Oregon State Rail Plan – Implementation Plan

March 2023

Oregon
Department
of Transportation

This page left intentionally blank.

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

1   Executive Summary

1.1   Implementing the Oregon State Rail Plan

The Oregon Department of Transportation (ODOT) has developed the Oregon State Rail Plan – Implementation Plan (OSRP-IP) to put the Oregon State Rail Plan (OSRP) into action. The OSRP-IP provides a process to enact state policies and efficiently prioritize potential rail transportation projects as funding opportunities arise. The OSRP-IP is a living, changing plan that engages with (1) ODOT Policies, Plans and Goals; (2) stakeholders in the rail space; and (3) the Rail Needs Inventory (RNI), which aims to be a comprehensive list of rail projects needed in the state. The RNI was originally developed as an attachment in the OSRP. The OSRP-IP develops a decision framework for refining and prioritizing RNI projects; this decision framework is referred to in this document as the "RNI Evaluation Tool." Figure 1depicts the process for developing the OSRP-IP.
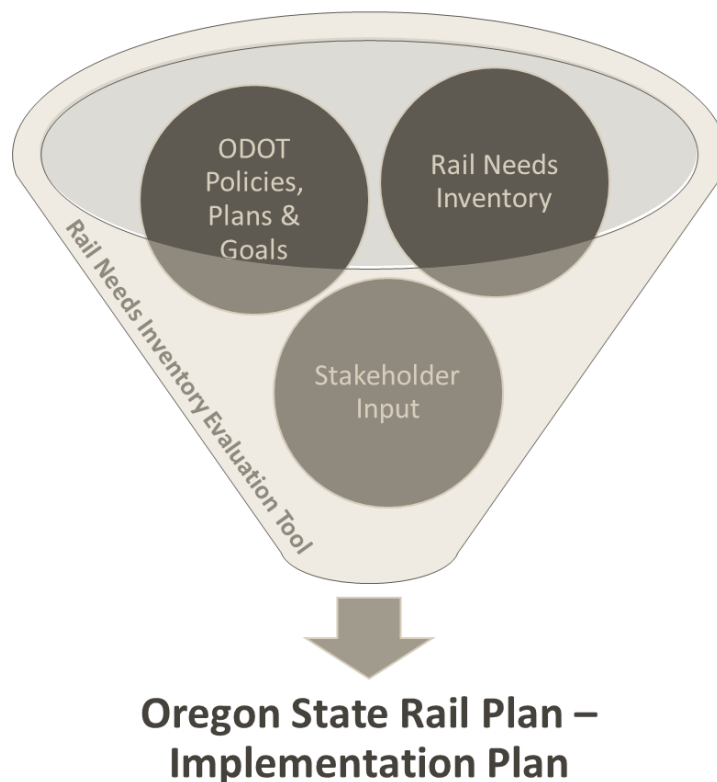
Figure 1: Oregon State Rail Plan – Implementation Plan Process

1.2   ODOT Policies, Plans and Goals

The OSRP-IP uses various approaches, methods, and actions to achieve the OSRP vision and goals, including those documented in OSRP-IP's RNI Evaluation Tool, the Oregon Amtrak Cascades Service Development Plan – Implementation Plan (under development) and Oregon's Highway-Rail Grade Crossing Action Plan, as well as information from participation in national

and regional rail committees. Each of these plans and actions is foundational to implementation of the OSRP. See Table 1 in Section 3 for a listing of the OSRP policy goals and how they are being achieved.

Further, development of the OSRP-IP had as its foundation several guiding policy documents, including the OSRP itself, the Oregon Transportation Plan, the Oregon Public Transportation Plan, the ODOT Strategic Action Plan, and the Oregon Transportation Commission Investment Strategy and the Statewide Transportation Improvement Plan.

1.3   Stakeholder Input

The OSRP-IP was refined and informed by stakeholder input from the Oregon Rail Advisory Committee-Working Group (RAC-WG) and the OSRP-IP Technical Advisory Committee (TAC) that were established for this effort. Together, these groups brought expertise from rail labor, rail shippers, Class I and short line railroads, Amtrak, business development organizations, ports and six additional offices within ODOT itself.. Updates on the plan development were presented and discussed with the Oregon Rail Advisory Committee (RAC) during quarterly meetings that were open to the public.

1.4   Rail Needs Inventory

The RNI, initially published as an appendix to the OSRP, is a comprehensive list of needed rail projects in Oregon. It captures each project's description, location, source and magnitude-of-order cost, among other attributes.

1.4.1   RNI Evaluation Tool

To assist in implementing the OSRP, the RNI Evaluation Tool was developed to streamline decision-making in selecting specific rail projects to fund. It consists of a decision-making framework and evaluation factors consistent with the other methods and processes Oregon uses for making investment decisions. The RNI Evaluation Tool is designed to be manipulated variably to consider different policy goals and statutory requirements and regulations that are specified for the myriad sources of funding that will be used to pay for projects contained in the RNI.

1.5   Oregon State Rail Plan – Implementation Plan

The OSRP-IP essentially functions as an enactment of state policy, and it is a product of the project prioritization and selection process, given variable inputs. It is intended to be a "living" plan, adapting to changing policy and funding environments.

2   Introduction

2.1   Background

ODOT supports the planning and implementation of a wide variety of transportation improvement projects intended to create a safe and accessible statewide multimodal transportation system. Through its Oregon Transportation Plan (OTP), ODOT established a policy foundation to guide statewide transportation system development and investment.

The OTP is a 25-year transportation plan that comprehensively assesses state, regional, local and public and private transportation facilities, infrastructure and services. The OTP features a vision of a balanced, multifaceted transportation system including expanded investment in multimodal transportation options, including rail.

