



2007 Transportation



Planning Studies Guidelines and Criteria

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**Washington State
Department of Transportation**

FOREWORD

For the past several years, especially since 2000, there has been considerable focus on creating a framework to guide the preparation of planning studies. In 2005, an internal effort began to better understand the regional approach to planning along state-owned highways. In addition, research was conducted into how other states address corridor planning.

Transportation is a vital part of how our communities and the state thrive. Our transportation system gets us to our jobs, schools, medical care and recreation activities. And transportation moves our goods and agricultural products to and from our communities and to the global market. Transportation planning is essential to meeting the challenges of assisting our communities and their transportation needs. This means developing affordable, cost effective and deliverable solutions that reflect our communities' values.

Many different approaches to planning are used in Washington State and across the nation. During WSDOT's process of redefining what planning studies should contain and making recommendations for how to develop them, the 2007 Washington State Legislature amended RCW 47 in several places, clarifying the focus for all planning efforts around a set of five policy goals.

These guidelines are focused on providing tools to assist transportation planners maximize their skills to meet these challenges and expectations. Our communities expect us to provide an efficient transportation system that meets regional needs and seamlessly weaves into the statewide system. And to do that, we need to plan across a broad and comprehensive background of issues.

These guidelines are a foundation to be built upon and strengthened as we collectively embark on future planning projects and learn from every experience.

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Part I



LONG RANGE TRANSPORTATION CORRIDOR PLANNING

Introduction

Introduction to Statewide Transportation Corridor Planning: Guidelines for Increasing Effectiveness

STATEWIDE TRANSPORTATION CORRIDOR PLANNING

In Washington State, transportation planning occurs at many levels, including, but not limited to, the following:

- Statewide including all modes, jurisdictions and organizations—Washington Transportation Plan
- Statewide multi-modal plan
- Statewide Modal Specific—Highway, Ferry, Aviation, Transit, Bicycle and Pedestrian
- Statewide Issue Specific—Freight and Goods Transportation System, Strategic Highway Safety Plan
- Regional and Metropolitan Transportation Plans
- Scenic Byway Management Plans—Corridor Specific
- Transportation elements of Local Comprehensive Plans—County and City Specific
- Tribal Transportation Plans—Corridor or Reservation Specific Focus
- Federal Land Management Roadway Plans—Corridor, Park, Refuge, Area, or Forest Specific

WSDOT MISSION STATEMENT

Our mission is to keep people and business moving by operating and improving the state's transportation systems vital to our taxpayers and communities.

WHAT ARE THE TRANSPORTATION PLANNING STUDIES GUIDELINES AND CRITERIA?

The Transportation Planning Studies Guidelines and Criteria provide a foundation for the Washington State Department of Transportation's (WSDOT's) desired statewide planning approach. These Guidelines are a resource for WSDOT planning staff to use as a step-by-step guide for developing effective, predictable, and reliable planning documents that examine portions of the statewide transportation system.

The document is an evolving toolbox of the best available methodologies and concepts to consider when conducting a planning study along a state highway corridor. The intent is that these guidelines will assist the agency in:

- increasing and enhancing the department's ability to coordinate with local governments, in order to better integrate transportation planning with local land use planning
- identifying critical data that will provide useful documentation for later project development and environmental analysis
- engaging the public in meaningful citizen participation that adds value to the recommendations and solutions proposed in the planning documents
- fostering an increased awareness internally of the value that quality planning practices add to the delivery of the agency mission

WHAT ARE THE REQUIREMENTS?

WASHINGTON STATE LAW

In 2007, the Washington State Legislature and the Governor created five investment policies for the planning, operations, and performance of, and investment in, the state's transportation system. Public investments in transportation should support achievement of these policy goals. The powers, duties, and functions of state transportation agencies must be performed in a manner consistent with these new policy goals:

TRANSPORTATION POLICY GOALS

Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.

Safety: To provide for and improve the safety and security of transportation customers and the transportation system.

Mobility: To improve the predictable movement of goods and people throughout Washington state.

Environment: To enhance Washington's quality of life through transportation investments that promotes energy conservation, enhance healthy communities, and protect the environment.

Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

Source: RCW 47.04.280

Effective planning produces useful information so planning decisions do not have to be re-evaluated during project development and scoping. The primary goal of all WSDOT investments whether in planning, construction, or operations has been to keep people and business moving while improving the state's transportation systems.

The new legislation intends for the state's transportation agencies to reflect these goals in their budgets and activities. The legislature also requires the Governor's Office of Financial Management to prepare an attainment report detailing the state's progress in achieving the policy goals while current and historic investments by WSDOT address the most critical preservation, safety, mobility, and environmental needs.

In addition to the five transportation policy goals, the 2007 legislation specified seven duties of the Washington State Department of Transportation.¹ Corridor development plans should contribute directly to performing these duties to the degree appropriate for the conditions along the corridor.

- Maintain an inventory of the condition of structures and corridors in most urgent need of retrofit or rehabilitation;
- Develop long-term financing tools that reliably provide ongoing maintenance and preservation of the transportation infrastructure;
- Balance system safety and convenience through all phases of a project to safely, reliably, and efficiently provide mobility to people and goods and accommodate all users of the transportation system;
- Develop strategies to gradually reduce the per capita vehicle miles traveled based on consideration of a range of reduction methods;
- Consider efficiency tools, including high-occupancy- vehicle and high-occupancy-toll lanes, corridor-specific and system-wide pricing strategies, active traffic management, commute trip reduction, and other traffic demand management tools;
- Promote integrated multimodal planning; and
- Empower engineers and architects to design environmentally sustainable, context-sensitive transportation systems.

Transportation planning studies should examine and contain these important elements. The recommendations from a planning study establish the first step for the projects along a corridor.

¹ [2007 c 516 § 6.] RCW 47.01.078: These guidelines provide a framework for the data that should be collected, suggestions on how to conduct an inclusive study, internally and externally.

THE 2006-2027 WASHINGTON TRANSPORTATION PLAN

The statewide transportation investment strategies adopted by the Washington State Transportation Commission in November 2006 are closely aligned with these policy goals.

WASHINGTON TRANSPORTATION PLAN INVESTMENT STRATEGIES

1. **Preservation:** Preserve and extend prior investments in existing transportation facilities and the services they provide to people and commerce.
2. **Safety:** Target projects, enforcement, and education to save lives, reduce injuries, and protect property.
3. **Economic Vitality:** Improve freight movement and support economic sectors that rely on the transportation system.
4. **Mobility:** Facilitate movement of people and goods to contribute to a strong economy and a better quality of life for our citizens.
5. **Environmental Quality and Health:** Bring benefits to the environment and our citizens' health by improving the existing infrastructure.

Source: *The Washington Transportation Plan 2007-2026*

THE OBJECTIVES OF A PLANNING STUDY

The objective of a planning study is to meet the statewide policy objectives of preservation, safety, mobility, environment enhancement, and stewardship to continuously improve the quality, effectiveness, and efficiency of the transportation system. Planning studies identify the current functions of a corridor and forecast future demands on the system. Data collection is used to assess the performance and function and forecast future

needs. Data collection connects issues that help describe the context for a planning study and the expectations for improving the function of the route. Certain core data needs to be in every planning study to enhance the statewide base of information.

ECONOMIC VITALITY OPPORTUNITIES

A planning study can identify economic opportunities that will bring vitality to a corridor. One example is the Scenic Byway Program. The Scenic Byway Program assists communities statewide to identify and develop economic opportunities through grants. These grants encourage tourism and, in some cases, historic preservation. Travelers in Washington spent \$11.2 billion dollars supporting 139,000 jobs.²

THE REASONS FOR TRANSPORTATION PLANNING

Transportation planning takes a comprehensive look at the natural, built, and social environments, and seeks to identify the long-term needs of the statewide transportation system to move people and goods. Transportation planning brings citizens, elected officials, and stakeholders together to make informed decisions about the 20-year or longer future of a corridor and to propose and create an implementation plan for future investments.

THE REQUIREMENTS FOR PLANNING

The basis for transportation planning in Washington State is directed by both state and federal statute. At the federal level, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), signed into law on August 10, 2005, contains multiple requirements for transportation plans. It requires that WSDOT's statewide planning efforts coordinate with metropolitan planning and statewide trade and economic development planning activities.

² USDA Forest Service 2002 National Survey on Recreation and Environment.

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Requirements for plans include identifying environmental features, improving performance of the transportation system, and multimodal capacity that represents bicycle, pedestrian, and disabled user interests. These plans identify existing and future transportation needs and deficiencies, assess options, and program solutions to implement statewide policy.

In Washington State, many laws direct how planning is carried out at the city, county, and statewide levels.

GROWTH MANAGEMENT ACT- THE LOCAL LEVEL

The Growth Management Act (GMA) was enacted under RCW 36.70A.040 in 1990. The basic principle of the GMA is that new or changed land use development should only be allowed only at a pace that allows public agencies providing services to maintain the provision of those services (Appendix E contains additional information on the GMA). The GMA established a state framework for local comprehensive planning and local land use regulation. The framework requires addressing transportation planning throughout Washington. The GMA contains transportation elements that must be followed within the various comprehensive plans.

Planning studies provide the vision for specific transportation routes, and identify tiered recommendations for improvements in the future. However, if improvements for a transportation route are already identified in an existing plan, referencing existing local, regional, and statewide plans is important so that recommendations are consistent with these existing plans. Knowledge of the recommendations in these existing plans is critical, since they may contain elements that may impact the recommendations of your study. In many instances, planning studies will provide the list of future projects and build upon the policies set in other plans.

Coordination with existing plans is good planning practice and is required by law for some level of

planning. It is a measure of accountability vital for a planning study to be successful. Planners need to be aware of the purpose of these regulations, rules, and codes so the data collected in a WSDOT planning study can be relevant for better alignment to statewide policies. Consistency among local, regional, and statewide transportation plans is the goal.

Exhibit 1 is an overview of the of the local, county, and regional plans relevant to planning studies.

STATEWIDE TRANSPORTATION PLANS

Similar to local and county plans, statewide plans and their policies provide the foundation for the development of options and, ultimately, the recommendations in your planning study. These plans contain the investment priorities for the statewide system, and your plan's recommendations need to provide continuity with the statewide policies. Referencing these plans and the recommendations contained in them strengthens the options and recommendations for WSDOT planning studies. Consideration of the recommendations from transportation plans conducted by Metropolitan Planning Organizations and Regional Transportation Planning Organizations is important so all recommendations are consistent.

Recommendations in these plans and their transportation networks tie directly into the statewide system. The options and recommendations developed from your planning study need to be coordinated with the recommendations from these plans.

PLANNING-LEVEL COST ESTIMATES

Planning-level cost estimation is a challenge. Depending upon the recommendations developed during a planning study, the planning-level cost estimation can only be that—an estimate. Every planning study should include cost estimation for its solutions. Planning-level cost estimates are important because they provide the basis for budgeting and, ultimately, assist in future scoping

Exhibit 1: Planning-Relevant RCWs and CFRs

RCW	Plan	Purpose
35.770.10	Local Comprehensive Plan	Every six years, each city and town prepares a comprehensive transportation plan that identifies projects, programs, and land use developments of regional significance for inclusion in the transportation improvement program.
36.81.121	County Comprehensive Plan	Every six years, each county prepares a plan that includes proposed roadway and capital improvements and facilities. The plan includes programs for ferries (for counties that operate them) and new bicycle and pedestrian facilities.
47.80.030	Regional Transportation Plan (RTP)	Every two years, each RTPO, with cooperation from cities, towns, and counties, develops and evaluates transportation elements for consistency with and certify county comprehensive plans.

RCW or CFR	Plan	Purpose
47.06.030, 47.01.071, and 47.06040	Washington Transportation Plan (WTP)	The WTP establishes the strategic direction for future transportation investments through a collaborative process to provide for the movement of people, freight, and goods on the statewide transportation system.
47.05.050, 36.70A.70, and 47.80.030	Highway System Plan (HSP)	The HSP guides WSDOT in prioritizing and budgeting for highway projects with the Washington Transportation Plan, the HSP assesses future transportation needs through a collaborative process.
47.06.045 and 81.104.100	Freight and Goods Transportation System Plan (FGTS)	A data driven plan, the FGTS identifies the most heavily used roadways to move freight and identifies projects to improve conditions for freight transportation.
47.06.040	State Ferries Long-Range Strategic Plan	This plan guides future service and investment decisions for the state ferries to the year 2030. The plan guides key policy decisions concerning long-term funding, fares, capital investments, and service growth.
47.06.110	Public Transportation Plan	This plan guides the state's role in public transportation, describes the current conditions, identifies future needs, and proposes strategies for attaining them.
36.70, 36.70A, 47.06, 47.68, and 47.68	Aviation System Plan	The Aviation System Plan provides a framework for preservation, enhancement & investment strategies to meet current and future aviation needs.

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RCW or CFR	Plan	Purpose
47.79.040	Passenger Rail Plan	Through multiple studies, the Passenger Rail Plan addresses key areas of ridership estimates, location analysis of new corridors, and station location assessments with local communities and coordinates with air and high-speed ground transportation. It also coordinates with other states and provinces regarding alignment, station location and environmental analysis.
47.06.100	Bicycle and Pedestrian Plan	The goal of this plan is to improve bicycle and pedestrian safety while identifying opportunities to increase the use of these modes through partnerships.
47.39	Scenic Byway Corridor Management Plan (CMP)	CMPs are developed in coordination with the United States Department of Transportation and the Federal Highway Administration Scenic Byways Program. Following the guidelines for a master plan, the CMPs establish community-based goals and strategies to enhance a roadway's value to the community.

CFR	Plan	Purpose
23 USC §134 49 USC §5303-5306 23 CFR §450.300	Metropolitan Planning Organizations (MPOs)	Each MPO with a minimum population of 50,000 identifies and develops transportation plans and programs. Each MPO is responsible for the transportation planning for its urbanized area.
23 USC §148	Strategic Highway Safety Plan	This plan is a federal requirement. It identifies statewide traffic safety needs and guides investment decisions to achieve reductions in fatalities and injuries.

and programming. Prior to funding a project that may result from a planning study, the legislature needs to know the costs of the recommendations and what they will achieve. Planning-level cost estimates provide the base funding parameters to begin these discussions.

