	I don't feel safe waiting at bus stops in certain areas of the city.	1/31/2020 9:09 AM
3	Safety...	1/31/2020 1:04 AM
4	cheaper to drive for two people and car available at destination	1/14/2020 10:00 PM
5	I start work very early in the morning before services begin	1/7/2020 1:55 PM
6	People are creepy and I don't like germs.	1/7/2020 8:25 AM
7	Not safe.	1/6/2020 12:41 PM
8	Busses are dirty and unsanitary	1/5/2020 12:24 PM
9	no need-----yet!	1/4/2020 11:26 AM
10	The bus system is not utilized well. There are huge buses carrying usually under six people, and I constantly see fewer than that. Smaller buses should be considered, or contracting out to Uber, Lyft, People for People or some other source.	1/3/2020 11:25 AM
11	I live 45 miles from town	1/3/2020 11:19 AM
12	faster to drive and mor convenient is why I gave up	1/3/2020 10:10 AM
13	bus stops are not well lit/don't feel safe	1/3/2020 10:02 AM
14	Live in country side	1/3/2020 9:32 AM
15	safety concerns	1/3/2020 9:02 AM
16	takes too long	1/3/2020 8:51 AM
17	I do shopping after work.	1/3/2020 8:45 AM
18	No park and rides	1/3/2020 8:14 AM
19	Live in Grandview in the country	1/2/2020 7:25 PM

Q18 If county-wide bus service was available, would you use it?

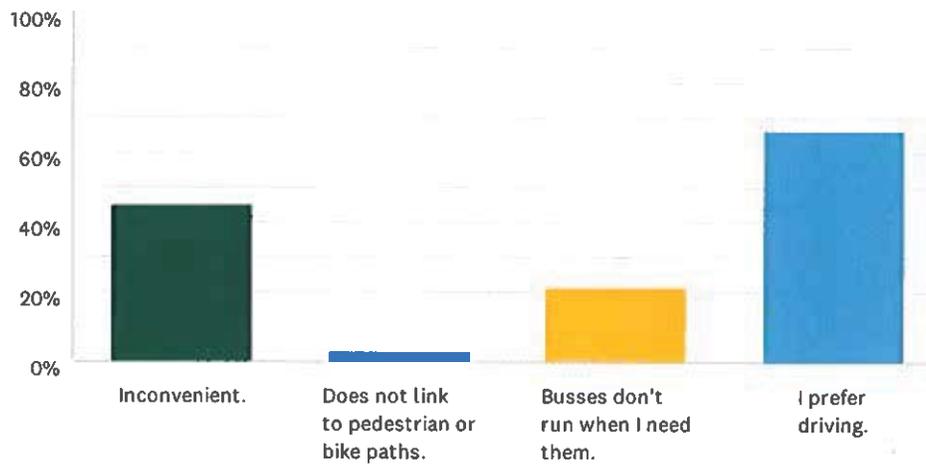
Answered: 247 Skipped: 18



ANSWER CHOICES	RESPONSES	
Yes	24.29%	60
No	34.01%	84
Maybe	43.72%	108
Total Respondents: 247		

Q19 If you answered NO, why not? Mark all that apply.

Answered: 102 Skipped: 163

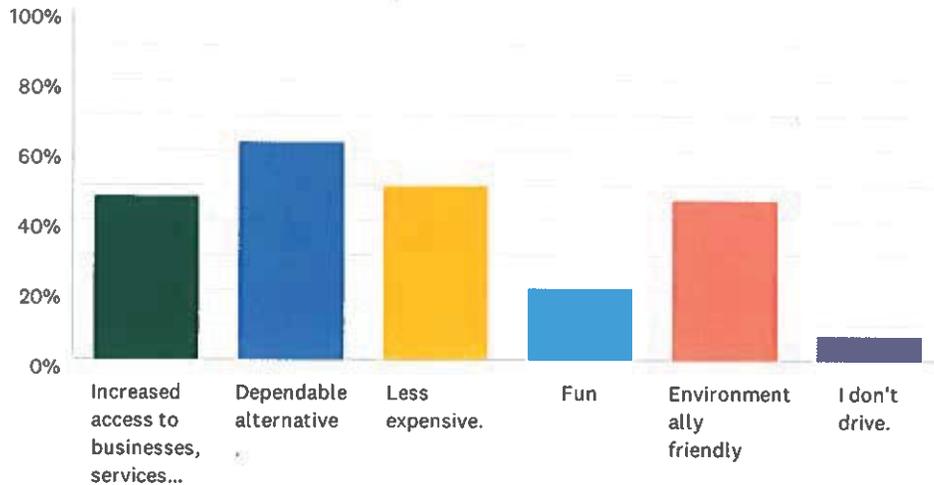


ANSWER CHOICES	RESPONSES	
Inconvenient.	45.10%	46
Does not link to pedestrian or bike paths.	2.94%	3
Busses don't run when I need them.	21.57%	22
I prefer driving.	66.67%	68
Total Respondents: 102		

#	OTHER (PLEASE SPECIFY)	DATE
1	Safety...	1/31/2020 1:04 AM
2	I have a short commute to work and kids to drop at school in the way. Both are a short distance from home, more convenient to drive than take the bus	1/29/2020 9:14 AM
3	n?a	1/6/2020 6:26 AM
4	Busses are not self sustaining without public funding. I would rather keep my money than give it away so someone can have a free ride!	1/5/2020 12:24 PM
5	I wouldn't feel safe.	1/4/2020 6:24 PM
6	I usually go grocery shopping and couldn't haul it all.	1/4/2020 6:07 PM
7	My job requires me to drive so I have to take my car to and from work.	1/3/2020 5:47 PM
8	You are stuck with working your schedule around the bus, less flexibility, and some of the people on the bus have mental disorders.	1/3/2020 11:25 AM
9	I don't have a compelling reason to use county-wide bus service. Mostly I need to get to/from Seattle/Tacoma area or be able to connect to eastbound Empire builder (at Seattle or Spokane)	1/3/2020 9:34 AM
10	Fear of transients	1/3/2020 9:32 AM
11	To many transfers, TIME	1/3/2020 8:17 AM
12	Voters don't want to pay for a bus system. Forget it Larry.	1/3/2020 6:24 AM

Q20 If you answered YES, why would you use a countywide bus? Mark all that apply.

Answered: 102 Skipped: 163



ANSWER CHOICES

RESPONSES

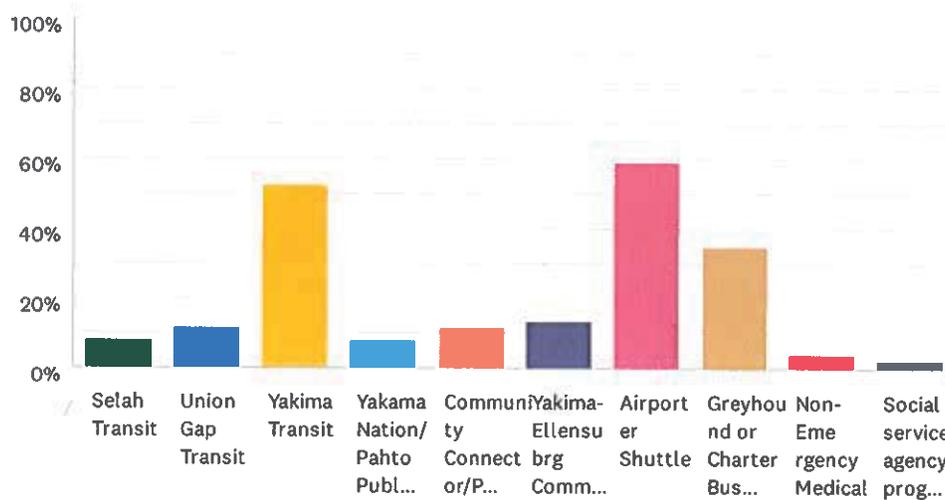
ANSWER CHOICES	RESPONSES	
Increased access to businesses, services and recreation	47.06%	48
Dependable alternative.	62.75%	64
Less expensive.	50.00%	51
Fun	20.59%	21
Environmentally friendly	46.08%	47
I don't drive.	6.86%	7

Total Respondents: 102

#	OTHER (PLEASE SPECIFY)	DATE
1	If my car is unavailable and destination is too far or too icy to bicycle.	1/30/2020 11:11 PM
2	I live in TIETON, 70 yrs old, and want County Bus Svc!	1/30/2020 11:50 AM
3	commute to work	1/6/2020 7:20 AM
4	N/A	1/6/2020 6:26 AM
5	In seattle: avoided parking.So I can read or do work while being taken to my destination.	1/4/2020 6:07 PM
6	My wife does not drive.	1/3/2020 10:29 AM
7	be a part of my commute alternative	1/3/2020 10:10 AM
8	sometimes it's preferable to driving	1/3/2020 9:41 AM
9	I like people watching	1/3/2020 9:11 AM
10	better for the enviroment	1/3/2020 8:14 AM
11	Attend activities in Tri-cities and elsewhere.	1/3/2020 7:33 AM

Q21 Which of these public transit services have you used? Mark all that apply.

