Transportation System Plan Guidelines

Oregon Department of Transportation

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Transportation System Plan Guidelines

Contents

Overview

These Transportation System Plan (TSP) Guidelines provide a step-by-step guide for cities and counties in Oregon updating their transportation system plans. These guidelines outline requirements set forth in Oregon's Transportation Planning Rules, describe best practices, and include implementation examples. Users can consult this tool holistically while scoping a full TSP update or navigate directly to specific sections. This is a "living document" and will be updated as rules and best practices evolve.

What Is a TSP?

A Transportation System Plan (TSP) is a long-range planning document that describes a transportation system and outlines projects, programs, and policies to meet transportation needs now and 20 years in the future based on community goals. A TSP is required for most Oregon jurisdictions per Oregon Administrative Rule (OAR) 660-012, also known as the Transportation Planning Rules (TPR). A TSP typically serves as the transportation component of the local comprehensive plan.

Read more and see example TSPs.

Why Update a TSP?

A TSP provides a comprehensive, multimodal picture of how the existing and future transportation system meets the needs of its users. While most Oregon jurisdictions are required to prepare and adopt a TSP, there are many other good reasons to employ this critical long-range planning tool.

Read more and learn ways to get results.

When Should I Update a TSP?

Like all planning documents, a TSP should be updated periodically to reflect growth and change. Many circumstances can trigger a TSP update, including state or regional compliance issues, changing community priorities, and funding availability.

Read more about when to update a TSP.

How Do I Update a TSP?

These TSP Guidelines provide information on how to successfully create or update a TSP for your community. The TSP Guidelines are based primarily on requirements and recommendations from the TPR, but they also incorporate the current best practices in long-range planning of a transportation system.

Read more about how to update a TSP.

Climate-Friendly and Equitable Communities Program

These TSP Guidelines have been updated to reflect the changes to Oregon's administrative rules on transportation that resulted from the Climate Friendly and Equitable Communities (CFEC) program. Throughout this guidance, you will see

distinctions for “metropolitan areas” subject to CFEC requirements and “non-metropolitan areas” for which the TSP guidance is largely unchanged since the last update in 2020.

As defined in the TPR, the CFEC requirements only apply to cities and counties located within a Metropolitan Planning Organization (MPO) that is wholly located within the state of Oregon. The Longview-Kelso-Rainier and Walla Walla Valley MPOs are not considered MPOs for the purposes of the TPR.

Resources

Integrating Safety into the TSP Development Process

Using Performance Management Principles for Transportation System Plans in Metropolitan Areas

Emerging Topics and Best Practices - White Paper

Planning Context - White Paper

Similar and Unique Needs - White Paper

What is a TSP?

WHAT IS A TRANSPORTATION SYSTEM PLAN?

A TSP describes the existing transportation system and the **projects, programs**, and **policies** that will allow a community to meet its transportation needs and aspirations now and 20 years into the future.

Questions the TSP Process will Help You Answer

What do we have now? | **What do we want?** | **What will we need in the future?** | **How will we fund our projects?** | **What should we do first?**

Making your TSP a success

A successful TSP is as unique as the community it describes. Its policy framework, planning direction, and selected projects and programs reflect a community's objectives and priorities to meet local multimodal transportation needs. Successful TSPs are developed in coordination with city, county, regional, and state agency partners. It is also important to involve transit providers, organizations that support walking and bicycling, and other similar organizations. Successful TSPs also have meaningful engagement from a wide range of community members.

Regulatory compliance

TSPs are required by the Transportation Planning Rules (TPR) as documented in Oregon Administrative Rule (OAR) 660-012-0015 for non-metropolitan areas and 660-012-0100 for metropolitan areas. These rules provide detailed directions on how to prepare a TSP. A TSP must be locally adopted and acknowledged by the State of Oregon. A TSP may also need

to coordinate with other local or regional TSPs and planning documents, as well as with the Oregon Transportation Plan (OTP) and its modal and topic plans.

Example Transportation System Plans

NOTE: Metropolitan area TSP examples prior to 2024 do not reflect the current guidance and regulations for TSPs in metropolitan areas. They are applicable examples for areas outside of metropolitan areas.

Region 1: Portland Metro

Region 1 currently has one Metropolitan Planning Area: Portland Metro. Portland Metro covers the cities of Beaverton, Cornelius, Durham, Fairview, Forest Grove, Gladstone, Gresham, Happy Valley, Hillsboro, Johnson City, King City, Lake Oswego, Maywood Park, Milwaukie, Oregon City, Portland, Rivergrove, Tigard, Troutdale, Tualatin, West Linn, Wilsonville, and Wood Village. It also includes parts of Clackamas, Multnomah, and Washington Counties.

Metropolitan TSP Examples

Gladstone TSP (2017)

The City of Gladstone TSP focuses on active transportation modes, multimodal connectivity, and the jurisdiction's connection to regional systems (e.g., Regional Transportation Plan or regional transit network). It is organized around modal elements and focused on system needs, with mapped modal plan projects, project lists, and photos of design treatments included in each modal chapter.

Multnomah County TSP (2016)

The Multnomah County TSP was developed with the county's Comprehensive Plan update. Most notably, the Multnomah County TSP:

- Addresses a wide range of users (from farm equipment operators to the bicycling community)
- Addresses areas with unique needs (e.g., Sauvie Island)
- Supplements safety discussions with a comprehensive map of crash types
- Presents transportation solutions in a highly graphical, accessible toolbox
- Provides a robust set of policies with an emphasis on health, equity, and inclusion of wildlife considerations (crossings)
- Addresses bridges as a distinct element in the system plan

Washington County TSP (2015)

Washington County created a TSP Users Guide designed to be a user-friendly version of the Washington County TSP. This document, like the TSP itself, makes effective use of graphics and photos to illustrate the modal elements that make up the transportation system. Development code amendments adopted with the TSP focus on implementation of the active transportation and transit elements of the plan.

West Linn TSP (2016)

The West Linn TSP features quantifiable targets to accompany goals instead of standard objectives. These are used as performance measures for TSP implementation. The bicycle element includes guidance from the League of American Bicyclists regarding bicycle-friendly communities and bicycle facility design guidance in a graphic matrix format. The plan

includes constrained cross-section options for all functional classifications, from minor arterials to local streets, and it has a well-developed Transportation System Management and Operations section.

Wilsonville TSP (2013)

The 2013 Wilsonville TSP is a reader-friendly TSP with simple chapter categories and a heavily graphic orientation. The plan establishes an extensive set of policies that are more topic-oriented and includes policy areas such as connectivity and interchange management areas. Active transportation options are provided in both cross-sections and plan views for shared-use path, trail, and protected bike facility designs. The TSP presents recommended projects and programs in their own respective chapters and includes performance measures based on measures recommended by Metro.

Region 2: Willamette Valley and North Coast

Region 2 currently has four Metropolitan Planning Areas: Salem/Keizer, Eugene/Springfield, Albany, and Corvallis. Salem/Keizer covers the cities of Salem, Keizer, and Turner, as well as parts of Polk and Marion Counties. Eugene/Springfield covers the cities of Eugene, Springfield, and Coburg, as well as parts of Lane County. Albany covers the cities of Albany, Millersburg, and Tangent, as well as parts of Benton and Linn Counties. Corvallis covers the cities of Corvallis and Philomath, as well as parts of Benton County.

Metropolitan TSP Examples

Eugene TSP (2017)

The Eugene TSP, an adopted TSP from a large community, includes a major university and an airport, and features extensive modally oriented policies. Policies specifically address complete streets, climate change, and equity, reflecting a triple-bottom-line planning and decision-making approach. The TSP explains its relationship to the state-mandated Regional TSP and the federally mandated Regional Transportation Plan. The TSP provides helpful graphics showing bicycle and pedestrian facility types, including neighborhood greenways, and organizes pedestrian and bicycle projects by treatment type.

Non-Metropolitan TSP Examples

Cottage Grove TSP (2015)

The Cottage Grove TSP is a small community TSP and a good example of a simple, clearly organized document. The transportation projects are divided into financially constrained and illustrative (aspirational) categories. The plan identifies a wide range of pedestrian and bicycle treatments in the standards section; however, it does not provide design guidance (e.g., cross-sections) for the treatments.

Gearhart TSP (2017)

The Gearhart TSP presents four improvement packages for different funding scenarios, including a financially constrained scenario. The plan includes a discrete section on emergency routes; describes Lifeline Routes and evacuation routes; and provides an evacuation route map with the Lifeline Route (US 101), bridges and culverts, and tsunami assembly areas. Specialized street cross-sections allow for queuing on narrow local streets and include guidelines for modifying design elements in constrained areas. The TSP makes funding recommendations related to the City's existing road district tax (a rare funding source) and other sources appropriate to the community's tourism-based economy (e.g., transient room tax). The plan acknowledges that a project extensive enough to reduce congestion on US 101 would likely have unacceptable impacts on the community. The state and city must therefore address congestion

by means such as introducing travel demand options; enhancing local street connectivity; maximizing system efficiency; and increasing walking, biking, and transit ridership.

Region 3: Southwestern Oregon

Region 3 currently has two Metropolitan Planning Areas: Middle Rogue and Rogue Valley. Middle Rogue covers the cities of Grants Pass, Gold Hill, and Rogue River, as well as parts of Josephine and Jackson Counties. Rogue Valley covers the cities of Eagle Point, Central Point, Medford, Jacksonville, Talent, Phoenix, and Ashland, as well as parts of Jackson County.

Metropolitan TSP Examples

Jackson County TSP (2017)

Jackson County has roadway authority over several unincorporated urban areas and must coordinate transportation system planning with a number of cities and the Rogue Valley MPO. An important accomplishment embodied in the Jackson County TSP is the inclusion of updated goals and policies that clarify the county's development-related expectations and requirements as they pertain to transportation improvements. TSP goals and policies articulate the county's expectations for design guidelines and development regulations, jurisdictional transfers, and transit improvements. In addition, the Goals and Policies section contains objectives related to coordination within the MPO, financing and project prioritization, and planning a multimodal transportation system that is responsive to environmental and scenic resources.

Phoenix TSP (2016)

The city of Phoenix straddles and is adjacent to major state facilities, including I-5 and OR 99. The TSP identifies which projects may be bundled with others. The Phoenix TSP incorporates and refers to elements of the Fern Valley Interchange Area Management Plan, including alternative mobility targets and a trip budget overlay zone. In a strong visual display, the plan provides project-cost-by-mode pie charts for both city projects and those shared by ODOT and the developer.

Talent TSP (2015)

The Talent TSP categorizes projects into two tiers. Projects reasonably likely to be funded are in Tier 1, and those that need new or additional funding are in Tier 2. The TSP provides innovative cross-sections that enhance the safety and operations of the bicycle and pedestrian modes, particularly for key facilities in the city. The plan emphasizes trail improvements and connections, including those for the regional Bear Creek and Wagner Creek Greenways. The improvements recommended in the TSP are referred to as complete street and trail projects.

Non-Metropolitan TSP Examples

Brookings TSP (2017)

The Brookings TSP provides a good overview of the city's demographics and the location of vulnerable communities (Title VI and Environmental Justice populations). The plan includes strong active transportation elements, such as:

- A map of pedestrian and bicycle network opportunities and constraints
- A bicycle parking inventory

- Performance measures including pedestrian level of service and bicycle level of stress (in color-coded mapping)
- Safety/crash analysis for non-motorized modes

The TSP also features specialized street cross-sections, including hillside and residential street designs differentiated by the number of dwellings accessing the street and the proximity of parking. Recommended projects are effectively formatted as prospectus sheets. Bicycle improvement projects are notable and include recommended kiosk locations for information, rest stops/seating, bike tools, and other resources.

Region 4: Central Oregon

Region 4 currently has one Metropolitan Planning Area: Bend. Bend covers the City of Bend and parts of Deschutes County.

Non-Metropolitan TSP Examples

Klamath Falls Urban Area TSP (2012)

The Klamath Falls Urban Area TSP is a jointly adopted plan that documents both city and county facilities within the city's Urban Growth Boundary. Recommended projects are documented in geographic information system-based maps and are further defined in specific project prospectus sheets.

Crook County TSP (2017)

The Crook County TSP is organized around modal elements and focused on system needs. Within each modal element section, the TSP outlines a cost summary with the expected county contribution to roadway projects. Each section includes a table with project descriptions, cost, funding partners, relative priority, and a modal plan map that identifies the locations of the listed projects. Another feature is the Roadway Design Standards section, which describes how county roadways are to be designed to city standards within the City of Prineville's Urban Growth Boundary (UGB), providing clear direction for updating the Urban Growth Management Agreement between the two governments (i.e., Crook County and City of Prineville).

Region 5: Eastern Oregon

Region 5 currently does not have a Metropolitan Planning Area.

Non-Metropolitan TSP Examples

Pendleton Active Transportation and Transit Plan (2016)

The Pendleton Active Transportation and Transit Plan is a focused, graphical, and reader-friendly document. The plan presents projects in tables and prospectus sheets, a format the city intends to use in future grant proposals. The project prospectus sheets provide a color-coded, at-a-glance evaluation of how well the projects address planning goals. The plan includes a robust trail section with enhanced project prospectus sheets and trail cross-section options. The detailed transit plan addresses the variety of transit services in the Pendleton area and is based on service provider plans, an original survey, and other data analysis. The plan concludes with a graphical, high-level health-impact evaluation.

Weston TSP (2015)

Weston is a very small community with no state facilities within city limits. Its 2015 TSP includes local street cross-section options to accommodate combinations of parking and drainage swales as well as cross-section renderings

showing vehicles typically seen in the community (e.g., tractors). The plan includes projects just outside the Urban Growth Boundary that the city would like ODOT and Umatilla County to take into consideration. The TSP features prospectus sheets for each project, a particularly strategic and helpful tool for cities such as Weston that have no internal funding source for transportation. Policy and development code amendments (Volume II) emphasize transportation options for health benefits and cost-effectiveness.

Nyssa TSP (2011)

A small community on the Oregon/Idaho border, the City of Nyssa is traversed by state highways. The 2011 TSP is an update of the non-motorized elements of its TSP focused on active transportation and trails. The plan incorporates helpful illustrations on the use of "sharrows." The TSP provides a targeted set of projects to improve connections to the school and a detailed section on trails. Lists of recommended projects specify levels of project readiness.

For more examples of TSPs and other planning documents, see the Transportation Planning Online Database.

Resources

City of Gladstone TSP 101 Presentation

Why update a TSP?

A TSP provides a comprehensive, multimodal picture of how the existing and future transportation system meets the needs of its users. While the state Transportation Planning Rules (TPR) require most Oregon jurisdictions to adopt a TSP, there are many other good reasons to employ this critical long-range planning tool.

Plot a clear course for your community

Show how your **transportation goals** meet the goals and needs of **planned land uses**

Determine where **planned transportation improvements** should be located and what right-of-way needs to be protected

Provide rationale for making **prudent transportation investments** and land use decisions

Identify and advocate for **projects, programs, and services the community can fund (financially constrained plan) and would like to fund (financially unconstrained plan),** within the planning horizon

Work toward shared goals

A TSP tells others how transportation policies and investments support broader community and regional goals. Being able to see where goals overlap with those of other agencies creates valuable opportunities for collaboration.

Attract and secure funds

Not only does a TSP provide a necessary linkage to the Statewide Transportation Improvement Program to secure funding, it also provides the policy foundation and documentation of needs to support transportation funding decisions and requests.

Getting results

Read how TSP updates have helped communities fund system investments, coordinate with other jurisdictions and agencies, and deliver projects.

Increase potential funding

The Wilsonville TSP update, funded through the Oregon Transportation and Growth Management (TGM) program, helped the City of Wilsonville pursue funding for projects on the state system.

Support transportation decisions

As part of its TGM-funded TSP update, the City of Ashland examined a road diet on North Main Street (OR 99) that would reduce the number of lanes from four to three, providing room for bicycle lanes. Because North Main Street is an alternative route to I-5, ODOT's Motor Carrier Transportation Division was consulted on the proposal. After extensive consultations between the city and state and a major community engagement effort, the city proceeded with a 1-year pilot project to restripe North Main Street. After the 1-year pilot period, the Ashland City Council voted to make the road diet permanent. It should be noted that a road diet on an ODOT facility would most likely be a component of a corridor refinement plan that would be incorporated into a TSP, since a more detailed analysis and community engagement are typically needed for this type of project.

For more information on plan implementation, see the excerpt from TGM Tangibles Volume II.

Make major improvements through small, affordable steps

The City of Newberg was awarded an Oregon TGM grant to prepare a pedestrian and bicycle plan, with an emphasis on identifying a critical core network of Americans with Disabilities Act (ADA) compliant infrastructure. Rather than wait until funding is secured to construct improvements along an entire corridor, the plan identifies spot improvements that could strategically and affordably remove barriers along a route more quickly and for a fraction of the cost. This plan resulted in an amendment to the city's TSP that updated bicycle and pedestrian elements to include the critical routes and improvements.

For more information on plan implementation, see the excerpt from TGM Tangibles Volume II.

When to update a TSP

Like all planning documents, a TSP should be updated periodically to reflect a community's growth and change. Many circumstances can trigger a TSP update, including state or regional compliance issues, changing community priorities, and funding availability. Cities located within a metropolitan area must update their TSPs to conform with the 2022 updates to the state Transportation Planning Rules (TPR), which are intended to reduce greenhouse gas emissions (see OAR 660-0012-0100). The Oregon Department of Land Conservation and Development (DLCD) encourages communities to review and update their major plans, including TSPs, on an interval of around seven years. Communities experiencing rapid change may need to update their TSPs at shorter intervals.

Does my community need to have a TSP?

The TPR provides exemptions to some jurisdictions.

Outside of a metropolitan area - Cities with **fewer than 10,000 residents** may not be required to have a TSP

Inside a metropolitan area - Cities and counties with **fewer than 10,000 residents** may not be required to have a TSP

Outside of a metropolitan area - Counties with **fewer than 25,000 residents** may not be required to have a TSP

Outside of a metropolitan area - Unincorporated areas of counties inside the UGB with **fewer than 10,000 residents** may not be required to have a TSP

DLCD may grant a whole or partial exemption from TPR requirements for these jurisdictions. This includes jurisdictions that are newly included in a metropolitan area and may be subject to new rules. Exempt jurisdictions are still eligible for state grant funding to prepare or update a TSP but may not be obligated to fulfill all the requirements in the TPR. More information about how to apply for an exemption may be found in this document.

Can my community secure funding to complete a TSP update?

Many communities looking to update their TSP need funding to support the effort. Some funding opportunities, like the Oregon TGM program, are competitive and could affect when an update takes place. Other communities may be able to self-fund a TSP update, providing more flexibility for timing.

How long will a TSP update take?

Completing all elements of a TSP typically takes 18 to 36 months. Scope, complexity, staff availability, community interest, budget, and the number of agency participants can influence the timeline.

What might trigger an update?

Population growth and changes to land use patterns, such as:

- Significant actual or anticipated population growth
- Urban Growth Boundary (UGB) expansions and annexations
- Adoption of a Climate Friendly Area (CFA) for jurisdictions within a metropolitan area
- Zoning changes, particularly those that increase residential density or that mix uses
- Updated planning documents (i.e., Buildable Lands Inventory, Housing Needs Analysis, Economic Opportunities Assessment)

Changed community priorities, such as:

- Planned employment or residential development that requires new transportation infrastructure
- Increased housing diversity and complete neighborhoods policies
- Climate Action Plans that call for a reduction in vehicle miles traveled (VMT)
- Planning for evacuation and supply routes as part of emergency preparedness
- Community interest in enhancing active transportation modes
- New funding sources (i.e., state or federal grants that require an adopted plan for eligibility)
- New infrastructure that is needed to comply with an Americans with Disabilities Act Transition Plan
- For metropolitan areas, plans to add new or expanded road facilities as defined in OAR 660-012-0830

The current TSP document no longer addresses the existing or future transportation needs/vision/standards of the local jurisdiction, such as:

- Need for new transportation projects based on infill redevelopment or UGB expansions
- Need to update a Capital Improvement Program
- Plan amendments or zone changes
- Specific modal elements that need inclusion or updating (i.e., transit plan)
- Roadway functional classifications that are inconsistent between local and state jurisdictions
- Completion of most projects in the TSP
- A TSP planning horizon of less than 15 years from the current date

The current TSP is inconsistent with other local plans or policies, such as:

- Updated comprehensive plan elements, including a Housing Capacity Analysis
- A new or updated transit development plan
- Updated system development charges/transportation impact fees
- Periodic review (regularly scheduled updates to major planning documents; see the next section, “When Is a TSP Update Required?” for more on periodic reviews
- An expansion of the UGB
- Annexation of land into a jurisdiction
- An Urban Reserves designation
- Planning for the location or relocation of a major transportation facility
- A new or relocated employment center
- Transportation refinement plans (adopted by resolution or legislatively adopted by reference into the TSP)
- Planning for major improvements on the state system (e.g., freeway interchanges or new bypasses)
- Plans related to access to and connectivity with other transportation modes (e.g., air, rail, transit, or freight)

The current TSP is inconsistent with state or regional plans or policies. Examples include:

- For jurisdictions within metropolitan areas or amendments to the area's Regional Transportation Plan
- For jurisdictions within metropolitan areas, compliance with 2022 amendments to the TPR intended to reduce greenhouse gas emissions, address equity for historically underserved populations, or conduct an equitable engagement process
- Changes to state policy or requirements in the Oregon Transportation Plan or the associated mode and topic plans
- Proposed major projects that require exceptions to Oregon's Statewide Planning Goal (e.g., Goal 3, Agricultural Lands)

When is a TSP update required?

Within metropolitan areas, the TPR outlines two types of TSP updates: major and minor (see OAR 660-012-0105). A **major** update is one that changes the horizon year of the plan or adds a project that requires enhanced review under OAR 660-012-0830 because it adds significant capacity, such as a road widening larger than a three-lane arterial. A major update triggers a complete review of all parts of the TSP, including compliance with the new CFEC program.

A **minor** update is any other change to a TSP that does not change the horizon year and can be limited in its approach, such as a refinement plan.

An update is required under the TPR in the following cases:

Periodic Review

Cities with a population of more than 25,000 in a metropolitan area are encouraged to review and update major planning documents, including the TSP, every seven years. Cities with a population of more than 10,000 and located outside a metropolitan area are encouraged to review documents every 10 years. The periodic review process is based on an evaluation and work program developed with the assistance of DLCD. Periodic review type updates are typically major updates because they almost always change the horizon year of the plan.

While the process of completing a task on the work program varies based on the needs and practices of the jurisdictions and the nature of the task, the local process for developing a TSP is essentially the same as it would be for a plan amendment outside of a periodic review. The notice requirements, however, are different.

Periodic review requirements are established in ORS 197.628 to 197.650 and are interpreted and supplemented by OAR 660-0025.

Plan and Land Use Regulation Amendment

A plan or land use regulation amendment that would substantially affect one or more transportation facilities may trigger the need to update a TSP. This includes actions such as rezoning an area to land uses that could increase or change transportation needs that are inconsistent with the comprehensive plan or adding to the UGB outside of a periodic review. This may be either a major or minor update, depending on the extent of the change.

The TPR requires local jurisdictions to evaluate proposed plan amendments for consistency with adopted land use and transportation plans. This part of the TPR, as discussed in OAR 660-012-0060, is designed to address several important objectives:

- Ensure that local governments consider the transportation impacts of changes to land use
- Keep land use and transportation plans in balance with one another by ensuring that the planned transportation system is adequate to support the planned land use
- Address how needed transportation improvements will be funded
- Accommodate new development in a way that minimizes traffic impacts

OAR 660-012-0060 specifies a category of facilities, improvements, and services that can be assumed to be in place or committed and available to provide transportation capacity over a 20-year planning horizon. The TPR guides local jurisdictions in determining what transportation improvements are reasonably likely to be provided by the end of the planning period when considering amendments to local plans and land use regulations. Multimodal Mixed Use Areas (MMAs) and CFAs are exempt from the requirements of OAR 660-012-0060 per OAR 660-012-0325 (Transportation Review in Climate Friendly Areas).

Special Rules for Metro

The TPR has a special section for rules that apply only to (see OAR 660-012-0140). Metro must develop a Regional Transportation Plan (RTP) in coordination with the regional transportation plan required by federal law for metropolitan areas. Cities and counties within Metro must amend their plans to be consistent with the Metro RTP as implemented through the Functional Plan and may set their horizon year to match the horizon year of the adopted RTP. Metro has some flexibility built into the TPR to propose alternative requirements to those in the Rule, as well as the authority to impose additional requirements for transportation system planning within Metro cities and counties. Any additional or alternative requirements must be approved by the Oregon Land Conservation and Development Commission (LCDC).

Transportation Planning Rule Citations

Oregon Statewide Planning Goal 12, Transportation, defines the state's policies on transportation. OAR 660 Division 12, also known as the Transportation Planning Rules (TPR), implements Goal 12. The TPR requires that:

- Most jurisdictions prepare and adopt a regional or local transportation plan that serves as the transportation element of a comprehensive plan (see OAR 660-012-0015 for non-metropolitan areas and OAR 660-012-0100 for metropolitan areas).
- Local TSPs are consistent with RTPs. Where elements of the RTP have not been adopted, coordination is needed between the city/county and the regional transportation planning agency when preparing the local TSP (see OAR 660-012-0015).

How to update a TSP

A TSP can be prepared in different ways, but there are four phases that are always followed:

- Scope Phase
- Prepare Phase
- Adopt Phase
- Implement Phase

This TSP Guidelines site provides information on how to complete these four phases to successfully create or update a TSP for your community. The TSP Guidelines are based primarily on requirements and recommendations from the TPR (OAR 660-012), but they also incorporate the current best practices in the long-range planning of a transportation system.

Requirements from the TPR will be designated with the word ***shall*** in the TSP Guidelines. Recommendations from the TPR or current best practices are designated with either a ***should*** or a ***could*** in the TSP Guidelines. Although these TSP Guidelines are meant to support anyone preparing a TSP, those working on a TSP should have a basic understanding of the TPR as well.

While the TSP Guidelines document the requirements and recommendations for preparing a TSP, they do not cover specific analysis procedures used to meet those requirements. For Oregon-specific guidance for completing analysis during the Prepare Phase of the TSP, you will need to review the ODOT Analysis Procedures Manual (APM). The analysis procedures used to meet each requirement may differ for each TSP based on size of the community, whether travel demand models are available, and other factors.

Why do TSP guidelines differ between metropolitan and non-metropolitan areas?

The TPR was updated by the Oregon LCDC in 2022 and 2023 to implement the Climate-Friendly and Equitable Communities (CFEC) program. These updates apply only to cities and counties in metropolitan areas. As a result, as discussed in OAR 660-012-0011, there are sections of the TPR that apply statewide, within metropolitan areas, or within non-metropolitan areas. All cities are either subject to the rules for metropolitan areas or non-metropolitan areas, but not both. Different parts of a county may have different applicable rules based on metropolitan area boundaries.

The TSP Guidelines differ in how to prepare a TSP for a transportation system within a metropolitan area versus non-metropolitan area. Key differences are summarized in the following phases:

Scope Phase

- Within metropolitan areas, jurisdictions with more than 5,000 residents should designate Climate Friendly Areas (CFAs) prior to scoping the TSP (the Metro 2040 Regional Centers serve as CFAs within the Portland metropolitan area). If CFAs are not designated before scoping the TSP, they must be adopted prior to TSP adoption. Additional land use and bicycle parking requirements may also need to be met as outlined in the TPR.

- Special considerations should be given to metropolitan areas when scoping the TSP, as their requirements differ from non-metropolitan areas for the Prepare, Adopt, and Implement phases, as described below.

Prepare Phase

- Within metropolitan areas, a major equity analysis is required for TSP updates. Guidance on this work is provided on DLCD's website.
- Requirements for documenting the existing conditions and determining existing needs differ between metropolitan areas and non-metropolitan areas, including major differences in the required inventory documentation.
- Within metropolitan areas, the funding review has more specific requirements.
- There are different requirements when developing solutions for metropolitan areas versus non-metropolitan areas. For example, in metropolitan areas, some roadway projects may be subject to an enhanced review process that requires consideration of alternatives.
- Within metropolitan areas, there are several factors that must be used when evaluating alternatives and prioritizing projects.
- Within metropolitan areas, the development of a financially constrained list must follow specific steps and make significant progress toward reducing climate pollution.

Adopt Phase

- Within metropolitan areas, performance standards must be adopted that meet the TPR requirements.

Implement phase

- Within metropolitan areas, performance tracking must be completed based on performance measures and targets that meet TPR requirements.

Scope Phase

The first phase in preparing a TSP involves identifying your community's goals and defining the steps, tasks, and budget needed to meet them. Note: Your community's requirements that guide plan development will be different if you are within a metropolitan area.

