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Project Evaluation Framework

This memorandum outlines the process for screening Salem River Crossing concepts and evaluating alternatives. The outcome of this evaluation process will be the selection of a few alternatives to be analyzed in the Draft Environmental Impact Statement (Draft EIS).

Screening and Evaluation Process

The proposed evaluation framework includes two parts: screening and evaluation. The first part screens concepts against the minimum requirements of the project purpose and need. Threshold criteria represent this set of minimum requirements. In this screening process, if concepts do not meet the thresholds, they are considered infeasible and are dropped from further consideration. Concepts that meet the threshold criteria are considered potentially feasible and are developed into project alternatives.

The second step of the framework compares the project alternatives against a set of goals and objectives. Goals and objectives are used to compare the alternatives with one another to determine how they perform against a broad range of stakeholder values.

The performance of each of the project alternatives will be rated by technical staff for each objective. The Task Force (TF) will set a weighting factor for each objective to establish its level of importance in relation to the other objectives. A total score (the sum of all the performance ratings times the weighting factors) will be calculated for each alternative, and an associated ranking of alternatives prepared. The higher the score, the more successfully the alternative matches the stated TF values for the project. The ranking will be used by the TF in developing its recommendation of alternatives to be evaluated further as part of the environmental documentation process.

The evaluation framework serves three purposes. First, it ensures that all project alternatives address the project's purpose and need. The threshold criteria determine the minimal requirements in relation to the Purpose and Need Statement. Second, it helps frame a discussion with a wide variety of stakeholders about what project features are most valuable. These values are reflected in the goals and objectives and the weighting factors. Third, it establishes the relative advantages and disadvantages of potentially feasible alternatives to support selection of a few for further analysis in the Draft EIS.

Costs for major transportation projects are frequently funded with a mix of federal, state, and local funds. Existing funding sources are not anticipated to be adequate to cover anticipated project costs for the Salem River Crossing project. Therefore, alternative funding sources such as increases in property taxes, gas taxes, vehicle registration fees and/or

implementation of user fees (tolling) will be considered. Financing options will be developed in parallel with development of project alternatives and screened through the relevant goals and objectives. The most suitable financing options will be paired with alternatives selected for study in the Draft EIS and evaluated for their impacts. Results of this analysis will assist decision makers in approving a financial strategy for implementation of the project.

The evaluation process for the Salem River Crossing project contains the following tasks:

- Develop threshold criteria
- Develop goals and objectives and performance measures
- Identify a broad range of concepts
- Evaluate concepts for feasibility and remove infeasible concepts from further consideration
- Develop alternatives from potentially feasible concepts
- Collect performance data for each objective for each alternative
- Evaluate alternatives
- Select alternatives for more detailed analysis in the Draft EIS