It is recognized that all of the recommended solutions in a planning study will not be attainable immediately. Tiered improvements, such as represented in Exhibit 3, provide a method where a study's recommendations can be tiered with cost estimates. The tiered approach improves programming of the recommendations by identifying lower cost improvements first and

programming the higher cost improvements out into the future to be accomplished as funding allows.

Planning-level cost estimates can be used to factor the budget-building process. These cost estimates are ultimately included in the scoping and programming process. In the programming process, the projects identified from planning studies are prioritized based upon how they meet the statewide investment guidelines from RCW 47.04.280 and the policies in the Washington Transportation Plan. The improvements are then funneled into statewide plans, such as the Highway System Plan, for eventual programming for scoping, design, and construction.

FEDERAL REQUIREMENTS FOR COST ESTIMATES

Typically, recommendations from a planning study are programmed into the State Transportation Improvement Plan (STIP) and the statewide Highway System Plan. The new SAFETEA-LU requirement for year of expenditure cost estimation affects the STIP in that estimates for the costs of recommendations from studies need to be factored with inflation into the year of expenditure, or construction year, of the study's recommendations.

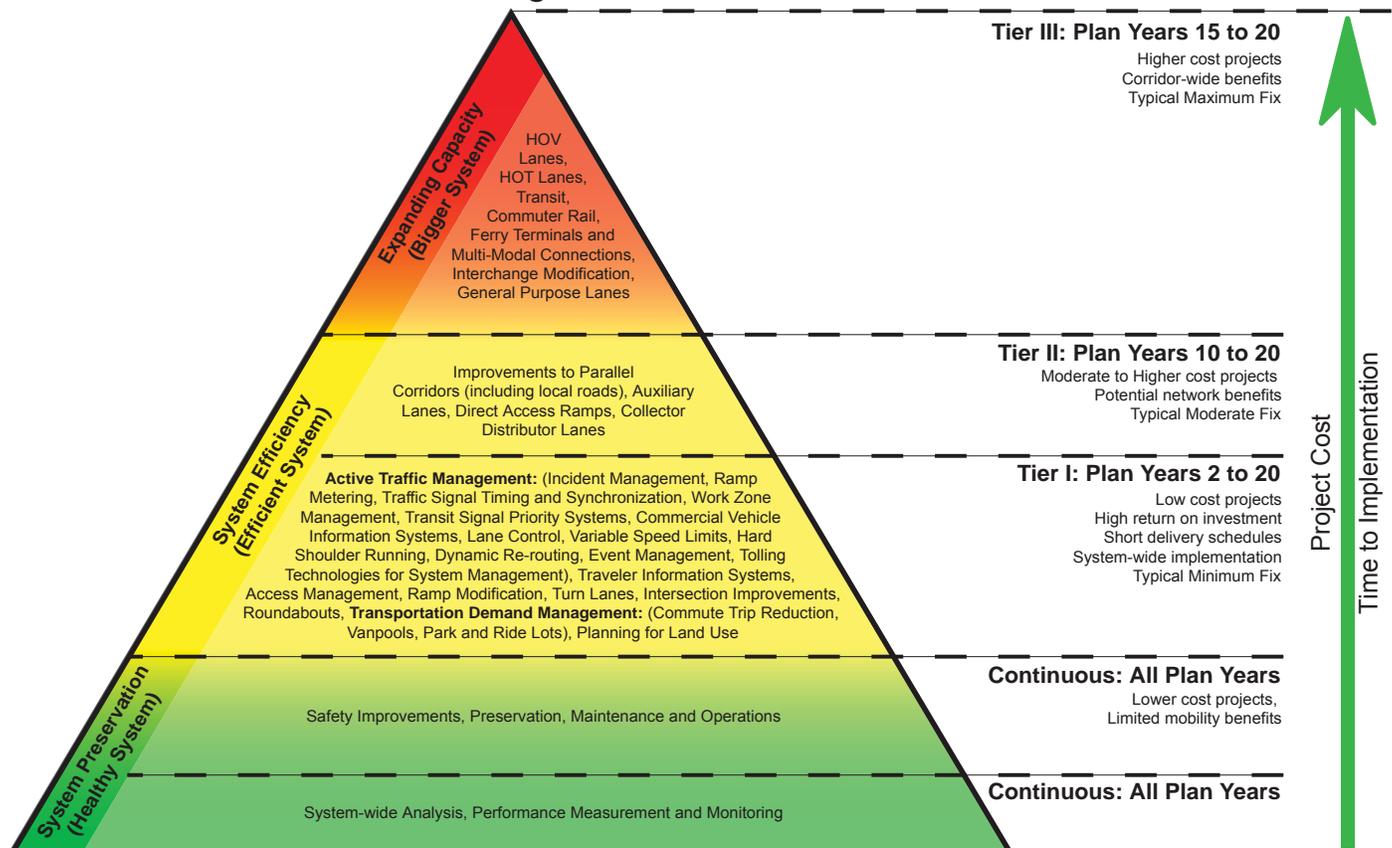
Planning-level cost estimation can provide the base year for determining the inflation factors applied to year-of-expenditure cost estimation for projects that come from planning study recommendations.

THE ROLE OF PLANNING IN SCOPING AND PROJECT DELIVERY

Planning is the first step in the project delivery process. It identifies the issues and formulates recommended investments along a corridor. Through data collection and analysis, public and stakeholder input, and executing effective decision-making processes, corridor planning studies prepare WSDOT for project scoping and eventual programming and project delivery. The corridor vision is achieved by implementation of an action plan that determines cost-effective short-, mid- and long-term options to ultimately reach the goals of the plan. These are illustrated in Exhibit 2, Implementation Timeline.

Exhibit 2: Implementation Timeline

2007-2026 Washington State Highway System Plan: Implementation Plan Safety, Economic Vitality and Mobility Strategies



Part II:



WHAT SHOULD BE IN A
CORRIDOR PLANNING
STUDY

Chapter 1

How To Quick Reference Guide

INTRODUCTION

The purpose of Part II is to outline the preferred steps for conducting a Transportation Planning Corridor Study on a Washington State highway. The following chapters include steps for a flexible approach to the work. They are intended to assist you in producing Corridor Plans that are meaningful, relevant, and realistic to ensure that a Corridor Plan can be implemented. The region planning effort continues even after the plan is complete.

The following pages include suggestions, parameters, guidelines, and requirements. Because every corridor is different, every plan will also be unique. This document is designed to give you a brief overview of tools and approaches to use as you conduct your Corridor Planning Study. The Appendix includes several reference chapters that provide expanded detail on where to find information and who to contact for help. The Appendix also includes web links and samples of work done in other planning efforts.

Each step in the process of conducting a Corridor Planning Study involves different work groups and individuals. The steps are organized in chronological order, recognizing that many activities are going on. Some steps can and should occur simultaneously. As appropriate, each step identifies the key activities for the following areas:

- Region Planning Office Staff Work
- Study Team Activities
- Data Collection and Analysis
- Communications
- Public Outreach and Involvement
- Stakeholder Participation

- Major Milestones and Deliverables
- Review and Decision Process

When other offices, agencies, or jurisdictions play a role they will be mentioned. Prior to beginning a planning study, a group review of the Transportation Planning Guidelines should take place with all staff who will be involved. While this document is intended to provide assistance for staff, it cannot take the place of group and one-on-one coaching in an office setting. This document captures several lessons learned, but many more exist that are not documented. Just as a Corridor Planning Study tells the story of the route, people should share stories with each other of what they discovered as they completed a plan.



SR 17 Coulee Corridor Scenic Byway

WHAT DO WE KNOW TODAY—WHAT ARE THE CORRIDOR ISSUES?

System Performance Analysis and The Region's Top Corridors

HEADQUARTERS STRATEGIC PLANNING AND PROGRAMMING DIVISION STAFF WORK

Extensive data analysis is ongoing in the Headquarters Strategic Planning and Programming Division's Systems Analysis Office. Each year, a report with maps will be prepared for review by the Regions and the Urban Planning Offices. This information summarizes the programmatic level issues that exist on the state highway system. It describes system performance, preservation, safety, mobility, and environmental data that are priorities for further investigation.

REGION AND URBAN PLANNING OFFICE STAFF WORK

Confirming the Reason for the Study

The Region and the Urban Planning Office will determine who should be involved in the review of the data provided by the Systems Analysis Office for each corridor to be studied. The region will use that information, supplemented by their awareness of local and regional issues, to create a succinct reason statement for the study. Some may prefer to call this the study definition or purpose. The point to stress is that a clearly articulated job description for the study is needed from the beginning.

Defining the Study—Short and Sweet

Develop a summary of preliminary corridor facts and issues. This document will serve as the beginning content for the Corridor Planning Study web page, and will be a good tool for briefing executive management and WSDOT staff. It should

begin with a Reason Statement and include a small map to orient the reader to the location of the corridor in the region and the state.

The Draft Work Plan

A draft work plan for the study should include a budget, a tentative timeline, and the key policy issues that will be addressed during the study. The work plan should also identify whether contracted workforce support will be needed and the estimated costs. It is at this step in the process that gaps in existing data are identified.

Quick Reference Checklist

TASK ONE: WHY IS THE STUDY BEING CONDUCTED?

- Identify the issues.
- Determine if existing data supports the issues raised.
- Determine if the issues meet the Five State-wide Investment Guidelines.
- Determine if the roadway is identified in the Highway System Plan.
- Identify the contributing factors that initiated the study.

TASK TWO: DEFINING THE STUDY AREA

- Define logical start/end points for the study area such as interchanges, intersections, and natural features.
- Understand how the state-owned facility ties into the local transportation network.
- Identify and define jurisdictional boundaries.

TASK THREE: DEVELOP THE WORK PLAN

- Identify and determine staff availability to conduct the study.
- Determine financial resources needed to conduct the study.
- If necessary, determine the need and resources for consultant services.

TASK FOUR: REVIEW PAST STUDIES

- Identify and review past studies conducted adjacent to or within the study area.
- Review all state, RTPO, MPO, and modal plans that may affect the study area.
- Determine if there are existing recommendations for improvements within the study area from previous plans, and determine how these can tie into the study for consistency.

The Study Team

As previously described, the study team plays a valuable role in the Corridor Planning Study. The team needs to be convened from the beginning of the plan development process.

It is important to include appropriate staff with the skills needed for the study. It is better to include a lot of participants in the beginning to shape the work plan, and involve them later as time allows.

Data Collection and Analysis

This is a good opportunity to determine the contents of the base map that will be used for the study, as well as the other maps that will be produced. The Cartography GIS (CGIS) Team in the Headquarters Strategic Planning and Programming Division is available to assist you through the map definition process. The link to

the CGIS web page is: <http://www.wsdot.wa.gov/mapsdata/products/default.htm>

Communications

Developing an internal communications plan should become routine after a few Corridor Plans are completed within a region. However, because staff members and management change over time, you should reevaluate the basic approach to internal communications periodically. After the Corridor Planning Study Team has been identified, make minor adjustments to the internal communications plan to reflect individual needs and communication style preferences.

Public Outreach and Involvement

While the work plan for the corridor study is being drafted, be sure to involve the region communications office to ensure that adequate budget is set aside for the appropriate level of community assessment and public involvement activities.

Stakeholder Participation

Prior to drafting the final work plan for the corridor study, have an informal discussion with selected stakeholders, including but not limited to the Regional Transportation Planning Organizations (RTPOs), tribes, cities and counties. These informal conversations may be better suited to one-on-one and in a casual setting. Each region will have a unique approach to communicating with stakeholders. The important point to remember is that there is never too much communication. During these meetings is a good time to gauge the level of participation that the stakeholders can contribute to your plan. The participation capacity for each stakeholder is different, and you may need to develop creative ways to communicate with certain entities.

Major Milestones and Deliverables

Defining realistic deadlines and deliverables is critical for a Corridor Planning Study to be successful. Building extra review time into the work plan and identifying small accomplishments is worthwhile. Celebrating small successes is recommended to enhance existing relationships and build upon the new ones.

ELEVEN ESSENTIALS OF AN ENTHUSIASTIC TEAM MEMBER

1. Help each other be right rather than wrong
2. Look for ways to make new ideas work, rather than looking for reasons why they won't work.
3. If in doubt, check it out, rather than making negative assumptions.
4. Help each other win and take pride in each other's victories.
5. Speak positively about each other and about your organization at every opportunity.
6. Maintain a positive mental attitude no matter what the circumstances.
7. Act with initiative and courage as if it all depends on you.
8. Do everything with enthusiasm—it's contagious.
9. Believe in what you are doing – never give up.
10. Invest in the outcome or common goal—contribute as your talents and resources allow.
11. Have fun!

Review and the Decision-Making Process

It is just as important to review the materials prepared as the planning study is going on as it is to review the draft planning document. To manage the expectations of internal management and external stakeholders, a decision-making protocol should be written down and shared with everyone involved. Each region has a unique approach to this process and should capture it in writing. This will be useful as a resource when the roles and responsibilities for the stakeholder group are defined for each plan.

Quick Reference Checklist

TASK ONE: IDENTIFY KEY TEAM MEMBERS

- Identify potential key team members from within WSDOT disciplines who will have an interest in the study area.
- Locate, identify, and contact stakeholders from groups, agencies, and jurisdictions within the study area.

TASK TWO: DEFINE THE DECISION-MAKING PROCESS

- Develop a decision-making matrix including the roles and contributions of the Region Planning Manager, the Lead Study Planner, and the team, stakeholders, and the general public.
- Define the roles and responsibilities of study, stakeholder, and resource team members.
- Consider developing individual stakeholder and resource team charters so that team members understand their roles. Have the team members sign the charter.
- If consultant services are necessary, follow established protocols through the WSDOT Consultant Services Office.

WHAT MORE DO WE NEED TO KNOW?

DOES EXISTING DATA CONFIRM THE NEED FOR THE STUDY? WHO WILL PARTICIPATE IN THE CORRIDOR STUDY?

