

Columbia River CROSSING

DRAFT

EVALUATION FRAMEWORK

October 6, 2005

The Purpose of an Evaluation Framework

The *Final Strategic Plan* for the I-5 Transportation and Trade Partnership included recommendations for transportation improvements within the Bridge Influence Area (BIA) between Columbia Boulevard in Portland and State Route (SR) 500 in Vancouver. However, many of the recommendations were not specific leaving many ways solutions could be packaged and implemented. In addition, new ideas will surface through the National Environmental Policy Act (NEPA) scoping process that will need further evaluation.

An evaluation framework establishes criteria for measuring the effectiveness of alternatives developed to address the problems identified in the *Problem Statement*, and for achieving community values as identified in the *Vision and Values Statement*. It also provides a logical process for narrowing the large number of transportation components that will be generated at the outset of the project. Through successive evaluation, the most promising components can be packaged into viable alternatives, and then narrowed further to the alternatives that will be considered in the Draft Environmental Impact Statement (DEIS). Ultimately, the evaluation criteria will be used for supporting selection of a preferred alternative.

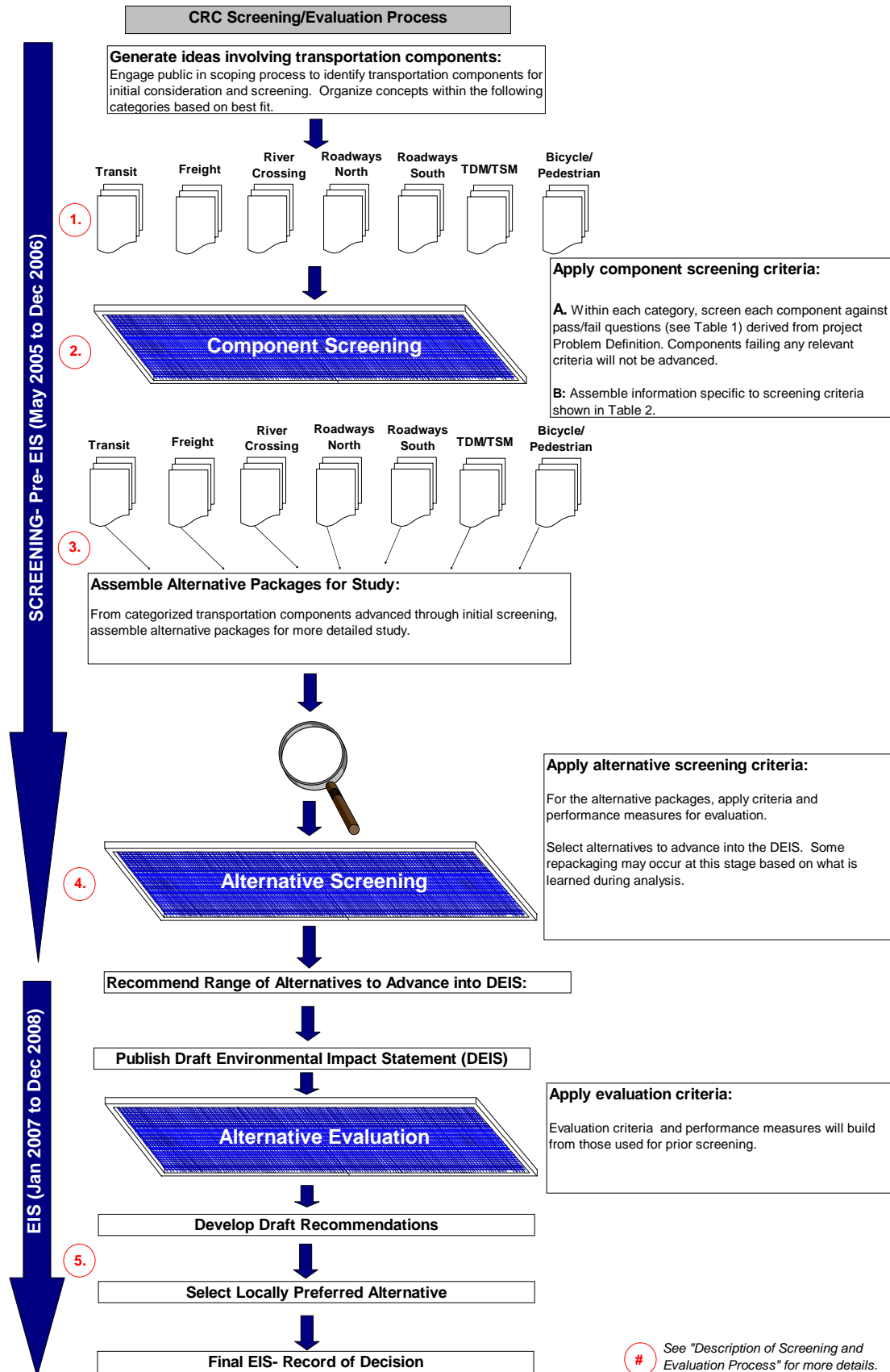
Approach to Screening

A three-phase screening process will be used:

- Component screening – February/March 2006
- Alternative screening of assembled component packages to determine which will be evaluated in the DEIS – late fall 2006
- Evaluation of alternatives leading to selection of a preferred alternative – early 2008

The same criteria will be used throughout the process, but measures for gauging the performance of alternatives against the criteria will become successively more specific as more detailed data becomes available. Components and alternatives that do not pass from one screening level to the next will be dropped from further consideration.