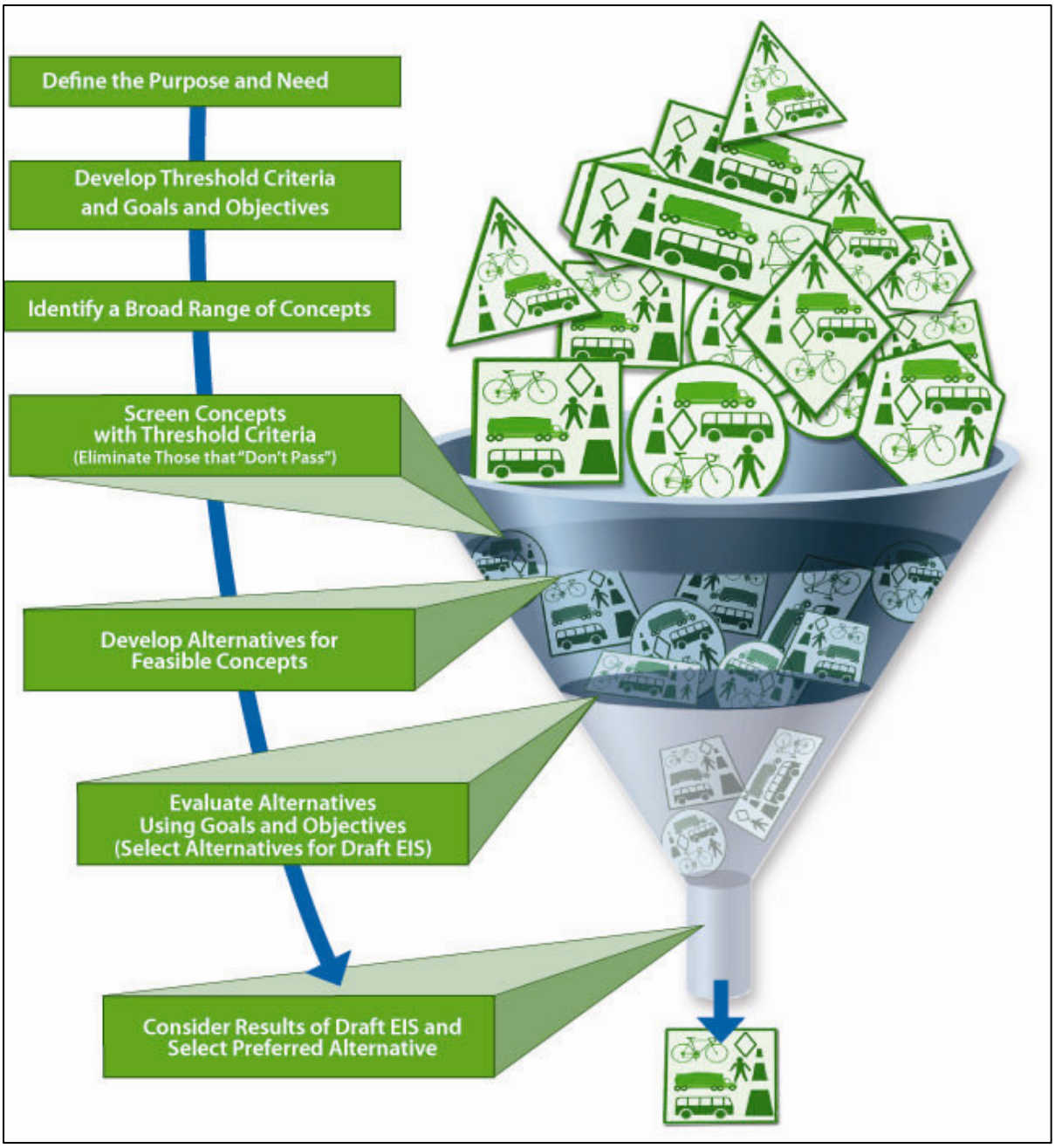

FIGURE 1 – Screening and Evaluation Process

Screening of Concepts Using Threshold Criteria

The first tier of alternative evaluation is to compare a wide variety of concepts against a set of threshold criteria. Concepts will be multimodal, including transportation system efficiency improvements, traffic demand reductions, and roadway capacity improvements. Threshold criteria serve as a set of minimum requirements for project concepts before they can be developed into full-fledged alternatives. Concepts either meet the threshold criteria or they do not, and those that meet these criteria are deemed potentially feasible. A concept must pass all the threshold criteria to be considered further. Threshold criteria are based on existing or readily available data, and may reflect regulatory or policy imperatives.

Threshold criteria are used throughout the evaluation process to eliminate concepts or alternatives as more information becomes available.[1]

Threshold criteria are directly linked to project needs specified in the Purpose and Need statement, as shown below.

No.	Identified Project Need, from Project Purpose and Need Statement	Threshold Criteria
1, 2, 3, 4	Improve existing and future mobility and safety of passenger vehicles Improve existing and future mobility and safety of freight vehicles Improve existing and future reliability of public transportation Improve existing and future mobility and safety of pedestrians and bicyclists	– Concept[2] must meet the adopted state or local government mobility standard. – Concept must be designed to enhance safety by meeting the applicable geometric requirements for passenger vehicles, transit vehicles, trucks, emergency vehicles, bicycles, and pedestrians, as outlined in the project's ~~-~~design criteria[3].
5	Minimize traffic disruptions and enable emergency vehicle response in the event of restricted access to and/or closure of the existing bridges due to an emergency or other incident	– Concept must improve emergency access across the Willamette River ~~existing and future emergency response~~
	Regulatory Mandates[4] ~~Develop a financial strategy for implementation~~	– Alternative must be able to satisfy~~meet~~ Metropolitan Planning Organization (MPO) financial constraint requirements for inclusion in the Regional Transportation System Plan (RTSP)[5] – Alternative must be able to satisfy~~meet~~ Section 4(f) and 6(f) requirements (impacts to parks, recreation, and historic resources) – Alternatives outside the urban growth boundary ~~-~~must be able to satisfy~~meet~~ Statewide Planning goal requirements for ~~with regard to~~ exceptions~~development outside the urban growth boundary or qualify for a goal exception~~

[1] The threshold criteria identified here are intended to determine alternatives that are potentially feasible. Under the Statewide Planning Goals, additional thresholds will be required if the potentially feasible alternatives include alternatives located outside the Urban Growth Boundary. See OAR 660-012-0070(6).

[2] Concepts will be multimodal, including transportation system efficiency improvements, traffic demand reductions, and roadway capacity improvements.

[3] Design criteria are attached in Appendix B.