The OTP is augmented by mode and topic plans that guide policies and decisions by ODOT, other statewide transportation agencies, and local and regional planning agencies. Figure 2~~Figure 2~~ lists the plans included in the OTP. The OTP provides an overview of established ODOT investment guidance.[1]
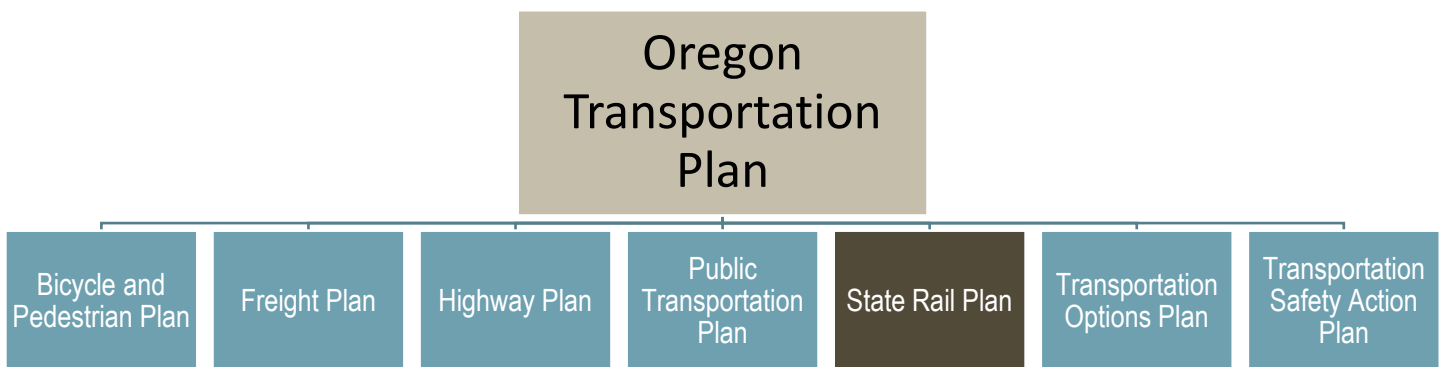
Figure 2: Oregon Transportation Plan and Component Modal Plans

The OSRP is one of the mode and topic plans included in the OTP. Last updated in 2020, the OSRP explores issues affecting the state's rail freight and passenger system, describes existing conditions and forecasts, and provides an inventory of rail infrastructure needs.[2]

Unlike highway or public transit systems, the Oregon passenger and freight rail network is predominantly owned by private industry. This ownership structure requires a unique public and private sector collaboration to proactively plan and explore the best mix of transportation investments to ensure a safe, efficient and reliable rail network for the benefit of Oregon's residents and businesses. And although ODOT does not own significant rail infrastructure, it does fund the Amtrak Cascades service (in partnership with Washington State Department of Transportation [WSDOT]), and as a state government agency, ODOT participates in investment

---

[1] Investment Guidance is contained in Section 1c of the Oregon Transportation Plan

[2] "Rail Needs Inventory" or RNI, found in Attachment C of the Oregon State Rail Plan.

and modernization programming decisions with rail stakeholders because it recognizes the public benefit of a highly functioning rail system.

2.2   Purpose and Goals

The purpose of the OSRP-IP is to provide a process for enacting state policies, and for efficiently prioritizing rail transportation projects and inform investment of scarce public funds. The goals of the OSRP-IP are to:

- Develop a list of prioritized projects that best advance the state's rail investment priorities, given limited funding opportunities.
- Apply the goals and policies developed in the OSRP and Strategic Action Plan (SAP) in the prioritization of rail projects.
- Collaborate with Oregon communities to identify opportunities to facilitate rail improvements that enhance sustainability, resiliency, economic development opportunities, and safety**.**
- Identify and assess prospective rail projects that could be implemented or supported by ODOT.
- Streamline and standardize the tracking and prioritization of rail projects.
- Support transparency and thorough documentation of decision-making.
- Leverage federal, state and private funds.

The seven goals established in the OSRP provide a foundation upon which policies and strategies have been developed to help shape the future of rail in Oregon. This OSRP-IP is designed to provide links between these foundational elements and the specific actions ODOT is taking toward achieving the vision presented in the OSRP to provide a "safe, efficient, and commercially viable rail system that serves its businesses, travelers, and communities through private resources leveraged, as needed, by strategic public investments." See Section 3 for a more detailed discussion.

Given the extensive list of passenger and freight rail needs referenced in other ODOT documents and discretionary grant programs (e.g., Connect Oregon and the Oregon Passenger Rail Service Development Plan) and local plans; limited state funding; and growing political, business and public interest in rail, a standardized approach is needed to catalog and update projects and to streamline and methodize their tracking and prioritization.

The OSRP-IP is separate from the OSRP and includes a new and comprehensive RNI. The RNI is a comprehensive list of rail projects that are referenced in other ODOT documents (e.g., Connect Oregon, the Oregon Passenger Rail Service Development Plan, Statewide Transportation Improvements Program), and local plans. The RNI list also includes new projects submitted by various stakeholders during the development of the draft OSRP-IP. The new RNI updates and replaces Appendix C of the OSRP and plays a significant role in implementing the OSRP.

3   Implementing the Oregon State Rail Plan

This OSRP-IP is designed to help ODOT and the Oregon rail system stakeholders work toward achieving the OSRP vision. The seven OSRP goals, together with numerous policies and strategies or action steps established in the OSRP, provide an underpinning to help shape the future of rail freight and passenger services in Oregon. Table 1 in Section 3.2 shows the specific actions ODOT is taking and will take over the next several years toward achieving each goal, utilizing a variety of stagies and actions both internally and with rail stakeholders around the state.

In several cases, different functional parts of ODOT have responsibilities for various implementation components of the OSRP. For example, Goal 5, which focuses on rail safety and security, is primarily the responsibility of the Commerce and Compliance Division of ODOT, while the Public Transportation Division (PTD) will take the lead on the majority of other implementation plan strategies. Regardless of which part of ODOT is responsible for the specific strategies, however, it is important that all parts of ODOT collaborate to achieve the OSRP vision and goals.