Your Scope of Work

FRAME YOUR PLAN

- Determine the TSP's focus
- Draft a project statement
- Build your community engagement plan
- Develop a timeline, staffing requirements, oversight responsibility, and budget

COORDINATE

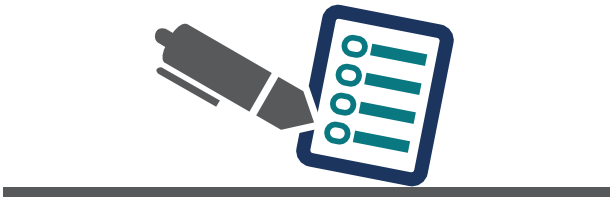
- Outline how you will coordinate your planning effort with neighboring jurisdictions, MPOs, transit providers, DLCD, and ODOT

REVIEW THE FUNDING PICTURE

- Determine what local funding is available for completing the TSP
- Assess what other funding may be available

ASSEMBLE YOUR RESOURCES

- Assign staff
- Seek expertise from a consultant if needed



DO SOME PRE-WORK

In metropolitan areas, prior to scoping or starting the TSP update, cities and counties should consider completing the following tasks to streamline the TSP update process:

- Determine if the TSP update qualifies as a major or minor TSP update per OAR 660-012-0105. These TSP Guidelines will help with TPR compliance for a major update. There are fewer requirements for a minor update.
- Determine population estimates for the Urban Growth Boundary at the planning horizon to identify TPR requirements that apply to the TSP update – population thresholds include 5,000, 10,000, 25,000, 50,000, and 100,000 people.
- Identify projects from the prior TSP, or projects anticipated to be added to the TSP, that add vehicle capacity and will require enhanced review per OAR 660-012-0830. If there are none, the VMT/capita analysis required by the rule may not be required.
- Identify potential performance standards to meet OAR 660-012-0215 requirements. Exploring which measures align with community values and what data is available can streamline Step 2 (Goals and Objectives) of the TSP update process.

Coordinating with the State

City and county TSPs must be consistent with state plans, policies, and guidelines, particularly as they apply to state facilities. Therefore, local agencies should coordinate with the state in developing the scope of work for the TSP and in preparing the TSP. The state can also provide guidance to the local agency on best practices in preparing the TSP to meet statewide planning goals and TPR requirements.

Coordinating with Other Cities and Counties

City and county TSPs must be consistent with one another. If elements of a regional TSP have not been adopted, a city or county must coordinate preparation of the local TSP with the regional transportation planning agency. As part of this coordination effort, cities and counties should clearly define which TSP will govern county facilities and unincorporated areas located within the city's Urban Growth Boundary (UGB). It is a best practice for cities to plan for the UGB in coordination with counties that have authority over those areas until annexed by the city. Ideally, cities and counties would continue this best practice of coordination under the revised rules.

Coordinating with MPOs

Local TSPs and applicable MPO regional transportation plans must be consistent. This includes goals, objectives, and investment strategies that work toward regional performance targets. The TPR also provides direction on equity and climate change actions that must be addressed in TSPs that are located within a metropolitan area. For best results, ODOT and the MPO should be consulted during the scope phase to determine specific topics to be updated or included in the TSP and to ensure the TSP is consistent with state and regional plans.

Assembling Your Resources

Before assigning staff and/or hiring a consultant, a jurisdiction should:

- Assess available resources to determine the level of in-house expertise
- Evaluate staffing options and determine the appropriate mix of staff/consultant expertise:
- Use existing staff expertise or new staff
- Use a combination of staff and consultant expertise

- Use predominantly consultant expertise (local staff to review but not complete the work)
- Identify and secure sufficient funding for staff/consultant work to develop and adopt the TSP
- If using a consultant, issue a Request for Proposals and select the consultant, accounting for time needed to execute a contract or work order and issue a Notice to Proceed

State Funding Assistance

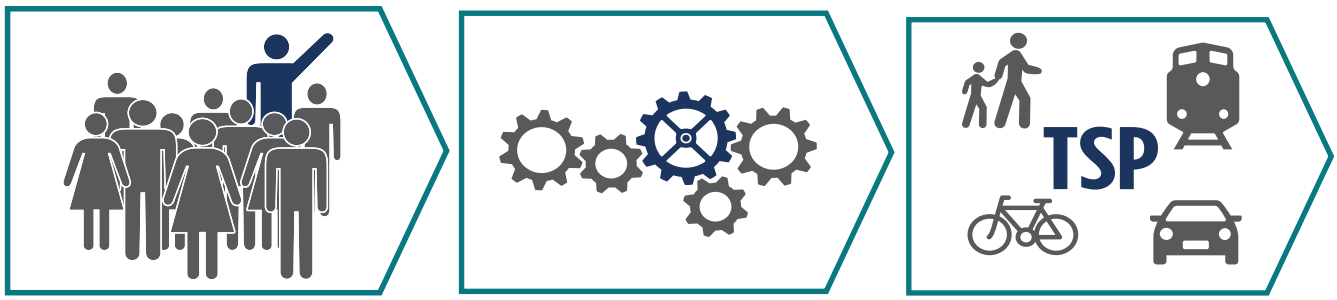
ODOT has limited funding to assist local jurisdictions with transportation planning projects through the Transportation and Growth Management Program and through individual Region Statewide Planning and Research funding allocations. Generally, ODOT considers TSP project funding requests from jurisdictions that:

- Are required to have TSPs or ready for a TSP update
- Are in critical transportation areas, non-exempt locations, or have unique transportation circumstances
- Have an identified local agency project manager

Typically, an intergovernmental agreement (IGA) between ODOT and the local jurisdiction is required. As a condition of funding, the IGA and the scope of work must be approved by ODOT. ODOT may require project team members to possess specific licenses or certifications to demonstrate necessary expertise. An ODOT project manager—typically a Region or Statewide Planning Unit planner—can provide technical assistance with the IGA and the scope of work. ODOT has several contracts in place that can expedite consultant selection for ODOT-funded TSP processes.

Prepare Phase

This phase starts with the formulation of a community engagement and coordination plan and ends with the preparation of the TSP document. The in-between steps relate to information gathering and analysis needed to develop elements of the TSP.



Step 1: Agency/Public Engagement Plan

A key step in the development or update of a TSP is early coordination and formation of various agency advisory committees. These committees can be instrumental in supporting and guiding the technical aspects of the transportation planning process. This effort involves early coordination and development of a plan to engage the community throughout the planning process, including addressing Title VI requirements and integrating equitable engagement. This plan will define the means and methods by which Statewide Goal 1: Citizen Involvement, will be met in developing the TSP. This section provides guidance on agency coordination and development of a formal community engagement plan. In addition, cities and counties in metropolitan areas and within the Metro regional government may be required to meet additional requirements related to equity analysis. Guidance for equity analysis is also provided in this section.

Agency Coordination

Jurisdictions will need to coordinate with state, regional and local agencies to ensure participation and consistency between agencies, plans, and policies. The early planning processes should identify which agencies should be involved in the TSP, the means and methods by which they participate, and what role they may play in the adoption and/or acceptance of the TSP. The level of agency coordination will depend on the jurisdiction, the available planning project budget, and the type and scale of the planning process. Jurisdictions are encouraged to consider the scope of the project and anticipate the level of agency interest it will generate when developing an agency coordination plan. Practitioners that use the TSP daily, such as the local public works department, should be on an advisory committee. Receiving input from practitioners is critical to understanding what information is needed in the TSP and how the information is presented in the TSP. Developing a TSP that meets practitioner needs assists them to be effective and efficient in their work in achieving the community's goals.

Advisory committees are the typical medium for bringing together various representatives from agencies, departments, and interest groups from both within and outside of the jurisdiction. They can be composed of local, county, and state agency staff; local/regional public transportation providers; emergency service providers; community members and partners; and other technical and non-technical constituents that can help guide the technical and policy elements of the planning process. Most TSPs developed in recent years with funding from ODOT have included technical and non-technical advisory committees.

Shall

At a minimum, agency coordination ***shall*** include:

- An advisory committee process that follows local planning or code requirements
- Efforts to ensure participation on advisory committees from Title II, Title VI Environmental Justice (EJ), and underserved populations, as defined in OAR 660-012-0125 and locally
- Centering the voices of underserved populations at all levels of decision-making for jurisdictions within metropolitan areas

Should

In addition to the items listed above, agency coordination ***should*** include the following elements when locally appropriate and when funding allows:

- A committee to guide the technical elements of the planning process. This is often referred to as the Technical Advisory Committee.
    - Technical Advisory Committees focus on the technical analysis methodologies and results to maintain consistency between and within jurisdictions as well as maintain compliance with state and regional plans and policies, including the TPR.
    - Technical Advisory Committee members are typically identified and appointed by the city/county and include local agency staff such as planning directors, public works directors, traffic engineers, transit agency leaders, and other technical staff such as transportation analysts or modelers. Members might include representatives from ODOT, DLCD, the county, adjacent cities, the MPO (where applicable), public transportation providers, transportation options providers, emergency services providers, local public health agencies, utilities, schools, and liaisons from the planning commission or council/commission/court.
- A committee to guide the non-technical elements of the planning process. This is often referred to as a Public Advisory Committee or Project Advisory Committee.
    - These non-technical committees focus on policies and outcomes of the technical analyses and provide valuable insight into community priorities.
    - Non-technical committee members are typically identified and appointed by the city/county and include members of the public such as residents, property owners, business owners, renters, representatives from underserved populations, community-based organizations, advocacy groups, civic institutions, community centers, and senior centers. As with Technical Advisory Committees, it can also be helpful to include a liaison from the planning commission or council/commission/court.
    - Non-technical committee members may have constraints that should be accounted for when establishing the committee (e.g., physical, geographical, technological, financial, time, and childcare).
- A project-specific charter that formally identifies participant roles, responsibilities, expectations, and procedures for attending meetings and providing feedback.
- Centering the voices of underserved populations throughout the planning process for jurisdictions outside metropolitan areas.

Could

Although not typically required or critical to the development of most TSPs, agency coordination ***could*** include the following elements when locally appropriate and when funding allows:

- Combined Technical Advisory Committee/Public Advisory Committee meetings.
    - Combined committee meetings can be effective in small communities, communities with limited participation, and in cases where each group's understanding of the perspectives of the other is beneficial to achieving consensus. However, there are several challenges to combining these groups: Technical Advisory Committee members are typically available during the day while Public Advisory Committee members are typically available at night; some Technical Advisory Committee members may not be comfortable speaking openly in front of some Public Advisory Committee members on potentially sensitive issues and vice versa; and some Public Advisory Committee members may not be comfortable with the technical nature of the discussions.

Community Engagement Plan

Community engagement is a core requirement for transportation planning processes, including TSP updates. Early and continued community engagement can lend support throughout the process. Effective engagement plans can help identify important community goals and issues, develop community understanding and confidence in the planning process, and, ideally, bring about broad local support for the plan. Effective engagement can also ensure underserved populations are meaningfully involved in the planning process and have the opportunity to provide input at all stages of the decision-making process. The level and type of community engagement will depend on the jurisdiction, the available planning project budget, and the type and scale of the planning process. Jurisdictions are encouraged to consider the scope of the project and anticipate the level of public interest it will generate when developing a public involvement plan. The number of meetings, open houses, focus groups, other events, and distribution of materials can be tailored to match public interest in the project.

The community engagement effort is typically summarized in a Public Involvement Plan, which defines the means and methods by which Statewide Goal 1: Citizen Involvement, will be met in developing the TSP. Special effort should be made to involve traditionally underserved populations. Most TSP processes will also include outreach to transportation interest groups, businesses, property owners, and other interested parties.

In addition, cities and counties within metropolitan areas that update a TSP are required to include an equity analysis to more holistically integrate equity throughout the TSP and to specifically determine benefits and burdens on Title II, Title VI, Environmental

Definition of Underserved Populations

"Underserved populations" is a term defined in OAR 660-012-0125 and refers to groups of people who historically have not been involved in transportation decision-making and need to be a primary focus of community engagement efforts. The term generally covers and expands Title VI and Environmental Justice populations for impacts. As listed in the TPR, underserved populations include:

- Black and African-American people
- Indigenous people
- People of color
- Immigrants, including undocumented immigrants and refugees
- People with limited English proficiency
- People with disabilities
- People experiencing homelessness
- Low-income and low-wealth community members
- Low- and moderate-income renters and homeowners
- Single parents
- Lesbian, gay, bisexual, transgender, queer, intersex, asexual, or two-spirit community members
- Youth and seniors

Justice (EJ), and underserved populations. There are two types of equity analysis outlined in OAR 660-012-0135: a major equity analysis and an engagement-focused analysis. A summary of what's required in each is provided in the sections below.

Focused community engagement may also be required for these jurisdictions if a project in the TSP is subject to an enhanced review process based on OAR 660-012-0830 (see **Enhanced Review of Select Roadway Projects** for more information). This may be integrated into the general TSP update schedule for projects known early in the process or may be added to the update schedule after the projects are identified in **Step 5: Solution Development & Evaluation.**

Shall

The process in which the general public is engaged is flexible and should be tailored to the community.

For all agencies, the minimum community engagement efforts and the Public Involvement Plan *shall*:

- Include workshops and community meetings (in-person or virtual/online):
    - Ensure that workshops and community meetings are structured to solicit feedback from participants.
    - Include workshops and community meetings at strategic times throughout the planning process (e.g., existing conditions and future needs, transportation system solutions, financially constrained project list, draft TSP).
    - Be inclusive of Title II, Title VI, and EJ populations within the community (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).
    - Per ODOT Title VI Guidance, identify Title II, Title VI, and EJ populations early in the planning process so demographic information can inform the Public Involvement Plan.
    - The local jurisdiction will often have insight into the Title II, Title VI, and EJ populations; however, US Census data can be used to understand the different populations within the community. Census data can also be mapped to illustrate the location and concentration of Title VI and EJ populations within the community. See the Regional Equity Atlas for an example of how to map and use interactive mapping tools to identify various equity-based measures.
    - Engage existing community organizations such as local churches or advocacy groups that work with or serve Title II, Title VI, and EJ populations.
    - Partner with nonprofits and established community groups, in particular those that provide assistance to minorities (e.g., speak the language, are established community partners), to conduct outreach. See Centro Cultural for an example of a representatives organization of this type.
    - Ensure the planning process does not result in projects that have a disproportionate negative impact on Title II, Title VI, and EJ populations, such as displacing or creating barriers between them and the rest of the community.
- Include opportunities for Title II, Title VI, and EJ population input at community engagement meetings that are inclusive of key user groups within the community.

- Provide interpreters at public meetings and translated materials as required by fund source and federal safe harbors.
- Ensure the project website and public-facing materials are formatted for accessibility.

In addition to the minimum community engagement efforts listed above, agencies in metropolitan areas *shall:*

- Be inclusive and make efforts to center the voices of underserved populations within the community. Underserved populations are defined above and generally include minorities, low-income residents, people with disabilities, older adults, youth, and tribal groups.
- Complete a major equity analysis or an engagement-focused equity analysis, depending on the size of the urban area and type of update.
- Evaluate the effectiveness of the Title II, Title VI, EJ, and underserved population engagement and make changes as needed throughout the planning process.
- Include engagement-focused equity analysis of roadway projects that will be moved into the updated TSP and that will be subject to an enhanced review process based on OAR 660-012-0830 (see **Enhanced Review of Select Roadway Projects** for more information). This may be integrated into the general TSP update schedule for projects known early in the process or may be added to the update schedule after the projects are identified in **Step 5: Solution Development & Evaluation.**

Should

Although not formally required, the following community engagement efforts ***should*** be included in the community engagement process when locally appropriate and when funding allows (jurisdictions should mix and match the right types of involvement efforts for their communities):

- Virtual/Online Engagement:
    - Project websites provide a one-stop location for:
        - Project overview/schedule.
        - Latest news (project updates, meeting announcements, etc.).
        - Meetings and meeting materials (agendas, presentations, etc.).
        - Project documents (tech memos, reference materials, etc.).
        - Project team contact information.
    - Interactive project maps can be used to solicit feedback on transportation-related issues and potential solutions within the jurisdiction.
    - Virtual open houses can be used in conjunction with in-person open houses. They can and should provide participants with the same opportunities to provide feedback on meeting materials. Virtual open houses are particularly effective in larger communities where the population is dispersed over a large area (e.g., rural communities).
- Title II, Title VI, and Environmental Justice
    - Advertise upcoming meetings in locations where Title II, Title VI, and EJ populations live and work.

    - Ensure advertisements are translated appropriately or include bilingual content to indicate how people can participate.
    - Host public meetings in locations that are accessible and where Title II, Title VI, and EJ populations will feel comfortable entering and participating, such as a community space or non-governmental facility.
    - Provide interpreters at public meetings, translated materials, and simultaneous interpretation for presentations beyond what is required.
    - Evaluate the effectiveness of Title II, Title VI, and EJ population engagement and make changes as needed throughout the planning process.
- Workshops and Community Meetings
    - Identify locations for workshops and open houses that are sufficient to meet the needs of the community (e.g., centrally located, accessible on foot, by bike, and by public transportation, ADA accessible, etc.).
    - Attend meetings of community organizations to discuss the TSP and gather feedback.
    - Consider meeting people where they and tailoring outreach efforts and communication strategies to the specific needs, preferences, and contexts of the community.
- Community Engagement that targets the following groups:
    - Residents.
    - Traditionally underserved residents (e.g., minorities, low-income residents, people with disabilities, older adults, youth, etc.).
    - Transportation providers (e.g., transit operators, shuttle service providers, rideshare providers, freight operators, ports, railroads).
    - Transportation options providers (i.e., entity providing services that work to change travel behavior in order to increase transportation system efficiency).
    - Transportation interest groups (e.g., road advisory committees, traffic safety committees, bicycle and pedestrian advocates, special interest advocacy groups).
    - Community economic interests (e.g., neighborhood associations, business associations, main street coalitions, chambers of commerce, local real estate boards).
    - Local public health organizations (e.g., county health departments, regional health equity coalitions, and public health focused nonprofits).
    - Local health care organizations (e.g., hospitals, clinics, and coordinated care organizations).
    - Affordable housing organizations (e.g., community development corporations, community action agencies, social service providers).
    - State transportation and planning agencies (e.g., ODOT, Oregon Health Authority and the Oregon Department of Land Conservation and Development).
    - Other jurisdictions (e.g., MPOs, councils of governments, adjacent cities).

- Federally recognized tribes and tribal groups.
- Elected and non-elected officials (e.g., mayors, city councilors, county commissioners, planning commissioners, etc.).
- Community based organizations (i.e., non-profit entities that operate at the local level to address specific needs within a community).

Could

Although not typically required or critical to the development of most TSPs, community engagement efforts ***could*** include these additional tools when locally appropriate and when funding allows (jurisdictions should mix and match the right types of involvement efforts for their communities):

- Design Charrettes
  - Though not a common part of the TSP community engagement process, a design charrette could be used as a valuable inclusionary feedback tool when dealing with complex transportation or land use issues.
- Virtual/Online Engagement
  - Livestream community or committee meetings and presentations.
  - Use online polling that allows participants to vote on an issue by sending a text message or electronic comments. The results can be updated in real time and displayed in a presentation.
- Workshops and Community Meetings
  - Provide supervised activities for children so parents can focus on the open house.
  - Include refreshments.
- Transportation ambassadors
  - Recruit volunteers to help spread the word about transportation resources and programs through community events, and outreach. Ambassadors can take the lead on developing and implementing culturally relevant engagement activities in communities they are part of or connected with. The City of Portland and Beaverton are examples of communities which have implemented these programs.
- Incentives
  - Provide incentives or stipends for focus group or advisory committee participation. One of the most significant barriers to community participation and feedback is unpaid time for participation in an activity.

Community Engagement Considerations/Best Practices

Workshops, community meetings, and online engagement invite the general public to participate in the planning process. They provide people with opportunities to learn about the TSP, ask questions, review project materials and progress to date, and provide feedback. Turnout at in-person workshops and community meetings can vary; however, they continue to play an important role in many community engagement efforts. This is due, in part, to the importance of providing participants with the opportunity to meet face-to-face with project planners, local staff, and other key project leaders. Virtual and online engagement is a widely accepted and expected form of engagement that

accommodates busy families, social media–focused generations, and those who are uncomfortable providing input in a public setting.

Many practices and approaches are common to all community engagement efforts. The following list of best practices should be considered when engaging in workshops/community meetings, community engagement activities, and charrettes.

Workshops and Community Meetings

- Advertise workshops and community meetings two or more weeks in advance so people can plan to attend. Effective advertising methods include:
    - Placing ads on social media and in local newsletters or newspapers
    - Creating posters to hang in civic buildings, local businesses, and on community bulletin boards
    - Creating flyers to pass out at local events
    - Creating display boards and putting them in vacant storefronts
    - Sending emails to project or community list-serves
    - Using social media to advertise meetings and engagement opportunities
    - Interviews or ads on local radio stations popular among specific communities
- Identify locations for workshops and community meetings that meet the needs of the community. Effective workshop locations used in practice include:
    - Locations where people feel comfortable (e.g., churches, senior centers, schools, banquet facilities)
    - Well-lit and visible locations with adequate accessibility per the Americans with Disabilities Act
    - Popular locations (e.g., parks, high school football games)
    - Booths at local farmers markets, street fairs, or other events
- Select workshops and community meeting locations away from government buildings to attract populations that are sensitive or suspicious of government programs and regulations. Consider partnering with local organizations to host public events in tandem with established meetings of local groups/committees.
- Ensure that workshops and community meetings are structured to solicit feedback from participants. Effective meeting structures used in practice include:
    - Providing a rolling PowerPoint presentation that people can watch independently to get acclimated to the project
    - Creating stations that focus on different travel modes or elements of the TSP
    - Providing participants with specific direction on the type of feedback you are looking for both prior to and at the meeting
    - Providing appropriate staff to answer questions and provide clarification
    - Encouraging dialogue and discussion with staff

- Providing opportunities for people to give feedback on maps, flip charts, comments cards, and other media
- Incorporating a survey
- Providing a place for people to sit down and fill out comment cards

Community Engagement

- Define goals and objectives for community engagement that are agreed upon ahead of time and communicated throughout the planning process.
- Develop evaluation criteria to determine community engagement effectiveness and make changes as needed throughout the update.
- Develop procedures and strategies for community engagement and periodically review their effectiveness to ensure a full and open participation process.
- Community engagement meetings should occur at strategic times throughout the planning process (e.g., existing conditions and future needs, alternative development and screening, financially constrained project list, draft TSP).
- Report back final engagement results and outcomes to interested parties

Charrettes

- Charrettes should include a facilitator that leads and coordinates the work of the group
- When possible, charrettes should be hands-on events where participants are encouraged to provide input on a variety of materials
- Materials should be displayed so they are visible to the entire group. As work progresses, so should the displays, so people can visualize things moving forward
- Prepare a schedule for the charrette and communicate it to all participants in advance
- Prepare a timeline for each day of the charrette that identifies how much time will be spent on each activity
- Separate participants into multiple groups to address different issues or aspects of an issue
- Encourage participants to focus on one area throughout the charrette
- Have breakout sessions where participants discuss the issue or aspects of an issue, develop solutions, and report back to the larger group
- Ensure that a professional planner, engineer, and community engagement specialist leads the breakout sessions to help people understand potential trade-offs

Resources

Woodburn TSP open house poster (bilingual)
Woodburn TSP open house handout (bilingual)
EPA's Environmental Justice Screening and Mapping Tool (Version 2.2)

Equity Analysis

Project members will need to be familiar with the community's demographic characteristics to ensure strong community engagement during the course of the planning project. The demographics of the planning area and the types of communities within the planning area may indicate local transportation-related needs. In particular, long-range planning projects must emphasize centering voices of underserved populations to ensure that planned systems benefit these community members and do not disproportionately impact them.

Specifically, jurisdictions should reflect the following in the new or updated TSP planning goals and objectives:

- Transportation-related objectives and outcomes from past planning studies and adopted plans (e.g., downtown plans, hazard mitigation plans, hospital or health department community health assessments and improvement plans, consolidated housing and community development plans, health impact assessments, Americans with Disabilities Act transition plans, access management plans, corridor studies, special transportation area plans, etc.)
- Regional priorities, performance measures and targets (e.g., safety, mobility, single-occupancy vehicle trip reduction, air quality) especially in MPO areas as articulated in the Regional TSP
- Consistency with the goals, objectives, and operational and service standards of other transportation service providers managing facilities and servicing the community (e.g., ODOT, the county, transit providers)
- Alignment with new federal, state, and MPO policies
- New transportation-related policy objectives, modeling, management, and design techniques and approaches that were not prevalent or known during the last TSP planning process. These policies could reflect new trends (e.g., bicycle tourism, sea level changes, etc.) and/or current best practices within one or more modes

Cities and counties within a metropolitan area that update a TSP are required to include an equity analysis to determine benefits and burdens on Title II, Title VI, EJ, and underserved populations. There are two types of equity analysis: a major equity analysis and an engagement-focused analysis. A summary of what's required in each is provided below.

Analysis Type	Major Equity Analysis	Engagement-Focused Analysis
When Required	For communities over 5,000 when completing a major TSP update.	• For communities under 5,000 when completing a major TSP update. • For any size community completing a minor TSP update, designating a climate-friendly area, or authorizing a selected roadway project.

Analysis Requirements	• Assess, document, acknowledge, and address:
	  o Where current and past land use, transportation, and housing policies and effects of climate change have harmed or are likely to harm underserved populations.
	  o Where current and past racism in land use, transportation, and housing has harmed or is likely to harm underserved populations.
	• Identify geographic areas with significantly disproportionate concentrations of underserved populations.
	• Develop or review existing performance measures for key community outcomes.
	• Address all information required for an engagement-focused equity analysis.
		• Engage with members of underserved populations to develop key community outcomes.
		• Gather, collect, and value qualitative and quantitative information from the community on how proposed change benefits or burdens underserved populations.
		• Recognize where and how intersectional discrimination compounds disadvantages.
		• Analyze proposed changes for impacts and alignment with desired key community outcomes and performance measures.

Step 2: Goals, Objectives & Performance Tracking

One of the initial steps in the development of a TSP is to identify and validate the goals and objectives that support the community's desires and vision for the existing and future transportation system. The following information expands upon the importance of goals and objectives in the planning process and provides guidance on their development. The guidance concludes with various samples that can serve as starting points for future TSPs. In addition, cities and counties in metropolitan areas and Metro are required to meet additional requirements related to performance tracking and setting performance standards, which are discussed in this section.

Why Establish Goals and Objectives

A jurisdiction's approach to defining and addressing transportation system needs through planning should align with community priorities, which are usually expressed in transportation goals and objectives. Goals provide direction for where a community would like to go; objectives provide more detail on how to achieve the goal or desired specific outcomes related to the goal. TSP goals and objectives provide a framework for shaping transportation policies and are the basis for performance measures and targets. Using goals and objectives as a framework helps define gaps and deficiencies as well as evaluation criteria to determine which transportation projects, programs, pilot projects, and refinement studies best meet community needs.

Goals and objectives should:

- Articulate community transportation priorities
- Define how the transportation system should ideally function
- Form the basis for developing criteria to evaluate and select preferred infrastructure improvements
- Be the basis for comprehensive plan transportation policy statements

Plan Objectives Versus. Plan Policies

Cities and counties must adopt a local TSP as part of their comprehensive plans, often as a technical appendix. This requires a comprehensive plan amendment concurrent with TSP adoption that either replaces the transportation element of the comprehensive plan entirely or that amends the comprehensive plan text to be consistent with the updated TSP. As discussed, the plan goals and objectives guide the development or update of a TSP.

Toward the end of the planning process, when jurisdictions identify solutions are identified (projects, programs, policies, pilot projects, and studies), policy statements should be developed to help implement plan recommendations. These policy statements are the jurisdiction's comprehensive plan transportation goal policies and will help guide future actions, including land use decisions. Little modification will be needed to implement transportation system planTSP (project) objectives that are formatted and phrased in a way that is consistent with other adopted comprehensive plan policies and that have bearing on future decisions. TSP objectives that are more specific to the planning process, rather than future decision-making, may need to be modified to have utility beyond plan adoption.

Specifically, jurisdictions should consider the following in the new or updated TSP planning goals and objectives:

- Transportation-related objectives and outcomes from past planning studies and adopted plans. These include downtown plans, hazard mitigation plans, hospital or health department community health assessments and improvement plans, consolidated housing and community development plans, health impact assessments, Americans with Disabilities Act transition plans, access management plans, corridor studies, and special transportation area plans.

- Regional priorities, performance measures, and targets (e.g., safety, reduction in household-based VMT per capita, transit service, mobility, level of traffic stress, and equity), especially in metropolitan areas as described in the regional TSP.
- The goals, objectives, and operational and service standards of other transportation service providers that manage facilities and provide service to the community (e.g., ODOT, the county, transit providers).
- Federal, state, and MPO policies.
- New transportation-related policy objectives, modeling, management, and design techniques and approaches that were not prevalent or known during the last TSP planning process. These policies could reflect current trends (e.g., bicycle tourism, micromobility) and/or current best practices within one or more modes.

How to Establish Goals and Objectives

Based on input from the community, jurisdiction staff formulate and articulate project goals and objectives at the start of a TSP project. Those who participate in this process—in particular, advisory committee members—further refine goals and objectives as one of the initial tasks of the planning process. The goals should reflect the character and vision of the community and be consistent with other comprehensive plan objectives as well as the TPR and regional, state, and federal plans and policies. OAR 660-012-0135 requires a city or county in a metropolitan area to engage with members of underserved populations, as identified in OAR 660-012-0125, to develop key community outcomes as part of the development of goals and objectives.

This section provides guidance on how to develop or update goals and objectives organized under broad topic areas.