[4] There are many regulatory requirements with which a project must demonstrate compliance. In most cases, regulatory compliance can be achieved through modifying the design or developing mitigation to address an impact. The regulatory areas noted here are more rigid and it may become apparent during the alternatives development process that an alternative does not conform with one of these requirements and must be removed from consideration.

[5] A project of the anticipated size of the Salem River Crossing must have an approved funding strategy before project construction will be approved. If it becomes apparent during the alternatives development or EIS process that a viable funding strategy is not possible for a given alternative, then that alternative will be removed from consideration.

Evaluation of Potentially Feasible Alternatives Using Identified Goals and Objectives

Goals and objectives are used to differentiate and identify trade-offs among alternatives and financing options. To be most effective, an objective must be measurable and well-defined. This ensures a common understanding of each objective's meaning, and allows for a clear comparison among alternatives.

Goal 1: Improve mobility and safety for people and freight across the Willamette River in the Salem-Keizer Metropolitan area

Objectives	Performance Measures
1. Improve vehicle and freight mobility for local travel	Qualitative scale that considers reduction in vehicle hours of delay (VHD) during the 2031 p.m. peak within the Downtown and West Salem traffic districts, reduction in volume to capacity ratio on existing west bound (Marion Street) bridge during the 2031 p.m. peak hour, and average travel time during PM peak hour for the following pairs of local trips: From: • Broadway/Salem Parkway • High/Center • Silverton/Lancaster • Commercial/Fairview To: • Brush College/Wallace • Glen Creek/Wallace • Highway 22/Doaks Ferry
2. Improve vehicle and freight mobility for regional travel	Qualitative scale that considers reduction in vehicle hours of delay (VHD) during the 2031 p.m. peak within the Downtown and West Salem traffic districts, reduction in volume to capacity ratio on existing west bound (Marion Street) bridge during the 2031 p.m. peak hour, and average travel time during PM peak hour for the following pairs of regional trips: From: • I-5/Salem Parkway • High/Center • Silverton/Lancaster • Commercial/Fairview To: • Highway 22/Highway 51 • River Bend/Wallace
3. Improve vehicle and freight mobility for through travel	Qualitative scale that considers reduction in vehicle hours of delay (VHD) during the 2031 p.m. peak within the Downtown and West Salem traffic districts, reduction in volume to capacity ratio on existing west bound (Marion Street) bridge during the 2031 p.m. peak hour, and average travel time during PM peak hour for the following pairs of through trips: From:

		• I-5/Salem Parkway • I-5/Mission To: • Highway 22/51 • River Bend/Wallace
4.	Improve safety for people, vehicles, and freight	Qualitative scale considering factors that influence injury crashes including non-peak period traffic volumes, number of signalized intersections, presence of access control, and bicycle/ pedestrian/auto interactions, vehicle miles traveled per household
5.	Improve transit reliability across the Willamette River in the Salem-Keizer area	PM peak hour travel time between Courthouse Transit Center (downtown) and Glen Creek Transit Center (West Salem) and between Glen Creek Transit Center and the Wallace Road/Orchard Heights intersection
6.	Improve pedestrian facilities across the Willamette River in the Salem-Keizer area	Qualitative scale incorporating pedestrian security, directness and connectivity to the pedestrian facility network, and quality of environment (path width, grade, lighting, drainage, landscaping, shade)
7.	Improve bicycle facilities across the Willamette River in the Salem-Keizer area	Qualitative scale incorporating bicyclist security, directness and connectivity to the bicycle facility network, and quality of environment (path width, grade, lighting, drainage, landscaping, shade)
8.	Improve emergency vehicle response across the Willamette River in the Salem-Keizer area	Qualitative scale considering travel time and system redundancy across the river during an event in which one of the existing bridges is closed

Goal 2: Preserve or improve natural and cultural resources

Objectives	Performance Measures
1. Avoid direct and indirect impacts to wetlands where practicable. Minimize and mitigate any unavoidable adverse impacts and provide opportunities for wetland enhancement.	Net area and quality of wetland loss
2. Avoid direct and indirect impacts to Threatened and Endangered and other fish species where practicable. Minimize and mitigate any unavoidable adverse impacts and provide opportunities for improvement of critical habitat.	Cubic yards of pier encroachment in the floodway (ordinary high water level)
3. Avoid direct and indirect impacts to terrestrial Threatened and Endangered species where practicable. Minimize and mitigate any unavoidable adverse impacts, and provide opportunities for improvement of habitat.	Qualitative scale considering likelihood of occurrence within 100 feet of alternative footprint
4. Preserve or enhance ecological connectivity	Qualitative scale that evaluates terrestrial wildlife passage (including riparian areas)
5. Preserve or improve the existing floodplain and fluvial functions	Cubic yards of fill encroachment in 500-year floodplain
6. Preserve air quality	Change in system-wide vehicle miles traveled (VMT) compared to No Build alternative
7. Avoid direct and indirect impacts to historic resources where practicable, and mitigate any unavoidable impacts	Number of historic sites affected (National Register, National Register eligible, local historic sites)
8. Avoid direct and indirect impacts to cultural and archaeological resources where practicable, and mitigate any unavoidable adverse impacts	Number of known cultural/archaeological sites affected
9. Avoid or minimize impacts to or improve tree cover where practicable, and mitigate any unavoidable adverse impacts	Square footage of tree canopy loss
10. Avoid or minimize impacts to or improve native plant communities where practicable, and mitigate any unavoidable adverse impacts	Acres of native plant community loss
11. Preserve or improve water quality	*This will be evaluated based on the results of the water quality technical report for selection of the Preferred Alterative (not during screening process).*