Region Planning Office Staff Work Data Collection and Analysis

Each Region Planning Office has its own process for evaluating the data provided to them by the Headquarters Systems Analysis Office. Identify gaps in data and determine which data will require further evaluation and/or comparison to other sources, such as the Regional Transportation Planning Organization's transportation model or a city's local traffic counts. Appendix A describes sources and analysis methods. Refer to Appendix A for the Data Collection and Analysis Quick Reference Checklist.

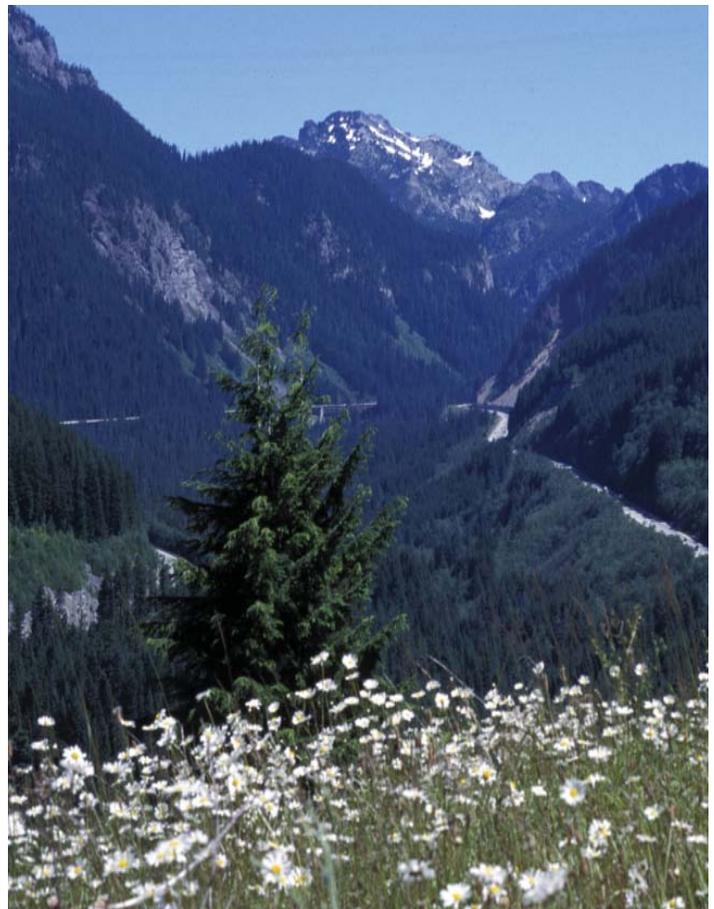
As suggested in Part II, data on users of the transportation system is just as important as data about performance of the transportation system. Prior to convening your first stakeholder group, draft a proposed charter to guide the process. Your internal Planning Study Team should define its roles and responsibilities and accomplish the following activities:

- Conduct a thorough community assessment
- Evaluate the demographics of the study area and the surrounding region
- Define your proposed approach to public outreach and involvement
- Determine your approach to incorporating stakeholder participation
- Establish an internal communications plan
- Establish a draft external communications plan

Gaining management support within the Region or Urban Planning Office for these products is critical. There are several offices at Headquarters that are ready to assist in providing guidance on these activities:

- Environmental Office
- Planning Office
- Communications Division
- Systems Analysis Office

The following helpful hints are suggestions for when you are ready to prepare your draft Charter to guide the process. Not all of the suggestions will apply to every corridor planning study. For example, facilitators can be expensive. Sometime a neutral party and no-WSDOT employee is critical to have, if the study budget allows and if the political issues warrant it. In most cases however, internal staff with training and successful experience in facilitating will be the best fit.



Creating a Charter for the Stakeholder Group

As mentioned in the previous chapter defining the roles and responsibilities for the Stakeholder Group is important. The following are some ideas on how to approach the process. Each process for documenting the roles and responsibilities will be unique to the region and the corridor.

Developing a Charter—The Basic Process²

- Select a facilitator
- Inform the group of its role in WSDOT’s decision-making process
 - Public groups advise WSDOT
 - Regulatory groups can require something from WSDOT
- Determine each member’s role in the committee
- Decide how the group will make decisions. Consensus works best. Consensus is not unanimous agreement. (Note: At times consent may be the closest you get to agreement)
- Decide how the group will document decisions
- Determine the schedule
- Everyone approves the charter

Tips on the Chartering Process³

- Involve the right people in the planning process. Get input from everyone who will be responsible to carry out parts of the plan, along with representative from groups that will be affected by the plan. Of course, people should also be involved if they will be responsible to review and authorize the plan.
- Acknowledge and celebrate the results. Celebrate the plan’s milestones and final approval.

Tips for creating a focus group/task force⁴

- Working with community-based organizations for public involvement can sometimes attract “professional community participants,” i.e., those

² Northwest Cooperative Development Center, <http://www.nwcdc.coop>

³ Free Management Library: Copyright 1997-2007, Authenticity Consulting, LLC

⁴ Federal Highway Administration, <http://www.fhwa.dot.gov/reports/pittd/colltf.htm>

members of the community who have a strong interest in an issue or high availability and can always be counted upon to attend group activities.

- Suggestions for broadening community participating in these instances include:
 - Ask the community to identify their leaders. This may identify different leaders than those who are frequently tapped.
 - Seek out and identify the affected and target group first. Find out what a group’s ideas, views, likes, and dislikes are and targeting more advertisements in the affected area to make sure the right people are getting the message.
 - Use the “buddy system.” Ask each person who attends a meeting to return next time with one other person. For the ones who don’t attend, try to find out why, then try to see if their talents can be used in a different way. For example, if the community participation is voluntary and individuals have to work during the hours of the meeting, they may be able to perform background research or some other task to gather information and then funnel it to the group as a whole to be incorporated into the greater project at hand.

The corridor management plan must include:

- A map identifying the corridor boundaries and the location of intrinsic qualities and different land uses within the corridor.
- An assessment of such intrinsic qualities and of their context.
- A strategy for maintaining and enhancing those intrinsic qualities. The level of protection for different parts of a National Scenic Byway or All-American Road can vary, with the highest level of protection afforded those parts that most reflect their intrinsic values. All nationally recognized scenic byways should, however, be maintained with particularly high standards, not only for travelers' safety and comfort, but also for preserving the highest levels of visual integrity and attractiveness.
- A schedule and a listing of all agency, group, and individual responsibilities in the implementation of the corridor management plan, and a description of enforcement and review mechanisms, including a schedule for the continuing review of how well those responsibilities are being met.
- A strategy describing how existing development might be enhanced and new development might be accommodated while still preserving the intrinsic qualities of the corridor. This can be done through design review and such land management techniques as zoning, easements, and economic incentives.
- A plan to ensure ongoing public participation in the implementation of corridor management objectives.
- A general review of the road or highway's safety and collision record to identify any correctable issues in highway design, maintenance, or operation.
- A plan to accommodate commerce while maintaining a safe and efficient level of highway service, including convenient user facilities.
- A demonstration that intrusions on the visitor experience have been minimized to the extent

feasible, and a plan for making improvements to enhance that experience.

- A demonstration of compliance with all existing local, state, and federal laws on the control of outdoor advertising.
- A signage plan that demonstrates how the State will make the number and placement of signs more supportive of the visitor experience.
- A narrative describing how the National Scenic Byway will be marketed.
- A discussion of design standards relating to any proposed modification of the roadway. This should include an evaluation of how the proposed changes may affect the intrinsic qualities of the byway corridor.
- A description of plans to interpret the significant resources of the scenic byway.

All-American Roads must include:

- A narrative on how the All- American Road will be promoted, interpreted, and marketed in order to attract travelers, especially those from other countries. Identify the agencies responsible for these activities.
- A plan to encourage the accommodation of increased tourism, if this is projected. Some demonstration that the roadway, lodging and dining facilities, roadside rest areas, and other tourist necessities will be adequate for the number of visitors attracted by the byway's designation as an All-American Road.
- A plan for addressing multilingual information needs. Further, there must be a demonstration of the extent to which enforcement mechanisms are being implemented in accordance with the corridor management plan.²

² <http://www.bywaysonline.org/library/display/29607/FedReg.pdf> Federal Register / Vol. 60, No. 96 / Thursday, May 18, 1995 / Notices 26759 [FHWA Docket No. 95-15]

WHAT IS THE DRAFT WORK PLAN FOR THE CORRIDOR PLANNING STUDY?

WHO, WHAT, WHERE, HOW, AND WHEN? Region Planning Office Staff Work

One of the most valuable skills for a planner to have is the ability to develop work plans that are clear, detailed, and realistic. The work plan for the corridor planning study will determine the budget and time line for the planning study.

Every work plan should contain:

- A reason statement for conducting the study, including the main issues that are causing system performance to fall below acceptable levels.
- A clear definition of the study area boundaries, including a list of the stakeholders.
- A list of the products the study will deliver. For most studies this will be an implementation action matrix itemizing the recommendations proposed for future investment.
- A proposed time line for completion of the study and key milestones that can be influenced by the source of funding, legislative directive, and the budget development process.
- A budget and resource allocation plan. This is a table of what tasks will be done, how much each is expected to cost, and the staff, consultant, and materials resources needed for each, including the cost to conduct an effective public outreach process. It is important to remember that public involvement activities don't have to be expensive if done creatively from the beginning.

Study Team Activities

The Study Team should be given the opportunity to review the draft work plan to ensure that their issues and concerns are addressed. Refer to Part II for details on who should be on the Study Team.

Review and Decision Process—Review the Progress and Maintain Executive Support

Part II, Chapter 3, detailed several approaches to establishing the decision-making process. Throughout the study process, remind yourself, the study team, the stakeholder group, and the public about the roles and responsibilities each play. It may feel repetitive at first, but this is a highly recommended practice as new participants join your effort. Having that “One-DOT,” “One-Study” messaging is extremely valuable when disagreements arise later in the process.

EXAMPLE OF AGREED UPON ROLES AND RESPONSIBILITIES

Communications—Preparing the Planning Study Page for the Internet

The work plan will provide you with much of your initial content to include on the web page.

Public Outreach and Involvement—Keeping a Good Record of the Steps You Take

Keeping a record of how you engage the public is required by state and federal law, and can be a tremendous time saver for your next study. Once you and your staff team have completed a few, the records can become a template for future studies. The content will change, but you will adapt to a method of storing the information, and the previous process can help you anticipate what may come up next, especially if the corridors are near each other.

Corridor Management Plans for Scenic Byways

A corridor management plan, developed with community involvement, must be prepared for a scenic byway corridor proposed for national designation. It should provide for the conservation and enhancement of the byway's intrinsic qualities as well as the promotion of tourism and economic development.

The plan should provide an effective management strategy to balance these concerns while providing for the users' enjoyment of the byway. The corridor management plan is very important to the designation process, as it provides an understanding of how a road or highway possesses characteristics vital for designation as a National Scenic Byway or an All-American Road.

WHAT ARE THE GOALS AND VISIONS FOR THE CORRIDOR?

TAKING A 20-YEAR LOOK AT SYSTEM PERFORMANCE

Region Planning Office Staff Work

The vision for a corridor can be defined as the expected transportation performance levels to achieve during the next twenty years. However, vision statements are rarely that simple to draft or to implement. They should be creative and realistic and should reflect the views of both WSDOT and the stakeholders. On the pages that follow we have included several examples of vision statements from different types of planning efforts. Every planning study needs a vision statement. It should guide you through your planning process and every proposed recommendation should support your vision. In addition, the criteria you develop for screening your recommendations should support both state-level policies and the vision for

your corridor. A vision statement describes future outcomes and:

- Is inspirational
- Provides clear decision-making criteria
- Leads to particular strategies
- Is distinctive
- Represents the stakeholders, the community, and the public.

Tips for developing a vision statement:

- The vision statement includes a vivid description of the organization as it effectively carries out its operations.
- Developing a vision statement can be quick and culture-specific. Participants may use methods ranging from highly analytical and rational to highly creative and divergent. These could include focused discussions, charettes, or sharing divergent experiences and stories. Therefore, visit with the participants to see how they might like to arrive at a description of their organizational vision.
- A vision statement can be a compelling description of the future of the study area, function of the corridor, and how it should appear over time (e.g., context sensitive goals). However, it should be realistic.