Comprehensive Plan Policies and the TSP

Most jurisdictions will have transportation goals and policies in the adopted comprehensive plan. Jurisdictions with adopted and acknowledged TSPs will likely have existing goals and objectives that guided the previous planning process. The comprehensive plan goals and policies may or may not be identical or similar to TSPs goals and objectives, depending on when each document was last updated and the extent to which the contents reflect the other.

When assessing the current relevance of existing goals, objectives, and policies, jurisdictions will need to look beyond the existing statements in the adopted TSP. Also relevant are local comprehensive plan policies that articulate current community conditions, aspirations, and priorities as they relate to the transportation system. Note that the review of the comprehensive plan is not limited to transportation policies alone and should include an assessment of goal and policy statements that affect the transportation system, including those that address housing, resilience, economic development, urbanization, public health, equity, broadband connectivity, and climate. Jurisdictions should identify adopted policies relevant to the planning process, explain how they might ultimately influence recommendations in the new or updated TSP, and document those that may need to be revised to be consistent with the new plan. See **Step 3: Existing Conditions.**

To help cities and counties get started on formulating goals and objectives, ODOT has identified 10 topic areas that describe the state's vision for the transportation system:

- Communication, Collaboration, and Coordination
- Safety and Security
- Health
- Mobility

- Accessibility and Connectivity
- Equity
- Community and Economic Vitality
- Environmental Sustainability
- Strategic Investment
- Land Use

These topic areas and how they relate to statewide modal and topic plans can be better understood by using OR-Plan. This online tool is an easy way to find policies and strategies related to specific issues, modes, or plans. Whether creating, updating, or replacing existing goals and objectives, the topic areas are a good starting point. Sample goals and objectives are provided below under "Resources" below to ensure that the topic areas, methodologies, and approaches for the planning process are documented and can serve as a solid basis for evaluation criteria.

For jurisdictions that have an adopted TSP, there are two approaches to creating updated goals and objectives: (1) update and modify or (2) replace. Either approach entails a review of existing goals and objectives to assess how well they reflect the reasons for undertaking the planning project, including up-to-date community priorities and new approaches to transportation planning. This review should consider adopted comprehensive plan policies; current community objectives; new transportation-related policy objectives; and modeling, management, and design techniques and approaches that were not prevalent or known during the last TSP process. A full update works well for agencies completing their first equitable engagement process on the TSP.

The update and modify works best when the following is true:

- The TSP is relatively up to date (less than 10 years old)
- The goals and objectives already reflect integrated multimodal planning (i.e., the goals are organized by topic area, not by mode)
- Community circumstances (e.g., UGB, city limits, and population) have not changed drastically since plan adoption, and the existing goals and objectives generally reflect the community vision and expectations for the transportation system
- For TSPs within metropolitan areas, if the previous process to develop goals and objectives centered on voices of underserved populations, as required by the TPR

Topic Areas and Goal Statements

Sample goals in the TSP Guidelines illuminate general topic areas and can serve as umbrella statements under which objectives for multiple aspects of the transportation system can be placed. ODOT-recommended topic areas will resonate in different ways for a community based on existing circumstances, areas of local concern, and demographic make-up.

In developing goal statements, jurisdictions can combine topic areas in different ways (e.g., "Accessibility and Connectivity," "Safety and Mobility," or "Mobility and Connectivity") or broken out and/or renamed to highlight a specific community focus (e.g., Environment, Livability) to better articulate community interests. Similarly, tailoring the associated goals and objectives is a necessary part of the TSP planning process to ensure that this language faithfully reflects the community and is a legitimate basis for evaluation criteria.

Resources

Sample Goals and Objectives

Evaluation Criteria

Developing evaluation criteria is part of the goal-setting phase of a TSP process. TSP goals and objectives are the basis for the evaluation framework, which jurisdictions use to assess and compare the suitability of transportation system alternatives and to prioritize projects, programs, policies, pilot projects, and/or refinement studies to address the community's identified transportation needs. Evaluation criteria may be somewhat general and subjective, like goal statements or objectives, or they may be more specific and quantitative in anticipation of evaluating the performance of different transportation system solutions. For metropolitan areas, the evaluation criteria must incorporate the prioritization factors included in OAR 660-012-0155, -0520, -0620, -0720, and -0820 as discussed further below.

The TSP Guidelines provide a Sample Evaluation Matrix with examples of evaluation criteria that correspond with the Sample Goals and Objectives. Also included is draft introduction language explaining the evaluation process and the mechanics of project selection and prioritization. The Sample Evaluation Matrix lists example evaluation criteria; depending on the method selected, jurisdictions can develop and apply different scoring approaches.

Using a qualitative approach, criteria are not weighted. Instead, the ratings will be used to inform discussions about the benefits and trade-offs of each alternative. Using a quantitative approach (a point-based technical rating system where scoring depends on how well proposed projects meet the criteria), criteria can be weighted (if desired) and the evaluation score can be summed to compare alternatives. In either approach, there may be quantitative evaluation criteria (such as volume-to-capacity ratio, bicycle level-of-traffic stress, predicted crash rate, or percentage of completed sidewalks). In these cases, a jurisdiction can assess how a project is helping the agency achieve or move toward desired performance levels.

When to Use Evaluation Criteria Throughout a TSP Update

The following table highlights when goals, objectives, and evaluation criteria are integrated into the TSP update process.

TSP Guideline Step	Goals and Objectives, and Evaluation Criteria
Definition	Goals: Describe what the community is trying to achieve through implementation of the TSP. Objectives: Describe specific outcomes the agency would like to achieve. Use evaluation criteria to compare alternatives and select and prioritize projects.
Scope Phase	Plan to integrate the goals, objectives, and evaluation criteria throughout the TSP update process to the extent possible.
Prepare Phase, Step 2: Goals, Objectives, and Performance Tracking	Consider existing plans and policies when updating the goals and objectives for the TSP and developing evaluation criteria.
Prepare Phase, Step 3: Existing Conditions Prepare Phase, Step 4: Future Conditions	Consider the goals, objectives, and evaluation criteria when evaluating existing and future conditions.

TSP Guideline Step	Goals and Objectives, and Evaluation Criteria
Prepare Phase, Step 5: Solution Development & Evaluation	Consider the goals, objectives, and evaluation criteria to identify preferred solutions.
Prepare Phase, Step 6: Funding Program	Prioritize projects based on how well they meet the goals, objectives, and evaluation criteria.
Prepare Phase, Step 7: TSP Documentation	Document the goals, objectives, and evaluation criteria in the TSP – the goals and objectives may also be used to update transportation policies.
Adopt Phase	Adopt the goals, objectives, and evaluation as part of the TSP update.
Implement Phase (Monitoring)	Cities and counties in non-metropolitan areas are not required to monitor progress toward meetings goals and objectives.

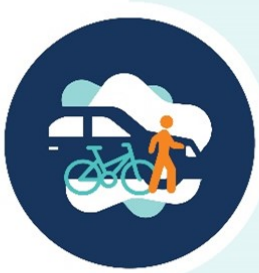
For information on when performance measures and evaluation criteria are used in metropolitan area TSPs, see "Performance-Based Approach to TSP Metrics" below.

Prioritization Framework for Metropolitan Areas

The TPR provides a framework for decision-making regarding the selection of transportation facilities and services that impacts the types of solutions that are applied systemwide and in different areas. It then provides guidance on how to prioritize projects by mode.

One approach is considering the prioritization factors in OAR-660-012-0155 during the solution development phase of the TSP. Then, apply the mode-specific prioritization factors from OAR-660-012-0520, -0620, -0720, and -0820 to prioritize the projects in each modal plan. Next, develop the unconstrained project list by combining the mode specific prioritized lists and prioritizing projects that reduce vehicle miles traveled, reduce burdens on underserved populations, and help achieve the OAR-660-012-0910 performance targets per OAR-660-012-0170.

Note: Jurisdictions are not required to implement projects in the prioritized order; however, cities and counties in metropolitan areas, Metro, and the state may only develop, fund, and construct projects on the financially constrained project list unless the project is required as a condition of land development, a property owner is providing financial or material contributions to the project, and the project would not be subject to the enhanced review process (OAR-660-012-0830).



STEP 1: Solution Development Phase

Apply a decision making framework for prioritization of transportation facilities and services to increase safety, access, equity, the economy, and meet greenhouse gas reduction targets per OAR 660-012-0155.

Consider facility classifications, planned land use context, expected primary users, and local values per rule 0120.

Apply the decision-making framework to the system as a whole and in specific areas such as climate-friendly areas, areas with concentrations of underserved populations, industrial areas, and near schools or other areas with expected concentrations of children, older people, or people with disabilities.

STEP 2: Mode Specific Prioritized Projects

Develop mode specific prioritization factors for prioritizing projects within each modal plan per OAR 660-012-0520, -0620, -0720, and -0820. Engage underserved populations per rule 0130 and be consistent with the prioritization factors in rule 0155. Use these to develop a prioritized list of projects for each mode.

STEP 3: Unconstrained Project List

Develop a method for combining the unconstrained prioritized modal project lists. Emphasize the following requirements:

- Reduce vehicle miles traveled
- Burden underserved populations less than and benefit them more than the city or county population as a whole
- Help achieve the rule 0910 performance targets

STEP 4: Financially-Constrained Project List

Develop a financially-constrained project list based on 125% of projected available funding and including the top available projects from the unconstrained project list. The resulting list must:

- Burden underserved populations less than the city or county population as a whole and benefit underserved populations as much as or more than the city or county population as a whole;
- Make significant progress toward meeting the rule 0910 performance targets; and
- Reduce vehicle miles traveled per capita per rule 0160 if the list includes capacity expanding projects that require enhanced review per rule 0830.

Step 1: Solution Development Phase

OAR 660-012-0155 requires cities and counties within metropolitan areas, Metro, and state agencies to consider facility classifications, planned land use context, expected primary users, local values per OAR-660-012-0120, and the following factors a when prioritizing transportation facilities and services.

Prioritization Factors: OAR 660-012-0155(3)

- Meeting greenhouse gas reduction targets
- Improving equitable outcomes for underserved populations
- Improving safety, particularly reducing or eliminating fatal and serious injuries
- Improving access for people with disabilities
- Improving access to key destinations
- Completing the multimodal transportation network (filling gaps, making connections)
- Supporting the economies of the community, region, and state
- Other local factors

Area Specific Prioritization Factors: OAR 660-012-0155(5,6)

- Within climate-friendly areas
    - Agencies shall prioritize pedestrian, bicycle, and public transportation facilities and services and ensure planned facilities are safe, low stress, and comfortable for people of all ages and abilities
- In areas with concentrations of underserved populations
    - Agencies shall prioritize projects addressing historic and current marginalization and work to rectify previous harms and prevent future harms from occurring
- In industrial areas, along routes accessing key freight terminals, and other areas where accommodations for freight are needed
    - Agencies must consider the needs of freight users. Pedestrian, bicycle, and public transportation system connections must be provided in industrial areas at a level that provides safe access for workers
- In areas near schools or areas with expected concentrations of children, older people, or people with disabilities
    - Agencies must prioritize safe, protected, and continuous pedestrian and bicycle networks connecting to key destinations, including transit stops

Step 2: Mode-Specific Prioritized Projects

OAR 660-012-0520, -0620, -0720, and -0820 provide mode-specific prioritization factors and guidance for prioritizing projects within each modal plan. Cities and counties shall engage underserved populations when refining the mode specific prioritization factors per OAR-660-012-0130. The mode specific prioritization factors shall also be consistent with the applicable OAR-660-012-0155 factors for each mode. These shall be used to develop a prioritized list of projects for each mode.

Pedestrian System Prioritization Factors: OAR 660-012-0520

When prioritizing pedestrian system projects systemwide, higher prioritization shall be given to projects that:

- Are located in climate-friendly areas
- Are located in areas with concentrations of underserved populations
- Are located in areas with safety risk factors such as roadways with high speeds and high traffic volumes
- Are located in areas with reported crashes involving serious injuries and deaths to people walking and/or people riding bicycles
- Provide access to key destinations identified as provided in OAR 660-012-0360
- Connect to, fill gaps in, and expand the existing system networks
- Implement, where applicable, the adopted regional scenario plan developed to address OAR 660-044 greenhouse gas reduction targets

Bicycle System Prioritization Factors: OAR 660-012-0620

When prioritizing bicycle system projects systemwide, higher prioritization shall be given to projects that:

- Are located in climate-friendly areas
- Are located in areas with concentrations of underserved populations
- Are located in areas with safety risk factors such as roadways with high speeds and high traffic volumes
- Are located in areas with reported crashes involving serious injuries and deaths to people walking and/or people riding bicycles
- Provide access to key destinations identified as provided in OAR 660-012-0360
- Connect to, fill gaps in, and expand the existing system networks
- Implement, where applicable, the adopted regional scenario plan developed to address OAR 660-044 greenhouse gas reduction targets

Transit System Prioritization Factors: OAR 660-012-0720

When prioritizing transit system projects, higher prioritization shall be given to projects that:

- Are located in climate-friendly areas
- Are located in areas with concentrations of underserved populations
- Provide access to key destinations identified as provided in OAR 660-012-0360
- Connect to, fill gaps in, or expand the existing public transportation network
- Implement, where applicable, the adopted regional scenario plan developed to address OAR 660-044 greenhouse gas reduction targets

Street and Highway System Prioritization Factors: OAR 660-012-0820

When prioritizing street and highway system projects, higher prioritization shall be given to projects that:

- Reallocate right-of-way from facilities dedicated to moving motor vehicles to those for use by the pedestrian, bicycle, and public transportation systems, particularly in climate-friendly areas, areas with concentrations of underserved populations, and areas with reported crashes involving serious injuries and deaths
- Fill gaps in the existing street network
- Implement, where applicable, the adopted regional scenario plan developed to address OAR 660-044 greenhouse gas reduction targets or help meet the targets per rule OAR 660-012-0910.

Step 3: Unconstrained Project List

OAR 660-012-0170 requires cities and counties to develop a method for prioritizing projects on the unconstrained project list. Projects can be ranked individually or in tiers from the mode-specific prioritized project lists. Cities and counties must emphasize the following requirements when developing a method of prioritizing projects on the unconstrained project list:

- The project will help reduce VMT
- The project burdens underserved populations less than and benefits underserved populations as much as the city or county population as a whole
- The project will help achieve the OAR 660-012-0910 performance targets

Step 4: Financially Constrained Project List

OAR 660-012-0180 requires cities and counties to include a financially constrained project list in their TSP that is consistent with projected funding per OAR 660-012-0115 and includes the top available projects from the unconstrained project list (see the previous Step 3). This list may include projects that add up to no more than 125% of the projected available funding. The project list and funding shall include projects and funding identified in the plans of partner jurisdictions and transit service providers and may include programmatic funds for programs, such as transportation options, safety, safe routes to school, complete streets, etc. The resulting financially constrained project list must:

- Burden underserved populations less than the city or county population as a whole and benefit underserved populations as much as or more than the city or county population as a whole
- Make significant progress toward meeting the OAR 660-012-0910 performance targets
- Reduce VMT per capita per OAR 660-012-0160 if the list includes capacity expanding projects that require enhanced review per OAR 660-012-0830

If the list of projects cannot meet these criteria, the city or county must adjust the project list to the highest-ranking set of projects that can meet the criteria.

Resources

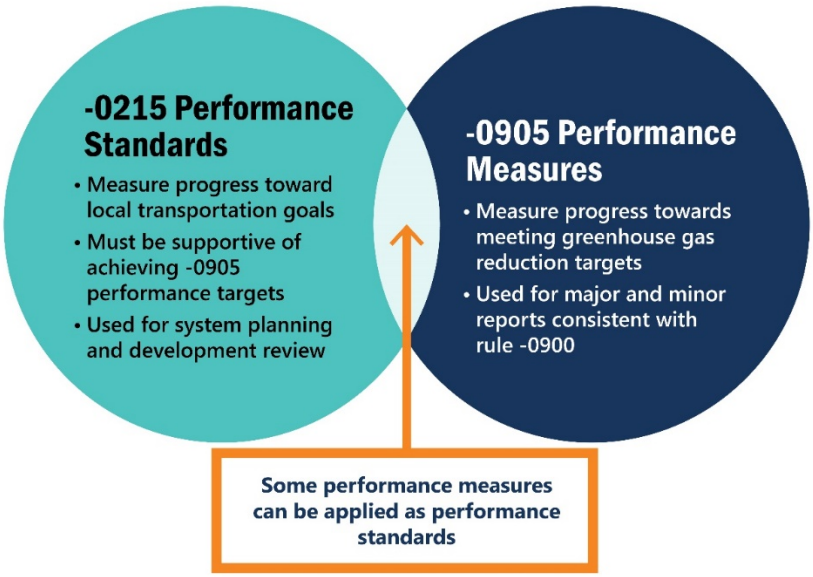
Implementation Tip: Scoring Examples
Sample Evaluation Matrix

Performance-Based Approach to TSP Metrics

Please note: Only cities and counties in metropolitan areas and Metro are required to follow this performance-based approach during the TSP process. "Metropolitan area" means the local governments that are responsible for adopting local or regional transportation system plans within a MPO boundary. This includes cities, counties, and, in the Portland metropolitan area, Metro.

Recent changes to the TPR (OAR 660-012) emphasize and require a performance-based approach to TSP development in metropolitan areas. This includes:

- Inclusion of performance **measures and targets** that support greenhouse gas reduction performance measures and targets established either through regional scenario planning or the process outlined in OAR 660-012-0905, if available, otherwise, supporting the performance measures in OAR 660-012-0905 and identifying targets. Cities and counties in metropolitan areas and Metro must report progress toward achieving the performance targets per OAR 660-012-0900, -0905, and -0910. Metro is responsible for completing the annual reporting for all local jurisdictions within Metro; cities and counties within Metro shall coordinate with Metro on reporting.
- Identifying and applying **local performance measures and/or evaluation criteria** based on the jurisdiction's goals and objectives to identify needs, evaluate alternatives, and develop TSP modal plans. These will support the selection of performance standards for OAR 660-012-0215.
- **Adopting at least two local performance standards** per OAR 660-012-0215 to apply to subsequent comprehensive plan amendments (including TSP updates) and land use decisions (measures applied for site development may be different). These must support achieving the performance targets from either an approved regional greenhouse gas reduction scenario plan, if existing, or those adopted consistent with OAR 660-012-0905. There may be overlap in OAR 660-012-0215 performance standards and OAR 660-012-0905 reporting performance measures.
- Prioritizing facilities and projects using a framework that incorporates **prioritization factors** established in the TPR and considers local **evaluation criteria per** OAR 660-012-0155, -0520, -0620, -0720, and -0820.



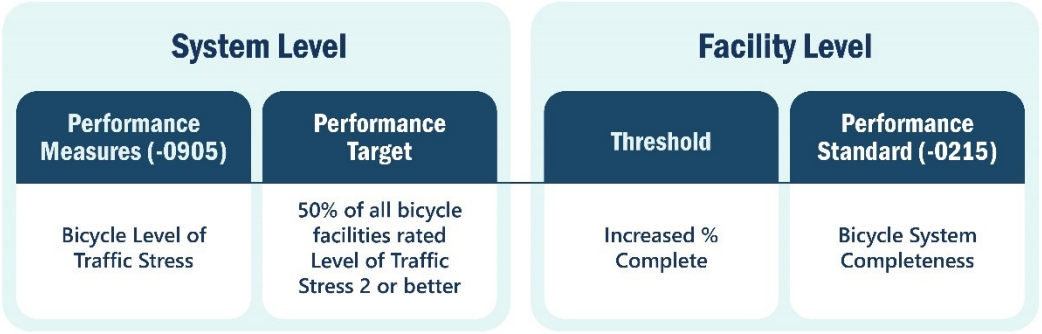
Definitions

Although these terms may be used differently in other contexts, the following table provides their definitions and uses for implementing the TPR in metropolitan area TSPs.

Term	Definition	Considerations for Local Agencies
Performance Measures (rule 0905)	Indicators used to assess the performance of the transportation system and demonstrate progress toward meeting OAR 660-044 greenhouse gas reduction performance targets.	Jurisdictions in a metropolitan area are required to report progress on performance measures from an approved regional scenario plan or from the list outlined in OAR 660-012-0905.[1] The required performance measures can be supplemented with local evaluation criteria and local performance measures based on TSP goals and objectives to inform development of the TSP.
Performance Targets (rule 0910)	Future year targets set for performance measures to be used in major reports to demonstrate progress toward meeting the region's greenhouse gas reduction target. They include an established baseline and benchmarks for performance of the planned system to track progress over time.	If not using performance measures and targets included in an approved regional scenario plan, performance targets must be set by local agencies for the required rule 0905(2) performance measures at levels that are reasonably likely to achieve the regional greenhouse gas reduction target.
Performance Standards (rule 0215)	Performance standards are adopted by a city or county during development of a TSP and include a threshold to determine whether the measured, estimated, or projected transportation facility performance meets the performance standard. Performance standards may vary by facility and are used by cities and counties to review comprehensive plan and land use regulation amendments consistent with rule 0060. The same standards are typically used to review land development applications consistent with the local development code but are not required to be the same.	Cities and counties within metropolitan areas must adopt at least two performance standards per rule 0215. At least one must support increasing transportation options and avoiding principal reliance on the automobile. Performance standards are selected by the local government but must be supportive of achieving the performance targets required by rule 0910.

Term	Definition	Considerations for Local Agencies
Thresholds	Numerical value set for each performance standard to determine if the performance standard is met.	Thresholds can be set for different facility types, locations, or other factors. Thresholds shall be set at the end of the planning period, time of development, or another time.
Evaluation Criteria	Used to compare and select alternatives.	Selected by local agencies based on TSP goals and objectives.
Prioritization Factors	Criteria specified in the TPR used for prioritizing facilities and services by mode, in specific areas, and systemwide (rules 0155, 0520, 0620, 0720, and 0820)	Within metropolitan areas, cities and counties must prioritize specific types of facilities to improve access, equity, and safety, among other factors. These can be supplemented with local prioritization factors.

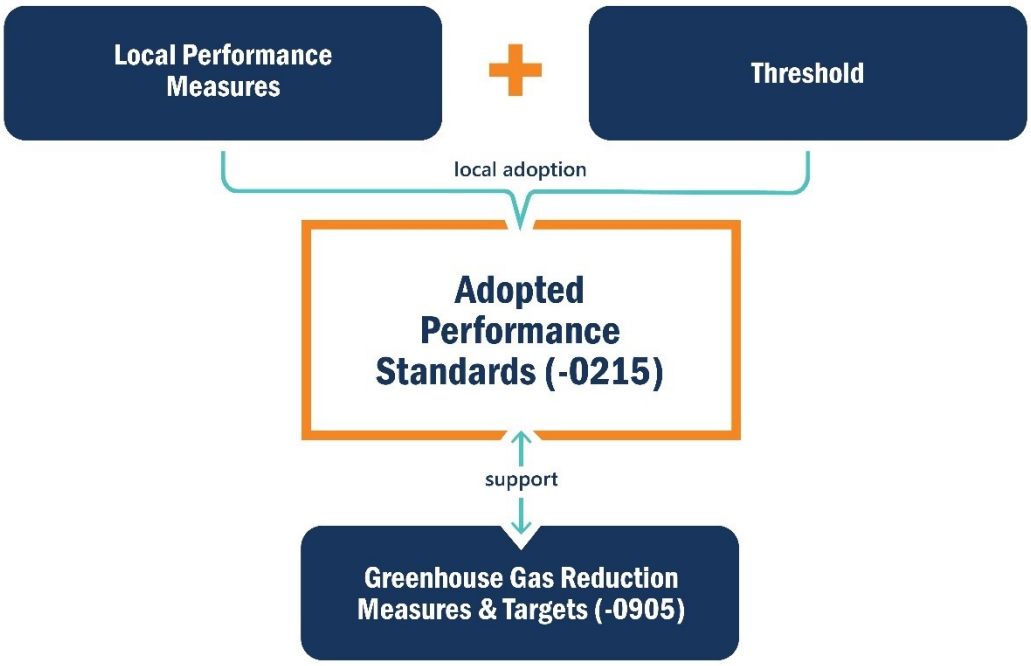
[1] Within Metro, Metro is responsible for completing the annual reporting, the cities and counties within Metro shall coordinate with Metro on the reporting.



When are the different tools or strategies used during TSP development?

The tools (measures, targets and standards) described above are used in different ways throughout the TSP update process. The table below summarizes when each is used throughout the TSP development steps

TSP Guideline Step	How the Tools are Used
Scope Phase	Plan to integrate the performance measures and targets required by rule 0905 throughout the TSP update process (see rule 0905 for Performance Measures that are relevant to the TSP).
Step 2: Goals, Objectives, and Performance Tracking	Consider how the performance measures and targets (-0905), performance standards (-0215) and project prioritization factors (-0155) can work together to support the community's vision and strengthen TSP outcomes. While a direct connection is not required, the performance standards must generally support the performance targets required by rule 0905. Consider the options included in the ODOT *Analysis Procedures Manual* (see Selecting Performance Standards).
Step 3: Existing Conditions **Step 4: Future Conditions**	Assess performance and progress toward rule 0905 performance targets and TSP goals. Identify potential thresholds for rule 0215 performance standards. Use the rule 905 performance targets and potential rule 0215 performance standards to identify system needs.
Step 5: Solution Development & Evaluation **Step 6: Funding Program**	Consider the potential rule 0215 performance standards that will be adopted with the TSP and rule 0155 prioritization factors to identify solutions, develop modal plans, and evaluate performance of the planned system. Complete these steps incorporating local values per rule 0120. Prioritize projects by mode consistent with rules 0520, 0620, 0720, and 0820 and engaging underserved populations per rule 0130. Develop a combined prioritized project list per rule 0170 that emphasizes reducing VMT, reducing burdens on underserved populations, and that helps achieve rule 0910 targets.
Step 7: TSP Documentation & Adopt Phase	Document and adopt (via the TSP and implementing ordinances) the two or more rule 0215 performance standards that will be applied when reviewing comprehensive plan and land use regulation amendments and may be applied (the same measures or related measures) when reviewing site development applications. Document and adopt the local government baseline and future reporting year targets for rule 0905 performance measures into the TSP. Initial targets will be established outside of the TSP and through a separate regional process.
Implement Phase (Monitoring)	Report on progress toward achieving rule 0905(2) performance targets. While reporting does not need to occur with a TSP update, data and analysis produced during the TSP process may support reporting. The performance measures and targets must be adopted in the TSP.



Performance Measures for Reporting

Please note: Only cities and counties in metropolitan areas and Metro are required to complete the annual reporting as described below. Metro is responsible for completing the annual reporting within Metro, the cities and counties within Metro shall coordinate with Metro on the reporting.

For cities and counties in metropolitan areas and Metro, OAR 660-012-0900 requires annual reporting on progress toward meeting OAR Division 12 and Division 44 requirements. The performance measures that are reported will depend on whether an agency has a land use and transportation scenario approved by the Oregon Transportation Commission as provided in OAR 660-044-0050 or OAR 660-044-0120. MPOs required to establish an approved land use and transportation scenario are Metro, Salem-Keizer (SKATS), and Eugene-Springfield (LCOG).

In most years, cities, counties, and Metro are required to submit a minor report including a short set of updates as provided in OAR 660-012-0900(6).

A major report is due in years MPOs adopt a Regional Transportation Plan, typically every four or five years. The major report is required to include an assessment of the performance measures and targets. See Performance Standards for more information about requirements for performance standards and how standards, measures, targets, and evaluation criteria work together in the TSP development process.

Cities and Counties with an Approved Land Use and Transportation Scenario, and Metro

Please note: The only cities and counties required to establish an approved land use and transportation scenario are within Metro, Salem-Keizer, and Eugene-Springfield.

OAR 660-012-0905 provides the performance measure requirements for the required major report. For cities, counties, and Metro that have an approved land use and transportation scenario, performance measures for reporting shall

include those identified in the approved regional scenario plan according to OAR 660-044-0110. The performance measures evaluate community outcomes that were developed through engagement with members of underserved communities consistent with OAR 660-044-0110 engagement requirements. The OAR 660-044 engagement requirements provide an equity lens that should be consistent with OAR 660-012-0135 requirements for an engagement-focused equity outcomes analysis. As provided in OAR 660-012-0135, the performance measures set in the scenario plan should be evaluated for alignment with key community outcomes developed through engagement with members of underserved populations, as identified in OAR 660-012-0125.

Per OAR 660-012-0910, cities, counties, and Metro shall set performance targets in their TSP for each reporting year for each performance measure. Performance targets for the performance measures must be set at levels that are reasonably likely to achieve the metropolitan area greenhouse gas reduction target from an approved land use and transportation scenario plan.

