

# TRANSPORTATION



## BAINBRIDGE ISLAND COMPREHENSIVE PLAN ELEMENT 2004 GOALS

- GOAL 1: COMMUNITY CHARACTER** - Develop transportation improvements that respect the Island's natural and historic character and are consistent with both the short- and long-term vision of the Comprehensive Plan.
- GOAL 2: ENVIRONMENT** - Develop, operate, and maintain a transportation system that respects the natural environment, including the quality of the Island's air, water and natural habitat.
- GOAL 3: NEIGHBORHOODS** - Consider the special needs of neighborhood safety, pedestrian and bicycle facilities, transit use and facilities, and traffic flow in the development of transportation improvements that affect neighborhoods.
- GOAL 4: OPERATIONS AND MOBILITY** - Improve the operation and mobility of the Island's transportation system through the identification and implementation of system improvements that maintain Level of Service (LOS) standards and meet the Comprehensive Plan goals.
- GOAL 5: SAFETY AND MAINTENANCE** - Support the safe use of the transportation system by maintaining the roadway system and including necessary safety enhancements in transportation improvement projects.
- GOAL 6: SR 305 / THROUGH TRAFFIC** - Coordinate with WSDOT to ensure that state facility improvements meet the goals of the Bainbridge Island transportation vision and Comprehensive Plan, and minimize impacts to the local transportation system.
- GOAL 7: FERRY SERVICE** - Coordinate with WSF and other possible providers to operate ferry service to Bainbridge Island that meets local service and commuter needs, coordinates with all travel modes, and provides equitable regional service.
- GOAL 8: TRANSIT** - Encourage the use of public transit and encourage transit agencies to operate and maintain local and regional transit service and facilities that reduce the need for single-occupant vehicles and support the needs of transit-dependent users.
- GOAL 9: NON-MOTORIZED** - Facilitate the implementation of the goals and policies of the *City of Bainbridge Island Non-Motorized Transportation Plan (NMTP)*.
- GOAL 10: MULTIMODAL** - Encourage the development of an integrated multimodal transportation system that provides a range of transportation alternatives and increases the through movement of people.
- GOAL 11: REGIONAL COORDINATION** - Coordinate with the local, regional, and state, public and private organizations that promote regional transportation improvements and services that are compatible with the community's vision as expressed in the Comprehensive Plan.
- GOAL 12: TRANSPORTATION FINANCING** - Prepare a fiscally responsible cost-effective transportation financing plan that optimizes the use of City funds and leverages other funding sources.
- GOAL 13: COMMUNITY INVOLVEMENT** - Ensure involvement and input from the citizens at all stages of significant transportation projects and decision-making that affect Bainbridge Island.

## PLANNING QUESTIONS TO GUIDE EVALUATION OF THE CLIMATE VULNERABILITY OF THE TRANSPORTATION ELEMENT:

- If **precipitation** were to increase or decrease would it affect our transportation system or patterns? How? Do current precipitation patterns cause any transportation impacts?
- If **sea level** were to rise would it affect our transportation system or patterns? How? Do current tides have an impact? How do sea level and associated conditions (high tides, inundation) affect the island today?
- If average seasonal **temperatures** were to shift would it affect our transportation system or patterns? How? Are there currently any seasonal/temperature related impacts? Do isolated high-heat or cold days have an effect?
- Do we have a good picture of **transportation infrastructure** that are vulnerable during today's weather events?
  - Will future conditions prevent the proposed and existing infrastructure from working as expected? Associated drainage? Will roadways, bike lanes, pedestrian paths function safely? Undermining/degradation of infrastructure?
  - Understanding the specific nature of climate change impacts on infrastructure often requires detailed, locally-specific studies, but can we create an inventory and understanding of how today's climate affects our transportation infrastructure as a starting point to work from?
- It is likely that today's problems will be exacerbated by future conditions. Can we create a "watch list" of locations and infrastructure that are likely to become more, or possibly less, problematic?
- Determine if the **Non-Motorized Transportation Plan**, and any other Plan linked to this element by reference, also addresses climate change. It will certainly, by its nature, help to reduce greenhouse gas emissions, but are there potential climate impacts on its infrastructure?
- Are we supporting and enabling **low impact development techniques and green transportation infrastructure** sufficiently and without unnecessary barriers?
- **Transportation patterns** are directly linked to levels of greenhouse gas emissions and local air quality, and therefore future climate scenarios. Does this element acknowledge that link? Does this element deal with **climate mitigation** sufficiently?
  - Is COBI doing all it can and should to support and plan for transit? Can we do more in this Plan?
  - Is COBI developing infrastructures for low carbon fuel systems? Can we do more in this Plan?
- Do the **2004 GOALS** above give us a clear directive to enact local policy and regulation so that we can adapt to the anticipated impacts of climate change, or should they be amended?