3.1   Rail Needs Inventory Evaluation Tool

To assist in implementing the OSRP, the RNI Evaluation Tool was developed to streamline decision-making. The decision-making framework and evaluation factors that constitute the RNI Evaluation Tool are consistent with the other methods and processes Oregon uses for making investment decisions and broadly consider statutory requirements and regulations that are specified for the sources of funding that will be used to pay for the investments. These requirements vary signficantly at the federal level, but may include specific environmental benefits (e.g., Environmental Protection Agency requirements), certain rail safety requirements or specific rail carriers (e.g., Federal Railroad Administration (FRA) requirements), and established by Executive Orders or contained within USDOT grant notice of funding opportunities.

The State of Oregon has also established statutory requirements that have a bearing on the RNI decision-making framework and evaluation factors. The Connect Oregon competitive grant program established by the Oregon Legislature in 2005 includes specific eligibility and matching fund requirements codified in Oregon Administrative Rules[3] chapter 731 division 35. Therefore, funding leverage is one of the key evaluation factors incorporated into the RNI Evaluation Tool. Section 5 discusses the RNI Evaluation Tool in detail.

3.2   OSRP-IP Integration with State Policies, Plans and Goals

This section illustrates how the OSRP-IP aligns with the goals and strategies of the OSRP. The OSRP-IP uses various approaches, methods, and actions to achieve the OSRP goals, including the OSRP-IP's RNI Evaluation Tool, the Oregon Passenger Rail Service Development Plan –

---

[3] https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=3279

Implementation Plan (under development), and the Oregon Highway-Rail Grade Crossing Action Plan, as well as information from participation in national and regional rail committees.

There are a total of seven goals in the OSRP, and each goal includes a number of strategies (49 in total) to help implement the OSRP. ODOT is implementing many of these strategies as part of their normal programming, but does not have the resources to implement all of the OSRP strategies. Table 1 identifies the top priority strategies that ODOT should implement in the coming 3-5 years, some are a continuation of current programming, and others will involve new or renewed attention. Table 1 also lists whether these top priority strategies are implemented through either the OSRP-IP, Oregon Passenger Rail Service Development Plan Implementation Plan, or through other plans and initiatives, including agency and committee work advancing rail systems development in Oregon.

Table 1: Priority OSRP Goals and Strategies

Goal 1			
Partner, collaborate and communicate with rail system operators and other stakeholders to maximize benefits, align interests, remove barriers and bring innovative solutions to the rail system and foster public understanding of rail's importance.			
		Taking Action to Implement the 2020 OSRP through:	
Oregon State Rail Plan Strategy	**OSRP-IP**	**Oregon Passenger Rail SDP-IP**	**Other Plans & Initiatives**
1a	Work collaboratively with private railroads, jurisdictions and agencies, both within Oregon and in other states, to pursue system improvements and operations that mutually benefit stakeholders over the long term.	X	X	✓ AASHTO ✓ SCORT ✓ Rail Advisory Committee (RAC) ✓ ORULE ✓ Amtrak ✓ SPRC ✓ SAIPRC ✓ NGEC
1b	Participate in working groups with rail service providers to plan and review operations in shared-use (e.g., freight and passenger) corridors.	X	X	✓ Amtrak, WSDOT, BNSF, UP Coordination ✓ RAC
1c	Participate in multistate and bi-national freight and passenger planning efforts to identify mutually beneficial improvements and compatible operations in multistate and bi-national rail corridors.	X	X	✓ Ultra High Speed Ground Transportation Study (UHSGT) ✓ SAIPRC ✓ RAC
1f	Provide planning guidance (e.g., transportation system planning guidance, model zoning ordinances, design standards and best practices) to regional and local jurisdictions to minimize conflicts from incompatible land uses in rail corridors and better integrate rail into communities.	X	X	✓ FAC ✓ FRA ✓ UP/Amtrak
The RNI Evaluation Tool directly incorporates these OSRP strategies as Evaluation Criteria.			

Goal 2			
Promote, preserve and enhance an efficient rail system that is accessible and integrated with Oregon's overall multimodal transportation system.			
Oregon State Rail Plan Strategy	Taking Action to Implement the 2020 OSRP through:		
	OSRP -IP	**Amtrak Cascades SDP-IP**	**Other Plans & Initiatives**
2b	Emphasize intermodal, multimodal and first- and last-mile connectivity to key multimodal facilities, including ports.	X		✓ ODOT Strategic Action Plan ✓ TO Plan ✓ OPTP ✓ Connect OR
2h	Continue to work with the Federal Railroad Administration (FRA) on a Corridor Investment Plan, to facilitate decisions on future rail service in the Amtrak Cascades corridor, including general rail alignment, communities where stations could be located, number of daily trips, travel time objectives and the rail technology to be used.	X	X	✓ FRA ✓ WSDOT ✓ Amtrak ✓ UP ✓ BNSF
2i	Participate in high-speed rail visioning to develop a conceptual corridor assessment and high-level costs for high speed rail between the Eugene-Springfield area and Vancouver, Washington, with implementation beyond 2035.			✓ UHSGT ✓ FRA
2k	Support and make investments in intercity bus transportation and transit services that enhance, supplement and expand access and connectivity of the intercity and commuter passenger rail networks in Oregon.	X		✓ House Bill 2017 ✓ POINT buses ✓ OPTP
The RNI Evaluation Tool directly incorporates these OSRP strategies as Evaluation Criteria.			