Cities and Counties Without an Approved Land Use and Transportation Scenario

OAR 660-012-0905 provides the performance measure requirements for the required major report. For cities and counties without an approved land use and transportation scenario, performance measures for reporting shall include all of the following measures at a minimum:

Compact Mixed-Use Development Measures

- Number of publicly supported affordable housing units in climate-friendly areas
- Number of existing and permitted dwelling units in climate-friendly areas and percentage of existing and permitted dwelling units in climate-friendly areas relative to the total number of existing and permitted dwelling units in the jurisdiction
- Share of retail and service jobs in climate-friendly areas relative to retail and service jobs in the jurisdiction

Active Transportation Measures

- Percent of collector and arterials streets in climate-friendly areas and underserved population neighborhoods with bicycle and pedestrian facilities that are rated with a Level of Traffic Stress 1 or 2
- Percent of collector and arterial roadways in climate-friendly areas and underserved population neighborhoods with safe and convenient marked pedestrian crossings
- Percent of transit stops with safe pedestrian crossings within 100 feet

Transportation Options Measures

- Number of employees covered by an Employee Commute Options Program
- Number of households engaged with Transportation Options activities
- Percent of all Transportation Options activities that were focused on underserved population communities

Transit Measures

- Share of households within a half-mile of a priority transit corridor
- Share of low-income households within a half-mile of a priority transit corridor
- Share of key destinations within a half-mile of a priority transit corridor

Parking Costs and Management Measures

- Average daily public parking fees in climate-friendly areas

Transportation System Measures

- Household-based vehicle miles traveled per capita
- Percent of jurisdiction transportation budget spent in climate-friendly areas and underserved population neighborhoods
- Share of investments that support modes of transportation with low pollution

Per OAR 660-012-0910, cities and counties shall adopt performance targets in their TSP for each reporting year for each performance measure. Performance targets for the performance measures must be set at levels that are reasonably likely to achieve the metropolitan area greenhouse gas reduction targets adopted by the Land Conservation and Development Commission. Initial targets will be established outside of the TSP and through a separate regional process.

OAR 660-012-0905 Performance Measures Relevant to the TSP

Metro and cities and counties with an approved regional scenario plan that meets the OAR 660-044 metropolitan greenhouse gas reduction targets must report on the performance measures included in that plan. All other cities and counties must report on the measures in OAR 660-012-0905(2). While rule 0905 includes a wide range of performance measures that cities, counties and Metro must report on, there are several that most directly tie to the TSP. **If using rule 0905 measures, cities and counties must consider the performance measures in the table below when developing their TSP to identify system needs and while developing the prioritized project list.**

Performance Measures Relevant to the TSP	Potential Applications in TSP Process
Active Transportation • Percent of collector and arterials streets in climate-friendly areas and underserved population neighborhoods with bicycle and pedestrian facilities with Level of Traffic Stress 1 or 2. • Percent of collector and arterial streets in climate-friendly areas and underserved population neighborhoods with safe and convenient marked pedestrian crossings. • Percent of transit stops with safe pedestrian crossings within 100 feet.	GIS can be used to support these performance measures if data are available. These measures should inform the identification of needs and solutions in the pedestrian and bicycle modal plans.
Transportation Options • Number of employees covered by an Employee Commute Options Program.	These could be assessed for existing conditions for Transportation Options and influence the Transportation Options planning.

Performance Measures Relevant to the TSP	Potential Applications in TSP Process
• Percent of all Transportation Options activities that were focused on underserved population communities.	
Transit • Share of households within one-half mile of a priority transit corridor. • Share of low-income households within one-half mile of a priority transit corridor. • Share of key destinations within one-half mile of a priority transit corridor.	These performance measures could influence the designation of priority transit corridors.
Transportation System • Vehicle miles traveled (VMT) per capita. • Percent of jurisdiction transportation budget spent in climate-friendly areas and underserved population neighborhoods. • Share of investments that support modes of transportation with low pollution.	These performance measures may be applied iteratively and should inform the development of the financially constrained plan. VMT per capita must be calculated and shown to be reduced by the horizon year per rule 0160 if the financially-constrained project list includes a roadway capacity project requires an enhanced review per rule 0830.

In addition to the potential rule 0215 performance standards identified by the local government based on their TSP goals and objectives, the rule 0905 performance measures in the table above must be considered or evaluated during the existing and future conditions analysis to establish baselines, assess progress toward the rule 0910 performance targets, and identify needs. The performance measures will need to influence the development of the modal plans and assess the future performance of the system in order to develop a TSP that is designed to achieve performance targets.

Performance Standards

Please note: Only cities and counties in metropolitan areas and Metro are required to follow this performance standards/targets setting process.

For cities and counties in metropolitan areas and Metro, OAR 660-012-0215 establishes requirements for transportation performance standards that cities and counties use to review comprehensive plan and land use regulation amendments provided in OAR 660-012-0060. If a city or county requires applicants to analyze transportation impacts as part of a development review in acknowledged local land use regulations, then that review shall include evaluation of the transportation impacts using the performance standards established in OAR 660-012-0215. Transportation performance standards that Metro uses to review functional plan amendments as provided in OAR 660-012-0060 should also be applied plan amendments within Metro.

OAR 660-012-0215(3) requires cities and counties within metropolitan areas and Metro to adopt at least two local transportation performance standards that collectively evaluate at least two of the following objectives for the transportation system, for any or all modes of transportation:

- **Reducing climate pollution** – creating feasible transportation options or otherwise incorporating roadway improvements or reducing driving in a way that reduces carbon emissions
- **Equity** – consideration for existing or proposed transportation-related disparities and barriers experienced by historically marginalized communities
- **Safety** – providing a transportation system that people feel comfortable using and reduces injuries and fatalities
- **Network connectivity** – modal networks that provide route options to users and minimize out-of-direction travel
- **Accessibility** – the ease of reaching (and interacting with) destinations or activities distributed in space
- **Efficiency** - the maximization of transportation services at the lowest possible cost
- **Reliability** - users have a dependable and consistent range of predictable travel times
- **Mobility** - the ability to move freely and easily

At least one performance standard must support increasing transportation options and avoiding principal reliance on the automobile. Collectively, the performance standards must also support achieving the performance targets discussed above. In addition to local governments, ODOT must also adopt at least two performance standards for their facilities within metropolitan areas.

Elements of a Performance Standard

Cities, counties, ODOT, and Metro shall establish transportation performance standards that include these elements:

- Characteristics of the transportation system that will be measured, estimated, or projected, and the methods to calculate their performance.
- Thresholds to determine whether the measured, estimated, or projected performance meets the performance standard. Thresholds may vary by facility type, location, or other factors. Thresholds shall be set at the end of the planning period, time of development, or another time. Thresholds are key to establishing a performance standard. Without thresholds, it is only a metric.
- Findings for how the performance standard supports meeting the targets for performance measures set as provided in OAR 660-012-0910 (see Performance Measures for Reporting for more information).

Potential Performance Standards

The following table shows potential performance standards included in a toolkit in the ODOT *Analysis Procedures Manual* to help jurisdictions select performance standards to meet the requirements in rule 0215. Cities and counties

may adopt performance standards not included in the toolkit. Those in the toolkit have been identified based on their ability to document incremental changes and their overall flexibility, ease of application, and potential data availability. The table also identifies the OAR 660-012-0215(3) objectives that the potential performance standards could have a primary impact upon (the two adopted performance standards must collectively address two or more of these) and which potential performance standards would support increasing transportation options and avoiding principal reliance on the automobile (at least one must meet this criteria). Additional information on each of these potential performance standards is included in the ODOT *Analysis Procedures Manual*.

Potential Standards Included in the Toolkit	Related Objective Areas per OAR 660-012-0215(3)	Supports Increasing Transportation Options and Avoiding Principal Reliance on the Automobile?
Accessibility to key destinations	Accessibility, Equity	Yes
Accessibility to employment	Accessibility, Equity	Yes
Accessibility to transit	Accessibility, Equity	Yes
Bicycle level of traffic stress (BLTS)	Accessibility	Yes
Pedestrian level of traffic stress (PLTS)	Accessibility	Yes
System completeness	Network Connectivity, Accessibility	Yes
Bicycle crash risk	Safety	Yes
Pedestrian crash risk	Safety	Yes
Walking and biking facility condition	Accessibility	Yes
Pedestrian crossing spacing	Network Connectivity, Accessibility	Yes
Average daily traffic/capacity	Efficiency, Mobility	No
Hours of congestion/duration of congestion	Efficiency, Reliability, Mobility	No
Automobile level of service	Efficiency, Reliability, Mobility	No
Queuing	Mobility, Safety	No
Existing and predicted total crashes	Safety	No
Travel speed	Efficiency, Mobility	No
Vehicle hours traveled (VHT)	Reducing Climate Pollution	No

Potential Standards Included in the Toolkit	Related Objective Areas per OAR 660-012-0215(3)	Supports Increasing Transportation Options and Avoiding Principal Reliance on the Automobile?
Household-based vehicle miles traveled (VMT) per capita	Reducing Climate Pollution	No
Volume-to-capacity ratio (V/C) at intersections	Efficiency, Mobility	No
V/C for roadway links	Efficiency, Mobility	No

When selecting performance standards, cities and counties should apply the following criteria:

- Does the performance standard help support progress toward at least one of the OAR 660-012-0215(3) objectives? If so, which ones?
- Does at least one of the performance standards support increasing transportation options and avoiding principal reliance on the automobile?
- Can the city or county support staff time or consultant time to report on the performance standard or review the impact on the performance standard for transportation projects and land use and development applications?
- Are the data available? If not, what is required to collect the necessary data?
- Does the performance standard support progress toward the TSP goals and objectives and support achieving the rule 0910 performance targets? If so, which ones? Greater consideration could be given to performance standards that address multiple goals.
- What will the thresholds be for the performance standard, and will they create outcomes desired by the community?
- What performance standards do partner and neighboring agencies use, and is there a benefit in coordinating standards?
- How will the two or more selected performance standards work together? Per OAR 660-012-0215(3), updated TSPs "...must clearly establish how to apply the multiple performance standards to a proposal that meets some, but not all, of the transportation performance standards."

Which mode does the performance standard apply to? How does the performance standard impact people using different modes? For example, the standard may impact the objective area positively for one mode at the expense of other modes. Can performance standards be selected that move the objective areas in the same direction for all modes?

Step 3: Existing Conditions

An early step in the development of a TSP is a review of the plans and policies that currently influence and shape the transportation infrastructure. This is followed by a thorough inventory and assessment of the existing multimodal transportation network. The following information provides a detailed overview of the various local, regional, and state planning documents that are typically reviewed in the development of a TSP. Detailed guidance is then provided on the inventory, assessment, and documentation of the existing transportation infrastructure. As part of understanding existing conditions, a funding review is also completed during this step in the development of a TSP.

Plans and Policy Review

A critical early step in the development or update of a TSP is to conduct a review of all state, regional, and local planning documents relevant to the planning area. The product of this work is a technical memorandum that:

- Identifies relationships, conflicts, and discrepancies within and between these documents and the TSP
- Identifies inconsistencies between existing federal, state, regional, and local plans and policies and the TSP
- Reviews existing cross-section standards for consistency with federal, state, regional, and local guidelines
- Reviews proposed multimodal improvements to state, county, or local facilities, including identifying roadway projects that will be subject to an enhanced review process if brought forward into the updated TSP based on OAR 660-012-0830 (see Enhanced Review of Select Roadway Projects for more information)
- Reviews relevant traffic and modal studies (e.g., Transportation System Management Plans, Intelligent Transportation Plans, Transportation Safety Action Plans)
- Reviews relevant environmental studies (e.g., local Goal 5 inventory, Oregon Conservation Strategy, Preparing for Landslide Hazards: A Land Use Guide for Oregon Communities and Oregon Plan for Salmon and Watersheds) and baseline environmental data
- Reviews existing sources for funding transportation facilities and services
- Reviews land use policies and regulations that guide the relationships between land uses and transportation facilities and their impacts on each other
- Reviews demographic and economic data, forecasts, and plans as they relate to transportation and land development
- Identifies how these plans, policies, regulations, and standards impact the transportation system

Local Plan and Policy Review

It is important to consider all adopted policy direction that relates to the function of or planning for all transportation modes. The Local Plan and Policy Review Checklist lists the types of local documents to consider as part of a plans and policy review. This review will need to explain how relevant content might influence the outcomes of the planning process and where the jurisdiction may need to modify existing policy or ordinances based on the recommendations of the new or updated TSP. Jurisdictions should also briefly explain the role of each plan reviewed and the date it was adopted or last revised. This review will give context on how each plan is related to transportation system planning and how its content compares to the unique project objectives of the transportation system planning process.

Resources

Local Plan & Policy Review Checklist

State Plan and Policy Review

The Oregon Transportation Plan (OTP), statewide modal plans, and topic plans that apply the OTP and the Transportation Planning Rules (OAR 660-012) include state policy, requirements, and guidance related to transportation system planning. Because local planning and actions implement many statewide transportation planning goals and objectives, these documents play a critical role in the development of a local TSP. Jurisdictions must address the statewide planning documents listed in the State Plan & Policy Review Checklist as part of the local TSP planning process. In addition, OR Plan is a supplemental online searchable tool that consolidates policies and strategies from the statewide modal and topic plans. It provides a policy framework related to specific transportation issues and modes.

Resources

State Plan & Policy Review Checklist

OR Plan

Existing Conditions Inventory

A thorough review and assessment of the existing transportation system is typically done early in the TSP planning process. The inventory identifies existing transportation facilities and services within the planning area and serves as the basis for evaluating transportation system conditions and identifying potential transportation projects. OAR 660-012-0020 requires that all applicable travel modes be included in the inventory and assessment process. It also identifies the requirements for cities and counties in non-metropolitan areas throughout the state. OAR 660-012-0150 identifies the requirements for cities and counties within metropolitan areas. As indicated below, certain travel modes (e.g., air, marine, pipeline, rail) that are required to be addressed in non-metro areas are encouraged but not required to be addressed in metro areas.

Air

OAR 660-013 (Airport Planning) addresses how communities with planning authority for an airport adopt comprehensive plan and land use regulations to ensure planning compatibility with the function of the airport. While the OAR 660-013 rules deal primarily in the operation and land use coordination area, OAR 660-012-0020(2)(e) specifically calls out air transportation as an element of the TSP planning process in non-metropolitan areas.

In general, the air element covers all public use airports and air infrastructure located within the planning area. While each airport typically has a separate facility master plan, local TSPs are required to coordinate with these master plans and help preserve the state's public-use aviation system. For these reasons, an inventory of the public-use air infrastructure is required.

The following table identifies the air infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows. *It should be noted that while air transportation is not a required element of a metropolitan area TSP, it may be an important aspect of community's transportation system.*

Air Element	Non-Metropolitan Area	Metropolitan Area
Identification of public airports or the location of the closest airports, including international, national, and local aviation facilities. Each identified public-use airport shall include the service area, type of services provided (passenger/freight), and airport classification.	●	◐
Identification of the airport protected surface area (e.g., Runway Protection Zone).	●	◐
Identification of multimodal access opportunities to the airport.	◐	◐
Identification of runway length and condition.	◐	◐
Identification of future airport operations and long-range planning for infrastructure.	◐	◐
Identification of the owner/operator for any private use aviation airport.	◐	◐
Identification of surrounding land uses and zoning.	○	○
Identification of planned airport improvements.	○	○
Rough cost estimates for planned airport improvements.	○	○

Bicycle

Bicycling is an important mode of transportation for both large and small communities that offers many benefits in the form of enhanced mobility, congestion relief, health, and recreation. OAR 660-012-0020(2)(d) identifies bicycle transportation as an integral element of the TSP planning process. As such, a detailed inventory of the bicycle system is necessary. OAR 660-012-0605 identifies requirements for cities and counties within metropolitan areas.

The following table identifies the bicycle infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020 and metropolitan areas to ensure compliance with OAR 660-012-0150. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows.

Bicycle Element	Non-Metropolitan Area	Metropolitan Area
Identification of bicycle lanes, bicycle routes, accessways, paths, and other types of bicycle facilities, including pedestrian facilities that may be used by bicycles along bicycle boulevards and along all arterials and collectors within the planning area	●	●
Identification of bicycle facilities of all types within climate-friendly areas, within Metro Region 2040 centers, within one-quarter mile of all primary and secondary schools, and on bicycle boulevards	◐	●
Identification of the width, type, and condition of bicycle facilities	◐	●
Identification of the general location of public, off-street bicycle facilities, including bike hubs, short- and long-term bike parking, etc.	◐	◐
Identification of the consistency of bicycle facilities with applicable state, regional, and local standards	●	●
Identification of crash risk factors of inventoried bicycle facilities, including speed, volume, separation, and roadway width	◐	●
Location of all reported injuries and deaths of people on bicycles from the most recent 5 years of available data	◐	●
Identification of street crossings for all areas within the planning area	◐	◐
Identification of a critical/priority bicycle network	◐	◐
Identification of key bicycle destinations	◐	●
Identification of intermodal connections, such as bicycle hubs and parking at transit facilities	◐	◐
Identification of bicycles on transit policies or guidelines	○	○
Identification of bicycle tourism routes and related infrastructure	○	○

Marine

OAR 660-012-0020(2)(e) requires water or marine transportation to be a component of TSP planning process. In this context, “marine” refers to all maritime ports and water systems that are used for the movement of freight and/or passengers.

The following table identifies the marine infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020. The table also identifies elements that ***should*** (◐) be

included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows. *It should be noted that while marine transportation is not a required element of a metropolitan area TSP, it may be an important aspect of community's transportation system.*

Marine Element	Non-Metropolitan Area	Metropolitan Area
Identification of navigable lakes, streams, rivers, and other water bodies, as well as the infrastructure/programs (e.g., water taxis, ferries) that use them to transport goods and passengers	●	◐
Identification of marine port facilities, including the existence of intermodal connectors	●	◐
Identification and description of waterside facilities at marine ports • Channel depth and width • Number or size of berths, piers, and docks	◐	◐
Identification and description of landside facilities at marine ports • Access roads and intermodal connectors that serve the marine port • Railroad spurs that serve the marine port • Cranes and yard hostlers	◐	◐
Identification of the types and number of businesses located at the port, especially those that ship or receive freight	○	○
Identification of the type and number of ships, barges, and tugs that utilize the port	○	○
Identification of parking or other support areas for marine ports (e.g., marinas, boat ramp parking, storage)	○	○
Identification of abandoned or underutilized facilities with the potential to accommodate future traffic	○	○
Identification of future port operations opportunities	○	○

Pedestrian

OAR 660-012-0020(2)(d) identifies pedestrian transportation as an integral element of the TSP planning process. As such, a detailed inventory of the pedestrian system is necessary. OAR 660-012-0505 identifies requirements for cities and counties within metropolitan areas.

The following table identifies the pedestrian infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020 and metropolitan areas to ensure compliance with OAR 660-012-0150. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows.

Pedestrian Element	Non-Metropolitan Area	Metropolitan Area
Identification of sidewalks, crosswalks, shared-use paths, trails, and other types of pedestrian facilities along all arterials and collectors within the planning area.	●	●
Identification of pedestrian facilities of all types within climate-friendly areas, within Metro Region 2040 centers, and within one-quarter mile of all primary and secondary schools.	◐	●
Identification of the width, type, and condition of pedestrian facilities.	◐	●
Identification of crossing distances, type of crossing, closed crossings, curb ramps, and distance between crossings.	◐	●
Identification of the consistency of pedestrian facilities with applicable state, regional, and local design standards.	●	●
Identification of crash risk factors of inventoried pedestrian facilities, including speed, volume, separation, and roadway width.	◐	●
Location of all reported injuries and deaths of people walking or using a mobility device from the most recent 5 years of available data.	◐	●
Case-level Americans with Disabilities Act (ADA) inventory (identification of gaps and critical corridor deficiencies) that is guided by priorities outlined in the local agency ADA Transition Plan. The inventory shall be assessed for compliance with ADA requirements, and at a minimum include curb ramps, pedestrian push-button signals, and sidewalk clearance widths for routes in high pedestrian-traffic areas.	◐	◐
Identification of intermodal connections (e.g., access to transit).	◐	◐
Identification of barriers to pedestrians.	◐	◐
Identification of key pedestrian destinations.	◐	●
Identification of any existing Safe Routes to School action plans.	◐	◐

Identification of education, outreach, and other Transportation Demand Management programs and services that focus on pedestrian forms of transportation.	◐	◐
Implementation-level ADA inventory (identification of specific non-ADA compliant infrastructure) for all pedestrian routes within the jurisdiction. Features included in the inventory could be guided by the local agency ADA Transition plan and include non-ADA compliant curb ramps, pedestrian push-button signals, and sidewalk clearance widths, as well as transit stops, crosswalks and shared-use paths.	○	○

Pipeline

OAR 660-012-0020(2)(e) specifically calls out pipelines as a component of the TSP planning process. Pipeline planning in this context typically refers to the network of pipelines that transport natural gas and/or petroleum products. Most of these networks are planned, owned, and maintained by private utility companies. For security reasons, most utility companies do not want the intricate details of pipeline networks to be made public. Therefore, thoughtful coordination with the utility companies is required when inventorying pipeline networks.

The following table identifies the pipeline infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows. *It should be noted that while a pipeline is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Pipeline Element	Non-Metropolitan Area	Metropolitan Area
Identification of pipeline owners and operators	●	◐
General identification of pipeline locations	●	◐
Identification of pipeline type	●	◐
Identification of pipeline terminals	●	◐
Identification of impending changes to the pipeline network and pipeline operations	◐	○

Rail

OAR 660-012-0020(2)(e) requires that rail transportation be a component of TSP processes. Rail planning in this context refers to all mainline, branch line, and affiliated railroad facilities that are used for the purposes of moving freight. Cities and counties should coordinate with rail owners and operators to ensure a common understanding of performance.

The following table identifies the railroad infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020. The table also identifies elements that ***should*** (◐) be

included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows. *It should be noted that while railroads are not a required element of a metropolitan area TSP, it may be an important aspect of community's transportation system.*

Rail Element	Non-Metropolitan Area	Metropolitan Area
Identification of the location of rail lines and key support facilities, such as yards and terminals.	●	◐
Identification of the location and type of rail crossings (e.g., grade-separated, at-grade, signalized, unsignalized, gates, lights, bells).	●	◐
Identification of the owners and operators of rail lines and classification (Class I, II, or III) of each operating entity. Note: Many Oregon line segments are owned by Class I railroads but leased to short lines for operation. More than one railroad may operate over track in a jurisdiction, so all owners/operators should be identified.	●	◐
Identification of the type of freight service.	●	◐
Identification of the approximate number of daily trains and their timing if they operate on schedules. Most of this information can be obtained from the rail owner and/or the ODOT Rail Division.	●	◐
Identification of track conditions and numerical Federal Railroad Administration standards to which they are maintained (Class 1 to Class 9).	◐	◐
Identification of train speeds. Note: Speeds may vary for different segments of track through a jurisdiction.	◐	◐
Identification of the industries served and commodities handled	○	○
Identification of potential for rail banking, trail use, or public use if a rail line were to become a candidate for abandonment.	○	○

Roadway

OAR 660-012-0020(2)(b) requires that a road plan be an element of the TSP planning process. Roadway planning refers to all state highways and local/regional public roads, including arterials, collectors, local streets, and other notable public roads/streets that serve the movement of motorized forms of transportation. The recommended approach for mapping Federal Functional Classification in TSPs is to maintain consistency with the preferred ODOT color scheme presented in the city and county maps on the ODOT Maps and GIS page, enabling comparison of TSPs across jurisdictions. OAR 660-012-0150 and OAR 660-012-0805 identify requirements for cities and counties within metropolitan areas.

The following table identifies the roadway infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020 and metropolitan areas to ensure compliance with OAR 660-012-0150. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows.

Roadway Elements	Non-Metropolitan Area	Metropolitan Area
Document characteristics within the project limits of known roadway projects that will be moved into the updated TSP and that will be subject to an enhanced review process based on OAR 660-012-0830 (see Enhanced Review of Select Roadway Projects for more information)	○	●
Location of all publicly owned, operated, or supported streets	●	●
Identification of roadway ownership by jurisdiction	●	●
Identification of roadway classifications by jurisdiction, including federal, state, regional, and local classifications, as applicable	●	●
Identification of primary uses, and whether they serve local, regional, pass-through, or freight traffic	◐	●
Identification of primary users of a facility, including whether users are primarily on foot, bicycle, transit, freight, or personal vehicle	◐	●
Identification of land use context for each segment of a facility, including types of planned land uses surrounding the facility	◐	●
Identification of the location of key destinations	◐	●
Identification of roadway characteristics: • For local streets, include location • For collector streets, include location, condition, and number of general-purpose travel lanes and turn lanes • For arterial streets, include location, condition, and number of general-purpose travel lanes, turn lanes, and lane width • For expressways and other limited-access highways, include location, condition, and number of general-purpose travel lanes, turn lanes, and lane width, as well as the locations and types of interchanges	●	●
Identification of lane configurations and traffic control devices at study intersections	●	◐

Identification of area-wide traffic signals and ownership responsibility	●	◐
Identification and type of intelligent transportation systems facilities	●	◐
An overview of pricing strategies in use, including specific facility pricing, area or cordon pricing, and parking pricing	◐	●
Collection of weekday evening peak-period traffic counts at the identified study intersections	●	◐
Identification of bridge location, condition (bridge sufficiency rating), and ownership responsibility	●	◐
Identification of pavement type and conditions through a windshield survey	◐	●
Location of all reported serious injuries and deaths of people related to vehicular crashes from the most recent 5 years of available data	◐	●
Quantify average annual daily traffic volumes on all paved public roads	◐	◐
Safety analysis (e.g., crash data, Safety Priority Index System locations, off-ramp queuing)	◐	◐
Collection of weekday morning and/or weekday mid-afternoon peak period traffic counts at the identified study intersections	○	○
Identification of existing right-of-way widths for all collector and arterial roadways and where the right-of-way may be insufficient to accommodate future buildout	○	○
Identification of the number and locations of points-of-access to state facilities	○	○
Identification of on-street parking locations	○	○
Collection of 16-hour full-classification traffic counts at the identified study intersections or select locations	○	◐
Identification of detailed pavement conditions of all federal-aid-eligible roadways using pavement conditions index	○	○

Public Transportation

OAR 660-012-0020(2)(c) requires that a Public Transportation Plan be a component of TSP planning processes. Public transportation planning refers to all bus, streetcar, passenger rail, and other public transportation services and associated infrastructure. OAR 660-012-0705 identifies requirements for cities and counties within metropolitan areas.

The following table identifies the public transportation infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020 and metropolitan areas to ensure

compliance with OAR 660-012-0150. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows.

Transit Infrastructure Elements	Non-Metropolitan Area	Metropolitan Area
Identification of local and intercity transit service providers	●	●
Identification of fixed-route and dial-a-ride service areas and the location of fixed routes, major stations, and transit stops	●	●
Identification of service characteristics, such as days and hours of operation and service frequency	●	●
Identification of intercity bus and passenger rail terminals and park-and-ride stations	●	●
Identification of the location of transportation-disadvantaged and disabled populations, including areas with disproportionate concentrations of these populations.	●	●
Identification of special service characteristics, such as bus rapid transit.	●	●
Identification of transitways, transit lanes, transit priority signals, queue jumps, on-route charging, and other transit supportive facilities not otherwise inventoried.	◐	●
Identification of existing and planned transit trunk routes, exclusive transit ways, terminals and major transfer stations, major transit stops, and park-and-ride stations.	◐	●
Evaluation of the feasibility of developing a public transportation system within an urban area that has a population greater than 25,000 persons not currently served by transit.	◐	○
Identification of transit provider funding sources, revenue generation, and transit supportive intelligent transportation system (ITS) infrastructure.	◐	◐
Identification of transit stop amenities by transit stop.	◐	◐
Identification of bicycle and pedestrian facilities adjacent to transit stops.	◐	◐
Identification of Americans with Disabilities Act accessibility to individual transit stops and services.	◐	●
Identification of areas with existing or planned transit supportive densities (See Transit Capacity and Quality of Service Manual methodology).	◐	◐

Identification of ridership by route or stop.	◐	◐
Identification of key public transportation destinations.	◐	●
Identification of volunteer, social service, and/or private providers operating in the area, with the kinds of service offered and area served (e.g., transportation network companies, carshare and bikeshare services, senior or veterans transportation services).	◐	◐
Identification of local shuttle, carpool, and vanpool services.	◐	◐
Identification of the number, age, and condition of capital equipment and facilities.	○	○
Identification of local employers with employee-based commute programs, carpools, and vanpools.	○	○

Truck Freight

Although the movement of freight can occur via multiple modes (such as truck, rail, air, and marine), freight planning in this context refers to the use of the public roadway and highway infrastructure for the movement of commercial goods and services. This includes trucks and other motorized vehicles used to commercially transport goods and services.

The following table identifies the truck freight infrastructure elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows. *It should be noted that while truck freight is not a required element of a metropolitan area TSP, it may be an important aspect of community's transportation system.*

Truck Freight Element	Non-Metropolitan Area	Metropolitan Area
Identification of Oregon Highway Plan Freight Routes and Reduction Review Routes	●	●
Identification of National Highway System (NHS) freight intermodal connectors and facilities (e.g., truck-rail intermodal yards, truck-rail reload facilities, marine terminals, pipeline terminals, air-cargo facilities, park-and-ride lots, highway-to-rail transfer facilities), including service levels and other characteristics	●	●
Identification of the National Highway Freight Network Critical Urban and/or Rural Freight Corridors	●	●
Identification of local and regional truck freight routes	●	●

Freight bottlenecks identified in other state, regional, or local plans	●	◐
Identification of truck freight average daily traffic volumes on roadways and intersections that experience significant truck traffic	◐	◐
Identification of truck freight routes with weight, height, or other freight-related restrictions	◐	◐
Identification of major truck freight generators and receivers that support local industry and economy	◐	◐
Identification of truck-involved crash data on roadways and intersections that experience significant truck traffic	○	○
Identification of intersections with truck turning limitations	○	○

Transportation Options

OAR 660-012-0145 requires cities and counties in metropolitan areas to include a Transportation Options element in their TSP. Transportation Options refers to various programs that connect people to transportation choices, allowing them to bike, walk, take transit, drive, share rides, and telecommute. Transportation Options is also sometimes referred to Transportation Demand Management, or TDM.