Answered: 158 Skipped: 107



ANSWER CHOICES	RESPONSES
Selah Transit	8.23% 13
Union Gap Transit	11.39% 18
Yakima Transit	52.53% 83
Yakama Nation/Pahto Public Passage	8.23% 13
Community Connector/People for People/Yakima-Prosser	11.39% 18
Yakima-Ellensburg Commuter	13.29% 21
Airporter Shuttle	58.86% 93
Greyhound or Charter Bus Service	34.81% 55
Non-Emergency Medical Transportation (NEMT)	3.80% 6
Social service agency program transportation service	2.53% 4
Total Respondents: 158	

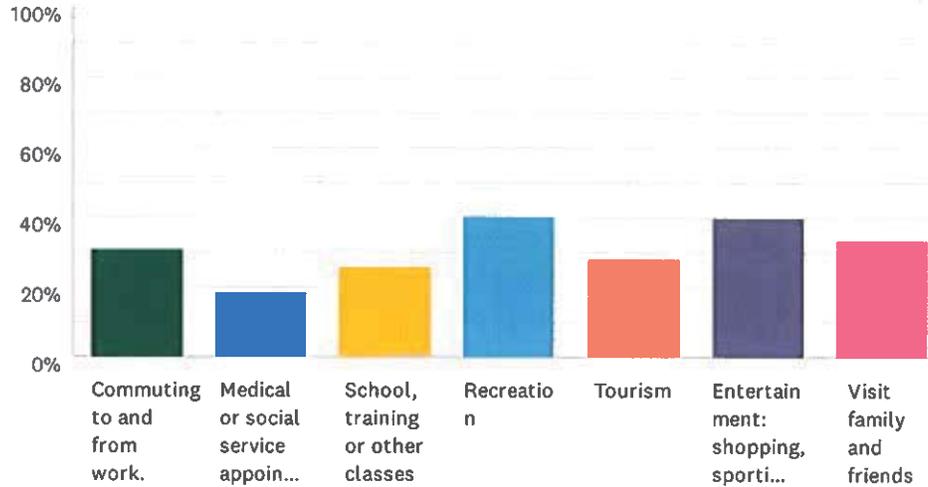
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE SPECIFY)	DATE
1	Fair Parking	2/6/2020 6:27 AM
2	Pullman transit	1/29/2020 9:03 AM
3	last use of Greyhound about 20 years ago	1/14/2020 10:00 PM
4	None	1/7/2020 7:54 AM
5	New York Subways	1/6/2020 9:51 AM
6	N/A	1/6/2020 6:26 AM
7	In seattle, bus.	1/4/2020 6:07 PM
8	Yakima to seattle	1/4/2020 10:23 AM
9	July 4 bus	1/4/2020 9:02 AM
10	Target to the fairgrounds	1/3/2020 9:19 AM

Q22 If you use public transit in our region, what best describes the purpose? Mark all that apply.

Answered: 128 Skipped: 137

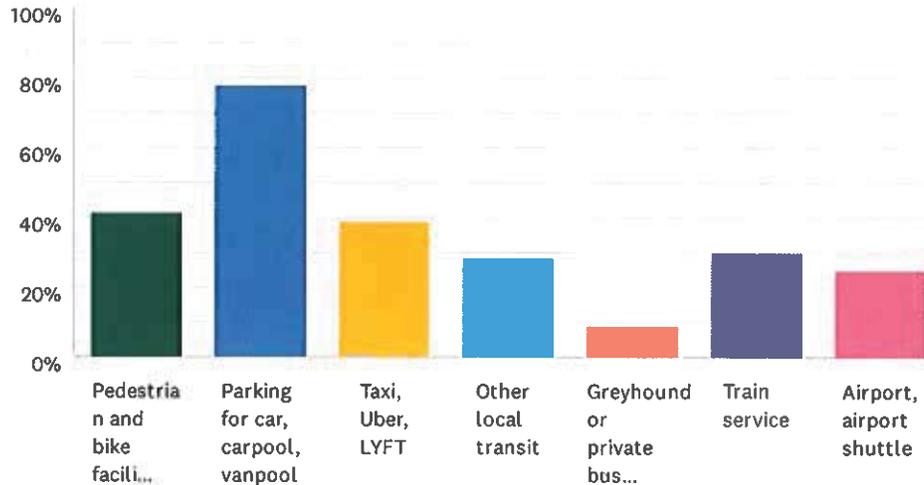


ANSWER CHOICES	RESPONSES
Commuting to and from work.	31.25% 40
Medical or social service appointments	18.75% 24
School, training or other classes	25.78% 33
Recreation	40.63% 52
Tourism	28.13% 36
Entertainment: shopping, sporting events, theater	39.84% 51
Visit family and friends	33.59% 43
Total Respondents: 128	

#	OTHER (PLEASE SPECIFY)	DATE
1	Meetings.	1/30/2020 11:11 PM
2	FUTURE need for EVENING dining at restaurants	1/30/2020 11:50 AM
3	go to the airport	1/23/2020 11:09 AM
4	riding the route	1/9/2020 9:01 AM
5	Haven't used it.	1/7/2020 7:54 AM
6	N/A	1/6/2020 6:26 AM
7	Travel to Seattle airport	1/4/2020 7:54 AM
8	new YMCA	1/3/2020 4:59 PM
9	dropped car off at dealer	1/3/2020 9:44 AM
10	Special events to avoid parking problems	1/3/2020 8:33 AM

Q23 If we have countywide transit service, what would you need for connections? Mark all that apply.

Answered: 196 Skipped: 69

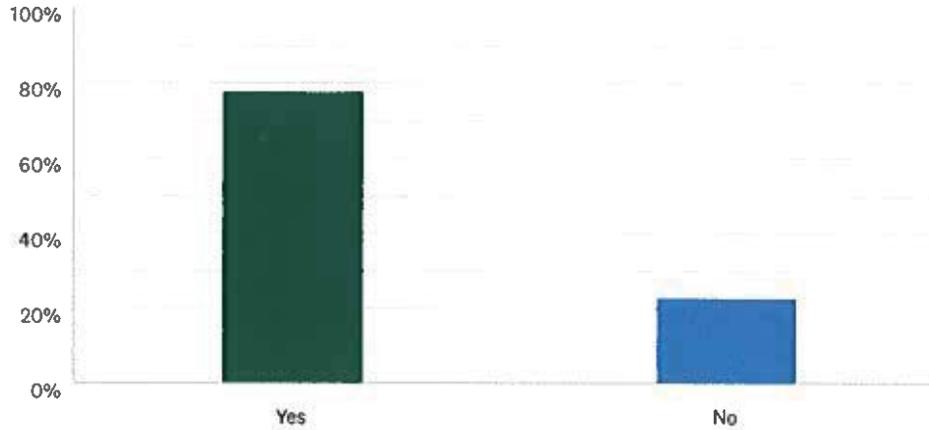


ANSWER CHOICES	RESPONSES	
Pedestrian and bike facilities such as trails, bike lanes, lockers, etc.	41.33%	81
Parking for car, carpool, vanpool	78.06%	153
Taxi, Uber, LYFT	38.78%	76
Other local transit	28.57%	56
Greyhound or private bus charter	9.18%	18
Train service	30.10%	59
Airport, airport shuttle	25.00%	49
Total Respondents: 196		

#	OTHER (PLEASE SPECIFY)	DATE
1	Start by expanding Yakima Transit into Terr Hgts, Moxee. Modify the Grant funding. Previous County Commissioners have ignored requests to look into County Transit.	1/30/2020 11:50 AM
2	I would love to have a bus stop at Ahtanum Road & 64th Ave (a lot of housing going in)	1/30/2020 11:03 AM
3	Safe parking	1/30/2020 9:28 AM
4	Likely would never use	1/14/2020 10:00 PM
5	I would not use anyway, but answering for what would make practical	1/3/2020 11:25 AM
6	Everything should be connected and available.	1/3/2020 10:29 AM

Q24 Should our elected officials work on developing and funding the expansion of public transit service throughout Yakima County?