Goal 3				
Enhance transportation system reliability, capacity, frequency and travel times through investments that preserve and improve freight and passenger rail assets and infrastructure.				
		Taking Action to Implement the 2020 OSRP through:		
Oregon State Rail Plan Strategy		**OSRP-IP**	**Amtrak Cascades SDP-IP**	**Other Plans & Initiatives**
3a	Evaluate the benefits of designating strategic rail facilities and corridors and its role in informing public investment and planning decisions.	X	X	✓ CIP FEIS ✓ RAC
3c	Leverage investments and support short line railroads to upgrade track and maintain the system in a state of good repair where there is a demonstrated rail system, economic and public benefit for the state and/or region, and when a viable long term business plan has been demonstrated. Work may include incentives for businesses to locate and utilize rail assets. The Industrial Rail Spur Fund or similar improvement opportunities are one example of these incentives.	X	X	✓ Federal Grants ✓ Connect Oregon
3d	As required by statute (ORS 824.202), eliminate at-grade crossings wherever possible. Give priority for closing crossings with the greatest potential for train conflicts with other modes and redundant crossings. Where rail grade crossings provide an important route for local pedestrian, bicycle or vehicle circulation, the needs of these local movements must be considered in decisions before closing or modifying existing crossings or adding new crossings.	X	X	✓ CIP FEIS ✓ Oregon Hwy-Rail Crossing Action Plan
3g	Preserve the rail system through a hierarchy of investment and action: (1) Preserve Service, (2) Preserve Infrastructure, (3) Rail Banking, and (4) Rail Line Abandonment (last resort).	X	X	✓ CIP FEIS ✓ RAC
The RNI Evaluation Tool directly incorporates these OSRP strategies as Evaluation Criteria.				

Goal 4				
Establish funding that meets the critical needs of the rail system in Oregon and achieves the objectives of this State Rail Plan.				
Oregon State Rail Plan Strategy		Taking Action to Implement the 2020 OSRP through:		
		OSRP-IP	**Amtrak Cascades SDP-IP**	**Other Plans & Initiatives**
4a	Develop and maintain a short-/long-range rail investment needs inventory in partnership with railroad owners and operators that is consistent with needs identified in the State Rail Plan.	X		✓ CIP FEIS ✓ RAC
4d	Maximize and leverage railroad investments through Connect Oregon and other multimodal funding programs.	X	X	✓ CIP FEIS
4e	Work towards securing a sustainable funding source to address critical freight and passenger rail system needs for both capital improvements and operations.	X		
The RNI Evaluation Tool directly incorporates these OSRP strategies as Evaluation Criteria.				

Goal 7				
Increase opportunity and investment in freight and passenger rail assets to grow Oregon's economy.				
Oregon State Rail Plan Strategy		Taking Action to Implement the 2020 OSRP through:		
		OSRP-IP	**Amtrak Cascades SDP-IP**	**Other Plans & Initiatives**
7b	Promote and support the co-location of economic activities and appropriate transportation facilities with convenient and reliable access to freight and passenger rail options.	X		✓Amtrak ✓ORULE ✓RAC
The RNI Evaluation Tool directly incorporates these OSRP strategies as Evaluation Criteria.				

4   Guidance for Development of the OSRP-IP

4.1   Stakeholder and Public Engagement

The development of the OSRP-IP included engagement with a variety of private and public sector stakeholders in 2021 and 2022.

A project-specific Technical Advisory Committee (TAC) and RAC Working Group (WG) were established to inform the OSRP-IP development. The TAC and RAC WGs reviewed and provided guidance in the development of the RNI Evaluation Tool. The TAC and RAC WGs held two formal workshops: The November 2021 workshop focused on the development of the Evaluation Factors and Evaluation Criteria. The February 2022 workshop focused on the Scoring and Methodology framework to guide the Evaluation Tool, alongside the project data requirements that constitute the RNI. In addition to the formal workshops, one-on-one meetings with group members were held to clarify specific aspects of the Evaluation Criteria and Scoring Methods.

Findings from the workshops were shared with the full RAC during the quarterly RAC meetings. In addition, the RAC WG meeting materials and minutes were made available to the public for review and comment and all RAC meetings are open to the public.

The draft OSRP-IP was posted online on the ODOT website for public comments from April 20, 2022, to May 22, 2022. ODOT staff made three presentations to external stakeholder groups at the Oregon Rail Users League group meeting on May 19, 2022, at the Oregon Chapter of the American Society of Civil Engineers on April 21, 2022, and at the Association of Oregon Transit and Rail Advocates meeting on April 23, 2022. Appendix D contains the details of the stakeholder outreach and comments on the draft OSRP-IP.

4.2   Technical and Policy Guidance

Various teams and advisory and technical committees provided guidance for the development of the OSRP-IP, as described in the following sections.

4.2.1   ODOT Project Management Team

The Project Management Team (PMT) was responsible for developing and coordinating the production, review and documentation of the ORSP-IP and the RNI Evaluation Tool. The PMT was guided by the ODOT PTD Administrator, and included the Rail Operations and Statewide Multimodal Network Unit Manager, the State Rail Planner, the Intercity Passenger Rail Program Manager, the Passenger Rail Program Coordinator and consultants.

4.2.2   Rail Advisory Committee

To advise on the direction and approach for the OSRP-IP and RNI Evaluation Tool, the PMT engaged with the RAC. The RAC meets quarterly to provide advice to ODOT and the Oregon Transportation Commission (OTC) on issues that affect rail freight and passenger facilities and services in Oregon, including ranking rail projects for consideration for Connect Oregon funding.

The RAC is a standing committee with members appointed by ODOT's Director. During development of the RNI Evaluation Tool, the RAC consisted of public and private stakeholders, representing primarily Class I and short line railroads, Amtrak, organized railroad labor, intercity passenger rail advocates, a

major port and business owners with expertise or interest in freight rail. The quarterly RAC meetings and meeting materials are open and available to the public for review and comment.

4.2.3   Rail Advisory Committee Working Group

A subset of the larger RAC, the RAC WG participated in the RNI Evaluation Tool workshops and provided comments during development of the overall OSRP-IP.

