

Chapter 3 - Study process

WSDOT and the Thurston Regional Planning Council collaborated in creating a planning process that included a broad range of perspectives, disciplines, and backgrounds in outreach and decision making. To achieve this, the study team surveyed local communities and collaborated with local government partners to develop goals and strategies for this segment of I-5. The study team worked with two advisory groups, one of technical experts and one of executive staff or elected decision-makers from local governments, tribal governments, and state and federal agencies that met regularly to review progress and advise the study team. The table below lists the agencies and governments invited to participate in advisory groups. Not all organizations invited chose to participate.

The study team used the standard planning process of: 1) developing the purpose and goals, 2) analyzing existing and historical conditions, 3) developing performance measures, 4) developing strategies and solutions to achieve those goals, 5) evaluating potential solutions, and 6) developing recommendations based on evaluations. The study team conducted public engagement at various points in the process tailored to fit the needs of the study.

The study team met with the advisory groups thirteen times between June 2018 and January 2020 to gather input and discuss key policy considerations (see Exhibit 3-1). In addition to advisory group meetings, the study team conducted one-on-one interviews with potentially affected or interested organizations and agencies. The study team also consulted with relevant subject matter experts from the jurisdictions and within WSDOT such as WSDOT's Bridges & Structures office.

WSDOT and its partners developed strategies and solutions to a conceptual level to model and test. These were not detailed enough for construction which will require more detailed design and modeling. WSDOT's *Practical Solutions* framework calls for a focus on identifying needs and assessing alternative strategies at this step of the overall process. Further refinements to solutions will happen in subsequent planning efforts as shown in Exhibit 3-2.

The study team invited the following organizations to participate

- Confederated Tribes & Bands of the Yakama Nation
- Confederated Tribes of the Chehalis Reservation
- Cowlitz Indian Tribe
- City of DuPont
- Federal Highways Administration
- Intercity Transit
- Joint Base Lewis-McChord
- City of Lacey
- City of Lakewood
- Nisqually Indian Tribe
- City of Olympia
- Pierce County
- Pierce Transit
- Port of Olympia
- Puyallup Tribe of Indians
- City of Rainier
- Sound Transit
- Squaxin Island Tribe
- Town of Steilacoom
- City of Tenino
- Thurston County
- Thurston Economic Development Council
- Thurston Regional Planning Council
- City of Tumwater
- South Sound Military and Communities Partnership
- City of Yelm



Staff from WSDOT and TRPC meet with a study advisory group to discuss study progress and develop recommendations.

Exhibit 3-1: Study schedule

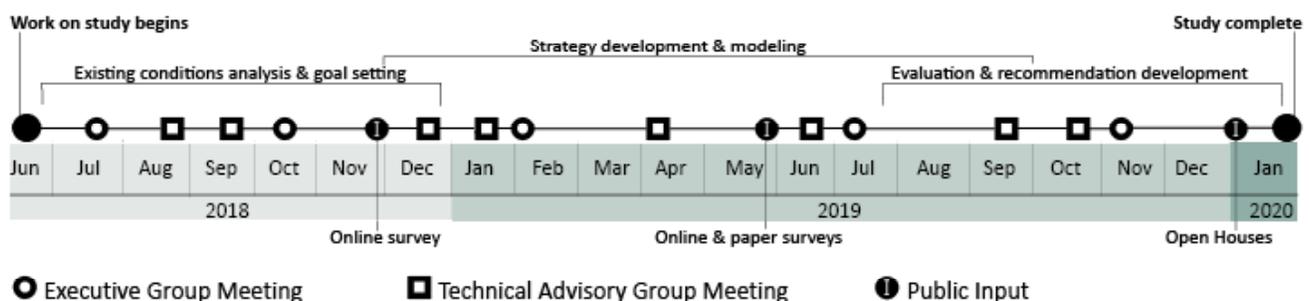
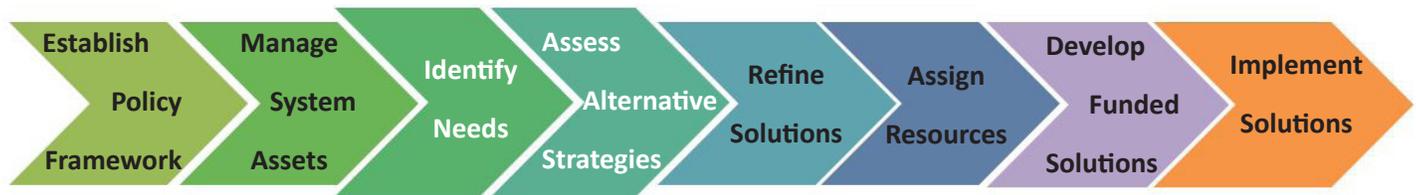


Exhibit 3-2: WSDOT's Practical Solutions framework



Study goals and performance measures

The study team collaborated with stakeholders and engaged the public in developing study and community goals for the corridor. The study goals include (not listed in order of priority):

- Improve travel times on I-5 and make them more predictable.
- Increase the transportation system's ability to efficiently and equitably move all people and goods.
- Improve access to job sites, commercial services, and industrial areas.
- Protect and enhance the environment including reducing the transportation-related impact on fish and wildlife habitat in the Nisqually River delta.
- Improve the transportation system's ability to operate during disruption and recover from it.

