Section 6: Environmental Constraints

A programmatic-level review of potential environmental constraints was conducted as part of Skagit 2040. Federal law requires such planning efforts protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State- and locally-planned growth and economic development patterns. A scan of potential environmental constraints is a key component of this and can help inform SCOG’s Transportation Policy Board, interested parties and others as to the potential limitations that may present themselves as projects move through the development process.

Further, the State Environmental Policy Act provides the context for environmental constraints analysis along with the applicable federal and local regulations. Generally, the environmental analysis for the Plan looked at the potential for impacts from transportation construction projects, although a cursory review of non-construction projects was conducted.

This environmental constraints assessment can also help SCOG’s Transportation Policy Board and their members agencies identify the types of pitfalls that may be encountered through the project development process. Through early screening and identification, it is possible that planning and financially based decisions could be made to better align programming or prioritization of projects. For example, if a bridge replacement and widening project has several constraints identified, it may be advisable for the Transportation Policy Board to work with local jurisdictions or WSDOT to identify other projects to potentially fill the gap if the bridge project experiences considerable delays.

Environmental constraints may be encountered during the design, right of way, and construction phases of future transportation improvement projects identified in Skagit 2040.

Through the priority identification process for the Plan, which included input from a variety of interested parties within the Skagit region as well as the public, the environmental priority was identified as:

- To enhance regional quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.

It was determined this would be accomplished by improving the environmental quality of our neighborhoods and communities to create a sustainable transportation system and economic vitality. This includes finding ways to reduce environmental impacts that could potentially result from a transportation project, as well as promoting environmentally efficient modes of transportation such as transit, vanpooling, car-sharing, bicycling and walking.

While the project list generated for Skagit 2040 reflects these principals, a more discrete analysis of the actual environmental impacts of these projects will be conducted as projects come online. The environmental constraints assessment for the Plan is not intended to identify specific environmental impacts of road projects or to be used in determining environmental mitigation. Analysis of specific direct and indirect impacts and potential mitigations will occur as individual transportation projects are further defined and permitted.

When making decisions about transportation projects, services and

Deception Pass Bridge to Island County

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programs, the ecosystem services provided by nature that sustain healthy human communities should be considered. Where ecosystem services are recognized, valued, and protected, communities are more likely to:

- Avoid impacts to sensitive environmental resources and species, particularly those that need protection due to their high quality, sensitivity, rarity, and irreplaceability;
- Protect open space, resource lands, air and water quality;
- Provide ecological connectivity to ensure species movement and natural processes continue unimpeded; and
- Ensure quality of life is maintained, and the need for costly constructed solutions to replace lost natural functions is minimized.

As noted, the environmental analysis for Skagit 2040 identified potential impacts through a geographic information systems (GIS)-based evaluation of several aspects of the region's environmental features. Where available, GIS files were compiled to measure potential impacts to:

- Geologic hazard areas;
- Air quality;
- Water resources and wetlands;
- Floodplains;
- Plant and animal habitat areas;
- Land use and housing;
- Shoreline use;
- Noise;

- Aesthetics/light and glare;
- Environmental justice;
- Recreation; and
- Historic and cultural resources.

The environmental constraints analysis focused on projects that will significantly add to the footprint of roadways by expanding the capacity of the regional transportation system, including projects identified for the state highways, as well as regional transportation projects as summarized under the responsibility of the associated city, county, tribal government, and transit agency or WSDOT. These projects were analyzed individually at a programmatic level. Projects in Skagit 2040 that could significantly add to the footprint of roadways were summarized by the responsible agency.

Projects such as intelligent transportation systems improvements, preventive maintenance, operational improvements and projects that do not involve significant increases in roadway surface may not have environmental constraints that will create notable environmental constraints, or significant impacts that could lengthen the project approval process or increase the cost of project design and approval. Even though there may be less impacts in terms of roadway surface area, there may be some potential for temporary construction impacts such as noise and air quality associated with these projects. It is also possible that projects could have a positive impact on the environment.