CLIMATE IMPACT	TRANSPORTATION IMPLICATIONS
<p><b>Precipitation →</b> <i>changing patterns and extremes, longer duration, and greater intensity</i></p>	<ul style="list-style-type: none"> <li>• Changing patterns have the potential to negatively affect transportation infrastructure. <ul style="list-style-type: none"> <li>○ stormwater inundation and localized flooding, chronic flooding, non-infiltrated run off, erosion and landslides</li> </ul> </li> <li>• The desirability of the bike/walker culture may be affected and more rain or extreme storms may lead fewer to use non-motorized transportation (thus increasing greenhouse gas emissions, degrading local air quality and increasing Island ground level ozone). This may also impact demand patterns for other modes.</li> </ul>
<p><b>Temperature →</b> <i>more extremes and prolonged summer highs</i></p>	<ul style="list-style-type: none"> <li>• Excessive or prolonged heat degrades infrastructure more quickly, necessitating increased maintenance budgets for repairs and replacements (thermal stress).</li> <li>• Smog related air quality hazards may increase.</li> <li>• The desirability of the bike/walker culture may be affected and more extreme temperatures (colder colds, hotter hots) may lead fewer to use non-motorized transportation (thus increasing greenhouse gas emissions, degrading local air quality and increasing Island ground level ozone). This may also impact demand patterns for other modes.</li> </ul>
<p><b>Sea Level Rise →</b> <i>Projected Mean</i> 2030: +2.6 in. (+/- 2.2 in) 2050: +6.5 in. (+/- 4.1 in) 2100: +24.3 in. (+/- 11.5 in)</p>	<ul style="list-style-type: none"> <li>• Coastal zone resources and shoreline stability are directly affected by changes in sea level. <ul style="list-style-type: none"> <li>○ Roadways can be undermined by shoreline instability, land loss, and inundation. Mapping should be done to identify vulnerable transportation infrastructure.</li> </ul> </li> <li>• Dock and harbor infrastructure will be compromised by rising seas, necessitating increased maintenance, retrofitting or replacement.</li> </ul>
<p><b>Vegetation changes →</b> <i>shifts will occur in habitat suitability as a factor of changing temperature and precipitation</i></p>	<ul style="list-style-type: none"> <li>• Long-term temperature and precipitation trend changes will cause shifts in vegetation and habitats on the Island. If these changes occur in transportation corridor buffers it can impact roadways (brush fires, deadfall, water flow, etc.).</li> </ul>
<p><b>Slope Stability →</b> <i>sea level changes and precipitation patterns will compromise once stable slopes</i></p>	<ul style="list-style-type: none"> <li>• Loss or change of vegetation, precipitation patterns, and rising sea level may affect slope stability near and under roadways causing structural failure and necessitating repairs.</li> </ul>
RELEVANT NON-CLIMATE DATA THAT MAY AFFECT THE GOALS OF THIS ELEMENT	
<p><b>Population changes →</b> <i>account for any anticipated increase or decrease due to climate refugees</i></p>	<ul style="list-style-type: none"> <li>• It is uncertain whether climate changes will lead to increased or decreased population on-Island. <ul style="list-style-type: none"> <li>○ Increases in population will require more transportation infrastructure</li> <li>○ Reductions in population may affect abilities to provide cost-effective public modes</li> </ul> </li> </ul>
<p><b>Transportation projections, TIP projects, other proposals →</b> <i>vehicle miles traveled contributes to greenhouse gas emission</i></p>	<ul style="list-style-type: none"> <li>• All future transportation projects will have impacts related to Island air quality and local greenhouse gas emissions. Know what new contributing sources may arise, and what to do about them. Projects including those that take cars off the road, decrease idling, improve and increase non-motorized use and access, or develop alternative/green fuels use will help mitigate future climate change by decreasing emissions.</li> </ul>