EXAMPLES OF CORRIDOR VISION STATEMENTS

“SR 7 is a safe, easily maintainable year-round gateway to the Washington Cascades that serves transportation needs and addresses the wildlife, cultural, and economic needs of the unique areas it serves.” (*WA SR 7 Route Development Plan, Phase 1*)

“A set of consensus-based recommendations for SR 169 that will increase safety and reliability, reduce person and vehicle delay, manage access, and respond to growth in the years to come.” (*WA SR 169 Route Development Plan Project Vision*)

“The City of Trenton (New Jersey) is currently preparing a Master Plan for the Downtown Capital District which aims to promote economic development and increase access to the riverfront.” (*New Jersey FIT: Route 29 Waterfront Boulevard Study*)

“SR 3 will be a safe, efficient, multimodal transportation system that, through the use of innovative design solutions, balances local and regional needs while retaining scenic qualities.” (*WA SR 3 Route Development Plan- SR 305 to SR 104*)

“SR 161, the backbone of a safe, efficient and pleasant transportation system, promotes a diverse system of mobility, preserves the integrity of rural landscape, and serves the needs of our community and visitors.” (*WA SR 161 - SR 7 to Graham – Route Development Plan*)

“The preferred vision resulting from this project should be long-term, ambitious, and rooted in reality, providing clear direction for the future of the Bel-Red area.” (*Bel-Red Corridor Project, City of Bellevue, WA*)

From SR 7 Route Development Plan

Goals:

- Improve safety on the route
- Provide excellent service to all traffic
- Protect wildlife (all species, including fish)
- Address local community needs
- Preserve scenic quality

Objectives:

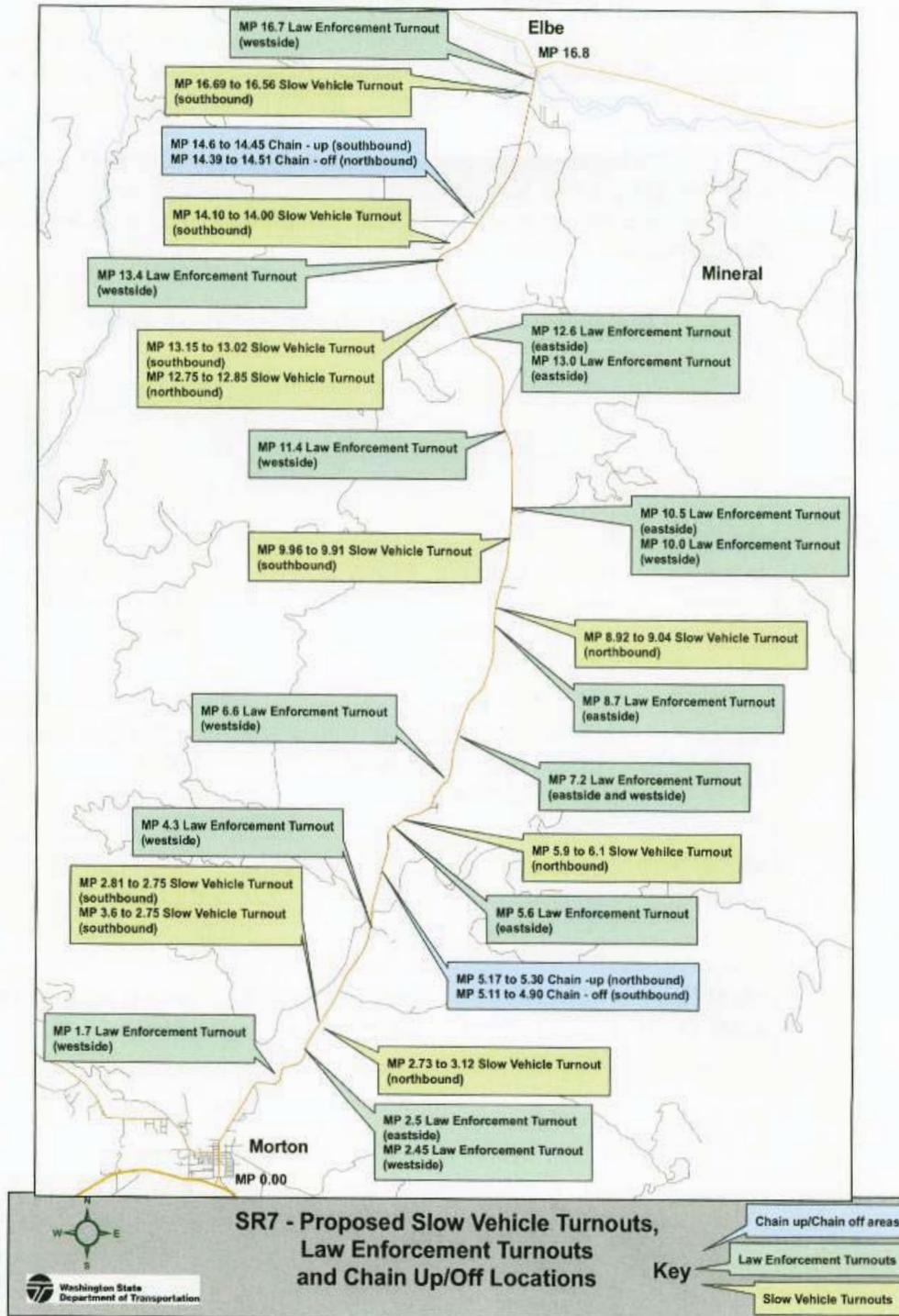
- Improve sight distance at critical locations
- Provide turn lanes where warranted
- Widen shoulders to full standards
- Improve hazard signing



Principles of the Bel-Red Corridor Project, City of Bellevue, WA

1. **Long-Term Vision:** The preferred vision should be long-term, ambitious, and rooted in reality, providing clear direction for the future of the Bel-Red area.
2. **Economic Vitality:** This project should establish a solid and dynamic economic future for Bel-Red, enhancing the area's existing strengths and its future potential.
3. **Differentiated Economic Niche:** Bel-Red should provide for future growth of jobs and firms that have significant potential for expansion, and which are not well accommodated in other parts of the city.
4. **Building from Existing Assets:** This project should build on existing assets of the corridor, including the large number of viable, successful businesses in the area.
5. **High Capacity Transit as an Opportunity:** This project should approach High Capacity Transit as a significant opportunity to both enhance mobility and affect desired land use change.
6. **Land Use/Transportation Integration:** Given the importance of maintaining a well balanced transportation system, and the inter-dependence between transportation and land use, this project should closely integrate land use and transportation planning.
7. **Community Amenities and Quality of Life:** The Bel-Red plan should protect existing natural resources and community amenities, and identify an extensive package of new amenities for the area.
8. **Neighborhood Protection, Enhancement, and Creation:** This project must identify strategies to identify and mitigate potential neighborhood impacts related to future Bel-Red development.
9. **Sustainability:** The vision for Bel-Red should identify opportunities to manage the area's natural resources in a sustainable manner.
10. **Coordination:** This planning effort requires solid coordination with other affected jurisdictions.

Figure 4-5 Potential Slow Vehicle and Law Enforcement Turnouts and Chain up/Chain off Locations



WHAT IS THE STORY OF THE CORRIDOR'S FUTURE?

DRAFTING THE CORRIDOR PLAN

Refer to Appendix A for further information on data collection and analysis. The following examples highlight the basics to consider when conducting a study:

- What other modes use the state highway?
- What modes are in close proximity to the state highway?
- How does the state highway interact with the local road network?
- Does the mainline serve as a “Main Street” for communities?
- If the route is designated as a scenic byway, what does the corridor management plan recommend?
- What are the demographics of the communities in the area?
- What are the physiographic characteristics of the corridor?
- What are the unique environmental issues present along the corridor?
- What land uses are adjacent to the corridor and what land uses are served by the corridor?
- What is the regional and local economy?

Considerations for Corridor Characteristics

For corridors predominately located in urban areas, the corridor plan should include information focusing to a great extent on mobility issues with an urban approach to modeling. The increase in numbers of municipalities and the differing governance issues will expand the complexity of the outreach effort needed for stakeholders and the public. For these types of plans include a section in the table of contents describing these circumstances.

Corridors located in a rural area warrant a greater focus on economic development and agricultural, seasonal, preservation, and environmental issues.

If the corridor is a scenic byway, there are opportunities to combine an update to the corridor management plan while conducting a corridor planning study. Include a summary of the key goals and recommendations from the byway plan in the initial data collection process for your corridor planning study. In addition, rely upon the existing network of local grassroots connections to reach your stakeholders.



For corridors located in areas with a mixed urban and rural character, or that are considered to be in transition from one to the other, special considerations are warranted. Consider doing additional land use analysis, and modeling, and review local comprehensive and regional plans extensively.

Sample Table of Contents for a Transportation Corridor Planning Study

Executive Summary

1. Primary function of the corridor.
2. The 20-year vision for the corridor.
3. The goals for the corridor.
4. The study process and public involvement.
5. Prioritized recommendations.
6. Summary of the Next Steps

1. Introduction

- Purpose of study.
- Study area or corridor, including function, classification, and distinguishing characteristics.
- History of the corridor.
- Corridor location, including base map of the corridor.
- Stakeholders.
- The 20-year vision for the corridor.
- Plan contents.
- Goals of the study.

2. Basic Information—Existing Conditions

- Current issues present in the corridor.
- Preservation
- Safety
- Mobility
- Environment
- Stewardship

3. Data Analysis for the 20-year Planning Horizon

- How will the Existing Conditions Change?
- Modeling
- Forecasting

4. Fiscal Constraints—List of Financial Assumptions

5. Recommendations

- Preliminary recommendations based on goals
- Screening criteria
- The Action Plan—Implementation Action Matrix
- Next Steps for Monitoring Implementation

WHAT ARE SCREENING CRITERIA?

EVALUATING THE IDEAS, OPTIONS, AND PROPOSED RECOMMENDATIONS

Region Planning Office Staff Work

As you lead the study team, stakeholder group, and the public through the planning process, many ideas for solutions, options, and recommendations will be discussed. Each Region planning office and each study team will determine how these creative data elements are sorted, ranked, and utilized in the final plan. From the beginning of the process, it is important to balance creativity with the sometimes harsh reality of keeping the facts straight and remembering the financial constraints. Not everyone wants to hear the facts and that their creative idea costs more than the benefits it will bring.

Early on in your process, identify how you will share WSDOT ideas and how you will blend them with external ideas. Your process must allow the external input to shape and improve the WSDOT staff solutions. The collaborative nature of this part of the planning process is very difficult to outline or prescribe; therefore, we only offer suggestions for your consideration. However, each Corridor Plan must utilize some process for seeking input from stakeholders and the public. We require that you use the statewide policies to frame how you develop your screening criteria, and lastly that you share your methodologies with WSDOT periodically as your planning process is underway.

The best approach to good planning is to borrow successful tools and techniques from others. At the conclusion of each planning study, provide feedback to the Headquarters Planning Office so that this document and the annual Transportation Planning Symposium can be even more meaningful for planning in the future.

Refer to examples in Part II Chapter 6 of how to develop and apply screening criteria.

HOW WILL THE CORRIDOR PLAN BE IMPLEMENTED?

DEVELOPING THE IMPLEMENTATION ACTION MATRIX

Region Planning Office Staff Work

Consider refining the cost estimates and detailing the scope for each of the priority recommendations after they are screened. For example, widening the shoulder for five miles along the south side of the corridor in a specific location could be a high priority. Perhaps at your initial level of screening you did not define the actual width to widen the shoulder or make note of roadside functions, clear zone issues, or the view shed. Providing this level of detail is important for two reasons:

- A good understanding of the recommendations will foster stakeholder endorsement of the plan.
- Specific details about the proposed scope of the recommendations will yield better cost estimates.

The costs of recommendations are often used as a criteria in the screening process. Examine the estimates very closely as the draft plan is being produced. Once the priorities are identified, it may be worthwhile to go back and scrutinize them a little closer. Articulating the list of specific recommendations will increase the likelihood of plan implementation over time.

For the example above, as you do this reevaluation ask the following questions:

- Do I need to use only the south side of the corridor to increase the shoulder width, or would the geometrics of that segment allow for a slight shift of the mainline to the north without causing increased environmental challenges?
- What design and environmental challenges may be present if the new width is three feet, four feet, or eight feet?
- What benefits will be gained by these increases in shoulder widths?
- How does the cost of the recommendation change?

- What changes occur in the clear zone as a result of the different widths?

Stakeholder Participation

This may resemble the traditional scoping process, but as new planning studies are completed this level of analysis is expected. While eight-foot shoulders may be what the local communities are hoping for, they will include a price tag much higher than four-foot shoulders that will also improve the safety of that corridor segment next to the state park, and include rumble strips and ample room for bicyclists competing in an annual bicycle race.

Some stakeholders may feel eight-foot shoulders are the only option. The study team needs to guide the stakeholder group through tough conversations about tradeoffs. Do the locals want to recommend eight-foot shoulders and wait twenty years or more for the funding, or would they be willing to support four-foot shoulders with guard rail and rumble strips for a much lower cost and a greater chance of project funding in the next ten years if new revenue becomes available?

Review and Decision Process

It is important that you anticipate these types of conversations with the stakeholder group and the public. Each Region needs to decide how to deal with the level of analysis prior to, during, and after the screening process takes place.

Itemize the recommendations in the Implementation Action Matrix. This table can be formatted as needed by the study team. It should, however, contain a sufficient amount of information to adequately inform the scoping process. Consider preparing a summary for each recommendation that describes the assumptions that went into defining the elements of the recommendation. The summary sheet should also include the expected benefits to be achieved from the investment and the

planning-level cost estimate for both the planning year and the anticipated year of expenditure.

The Draft Implementation Action Matrix should be shared with the Headquarters Strategic Planning and Programming Division's Planning Office and Systems Analysis Office for review regarding the level of detail provided for each recommendation and to confirm that they support the statewide policies. Coordination with Headquarters on the Draft Implementation Action Matrix should occur prior to the stakeholder meeting where the stakeholders will review it for the first time. This will ensure that perceived commitments by the Region or the Urban Planning Office are not modified by Headquarters. This will help maintain "One-DOT" messaging with our partners and the public.

HOW AND WHEN IS THE CORRIDOR PLAN APPROVED?

EVALUATING THE IDEAS, OPTIONS, AND PROPOSED RECOMMENDATIONS

Achieving Support and Endorsement

Review and Decision Process

Gathering support internally and externally is an ongoing process. There are several support and approval steps to take for each planning study. To ensure a “no-surprises” finish to the planning process, build periodic check-in and review opportunities into the budget, time line, and the decision-making process. The two most critical review and approval points in the process are:

- Prior to the draft plan going out for public comment
- Prior to adoption of the Final Plan by WSDOT

These two levels of approval are very parallel to the process for the statewide prioritization of corridors to study. The same representatives play a role in strengthening the plan and increasing its potential for implementation. Refer to Part I for this list of internal resources.

Gathering letters of support or endorsement from stakeholders is very worthwhile and they should be included in the published final plan, both in hard copy and on the web. When recommendations from the plan are submitted for federal funding or to a grant program, it is useful to have a documented history of partnership and support.

WHY IS IT IMPORTANT TO MONITOR THE IMPLEMENTATION OF THE PLAN?

CONTRIBUTING TO THE SCOPING AND PROJECT DEVELOPMENT PROCESS

Part II covered the importance of recommendations and the connections to the project delivery process. The value of a planning study is increased if the Region or Urban Planning Office monitors the successful implementation of the recommendations.

It is recommended that periodically the Planning Offices should review their respective plans:

- Within the Region to discuss the upcoming budget development process
- Externally with the Regional Transportation Planning Organizations
- Externally with stakeholders to determine how their plans are changing

After a period of two to three years with no activity, it may be appropriate to consider reassessing the recommendations to see if they are addressing the most urgent statewide needs.