The agencies with responsibilities for the projects in Skagit 2040 are:

- City of Anacortes;
- City of Burlington;
- City of Mt. Vernon;
- City of Sedro-Woolley;
- Town of Concrete;
- Skagit County;
- Skagit Transit;
- Swinomish Indian Tribal Community; and
- WSDOT.
Section 6: Environmental Constraints

### Exhibit 6-1 Overview of Environmental Elements

<table>
<thead>
<tr>
<th>Environmental Element Type</th>
<th>Overview of Environmental Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geological Hazard Areas</td>
<td>Projects will cross or be adjacent to mapped steep slopes, landslide and avalanche risk areas, stream undercutting, and earthquake activity areas. (Suitability of soils to be assessed with project level environmental review and permitting.)</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Conformity standards established through National Ambient Air Quality Standards (NAAQS) and analyzed on an area-wide basis.</td>
</tr>
<tr>
<td>Water Resources and Wetlands</td>
<td>Projects will cross or be in the immediate vicinity of rivers, streams or lakes, or in the immediate vicinity of identified wetlands, however the actual presence and location of wetlands must be field verified. (Groundwater issues, stormwater management, and any necessary mitigation for protection of aquifers will be evaluated and determined at the project level.)</td>
</tr>
<tr>
<td>Floodplains</td>
<td>Projects are located within mapped floodplains.</td>
</tr>
<tr>
<td>Plant and Animal Habitat Areas</td>
<td>Projects are adjacent to terrestrial (land) or aquatic (water) habitat areas for state- or federally-listed endangered, threatened, or candidate, sensitive, or other vulnerable or important species. (Where a project may affect an identified habitat area, more investigation is required to confirm the actual, current use of the identified area as habitat.)</td>
</tr>
<tr>
<td>Land Use and Housing</td>
<td>Projects that may have potential for direct disturbance of an existing land use, land use incompatibilities, or the need to relocate housing units. (Actual impacts will likely be fewer where there is existing right-of-way to accommodate road expansion, or where there are intervening topography, buildings or vegetation.)</td>
</tr>
<tr>
<td>Shoreline Use</td>
<td>Projects that may be located within a shoreline jurisdiction area (i.e. within 200 feet of shorelines of the state) and therefore subject to the Washington State Shoreline Management Act (SMA). The SMA is implemented by the shoreline master program in effect in the local jurisdiction.</td>
</tr>
<tr>
<td>Noise</td>
<td>Projects are located in proximity to residences, habitat areas, parks, schools, and hospitals, which are considered sensitive to noise. All widening and extension projects, and some other improvement or upgrade projects, will result in increased noise during construction.</td>
</tr>
<tr>
<td>Aesthetics/Light and Glare</td>
<td>Changing visual conditions, or added light or glare due to road extension or increased capacity may affect sensitive land uses and/or priority habitat areas.</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>Projects in immediate proximity of concentrations of low-income and/or minority populations, particularly in the vicinity of projects that may generate substantial noise, land use/housing disturbance, land use incompatibility, aesthetic impacts, light and glare, or impacts to recreational resources.</td>
</tr>
<tr>
<td>Recreation</td>
<td>Projects in the immediate vicinity of parks or recreational resources.</td>
</tr>
<tr>
<td>Historic and Cultural Resources</td>
<td>Projects in the immediate vicinity of state- or federally-designated historic properties (Washington Heritage Register or National Register of Historic Places). The potential for impacts to archaeological resources will be evaluated at the project level due to sensitive nature of the locations of archaeological resources.</td>
</tr>
</tbody>
</table>
Potential for Environmental Impacts of Major Improvement Projects

The exhibits and text that follow summarize the potential for environmental impacts of the transportation improvement projects identified in Skagit 2040 that will have the greatest potential for significant environmental impacts. Two categories were used to identify the potential for environmental constraints, possible constraint and probable constraint.

The project assessment is summarized for each of the 10 urban growth areas and all non-UGA areas, consistent with the Plan. Exhibit 6-3 shows the location of all funded, planned, and illustrative transportation projects in relationship to possible environmental constraints. This exhibit summarizes potential constraints and impacts related to adding capacity to the regional transportation network.

The project assessment was limited to the GIS environmental constraints data available at the time of the Plan update. These data sets were primarily limited to steep slopes, wetlands, and other water bodies. As discussed earlier, the environmental constraints assessment for Skagit 2040 is not intended to identify specific environmental impacts of transportation projects included in the Plan or to be used in determining environmental mitigation. Analysis of specific direct and indirect impacts and potential mitigations will occur as individual transportation projects are further defined and permitted.