The study looked at performance of the transportation system as a whole, acknowledging the differing community and environmental needs throughout the corridor. The team recognized that different portions of the corridor call for different solutions, including strategies off the state highway system.

Community engagement

WSDOT and TRPC proactively reached out to communities that may be affected by future projects to obtain their feedback on the strategies and priorities developed by the study team and stakeholders. WSDOT's goal in community engagement is to include as many perspectives, disciplines, and backgrounds as practicable to guide decision making. WSDOT and TRPC sought to achieve the following through this study's community engagement effort:

- Increase awareness around WSDOT's planning efforts for this stretch of I-5
- Collect and document community members' preferred performance outcomes, priorities, and concerns
- Ensure WSDOT is aware of potential effects of different strategies on communities
- Inform and obtain feedback from the affected communities on the recommended strategies

To that end, WSDOT and TRPC carried out a paper survey, two online surveys, two in-person open house events, and an online open house using an online interactive story map. The study team gave particular focus to seeking input reflecting community demographics as much as practicable¹. Paper surveys were made available at accessible, commonly-used public spaces like at transit centers and libraries. The study teams also partnered with willing stakeholder agencies to directly distribute paper surveys such as the Nisqually Indian Tribe. Information was included offering translated copies of the survey in other languages as requested. See Appendix A for the study's communications and community engagement plan.

WSDOT study surveys received more than 4,600 responses

WSDOT sought feedback on community members' preferred outcomes and priorities mainly through the surveys. The study team collected 4,600 responses total, resulting in more than 6,500 open-ended responses to questions about study goals and strategies. WSDOT made both surveys available online and advertised them via email, social media, and local news. TRPC also made a paper version of the second survey which they distributed at publicly accessible locations such as libraries, food banks, and transit routes. The Nisqually Indian Tribe also helped distribute paper surveys.



In addition to online surveys, WSDOT and TRPC worked with local partners to distribute paper surveys at commonly used public spaces like transit centers.

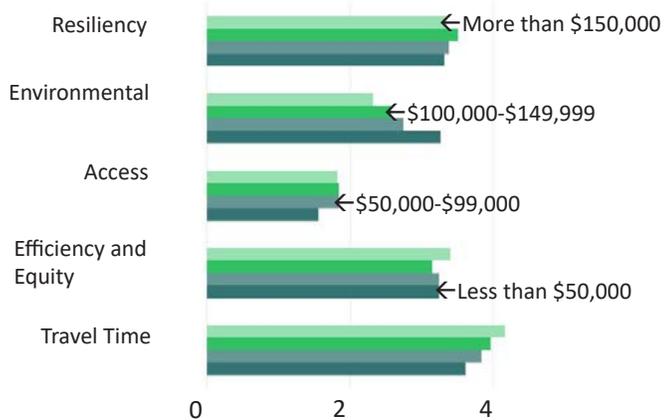
¹ WSDOT is required to protect the civil rights of all people affected by the agency's projects by making a concerted effort to engage minority, low-income and Limited English Proficient (LEP) populations. See WSDOT's Community Engagement Plan for the agency's guiding principles on this topic. <https://www.wsdot.wa.gov/sites/default/files/2019/05/22/Planning-CommunityEngagementPlan-2016Update.pdf>

The study team used public input to set study priorities, develop strategies, and account for user group needs

The study team used survey responses in three primary ways. First, they incorporated respondents answers on study goal priorities with input from the advisory groups (weighted 50/50) to develop the final scoring schemes for modeling results. Second, the study team used responses to refine the actual goals. An entire new goal of system resiliency was added based on public input. Third, the study team and the advisory groups reviewed all comments regarding improving system performance that came from the surveys. Finally, the study team used comments from the open-houses and surveys for further refinement of the strategies.

Exhibit 3-3: Survey support of study goals differ
Support of study goals differed by respondent characteristics, travel time main goal overall

Average goal ranked by household income, five is most important



Overall respondents most valued improving travel times, while some placed a higher value on environment and equity

WSDOT asked survey respondents to rank five study goals developed collaboratively with local, tribal, state and federal partners (see Exhibit 3-3). In the first survey, respondents overall ranked “moving people and cars efficiently” as the highest priority. Most respondents in the second survey ranked “improving travel times on I-5 and making them more predictable” as their highest priority.