The following table identifies Transportation Options elements that ***shall*** (●) be included in the inventory for non-metropolitan areas to ensure compliance with OAR 660-012-0020. The table also identifies elements that ***should*** (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, ***could*** (○) be included when locally appropriate and when funding allows.

Transportation Options Element	Non-Metropolitan Area	Metropolitan Area
Identification of existing transportation options and TDM programs, services, and projects	◐	●
Identification of educational, encouragement, and other TDM programs and services that focus on forms of transportation other than single-occupancy vehicles	◐	●
Identification of TDM programs and policies that discourage the use of single-occupancy vehicles	◐	●

Existing Needs Determination

Once the transportation system inventory is completed, the next step in the planning process is to analyze the existing inventory and determine needs. The analysis provides a snapshot of the existing transportation system to determine where the system is currently deficient or if there are any gaps.

Deficiencies are defined as the difference between the current transportation system and adopted standards or targets. Deficiencies may also reflect performance measures and evaluation criteria developed in **Step 2: Goals, Objectives & Performance Tracking.** Deficiencies are capacity or design constraints that limit but do not prohibit the ability to travel by a given mode. Gaps are defined as missing links in the transportation system for any mode. Gaps either prohibit travel by a particular mode or make it functionally unsafe. Together, gaps and deficiencies are defined as "needs."

Air

The following table identifies the air elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *While air transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Air Element	Non-Metropolitan Area	Metropolitan Area
Evaluation of the airport's consistency with state, regional, and local transportation/land use plans	●	◐
Evaluation of the airport's function regarding state, regional, and local air travel needs	●	◐
Evaluation of multimodal access to air facilities, including bicycle parking	◐	◐
Evaluation in intermodal linkages for passengers and goods	◐	◐

Bicycle

Cities and counties must consider the needs of all users when identifying gaps and deficiencies in the bicycle system. Within non-metropolitan areas, local governments must identify needs along all arterial and collector streets. Within metropolitan areas, local governments must identify needs along all streets, including local streets, as well as off-street paths and trails within climate-friendly areas, within Metro Region 2040 centers, within one-quarter mile of all primary and secondary schools, and along bicycle boulevards. Outside of these areas, gaps and deficiencies must be considered for arterials and collectors only (OAR 660-012-0605[2]).

The following table identifies the bicycle elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Bicycle Element	Non-Metropolitan Area	Metropolitan Area
Identification of the local, regional, and state standards for a complete bicycle system for people of all ages and abilities	●	●
Evaluation of gaps and deficiencies in the bicycle network relative to standards, including missing bike lanes, narrow bike lanes, unmarked crossings, poor surface conditions, poor street lighting, roadway hazards, etc.	●	●
Analysis of bicycle connectivity along key study corridors using one of two methodologies: • Conduct a Qualitative Multimodal Assessment of the bicycle network (see the ODOT Analysis Procedures Manual for technical guidance) • Conduct a bicycle level-of-traffic stress analysis of the bicycle network (see the ODOT Analysis Procedures Manual for technical guidance)	◐	◐
Evaluation of gaps in bicycle access to/from key destinations, including transit stops, schools, shopping areas, medical facilities, civic and recreational uses, and trails	◐	●
Analysis of bicycle crash data and risk-based safety issues (see the ODOT Bicycle Safety Implementation Plan for additional information)	◐	●
Evaluation of high bicycle fatality and serious injury crash locations	◐	●
Evaluation of bicycle design standards (e.g., Central Business District, residential standards)	○	○

Marine

The following table identifies the marine elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. It should be noted that while marine transportation is not a required element of a metropolitan area TSP, it may be an important aspect of community's transportation system.

Marine Element	Non-Metropolitan Area	Metropolitan Area
Identification of any capacity issues related to infrastructure/programs (water taxis, ferries, etc.) that use navigable lakes, streams, or rivers for transportation of goods and passengers	●	◐
Identification and description of any capacity issues related to port facilities and operations	●	◐
Identification and description of waterside operating capacity issues, such as: • Channel depth and width • Inadequate infrastructure including berths, piers, and docks	◐	◐
Identification and description of any landside operating capacity issues, such as: • Access road and intermodal connector constraints • Inadequate cranes and yard hostlers • Inadequate railroad spurs	◐	◐
Evaluation of multimodal access to port facilities, including bicycle parking	◐	◐
Identification and description of any issues related to land availability and use	○	○
Identification of the adequacy of marine port parking facilities	○	○

Pedestrian

Cities and counties must consider the needs of all users when identifying gaps and deficiencies in the pedestrian system. Within non-metropolitan areas, local governments must identify needs along all arterial and collector streets. Within metropolitan areas, local governments must identify needs on all streets, including local streets, as well as off-street paths and trails within climate-friendly areas, within Metro Region 2040 centers, and within one-quarter mile of all primary and secondary schools. Outside of these areas, gaps and deficiencies must be considered for arterials and collectors only (OAR 660-012-0605[2]).

The following table identifies the pedestrian elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Pedestrian Element	Non-Metropolitan Area	Metropolitan Area
Identification of the local, regional, and state standards for a complete pedestrian system	●	●
Evaluation of gaps and deficiencies in the pedestrian network relative to standards, including missing sidewalks, narrow sidewalks, curb-tight sidewalks, poor sidewalk condition, poor street lighting, unmarked crossings, wide spacing between marked crossings, etc.	●	●
Analysis of pedestrian connectivity along key study corridors using one of two methodologies: • Conduct a Qualitative Multimodal Assessment of the pedestrian network (see the ODOT Analysis Procedures Manual for technical guidance) • Conduct a pedestrian level of traffic stress analysis of the pedestrian network (see the ODOT Analysis Procedures Manual for technical guidance)	◐	◐
Evaluation of gaps in pedestrian access to/from key destinations, including transit stops, schools, shopping areas, medical facilities, civic and recreational uses, and trails	◐	●
Pedestrian crash analysis and risk-based safety analysis	◐	●
Analysis of pedestrian crash data and risk-based safety issues (see ODOT's Bicycle and Pedestrian Safety Implementation Plan for additional information)	◐	●
Evaluation of pedestrian fatality and serious-injury crash locations	◐	●
Evaluation of marked crossings, including location, spacing, treatments, etc.	◐	●
Evaluation of pedestrian design standards (e.g., Central Business District, residential standards)	○	○
Evaluation of all other Americans with Disabilities Act-related features, per the latest guidelines	○	○

Pipeline

The following table identifies the pipeline elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *It should be noted that while pipeline transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Pipeline Element	Non-Metropolitan Area	Metropolitan Area
In coordination with service provider capital facility plans, identification of any deficiencies associated with pipeline capacity, location, terminals, etc.	●	◐
Evaluation of consistency with state, regional, and local plans	◐	◐

Rail

The following table identifies the rail elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *While rail transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Rail Element	Non-Metropolitan Area	Metropolitan Area
Evaluation of operations and safety of rail crossings for all modes	●	◐
Evaluation of multimodal access to rail facilities, including bicycle parking	◐	◐
Evaluation of consistency with state, regional, and local plans and policies	◐	◐
Evaluation of land use connections (e.g., access to industrial zoned areas)	◐	◐
Evaluation of hazardous materials safety plan priorities	○	○

Roadway

The following table identifies the roadway elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Roadway Element	Non-Metropolitan Area	Metropolitan Area
Identification of the local, regional, and state standards for a complete street and highway system.	●	●
Review of state, regional, and local transportation/land use plans to identify roadway projects that will be moved into the updated TSP and that will be subject to an enhanced review process based on OAR 660-012-0830 (see Enhanced Review of Select Roadway Projects for more information).	○	●
Identification of inconsistencies in street classifications between jurisdictions.	●	◐
Identification and evaluation of street connectivity for higher classification streets (i.e., arterials and collectors) consistent with OAR 660-012-0020(2)(b) and 660-012-0045(3)(b).	●	◐
Evaluation of existing traffic operations at the identified study intersections and roadway segments consistent with the methodologies identified in the latest Highway Capacity Manual (see the ODOT Analysis Procedures Manual for further guidance).	●	◐
Comparison of existing traffic operations to state, regional, and local mobility and other local vehicle system performance standards and targets to identify deficiencies.	●	◐
Evaluation of traffic safety at intersections and roadway segments with high crash rates, especially fatalities and serious injuries, and top 5% or 10% Safety Priority Index System locations, consistent with the methodologies identified in the Highway Safety Manual (see the ODOT Analysis Procedures Manual for further guidance).	●	◐
Evaluation of local street design standards according to applicable state and regional standards and guidelines.	◐	●
Evaluation and identification of land use context and associated design standards for state highways per the Highway Design Manual.	◐	●
Comparison of roadway characteristics (travel lane widths, shoulder/bike lane widths, etc.) to applicable state, regional, and local standards.	◐	●
Evaluation of the local street network and the identification of areas where new local streets will be needed. Cities and counties must plan local streets in climate-friendly areas and Metro Region 2040 centers to prioritize pedestrian and bicycle systems and be limited to local access for motor vehicles.	◐	●
Evaluation of the collector street network and the identification of new collector streets connected with local streets and arterials. Cities and counties must plan	◐	●

collectors in climate-friendly areas and Metro Region 2040 centers to prioritize pedestrian, bicycle, and public transportation systems.		
Evaluation of the arterial street network, identification of new arterial streets connected with local streets and arterials, and designation of arterial streets as local access priority, through movement priority, or arterial segments in a climate-friendly area.	◐	●
Discussion of the performance of Intelligent Transportation Systems facilities, if applicable.	◐	◐
Identification of geometric design deficiencies (e.g., vertical/horizontal curvature, super elevations, ball bank analysis).	○	○
Evaluation of detailed transportation patterns with an origin/destination analysis if necessary.	○	○
Comparison of access spacing along key study corridors to applicable standards and identification of deficiencies.	○	○

Public Transportation

Cities and counties must closely cooperate with transit service providers to complete the public transportation system element of the TSP. Cities and counties must consider the needs of all users when identifying gaps and deficiencies in the transit system.

The following table identifies the public transportation elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Public Transportation Element	Non-Metropolitan Area	Metropolitan Area
Identification of the local, regional, and state standards for a complete public transportation system	●	●
Evaluation of gaps in the local transit network that serve key destinations, including schools, shopping areas, medical facilities, civic and recreational uses, and trails	◐	●
Evaluation of transit corridors, including priority and other transit corridors in areas with populations greater than 10,000	◐	●
Evaluation of transit supportive facilities on priority and other transit corridors, including stations, hubs, stops, shelters, signs, and ancillary features	◐	●
Qualitative multimodal assessment of the public transit system (see the ODOT Analysis Procedures Manual for technical guidance)	●	●

Assessment of transit stops for accessibility by disabled and safety for all riders, including the accessibility of amenities such as bus shelters	●	●
Analysis of components of a Transit Development Plan, including: • Ridership forecast • Existing conditions assessment • Transit access needs and Title II and Title VI analysis • Any designated transit priority corridors or other primary routes • Redundancy of routes to pedestrian, bicycle, and vehicle routes • Future transit routes, capital and infrastructure needs • Future transit scenarios • Funding needs and priorities • Implementation plan	◐	◐
Analysis of components of the Coordinated Public Transit-Human Services Transportation Plan • Existing conditions • Needs assessment • Funding resources	◐	◐
Analysis of existing (and future) public transit service using the methodologies identified in the *Transit Capacity Manual and the Quality of Service Manual* for service hours, service frequency, and service coverage	○	○
Identification of potential deficiencies in service hours and frequency based on existing (and future) population and employment density	○	○
Identification of potential gaps in service coverage based on existing (and future) population and employment density	○	○
Analysis of who is served by transit (commuters, transportation disadvantaged, students, etc.)	○	○
Analysis of where key community destinations are in proximity to transit, including schools, shopping areas, medical facilities, civic and recreational uses, and trails	○	○
Assessment of the travel sheds that intercity or commuter service can help accommodate (maps showing shopping, schools, healthcare, parks, government buildings, etc., are valuable for this analysis)	○	○
The role of transit in planning for and responding to an emergency	○	○

Truck Freight

The following table identifies the truck freight elements that shall (●) be addressed in the needs determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *While truck freight transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Truck Freight Element	Non-Metropolitan Area	Metropolitan Area
Identification of any physical deficiencies related to the movement of freight by trucks on state and local freight routes, including accessibility, mobility, and safety	●	◐
Identification of any physical deficiencies related to the movement of freight on any National Highway System intermodal connector	●	◐
Discussion of roadway access and the use of performance measures or standards (e.g., congestion, condition, and safety) to identify existing and potential deficiencies related to the movement of freight on the National Highway System	●	◐
Identification of truck pinch points (locations with weight, height, or length restrictions)	◐	◐
Identification of any physical deficiencies related to the movement of freight at intersections with significant truck traffic	◐	◐
Identification of any physical deficiencies related to the movement of freight on any non-National Highway System intermodal connector	◐	◐

Funding Review

It is critical to understand the financial limitations of the study area early in the planning process before the development and assessment of transportation projects. The funding review provides a snapshot of existing revenue and expenditures as well as a preliminary estimate of future funding available to implement projects included in the TSP. The preliminary financial review should take place before assessing future transportation system needs and developing solutions to address those needs. The funding review can then be the foundation for a jurisdiction's Capital Improvement Program.

Funding Review for Metropolitan Areas

For cities and counties in metropolitan areas and Metro, OAR 660-012-0115 requires specific funding projections for the funding review.

Shall

The funding review ***shall*** include:

- The identification of all funding sources that the city or county expects to use over the planning period to operate, maintain, or construct the transportation system. These sources include, but are not limited to:
    - Local, regional, state, and federal funding sources
    - Sources expected from any transportation facility or service operator within the planning area, such as transit providers
- For each funding source identified, the following will be documented:
    - The expected funding over the remainder of the planning period
    - The purpose of the source of funding and any key limitations on the use of the funding
    - Reasons that the funding source is expected to be available during the planning period. These reasons may include, but are not limited to, that the funding is provided by:
        - Transportation facility pricing revenues, including parking revenues
        - Tax or bond revenues
        - Fees, charges, or other local revenues
        - Grants given using a formula or other regular disbursement
        - Regional funds from a Metropolitan Planning Organization
        - A source that previously provided funds to the city or county and can reasonably expected to provide more in the future
- The city or county shall use the list of funding sources to determine the amount of funding expected to be available to develop transportation projects over the planning period. Funding to maintain and operate the transportation system or used for purposes other than development of transportation projects shall be excluded. The TSP shall clearly describe the amounts that are included and excluded.

Funding Review for Non-Metropolitan Areas

For cities and counties outside of metropolitan areas and Metro, the funding review will include the following:

Shall

The funding review ***shall*** include:

- The identification of current and historical (most recent 5- to 10-year period) revenue sources that have funded the maintenance and improvement of the transportation system within the study area. These sources will vary by jurisdiction, but will likely include:
    - Oregon highway revenue apportionment
        - State gas tax revenue share
        - Surface Transportation Block Grant (if applicable)

    - Transportation System Development Charges (if applicable) and/or development applications
    - General Fund revenues
    - Miscellaneous revenues (interest, city fees, etc.)
    - Grant income
- The identification of historical expenditures that have supported the transportation system within the study area. These expenditures will vary by jurisdiction, but can likely be broken down into one or more of the following categories:
    - Maintenance of the transportation network
    - Capital improvements
    - Personnel services
    - Debt services
- Preparation of planning period funding and expenditure forecasts. For many smaller jurisdictions, the projection of revenue and expenditure information using historical trends is the most common and readily available method. Caution should be used, as this method assumes historical trends will continue in the future, which is not always the case.

Documentation of Existing Conditions and Needs

The existing conditions and needs analysis should be documented in a technical memorandum that includes the following:

- Narrative, tables, and maps of all multimodal transportation facilities at a level of detail adequate to represent the existing transportation infrastructure. Where specific modal elements are not applicable, the memo should document what is not relevant to the current transportation planning process and why.
- Narrative, tables, and maps that describe the current deficiencies and gaps within the existing transportation infrastructure.
- Narrative and tables that describe the existing revenue and expenditures used to fund the local transportation system.

Example TSPs provide different ways of summarizing the existing conditions and needs as outlined in these guidelines.

Step 4: Future Conditions

After the existing conditions assessment in Step 3, the next step in the planning process is to analyze future multimodal travel needs and identify future deficiencies and gaps in the transportation infrastructure. The future conditions analysis combines information from the transportation inventory and needs analysis developed in Step 3 with information about planned transportation improvements and anticipated changes in population and employment.

OAR 660-012-0030(3)(a) and OAR 660-012-0100(3)(b) indicate that future transportation needs shall be based on population and employment forecasts and distributions, consistent with the acknowledged comprehensive plan, and at least 20 years from the date the TSP is projected to be adopted. Depending on the scope of the project, developing or updating a TSP can take one or more years to complete. Accordingly, jurisdictions should set a longer time period for analysis. For example, a 22- or 23-year forecast may be needed to provide extra time to complete the planning and adoption process and to ensure that the plan horizon, or forecast year for the TSP, is at least 20 years from the point of adoption. This may not be possible in all cases. For example, if the regional travel demand model does not have a forecast year that is far enough into the future, the forecast year will need to be extended; otherwise, the TSP may not be a 20-year plan.

It is important that this step be accomplished in coordination with state, regional, and local transportation providers to ensure consistency with adopted plans, policies, and projects as well as those plans, policies, and projects currently underway. The product of the future conditions analysis is a technical memorandum. Information is typically presented in a tabular and narrative format with maps showing where the transportation system may not meet local performance standards in the future, such as safety, travel options, and system completeness.

Future Capacity Determination

Future capacity is determined based on an evaluation of capacity-based improvements identified in state, regional, and/or local plans as funded. Future capacity should be determined for all elements of the transportation system that were documented in the existing conditions for the jurisdiction (i.e., roadway, transit, bicycle, pedestrian, freight, rail, air, pipeline, and/or marine) as appropriate for the jurisdiction.

Determining Future Capacity in Metropolitan Areas

For jurisdictions in non-metropolitan areas, follow the steps outlined below:

Shall

At a minimum, this step ***shall*** include the following:

- Identify potential changes to performance standards and targets in state, regional, and local plans. Cities and ODOT are required to adopt at least two performance standards for their facilities within metropolitan areas per OAR 660-012-0215. At least one of the transportation performance standards must support increasing transportation options and avoiding principal reliance on the automobile, while the other may still relate to performance of the system for vehicles.
    - Potential or adopted performance standards may be considered at this stage to determine the desired future performance of the transportation system for vehicles. These alternatives may include:

        - Modifications to or replacement of existing vehicle mobility standards (i.e., level of service and volume-to-capacity ratios) to accept higher levels of congestion during the peak hour or over multiple hours while focusing on other priorities
        - Time-based measures such as delay, travel time, or travel time reliability (assessed via dynamic traffic assignment models)
        - Focus on safety performance, connectivity, and completeness
    - See **Performance Standards** in Step 2 for additional information on performance standards.

Should

In addition to the items listed above, this step ***should*** include the following elements when locally appropriate and when funding allows:

- Identify committed capacity-based improvements in state, regional, and local plans.
    - Committed capacity-based improvements may include system improvements identified in the State Transportation Improvement Program, Metropolitan Transportation Improvement Programs, local Capital Improvement Programs, or other improvements that have a committed funding source that are expected to be built before the end of the planning horizon. See OAR 660-012-005(6) for the definition of "Committed Transportation Facilities."
    - Committed capacity-based improvements may include improvements to the roadway system or the pedestrian, bicycle, transit, or other transportation systems (e.g., urban upgrades) that do not necessarily impact roadway capacity.
- Add committed capacity to current capacity to determine baseline capacity through the planning horizon.
    - Committed roadway capacity-based improvements should already have gone through the **Enhanced Review Process** if subject to OAR 660-012-0830. If the improvement has not gone through that process and is not exempt, it should not be added as part of the future capacity and should be considered in **Step 5: Solution Development & Evaluation**.

Determining Future Capacity in Non-Metropolitan Areas

For jurisdictions in non-metropolitan areas, follow the steps outlined below:

Shall

At a minimum, this step ***shall*** include the following:

- Identify committed capacity-based improvements in state, regional, and local plans.
    - Committed capacity-based improvements may include system improvements identified in the State Transportation Improvement Program, local Capital Improvement Programs, or other improvements that have a committed funding source that are expected to be built before the end of the planning horizon. See OAR 660-012-005(6) for the definition of "Committed Transportation Facilities."

    - Committed capacity-based improvements may include improvements to the roadway system or the pedestrian, bicycle, transit, or other transportation systems (e.g., urban upgrades) that do not necessarily impact roadway capacity.

- Add committed capacity to current capacity to determine baseline capacity through the planning horizon.

Should

In addition to the items listed above, this step ***should*** include the following elements when locally appropriate and when funding allows:

- Identify changes to performance standards and mobility targets in state, regional, and local plans.
    - Performance standards and mobility targets may be considered at this stage to determine the desired future capacity of the transportation system. These alternatives may include:
        - Modifications to or replacement of existing mobility standards (i.e., level of service and volume-to-capacity ratios) to accept higher levels of congestion during the peak hour or over multiple hours while focusing on other priorities.
        - Time-based measures such as delay, travel time, or travel time reliability (assessed via dynamic traffic assignment models).
    - See the Oregon Highway Plan for additional information on alternative mobility targets.
- Consider potential increases in roadway capacity and throughput related to emerging technologies and trends in transportation.

Future Travel Demand Determination

Future travel demand is determined based on an evaluation of the adopted comprehensive plan land uses assumptions and population and employment forecasts. Future travel demand should be determined for all elements of the transportation system that were documented in the existing conditions for the jurisdiction (e.g., air, bicycle, marine, pedestrian, pipeline, rail, roadway, public transit, and truck freight) as appropriate for the jurisdiction and scaled to community size. The impact of anticipated changes in land use and/or the addition of significant traffic generators should consider all travel modes.

Shall

At a minimum, this step ***shall*** include:

- Population changes through the planning horizon – Portland State University's Population Research Center provides population data, information, research, and analysis for Oregon and its communities.
- Employment changes through the planning horizon – Most larger communities have completed economic opportunity analyses. Some regions have also completed regional economic opportunity analyses. Some of those documents, depending on the magnitude of work completed, include employment forecast data. Otherwise, the U.S. Census and the Oregon Employment Department can provide information on employment growth.

- Projected changes in population and employment shall be distributed throughout the Urban Growth Boundary consistent with the acknowledged comprehensive plan. The changes in population and employment shall be converted into personal travel on the transportation system and then assigned as pedestrian, bicycle, transit, and motor vehicle volumes. The additional volumes shall be applied to current volumes to produce a forecast of future transportation system conditions. The forecasting methodology should be appropriate to the questions being asked and the complexity of the issues related to the transportation system. There are four levels of the methodology, ranging from simple, straightforward trending analyses to more complex and sophisticated regional transportation modeling:

    - **Level 1: Trending Forecast** or a similar forecasting methodology should be used in areas where there has been slow or steady growth or where there is not enough data available to perform a cumulative analysis.

    - **Level 2: Cumulative Analysis** or a similar forecasting methodology is preferred over the Level 1 Trending Forecast analysis in areas that are growing quickly, where differing rates of growth exist, and when adequate data is available.

    - **Level 3: Transportation Model** or a similar forecasting methodology is preferred for jurisdictions with a population greater than 15,000 or where a transportation demand model exists (regardless of size).

    - **Level 4: Regional Transportation Model** or a similar forecasting methodology is required for metropolitan areas (50,000+ persons).

Note: Forecasting future travel demand within metropolitan areas may be an iterative process given the requirement for local agencies to not increase vehicle miles traveled (VMT) per capita within the planning horizon. Local agencies will likely complete an initial forecast, then revise and review the forecast to evaluate the impacts of potential land use changes and transportation facility improvements on VMT per capita. Each iteration of the model will likely affect short timelines and small budgets. Alternatively, local agencies may exclude projects from their financially constrained plan that are subject to the enhanced review process (rule 0830). In which case, the agency does not need to show a reduction in VMT per capita.

Should

In addition to the items listed above, this step ***should*** include the following elements when locally appropriate and when funding allows:

- Consider potential increases in future travel demand related to emerging technologies and trends in transportation.

- Autonomous and semi-autonomous vehicles have the potential to increase travel demand by shifting people from one travel mode to another (e.g., walking, biking, taking transit to an autonomous vehicle), increasing mobility of people who currently cannot drive (e.g., elderly, disabled, youth), and increasing e-commerce and the frequency of deliveries.

Communities updating a TSP should consult with ODOT Region Planners, Transportation Development Division (Planning), Transportation Planning Analysis Unit, and the *Analysis Procedures Manual* to determine the appropriate methodology to forecast future demand for their community. Note: Jurisdictions should contact ODOT Region Active

Transportation and Transit Liaisons, Rail and Public Transit Division, Freight Mobility Unit, or the Department of Aviation for guidance in estimating future demand, capacity, deficiencies and needs for their respective modes.

Future Deficiencies Determination

Jurisdictions shall determine future deficiencies for all elements of the transportation system, consistent with elements assessed under the existing conditions analysis (e.g., roadway, transit, bicycle, pedestrian, freight, rail, air, pipeline, and/or marine) as appropriate for the jurisdiction.

Shall

At a minimum, determining future deficiencies ***shall*** include the following:

- Compare future travel demand to future capacity for all travel modes feasible for the jurisdiction through the planning horizon, based on the performance measures or measures of adequacy developed in **Step 2: Goals, Objectives & Performance Tracking.**
- Examples of gaps and deficiencies include areas of high crash rates, poor transit service, low bicycle and pedestrian level of service, and poor pavement conditions as well as absence of future connectivity for all modes, depending on the measures of adequacy developed in **Step 2: Goals, Objectives & Performance Tracking .**
- Transportation deficiencies may be considered to potentially occur where future travel demand or conditions would exceed the threshold of the adopted performance standard(s) or would not be expected to meet other applicable goals and performance standards and measures.
- Further guidance is provided by mode below.

Should

In addition to the items listed above, determining future deficiencies ***should*** include the following elements when locally appropriate and when funding allows:

- Clearly describing deficiencies and, where possible, the time period in which they are likely to occur. For example, some intersections may not fail until the 20th year of the planning horizon, while others may fail within 5 years. Another example could be an area of a jurisdiction with low levels of transit service where low-income housing is forecast to increase substantially in the next 10 years.
- Identifying infrastructure unable to sustain an earthquake and subsequent effects as a potential future deficiency.
- Identifying deficiencies in the pedestrian and bicycle network associated with heat island effects, traveler comfort, and where street trees or other mitigations may improve travel.
- Identifying resiliency-type deficiencies associated with non-operational deficiencies for transportation infrastructure in areas that are exposed to natural hazards (flooding, landslides, wildfire, heat), projected impacts from rising sea levels, or seismic/tsunami events.

Modal Future Deficiencies Determination

Deficiencies are defined as the difference between the current transportation system and adopted standards or targets and may reflect performance measures and evaluation criteria developed in **Step 2: Goals, Objectives & Performance Tracking.**. Deficiencies are capacity or design constraints that limit but do not prohibit the ability to travel by a given mode.

Air

The following table identifies the air elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *It should be noted that while air transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Air Element	Non-Metropolitan Area	Metropolitan Area
Evaluation of multimodal access to air facilities, including bicycle parking, based on the future no-build condition and future land use conditions	◐	◐
Evaluation in intermodal linkages for passengers and goods, based on the future no-build condition	◐	◐

Bicycle

Cities and counties must consider the needs of all users when identifying future deficiencies in the bicycle system. Within non-metropolitan areas, local governments must identify needs along all arterial and collector streets. Within metropolitan areas, local governments must identify needs along all streets, including local streets, as well as off-street paths and trails within climate-friendly areas, within Metro Region 2040 centers, within one-quarter mile of all primary and secondary schools, and along bicycle boulevards. Outside of these areas, future deficiencies must be considered for arterials and collectors only (OAR 660-012-0605[2]).

The following table identifies the bicycle elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Bicycle Element	Non-Metropolitan Area	Metropolitan Area
If the future no-build condition or future land use conditions impact the input factors, analysis of bicycle connectivity along key study corridors using one of two methodologies: • Conduct a Qualitative Multimodal Assessment of the bicycle network (see the ODOT *Analysis Procedures Manual* for technical guidance) • Conduct a bicycle level-of-traffic stress analysis of the bicycle network (see the ODOT *Analysis Procedures Manual* for technical guidance)	◐	◐
Evaluation of gaps in bicycle access to/from key destinations, including transit stops, schools, shopping areas, medical facilities, civic and recreational uses, and trails, based on the future no-build condition and future land use conditions	◐	●
Analysis of bicycle risk-based safety issues (see the ODOT Bicycle Safety Implementation Plan for additional information), based on the future no-build condition and future land use conditions	◐	●

Marine

The following table identifies the marine elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *It should be noted that while marine transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Marine Element	Non-Metropolitan Area	Metropolitan Area
Identification of any capacity issues related to infrastructure/programs (water taxis, ferries, etc.) that use navigable lakes, streams, or rivers for transportation of goods and passengers, based on the future no-build condition and future land use conditions	●	◐
Identification and description of any capacity issues related to port facilities and operations, based on the future no-build condition and future land use conditions	●	◐
Evaluation of multimodal access to port facilities, including bicycle parking, based on the future no-build condition and future land use conditions	◐	◐
Identification and description of any issues related to land availability and use, based on the future no-build condition and future land use conditions	○	○
Identification of the adequacy of marine port parking facilities, based on the future no-build condition and future land use conditions	○	○

Pedestrian

Cities and counties must consider the needs of all users when identifying future deficiencies in the pedestrian system. Within non-metropolitan areas, local governments must identify needs along all arterial and collector streets. Within metropolitan areas, local governments must identify needs on all streets, including local streets, as well as off-street paths and trails within climate-friendly areas, within Metro Region 2040 centers, and within one-quarter mile of all primary and secondary schools. Outside of these areas, gaps and deficiencies must be considered for arterials and collectors only (OAR 660-012-0605[2]).