RAC WG representatives included:

- Sheet Metal Air Rail Transportation (SMART) Union
- Jaguar Transport Holdings (short line railroads owner/operator)
- BNSF Railway (Class I railroad)
- Teevin Bros Land and Timber (shipper/receiver by rail)
- Oregon businesses (retired business executive)

The RAC WG provided comprehensive feedback on the issues, concerns and project evaluation factors from the perspective of rail labor, railroad operators and rail stakeholders.

4.2.4   Technical Advisory Committee

The TAC consists of members from different ODOT Divisions who have subject matter expertise, local port representatives, and Oregon business community representatives (see full list below). The TAC provided comprehensive feedback on the RNI from the perspective of the state transportation system and planning, including economic policy, equity and environmental issues.

TAC representatives included:

- ODOT Freight Program
- ODOT Commerce and Compliance Division
- Business Oregon
- ODOT Climate Office
- Oregon International Port of Coos Bay
- Amtrak
- ODOT Social Equity Office
- Prosper Portland
- Port of Portland
- ODOT Policy, Data and Analysis

4.3   Guiding Documents

Recognizing that freight and passenger rail services are critical components of the state's multimodal transportation network, ODOT currently coordinates regularly with rail stakeholders, rail operators and projects in the development of extensive extant policy regarding rail transportation, which forms the foundation of this effort.

Project investment decisions embodied in the RNI evaluation and analysis tool (RNI Evaluation Tool) are informed by the evaluation factors consistent with the vision, goals and strategies laid out in the OSRP. The RNI Evaluation Tool includes the methods and processes Oregon uses for making project investment decisions, including investment guidance in the OTP, implementation processes in the

Connect Oregon program, criteria and processes utilized in the Statewide Transportation Improvement Program (STIP) and near-term decision-making influenced by the SAP.

The following sections provide high-level summaries of these guiding documents and describe their applicability in the development of the RNI Evaluation Tool as part of the OSRP-IP.

4.3.1   Oregon State Rail Plan
The OSRP explores issues affecting the state's rail freight and passenger system, describes existing conditions and forecasts, and provides an inventory of rail infrastructure needs. The OSRP includes evaluation factors for achieving:

- Mobility benefits
- Economic benefits
- Environmental benefits
- Community/safety benefits
- Good stewardship
- Leverage/good partnerships

This list of evaluation factors is one in the same with the RNI Evaluation Tool's overall Factors, each representing a broad category summarizing several individual Evaluation Criteria, as explicitly deliniated by Table 2 in section 5.1.1.

4.3.2   Oregon Transportation Plan
The OTP is the long-range transportation system plan for the state. It establishes a vision and policy foundation to guide transportation system development and investment. The OTP guides decisions by ODOT and other transportation agencies statewide, and is reflected in the policies and decisions explained in local and regional plans.

The OTP is currently being updated around the following priorities:

- Advancing Social Equity
- Creating a Flexible, Resilient Plan
- Improving Safety
- Planning for Climate Change
- Securing Sustainable Funding
- Serving Oregon's Aging Population
- Alleviating Congestion

The OSRP-IP RNI Evaluation Tool incorporated these priorities in the development of its Factors and Evaluation Criteria, as described in Section 5 below.

4.3.3   Oregon Public Transportation Plan
The OPTP lays out the long-range public transportation vision for public transportation in Oregon, including integrated fixed-route bus service, demand response service, and intercity and passenger rail. Several adopted policies and strategies from this plan address the importance of passenger rail as part of a modern multimodal transportation system of intercity service. It contains ten goals for transportation agencies and investment considerations to support the efficient, coordinated public

transit system. It also identifies the intercity public and private transportation services, including the Amtrak routes and stations.

4.3.4   ODOT Strategic Action Plan

The SAP is a joint vision of the OTC and ODOT to inform ODOT's work and guide ODOT's decision-making. The SAP establishes the following objectives against which the OTC and ODOT hold themselves accountable:

- Equity
- Modern Transportation System

4.3.5   OTC Investment Strategy and Statewide Transportation Improvement Plan

The OTC approved the SAP in October 2020 and established the three priorities of the State's Transportation System as providing:

- Equity – Prioritize diversity, equity and inclusion by identifying and addressing systemic barriers to ensure all Oregonians benefit from transportation services and investments
- Modern Transportation System – Build, maintain and operate a modern, multimodal transportation system to serve all Oregonians, address climate change, and help Oregon communities and economies thrive
- Sufficient and Reliable Funding – Seek sufficient and reliable funding to support a modern transportation system and a fiscally sound ODOT.

The OTC Investment Strategy works through the Oregon STIP. The OSRP-IP development referenced the OTC Investment Strategy for guidance on:

- Including additional sources of potential rail projects to add to the RNI database
- Ensuring the RNI Evaluation Tool's Factors and Evaluation Criteria (see Section 5) incorporate federal performance measures

The STIP follows the Federal Fixing America's Surface Transportation (FAST) Act requirements for Performance Based Planning and Programming to provide greater transparency and accountability in project decision-making.

The federal goals and performance measures establish reporting requirements for:

- Safety
- Infrastructure condition
- Congestion reduction
- System reliability
- Freight movement and economic vitality
- Environmental sustainability
- Reduced delays in project delivery

In addition, ODOT follows the OTC's Investment Strategy, which guides funding allocations and project selections that are reflected in the STIP. The resulting RNI enhances and supersedes the current OSRP Appendix C Rail Needs List, that:

- Outlines the four-step process of identifying and evaluating projects on the RNI

- Establishes a comprehensive methodology that evaluates projects based on six factors and 22 Evaluation Criteria that reflect OTC and ODOT policies and goals. The RNI Evaluation Tool allows the user to filter and sort projects in the database based on specific policy or funding requirements.

4.3.6   Connect Oregon discretionary grant program

Connect Oregon is an initiative established by the 2005 state legislature to invest in non-highway modes of transportation (aviation, rail and marine projects). The OTC makes these funding decisions.

