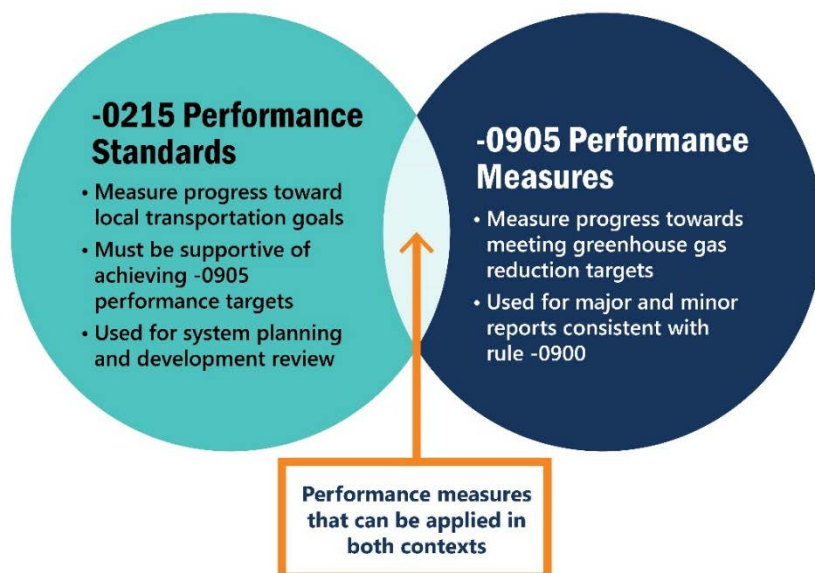


# Performance-Based Planning

## Using Performance Management Principles For Transportation System Plans in Metropolitan Areas

Recent changes to the Transportation Planning Rules (TPR) ([Oregon Administrative Rules chapter 660, division 12](#)) emphasize and require a performance-based approach to Transportation System Plan (TSP) development in metropolitan areas. This includes:

- Inclusion of performance **measures and targets** that support achievement of greenhouse gas reduction performance measures and targets established either through regional scenario planning or a process outlines in OAR 660-012-0905, if available. Otherwise, supporting the performance measures in [rule 0905](#) and identifying targets. Cities, counties, and Metro must report progress towards achieving the performance targets per rules 0900, 0905 and 0910.
- 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 rule 0215.
- **Adopting at least two local performance standards** per [rule 0215](#) to apply to subsequent comprehensive plan amendments (including TSP updates) and land use decisions (including site development). These must be supportive of achieving the performance targets from either an approved regional greenhouse gas reduction scenario plan, if existing, or those adopted consistent with rule 0905. There may be overlap in the rule 0215 performance standards and the rule 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 [rules 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
<b>Performance Measures (rule 0905)</b>	Indicators used to assess the performance of the transportation system and demonstrate progress towards 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. 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.
<b>Performance Targets (rule 0910)</b>	Future year targets set for performance measures to be used in major reports to demonstrate progress towards 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.
<b>Performance Standards (rule 0215)</b>	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 and to review land development applications consistent with the local development code.	Cities and counties within metropolitan areas must adopt at least two performance standards per <a href="#">rule 0215</a> . 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 <a href="#">rule 0910</a> .
<b>Thresholds</b>	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.
<b>Evaluation Criteria</b>	Used to compare and select alternatives.	Selected by local agencies based on TSP goals and objectives.
<b>Prioritization Factors</b>	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.

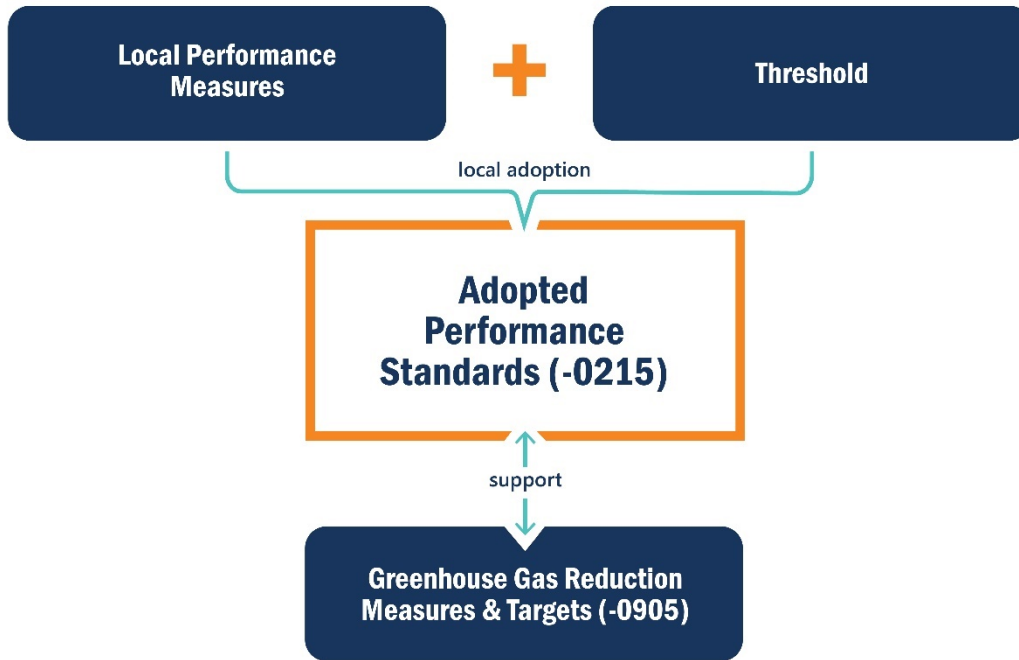
**Examples**

Performance Measures (-0905)	Performance Target	Threshold	Performance Standard (-0215)
Bicycle Level of Traffic Stress	50% of all bicycle facilities rated Level of Traffic Stress 2 or better	Level of Traffic Stress 2	Bicycle Level of Traffic Stress 2 or better

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

The tools 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 described in the TSP Guidelines. See the [TSP Guidelines](#) for more details.