### Exhibit 6-2 Level of Constraint or Impact

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Constraint</td>
<td>Constrained areas or resources were identified in the vicinity of the project(s) and could potentially be affected based on the actual alignment and design of the project(s) (this category indicates any potential ranging from limited to great, but not certain).</td>
</tr>
<tr>
<td>Probable Constraint</td>
<td>A resource or constrained area is definitely located in the project(s) area or immediate vicinity and will likely require further review. Identification of a constraint does not mean that the project(s) will definitely result in impacts or that impacts will be of a significant degree; instead, it indicates that the potential for impacts will need to be evaluated further at the project level.</td>
</tr>
</tbody>
</table>
Exhibit 6-3 Potential Environmental Constraints for Regional Capacity Expansion Transportation Projects
Section 6: Environmental Constraints

WSDOT Projects

In general, widening projects located near rivers, Puget Sound or bays and inlets may affect shoreline jurisdiction area, floodplains, habitat area, aesthetic conditions, wetlands (where they may exist adjacent to rivers), and to some extent water quality. Some geologic hazard areas may also be affected. There is also potential to affect park and recreation sites where they are located adjacent to these rivers. Increased noise associated with these projects also has the potential to affect both habitat areas and parks where they are located in the immediate vicinity.

Some other generalizations are derived from past project experience:

- Projects that will increase capacity through widening or extension of roads will have the greatest effects as they generally involve the most land disturbance, require additional impervious areas and can impact land use over a wider area;
- Projects that will add impervious surface area without increasing capacity are less likely to affect land use or housing; and
- Projects located in urban areas are expected to have lower impacts than projects in rural areas, due to existing levels of urbanization and impervious surface area, and existing disturbance of habitat.

Regional Transportation Projects by Urban Growth Area

The potential impacts and constraints of regional transportation projects identified in Skagit 2040 are summarized below by urban growth area. The locations of these projects in relationship to possible environmental constraints are shown in Exhibit 6-3. Environmental constraints associated with Skagit Transit system expansion not analyzed as the expansion is anticipated for the entire public transportation benefit area and not any one urban growth area.

Urban Growth Areas

Anacortes

Nearly all of the projects in this urban growth area have identified environmental constraints, primarily due to their proximity to shorelines and/or stream crossings.

Bayview Ridge

Skagit Transit’s new maintenance, operations, and administration base does not have identified environmental constraints, as the footprint of the existing structure that will become the base is not anticipated to substantially change. The Peterson Road project has potential identified environmental constraints.

Burlington

Several projects in the Burlington UGA cross Gages Slough and are expected to have environmental constraints. The BNSF Bridge project crosses the Skagit River and therefore would have environmental constraints.

Concrete

The Concrete Secondary Access project has identified potential environmental constraints.

Hamilton

No projects are identified in the Hamilton UGA.

La Conner

No projects are identified in the La Conner UGA.

Lyman

No projects are identified in the Lyman UGA.

BNSF Skagit River Bridge during Flooding
Section 6: Environmental Constraints

Mount Vernon
In the Mount Vernon UGA, the Division Street, Division Street Bridge, Hickox Road Extension to Little Mountain Road, Blackburn Road, College Way Widening, and Kulshan Trail Extension projects have identified environmental constraints – primarily river/stream crossings. Though the exact project limits of the Division Street Bridge project are not known at this time, it may have environmental impacts to Edgewater Park on the banks of the Skagit River. The Skagit Transit project to add alternative fuel infrastructure at Skagit Station is an upgrade to the existing facility and does not have identified environmental constraints.

Sedro-Woolley
In the Sedro-Woolley UGA, the projects south of State Route 20 appear to have less potential for environmental constraints as they are generally in already developed parts of the city where few environmental constraints are present. Several projects north of State Route 20, however, have identified environmental constraints, primarily stream crossings within the project extent. Additionally, the Rhodes Road Arterial Improvements project may have impacts on a nearby wetland.

Swinomish
Potential wetlands in the vicinity of the Swinomish SR 20 Safe Access Improvements project have been identified through the project-level environmental analysis.