5   Rail Needs Inventory and Evaluation Tool

5.1   Overview of the RNI

The updated RNI expands the scope of projects identified, and the RNI Evaluation Tool organizes a more extensive tracking and evaluation approach that is consistent with ODOT policy and planning goals to achieve the OSRP vision. The RNI Evaluation Tool also provides a framework that guides ODOT rail investment and programming decisions.

The PMT developed the RNI Evaluation Tool, and it was then reviewed and evaluated by both the TAC and the RAC WG over the course of the RNI development effort. Formal presentations to the RAC on the progress of developing the RNI were made in July, October and December 2021, and in March and June 2022.

The primary components of the RNI Evaluation Tool are:

- Factors and Evaluation Criteria
- Scoring and Methodology
- Dynamic Weighting
- Rail Needs Inventory (RNI)
- Power BI Dashboard Software Tool/Data Visualization

The following sections summarize these primary components, and Appendix C (Factors and Evaluation Criteria Methodology) includes a complete list of the Evaluation Criteria Scoring Methods and their descriptions.

5.1.1   Factors and Evaluation Criteria Development

OSRP Chapter 4 (Rail Service and Investment Plan) lists six initial evaluation factors. The first four (Mobility, Economic, Environmental and Community/Safety) are aligned with the key themes in the OSRP. The additional two factors (Good Stewardship and Leverage/Good Partnerships) were added to reflect themes important to the State of Oregon at the time.

In developing the RNI approach, it was recognized that projects are proposed for various reasons and have varying benefits, yet grant progams usually have specific goals desired for the program. Therefore, one purpose of the Factors and Evaluation Criteria should be to assist in identifying projects that best meet the specific grant objectives, especially for federal grant programs.

The workshops and the RAC presentations included discussion of and significant refinements to the existing Factors and potential Evaluation Criteria in order to meet the goal of identifying the full range of potential project benefits. As a result of these discussions and refinements, the first three Factors (Mobility, Economic and Environmental) were retained. The Community/Safety Factor was changed to focus solely on Safety, so that it would reflect the importance the freight and passenger railroad industry places on safety when prioritizing projects.

The Good Stewardship, Leverage/Good Partnerships and the remaining Community Factors were replaced with a Readiness Factor that consolidates them to reflect a project's status regarding community outreach, funding partnerships, design advancement and right of way status.

In addition, to reflect the State of Oregon's emphasis on including Equity in guiding investment decisions through the OTP and SAP, a new Equity Factor was established. The Equity Factor identifies areas adjacent to projects for investments and what individual projects have done to expand equity opportunities. The Equity Factor uses the Transportation Disadvantaged Populations Index for its ability to assess areas based on populations ages 18 and under and 65 and over, non-white and Hispanic populations, low-income populations, limited English households, households without a vehicle, disabled population and crowded households.

In addition, within each Factor, a scoring method was developed to be unique to the updated Evaluation Criteria. This scoring method allows consistency in evaluating the project attributes and ensures that the scoring evaluation would be based on straightforward, qualitative data. The Evaluation Criteria were developed so that they would avoid reliance on quantitative data that might be difficult to obtain or develop.

In summary:

- **Factors** were developed and refined using the state policy guidance described above to express ODOT and project values considered in the prioritization process that group variables with similar characteristics.
- **Evaluation Criteria** were developed that are the specific characteristics measured and organized under each Factor.

Table 2 summarizes the Factors and Evaluation Criteria, and notes related background information. Appendix C provides more details on the Factors and Evaluation Criteria.

Table 2: RNI Evaluation Tool Factors and Evaluation Criteria

Factors	Evaluation Criteria	Notes
Mobility	- Travel time - Travel reliability - Capacity improvements - Multimodal connectivity	These criteria will prioritize the improvement the project will provide to the transportation system, across all modes interacting with the Project.
Economic	- Shipping costs - Operating costs - Regional and local economic impact (qualitative)	These criteria consider the incremental changes in costs, including local and statewide economic effects, that could occur with the implementation of the project.
Environment	- Air quality and Greenhouse gases - Natural resources, - Climate and seismic resiliency - Cultural or historic resources - Congestion mitigation	These criteria consider the potential impact to the physical and built environment that are anticipated as a result of the project's implementation.
Safety	- Change in operator and maintenance staff safety - Change in passenger safety - Change in road user safety - Level of stress (active transportation users)	These criteria consider anticipated improvements to safety related to project operation and impacts experienced by other transportation users due to project operation or impacts.
Readiness	- Funding Leverage - Community support status - Project development status - Right of way status	These criteria reflect qualitive assessment of the Project to proceed based on: technical documents completed, owner buy-in/support, permits identified and/or received, regulatory and environmental approvals, known existing or pending funding, political support, and identified required approvals.
Equity	- Transportation Disadvantaged Populations Index (TDPI) - Expanding Economic Equity (qualitative)	These criteria reflect project impacts in census areas with high numbers of transportation disadvantaged residents and environmental justice communities

5.1.2   Scoring and Methods Development

The scoring approach is designed to identify the Evaluation Criteria characteristics of each project and indicate how they support the policy or funding initiative priorities.

The objectives in establishing the scoring method point assignment are to:

- Provide clearly defined breakpoints that are based on straightforward criteria
- Allow for consistency in the application for each project
- Focus on qualitative project data or characteristics
- Minimize additional data collection or analysis

The Evaluation Criteria scores are based on a 0 to 4 low-high system. The approach of using positive numbers for scoring was selected based on the following:

- It generally provides a simpler means to sort the results. The 0 to 4 scoring avoids comparing negative numbers (-0.4 vs -1.4) where the lower absolute value -0.4 scores better than the higher value -1.4.
- The Factors can be "weighted" to different percentages based on the priorities desired in filtering and identifing project atributes. While this concept is mathematically straightforward, using negative numbers can add complexity.
- Comparing any two scores will always involve positive values.