TSP Guideline Step	How the Tools are Used
<b>Scope Phase</b>	Plan to integrate the performance measures and targets required by rule 0905 throughout the TSP update process (see rule 0905 Performance Measures relevant to the TSP).
<b>Step 2: Goals, Objectives, and Performance Tracking</b>	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 ODOT’s Analysis Procedures Manual (see Selecting Performance Standards).
<b>Step 3: Existing Conditions</b> <b>Step 4: Future Conditions</b>	Assess performance and progress towards rule 0905 performance targets and TSP goals. Identify potential thresholds to for rule 0215 performance standards. Use rule 905 performance targets and potential rule 0215 performance standards to identify system needs.
<b>Step 5: Solution Development &amp; Evaluation</b> <b>Step 6: Funding Program</b>	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 that helps achieve the rule 0910 targets.
<b>Step 7: TSP Documentation &amp; Adopt Phase</b>	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 when reviewing site development applications. Document and adopt the local government baseline and future reporting year targets for the rule 0905 performance measures into the TSP. Initial targets will be established outside of the TSP and through a separate regional process.
<b>Implement Phase (Monitoring)</b>	Report on progress toward achieving the 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 Relevant to the TSP

Metro and cities and counties with an approved regional scenario plan that meets the OAR chapter 660, division 44 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 the 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
<b>Active Transportation</b> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ Percent of collector and arterial streets in climate-friendly areas and underserved population neighborhoods with safe and convenient marked pedestrian crossings.</li> <li>▪ Percent of transit stops with safe pedestrian crossings within 100 feet.</li> </ul>	GIS can be used to support these performance measures if data is available. These measures should inform the identification of needs and solutions in the pedestrian and bicycle modal plans
<b>Transportation Options</b> <ul style="list-style-type: none"> <li>▪ Number of employees covered by an Employee Commute Options Program.</li> <li>▪ Percent of all Transportation Options activities that were focused on underserved population communities.</li> </ul>	These could be assessed for existing conditions for Transportation Options and influence the Transportation Options planning.

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Performance Measures Relevant to the TSP	Potential Applications in TSP Process
<b>Transit</b> <ul style="list-style-type: none"> <li>▪ Share of households within one-half mile of a priority transit corridor.</li> <li>▪ Share of low-income households within one-half mile of a priority transit corridor.</li> <li>▪ Share of key destinations within one-half mile of a priority transit corridor.</li> </ul>	These performance measures could influence the designation of priority transit corridors.
<b>Transportation System</b> <ul style="list-style-type: none"> <li>▪ Vehicle miles traveled (VMT) per capita.</li> <li>▪ Percent of jurisdiction transportation budget spent in climate-friendly areas and underserved population neighborhoods.</li> <li>▪ Share of investments that support modes of transportation with low pollution.</li> </ul>	These performance measures may be applied iteratively and should inform the development of the financially-constrained plan. VMT/capita must be calculated and shown to be reduced by the horizon year per <a href="#">rule 0160</a> if the financially-constrained project list includes a roadway capacity project requires enhanced review per <a href="#">rule 0830</a> .

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 above table must be considered or evaluated during the existing and future conditions analysis to establish baselines, assess progress towards the rule 0910 performance targets, and identify needs. They will need to influence the development of the modal plans and assess future performance of the system in order to develop a TSP that is designed to achieve the performance targets.

## Selecting Performance Standards

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 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 reduces injuries and fatalities and that people feel comfortable using
- **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** - dependably provides users with a 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.

The following table shows potential performance standards that are included in a toolkit in ODOT's 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 ODOT's Analysis Procedures Manual.

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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
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 towards 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?

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- Can the city or county support the staff time or consultant time to report on the performance standard or review impact on the performance standard for transportation projects and land use and development applications?
- Is the data available? If not, what is the work required to collect the necessary data?
- Does the performance standard support progress towards 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 Transportation System Plans, "...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, it 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?



## **Prioritization Framework**

The TPR provides a framework for decision making regarding the prioritization of transportation facilities and services that impact the types of solutions that are prioritized in different areas, and then provides guidance on how to prioritize projects by mode.



### **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 1: Solution Development Phase**

OAR 660-012-0155 requires cities, counties, Metro and state agencies to consider facility classifications, planned land use contexts, expected primary users, local values per rule 0120, and the following factors 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, regional, 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 rule 0130. The mode specific prioritization factors shall also be consistent with the applicable rule 0155 factors applicable to each mode. These shall be used to develop a prioritized list of projects for each mode.

*Pedestrian System Prioritization Factors (-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 chapter 660, division 44 greenhouse gas reduction targets.

*Bicycle System Prioritization Factors (-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 chapter 660, division 44 greenhouse gas reduction targets.

*Transit System Prioritization Factors (-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 chapter 660, division 44 greenhouse gas reduction targets.

*Street and Highway System Prioritization Factors (-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 chapter 660, division 44 greenhouse gas reduction targets or help meet the targets per rule 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. This should build upon the prioritization work in Steps 1 and 2. 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 vehicle miles traveled.
- 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 rule 0910 performance targets.