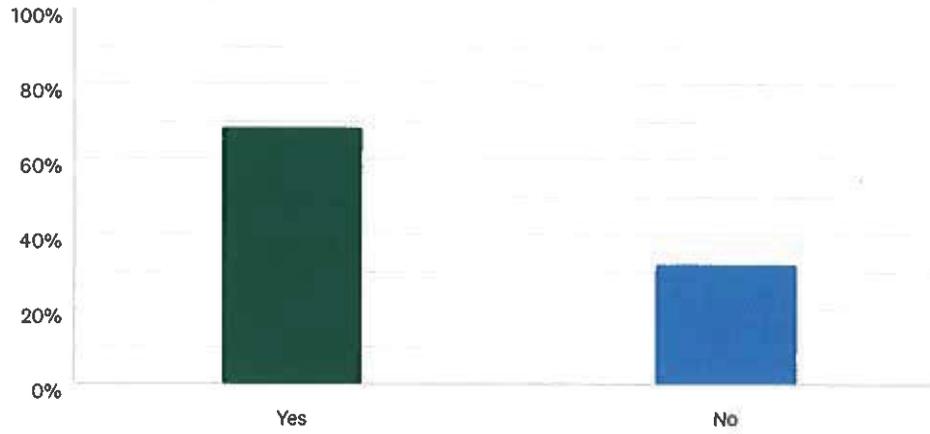
Answered: 235 Skipped: 30



ANSWER CHOICES	RESPONSES	
Yes	77.45%	182
No	22.98%	54
Total Respondents: 235		

Q25 Do you use pedestrian or bike paths in our region?

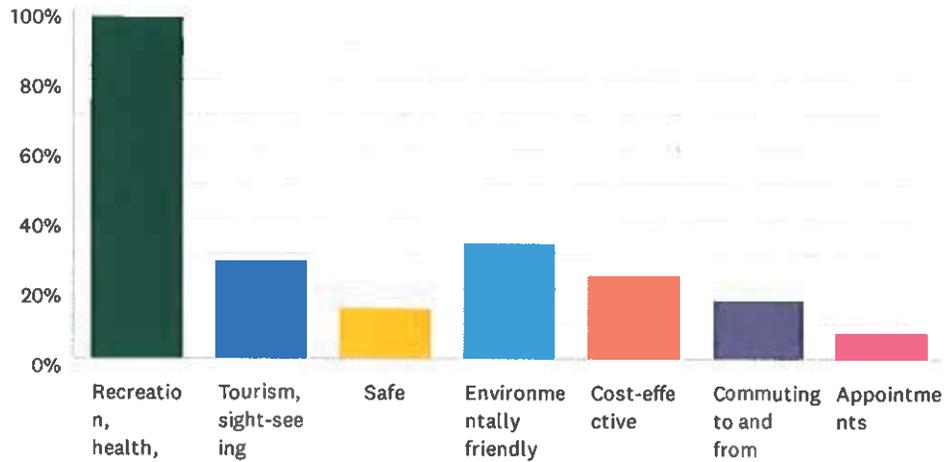
Answered: 239 Skipped: 26



ANSWER CHOICES	RESPONSES	
Yes	68.20%	163
No	32.22%	77
Total Respondents: 239		

Q26 If you answered "YES", why do you walk or bike? Mark all that apply.

Answered: 164 Skipped: 101



ANSWER CHOICES	RESPONSES	
Recreation, health, wellness	98.17%	161
Tourism, sight-seeing	28.05%	46
Safe	14.63%	24
Environmentally friendly	32.93%	54
Cost-effective	23.78%	39
Commuting to and from work	17.07%	28
Appointments	7.32%	12
Total Respondents: 164		

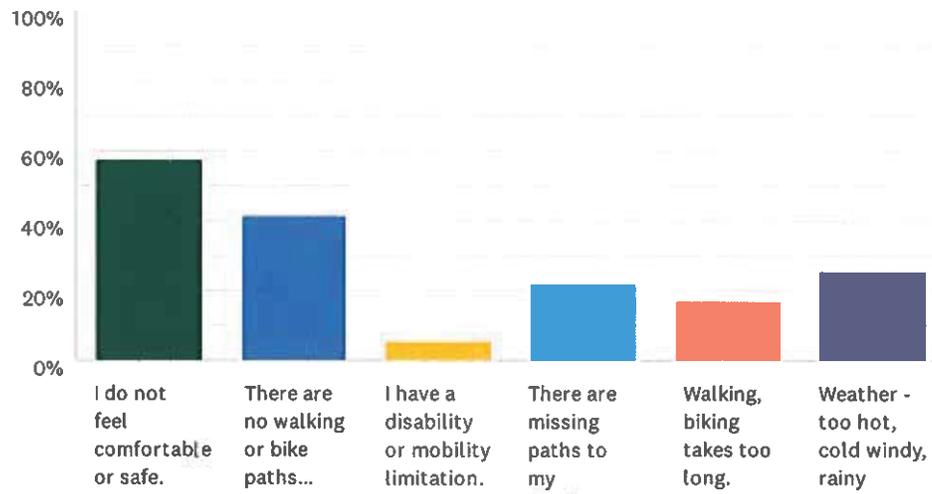
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE SPECIFY)	DATE
1	Enjoyment	1/30/2020 11:15 PM
2	I encourage FRIENDS to use the paths for their exercise	1/30/2020 11:53 AM
3	I have not marked safe on any transportation because i am a woman and usually travel alone.	1/30/2020 11:05 AM
4	use rarely	1/14/2020 10:03 PM
5	N/A	1/6/2020 6:28 AM
6	Might consider biking to work, but the bike lane should not be on the edge of the road, but separated by a buffer strip and on a shared-use path like on Nob Hill between about 48th and 64th. There are too many conflict points, speed differentials, bikes going through red lights and stop signs if the cars and bikes share the same space.	1/3/2020 11:31 AM
7	Security concerns have increased. My family and I no longer use the Yakima Greenway due to concerns with the prevalence of unsafe squatters, drug users, homeless, etc. This is sad, but one cannot recreate where he/she feels unsafe. I would not encourage solo hiking on the Greenway.	1/3/2020 11:16 AM
8	The pathways suck now!! to many homeless and thugs!!	1/3/2020 10:00 AM
9	homeless issue creates a real safety issue, especially at night.	1/3/2020 9:16 AM
10	I walked the Greenway, but had safety concerns	1/3/2020 9:04 AM

Q27 If you answered "NO", why not? Mark all that apply.

Answered: 87 Skipped: 178



ANSWER CHOICES	PERCENTAGE	RESPONSES
I do not feel comfortable or safe.	57.47%	50
There are no walking or bike paths nearby	41.38%	36
I have a disability or mobility limitation.	5.75%	5
There are missing paths to my destination.	21.84%	19
Walking, biking takes too long.	17.24%	15
Weather - too hot, cold windy, rainy	25.29%	22
Total Respondents: 87		