Given the diversity of criteria considered, the summary scoring (see Table 3) shows the general intention of the 0-4 scoring method, realizing that in practice each criterion has some variance in how the scoring method applies.

Table 3: RNI Evaluation Tool General Scoring Methods

Score	Meaning
0 score	= Major negative change expected
1 score	= Minor negative change expected
2 score	= No change expected
3 score	= Minor positive change expected
4 score	= Major positive change expected

Within each Factor, the value of each Evaluation Criterion is summed and averaged to produce the Factor score, regardless of the number of Evaluation Criteria. The initial project evaluation score is produced by averaging all Factor scores equally. Appendix C provides a detailed description of the scoring method for each Evaluation Criterion.

Projects have varying degrees of merit. The ability to identify positive, negative or neutral changes will be beneficial in scoring the Evaluation Criteria.

Greater positive and negative outcome evaluations are better suited to the more intensive Cost-Benefit Analysis and Environmental Impact stages of a given project, and well beyond the scope of what this scoring tool is intended to achieve.

Given that each Factor is scored as a sum of Evaluation Criteria averages, projects with notably negative impacts will score lower than projects with overwhelmingly positive impacts.

5.1.3   Dynamic Weighting

The purpose of dynamic weighting is to allow flexibility in assigning a percentage (weight) to each of the Factors to emphasize the importance of certain Factors over others based on policy priorities or funding opportunities.

For example, the Safety Factor may be deemed more important than project characteristics related to the Economic Factor, so the RNI Evaluation Tool can apply a higher weight to the Safety Factor when calculating the overall score. This ability to weigh and sort the Evaluation Criteria will help ODOT quicky identify appropriate projects for further consideration.

5.1.4   Rail Needs Inventory

The RNI is the database of proposed rail projects available for environmental, design or construction funding. The RNI is designed to provide a single repository of potential rail projects within Oregon that have been identified by various public and private stakeholders. The RNI consists of **project identification** information such as project type, location, ownership and estimated cost

Project identification information includes:

- Project name
- Project description
- Project source documentation
- Railroad right of way (ROW) owner
- Railroad operator(s)
- Railroad subdivision
- Railroad milepost reference and length
- Use type (freight, passenger, mixed)
- Station access infrastructure by mode (passenger rail)
- Railroad class type (Class I or short line)
- Grade crossing involved (yes/no)
- Is the project potentially "linked" with other adjacent projects?
- Estimated project cost (Low: less than $1 million; Medium: $1 million to $5 million, High: greater than $5 million)
- ODOT Region location
- Road authority (for highway/rail crossings)
- Longitude and latitude location data (for Geographic Information System mapping)

The RNI Evaluation Tool consists of **project evaluation** information includes the results of the scoring from the 6 Factors and 22 Evaluation Criteria described in Section 5.1.1.

5.1.5 Power BI Dashboard/Data Visualization Tool

The RNI captures the project identification and project evaluation results, which then can be uploaded to the Power BI dashboard tool. Power BI is a data visualization software tool that allows for the user to quickly summarize data queries and sort data points based on the factors included in the RNI Evaluation Tool. Power BI has the capability to filter and summarize data using the RNI project's associated values and location. Figure 3 presents an example of the ODOT RNI Evaluation Tool dashboard.
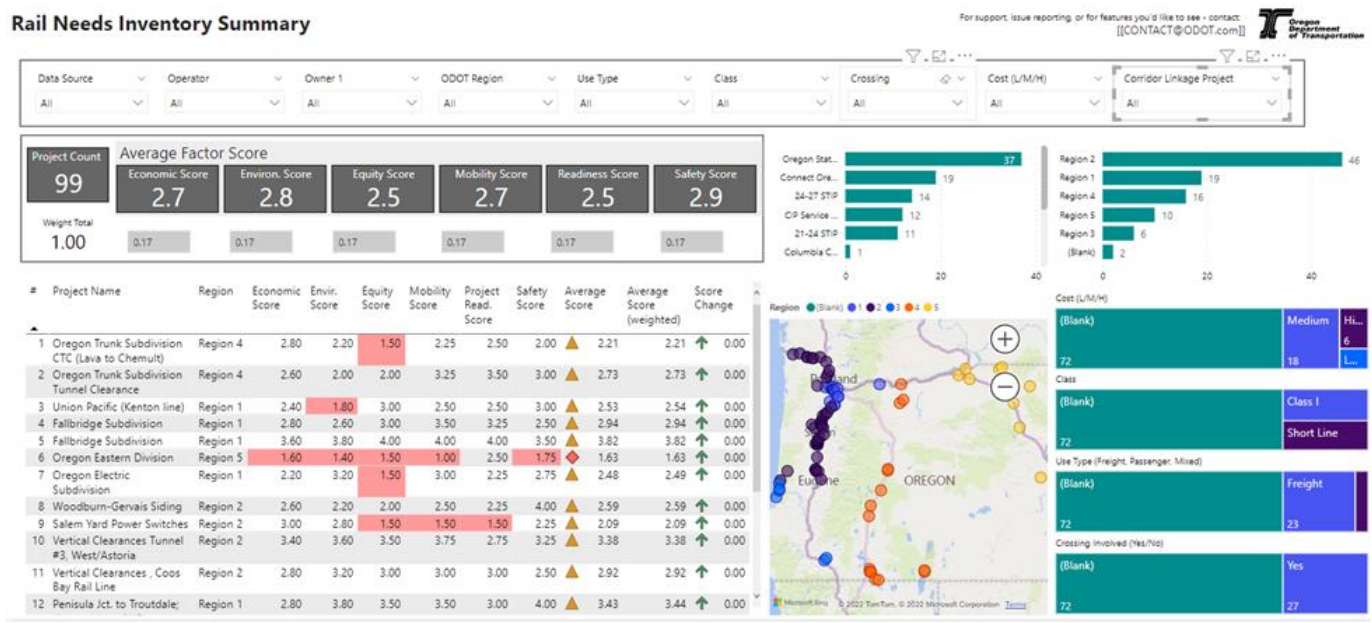

Figure 3: ODOT RNI Data Visualization Software Example

5.2 RNI Evaluation Tool Operational Framework

This section provides a high-level overview of how the OSRP-IP RNI Evaluation Tool works. The framework discussion is organized to follow the four phases of establishing and maintaining the RNI, as shown below in Figure 4.