The following table identifies the pedestrian elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Pedestrian Element	Non-Metropolitan Area	Metropolitan Area
If the future no-build condition or future land use conditions impact the input factors, analysis of pedestrian connectivity along key study corridors using one of two methodologies: • Conduct a Qualitative Multimodal Assessment of the pedestrian network (see the ODOT *Analysis Procedures Manual* for technical guidance) • Conduct a pedestrian level of traffic stress analysis of the pedestrian network (see the ODOT *Analysis Procedures Manual* for technical guidance)	◐	◐
Evaluation of gaps in pedestrian access to/from key destinations, including transit stops, schools, shopping areas, medical facilities, civic and recreational uses, and trails, based on the future no-build condition and future land use conditions	◐	●
Analysis of pedestrian risk-based safety issues (see the ODOT Bicycle and Pedestrian Safety Implementation Plan for additional information), based on the future no-build condition and future land use conditions	◐	●
Evaluation of marked crossings, including location, spacing, treatments, etc., based on the future no-build condition and future land use conditions	◐	●

Pipeline

The following table identifies the pipeline elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *While pipeline transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Pipeline Element	Non-Metropolitan Area	Metropolitan Area
In coordination with service provider capital facility plans, identification of any deficiencies associated with pipeline capacity, location, terminals, etc.	●	●

Rail

The following table identifies the rail elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. *While rail transportation is not a required element of a metropolitan area TSP, it may be an important aspect of a community's transportation system.*

Rail Element	Non-Metropolitan Area	Metropolitan Area
Evaluation of multimodal access to rail facilities, including bicycle parking	◐	◐
Evaluation of land use connections (e.g., access to industrial zoned areas)	◐	◐

Roadway

The following table identifies the roadway elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Roadway Element	Non-Metropolitan Area	Metropolitan Area
Identification and evaluation of street connectivity for higher classification streets (i.e., arterials and collectors) consistent with OAR 660-012-0020(2)(b) and 660-012-0045(3)(b), based on the future no-build condition and future land use conditions.	●	◐
Evaluation of future traffic operations at the identified study intersections and roadway segments consistent with the methodologies identified in the latest Highway Capacity Manual (see the ODOT Analysis Procedures Manual for further guidance).	●	◐
Comparison of future traffic operations to state, regional, and local mobility and other local vehicle system performance standards and targets to identify deficiencies.	●	◐
Evaluation of the local street network and the identification of areas where new local streets will be needed, based on the future no-build condition and future land use conditions. Cities and counties must plan local streets in climate-friendly areas and Metro Region 2040 centers to prioritize pedestrian and bicycle systems and be limited to local access for motor vehicles.	◐	●
Evaluation of the collector street network and the identification of new collector streets connected with local streets and arterials, based on the future no-build condition and future land use conditions. Cities and counties must plan collectors in climate-friendly areas and Metro Region 2040 centers to prioritize pedestrian, bicycle, and public transportation systems.	◐	●
Evaluation of the arterial street network, identification of new arterial streets connected with local streets and arterials, and designation of arterial streets as local access priority, through movement priority, or arterial segments in a climate-friendly area, based on the future no-build condition and future land use conditions	◐	●
Evaluation of detailed transportation patterns with an origin/destination analysis if necessary.	○	○
Comparison of access spacing along key study corridors to applicable standards and identification of deficiencies, based on the future no-build condition and future land use conditions.	○	○

Public Transportation

Cities and counties must work in close cooperation with transit service providers to complete the public transportation system element of the TSP. Cities and counties must consider the needs of all users when identifying future deficiencies in the transit system.

The following table identifies the public transportation elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows.

Public Transportation Element	Non-Metropolitan Area	Metropolitan Area
Evaluation of gaps in the local transit network that serve key destinations, including schools, shopping areas, medical facilities, civic and recreational uses, and trails, based on the future no-build condition and future land use conditions	◐	●
Evaluation of transit corridors, including priority and other transit corridors in areas with greater than 10,000 in population, based on the future no-build condition and future land use conditions	◐	●
Evaluation of transit supportive facilities on priority and other transit corridors, including stations, hubs, stops, shelters, signs, and ancillary features, based on the future no-build condition and future land use conditions	◐	●
Qualitative multimodal assessment of the public transit system (see the ODOT Analysis Procedures Manual for technical guidance), based on the future no-build condition and future land use conditions	●	●
Analysis of future public transit service using the methodologies identified in the *Transit Capacity Manual and the Quality of Service Manual* for service hours, service frequency, and service coverage, based on the future no-build condition and future land use conditions	○	○
Identification of potential deficiencies in service hours and frequency based on future population and employment density	○	○
Identification of potential gaps in service coverage based on future population and employment density	○	○
Analysis of where key community destinations are in proximity to transit, including schools, shopping areas, medical facilities, civic and recreational uses, and trails, based on the future no-build condition and future land use conditions	○	○
Assessment of the travel sheds that intercity or commuter service can help accommodate (maps showing shopping, schools, healthcare, parks, government buildings, etc., are valuable for this analysis), based on the future no-build condition and future land use conditions	○	○

Truck Freight

The following table identifies the truck freight elements that shall (●) be addressed in the future deficiencies determination to meet best practices and/or ensure compliance with the TPR. The table also identifies elements that should (◐) be included when locally appropriate and when funding allows, and elements that, although not typically required or critical to the development of most TSPs, could (○) be included when locally appropriate and when funding allows. While truck freight transportation is not a separately required element of a metropolitan area TSP, components of this section are required, and it may be useful to create a truck freight section independent of the broader roadway element.

Truck Freight Element	Non-Metropolitan Area	Metropolitan Area
Discussion of roadway access and the use of performance measures or standards (e.g., congestion, condition, and safety) to identify existing and potential deficiencies related to the movement of freight on the National Highway System	●	◐
Identification of any physical deficiencies related to the movement of freight at intersections with significant truck traffic	◐	◐

Future Needs Determination

Each jurisdiction should determine future needs for all elements of the transportation system (e.g., air, bicycle, marine, pedestrian, rail, roadway, public transportation, and truck freight) as appropriate.

Shall

At a minimum, this step ***shall*** include:

- Identification of future needs:
    - Needs should address differences between future transportation system characteristics and adopted performance standards (660-012-0215) or performance measures (660-012-0905 and -0910) for that characteristic as determined in **Step 2: Goals, Objectives & Performance Tracking**. For state transportation facilities, the identification of needs shall be based on the standards and targets identified in the Oregon Transportation Plan and associated statewide modal and topic plans.
        - Roadway and road facility needs (e.g., new roadways, travel lanes, traffic control) should be identified according to state and local adopted performance standards and thresholds, such as level-of-service standards, safety performance, volume-to-capacity ratios or crosswalk spacing. Performance standards for state highway facilities must be consistent with the Oregon Highway Plan (currently being updated) or adopt alternative performance standards.
        - Other non-vehicular facility needs (e.g., new sidewalks, on-street bike lanes, transit service) should be identified against locally adopted performance standards or performance measures.

The determination of state needs should be based on performance metrics adopted in statewide modal plans and policies, including the *Highway Design Manual*.

Should

In addition to the items listed above, this step ***should*** include the following elements when locally appropriate and when funding allows:

- Identify potential interim needs within the 20-year planning horizon
- Consider potential changes in goals, policies, standards, and investment strategies to prepare for emerging technologies and trends in transportation

Step 5: Solution Development & Evaluation

The following information provides a detailed overview on how to develop, evaluate, and select multimodal transportation alternatives.

Developing and Evaluating Solutions Overview

In preparing a TSP, a jurisdiction must develop and evaluate solutions that address the transportation system needs identified from the existing and future conditions analyses. As indicated in previous steps, a jurisdiction's needs may vary significantly based on the size of the community, the anticipated change in population and employment, and the characteristics of the transportation system, as well as local, regional, and state regulatory requirements. Therefore, the solutions developed as part of a TSP should reflect the character and complexity of the jurisdiction's transportation system and should be tailored to meet the community's needs.

Large communities and metropolitan planning areas should carefully adhere to the level of detail called for below. In addition to the requirements in OAR 660-012-0100, jurisdictions within metropolitan areas must ensure that the local TSP is consistent with the applicable Regional Transportation Plan. Smaller communities with less complex transportation issues may find an abbreviated analysis adequate.

Communities that are considering major improvements on the state highway system are advised to develop solutions that reflect the ODOT major improvements policy addressed in Policy 1G of the Oregon Highway Plan. Policy 1G emphasizes maintaining the current transportation system and improving system efficiency of existing state highways before adding capacity or new facilities to the system. The solutions should also reflect Goal 2 of the Oregon Transportation Plan, which is to improve the efficiency of the transportation system by optimizing the existing transportation infrastructure capacity with improved operations and management.

Communities are also advised to develop solutions that take into consideration environmental constraints. For major projects that are likely to involve federal funding or located on Federal Aid facilities, local governments should consider if and how National Environmental Policy Act (NEPA) requirements apply. Elements of a TSP likely to be funded that will result in a major construction project should consider NEPA requirements and be developed under the guidance of a Purpose and Need statement. Alternatively, the TSP should include a statement that describes the purpose and need for the planned project to ensure that future project development is consistent with the original intent.

Cities and counties in metropolitan areas should consider the need to reduce vehicle miles traveled (VMT) per capita within the planning horizon when developing and evaluating solutions, particularly solutions that may be subject to the enhanced review process per rule 0830. Cities and counties in metropolitan areas should also consider the need to incorporate solutions for transportation facilities and services that are owned, operated, and/or maintained by others (such as transit systems) and coordinate with the facility owners/operators as needed.

Developing Solutions

OAR 660-012-0035 provides the requirements for the evaluation and selection of transportation system alternatives (referred to in this guidance as “solutions”) in non-metropolitan areas. As noted, “...the TSP shall be based upon evaluation of potential impacts of system alternatives (or solutions) that can reasonably be expected to meet the

identified transportation needs in a safe manner and at a reasonable cost with available technology." Per OAR 660-012-0035, the following components are to be evaluated as part of the system of solutions:

- Improvements to existing facilities or services
- New facilities and services, including different modes or combinations of modes that could reasonably meet identified transportation needs
- Transportation System Management measures
- Transportation Demand Management measures
- A no-build system alternative

From a modal perspective, the types of solutions that will need to be considered as part of the development or update of a TSP are summarized in the following sections. The solutions for non-metropolitan areas are primarily based on best practices, while the solutions for metropolitan areas are based on requirements in OAR 660-012-0510, -0610, -0710, -0810, and others. It is important to ensure that these solutions are consistent with the purpose, goals, objectives, performance measures, and targets established earlier in the planning process. OAR 660-012-0100(8) requires cities and counties in metropolitan areas to design their transportation system plans to achieve the performance targets provided in OAR 660-012-0910. Solutions should be developed to meet the identified community's transportation needs and to advance community goals, such as safety, equity, and community health. Solutions should also include opportunities to improve the existing transportation system's efficiency through strategies like Transportation System Management and Operations, land use, and access management. Finally, the proposed solutions should align with current and likely future funding sources to ensure they are feasible for implementation within the planning horizon.

Air

Air facilities consist of public and private airports, including international, national, and local aviation facilities. Most air facilities have their own separate master plans that guide the near- and long-term needs of the facility. As such, most local jurisdictions have found it critical to ensure that their TSP is at least consistent with and closely references the facility master plan. Beyond maintaining consistency, the development and evaluation of solutions is mainly focused mainly on improving multimodal access to the air facility.

The following table identifies elements of the air system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows

Air Solutions	Non-Metropolitan Area	Metropolitan Area
Solutions needed to maintain consistency with the airport master plan (assuming it has been prepared separately from the TSP)	●	◑
Solutions identified in, or consistent with, other state, regional, and local plans and policies	●	◑
Solutions that provide or improve bicycle, pedestrian, transit, roadway, and freight access to air facilities	●	◑
Solutions that address or improve the near- and long-term air travel needs of the air facility when not prepared as part of a separate facility master plan	◑	◑
Solutions that integrate intermodal connectors within or adjacent to air facilities	◑	◑

Bicycle

Bicycle facilities are elements of the transportation system that enable people of all abilities to travel by bike. At the TSP level, these typically include facilities along streets (e.g., separated bicycle facilities, on-street bike lanes, shared lane pavement markings, and signs), shared-use paths and trails, and facilities at key crossing locations (e.g., enhanced bicycle crossings). End-of-trip facilities (e.g., secure bike parking, changing rooms, and showers at worksites) should be considered where these facilities are typically implemented through the development code. Each facility plays a role in developing a comprehensive bicycle system.

The following table identifies elements of a bicycle system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas and to meet the requirements of OAR 660-012-0610 in metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Bicycle Solutions	Non-Metropolitan Area	Metropolitan Area
Completeness of the bicycle network	●	●
Gaps and deficiencies in the bicycle facilities along all arterials and collectors	●	●
Gaps and deficiencies in the bicycle facilities along all streets (including local streets) within climate-friendly areas, within Metro Region 2040 centers, within one-quarter mile of all primary and secondary schools, and along designated bicycle boulevards	◑	●
Gaps in the bicycle facilities that would link key community destinations (e.g., major employment centers, schools, parks, transit stops, intermodal facilities, and recreation areas)	●	●
Known safety issues in the bicycle network (specifically, crash history, noting fatal and severe injury crashes, or roadway characteristics such as number of lanes, speed, and volume of motor vehicles)	●	●
Enhanced facilities (above the minimum bicycle system requirements) where necessary or desirable	◑	●
Bicycle facility design standards for arterials, collectors, and shared-use paths	●	●
Bicycle projects identified in other relevant state, regional, and local plans	●	●
Bicycle facilities with: • Separated bike lanes (including cycle tracks) • Buffered bike lanes • On-street bike lanes • Shoulder bikeways • Shared roadway pavement marking and signs • Shared use paths	◑	●
Enhanced bicycle crossings with: • Bike boxes • Two-stage turn queue boxes • Intersection crossing markings • Median diverters	◑	●

• Protected intersections		

End-of-trip facilities with:
• Bicycle parking
  o Short-term bicycle parking
  o Long-term bicycle parking
• Changing rooms/showers
	◑	◑

Guide signs	◑	◑
Programs and policies that encourage bicycle use. Additional information on these types of programs and policies is provided in the Transportation System Management and Transportation Demand Management section below.	○	○

Marine

Marine facilities consist of navigable lakes, streams, rivers, and similar water bodies and the infrastructure/programs (water taxis, ferries, etc.) that use them for transportation of goods and passengers. While most marine facilities have their own master plans, it is necessary to identify and evaluate solutions within the TSP that are consistent with the master plans as well as solutions that improve access to the facilities.

The following table identifies elements of the marine system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows

Marine Solutions	Non-Metropolitan Area	Metropolitan Area
Solutions needed to maintain consistency with the marine facility master plan (assuming it has been prepared separately from the TSP)	●	◑
Solutions identified in, or consistent with other state, regional, and local plans and policies	●	◑
Solutions that provide or improve bicycle, pedestrian, transit, freight, and roadway access to marine facilities	●	◑
When not prepared as part of a separate facility master plan, including solutions that address or improve the near- and long-term travel and infrastructure needs of the marine facility	◑	◑
Solutions that improve marine and/or intermodal facilities and connectors related to marine activities or facilities (e.g., water taxis, ferries)	◑	◑

Pedestrian

Pedestrian facilities are the elements of the transportation system that enable people to walk or roll throughout the local jurisdiction. These include facilities for pedestrian movement along the planned pedestrian network (e.g., sidewalks on key roadways, shared-use paths, and trails) and for safe roadway crossings (e.g., enhanced pedestrian crossings). Each facility plays an important role in developing a comprehensive pedestrian system.

The following table identifies elements of the pedestrian system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas and to meet the requirements of OAR 660-012-0510 in metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Pedestrian Solutions	Non-Metropolitan Area	Metropolitan Area
Completeness of the pedestrian network	●	●
Gaps and deficiencies in the pedestrian network along all arterials and collector	●	●
Gaps and deficiencies in the pedestrian network along all streets (including local streets) within climate-friendly areas, within Metro Region 2040 centers, and within one-quarter mile of all primary and secondary schools	◑	●
Gaps in the pedestrian facilities that would link key community destinations (e.g., major employment centers, schools, parks, transit stops, intermodal facilities, and recreation areas)	●	●
Known safety issues in the pedestrian network (specifically, crash history, noting fatal and severe injury crashes, or risk-based roadway characteristics such as number of lanes, speed, and volume of motor vehicles)	●	●
Enhanced facilities (above the minimum pedestrian system requirements) where necessary or desirable	◑	●
Pedestrian facility design standards for arterials, collectors, and local streets	●	●
Pedestrian projects identified in other relevant state, regional, and local plans	●	●
Pedestrian facilities with: • Sidewalks	◑	●

• Landscape strips (protective buffers) • Pedestrian pathways/accessways • Pedestrian plazas • Shared-use paths and trails • Pedestrian scale lighting • Pedestrian amenities		
Enhanced pedestrian crossings with: • High visibility pavement markings and signs • Raised median islands with pedestrian refuge • Flashing beacons (e.g., rapid flashing beacons, pedestrian hybrid beacons) • Curb extensions	◑	●
Americans with Disabilities Act (ADA)-compliant features: • Pedestrian ramps • Sidewalks • Accessible pedestrian signals at crossings	◑	◑
Programs and policies that encourage pedestrian activity (additional information on these types of programs and policies is provided in the section below)	○	○

Pipeline

Pipeline facilities typically consist of pipelines and transfer stations that transport natural gas, petroleum products, and water within a community. While most of these facilities are planned, owned, and maintained by private utility companies, it may be necessary to identify and evaluate solutions within the TSP that are consistent with or acknowledge the plans for changes or expansions of the pipeline facilities.

The following table identifies elements of the pipeline system that:

- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows

Pipeline Solutions	Non-Metropolitan Area	Metropolitan Area
Solutions consistent with or acknowledge future modification or expansion plans for pipeline facilities	◐	◐
Solutions identified in other elements of the TSP that consider the location of existing or planned pipeline facilities within a community	◐	◐

Rail

Rail facilities consist of all mainline, branch line, and affiliated railroad facilities that are used for the purposes of moving freight (e.g., railyards, rail terminals, rail crossings). Most railroads have developed separate master plans that guide near- and long-term needs of the rail corridors. As such, most local jurisdictions have found it critical to ensure that their TSP is consistent and closely references rail facility master plans. Beyond maintaining consistency, the development and evaluation of solutions tend to focus on rail crossings and improving multimodal access to rail facilities.

The following table identifies elements of the rail system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows

Rail Solutions	Non-Metropolitan Area	Metropolitan Area
Known safety issues at or near existing or planned rail crossings	●	◑
Solutions needed to maintain consistency with other rail facility master plans (if applicable)	●	◑
Solutions identified in, or consistent with, other state, regional, and local plans and policies	●	●
Solutions that improve the pedestrian, bicycle, transit, freight, and roadway facilities that provide access to rail facilities, particularly passenger and freight rail terminals	●	◑
Solutions that improve rail and/or intermodal facilities related to rail activities or facilities, including facilities that would help establish quiet zones	◑	◑
Solutions that address or improve the near- and long-term travel and infrastructure needs of the rail infrastructure when not prepared as part of a separate rail master plan	◑	◑

Roadway

Roadway facilities refer to all state and local highways, arterials, collectors, and local streets that serve passenger cars and other forms of personal motorized transportation. Roadway facilities are the key component of the local and regional transportation network.

The following table identifies elements of the roadway system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas and to meet the requirements of OAR 660-012

- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Solutions that increase the capacity of the roadway network, as well as other solutions, may be subject to the requirements of OAR 660-012-0830 that addresses the **Enhanced Review of Select Roadway Projects**.

Roadway Solutions	Non-Metropolitan Area	Metropolitan Area
Completeness of the roadway network and local street connectivity relative to local performance measures, standards, and targets	●	●
Gaps and deficiencies in the roadway network along arterials, collectors, and local streets	●	●
Known safety issues in the roadway network (specifically, crash history, noting fatal and severe injury crashes, or risk-based roadway characteristics such as number of lanes, speeds, and volume of motor vehicles)	●	◑
Existing or projected capacity issues or deficiencies per the adopted/potential performance standards along roadway segments and intersections	●	◑
Address gaps and deficiencies in the roadway network that would link key community destinations (e.g., major employment centers, schools, parks, transit stops, intermodal facilities, and recreation areas)	●	●
Roadway design standards for arterials, collectors, and local streets that reflect the minimum size necessary for the identified function, planned land use context, and expected users of the facility (roadway design standards may be included as a reference if located in a separate manual)	●	●
Roadway projects identified in other relevant state, regional, and local plans (projects identified in other plans are also subject to the requirements of OAR 660-012-0830)	●	●
Transportation Demand Management programs and policies that discourage the use of single occupancy vehicles (additional information on these types of programs and policies is provided in the Transportation Options section below)	◑	◑
Signal coordination and timing	◑	◑
System management and operations strategies	◑	◑
Intersection control solutions (e.g., traffic signals, roundabouts)	◑	◑

New arterial and collector streets to serve undeveloped or future expansions of city limits	◑	◑
Local street extensions for undeveloped properties and local street connectivity	◑	◑
Channelization improvements	◑	◑
Additional turn lanes or modifications	◑	◑
Turn prohibitions	◑	◑
One-way/two-way conversions	◑	◑
Roadway reconfigurations (road diets)	◑	◑
Access management strategies (access management standards, access consolidation)	◑	◑
Parking management strategies	◑	◑
Additional arterial/collector travel lanes	○	○
Intersection realignments	○	○
Interchange improvements	○	○
New arterial and collector streets	○	○

Public Transportation

Public transportation service in communities is generally provided by a local or regional transit agency. Service depends on supportive land uses and densities. The community can plan for transit-supportive land use patterns and support future transit viability by designing and building streets that accommodate transit stops and are accessible from pedestrian and bicycle modes.

The following table identifies elements of the public transportation system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas and to meet the requirements of OAR 660-012-0700 through -0720 in metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Public Transportation Solutions	Non-Metropolitan Area	Metropolitan Area
Completeness of the public transportation network	●	●
Gaps and deficiencies in the public transportation network, including transit supportive facilities (e.g., stations, hubs, stops, shelters, signs, and ancillary features)	●	●
Gaps in the public transportation network that would link key community destinations (e.g., major employment centers, schools, parks, transit stops, intermodal facilities, and recreation areas)	●	●
Gaps in the pedestrian and/or bicycle networks that limit access to/from existing or planned transit stops	●	●
Known safety issues at or near existing or planned transit stops	●	◑
Public transportation projects identified in other relevant transit agency plans	●	●
Access to intermodal transit facilities and park-and-ride locations	●	◑
Solutions that address or improve the near- and long-term transit infrastructure/service needs when not prepared as part of a separate transit agency master plan	◑	◑
Transit facilities: • Service hours • Service frequency • Service coverage • Service reliability	◑	◑
Designating public transportation priority corridors or other primary routes	◑	●
Including transit priority treatments on priority corridors where appropriate (e.g., queue jump lanes, signal priority, other solutions to improve traffic flow)	◑	◑
Stop amenities • Accessibility treatments • Shelters • Benches • Schedules	◑	◑

Bus pullouts	◑	◑
Park-and-rides	◑	◑
Intermodal facilities (mobility hubs)	◑	◑
Pedestrian and bicycle access to transit stops	◑	◑
Rideshare facilities and services	◑	◑
Programs and policies that encourage transit use (additional information on these types of programs and policies is provided in the Transportation System Management and Transportation Demand management section below)	○	○

Truck Freight

Truck freight facilities consist of the public roadway and highway infrastructure that provide for the movement of industrial and commercial goods and services. These facilities may have national, state, and/or local freight route designations, or they may be recognized as critical urban and/or rural truck freight corridors.

The following table identifies elements of the freight system that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Truck Freight Solutions	Non-Metropolitan Area	Metropolitan Area
Known multimodal safety issues along designated freight routes (projects that may affect OHP designated freight routes or Reduction Review Routes may require approval from the Mobility Advisory Committee)	●	●
Existing or projected future operational issues and geometric bottlenecks that impact the movement of truck freight along designated freight routes	●	●
Truck freight projects identified in other relevant state, regional, and local plans	●	●
Solutions that improve truck freight access and circulation to local industrial areas	◑	◑
Solutions that improve connections between industrial lands and the State Freight Network	◑	◑
Designation or reclassification of local/regional freight routes	◑	◑
Solutions that improve intermodal freight facilities and connectors or access to intermodal freight facilities	◑	◑
Solutions that address freight reliability along study corridors	○	○
Solutions that improve first- and last-mile access to industrial lands	○	○

Transportation Options

Transportation Options refers to various programs that connect people to transportation choices, allowing them to bike, walk, take transit, drive, share rides, and telecommute. Transportation Options programs do not address capital infrastructure or service investments, such as sidewalks, bike lanes, and transit service. Rather, they provide information and resources to help people learn about their travel options for all types of trips. Transportation Options is also sometimes referred to as Transportation Demand Management, or TDM.

The following table identifies Transportation Options solutions that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas and to meet the requirements of OAR 660-012-0145 in metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Transportation Options Solutions	Non-Metropolitan Area	Metropolitan Area
Commute trip reduction programs for large employers	◑	●
Physical improvements such as carpool parking spaces and park and ride locations	◑	●
Regional solutions for intercity travel	◑	●

Other Solutions

Land Use

Land use plays an important role in developing a comprehensive transportation system. The amount of land that is planned to be developed, the type of land uses, and how the land uses mix together directly impact how the transportation system will be used in the future. Understanding land use is critical to maintaining or enhancing the transportation system.

The following land use solutions ***could*** be considered, particularly in metropolitan communities:

- **Mixed-use development.** Encourage mixed-use zoning, which allows for a combination of residential, commercial, and recreational activities within the same area.
- **Transit-oriented development (TOD).** Enable TOD and promote the development of high-density, mixed-use areas around public transit hubs (such as bus stops or train stations). This type of development makes it easier for people to access transit and reduces car dependency.
- **Employment hubs.** Promote job centers in proximity to residential areas to reduce the need for long commutes. Encourage businesses to locate in areas accessible by public transit.
- **Urban design.** Create pedestrian-friendly and walkable areas with a focus on human-scale design, making it pleasant and safe for people to walk and bike.
- **Special Transportation Areas (STAs).** Establish highway segment designations of STAs, Urban Business Areas (UBAs), or Commercial Centers. Establishing an STA, UBA, or Commercial Center designation, as described in the Oregon Highway Plan, recognizes historical settlement patterns and land uses and will allow for more compact development patterns along state highways.
- **Multimodal Mixed-Use Areas (MMAs) and Climate-Friendly Areas (CFAs).** Consistent with OAR 660-012-0060 and -0300, select specific areas for future development designated to encourage walking, biking, or public transit. These areas are appropriate for more densely built development and fewer parking requirements.

These land use strategies, whether approached individually or in combination, can help mitigate traffic impacts, reduce congestion, and improve air quality. Changes in land use designations require involved and well-considered public processes and may add time and complexity when pursued; therefore, care should be taken when considering land use solutions concurrent with the development or update of a TSP.

Transportation System Management and Transportation Demand Management

Transportation System Management (TSM) and TDM strategies are two complementary approaches to managing transportation and maximizing the existing system. TSM addresses the supply of the system and uses strategies to improve the system's efficiency without increasing roadway widths or building new roads. TSM measures are focused on improving operations by managing capacity during peak times, often with advanced technologies to improve traffic operations. TDM addresses the demand on the system—the number of vehicles traveling on the roadways each day. TDM measures include any method intended to shift travel demand from single occupancy vehicles to non-auto modes or carpooling and shift travel periods to less congested times of the day.