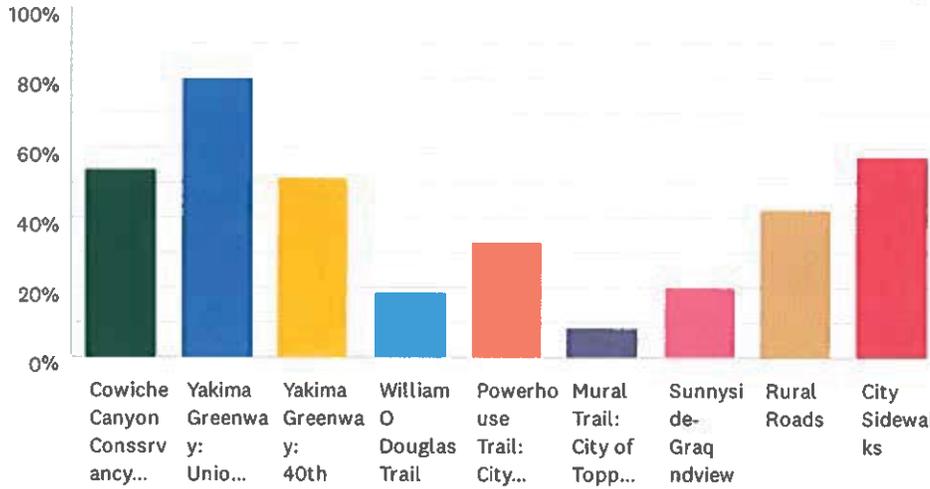
Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	OTHER (PLEASE SPECIFY)	DATE
1	I don't commute as I don't feel safe sharing the road with drivers that aren't interested in maintaining awareness of me on the road.	1/31/2020 9:14 AM
2	Would like to see more equestrian friendly paths	1/27/2020 10:21 AM
3	Bicycling is still not safe enough. Need better facilities.	1/9/2020 9:12 AM
4	I have to travel 30 miles to use the path	1/9/2020 9:03 AM
5	Even though I answered "YES", there are more routes I would consider walking, but do not feel safe (particularly in north/east yakima and along the greenway in many locations). Also, the routes do not always get you where you need to be before turning into a non-pedestrian friendly route (roadside shoulder, heavy traffic areas, etc)	1/7/2020 1:59 PM
6	Too far from home	1/6/2020 9:54 AM
7	I walk for exercise in my neighborhood.	1/6/2020 8:32 AM
8	prefer to drive	1/6/2020 6:28 AM
9	If I dont use it, it is lack of safety, specifically in yakima. Sunnyside, it gets too hot in the p.m.	1/4/2020 6:10 PM
10	i have multiple kids	1/4/2020 10:26 AM
11	don't have time.	1/3/2020 11:45 AM
12	I live in the country and there are no bike path but dirt road	1/3/2020 11:23 AM
13	not interested	1/3/2020 9:45 AM
14	Country side living —very long distance to get places	1/3/2020 9:37 AM

Q28 Which trails or paths have you used? Mark all that apply.

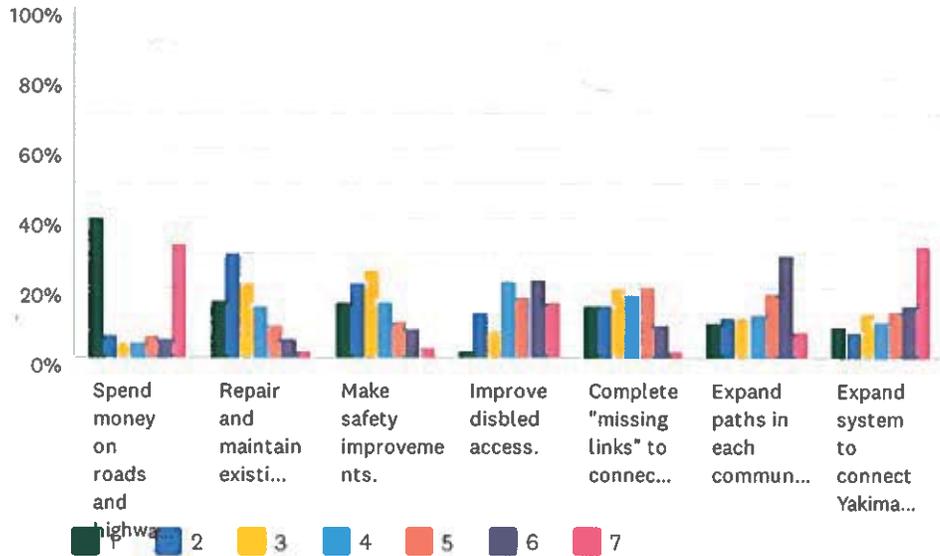
Answered: 200 Skipped: 65



ANSWER CHOICES	RESPONSES	
Cowiche Canyon Conssrvancy Trail	54.00%	108
Yakima Greenway: Union Gap to 40th Avenue	80.00%	160
Yakima Greenway: 40th Ave to Town of Naches	51.50%	103
William O Douglas Trail	18.50%	37
Powerhouse Trail: City of Yakima	33.00%	66
Mural Trail: City of Toppenish	8.50%	17
Sunnyside-Graqundview Trail	20.00%	40
Rural Roads	42.50%	85
City Sidewalks	57.50%	115
Total Respondents: 200		

Q29 With limited available funding, how should we prioritize spending on pedestrian and bike systems? Please rank with #1 being most important.

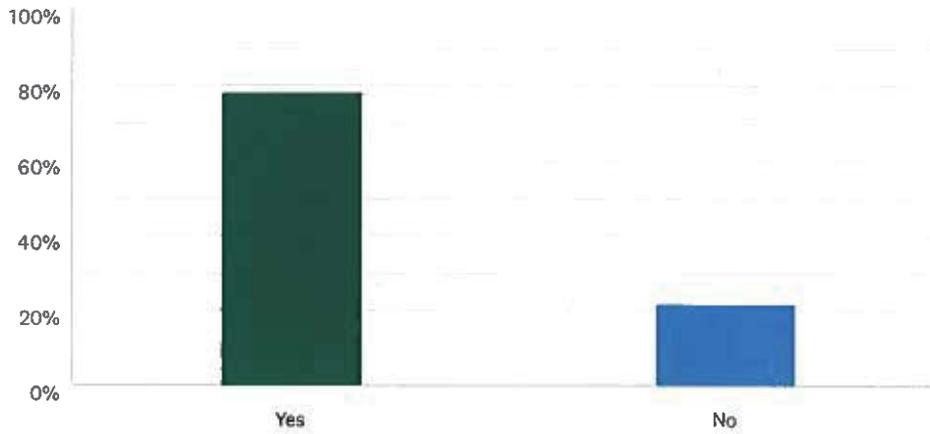
Answered: 230 Skipped: 35



	1	2	3	4	5	6	7	TOTAL	SCORE
Spend money on roads and highways, not pedestrian and bike routes.	39.81% 84	6.64% 14	4.27% 9	4.27% 9	6.64% 14	5.69% 12	32.70% 69	211	4.21
Repair and maintain existing paths.	16.75% 35	30.14% 63	21.53% 45	14.83% 31	9.57% 20	5.26% 11	1.91% 4	209	5.06
Make safety improvements.	15.76% 32	21.67% 44	25.12% 51	15.76% 32	10.34% 21	8.37% 17	2.96% 6	203	4.80
Improve disabled access.	1.98% 4	12.87% 26	7.92% 16	21.78% 44	17.33% 35	22.28% 45	15.84% 32	202	3.30
Complete "missing links" to connect existing pathways to other transportation services	15.12% 31	15.12% 31	20.00% 41	18.05% 37	20.49% 42	9.27% 19	1.95% 4	205	4.51
Expand paths in each community.	9.80% 20	11.27% 23	11.27% 23	12.25% 25	18.63% 38	29.41% 60	7.35% 15	204	3.64
Expand system to connect Yakima Valley cities.	9.00% 19	7.58% 16	12.80% 27	10.43% 22	13.27% 28	15.17% 32	31.75% 67	211	3.16

Q30 Should our elected officials work on developing and funding the expansion of pedestrian and bike systems throughout Yakima County?

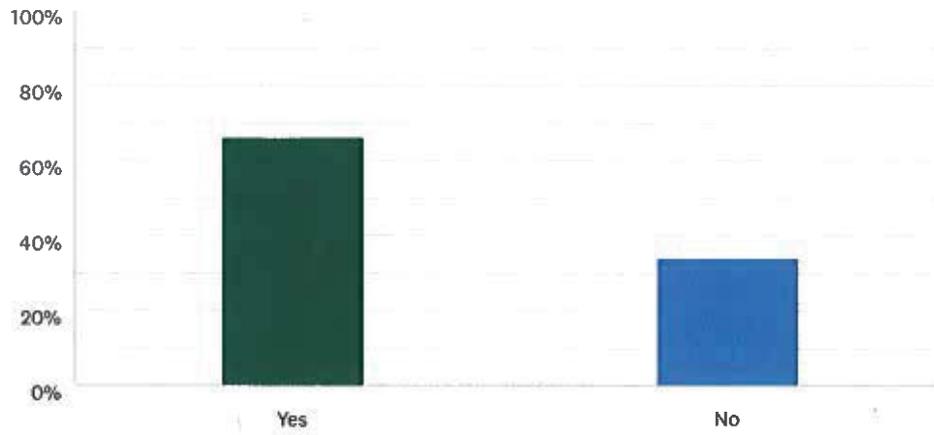
Answered: 231 Skipped: 34



ANSWER CHOICES	RESPONSES	
Yes	78.35%	181
No	21.65%	50
Total Respondents: 231		

Q31 Have you used taxis, Uber or LYFT?