WHAT MAPS ARE NECESSARY FOR A TYPICAL STUDY?

WHAT EACH PLANNING STUDY NEEDS

GENERAL MAPPING PARAMETERS

This section of the Guidelines provides examples of a variety of maps that can and should be used in a planning study. At a minimum, each planning study should have the following maps to orient the reader to the study boundaries:

- State Reference or Vicinity Map
- Regional Reference Map
- Base Map

These reference maps illustrate general information about the study area. Some maps, when combined with aerial photography, provide a great deal of information about the region, the terrain, and the land use.

In addition to these three basic maps, consider how all of the data you have collected and analyzed should be shared using a map. Getting to know the WSDOT Geographic Information Systems (GIS) Workbench is the first step. Additional information about the uses of GIS-generated maps and data analysis are contained in Appendix B.

Maps that display data are referred to as thematic maps. It is important not to put too much information on one map. They are great to show specific data, but be careful to think through these questions:

- Is a map the best media format for the data I need to share? Not all data is best displayed on a map. Some data is better suited for tables, charts, or graphs.
- Who is the audience for each map? Since these maps are viewed by many different audiences (WSDOT staff, local governments, other agencies, the general public, the state legislature, etc.) each map needs the same basic information. In addition, for individuals who are visually impaired, consider font size and the use of color carefully.

- How will you visually display the information to support the recommendations or the areas where specific issues exist along the corridor?

GUIDELINES FOR DISPLAYING DATA

Not all data can be shown on our maps. Some data is sensitive and exempt from public disclosure. For example, sensitive data includes nest sites of threatened and endangered species and specific locations of archeological sites and resources. Some data is copyrighted and cannot be copied without permission. If you have permission to use data from another source, you need to cite this source on the map. See the [GIS Workbench](#) for more information.

MINIMUM MAP ATTRIBUTES

All maps must have the following:

- Title
- Date
- Legend
- North Arrow, WSDOT Logo, color, font, and route symbols as described in the WSDOT Communications Manual
- Margin: ½-inch margin on all sides
- Size: This is very specific to the data you are showing on your corridor. The map needs to be large enough to be legible, but no larger than 11" x 17" if it will be printed in the planning study.
- Colors and shading that can be distinguished in black and white

NOTE: If you use the "create a map" feature on the GIS Workbench, your map will automatically meet these standards.

REQUIRED MAPS

STATE REFERENCE OR VICINITY MAP

A State Reference or Vicinity Map is a thumbnail outline of the state showing the study area's general location. Use this map to show which part of the highway system is involved and as a reference for those unfamiliar with the adjacent cities and towns. This map is known as the vicinity map on the GIS Workbench.

This map is useful when the plan is presented to the public as displays, handouts, and on web sites. It must be included in the planning study document.

REGIONAL REFERENCE MAP

A Regional Reference Map shows the corridor and enough surrounding area to depict the corridor location in relation to a geographic region. Use this map to show a regional perspective of the corridor.

This map is useful when the plan is presented to the public as displays, handouts, and on web sites. It must be included in the planning study document.

An example of a State and Regional Reference Map is shown on the following page.

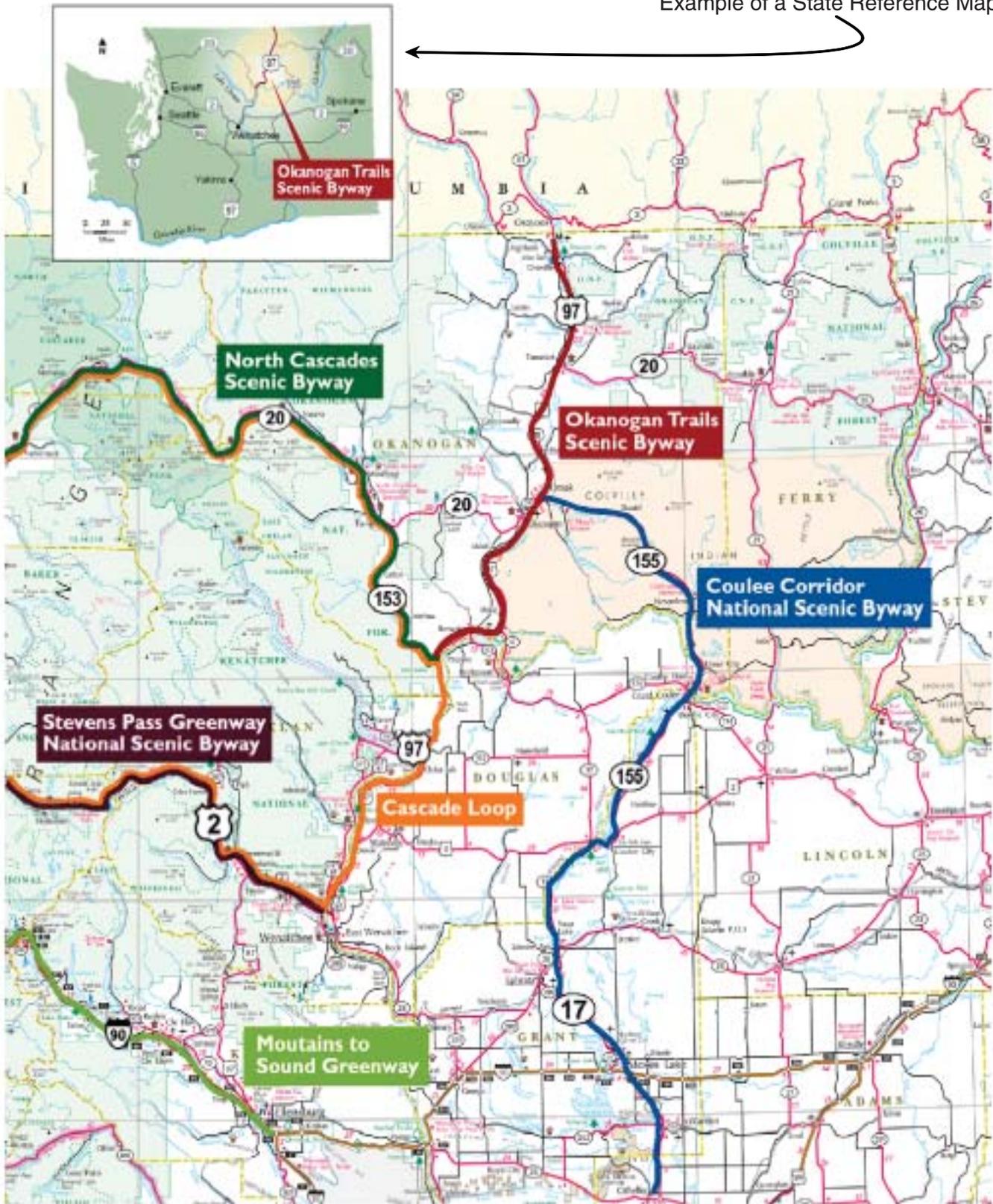
BASE MAP

A Base Map shows the entire corridor and the adjacent land and is used for illustrative purposes. Every planning study needs a base map to show what portions of the highway are being analyzed. This map delineates the beginning and ending points of the corridor as well as the study area adjacent to the state highway. It should also include any local networks that contribute to the function and performance of the route. It is also a reference for those unfamiliar with the adjacent cities and towns.

A Base Map shows certain fundamental information and includes additional data of specialized nature. It is also a map to which all other maps and GIS map layers are registered and rescaled.

B1. Example of a State Reference Map and
C1. Regional Reference Map

Example of a State Reference Map



What Required Attributes does this State and Regional Reference Map Have?

- Shading and colors on the State Reference Map are distinguishable in black and white.
- It contains an appropriate level of detail for the size.
- It has a scale, north arrow, and route numbers.
- The corridor is highlighted on the State Reference Map.
- The State Reference Map is incorporated into the Regional Reference Map.

What Could Be Improved?

- Clarity. This map was produced in color and lost clarity when printed in black and white.
- It needs a date, a WSDOT logo, a legend, and a ½" margin on all sides.
- The corridor is not distinguishable in black and white on the Regional Reference Map.

BASE MAP

An example of a Base Map is shown on the following page.

A Base Map is the first map you prepare for your study area or corridor. Before you can create other corridor maps, you need some type of map to use as a foundation or pattern. Your base map should be accurate enough to provide exact locations of large point features, such as roads, rivers, lakes, and major terrain features, so you can accurately place the details you collect during the field checking process.

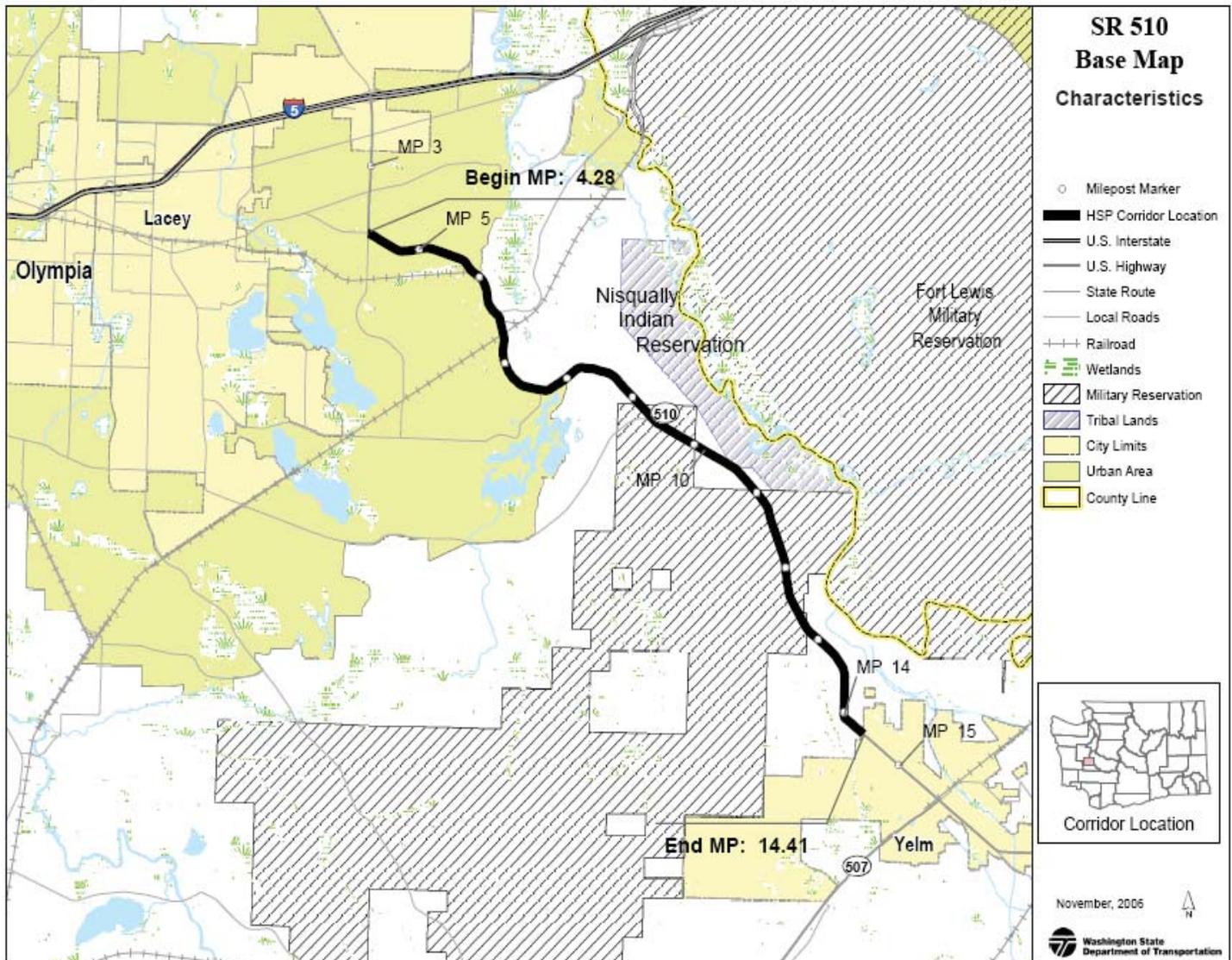
A base map plotted at a wall size is useful during the plan development process for sharing with the public and stakeholders. It can also be incorporated into displays, handouts, and web sites. It is vital to reference the location of recommendations for corridor improvements. A final base map must be included in the planning study document.

The following additional attributes must be shown on a base map:

- Scale or mile markers
- Railroads
- Airports
- Wetlands
- Military reservations
- Tribal lands
- City limits
- Urban areas
- County lines
- Cities and towns
- Office, file location, and author
- Map status (final, draft, etc.)

NOTE: These are all on the “Create a Map” feature of the GIS Workbench.

D1. Example of a Base Map (Generated from the GIS Workbench)



Created by WSDOT System Analysis

G:\Transportation Planning\Planning Studies Guidelines & Criteria\GIS and Maps\Maps\HSP\Maps_use\hose

What Required Attributes Does This Map Have?

- It has all the required attributes.
- The corridor is highlighted.
- It has the appropriate level of detail for the size of the map.
- The State Reference Map is automatically shown (in the GIS Workbench).

What Could Be Improved?

- Clarity. This map was produced in color and lost clarity when printed in black and white.
- The water, state routes, and local roads are not distinguishable.

RECOMMENDED MAPS

THEMATIC MAPS

Thematic Maps and Photos are useful to display specific data about the corridor and the adjacent land. These are optional since some data is best shown on a map or photo and some is best shown on charts, tables, or graphs.

This map is useful when the plan is presented to the public as displays, handouts, and on web sites. If these maps are the only source of information displaying data used in the study, the final copies of these maps and photos must be included in the planning document.

The following additional attributes must be shown on a Thematic Map:

- Scale or mile markers
- Office, file location, and author
- Map status (final, draft, etc.)
- Disclaimer when showing safety HAC and HAL statistics

The following data may be shown on a(n) Thematic Map: Alternate routes, existing and proposed intersections, existing and proposed improvements, critical areas, land use, collision data, wetlands, parks, interchanges, and roundabouts, etc.