The following table identifies TSM and TDM solutions that:

- ***Shall*** (●) be addressed or included in the solutions analysis to meet best practices in non-metropolitan areas
- ***Should*** (◐) be addressed or included in non-metropolitan and metropolitan areas when locally appropriate and when funding allows
- ***Could*** (○) be addressed or included in non-metropolitan and metropolitan areas, although not typically required or critical to the development of most TSPs

Transportation System Management (TSM) and Transportation Demand Management (TDM) Solutions	Non-Metropolitan Area	Metropolitan Area
TSM		
• Traffic signals		
o Signal phasing and timing optimization		
o Signal coordination		
o Adaptive signal control		
o Traffic responsive signal control		
o Automated traffic signal performance measures		
• Ramp meters		
• Reversible lanes		
• Dynamic lane assignment		
• Dynamic routing	◑	◑
• Integrated corridor management		
• Hard shoulder running		
• Access management		
• Traffic incident management		
• Intelligent Transportation System		
o Variable message signs		
o Variable speed limit signs		
o Transit signal priority		
o Freight signal priority		
o Emergency medical services preemption		

- Connected vehicle applications
- Traveler information

TDM

- Real-time traveler information
- Real-time transit information
- Carpool and vanpool services
- Parking management strategies
  - Required parking ratios in the Development Code
  - Parking fees
  - Parking time limits
  - Parking districts
  - Parking prohibitions ◑ ◑
- Pricing strategies
  - Fixed-toll pricing
  - Variable pricing
  - Congestion pricing
  - Usage-based pricing
- Commute trip reduction programs
- Programs that encourage active forms of transportation
  - Bike sharing
  - Safe routes to school
  - Walking school bus

Health Impacts

In Oregon, four of the top eight leading causes of death and disability—heart disease, stroke, diabetes, and cancer—are directly related to physical inactivity. Increasing opportunities for active transportation is an effective strategy for increasing physical activity rates enough to have measurable health benefits. When looking for ways to promote active transportation, it is also important to keep in mind other health issues that are directly related to transportation—exposure to air pollution, unintentional injuries (crashes), and access to resources.

To ensure that active transportation plans and investments do not compromise health outcomes, the following issues should be considered:

- Proximity to high-traffic roadways. Air pollution is most concentrated on and near busy roads (within 300 feet). Developing bicycle and pedestrian networks on nearby low-traffic streets can help minimize exposure to roadway air pollution.
- Connectedness to neighborhood commercial areas and community destinations such as parks and schools.
- Safety measures for pedestrians, bicyclists, and transit users, including:
  - Lighting
  - Mode separation or minimized mode conflict when possible

- Compliance with the Americans with Disabilities Act
- Signalized or enhanced crossings near bus stops

Resources

- Statewide Plans and Policies: Oregon Transportation Plan (OTP) with modal, topic, and other plans
- Plans, Architectures, and Reports: Intelligent Transportation System (ITS), Transportation Options (TO), and other plans

Evaluating Proposed Solutions

Evaluation of the solutions should begin with a future “no-build" condition that illustrates the impact of not changing the current transportation system beyond improvements with funding that is already committed. The future no-build condition is the condition against which the proposed solutions are compared and an important tool for meaningful transportation decision-making. Typical components of the future no-build condition include existing pedestrian, bicycle, transit, and roadway systems as well as the committed projects associated with each system.

The future no-build condition and the solutions developed to address the identified needs should be evaluated against evaluation criteria established earlier in the TSP during Step 2: Goals, Objectives, & Performance Tracking. In addition to evaluation criteria based on goals and objectives from Step 2, the evaluation criteria should also help identify:

- Environmental constraints – Solutions may impact rivers, streams, wetlands, or other designated environmentally sensitive areas
- Engineering feasibility constraints – Solutions may pose substantial engineering challenges
- Funding constraints – Solutions may have significant costs, so order-of-magnitude cost estimates should be developed for each of the solutions

The preliminary set of evaluation criteria may be different from the criteria developed early in the planning process to evaluate the projects included in the TSP and may be qualitative in nature.

The application of these criteria should help to identify the preferred set of solutions or, at a minimum, prioritize or reduce the potential number of solutions to be included in the TSP.

Evaluation Criteria for Non-Metropolitan Areas

OAR 660-012-0035 provides guidance on the identified criteria to evaluate and select the preferred solutions in non-metropolitan areas. Selected solutions shall:

- Support urban and rural development by providing types and levels of transportation facilities and services appropriate to serve land uses identified in the acknowledged comprehensive plan
- Be consistent with state and federal standards for protection of air, land, and water quality, including the State Implementation Plan under the Federal Clean Air Act and the State Water Quality Management Plan
- Minimize adverse economic, social, environmental, and energy consequences
- Minimize conflicts and facilitate connections between modes of transportation
- Increase transportation choices to reduce principal reliance on the automobile

Evaluation Criteria for Metropolitan Areas

For cities and counties in metropolitan areas and Metro, OAR 660-012-0155, -0520, -0620, -0720, and -0820 require specific criteria when evaluating and prioritizing projects as part of the TSP development process. To see the specific requirements, see **Evaluation Criteria** in Step 2 for more information.

In addition, an enhanced review of select roadway projects is required per OAR 660-012-0830. To see the specific requirements and determine if a project is subject to the enhanced review process, see the Enhanced Review of Select Roadway Projects section below for more information.

Enhanced Review of Select Roadway Projects

Please note: Only cities and counties in metropolitan areas are required to follow this process.

This section identifies the requirements associated with authorizing certain roadway expansion projects and is based on requirements in OAR 660-012-0830: Enhanced Review of Select Roadway Projects. "Authorization" in this context means that the jurisdiction with planning authority has approved a project to move forward. This typically means inclusion of the project in the unconstrained and/or financially constrained project list of the updated TSP after following steps and criteria outlined in OAR 660-012-0830. The enhanced review process can take place during or before TSP development. The enhanced review process can be led by any jurisdiction (ODOT, county, or city); however, the local jurisdiction (city or county with planning authority) needs to authorize the report, including those for projects on state-owned facilities.

The enhanced review process is not a prohibition on roadway projects. The process prompts local agencies to develop and evaluate alternatives to roadway projects to determine if they could substantially meet the identified need without implementation of the roadway projects. Furthermore, the process is designed to provide governing bodies with essential information, enabling them to make well-informed decisions regarding transportation investments. It is a local decision if these projects move forward into a TSP.

An enhanced review is required for the following types of projects:

- A new or extended arterial street (wider than three lanes) highway, freeway, or bridge carrying general purpose vehicle traffic
- New or expanded interchanges
- An increase in the number of general-purpose travel lanes for any existing arterial or collector street, highway, or freeway
- New or extended auxiliary lanes with a total length of a half-mile or more

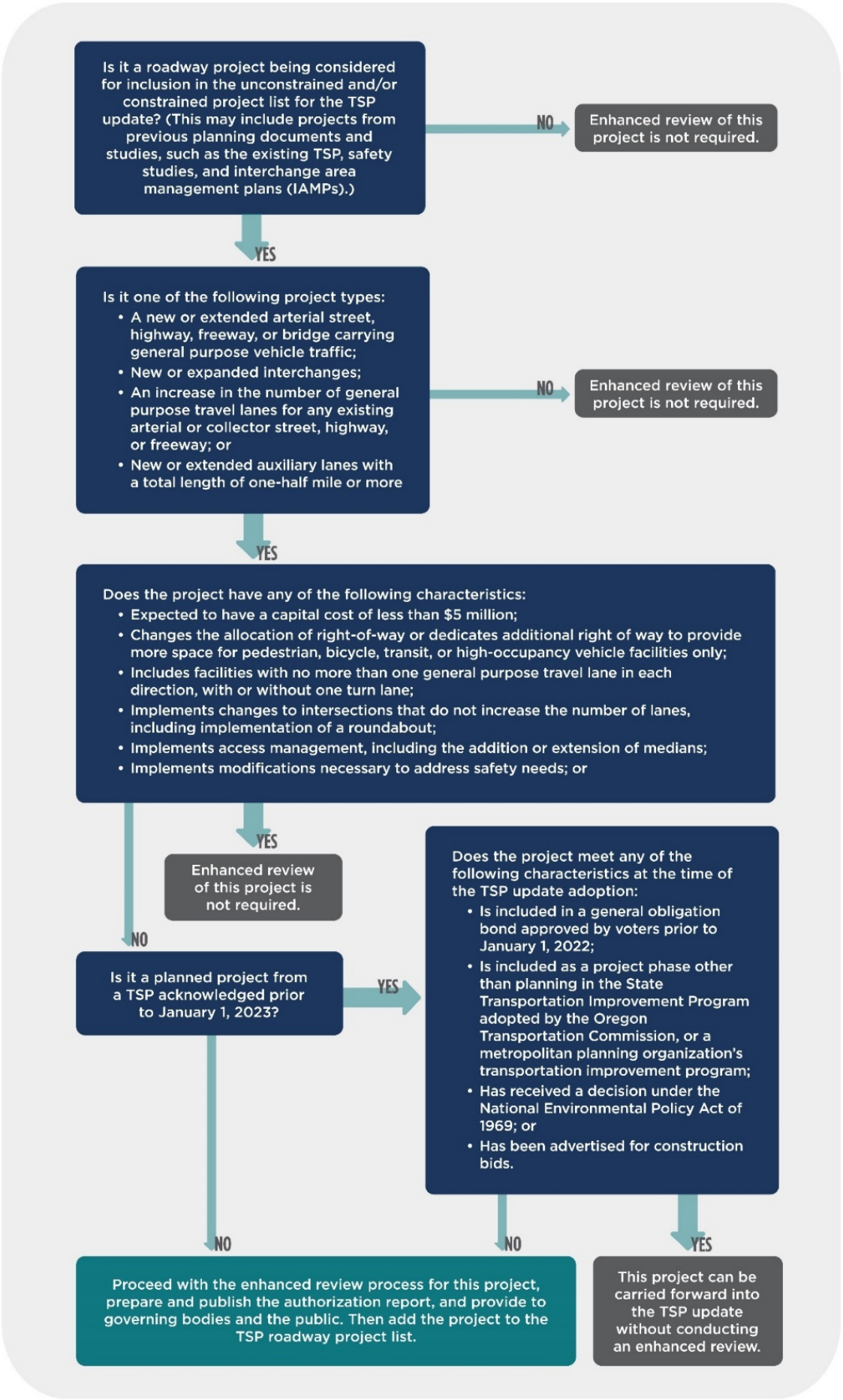
There are exceptions for projects that have advanced beyond planning and have dedicated funding or have a National Environmental Policy Act decision. The authorization of a project after the enhanced review process is a local decision.

An enhanced review is NOT required for the following types of projects:

- Expected to have a capital cost of less than $5 million
- Changes the allocation of right-of-way or dedicates additional right-of-way to provide more space for pedestrian, bicycle, transit, or high-occupancy vehicle facilities only
- Includes facilities with no more than one general-purpose travel lane in each direction, with or without one turn lane
- Implements changes to intersections that do not increase the number of lanes, including implementation of a roundabout
- Implements access management, including the addition or extension of medians
- Implements modifications necessary to address safety needs
- Implements operational changes, including changes to signals, signage, striping, surfacing, or intelligent transportation systems

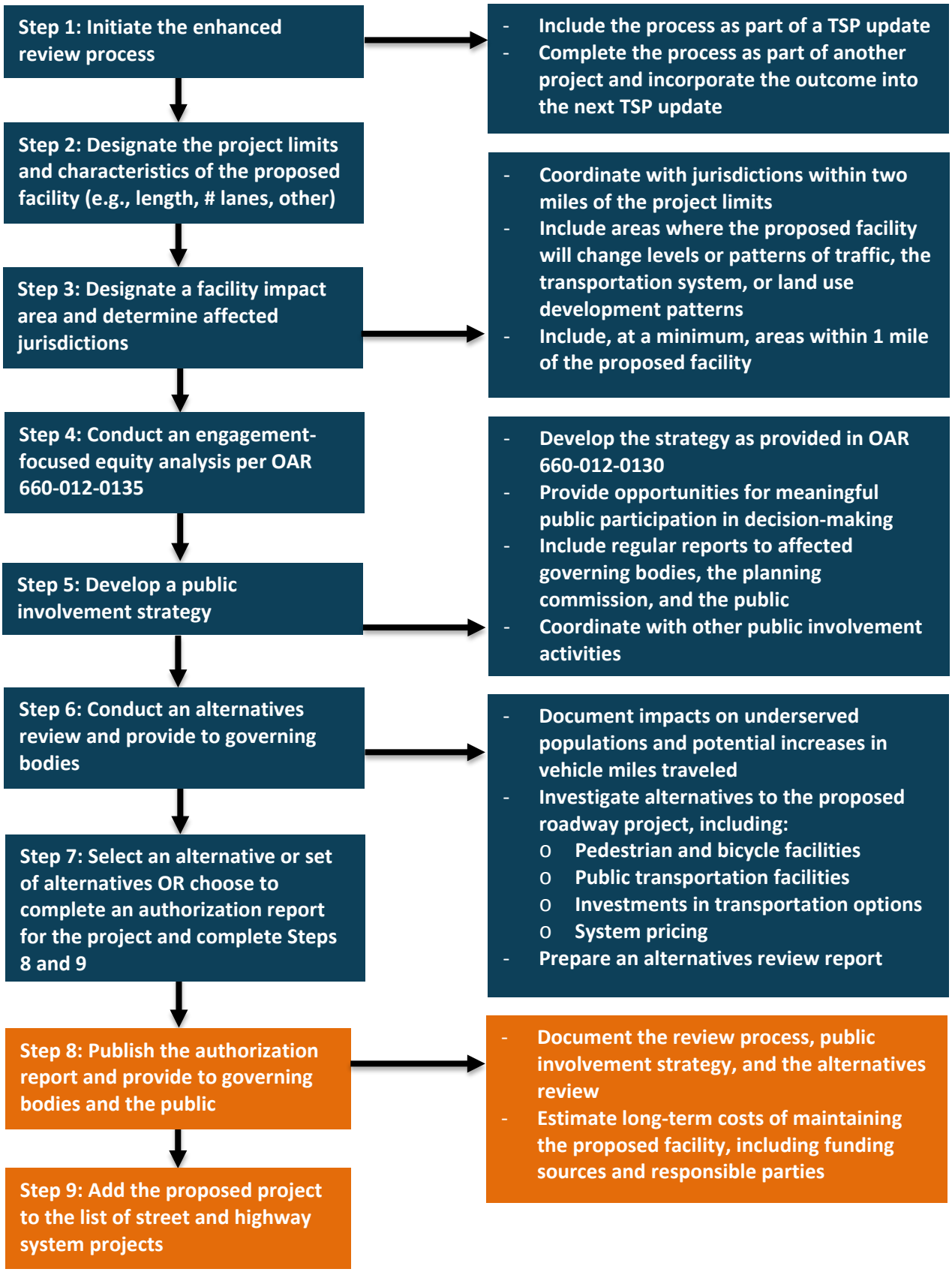
Projects Subject to an Enhanced Review Process

The following flow chart is intended to help determine if a project is subject to the enhanced review process per OAR 660-012-0830.


Is it a roadway project being considered for inclusion in the unconstrained and/or constrained project list for the TSP update? (This may include projects from previous planning documents and studies, such as the existing TSP, safety studies, and interchange area management plans (IAMPs).)
NO
Enhanced review of this project is not required.
YES
Is it one of the following project types:
• A new or extended arterial street, highway, freeway, or bridge carrying general purpose vehicle traffic;
• New or expanded interchanges;
• An increase in the number of general purpose travel lanes for any existing arterial or collector street, highway, or freeway; or
• New or extended auxiliary lanes with a total length of one-half mile or more
NO
Enhanced review of this project is not required.
YES
Does the project have any of the following characteristics:
• Expected to have a capital cost of less than $5 million;
• Changes the allocation of right-of-way or dedicates additional right of way to provide more space for pedestrian, bicycle, transit, or high-occupancy vehicle facilities only;
• Includes facilities with no more than one general purpose travel lane in each direction, with or without one turn lane;
• Implements changes to intersections that do not increase the number of lanes, including implementation of a roundabout;
• Implements access management, including the addition or extension of medians;
• Implements modifications necessary to address safety needs; or
YES
Enhanced review of this project is not required.
NO
Is it a planned project from a TSP acknowledged prior to January 1, 2023?
YES
Does the project meet any of the following characteristics at the time of the TSP update adoption:
• Is included in a general obligation bond approved by voters prior to January 1, 2022;
• Is included as a project phase other than planning in the State Transportation Improvement Program adopted by the Oregon Transportation Commission, or a metropolitan planning organization's transportation improvement program;
• Has received a decision under the National Environmental Policy Act of 1969; or
• Has been advertised for construction bids.
NO
NO
YES
Proceed with the enhanced review process for this project, prepare and publish the authorization report, and provide to governing bodies and the public. Then add the project to the TSP roadway project list.
This project can be carried forward into the TSP update without conducting an enhanced review.

Enhanced Review Process

This flow chart outlines the steps involved in an enhanced review process per OAR 660-012-0830.



Selecting and Prioritizing Preferred Solutions

Evaluation of the solutions should result in a list of preferred solutions for inclusion in the TSP. The preferred list of solutions should:

- Address the needs determined to be local priorities
- Prioritize solutions based on how well they address the goals and objectives of the TSP (see **Step 2: Goals, Objectives & Performance Tracking** for additional guidance on the development of evaluation criteria)
- Be consistent with the Transportation Planning Rules and be technically, environmentally, politically, and financially implementable
- Have the support of locally elected officials, the Project Management Team, transportation providers, advisory committees, and the public, including gathering community input and engaging underserved communities
- Provide the local government with a viable package of solutions for the transportation problems facing the community over the 20-year planning horizon
- Maintain the ability for people and goods to travel efficiently. This includes vehicle mobility on the interstate and expressway state highway system, pedestrian and bicycle network connectivity, and effective public transportation.
- Include amendments to previously identified local performance standards or requests to the Oregon Transportation Commission to consider alternative performance standards for state highways consistent with Oregon Highway Plan Action 1F3. In metropolitan areas, local jurisdictions and ODOT will adopt two performance standards consistent with OAR 660-012-0215(6)

It is important that the planning process documents the steps taken and agreements made when developing the preferred list of solutions. Decisions should be recorded at the time they are made, and the basis for each decision should be clearly described. Similarly, agreements and commitments by involved governmental agencies should be described in the TSP's background information, particularly if such agreements and commitments are critical to implementing the TSP.

The preferred list of solutions forms the essence of the TSP. The TSP will identify needs, modes, functions, and general locations of planned improvements. Actual alignments will be determined through the project development or permit approval process or subsequent facility planning to respond to topographical or environmental constraints or to meet urban design goals.

Prioritization Framework for Metropolitan Areas

For cities and counties in metropolitan areas and Metro, OAR 660-012-0155, -0520, -0620, -0720, and -0820 require specific prioritization factors be used when evaluating and prioritizing projects as part of the TSP development process.

To see the specific requirements, see **Step 2: Goals, Objectives & Performance Tracking** for more information.

Documentation

The analysis should produce a technical memorandum that evaluates the solutions developed to address the transportation system needs and identifies the preferred list of solutions for inclusion in the TSP. The technical memo should include:

- A written description of the needs to be addressed
- Solutions, evaluation process, potential impacts, and cost estimates for the proposed improvements (projects)
- Maps depicting the locations of projects
- A table comparing the solutions against the evaluation criteria

Solutions with obvious environmental flaws should be rejected or revised to eliminate or minimize concerns.

Step 6: Funding Program

The transportation funding program identifies which projects/programs developed in the TSP process will be funded based on existing and anticipated revenue sources as well as the projected costs of proposed projects and programs. This step is completed after and builds upon the preliminary prepared in Step 3: Existing Conditions.

Development of a Financially Constrained List of Transportation Projects/Programs

The transportation funding program identifies which projects/programs developed in the TSP process will be funded based on existing and anticipated revenue sources and the projected costs of projects and programs. This task is completed after the Step 5: Solution Development & Evaluation task and builds upon the preliminary historic and projected transportation project funding initially considered as part of the Step 3: Existing Conditions assessment. This assessment involves the identification of current and historical transportation revenue sources, current and historical transportation expenditures, and a projection of planning period funding and expenditure forecasts. Recognizing that the planning-level cost estimates from the preferred list of transportation projects/programs will likely exceed the projected planning period funding forecast, a revised project list shall be developed that more closely considers projected financial limitations.

The product of this effort often leads to a significantly pared down list of transportation projects/programs that can be realistically funded and implemented. All other transportation projects/programs will comprise a list of aspirational or desired projects that, while valuable, are unlikely to be funded unless additional revenue sources are found.

Developing a Financially Constrained List in Metropolitan Areas

For cities and counties in metropolitan areas and Metro, OAR 660-012-0180 provides a process for identifying the financially constrained project list. These rules state the following:

Shall

In developing a financially constrained list of projects/programs, the following methods ***shall*** be applied:

- Prioritize the unconstrained list of projects using prioritization criteria outlined in OAR 660-012-0155. See Step 2, **Evaluation Criteria**.
- Create a financially constrained project list using the top available projects on the prioritized unconstrained project list and the planning-level cost estimates developed as part of Step 5: Solution Development & Evaluation.
- Verify that the sum of the planning-level cost estimates for projects placed on the financially constrained project list does not exceed 125% of the funding available, as identified in Step 3: Existing Conditions. Both the project list and funding can incorporate Transit Development Plans, Transportation Safety Action Plans, and other such plans from partner jurisdictions and service providers.
- Select projects such that the resulting financially constrained list would:
    - Burden underserved populations less than the city or county population and benefit underserved populations as much as or more than the city or county population.

- Make significant progress toward meeting the performance targets set for each performance measure as provided in OAR 660-012-0910 or OAR 660-044-0110.
- Additionally, if the project lists includes any vehicle capacity expanding projects requiring enhanced review per OAR 660-012-0830, the projects collectively must reduce per capita vehicle miles traveled (VMT), as provided in OAR 660-012-0160. (Note that OAR 660-012-0210 postpones the use of VMT per capita analysis for land use decisions but does not impact the requirements for VMT per capita analysis in TSPs).
- If the list of projects cannot meet the previous three bullets (as applicable), the city or county must adjust the project list to find the highest-ranking set of projects that can meet the criteria. **This is the financially constrained project list.**

Developing a Financially Constrained List in Non-Metropolitan Areas

Per OAR 660-012-0040, any planned study area outside of metropolitan areas that is located within an Urban Growth Boundary containing a population greater than 2,500 persons shall prepare a detailed financial assessment of the preferred list of transportation projects/programs. In general terms, this financial assessment:

- Discusses existing and anticipated funding mechanisms and the ability of these mechanisms to finance future projects/programs.
- Prioritizes and identifies the general timing of each multimodal transportation project/program against the projected funding.

Shall

In developing the financially constrained list of projects/programs, the following methods ***shall*** be applied:

- Prioritize the list of projects
- Coordinate with outside transportation service providers to understand the types and levels of funding available during the planning period
- Match the type of project or program with likely revenue sources
- Match the timing for receipt of revenues with the timing for project or program and construction and implementation

Should

Where applicable and sufficient funding details or financing projections are available, the following methods ***should*** be applied:

- Account for the cost of projects and the buying power of revenues at the anticipated time of construction/implementation
- Use the most flexible revenues on priority projects that are more difficult to fund (e.g., transit and off-street bicycle and pedestrian facilities)

Identifying Potential Funding Sources

Given limited revenues, it is typically necessary to identify additional local sources of revenue to construct or implement projects and programs that address identified deficiencies. Additional local revenue sources will vary according to local politics, the jurisdiction's ability to incorporate special financing programs, and local support for new funding programs (i.e., taxes and fees).

Could

A matrix of potential new revenue sources ***could*** be investigated and will likely include sources in the following categories:

- All Roads Transportation Safety
- Developing or increasing transportation system development charges
- Local improvement districts and urban renewal districts
- Urban renewal areas
- General obligation bonds
- Local fuel taxes
- Street utility fees
- Miscellaneous fees such as parking fees or vehicle registration fees
- Hotel/motel taxes
- Dedicated property taxes
- Income, payroll, or employer taxes
- Traffic violation revenue
- Developer dedications of right-of-way and conditional street/intersection improvements
- Grant opportunities, including dates, cycles, required match, readiness of projects, etc.
- State funding options
    - State Transportation Infrastructure Bank
    - Highway Trust Fund
    - Connect Oregon
    - Oregon Parks and Recreation Department local grants
    - Mode-specific funds administered by ODOT
    - All Roads Transportation Safety
- Federal resources

The ODOT Transportation and Growth Management program provides a resource with additional information about each of these funding sources: Funding Walking & Biking Improvements.

As with any new potential revenue source (particularly new fees), it will be important to consider their adoption concurrently with TSP development.

Resources

Funding Sources

Documentation

The funding program should be outlined in a technical memorandum or portion of a technical memorandum including:

- The list of preferred or desired transportation projects/programs resulting from the **Step 5: Solution Development & Evaluation** task (if additional funding is available)
- A financially constrained list of transportation projects/programs that reflect projected transportation revenue
- Potential funding sources that can be considered by the local jurisdiction

Step 7: TSP Documentation

The TSP document is the culmination of the planning process. It identifies the goals and objectives of the TSP update and the new policies, plans, programs, and projects that will shape the transportation system over the planning horizon. OAR 660-012, also known as Transportation Planning Rules (TPR), outlines required content for all TSPs. The following sections outline these requirements while providing guidance and best practices on additional content, organizational format, and presentation.

What a TSP Shall Include

The TSP document is the culmination of the planning process that identifies the goals and objectives of the TSP update and the new policies, plans, programs, and projects that will shape the transportation system over the planning horizon. The TPR outlines specific content that is required in all TSPs.

OAR 660-012-0020 identifies the elements of a TSP for non-metropolitan areas, whereas OAR 660-012-0100 identifies the elements of a TSP for metropolitan areas. For each element, the TSP must document the needs, functions, modes, and general location of planned improvements. The adoption of these elements constitutes the land use action and must be adopted by ordinance into the local comprehensive plan in accordance with Oregon's land use laws. Any future amendments to the needs, modes, function, and general location of projects also constitute a land use action that must be adopted by ordinance with the proper notices and opportunity for community engagement in accordance with land use law. It is therefore important that the TSP document clearly distinguish between the part that constitutes the land use action and the part that is background information, in such a way that decision-makers, stakeholders, and the public clearly understand the nature of the decisions.

Air

In non-metropolitan areas where an air facility is owned by the jurisdiction and is undergoing a master plan effort/update within the context of the TSP, the air element shall include:

- A table of air facility projects that identifies the project location and includes a project description, the project cost estimate, and a likely funding source
- Other projects that address multimodal access to the air facility (these may be addressed separately in other modal elements in the TSP)
- Graphics that support the projects

In non-metropolitan areas where an air facility is owned by another entity and has an existing master plan that was developed/updated separately from the TSP, the air element in a TSP includes:

- Narrative and supporting documentation that indicates how the TSP is consistent with the master plans for all existing and planned public use airports within the planning area
- Other projects that address multimodal access to the air facility (these may be addressed separately in other modal elements in the TSP)

An air element is not required in metropolitan areas; however, it may be included where locally appropriate and when funding allows.

Bicycle

TSPs in metropolitan and non-metropolitan areas shall include a bicycle element designed to provide safe and comfortable routes for a range of users and abilities. The bicycle element shall serve people riding bicycles and other vehicles that operate at a similar speed and scale to people riding bicycles. The bicycle element shall include:

- A map of the bicycle network that illustrates/identifies:
    - Existing bicycle facilities (bicycle lanes, routes)
    - The general location of planned/aspirational bicycle projects
    - The general location of planned financially constrained bicycle projects
- A map of the bicycle functional classifications and/or designation classifications (where applicable or desired)
- A table of identified bicycle projects that includes at a minimum:
    - The project location
    - A project description
    - The project cost estimate
    - Whether the project is financially constrained
    - A likely funding source (if financially constrained)
- Narrative copy that supports the maps and tables and includes:
    - A discussion on the visions, goals, and aspirations for the bicycle element
    - A description and graphical illustration of the bicycle functional classification
    - A description of the types of projects included in the bicycle element
    - Bicycle facility design guidelines or standards, including shared-use path design standards
    - Bicycle performance measures, targets, and standards of adequacy
    - Other information necessary to support the bicycle element

In addition, TSPs in metropolitan areas shall include the following elements per 660-012-0600:

- A description of the complete bicycle system, including the full buildout of the bicycle system within the planning area
- Identification of gaps and deficiencies in the bicycle system, including those that connect to key bicycle destinations
- Locations of key bicycle destinations identified, including transit stops
- A list of prioritized bicycle system projects

Marine

In non-metropolitan areas where a marine facility is owned by the jurisdiction and is undergoing a master plan effort/update within the context of the TSP, the marine element includes:

- A table of marine facility projects that includes the project location, project description, project cost estimate, and likely funding source
- Other projects that address multimodal access to the marine facility (these may be addressed separately in other modal elements)

- Graphics that support the projects

In areas where the marine facility is owned by another entity and has an existing master plan that was developed/updated separately from the TSP, the marine element includes:

- Narrative copy and supporting documentation that indicates how the TSP is consistent with the master plans for all existing and planned port facilities and terminals on navigable waterways within the planning area
- Other projects that address multimodal access to port facilities, including access roads and intermodal connectors (these may be addressed separately in other modal elements)

A marine element is not required in metropolitan areas; however, it may be included where locally appropriate and when funding allows.