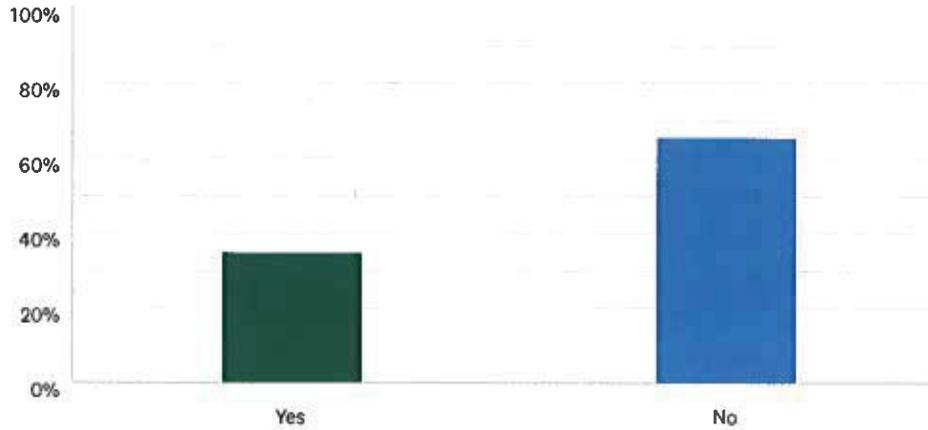
Answered: 238 Skipped: 27



ANSWER CHOICES	RESPONSES	
Yes	65.97%	157
No	34.03%	81
Total Respondents: 238		

Q32 Would you rent or use an electric-hybrid bike or scooter here in the Yakima Valley region?

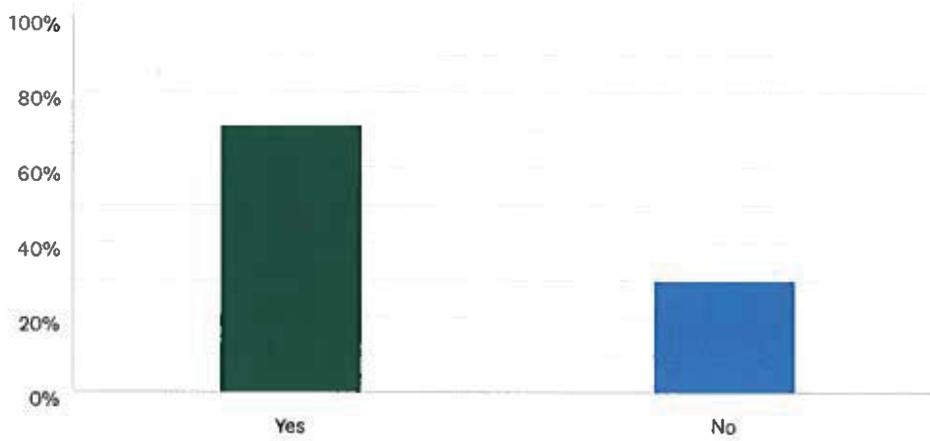
Answered: 234 Skipped: 31



ANSWER CHOICES	RESPONSES	
Yes	35.04%	82
No	65.38%	153
Total Respondents: 234		

Q33 Should your community install electric vehicle charging stations in the next 10 years?

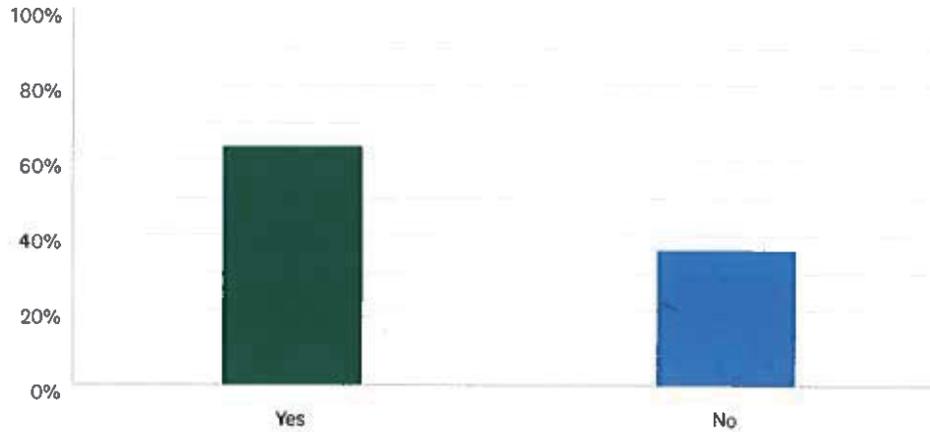
Answered: 234 Skipped: 31



ANSWER CHOICES	RESPONSES	
Yes	70.94%	166
No	29.91%	70
Total Respondents: 234		

Q34 Should your community develop guidelines for operating driverless freight and service vehicles?

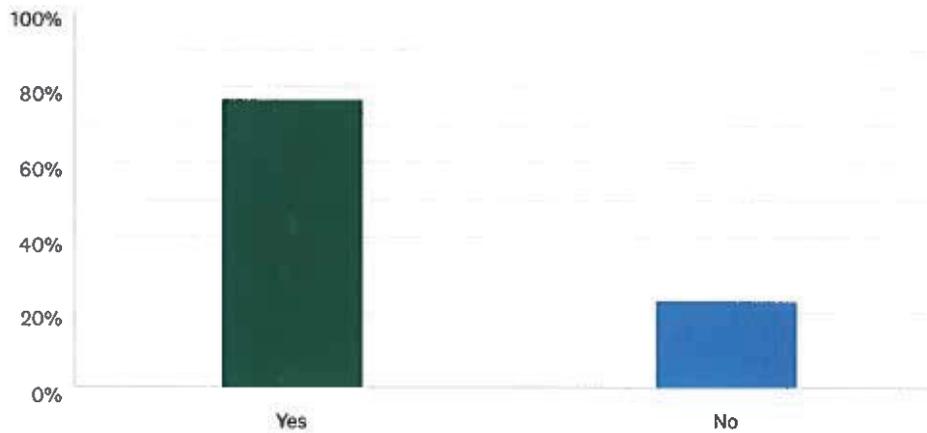
Answered: 231 Skipped: 34



ANSWER CHOICES	RESPONSES	
Yes	63.64%	147
No	36.36%	84
Total Respondents: 231		

Q35 Drones can be used for services such as deliveries, natural disaster response, law enforcement and search and rescue teams. Should your community develop guidelines for operating drones?