Figure 1. Screening and Evaluation Flowchart



Description of Screening and Evaluation Process

1. Select Transportation Components for Evaluation/Screening

To begin, a wide range of transportation components will be generated. Ideas for components will be generated from two sources. First, from recommendations in the I-5 Transportation and Trade Partnership *Final Strategic Plan*, and second, from additional ideas suggested by the public, affected agencies, and the Columbia River Crossing (CRC) project partners during the NEPA scoping.

Proposed improvement ideas, identified as transportation components, will be organized within the following broad transportation related categories:

- Transit
- Freight
- River Crossing
- Roadways North
- Roadways South
- Transportation Demand Management (TDM)/Transportation System Management (TSM)
- Bicycle/Pedestrian

2. Apply Component Screening Criteria

The component screening stage of the project employs a two-step process (A and B) to each component within the above categories to successively narrow the number of possible solutions.

Step A is intended as a pass/fail process where transportation components are screened against questions derived from the *Problem Definition* (See **Table 1**). Components that pass the Step A process will be further evaluated against Step B criteria developed to reflect values identified in the project *Vision and Values Statement* (See **Table 2**). All ideas submitted during NEPA scoping will be recorded, considered, and screened against the criteria using data drawn mostly from previous studies.

3. Combine Transportation Components Into Packages for Analysis

Transportation components that advance from the first screening level will be assembled into alternative packages for further performance evaluation. Packages will include a combination of components from all transportation categories outlined above, with packages differing depending on what specific components from each category are included.

4. Apply Alternative Screening Criteria

Alternative screening will be used to further reduce viable alternative packages to a reasonable range of Build Alternatives for comparison with the No-Build Alternative in the DEIS. Performance measures will be modified to take advantage of new data available at this point in the project. The most effective packages will advance into the DEIS either “as is” or after being modified based on screening results.

5. Select a Locally Preferred Alternative

Following preparation of the DEIS, criteria and more detailed performance measures will be used to compare alternatives to support decision making.

Component Screening Matrix

Following project scoping, proposed improvement ideas involving transportation components will be organized within six broad transportation-related categories. Component screening will apply a two-step screening process to each component within the categories to successively narrow the number of possible solutions.

Step A of initial screening employs a pass/fail process in which transportation components are tested against the following questions derived from the Problem Definition.

Does the Concept:

- Increase vehicular capacity or decrease vehicular demand within the BIA?
- Improve transit capacity within the BIA?
- Improve freight mobility within the BIA?
- Improve safety and decrease vulnerability to incidents within the BIA?
- Improve bicycle and pedestrian mobility within the BIA?
- Reduce seismic risk of the I-5 Columbia River Crossing?

Table 1.
Concept Screening Criteria Step A

Initial Screening Decision Matrix						
Transportation Categories	Components	Pass	Fail	NA	Unknown	Reason(s) to Drop
Transit	a.					
	b.					
	etc.					
Freight	a.					
	b.					
	etc.					
River Crossing	a.					
	b.					
	etc.					
Roadways North	a.					
	etc.					
Roadways South	a.					
	etc.					
TDM/TSM	a.					
	etc.					
Bicycle/Pedestrian	a.					
	etc.					

Note: Only a "Fail" rating eliminates components from proceeding to Step B component screening.

Table 2.
Screening Criteria

Value Screening Criteria	Component Screening Measures-Step B	Alternative Screening Measures
1. Community Livability		
1.1 Avoid or minimize displacements 1.2 Avoid or minimize impacts to neighborhood cohesion and quality 1.3 Avoid or minimize impacts to historic, cultural and public park and recreation sources		
2. Mobility, Reliability, Accessibility, Congestion Reduction and Efficiency		
2.1 Improve travel times on I-5 for passenger vehicles, trucks, and transit 2.2 Reduce delay for passenger vehicles, trucks, and transit along I-5 2.3 Reduce the number of hours of daily highway congestion along I-5		
3. Modal Choice		
3.1 Promote transportation choices 3.2 Improve service to target markets 3.3 Improve bike/ped connectivity 3.4 Decrease percentage of SOV travel		
4. Safety		
4.1 Enhance vehicle/freight safety 4.2 Maintain bike/ped safety 4.3 Maintain marine safety 4.4 Enhance aviation safety 4.5 Provide sustained life-line connectivity		
5. Regional Economy; Freight Mobility		
5.1 Improve travel time between key freight generators and destinations 5.2 Maintain or enhance marine navigation and efficiency		

Table 2. (continued)
Screening Criteria

Value Screening Criteria	Component Screening Measures-Step B	Alternative Screening Measures
6. Stewardship of Natural and Human Resources		
6.1 Avoid or minimize air quality impacts 6.2 Avoid or minimize noise impacts 6.3 Avoid or minimize impacts to fish, wildlife and protected plant species 6.4 Avoid or minimize impacts to wetlands 6.5 Avoid or minimize impacts to water quality		
7. Distribution of Impacts and Benefits		
7.1 Avoid or minimize disproportionate adverse impacts to low income and minority populations 7.2 Provide for equitable distribution of benefits 7.3 Avoid or minimize disproportionate adverse impacts from construction activities		
8. Cost Effectiveness and Financial Resources		
8.1 Ensure cost effectiveness 8.2 Ensure a reliable funding plan for the project		
9. Bi-State Cooperation		
9.1 Support adopted growth management plans in both states 9.2 Support balanced job growth		

G:\CRC\2 Alternatives Analysis\300's Other Jurisdictions\317 CRC Task Force\Evaluation Framework 10-06-05 .doc