The study team found that respondent support among the study goals was different based on certain characteristics. For example, in the first survey, respondents with a household income of less than \$25,000 valued the goal of ensuring equitable access to transportation services 35 percent higher than the overall average. Those with household incomes of \$150,000 or more valued the same goal about 9 percent less than average.

Another notable trend was respondents who used commute modes other than driving alone valued improving travel times up to 16 percent less and equity and environmental goals up to 51 percent and 23 percent more, respectively. The study team added a new resiliency goal and reworded other goals adapting the content to reflect responses. The second survey yielded similar results.

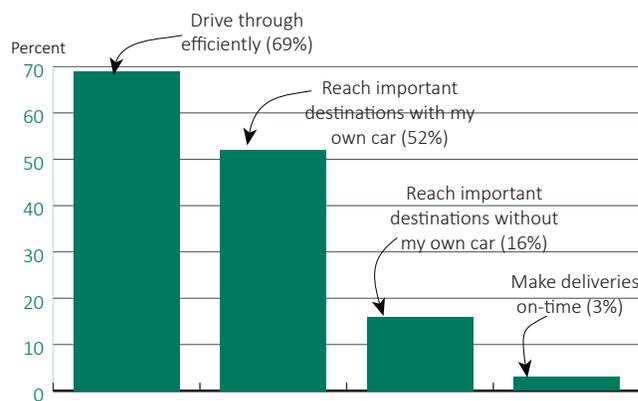
Respondents’ transportation needs correlated to primary commute mode, income, and age

The study team asked respondents what they need most from the transportation system (in addition to safety). The most common answer was to be able to drive through the corridor efficiently and reliably (see Exhibit 3-4). Similar to respondents’ weighting of study goals, there were notable differences in transportation needs based on characteristics such as commuting mode, income, and age.

Respondents who used any commute mode besides driving alone valued reaching destinations without a private vehicle more than average, ranging from 19 percent higher for those who carpool to 287 percent higher for those who only bike, walk, or use transit. Similarly, these groups tended to value driving through the corridor less than the overall survey sample on average.

Exhibit 3-4: Survey respondent transportation needs
Overall, most respondents say they need to drive through the corridor efficiently

Percent of respondents by transportation need indicated in survey



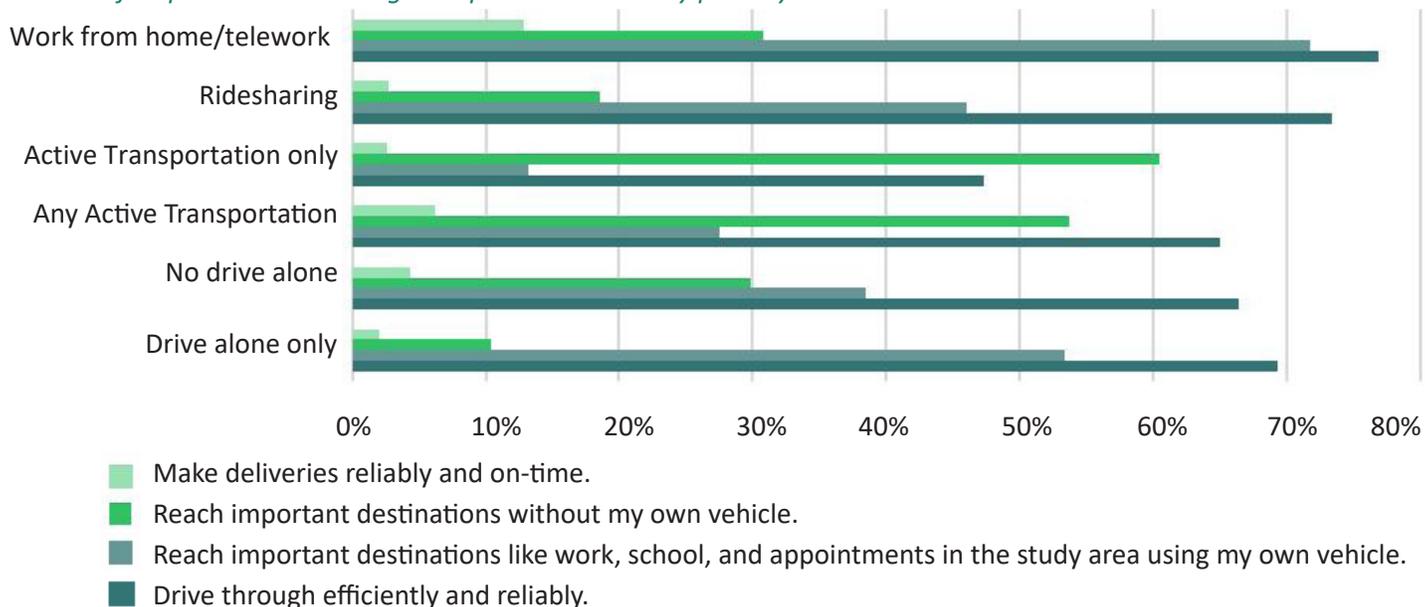
Respondents with household incomes of \$75,000 or less also valued reaching important destinations without their own vehicle 21 to 60 percent higher than the overall average. Respondents with household incomes above \$100,000 valued the same goal 17 percent less than average.