Answered: 235 Skipped: 30



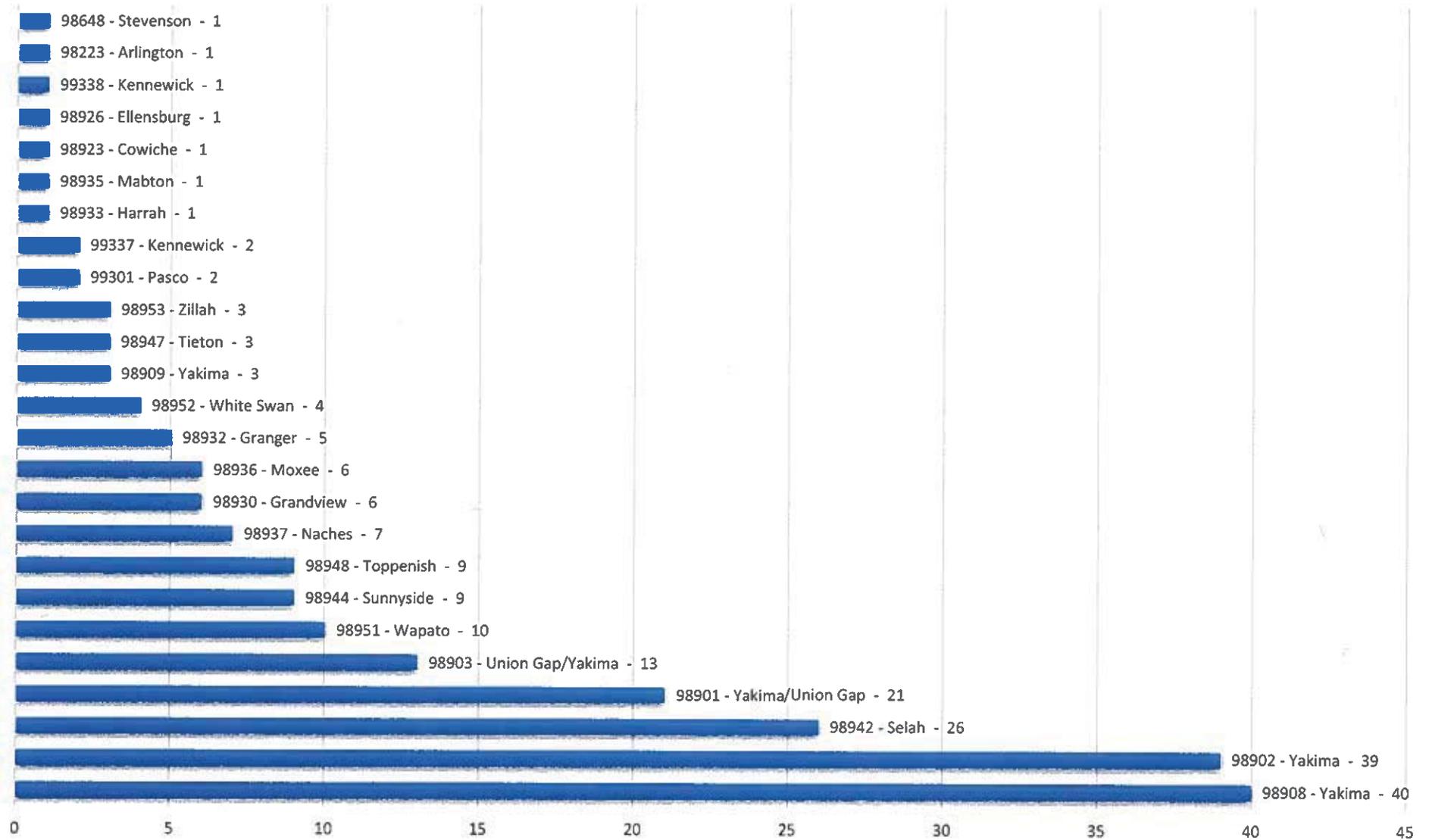
ANSWER CHOICES

RESPONSES

Yes	76.60%	180
No	23.40%	55
Total Respondents: 235		

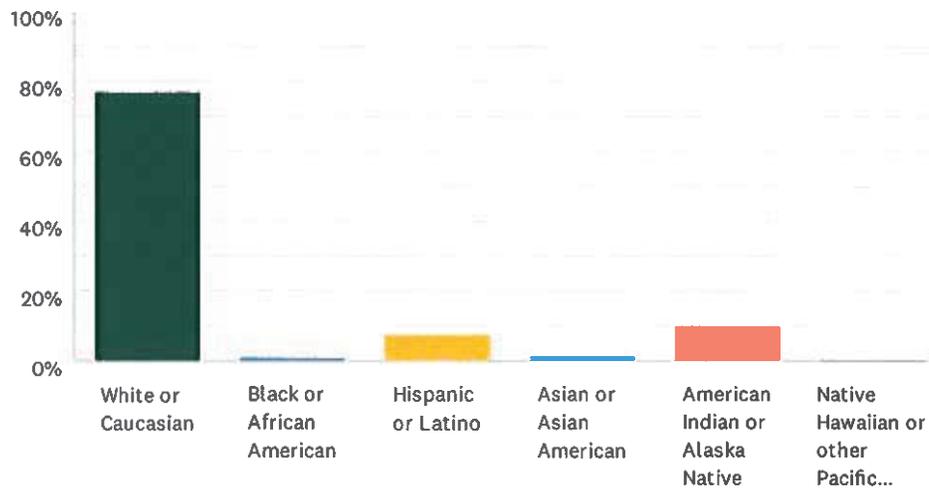
What is your Zip Code? Q.36

Answered: 217 Skipped: 48



Q37 What is your ethnicity/race? Mark all that apply.

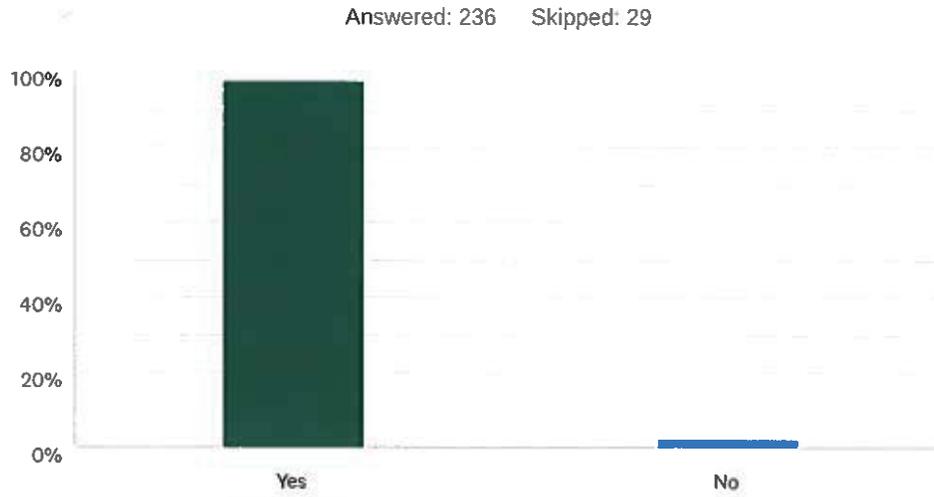
Answered: 220 Skipped: 45



ANSWER CHOICES	RESPONSES	
White or Caucasian	76.82%	169
Black or African American	0.91%	2
Hispanic or Latino	7.73%	17
Asian or Asian American	1.36%	3
American Indian or Alaska Native	10.00%	22
Native Hawaiian or other Pacific Islander	0.45%	1
TOTAL		220

#	OTHER (PLEASE SPECIFY)	DATE
1	American.	2/6/2020 6:34 AM
2	Human Being	1/30/2020 11:14 AM
3	Also American Indian	1/29/2020 9:16 AM
4	Human	1/6/2020 12:48 PM
5	Yakama	1/6/2020 10:30 AM
6	American	1/6/2020 7:23 AM
7	Doesn't matter	1/4/2020 7:34 PM
8	Not important	1/4/2020 9:13 AM
9	mixed	1/3/2020 2:34 PM
10	Human	1/3/2020 8:36 AM

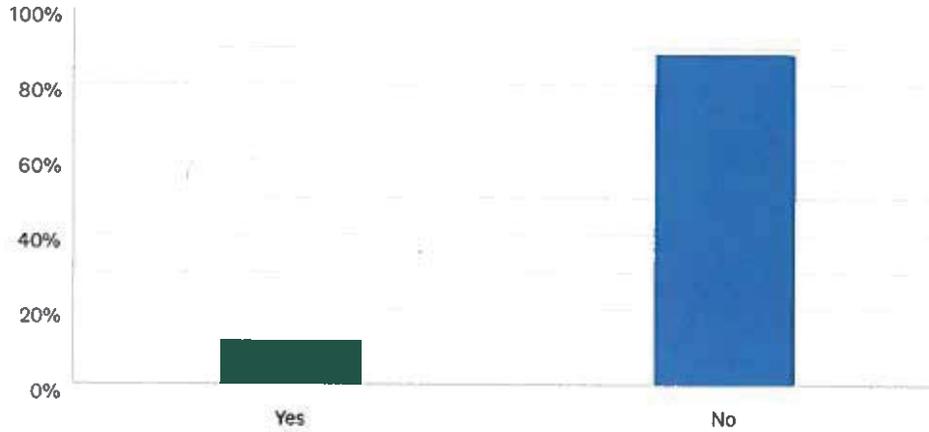
Q38 Does anyone in your household use a motor vehicle as your primary means of transportation?



ANSWER CHOICES	RESPONSES	
Yes	97.46%	230
No	2.54%	6
Total Respondents: 236		

Q39 Does anyone in your household require assistance to travel to and from your home?