Examples of thematic maps are shown on the following pages. These examples are intended to help you build effective maps, and to direct the design and approval of maps produced by consultants.

E1. Example of a Thematic Map -- Recommendations

PHASES 7 & 8: Wallula to Walla Walla Corridor Study
Four-laning US Highway 12



IT'S YOUR NICKEL. WATCH IT WORK.

This project is funded in part by the 2003 Legislative Transportation Funding Package. The project is eligible for a 0.5 percent increase in the local sales tax. The project will include an increase in the local gross weight fee and a 0.5 percent vehicle sales tax.

Currently Identified Areas of Concern

- Areas That Should Be Avoided:** These include the Mollay Wildlife Refuge, which has historic, cultural, and scientific values. Environmental regulations and economic considerations require that these areas be avoided unless a more reasonable alternative exists.
- Areas That Should Be Avoided:** These areas are wetlands, floodplains, and significant habitat. Going through these areas would require actions to reduce or eliminate negative impacts, resulting in significantly increased project costs.
- Evaluation Areas:** These areas are being evaluated in-depth. Based on current information, the new highway will likely be located somewhere within these areas unless something else is discovered.
- Evaluation Areas:** These areas have been evaluated in-depth. Based on current information, the new highway will not be located anywhere within these areas.

What is the purpose of this study?

The Wallula to Walla Walla Corridor Study will develop recommendations for the location of an improved four-lane divided highway. Simply widening US 12 in its current location could negatively impact existing businesses, farms, communities, historical sites, and wildlife habitat.

What will the study accomplish?

Identify social, economic, environmental, engineering, and financial constraints. Determine acceptable locations and preferred route alternatives. Develop preliminary project schedules and cost estimates for phases 5, 6, 7, and 8.

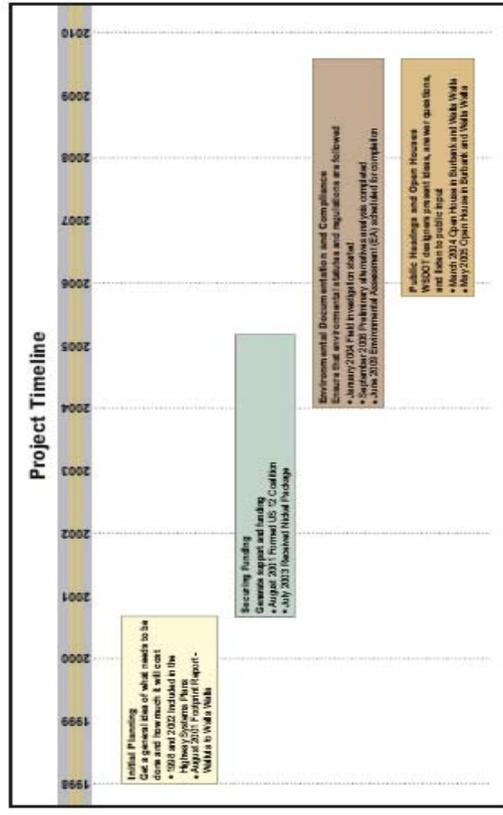
What section will be constructed first?

The corridor study first focused on the area from McDonald Road to Walla Walla (Phase 6) because it is the most congested section. Due to urban growth, impacts to developed property would increase if highway construction was delayed.

What has been done so far?

A footprint study was completed for the section of US 12 between the US 12/SR 730 intersection and Walla Walla. The study recommended a new highway be constructed north of existing US 12 highway based on the following criteria:

- Environmental impacts
- Right of way and access changes
- Accident history and traffic analysis
- Engineering feasibility



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WSDOT, South Central Region (8/09) 87-1639

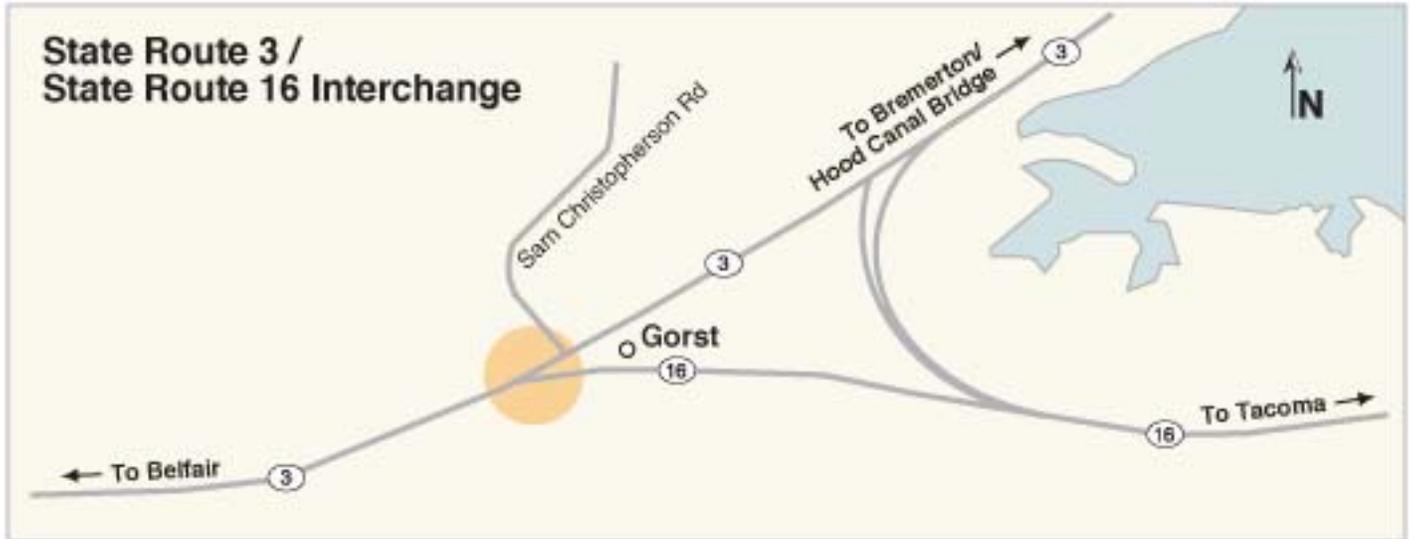
What Required Attributes Does This Map Have?

- This map was posted on the web site and conveys a lot of information on one page.
- It has all the required attributes.
- It works for the purpose – a web site that shows why the preferred corridor was chosen.

What Could Be Improved?

- Clarity. This map was produced in color and lost clarity when printed in black and white
- If this was for the study, it would be best printed on 11" x 17" paper with edits to the shading so it would be legible in black and white

E2. Example of a Thematic Map -- Showing an Alternate Route



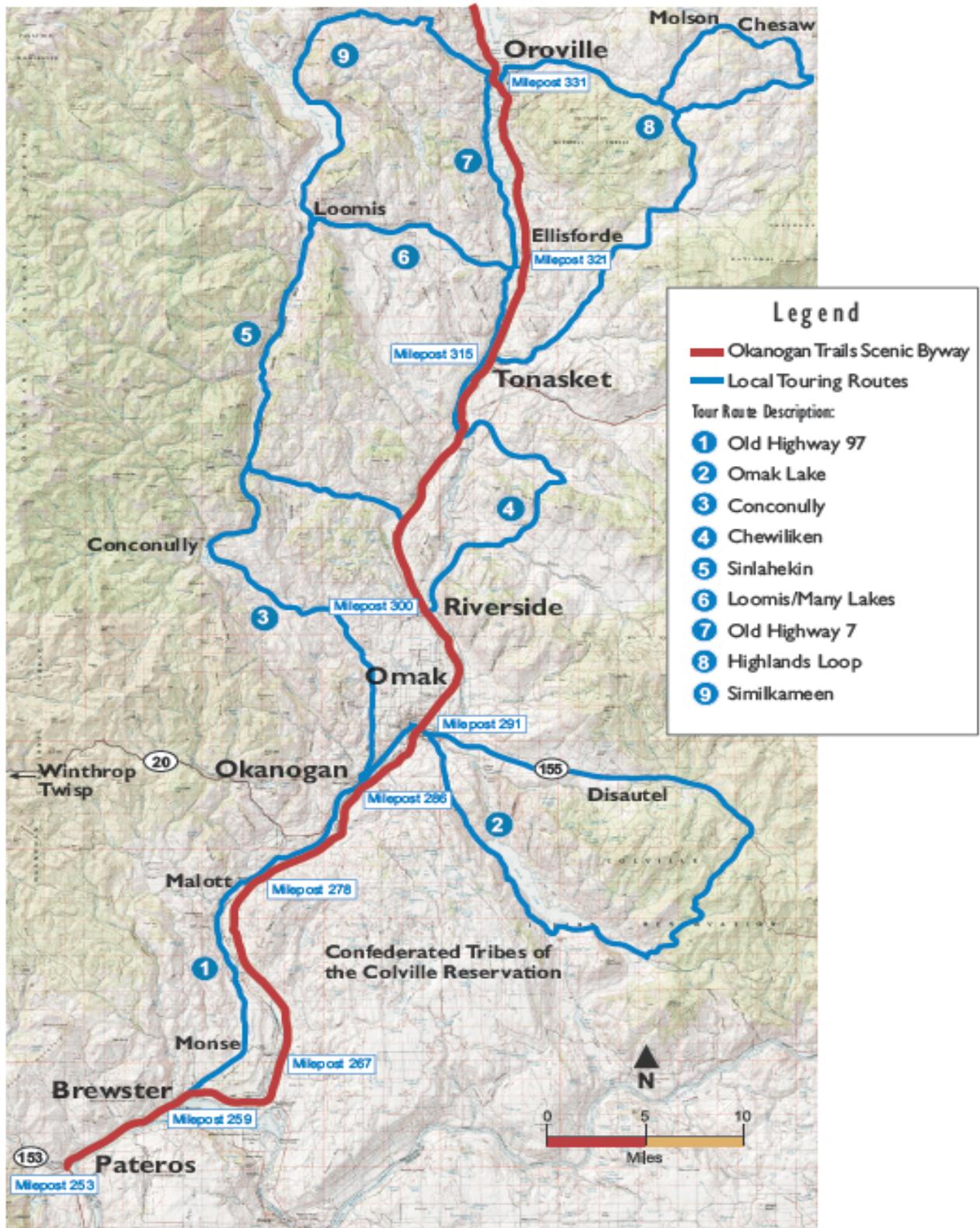
What Required Attributes Does This Map Have?

- It is legible in color and black and white.
- It works for its purpose – display on a web site.

What Could Be Improved?

- If this map was used in a study, it would need a date, author, WSDOT logo, and title.

Figure 5.1 Local Touring Routes



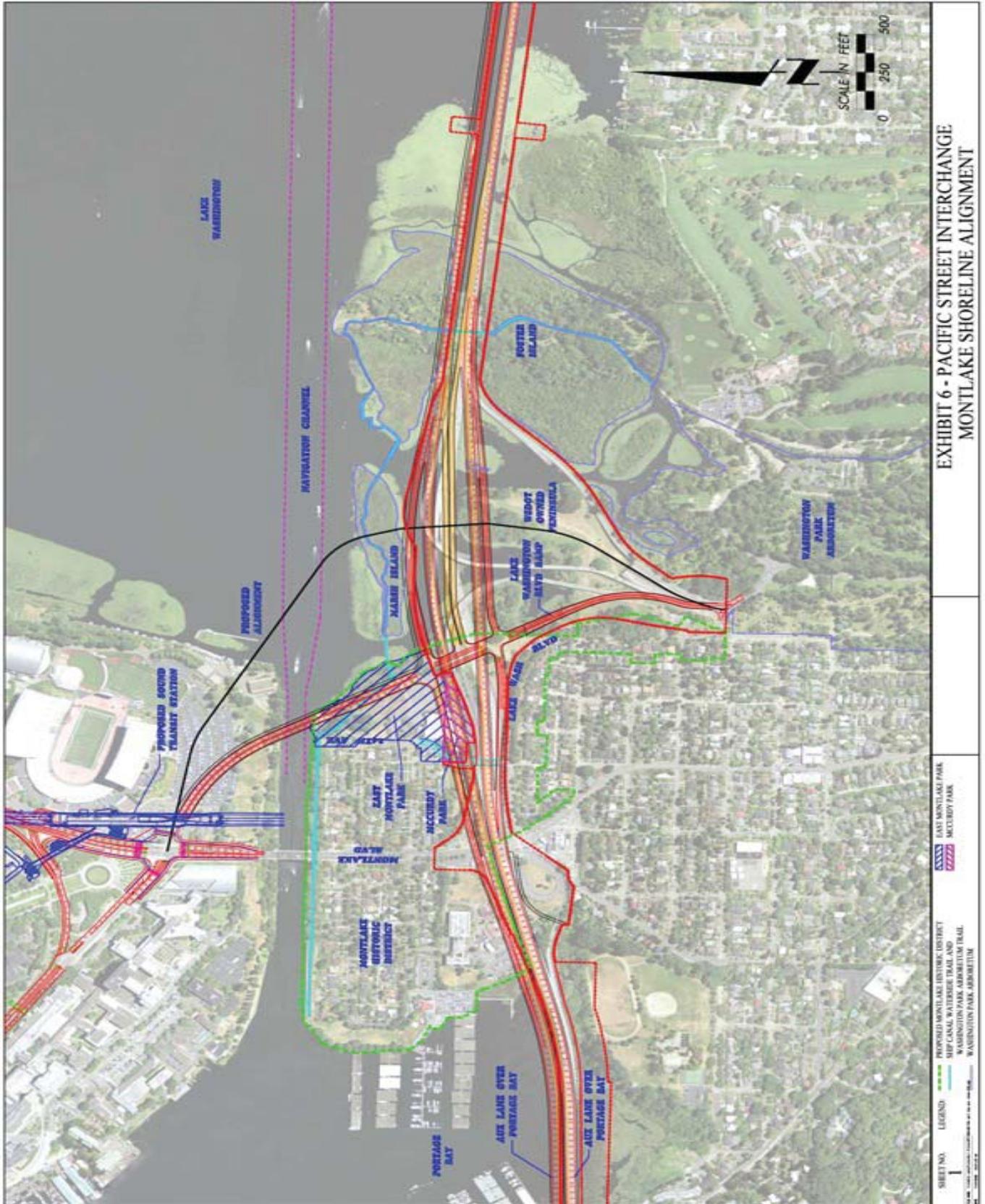
Okanogan Trails Scenic Byway Corridor Management Plan

What Required Attributes Does This Map Have?