Pedestrian

TSPs in metropolitan and non-metropolitan areas shall include a pedestrian element. The pedestrian element shall serve people walking and those using mobility devices or other devices that operate at a similar speed and scale as people walking. The pedestrian element shall include:

- A map of the pedestrian network that illustrates/identifies:
    - Existing pedestrian facilities (sidewalks, multiuse paths, enhanced pedestrian crossings, etc.)
    - The general location of planned/aspirational pedestrian projects
    - The general location of planned financially constrained pedestrian projects
    - A map of the pedestrian functional classifications and/or designation classifications (where applicable or desired)
- A table of identified pedestrian projects that includes at a minimum:
    - The project location
    - A project description
    - The project cost estimate
    - Whether the project is financially constrained
    - A likely funding source (if financially constrained)
- Narrative copy that supports the maps and tables and includes:
    - Discussions on the visions, goals, and aspirations for the pedestrian element
    - Descriptions of pedestrian functional classifications (where applicable)
    - Pedestrian performance measures, targets, and standards of adequacy
    - Descriptions of the types of projects included in the pedestrian element
    - Other information necessary to support the pedestrian element:
        - Pedestrian facility design standards or guidelines
        - Shared-use path standards
        - Americans with Disabilities Act (ADA)-related policies and standards

        - Pedestrian crossing spacing or location guidelines
        - Local street connectivity standards

In addition, TSPs in metropolitan areas shall include the following elements:

- A description of the complete pedestrian system, including the full buildout of the pedestrian system within the Urban Growth Boundary
- Identification of gaps and deficiencies in the pedestrian system, including those that connect to key pedestrian destinations
- Locations of key pedestrian destinations, including transit stops
- A list of prioritized pedestrian system projects

Pipeline

In non-metropolitan areas, where pipeline facilities may impact development of the TSP, the pipeline element shall include:

- Narrative copy and supporting documentation that indicates how the TSP is consistent with the master plans for all existing and planned pipelines and terminals within the planning area

A pipeline element is not required in metropolitan areas; however, it may be included where locally appropriate and when funding allows.

Rail

In non-metropolitan areas, where rail facilities may impact development of the TSP, the rail element shall include:

- A plan that identifies all mainline and branch line railroads and railroad facilities, including at-grade and grade-separated crossings, intermodal facilities, and locations of existing and planned terminals within the planning area
- Narrative copy and supporting documentation that indicates how the TSP is consistent with the master plans for all existing and planned mainline and branch line railroad and railroad facilities within the planning area

A rail element is not required in metropolitan areas; however, it may be included where locally appropriate and when funding allows.

Street and Highway

TSPs in metropolitan and non-metropolitan areas shall include a street and highway element. The street and highway element shall include:

- A Functional Classification Plan with:
    - Narrative definitions of roadway classifications
    - A Functional Classification map that illustrates/identifies:
        - Classifications for all existing public roadways
        - Classifications for planned public roadways/roadway extensions

- A map of the motor vehicle roadway network that illustrates/identifies:
    - The existing roadway network
    - General locations of planned/aspirational roadway projects
    - General locations of planned financially constrained roadway projects
- A table of identified motor vehicle projects that includes at a minimum:
    - The project location
    - A project description, including a description of the needs the project is designed to address
    - The project cost estimate
    - Whether the project is financially constrained
    - A likely funding source (if financially constrained)
- Narrative copy that supports the maps and tables and includes:
    - A discussion on the vision, goals, and aspirations for the motor vehicle element
    - A description of the types of projects included in the motor vehicle element
    - Other information necessary to support the motor vehicle element
- Standards for layout of local streets and other important street or pathway connections
- Standards for the layout of local streets that provide for safe and convenient bike and pedestrian circulation
- Roadway design standards or guidelines (the TSP may include references to design standards in separate documents)
    - Graphical illustrations for each functional classification; typical cross-sections
    - Graphical illustrations for any special overlay designations
- A local street connectivity plan
    - A local street connectivity map illustrating conceptual extensions/connections of local streets that would be constructed for future development
- Mobility standards/targets (the TSP may include references to mobility standards/targets in separate documents)
    - Roadway/highway segments
    - Signalized/all-way stop-controlled intersections
    - Unsignalized intersections
    - Roundabout intersections
- Roadway safety performance measures, targets, or standards of adequacy
- Access management standards
    - Access spacing standards table and description for each roadway classification
- A neighborhood traffic management plan with:

- A toolbox of traffic calming applications that are appropriate for local neighborhood streets

In addition, TSPs in metropolitan areas shall include the following elements:

- A description of the complete street and highway system, including the full buildout of the street and highway system within the planning area
- Identification of gaps or deficiencies in the street and highway system
- Locations of key destinations identified
- A list of prioritized street and highway system projects

Public Transportation

TSPs in metropolitan and non-metropolitan areas shall include a public transportation element. The public transportation element shall include:

- A map of the transit network that illustrates/identifies:
  - The existing transit system (transit corridors, exclusive transit ways, major transit stops, terminal and major transfer stations, park-and-ride locations, intercity bus routes, passenger rail corridors and stops, etc.)
  - Planned/aspirational transit projects
  - Planned financially constrained transit projects
- A map of existing and planned public transportation services for vulnerable populations
- A table of proposed transit projects that includes at a minimum:
  - The project location
  - A project description
  - The project cost estimate
  - Whether the project is financially constrained
  - A likely funding source (if financially constrained)
- Narrative copy that supports the maps and tables and includes:
  - A discussion of the vision, goals, and aspirations for the transit element and how they are consistent with and support local and regional transit initiatives
  - A description and prioritization of projects included in the transit element
  - Transit performance measures, targets, and standards of adequacy
  - For smaller cities/communities, a description of how the transit element of the TSP is the Transit Development Plan
  - Other information necessary to support the transit element
- An evaluation of the feasibility of developing a public transit system at buildout for urban areas outside of metropolitan areas with populations greater than 25,000 persons who are not served by transit. Where a transit system is determined to be feasible, the plan shall meet the requirements of OAR 660-012-0020 (2)(c)(C).

In addition, TSPs in metropolitan areas shall include the following elements:

- A description of the complete public transportation system, including the full buildout and provision of services of the public transportation system within the planning area
- Identification of gaps and deficiencies in the public transportation system
- Locations of key public transportation destinations
- A list of prioritized public transportation system projects

Truck Freight

In non-metropolitan areas, where truck freight may impact development of the TSP, the truck freight element shall include:

- A map of the truck freight network that illustrates/identifies:
    - The location of existing truck freight infrastructure/facilities
    - General locations of aspirational truck freight projects
    - General locations of financially constrained truck freight projects
- A map of existing and planned local, regional, and state freight routes
- A map of truck freight functional classifications (where applicable)
- A table of identified truck freight projects that includes at a minimum:
    - The project location
    - A project description
    - The project cost estimate
    - Whether the project is financially constrained or not
    - A likely funding source (if financially constrained)
- Narrative copy that supports maps and tables and includes:
    - A discussion of the vision, goals, and aspirations for the truck freight element
    - A description of the types of projects included in the truck freight element
    - A description of the truck freight functional classification
    - Truck freight performance measures
    - Other information necessary to support the truck freight element

A truck freight element is not required in metropolitan areas; however, it may be included where locally appropriate and when funding allows.

Transportation Options

TSPs in metropolitan areas shall include a Transportation Options element per OAR 660-012-0145. The Transportation Options element shall include:

- A summary of existing Transportation Options and Transportation Demand Management (TDM) programs, services, and projects, including:
    - Education, encouragement, and other TDM programs and services focused on non-single-occupancy vehicle (SOV) travel modes
    - TDM programs and policies that discourage the use of SOVs
    - Transportation Options needs of underserved populations
- A summary of future TDM needs, including:
    - Commute trip reduction programs for large employers, such as transit passes and parking cash-outs
    - Physical improvements, such as carpool parking and park and rides
    - Regional solutions for intercity travel
- Performance targets for performance measures as provided in OAR 660-012-0905

Other Elements

Transportation System Management and Transportation Demand Management

TSPs in non-metropolitan areas but in urban areas with populations greater than 25,000 persons shall include a Transportation System Management (TSM) and TDM element, which includes TSM and TDM policies and strategies, according to OAR 660-012-0020.

Parking Management

Cities and counties in metropolitan areas are required to update their local plans and land use regulations consistent with requirements in OAR 660-012-0400 through OAR 660-012-0450. This update does not have to be part of a TSP update. Cities and counties in non-metropolitan areas are not subject to these requirements; however, best practice for all cities and counties is to have a parking management plan that guides the management of on-street parking through signage, meters, enforcement, and so on, particularly where parking is congested.

Policies, Ordinances, and Funding Plans

Policies, ordinances, and a transportation financing program should be developed as needed to implement the TSP

- For non-metropolitan areas within an Urban Growth Boundary containing a population greater than 2,500 persons, a transportation financing program is required per OAR 660-012-0040

Refinement Plans

The adoption or amendment of a TSP constitutes a land use decision regarding the need for transportation facilities, services, and major improvements and their functions, modes, and general locations. While preparing a TSP, it might not always be possible for a local government to make a final land use decision regarding the function, mode, or general location of a needed project. In such cases, OAR 660-012-0025 allows a local government in a non-metropolitan area to defer its final land use decision to a refinement plan, provided that certain findings are adopted. These findings shall:

- Identify the transportation need for the facility

- Demonstrate why information needed to make final determinations regarding function, general location, or mode cannot reasonably be made available within the time allowed for TSP preparation
- Explain how deferral does not invalidate the TSP assumptions or preclude implementation of the remainder of the TSP
- Describe the nature of the findings needed to resolve issues deferred to a refinement plan

What a TSP Should Include

Introduction

The introduction to a TSP can identify what a TSP is, why the jurisdiction has a TSP, and how the jurisdiction uses the TSP to improve its transportation system over time. The introduction can also provide background information on the jurisdiction's transportation infrastructure, how it has evolved over time, and what is driving the need for the TSP update. Finally, the introduction can describe how the TSP was updated: It can provide an overview of the planning process, and it can identify timelines, major milestones, and key deliverables along the way.

Acknowledgements

The development of a TSP requires coordination among many community partners, including local agency staff, local officials, commissioners, councilors, committee members, and others. The collective efforts of these individuals ensure that the TSP will receive broad-based support and reflect the most critical needs of the community. An acknowledgements page can pay tribute to individuals who dedicated their time and energy to the TSP update.

Organization

One size does not fit all when it comes to organization of a TSP document. While the final TSP needs to include the various elements discussed in these TSP Guidelines, jurisdictions should organize the local TSP so readers can easily locate and understand what is planned, the timeframe and/or priority for implementation, and, if required, which projects are considered financially constrained. Some jurisdictions may elect to organize their TSP by sequential planning steps, first discussing the existing inventory and then the needs, solutions, and plan for all modes. Other jurisdictions may elect to organize their TSP by mode, addressing all elements (inventory, needs, solutions, and plan) for each mode in its own separate chapter or section. TSPs organized by mode allow sections to be updated more independently or as part of a package of updates.

Outcomes Summary

Particularly within metropolitan areas, jurisdictions should consider adding an outcomes table demonstrating the results of full implementation of the plan. This could highlight the projected impacts for important metrics, such as VMT per capita and other performance measures for reporting listed in OAR 660-012-0905.

Attachments

TSPs typically include an inventory and general assessment of existing and future transportation facilities (see Step 3: Existing Conditions and Step 4: Future Conditions) and an analysis of what will be needed to fix current problems and accommodate future users (see Step 5: Solution Development & Evaluation). Providing these elements in the TSP at a summary level with references to more detailed information as attachments or in a technical appendix helps keep the TSP concise and focused on decisions and recommendations. Ideally, the attachments or technical appendices will contain all background information, including the technical memoranda developed throughout the TSP. For example, the TSP and all the attachments desired for frequent reference are included in Volume I, and Volume II includes the technical appendix, which contains the technical documents that informed the development of the TSP. If there are supportive documents that will be used for future decisions, such as project prospectus sheets or solution toolkits, the recommended approach is to include these as attachments to the TSP in Volume I.

References

References to existing state, regional, and/or local plans and policies can help guide development of the transportation system over the planning horizon. These plans and policies include but are not limited to: statewide planning documents such as the Oregon Transportation Plan (OTP), Oregon Highway Plan (OHP), and other modal and topic plans (e.g., Oregon Bicycle and Pedestrian Plan, Oregon Public Transportation Plan, Oregon Transportation Options Plan); state and local facility plans such as corridor plans and interchange area management plans (IAMP); local refinement plans such as downtown, neighborhood, and main streets plans; and other planning documents. These plans and policies can be incorporated into the TSP by reference or by systematically them incorporating into various elements of the TSP.

Supporting Ordinances

Supporting ordinances or development code amendments may be necessary to include with the draft TSP to be consistent with and implement the updated TSP and to comply with or strengthen compliance with the Transportation Planning Rules (TPR). Implementing supporting ordinances or development code amendments can be attached to the draft TSP, so that they are included in the public review process prior to public hearing proceedings and adoption.

For non-metropolitan jurisdictions, the Oregon Department of Land Conservation and Development provides a model code that can be used by cities and counties as a tool or resource for planning in Oregon. The model code is written to help local governments follow best practices and adhere to new state standards, rules, or statutes and are often tailored to suit the specific needs of a given community. For metropolitan jurisdictions, the Transportation Planning Rules (TPR) require land use ordinances that support compact, pedestrian-friendly, mixed-use land use development patterns. See OAR 660-012-0330 for requirements. In early 2024, the Oregon Department of Land Conservation and Development was developing a model code that would meet those requirements. Elements of the model code can be incorporated into land use ordinances to satisfy some of these requirements.

Agencies as Land Use Signatures

One example of an implementing ordinance includes codifying a process to allow public agencies to serve as property owner signatories on land use applications. Local jurisdictions require the property owner or their designee to sign a local land use application, which can cause delays in obtaining land use permits for a transportation project. This approach would allow ODOT or other public entities the authority to sign the land use application for privately owned property that will be acquired as part of a Statewide Transportation Improvement Program (STIP) project. Some local jurisdictions have already implemented the changes to their Land Development Ordinance, as shown in the examples below.

Resources

Curry County 2.040

Douglas County 2.040

What a TSP Could Include

The following describes additional items a jurisdiction ***could*** include as part of their TSP. These items represent current best practices for TSPs.

- Grant-ready project descriptions for projects that will likely require outside funding for implementation. Project prospectus sheets can be particularly helpful and effective for inclusion in potential grant applications for project funding.
- Enhanced visualization tools/graphics to describe complex concepts discussed in the TSP.
- Enhanced roadway cross-section drawings to show perspective views using 3D software tools and links to online resources for local residents and builders to explore different cross-section options.
- Project prospectus sheets that illustrate and summarize project details, such as the deficiency or issue at hand, cost estimates, location, preferred solution, etc.

Adopt Phase

Cities and counties must adopt regional and local TSPs as part of their comprehensive plans (OAR 660-012-0015[4]). The adoption of a TSP constitutes a land use decision, establishing the need for transportation facilities and services along with their function, mode, and general location. Because of this, the local governments need to amend or adopt TSPs through a legislative adoption process.

Drafting an Adoption Ordinance

Clearly specify the elements that will be adopted and provide the foundation for future decision-making. Such elements include:

POLICIES	MAPS & LISTS	STANDARDS
(If included in TSP rather than a comprehensive plan)	• Maps illustrating the planned modal systems • Functional classification designations/maps • Project lists and maps showing the general location of planned projects for all modes	• Street/roadway design standards • Performance standards • Access management standards

Supporting Information

Supporting information does not have to be adopted by ordinance. This supporting information is reviewed during the process as technical reports or memoranda and is compiled into a background reference document.

Amending Your TSP

Cities and counties can amend their state-acknowledged comprehensive plans through either periodic review or a post-acknowledgement plan amendment. Local notice procedures remain the same under either process but notice requirements to the Oregon Department of Land Conservation and Development differ, and appeals to the local decision are either heard by the Land Use Board of Appeals (for a post-acknowledgement plan amendment) or the Land Conservation and Development Commission (for periodic review).

Local Actions to Support TSP Adoption and Implementation

Providing notice for the adoption hearings

Ensuring that proposed or new transportation policy is **consistent with adopted plans**

Enhancing development requirements and funding tools

Notifying the Public

Jurisdictions must follow their locally adopted notice requirements when proposing a plan amendment or adopting a TSP. Notice for a legislative hearing must be published in the local newspaper. Some local ordinances require posting of public hearing notices; posting locations typically include public buildings, such as the city hall and libraries. Some local ordinances have accessibility requirements. Examples of additional means of notice include announcements on a local-access cable TV channel, posting on the jurisdiction's website or electronic newsletters, posting on social media, and direct mailing through utility (water and sewer) bills.

Jurisdictions should consult with their city or county attorneys to determine whether a Measure 56 Notice is required, pursuant to the notification requirements of Oregon Revised Statute (ORS) 215.503. Measure 56 requires cities and counties to notify affected property owners if adopting a proposed comprehensive plan or land use ordinance would result in limiting or prohibiting permissible land uses on their property. See information provided by the Department of Land Conservation and Development (DCLD) and ORS 215.503 (for cities) and ORS 227.186 (for counties).

Notifying Other Jurisdictions

Adopting or amending a TSP also requires notice to the state, including ODOT and the DLCD. In accordance with state law, the DLCD must be notified of an amendment to an acknowledged plan (a post-acknowledgement plan amendment) 35 days prior to the first evidentiary hearing (according to ORS 197.610 and OAR 660-018). DLCD notice requirements are different if the jurisdiction is undertaking the TSP planning process as part of a periodic review work program. When in periodic review, the jurisdiction notifies the DLCD of the completed periodic review work task after adoption, rather than prior to the local decision as with a post-acknowledgement plan amendment. See The Complete Planner's Guide to Periodic Review Second Edition (2012) for more information on periodic review and completing work program tasks.

Cities and counties within metropolitan areas will also need to provide the regional government with notice of the plan amendment, consistent with adopted regional requirements.

Legislative Hearings

The authority to adopt or amend a TSP lies with the city council, board of commissioners, or county court. This is because the TSP is part of the local comprehensive plan, which must be adopted by ordinance and therefore can only be

amended by elected officials. Amendments to land use and development requirements to implement the TSP also must be adopted by ordinance.

In most communities, the planning commission considers and makes a recommendation on proposed legislative amendments to the comprehensive plan and associated land use and development requirements after one or more public hearings. The commission's recommendation is then considered by the governing body, which holds at least one public hearing before taking final action.

The final decision is supported by a series of findings indicating the rationale for adopting the proposed amendments. These are typically included in a staff report recommending approval of the new or updated TSP and addressing statewide planning goals, state plans related to transportation, regional plans (where applicable), and the jurisdiction's own policies and codified requirements for legislative amendments.

Policy and Regulations

A vital step in achieving TSP goals, objectives, and recommendations is to ensure that adopted policy, land use, and development requirements are consistent with (and can help achieve) the desired transportation system. Cities and counties must develop findings of compliance with applicable statewide planning goals and acknowledged comprehensive plan policies and land use regulations in conjunction with adoption of the TSP (OAR 660-012-0025[2]).

Cities and counties must adopt a local TSP as part of their comprehensive plans. Jurisdictions amend the comprehensive plan by adopting the TSP by reference. Physical amendments to the comprehensive plan may or may not be necessary, depending on the format and content of both the TSP and the comprehensive plan documents. Land use and development requirements, including subdivision requirements, must be consistent with the TSP. Updates to development requirements may be necessary to ensure that future development is consistent with the location of planned facilities and adheres to updated local transportation standards and state transportation planning requirements. Development requirements help protect roadway function and safety, encourage active transportation modes (transit, ridesharing, bicycling, and walking), and ensure consistency between planned land uses and the planned transportation system.

Updating the Comprehensive Plan

The transportation element or chapter in the comprehensive plan document will need to be updated through either one or a combination of the following actions:

- Physically replacing the transportation element with information developed for the TSP
- Modifying the transportation element to reflect updated content from the new TSP
- Indicating that the updated TSP supersedes the outdated transportation element

Early in the TSP planning process, jurisdictions will review all comprehensive plan-level policies for their relevance to the transportation system. This review considers existing transportation policy and typically identifies other goal and policy statements that have a bearing on the transportation system. Policies are revisited during the implementation steps of the TSP process and, where needed, are updated to be consistent with the direction and recommendations in the updated TSP. Updated transportation policies can be included as part of the TSP, or plan objectives can be used to update or create new comprehensive plan policies. Whether housed in the TSP, the comprehensive plan, or both documents, the jurisdiction’s transportation policies will help guide future land use actions (e.g., rezoning, discretionary

development review) as they relate to planned transportation facilities. Note that changes to policies related to housing, economic development, park and recreation planning, and urbanization may also be needed as part of TSP implementation.

Updating Land Use Regulations

The jurisdiction's land use and development codes implement the planned TSP. An assessment of how well local codes or ordinances help meet current (or expected future) local transportation needs and Transportation Planning Rules (TPR) is part of the policy review performed in Step 3 of TSP development. At the adoption stage of the planning process, project participants should revisit the findings and recommendations from that earlier assessment. If needed for consistency, amendments to land use and development requirements should be drafted and adopted to implement the goals and strategies of the updated TSP. Consistent requirements ensure that future land use decisions and actions comply with the planned transportation system and that future development contributes to the multimodal system.

Implementing ordinances should:

- Allow construction of planned transportation facilities
- Ensure allowed land uses are consistent with the performance standards of the transportation facility
- Provide for transit, ridesharing, pedestrian, and bicycle modes

Allowing Planned Transportation Facilities

When a transportation facility, project, or service is planned for and included in the acknowledged TSP, additional land use approval should not be necessary. Furthermore, separate or additional land use review should not be necessary for some types of transportation improvements, such as maintenance, that do not have a significant impact on planned land uses or that are consistent with adopted standards. For example, constructing a roadway improvement that is designed to the appropriate dimensional standards in the adopted TSP, pursuant to the functional classification of the proposed roadway, should not require additional land use permitting. OAR 660-012 -0045(1), which applies to non-metropolitan jurisdictions, lists improvements and activities that under ordinary circumstances are not subject to land use regulations.

Protecting Transportation Facilities

The local land use and development codes must contain requirements that will protect transportation facilities for their identified functions as described in the TSP. Access management and performance standards, such as mobility standards and requirements to coordinate with other transportation providers, can ensure that future development and redevelopment contribute to an efficient transportation system. Adopting and implementing requirements that help manage the transportation system can increase safety and lengthen a facility’s useful life so that costly capacity improvements are minimized or not needed. For non-metropolitan jurisdictions, OAR 660-012-0045(2) indicates the types of management issues that must be included in the local ordinances. For metropolitan jurisdictions, OAR 660-012-0215 and -0325 indicate the types of performance standards that must be included when reviewing a comprehensive plan or land use regulation amendment.

Consistency with OAR 660-012-0060 and OAR 660-012-0215 (for metropolitan jurisdictions) will ensure that proposed comprehensive plan or code modifications that significantly affect a jurisdiction's planned transportation system will include actions to bring land use and the transportation system back into balance.

Providing for Transit, Ridesharing, Pedestrian, and Non-Motorized Modes

Land use and development requirements must contain standards to ensure that new development provides for safe and convenient transit, rideshare, pedestrian, and bicycle access and circulation. These requirements play an important role in reducing the reliance on the single-occupancy vehicle trip, reducing greenhouse gas emissions, and providing safe and convenient mode choices. These transit, ridesharing, pedestrian, and bicycle mode requirements are detailed in OAR 660-012-0045 (3) and -0045 (4) for non-metropolitan jurisdictions.

Managing Parking

Metropolitan jurisdictions that have not already adopted parking reforms should adopt ordinances to implement parking requirements in OAR 660-012-0405 through -0450. Requirements focus on striking a balance between providing single occupancy vehicle parking and promoting sustainable Transportation Options and efficient land use.

Compact, Pedestrian-Friendly, Mixed-Use Land Use Development

Land use and development requirements for metropolitan jurisdictions should encourage and regulate urban development patterns that prioritize efficient land uses; pedestrian accessibility; and a mix of residential, commercial, and recreational amenities. The requirements detailed in OAR 660-012-0330 aim to create vibrant, walkable neighborhoods that reduce reliance on automobiles, promote social interaction, and enhance the overall quality of life for residents.

Resources

Crook County TSP Court Hearing Packet Materials

Implement Phase

Implementing a TSP extends well beyond the adoption date, requiring actions by the jurisdiction, facility owners, and service providers.

Seeing Projects Through

Seeing planned projects through to construction requires several development steps. Prior to construction, additional permits and coordination with government agencies may be required where projects impact resource lands or environmentally sensitive areas.

Tracking Your Results

TSPs offer direction over a long planning period, and their relevance can wane over time. It is important to periodically assess how well the TSP predicted transportation needs and whether developments (such as changes in land use, availability of funding sources, or advances in technology) change priorities.

Modal and Refinement Plans

Modal and refinement plans can play a role in implementing local TSP. Modal plans provide more detailed information regarding a specific transportation mode than what was included in the adopted TSP. The Transportation Planning Rules (TPR) allow for an applicable plan to be incorporated by reference (in whole or in part) into a TSP (OAR 660-012-0010[2]). A modal plan must be consistent with and can implement the adopted TSP. Mass transit, transportation, airport, and port districts must prepare and adopt plans for transportation facilities and the services they provide, and these plans must be adequate to implement a local TSP (OAR 660-012-0015[6]). Refinement plans provide detailed information related to a facility. Refinement plans are necessary when a transportation need exists, but the mode, function, and general location of a transportation improvement have not been determined and a range of alternatives must be considered before identifying a specific project or projects. As described in **Other Elements** in Step 7: TSP Documentation, a refinement plan may be necessary to implement a TSP recommendation.

Project Programming

The transportation funding program identifies which projects, programs, or services developed in the TSP process will be funded based on existing and anticipated revenue sources and the projected costs of proposed projects and programs (see **Step 6: Funding Program**). The outcome of the funding program is a list of preferred transportation projects/programs based on prioritization of alternatives into constrained and unconstrainted project lists (see

Step 5: Solution Development & Evaluation). Jurisdictions can select projects from this list to include in their local capital improvement plans or programs. Typically, these are short-range plans (usually spanning 4 to 10 years) that identify capital projects and that allocate capital funds as approved by the jurisdiction's elected officials. In addition, cities and counties in metropolitan areas and Metro are required to conduct additional analyses to demonstrate that there will be no increase in vehicle miles traveled per capita if specific roadway projects are included in the constrained project list (see **Enhanced Review of Select Roadway Projects**).

The Statewide Transportation Improvement Program (STIP) is the ODOT Capital Improvement Program for state and federally funded projects. Local projects on state highways or other projects that require state or federal funding must be selected and approved in the STIP before they can be constructed. Information on the STIP development and project selection processes can be found on the STIP website.

If a TSP project is federally or regionally significant and is located within a metropolitan area, it needs to be programmed for inclusion in a Metropolitan Transportation Improvement Program. All Metropolitan Transportation Improvement Programs are incorporated by reference into the STIP. Information on Metropolitan Transportation Improvement Program project selection procedures, including timelines and criteria, can be accessed through the respective Metropolitan Planning Organization.

Project Development

Project development includes determining the precise location, alignment, and preliminary design of transportation facilities or improvements authorized in a TSP. The TPR require each jurisdiction to adopt land use regulations to implement its TSP. Depending on the nature of the transportation improvement, additional land use decision-making may or may not be required prior to construction. OAR 660-012-0045(1) lists improvements that, under ordinary circumstances, need not be subject to land use regulations. It also identifies types of improvements that will require further land use decision-making. Additional land use decision-making typically is required where the facility or improvement impacts farm or forest lands, Goal 5 resources, floodways or other hazard areas, estuarine or coastal shoreland areas, or the Willamette River Greenway. For these improvements, local governments must provide a review and approval process that is consistent with the TPR section on transportation project development (OAR 660-012-0050).

Monitoring

Cities and counties should continuously monitor opportunities arising from innovations in transportation technology, demand for evolving mobility needs, and the impact these trends have on investment priorities. While the TSP is a plan for conditions 20 or more years into the future, it cannot anticipate all advances in technology or their impact on the way people travel within and to a jurisdiction. Examples of potential advances include:

- Alternative fuel sources that influence the cost of driving and operating transit service
- Autonomous vehicle technology that impacts the safety and efficiency of roadways
- Electric-assisted bicycles and other wheeled mobility devices that reduce topography and distance barriers of travel for non-motorized road users

Metropolitan Areas

Cities and counties located in metropolitan areas are required to provide an annual report documenting progress toward meeting the requirements in the Transportation Planning Rule (TPR). Metro is responsible for coordinating with

jurisdictions within its planning area and preparing this required annual report. Reports are reviewed and approved by the Oregon Department of Land Conservation and Development (DLCD).

Minor Report

During most years, cities, counties, and Metro are required to report on the state of coordinated land use and transportation planning, any recent or upcoming amendments to the TSP, progress on including underserved populations, and any current or recent select roadway project review or authorization pursuant to OAR 660-012-0830.

Major Report

When a Metropolitan Planning Organization (MPO) adopts a Regional Transportation Plan, cities, counties, and Metro must include additional information in their next annual report. This includes information on actions considered to reduce greenhouse gas emissions and an assessment on regional and local performance targets set in the TSP. Requirements for reporting on performance measures differ depending on whether a jurisdiction has a land use and transportation scenario plan approved by the Oregon Land Conservation and Development Commission (LCDC). Jurisdictions with an approved scenario plan must report on the performance measures from the plan; all other jurisdictions must report on specific actions to reduce pollution and increase equitable outcomes. OAR 660-012-0905(2) includes the minimum reporting requirements for cities and counties that do not have an approved land use and transportation scenario plan.

Major report submissions include the opportunity for public comment and can be appealed to the Oregon Land Conservation and Development Commission. Jurisdictions that fail to report can be referred to a compliance hearing before the commission, which has the authority to issue a remand enforcement order.

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