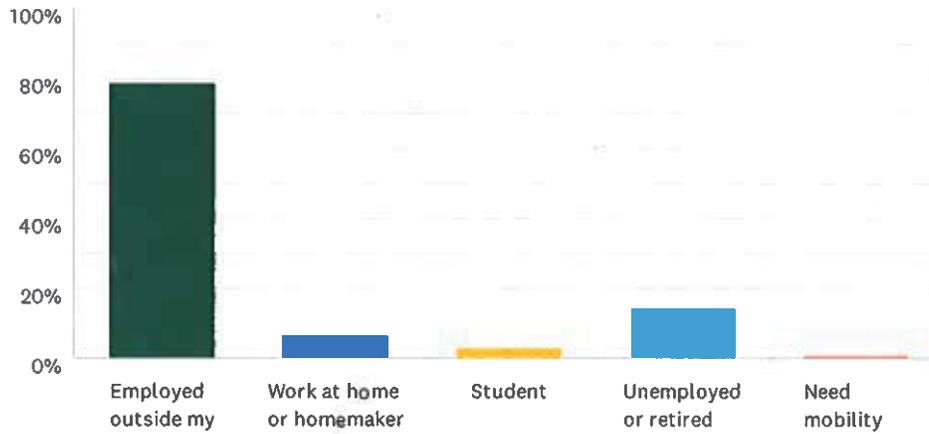
Answered: 233 Skipped: 32



ANSWER CHOICES	RESPONSES	
Yes	11.59%	27
No	88.41%	206
Total Respondents: 233		

Q40 Which of the following best applies to you?

Answered: 233 Skipped: 32



ANSWER CHOICES	RESPONSES	
Employed outside my home.	78.97%	184
Work at home or homemaker	6.44%	15
Student	3.00%	7
Unemployed or retired	14.59%	34
Need mobility assistance.	0.86%	2
Total Respondents: 233		

#	OTHER (PLEASE SPECIFY)	DATE
1	community volunteer	2/14/2020 9:30 AM
2	Part-time employment in several cities in the county.	1/30/2020 12:06 PM
3	Seasonal Tribal Fishermen	1/3/2020 1:47 PM
4	travel about 40 minutes to get to work	1/3/2020 9:46 AM
5	Retired	1/3/2020 8:50 AM

Q41 Do you have any comments about transportation in the Yakima Valley?

Answered: 80 Skipped: 185

Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

#	RESPONSES	DATE
1	surveys are nice and easy and just one way to find out what community members want and think is most important	2/14/2020 9:30 AM
2	Without public transportation in rural and suburban communities barriers are created that prevent people from work/job opportunities and their health care needs.	2/11/2020 8:59 AM
3	Utilize the vast grant opportunities that are out there to improve and expand the infrastructure.	2/6/2020 6:34 AM
4	Increased air service to and from the Yakima airport is greatly appreciated	2/2/2020 9:19 PM
5	the current system is not at all user friendly. It is in need of a complete overhaul. times, locations, dates, safety. The time currently does not support use by entry level employees to transport to and from jobs. It also does not run for overnight or second shift employees. holiday and Sunday service is inconvenient for church or commuters that can only shop on days they or family members are having a day off.	1/31/2020 10:31 AM
6	More bike lanes. And a map that show where all the existing ones are located	1/31/2020 10:09 AM
7	The top two things I would like to see are improved/expanded bike lanes, but even more importantly driver education regarding cyclists and pedestrian right of way. Drivers fly through crosswalks, disregard bike lanes, yell at cyclists to get off the road, and fail to move over for cyclists and pedestrians. The crosswalks with flashing lights would be a big safety improvement on roads like Lincoln, Summitview, Tieton, and Nob Hill	1/31/2020 9:07 AM
8	Comfort convenience	1/31/2020 9:01 AM
9	To improve the community health and livability, stop building roads and bridges - maintain what we have while adding alternatives to individual car/truck transportation.	1/31/2020 9:00 AM
10	Keep making it better for everyone.	1/31/2020 8:13 AM
11	More sidewalks and pedestrian safe crosswalks (actual light to stop traffic)	1/31/2020 2:18 AM
12	YVCOG should exert more influence over metro/regional transportation planning rather than simply compiling the plans of local governments. And should call out the inconsistencies within jurisdictions (e.g., Ahtanum Rd pathway v. on-road bike lanes) and between jurisdictions (e.g. the 3rd Avenue bike lanes in Union Gap do not continue seamlessly into Yakima).	1/30/2020 11:27 PM
13	We Yakima needs to come of age.	1/30/2020 9:31 PM
14	IT'S A DISGRACE THAT YAKIMA HAS SO FEW SIDEWALKS AND PEOPLE WHO MUST USE THE BUS HAVE TO WALK IN THE STREET -- ALONG WITH CARS -- TO GET WHERE THEY NEED TO GO.	1/30/2020 7:10 PM
15	I would LOVE to have more access to public transportation. PLEASE bring back train travel!! It would also be nice to have a website that shows the public transportation services that are available - something with an interactive map to plan a travel route that will show the best available options for getting from A to B with the time schedules. If a website already exists or a new one is made, it would be nice to have a link to it on the tourism page to show visitors what options are available.	1/30/2020 12:44 PM
16	As more aging Senior Citizens stop driving there is going to be an explosive need for regular, reliable, County-wide public transportation! Also extended evening hours! Yakima Transit appears to be held back by budget constraints resulting in cutting frequencies, cutting routes, avoiding outside grants for expansion beyond city limits, avoiding nighttime routes for those who would need them. Future riders will not give up their cars if Yakima Transit does not provide better frequencies and routes!	1/30/2020 12:06 PM
17	I would love to see bus transportation offered so conveniently and inexpensively that it becomes our main way of getting around the city and valley every day. I would love to see the trains back as a means of travel (not high speed) I would love being able to bicycle on the streets and roads without harassment and danger of being hurt!! Walking/biking pathways Linking neighborhoods with destinations Shopping and other neighborhoods throughout the city with lots and lots of trees and parks!! I would love to see Yakima featured as a city that is leading the way to a better happier future. Thank You So Much.	1/30/2020 11:14 AM
18	My wife and I regularly use the Greenway path from Yakima to Naches. Yakima has made good improvements to facilitate access to the greenway for bikes.	1/29/2020 7:14 PM

Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

19	Not adequate for the handicapped.	1/29/2020 2:23 PM
20	I love That we have such little traffic compared to big, clogged up cities. Whatever needs to be done to maintain easy traffic patterns as we grow should be a monetary priority. Also the Greenway's paths are an important recreational feature loved by many in the valley.	1/29/2020 9:18 AM
21	It's awesome and helps people get around. I do wish there were more options and availability though.	1/29/2020 9:16 AM
22	It's terrible, there is no focus on the expanding population growth or transportation needs. Most people have to commute to the greater seattle area to travel both nationally and internationally even though freeways are closed part of the year.	1/23/2020 11:16 AM
23	I would support rail service or public transportation only if there was a high probability of adequate passenger traffic to make it very near self sustaining. Long distance commercial railroads got out of the business 50 years ago because it was a money loser. I don't believe the Yakima Valley will support passenger service except possibly Amtrak if it were to abandon Wenatchee route to come back through the old Northern Pacific route. Local rail service only makes sense in areas of high population density, ie Vancouver BC/Seattle/Tacoma/Portland or with high density commuting.	1/14/2020 10:11 PM
24	Public transportation to the lower valley is truly needed!	1/14/2020 7:50 PM
25	I think the city should expand mass transit opportunities and develop a campaign to promote and encourage use.	1/12/2020 9:49 PM
26	We are so dependent on single driver vehicles for to and from work. It's hard to ride share and there is no Uber or lift if you go out.	1/10/2020 1:51 PM
27	More focus needs to be on transportation for people who ARE NOT on Medicaid and/or low income. People should not have to sale their homes and things they worked hard for to get to medical appointments.	1/10/2020 10:44 AM
28	Safer bike and pedestrian facilities are needed. Prioritize roadway maintenance.	1/9/2020 9:13 AM
29	none	1/9/2020 9:04 AM
30	Easier access to the entire sprawl that is Yakima and the Yakima Valley would be crucial to this community, and could help to improve the reputation that this valley so desperately needs to repair. When you have large segments of the population lacking access to basic needs (food/healthcare/shelter/etc) having accessibility to the things these people need to get out of that position is a major factor. When the city is built around single-occupant vehicle use it has an adverse affect on the most vulnerable of the population. Also, unrelated to my previous comments, but felt I should add this - you should seriously consider having someone actually proof-read a survey like this, especially if you plan to send it out to the public - I counted several spelling mistakes and misleading/confusing questions (the way they were phrased) that just makes this survey look thrown together at the last minute. Not to knock on whoever put together this survey directly, there's a reason for review processes.	1/7/2020 2:09 PM
31	N/A	1/6/2020 9:56 AM
32	No	1/6/2020 8:34 AM
33	Fix and maintain the roads. Stop looking for other projects. Maintain what we already have.	1/6/2020 6:58 AM
34	I hope Yakima Valley gets ahead of the curve of increasing population and traffic, and increases non-motorized transportation policies and improvements	1/6/2020 6:42 AM
35	I think the county should save their money on expanding our transportation system and use it to better maintain our current system. The #1 priority should be making our community safer from the rampant crime and less worried about expanding our already functional system for transportation.	1/6/2020 6:12 AM
36	The streets in Yakima are horrible and need focus. Also a beltway is needed around Yakima and Union Gap to relieve the congestion on the east/west avenues and help get some of the road destroying trucks off them	1/5/2020 1:56 PM
37	Maintain the existing roads. Some roads are falling apart and need repairs!	1/5/2020 12:29 PM
38	I would love to see train service come back to Yakima. That would be my first choice. However,	1/5/2020 12:10 PM