- It works for its original purpose – a color map in a planning study.
- It is a good template for other thematic maps.

What Could Be Improved?

- It needs a date, author, and WSDOT logo.
- It has too much detail (contours, township lines, stream layers) for a map at this scale.
- The lettering on all the geographic features is too small to read.



What Required Attributes Does This Map Have?

- It works for its original purpose.
- It is a good template for other thematic maps.
- It is distinguishable in black and white.
- It uses an appropriate scale and level of detail for its size (11" x 17").
- It has all the required attributes.

What Could Be Improved?

- It needs a WSDOT logo and study name.

CHAPTER 2



Chapter 2

The Transportation Planning Study

WHY IS THE PLANNING STUDY BEING CONDUCTED?

The purpose of conducting a planning study is to develop a long-range vision for the function and operational performance of the transportation corridor or area being examined.

A planning study is initiated because of issues within a corridor requiring immediate evaluation. The issues raised could be the result of local residents gaining legislative endorsement to study a mobility or safety issue. Changes in existing, or projected land uses patterns and the types of development underway to support business or residential growth could have significant impacts on the performance of the roadway.

In 2007, the legislature enacted RCW 47.04.280. This legislation provides the direction for WSDOT statewide transportation investment guidelines. This guidance prioritizes where WSDOT should direct activities regarding corridors to study.

The investment guidelines priority provided in RCW 47.04.280 is as follows:

- Preservation
- Safety
- Mobility
- Environment
- Stewardship

These prioritized investment guidelines are also supported within the 2007-2026 Washington Transportation Plan and the draft Highway System Plan. These policies also provide the framework for planning studies and the framework for developing a study's work plan. An iterative relationship exists between the policies set forth in these statewide

plans, executive orders, and each planning study. They define how the system should fit together and meet statewide performance expectations.

Each planning study will vary as to the appropriate degree of detail for each issue area. However, each study should examine how the goals and objectives for the corridor vision and the final implementation of recommendations will be consistent with the intent of Washington's statewide transportation policies.

DEFINING THE STUDY AREA

In defining a study area, a planner should ask several questions:

- What are the logical boundaries for which the study is being conducted?
- What issues are dominant in the area?
- Why is there a concern about the efficiency or performance of the corridor?
- Is there a perception that the issues are greater than current data suggests?
- Are there junctions with major routes and local roads, or connections to other modes?
- How do jurisdictional boundaries, neighborhoods, environmental features, and route functions relate to each other?

A planning study area needs to have a physical start and an end point, as well as a logical definition of the width of the study area. Choosing logical boundaries allows greater ease in data collection and analysis and continuity with implementation of recommendations from previous studies.

The study area should allow for consideration of how the corridor functions, as well as how it

is impacted by the local network. Understanding the area and the different characteristics along it helps to determine the logical boundaries of your planning study.

THE WORK PLAN FOR THE PLANNING STUDY

Staff availability and financial resources for conducting the study are major elements in dictating the approach to the work plan for the study. The Region planning manager is aware of what the challenges are, and will determine the time that can be dedicated to the study by existing WSDOT staff, as well as determining what additional outside resources will be required.

Understanding what financial resources are available shapes the fiscal reality of what can be studied, as well as what the workforce can accomplish. Regardless of the decision to use consultant services or internal WSDOT staff, the Region Planning Office develops the work plan. This will also ensure management of consultant services, if utilized, meets agency standards.

Exhibit 4: Study Area Boundaries

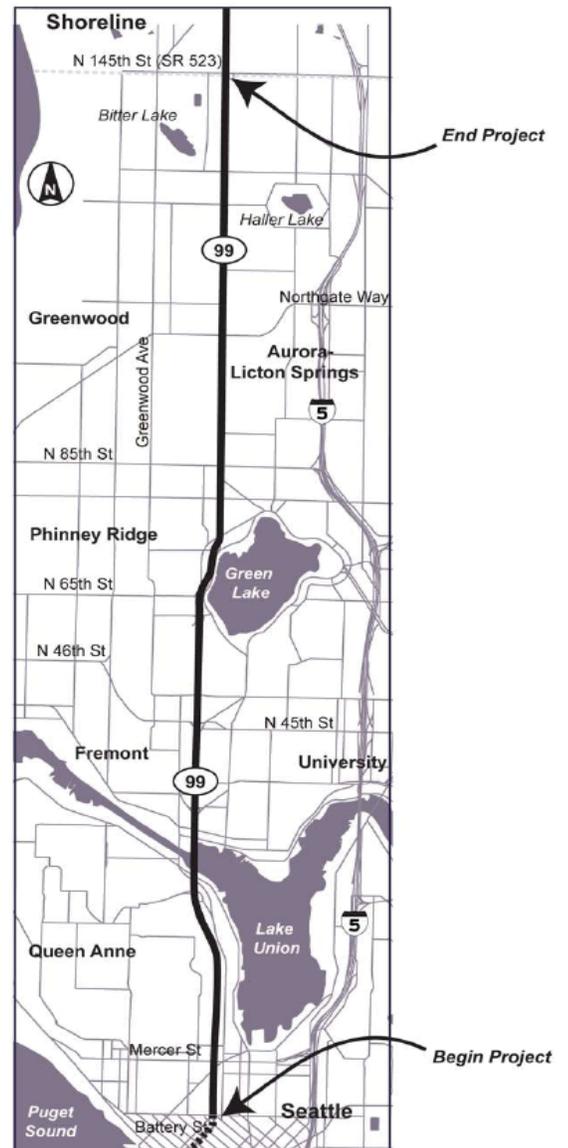


Figure I-1
SR 99 North Corridor Study Project Area

Issue Identification: *This provides the focus of the planning study effort, and produces a list of important issues. Conducted early in the planning process, identified issues are then validated through the data collection phase of a planning study.*

EXAMINE CONTRIBUTING FACTORS

The reason a study is conducted is because of an issue affecting the function of a corridor. The planner needs to ask:

- What do we know about this corridor; such as current or planned land use and development?
- What purposes does this corridor serve?
- What are the problems or challenges that exist currently, such as access or safety issues?
- What challenges or problems may exist in the near-, mid- or long- term, such as what do local comprehensive plans recommend?

REVIEW OF PREVIOUS PLANNING STUDIES

The first step in preliminary background data is to review any previous planning studies that have been conducted within the study area. This can dramatically reduce any redundant measures and save resources. This step can also provide an understanding of what challenges and conditions exist within the study area. A planner should first:

1. Collect and review previous study data and determine if findings are still relevant.
2. Identify past recommendations. This could provide assistance in defining objectives and goals so that there is consistency or validity from previous studies.
3. Provide insight into whether previous challenges have been addressed.
4. Identify previous stakeholders.

5. Identify gaps in data. In addition to plans done previously on the same corridor, the following plans should be reviewed:

- Local Comprehensive Plans
- Regional Transportation Plans
- Metropolitan Transportation Plans
- County Growth Management Plans and critical area elements
- Regional Transportation SubArea Plans or studies
- Scenic Byway Corridor Management Plans

These plans contain data relating to the study area as previously mentioned. Previous studies should be summarized and shared with the Study Team to determine if the data and recommendations are still valid. This provides a connection to previous work, and can provide you with valuable background information on a study area.

ELEMENTS OF THE STUDY

Every planning study will be different. Regardless, each study still requires standard elements. These standard elements in varying degrees should always be included in a planning study.

PRESERVATION

Preservation refers to maintaining, preserving, and extending the utility of the existing transportation system. Each planning study needs to address preservation of the transportation system in the study area. This would include applicable information on the corridor assets, such as but not limited to:

- Pavement or roadway surface.
- Bridges: identify seismic retrofits, deck or structural issues.
- Capital Facilities: safety rest areas, water systems, drainage and electrical systems.

- Public Transportation: preserve capital and system operations.
- Local Roadway: city and county roads and bridges (where appropriate).
- Ferry: preserve facilities and access to the system.
- Aviation: maintain public-use general aviation (runways, taxi-ways, aprons), access and minimize encroachment.

Preservation can also include historic or recreational resources on or adjacent to the corridor. A study may identify a bridge or structure of historical significance. A recreational trail may be within the study area and connect to the roadway. These should be considered when developing a study's recommendations.

SAFETY

The Governor and legislature have made safety one of the top transportation investment priorities statewide. These safety priorities are identified in the Strategic Highway Safety Plan. Elements from this category would include where applicable:

- Highways: improve safety at locations identified by collision history, and risk factors, and at targeted locations, to federal standards.
- Pedestrians and Bicycles: improve access and mobility for highway connections to local transportation network access to other modes, such as transit and ferries.
- Rural State Highways: make improvements at collision locations on rural two-lane state routes in counties.
- State Routes and Local Roads: make improvements at collision locations on state routes in cities.
- General Aviation: identify air space and runway approach obstructions.
- Ferry System: environmental protection, security, infrastructure, and waste disposal.

Existing policies emphasize improving safety through the continuous reduction in the societal

costs of collisions. Additionally, the policies support comprehensive transportation safety programs that target improving driver behavior. These policies need to be addressed with a review of the safety data and should be factored into the recommendations in a planning study.

MOBILITY

The movement of goods and people throughout the state is the WSDOT mission. Study recommendations need to provide multiple mode choices for mobility, which include public transportation, rail, aviation, ferries, bicycles, and walking. Existing policy provides guidance with this element when formulating planning study recommendations. The guidance includes:

- Implement operational changes that improve efficiency prior to expanding the existing system, where appropriate.
- Incorporate long-term operations needs in capital investment decisions.
- Promote advanced technologies to improve efficiency and service.
- Consider system operations a separate budget category with high priority for funding.
- Strongly pursue access management.
- Identify and preserve vital corridors and sites for future use.
- Locate and address freight movement constraints including chokepoints and bottlenecks.
- Promote improvements to Farm to Market roadways.
- Address mobility constraints to improve inter-modal freight movement from farm to intermodal freight rail facilities or ports.
- Support regions in adopting different and regionally-appropriate mobility strategies.
- Promote modal connections for seamless travel.
- Provide mobility for people with special needs.
- Implement cost-benefit methods as key determinants in selecting recommendations.

Planners should recognize congestion will be on the transportation system, and the ability to alleviate this through expansion of the system is very limited by funding constraints. Mobility recommendations should promote land use management and innovative operational technologies and telecommunications as viable options to reduce congestion. When system expansion seems to be a possibility, it should be done on a limited basis strategically to accommodate growth and reduce congestion. When considering lane and shoulder width, consider incremental expansion verses a full build out to maximum widths. Depending upon the traffic analysis, eleven-foot lanes and four-foot shoulders may work well in rural areas, and have a much lower price tag than twelve-foot lanes with eight-foot shoulders.

Intelligent Transportation Systems: *Known as ITS, this technology includes, but is not limited to, signal coordination and optimization, variable message signs, and interactive web communications. Employing this technology can improve throughput in a corridor at a relatively lower cost when compared to adding lanes.*

Modes play an important role in corridor mobility, and should be considered in every planning study. These include:

- **Aviation:** Gaps and deficiencies within the air transportation system need to be addressed. Recommendations could include how to improve the future long-term passenger, air cargo, and facility needs if an airport is located within the planning study area.
- **Rail:** Freight and passenger rail and connectivity to the roadway system need to be addressed as a means to improve mobility if rail infrastructure is located within the planning study area.
- **Corridor Efficiency:** Public transportation can provide mobility options when system expansion is not possible beyond the single occupancy vehicle. Public transportation improves the efficiency of the system by moving more people with fewer vehicles on congested corridors. Park and ride lots strategically located on

key corridors are important to improving the efficiency of the system. These facilities work in conjunction with other capital investments including High Occupancy Lanes and direct access ramps where applicable. In other areas, it may be desirable by the community to establish a Public Transportation Benefit Authority.

- **Intercity Transportation and Access:** Improving connections between rural and urban centers provides a vital link between these communities, and reduces rural isolation. The state's interest in intercity transportation can provide these communities potential funding opportunities to meet their needs.

ENVIRONMENT

A planning study should include recommendations that enhance the quality of life through investments that promote energy conservation and enhance healthy communities. Identifying, minimizing, and avoiding, air, stormwater, and noise pollution when practical are important. This includes minimizing the uses of hazardous materials, and minimizing impacts on wetlands, flood plains and heritage resources in the study's recommendations. A study's recommendations should be practical and consistent with other priorities, and protect, restore, and enhance fish and wildlife habitats and wetlands affected by transportation facilities. A planning study should also:

- Coordinate support and lead in partnering with other agencies and communities on environmental issues affecting transportation to achieve mutual interests in promoting healthy livable communities.
- Improve safety and mobility for pedestrians and bicyclists. These facilities should provide a network constructed to provide options for walking and biking.
- Identify recommendations that promote energy conservation and enhance healthy communities. These should identify and prioritize strategies and technologies that may help reduce emissions.
- Identify methods to strengthen regional economies, such as through the Scenic Byway Program.

- Identify and address business access issues.

STEWARDSHIP

The primary mode of travel for Washington State citizens is the private automobile. However, study recommendations need to provide multiple mode choices for mobility, which includes public transportation, rail, aviation, ferries, bicycles and walking. Existing policy provides guidance with this element when formulating planning study recommendations. The guidance includes:

- Implement operational changes that improve efficiency prior to expanding the existing system where appropriate.
- Incorporate long-term operations needs in capital investment decisions.
- Promote advanced technologies to improve efficiency and service.
- Consider system operations a separate budget category with high priority for funding.
- Strongly pursue access management.
- Identify and preserve vital corridors and sites for future use.
- Support regions in adopting different and regionally appropriate mobility strategies.
- Promote modal connections for seamless travel.
- Provide mobility for people with special needs.
- Implement cost-benefit methods as key determinants in selecting projects.