Figure 4: RNI Evaluation Tool Phases

5.2.1 Project Identification

RNI projects are identified through a combination of existing statewide planning programs (such as OSRP, STIP, Oregon Passenger Rail Service Development Plan and Connect Oregon Multimodal Funding Plan) and input from other stakeholders (such as ports, rail industry partners, cities, counties and transportation system plans). ODOT is responsible for identifying and maintaining the list of projects contained within the RNI. The RNI is designed to be inclusive of programmed, planned and potential rail projects. A project can be included in the RNI initially regardless of the project development or funding status. Subsequent implementation planning, project scoring and selection processes will rank them on the criteria summarized in Table 2 (see Section 5.1.1)**.**

The static characteristics of the initial projects were assigned to the RNI database. ODOT performs the initial project static evaluation, which captures the project's physical characteristics, ROW ownership, and other important characteristics, as described above. ODOT reaches out to the project sponsor as required to establish and verify the initial static characteristics for each project in the RNI.

5.2.2 Project Evaluation

Once a project is added to the RNI, the project evaluation step involves scoring the project in each of its 22 Evaluation Criteria against the established methodology and scoring breakpoints shown in Appendix C.

ODOT will work with the RAC to score projects on a rolling basis as projects are proposed. The RAC meetings allow opportunities for public input.

5.2.3 Project Ranking and Filtering

The RNI scored list of projects is evaluated using the Power BI database software tool to prioritize the characteristics desired based on the funding or grant characteristics. Several methods are available to rank and filter projects, including:

By Factor: The average score of each Factor can either be summarized equally, or through dynamic weighting of each Factor, or by the individual Factor, to assist in identifying and ranking projects.

By Individual Evaluation Criterion: The 22 Evaluation Criteria project scores can be filtered individually to identify or rank projects.

By Specific Characteristic: As either its own filtering, or part of the above two methods (ranking by Factor or by Evaluation Criterion), the project can be filtered by rail owner, operator, subdivision location, passenger/freight, Class I/shortline and cost, as well as by whether a highway-rail crossing is involved.

By Mapping: The Power BI software also involves interactive mapping ability to identify the location of individual projects.

The RNI, used in combination with the Power BI data visualization software, creates a powerful tool to support prioritization of projects and in responding to ongoing requests for project information and status.

5.2.4   Ongoing Administration

ODOT will be responsible for coordinating and responding to formal requests to add projects to the RNI, and make use of the RNI Evaluation Tool. Requests may be made by the public and project sponsors, and may consist of supporting specific grant responses, ODOT research on rail needs or legislative inquiries. ODOT will track each request, and the materials and results provided in response.

6   Next Steps

6.1   Scoring RNI Projects

At the time of writing of this plan, the most recent RNI, updated with projects through August 2022, is was updated using the RNI Evaluation Tool Factors and Evaluation Criteria Scoring Methodology. The scored projects (as captured in Appendix E) will now interface with the Power BI software tool and allow for proactive, strategic use of the RNI Evaluation Tool.

This first engagement of the RNI Evaluation Tool components was documented thoroughly, so that it can serve to create best practices for an efficient and streamlined ongoing process. Implications regarding data requirements for future onboarding of projects into the RNI are also being collected in order to continue keeping an up-to-date list of rail needs in the RNI into the future.

Appendix E: RNI Project Scoring Documentation identifies projects of special merit within the RNI, as well as implications for how project induction into the RNI should be augmented, alongside documentation of the reasoning behind each project score.

6.2   The OSRP-IP and the Present Funding Environment

The inherent flexibility of the ranking and filtering of projects in the OSRP-IP RNI Evaluation Tool will be helpful in tracking new USDOT priorities, given the passage of the Bipartisan Infrastructure Law (BIL) in 2021, which changed the federal funding paradigm for rail projects. The passage of the BIL signals a substantial increase in USDOT funding for rail projects around the country. To appreciate the sheer scale of this change, dedicated rail transportation funding from the federal government for fiscal year 2022 represents a 486 percent increase over what was available in fiscal year 2021. Most of those funds are thanks to advance appropriations provided by the BIL. These funds can be used for a variety of passenger rail projects, grade crossing elimination projects and state of good repair projects, among other relevant applications. The BIL also created several new capital programs and modified certain existing programs that offer newfound flexibility in that they now can be used for rail projects at all. Reflecting the unprecedented nature of this new environment, not only will projects need to be prioritized and justified; ODOT will need matching funds at the ready so that its applications can be competitive. As the new program requirements are more generous than ever before, requiring no more than a 20 percent match regarding any particular program, it is an especially advantageous time to consider doing so.

As explored briefly in Appendix B: Freight and Passenger Funding, an avenue worthy of exploration would involve a rule change within Connect Oregon funding to allow a portion of its proceeds to be used in service of federal matches. This would amplify the power of that portion – or any funds found for this purpose – by as much as five times. Connect Oregon was conceived primarily as an

infrastructure investment program in its own right, and not primarily as a mechanism to obtain larger federal grants; however, such a change would far extend its power to deliver projects.

It must be stressed that the magnitude of the increase in rail transportation funding as a result of the BIL is unprecedented. Given the sheer scale of the increased levels of funding it is possible that this magnitude-of-order increase may manifest in the number of public projects that interface with ODOT. The timely processes defined by the OSRP-IP will aid the State of Oregon in positioning itself in this new environment.

This page intentionally left blank.