Finally, older respondents tended to value reaching important destinations with their own car less than the overall survey sample on average. Respondents over 45 valued this goal 10 to 21 percent lower than average, while respondents 44 and younger valued it 19 to 27 percent higher than average.

Exhibit 3-5: Survey transportation needs differ

Respondents transportation needs differed by their main commute mode

Percent of respondents indicating transportation needs by primary commute mode



Respondent comments lean toward resiliency, transit, environment

WSDOT staff reviewed roughly 6,500 open-ended responses related to study goals and outcomes in the first survey. Among responses related to study goals, 25 percent suggested adding resilience to disruptions like the Amtrak derailment that occurred in 2017 as a goal and many more expressed concern about it.

Another, more common, comment was to have reduced reliance on driving alone by expanding transit and other options as a study goal. 43 percent of responses about study goals mentioned this outcome. WSDOT and its study partners incorporated this intent into existing goals and measures.

“...I think there needs to be more push on reducing the number of cars on the road through better, more varied, swift, reliable, and financially accessible to all public transportation...”



Many survey respondents indicated the Nisqually delta was important to them. One comment read “Protect the integrity of the Nisqually River delta.” Photo courtesy of the Nisqually River Council.

Improvements to alternate routes and interchanges had most support overall; Support for HOV and transit correlated to income, commute mode, living in study area

WSDOT asked respondents what types of improvements they would support among options ranging from highway expansion to demand management and improvements to local roads in the second survey. “Adding capacity to, or developing, an alternate to I-5” was the most common response, with roughly 75 percent of respondents indicating support. “Improving traffic flow at interchanges like US 101/Olympia City Center” was a close second with 70 percent indicating support.

Respondents with lower household incomes and those who do not commute by driving alone were more supportive of transit, walking, and biking improvements. Support for improving conditions for walking or biking was 50 to 199 percent more than average for respondents who do not drive alone. Among respondents who drive alone, 60 percent supported adding new lanes to I-5, compared to 31 percent of active transportation users.

Respondents who live in zip codes touching the study area were more likely to support HOV, interchange, and bicycle/pedestrian improvements by 6, 7, and 15 percent more than average, respectively.

Most respondents indicated they are frequent commuters in study area

Most respondents indicated they travel within the study area at least a few times a week, generally during peak

commute hours (4 p.m. to 7 p.m. and 7 a.m. to 9 a.m.) to commute to and from work. Common uses also included visiting family and friends, recreational activities, and medical services. Roughly half of all respondents work in the Downtown Olympia/Tumwater area and about 61 percent live in the study area. A large majority of respondents (88 percent) indicated they drive alone to work. About 62 percent marked drive alone as the only commute mode they use.

Survey sample over-represented certain groups compared to study area

Respondent demographics differed from the study area, in some cases by a wide margin. For example, 15 percent of respondents had a yearly household income of at least \$150,000, double the proportion in the study area. The same applied to respondents with household incomes of \$100,000 to \$150,000. On the other hand, 13 percent of respondents had a yearly household income of less than \$50,000. This is roughly two thirds less than the study area population where households with incomes less than \$50,000 make up 41 percent of the population.

Respondents between 35 and 64 years old were also over-represented compared to the study area, while ages 25 and younger or 65 and older were under-represented. For example, about a quarter of respondents were between 45 and 54 years old, twice the rate of the study area population. Results were similar for ages 35-44 and 55-64.

Results for respondents' race/ethnicity were close to the study area in some cases and not in others. For example, 82 percent identified only as "white", while 79 percent of the study area population identified as such in census data. Others over-represented in the survey sample included Native American and Native Hawaiian/Pacific Islander at three and one percent of the survey sample compared to 1.4 and 0.9 percent of the study area population. The next largest groups of respondents identified as two or more races/ethnicities, Asian/Asian American, and Hispanic or Latinx, four, three, and two percent. Within the study area, the largest racial/ethnic groups after white are Hispanic or Latinx, two or more races, and black/African American with 9, 6, and 3 percent.