Goal 3: Preserve the quality of life in communities on both sides of the river

Objectives	Performance Measures
1. Minimize impacts to businesses	Number of businesses displaced
2. Minimize impacts to residences	Number of residential units displaced
3. Minimize impacts to non-displaced businesses	Square footage of business properties required for right-of-way
4. Minimize other impacts to non-displaced residences	Square footage of residential properties required for right-of-way
5. Minimize traffic intrusion onto residential streets	Number of residences on streets in project area which have forecasted traffic levels 20 percent higher than future No-Build condition
6. Minimize noise in residential areas	Number of residences within preliminary 65 decibel noise contour centered on east and west bridgeheads
7. Maintain neighborhood cohesion	Qualitative scale considering changes in access, presence of physical barriers, separation of parts of existing neighborhoods from each other, ability of pedestrians to cross key bridge approach streets
8. Stimulate economic development, consistent with adopted land use plans	*This will be evaluated based on results of economic and land use technical reports for selection of the Preferred Alterative (not during screening process).*
9. Reduce through freight traffic in downtown	Percentage of through freight traffic diverted from downtown (Union to Trade, Willamette River to Cottage)
10. Support adopted land use and transportation plans	Qualitative scale of consistency with policies in the applicable local and regional Comprehensive Plans and Transportation System Plans
11. Minimize construction duration and traffic impacts during construction	Qualitative scale considering duration of construction and lane closures and travel demand in areas affected
12. Enhance public access to the river	Qualitative scale considering number and quality of public access opportunities to river including amount of river frontage
13. Minimize impacts to recreational facilities	Qualitative scale considering recreation use, constructive use, and long-term construction impacts on recreation properties
14. Minimize impacts to schools	Qualitative scale considering right of way impacts to school facilities, noise at school facilities, safe routes to school.

Goal 4: Meet federal and state regulatory requirements

Objectives	Performance Measures
1. Meet Section 4(f) and 6(f) requirements	Qualitative scale of the likelihood that alternative can meet Section 4(f) and 6(f) requirements
2. Meet Statewide Planning goal requirements	Qualitative scale of the likelihood that alternative can comply with Statewide Planning goal requirements
3. Meet Environmental Justice requirements	This will be evaluated based on results of environmental justice technical report for selection of the Preferred Alterative (not during screening process).

Goal 5: Provide a cost effective and timely solution

Objectives	Performance Measures
1. Minimize construction cost	Cost for planning, design, permitting, and capital construction in 2007 dollars
2. Minimize operations and maintenance cost	Average annual cost for operations and maintenance in 2007 dollars
3. Minimize implementation timeline	Qualitative scale considering the likelihood the project will be funded earlier within the 20-year planning period given available funding sources, public support, institutional readiness, and time to start of construction
4. Maximize incremental benefits	Qualitative scale considering ability to phase project elements to achieve incremental benefits throughout 20 year period
5. Maximize congestion reduction benefits over the planning period	Total cumulative hours of delay as compared to the No Build alternative
6. Maximize likelihood of funding	Qualitative measure considering the project's ability to be funded

Goal 6: Ensure that any structural solution is aesthetically pleasing[6]

Objectives	Performance Measures
1. Enhance pedestrian/bicycle experience	Qualitative scale considering architectural detail, interpretive displays, viewing facilities/vantage points, and human scale
2. Provide a structure that instills a sense of community pride and complements the surrounding environment	Qualitative scale considering views of the bridge from the community, gateway treatments
3. Preserve, enhance, or create views from the crossing	Qualitative scale considering quality of views provided from the bridge for bicyclists, pedestrians, and vehicle occupants
4. Provide opportunities for productive use under bridge structure (if applicable) that serves as a community asset	Qualitative scale considering potential for visually pleasing, commercial or recreational use, consistent with permitted uses

[6] Goal and objectives relating to aesthetics will not be used for initial screening, but will be added for selection of a preferred alternative when design information will be available. Application of this goal and objectives will incorporate public input on bridge types and aesthetics gathered through the public involvement process.