Non-Urban Growth Areas
Several trail projects outside of UGAs have identified environmental constraints, including the Centennial Trail projects and Cascade Trail projects which cross several streams/rivers. The Cascade Trail project begins and ends in UGAs, but is in non-UGA areas throughout most of its length. The Wiseman Creek Boardwalk project, over a portion of the Cascade Trail, would provide an elevated surface over an existing wetland that the trail goes through. Most of the Josh Wilson Road projects have identified environmental constraints due to potential presence of wetlands in the vicinity of the projects. The Fruitdale/Kalloch Road Arterial Improvements project includes the repair of a roadway that is washed out at the time of writing the Plan and therefore has identified environmental constraints. The Skagit County and WSDOT projects planned in the vicinity of the Cook Road/Interstate 5 interchange do not have any identified environmental constraints.

Skagit Transit
The nature of transit improvements generally means less physical construction in undeveloped areas and generally has less potential for adverse impact than road widening or extension projects. Additionally, the alignments for new bus routes are not identified in the Plan, instead they are planned for the public transportation benefit area as a whole.

WSDOT
The I-5 Active Traffic Management project includes a range of technologies and strategies along a 14-mile stretch of Interstate 5 through Mount Vernon and Burlington. There are several potential environmental constraints along this corridor that travels through two urban growth areas and non-urban growth areas. As this project is further scoped, the precise environmental impacts will become evident through project-specific environmental review outside of the scope of Skagit 2040.

Potential for Environmental Impacts of Operations and Maintenance
Skagit 2040 includes a number of programmatic projects that, due to not expanding the regional transportation system, are not discussed individually in this summary or Appendix A. These include general maintenance and operations projects including: roadway overlay projects, signage modifications, sidewalk completion, lighting...
improvements, minor rail crossing improvements, safety improvements such as installation of guardrails, and installation of curbs and gutters.

Many of these projects are categorically exempt from environmental review while others are limited in terms of what can be specifically identified at this level of planning. Others, such as intersection improvements, may result in improved environmental conditions.

Some of these projects apply to specific road segments or local areas, while others will be area-wide improvements. Area-wide operational and maintenance strategies included in the Plan are not analyzed individually because specific locations are not identified and they do not add to the capacity of the regional transportation system. These operational and maintenance strategies improve the performance of the existing system by reducing vehicular congestion and maximizing safety and mobility. Projects associated with implementing these strategies will not likely result in increased impervious surface area.

Climate Change

In Washington State, transportation accounts for nearly half of the total greenhouse gas emissions, including emissions from cars, trucks, planes, and ships. Emission reduction strategies can help create more efficient driving conditions, reduce the amount of driving, and introduce more fuel-efficient vehicles.

The State set the following vehicle miles traveled reduction goals:

- 18% reduction by 2020;
- 30% reduction by 2035; and
- 50% reduction by 2050.

The Skagit region recognizes that reducing greenhouse gas (GHG) emissions from transportation sources is a necessity. A goal of Skagit 2040 is to make recommendations to achieve significant reductions in transportation-related GHG emissions, and to recommend tools and best practices to achieve the VMT reduction goals enacted in Washington State House Bill 2815 (greenhouse gas emissions and green collar jobs).

Action Strategies

- Align investment strategies with achievement of VMT and GHG reduction provisions;
- Use GHG/VMT as criteria for funding and pursue new revenue sources to support transportation choices;
- Pursue new revenue sources to support transportation choices, particularly transit operations;
- Expand and enhance transit, rideshare, and commuter choice;
- Provide incentives for vanpool and carpool programs;
- Develop more park-and-ride and park-and-pool lots;
- Develop actions to address congestion issues on the transit network (e.g. vehicle capacity, bus lanes, signal priority);
- Address ineffective intermodal connections;
- Pursue additional non-VMT actions to reduce GHG emissions from the transportation sector, including increasing the use of rail for both the movement of passengers and freight;
- Pursue opportunities for reduction in GHG emissions through improvements in traffic operations and roadway design that reduce vehicle delay, idling, and starting and stopping at intersections; and
- Provide resiliency in any existing or new transportation infrastructure that would be vulnerable to sea level rise, increased frequency and severity of storms or flooding, or other potential climate-induced circumstances.