Yakima Valley Transportation Plan: 2020-2045

SurveyMonkey

	if there was a bus service close to home that would take me all the way to work without transferring, I may use it. Not certain.	
39	My family has lived in the Yakima Valley for generations, including when the cable cars ran and Northern Pacific offered passenger rail service. Today, it's more difficult to get around Yakima and to distant locations than it was 80+ years ago. That's not the right direction.	1/5/2020 6:22 AM
40	If there was county wide transit, there should be one route that serves I-82 from Yakima to Prosser, with connections to local transit along the way, with Park & Ride/Transit Centers along each town along I-82. Yakima Transit should also run later hours if they wish to get people to use it for work. Finally, at least provide transit passes through an app (a lot of the smaller transit agencies use Token Transit), and eliminate the transfers to offer an all day pass.	1/5/2020 1:24 AM
41	Keep maintaining roads, which I think the County has being doing well. Use funding wisely. Don't raise taxes.	1/4/2020 7:34 PM
42	We are so spread out and sparsely populated this is a difficult challenge. I would focus on maximum usage, macro changes vs. Micro. Simply enough trains to and from each city and airport would be convenient.	1/4/2020 6:12 PM
43	i really wish the city and tribal systems had a little communication concerning routes. they stop at some of the same locations but hours apart , so i can't fully use one to access the other. sometimes it's hard to get rides for diapers /groceries, even if i have money/foodstamps.	1/4/2020 10:31 AM
44	lack of sidewalks and bike lanes is a problem, public transportation should be clean, safe, reliable, and well connected to encourage users. need to have parking nearby when routes are not well linked.	1/4/2020 7:58 AM
45	I commute and shop by bicycle in Yakima. The community connector Yakima to prosser is a major wish to expand. Thanks for doing this work to support non car options!	1/3/2020 7:35 PM
46	I think the City of Yakima should join the PTBA and have Yakima Transit serve Moxee, Selah, Union Gap and Naches.	1/3/2020 7:33 PM
47	I would like to see Selah, Yakima, and Union Gap cooperate/coordinate their transit systems so that services don't stop at city limits.	1/3/2020 7:21 PM
48	I am from Portland and spent 40 years with very good public transportation systems. When I moved here 4 years ago I was dumbfounded and saddened that a city with this population, this many disadvantaged and financially struggling people did not have similar transportation to what I was used to. This desperately needs to change.	1/3/2020 5:05 PM
49	We bike to work everyday, and Yakima is a very unsafe town to bike in. Please help add bike-lanes and other infrastructure to make biking safe.	1/3/2020 5:04 PM
50	valley roads are too narrow. need more smart stop lights	1/3/2020 2:08 PM
51	Make it convenient, and cost effective	1/3/2020 1:47 PM
52	more funding for road maintenance.	1/3/2020 11:50 AM
53	In general, people want confirmation about "bus is running on time" from the Yakama Nation system.	1/3/2020 11:38 AM
54	Focus first on maintaining what we have. Don't build more infrastructure to finance and maintain when we're not keeping up with what we have. Consider separating bike and vehicular traffic. NO TAXPAYER FUNDED ELECTRIC VEHICLE CHARGING STATIONS! If it is viable, the market will take care of this itself. We didn't publicly finance gas stations, why be pro-biased for electric? Also, electric is often a feel-good solution, but where is the source of the electric power to charge those cars coming from? Do the poor buy electric cars? No, the rich and educated. They can figure out or afford charging stations.	1/3/2020 11:37 AM
55	Make it happen please, thank you very much and if you need help I will	1/3/2020 11:25 AM
56	The more we connect our communities and make it easier to travel through other modes of transportation the more our homeless issue has spread and the more our crime has spread	1/3/2020 11:05 AM
57	We need a fully connected multimodal transportation that encourages people not to drive big cars.	1/3/2020 10:34 AM
58	I moved from the Lower Valley to Yakima in part because of the lack of transit in the LV. Yakima	1/3/2020 10:20 AM

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	Transit meets many needs, but I would like to see night service and expanded weekend hours. I would also like to see seven-day service on the Yakima-Ellensburg Commuter. Thank you.	
59	Really fund rail improves when the County can't take care of its existing roadway. Money should be put into fixing and improving the roadway first. Many county roads are freight corridors that are falling apart.	1/3/2020 10:15 AM
60	Be tough on people in the Yakima Valley since they are taxed on everything else. I have a feeling the administrators will raise taxes to get the funding for transportation connection and improvements. Bad enough we have to pay a high amount of taxes for other public services.	1/3/2020 10:10 AM
61	would love to see an emphasis on safe, non-single occupancy vehicle transportation options	1/3/2020 10:06 AM
62	The lack of foresight in developing high speed connections through west to east an North to South is so apparent. Yakima used to lead the way, now it is way behind thanks to the "old money" back water thinking. It's too late. As the old saying goes, you made your bed, now sleep in it.	1/3/2020 10:05 AM
63	Priority should be repair and maintenance of roads.	1/3/2020 9:51 AM
64	We need to plan for the future with environmentally friendly solutions. Please fund safer walking paths and expanded bus routes.	1/3/2020 9:50 AM
65	don't try to be seattle. you are not seattle. you will never be seattle. build and maintain roads for cars. that is all you need to do.	1/3/2020 9:46 AM
66	Bus systems are great, however one would have to get on a bus at about 6 a.m. to get to work in Yakima at 8 a.m. But also need to find a ride from the bus station to the office. Too much to make it work.	1/3/2020 9:46 AM
67	Passenger rail service would provide a great alternative to roads. Driving I-90 is becoming more crowded and dangerous every year, even giving the millions in improvements. I hate driving I-90, but I-90 is really the only reasonable (cost effective) option today other than the Airporter bus service to get to/from Seattle-Tacoma area. We need a better alternative. Alaska Airlines is fine for long hauls, but a little pricey just for going to/from Seattle.	1/3/2020 9:43 AM
68	Safety And understand our ppl with mental illness/ issues	1/3/2020 9:39 AM
69	Public transportation is so scant its unusable. I've never lived somewhere with such scant public transit and lack of usable bike lanes in my life. --Liz Hallock	1/3/2020 9:35 AM
70	It sucks right now	1/3/2020 9:13 AM
71	widen rural roads to accommodate pedestrians and bikes. As it is now it's not safe to ride or walk on rural roads.	1/3/2020 9:04 AM
72	Do not allow motorized scooters. We had a family member nearly die in San Diego	1/3/2020 8:50 AM
73	Government should stay out of the transportation business. Let private companies do it. Don't waste my tax dollars on this.	1/3/2020 8:36 AM
74	Need to reduce fatalities for both Pedestrian and MVC in the lower valley. Everyone sees how west valley gets all the improvements and never see any improvements in the lower valley. there is more to Yakima County than just Yakima, Selah, Naches. Need to also improve EMS services, where is State Patrol?	1/3/2020 8:19 AM
75	I do not attend anything in the evenings-city council meetings, church choir practice or YVC classes because busses stop running at 6pm.	1/3/2020 7:51 AM
76	It is very disappointing that the buses don't travel between communities.	1/3/2020 6:49 AM
77	Take care of what we have before you worry about drones and such. Forget the county bus system. Check the results from the last election on this idea.	1/3/2020 6:30 AM
78	Need train service to support travel to western Washington and other parts as well as visa versa	1/3/2020 1:44 AM
79	The large buses that ran all day long in Selah was the biggest waste of our tax dollars, they were empty 95 percent of the time, you could have called a taxi for each person and saved money, start using common sense	1/2/2020 8:45 PM

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I would love more public transportation options. More bus stops for our buses and the return or train service for public use. Also increased biking/walking trails would be amazing.

1/2/2020 5:54 PM