WHAT ARE THE FUNDAMENTAL GOALS OF THE STUDY?

Successful planning studies come from a vision or a set of goals. However, at some point, those goals must be tempered by what is fiscally feasible. The first step is identifying the fundamental goals of the study. These goals are developed from the reasons the study was initiated, and preliminary data collection. The planning study goals should also address to some extent the statewide investment policies. These statewide policies are in place and provide the direction for the development of

strategies to reach the fundamental goals of the study.

Vision: *this refers to the over-arching goal encompassing the entire planning study area and in some respects the process. Defining the 20-year planning vision of what the study area should look like when the goals are reached is an important element in defining the fundamental goals.*

Developing the goals and vision of the study area takes a comprehensive approach and process. The next chapter details the first steps in developing the goals and vision.

CHALLENGES IN DEVELOPING A PLANNING STUDY

MANAGING EXPECTATIONS

The challenges of a planning study are numerous. Managing the expectations associated with a planning study is important to the success of the study.

The public, stakeholder and resource teams will have expectations regarding the outcome of the study. And in most cases, these will be divergent. Each group will attempt to take on the decision-making role for the development of the options for the study's recommendations. A clear process, and defined roles and responsibilities will need to be framed so that extraneous issues are not allowed to creep into the scope of the planning study work plan.

“Scope Creep” *is a term used when additional issues are introduced to the original scope of work as a study is conducted. These can have detrimental impacts upon a study by causing more staff time and financial resources to be used and drawn away from the original objectives and goals of a study.*

CHAPTER 3



Chapter 3

Quality Data

IDENTIFYING QUALITY DATA

Data is what drives corridor planning studies. The importance of quality data from credible internal and external sources is vital to the outcome of your study.

Data is obtained from many agencies and offices. Verification that the data collected is the best available is critical to how the issues that initiate the study are confirmed. The verification of the data quality is also important because the data eventually forms the basis for how the final recommendations are formulated.

Where applicable, data collected from sources other than WSDOT may be used to verify WSDOT information if the results are challenged during the planning study process. A planning study's recommendations should always be based upon the most solid, up-to-date collected and analyzed data.

The following provides a brief overview of the quality data needed for your corridor planning study. More in depth detail is in Appendix A.

CONCENTRATED DATA COLLECTION AND ANALYSIS

Concentrated data collection and analysis occurs at three primary times during your study. The initial analysis occurs when the Region Planning Office determines a specific corridor has sufficient issues or concerns present. Planners refer to existing base data, and review to validate the existing technical knowledge of a study area.

The second time data collection and analysis occurs in a comprehensive manner is after the first internal planning study team meeting has identified gaps in existing data and knowledge. This prepares the planning team for the first stakeholder meeting

and public outreach effort. During these two external conversations, “community perceptions” will surface. Verify these by using existing or collecting additional data to test the perception as being factual. For example, the public believes the delay on a state highway is caused by tourists, when in fact origin and destination survey findings indicate local traffic is causing delay.

SOURCES OF DATA

State

The Washington State Department of Transportation Data Office (TDO) is the primary source for roadway related data. The TDO is responsible for collecting, processing, analyzing, and disseminating transportation data pertaining to the Washington State Highway System. Information and data request forms are on the TDO's web site at <http://www.wsdot.wa.gov/mapsdata/tdo>.

TDO is interested in serving customers with the best possible available transportation data. Pro-actively working with their customers, TDO identifies their data needs, as well as ensuring the appropriate type of data is selected to meet those needs. For more information about the TDO and the importance of good data, see the TDO's publication “Better Decisions Through Better Data,” available at: <http://www.wsdot.wa.gov/mapsdata/tdo/communication.htm>.

Comprehensive traffic collision data is available for collisions occurring on state routes, county roads, city streets, and other miscellaneous trafficways. Collision reports submitted by officers and citizens alike are used as the source for the available collision data. Officer reports account for approximately 90% of the reported collisions, and citizen reports account for the rest. To make

an official collision data request to the TDO, use the following web site: <http://www.wsdot.wa.gov/mapsdata/tdo/collisiondatarequest.htm>.

TDO also has data for roadway systems and travel analysis. As an example, data in roadway systems would include roadway classification. The travel analysis database contains important information for mobility. Examples of this data include percentages of total traffic, average annual daily traffic, time of day patterns and growth in traffic.

This data is also categorized based upon vehicle type. Freight traffic, specifically trucks, in this database are categorized similarly to passenger vehicles. This database category is useful when determining the level of freight analysis included in a planning study.

While TDO's database is comprehensive, information about transit, aviation, ferries, environmental conditions/concerns, land-use, local jurisdictions, and municipalities also need to be collected. This data is available from other individual WSDOT divisions, such as the WSDOT Systems Analysis and Program Development. A more extensive listing of data sources are in Appendix A.

Cities and Counties

Cities and counties are useful sources of traffic-related data to augment the TDO data. Local municipalities and counties collect similar data and should be included as a part of data collection. Contact all appropriate city, county, and local community governments and associations within your study area and inquire about data as well as their concerns in the area. This can also foster beneficial partnerships, adding value to the study and optimizing effectiveness.

STUDY AREA LIMITS

The study area defines a planning study and the data collection focus. Logical beginning and end points of a study area will assist you in determining your data needs. Include communities that will be affected in the study area. Include special

destinations (parks, skiing, camping, lakes, recreation areas), area events (fairs, festivals, special events) that may occur in the study area. These may have transportation significance, and require additional data collection from sources other than WSDOT.

Maps are an excellent method to display the study area limits. For more information regarding WSDOT mapping standards, refer to Appendix A.

EXISTING CONDITIONS

The existing conditions within a study area form the foundation for why the planning study is being initiated. These provide the study team, stakeholders and the public with the issues to examine and assist when developing the study's goals. This section provides guidance on what data needs to be collected.

Existing condition information:

- Route Class
- Access Class
- Roadside/Terrain Class
- Physical/Geometric Characteristics
- Traffic Volumes
- Incident History

Information on the operational and functional characteristics of the route, will be required. Other data needs include:

- Existing roadside features
- Current purpose and performance of the roadway
- Operating conditions
- Freight operations
- Travel data
- Environmental features (wetlands, habitats etc.)
- Fish Passage Barriers
- Adjacent land use

- Identify gaps in physical and operational infrastructure

A list of the communities within the study area, as well as the adjacent land use will be important quality data that will need to be included.

DATA ANALYSIS

What does the data show us?

Conclusions will vary largely depending on what the data analysis conveyed. Did the data support the original reason for the study? What unexpected issues were identified? Identifying problem areas and issues from the data collection and analysis phase of your study allows you to direct any challenge to the conclusions to the actual data used.

The data analysis might conclude the route or corridor within the study area does not need any further attention now, but might need capacity improvements in the near future. Instead, the data analysis could identify operational issues to be addressed in the study's recommendations, such as access issues addressed by implementing improved access management. The data analysis could also identify a myriad of concerns and possible improvements.

PRIORITIZATION OF STUDY FOCUS

Prioritizing your study's focus will depend largely on what conclusion you came to following the data collection and analysis. Once you have answered the question, "what does the data show us?" a logical prioritization of recommendations should be identified.

COST BENEFIT ANALYSIS

Tiered Improvements

A cost/benefit analysis for your proposed improvement(s) should be conducted. The best option to a problem could be the most costly; therefore, a less expensive option may be

considered if it satisfactorily addresses the issue(s) identified in your study. Consider population growth, changes in land use, effects on communities and the environment, future demand on the system, applicable or likely zoning changes, travel trends, and other relevant issues for your conclusions and recommendations.

Your prioritization should be in a tiered format and should follow the statewide Five Investment Guidelines. The five investment guidelines are, in order: Preservation, Safety, Mobility, and Environment and Stewardship.

For example, if you have low-cost preservation needs as well as higher-cost mobility needs, you would prioritize the lower-cost (tier I) preservation over the higher-cost (tier II or III) mobility needs.

MODELING AND SURVEY TOOLS

Models are used to predict changes in traffic patterns and volumes over time, reflecting changing economics, demographics, infrastructure, and policy within the study area. The basis for your future land-use and traffic growth models will be the data you have collected about population, employment, preferred travel mode, travel trends, etc.

A number of forecasting and modeling tools are available for planners. The most common software applications at WSDOT are:

- **aaSIDRA** - a micro-simulation model used to analyze roundabout operations
- **Analyze** - traffic data analysis and reporting
- **Emme** - Travel demand
- **HCS** - Highway capacity
- **Precision Mapping** - Route optimization
- **SimTraffic** - Simulation tool for signalized intersections
- **Synchro** - Signalized intersection optimization and level of service

- **Trafman** - Traffic data management
- **Vissim** - Multi-Modal Micro-simulation model used to analyze freeways, intersections, arterial operations as well as transit operations and transit signal priority
- **Visum** - Macroscopic Travel demand model used to forecast travel demand
- **WASIST** - Model used to identify and evaluate potential carbon monoxide air quality concerns

All of these applications require specialized/limited licenses, so check with your supervisor and local IT support for details.

Detailed information on models and forecasting tools are located in Appendix A.

SURVEY TOOLS

Travel Demand Surveys

Another useful tool during the data collection and analysis tool are Travel Demand Surveys. Travel Demand Surveys can be in different formats, such as origin-destination, travel time, and other studies. Surveys can be conducted online, by mail, or in person.

Origin-Destination Surveys

Origin-Destination surveys are commonly used to collect information about driving habits and travel patterns in a study area. The data produced describes where trips come from and where they go. This data may be gathered and summarized at different levels of detail. The highest level of detail would be from specific address to specific address. More commonly, an area is divided into zones and trips are assigned a beginning and end zone. The smaller the zone, the more accurate the study.

The Origin-Destination survey is usually conducted either verbally or in writing and may include such elements as: population, population growth, vehicle ownership, vehicle travel, land-use, land value, facility information, functional characteristics, etc.

IDENTIFYING AND PLANNING FOR CLIMATE CHANGE IMPACTS ON STATE-OWNED TRANSPORTATION FACILITIES

Transportation infrastructure in parts of the state may be susceptible to the effects of climate change. Rising sea-levels, more frequent flood events and other climate related issues could have impacts on the statewide system.

Long-term planning for transportation improvements suggest the need to recognize that many important transportation facilities could be susceptible to severe, more frequent effects as a result of changing weather patterns. Identifying and preparing for impacts of climate change on these facilities require a more thorough analysis of potential impacts and practical alternatives as the effects of climate change become more significant in the next few decades.

This group can review the recommendations and provide advice as they are developed by the Study Team. In some instances, if consent seems to be elusive a stakeholder group can provide a different perspective that could enable the study team to reach consent. However, it needs to be reinforced to members of the stakeholder group that the responsibilities of deciding the final options are with the study team.

Quick Reference Checklist

Contact the Right People

The offices and agencies listed below can help you with the tasks listed below.

- WSDOT's Transportation Data Office.
- All appropriate city, county, and local community governments and associations within your study area.
- The WSDOT Environmental Services Office (ESO) is extremely important to contact for data regarding wetlands, critical habitats, endangered species, and sole source aquifers, as well as other environmental data such as noise abatement, storm water, and air quality.
- Any/all tribal interests in your study area.
- The United States Environmental Protection Agency (EPA) is the primary federal source of environmental data. They set federal policy and keep track of laws, regulations, and pending and recent court decisions. <http://www.epa.gov> is a good starting point to contact them.
- The Washington Department of Fish and Wildlife (DFW) and the Washington Department of Natural Resources (DNR) collect data for the WSDOT ESO. Contact them for the latest environmental data in your study area.
- The US Census Bureau and the Washington State Department of Financial Management are considered the best sources of population and demographic data. You may not need to contact them, but be sure to research their web sites for population data and trends.

Research and Analyze the Existing System

Gather information about each of the transportation system components in your study area.

- Highways and streets (public, private, state, and local streets and highways);

- Railroads (freight and passenger);
- Airports (freight and passenger);
- Transit services (public, private, general citizen, and special needs);
- Bicycle facilities (locations and routes);
- Pedestrian facilities (locations, signalized, and non-signalized);
- Intermodal connection facilities and stations (park-and-ride lots, railroad and port truck transfer stations, bicycle, pedestrian, and airport transfer facilities); and
- Utilities.

Research the Role of Transportation in the Corridor Area

Define the role of the corridor by asking the following questions

- Is this a Highway of Statewide Significance, Freight Corridor, Scenic Byway, NAFTA Corridor, etc.?
- Does tourism have a central role in the area economy?
- Is there a need for quick farm-to-market trucking?
- Is this a heavy commuter route or a key freight route?

Develop Base Maps

Develop base maps for the corridor. The WSDOT Geographic Services Office (360.709.5500) can help you.

Research Land Uses and Other Characteristics of the Region

- Census data and Washington Office of Financial Management population statistics;
- Population projections;

- Location of low income or minority populations;
- Employment characteristics, such as journey-to-work reports, commuting pattern studies, labor force data, and employment by industry statistics;
- Land-use assumptions from city and county comprehensive plans;
- Zoning classifications and planned developments for the corridor area;
- Pipeline and large utility locations;
- Human and neighborhood characteristics; and
- Lists of historical buildings and sites and cultural resources.

Identify Critical Environmental Factors

Gather the following information in the corridor area:

- Applicable federal, state, and local environmental laws, regulations, and policies;
- Existing environmental studies that include geotechnical, hydrological, and soil types;
- Major geologic and general terrain features;
- Environmental and socioeconomic resources and issues; and
- Map environmental resources, list environmental issues, and identify areas that require further analysis.

Estimate Future (20-year) Transportation Travel Demand in the Corridor

Use models with caution and only if they correspond with the corridor boundary. Otherwise, estimate travel demand by using one of the following approaches.

- Where little change is anticipated in the area's spatial pattern and historical traffic counts

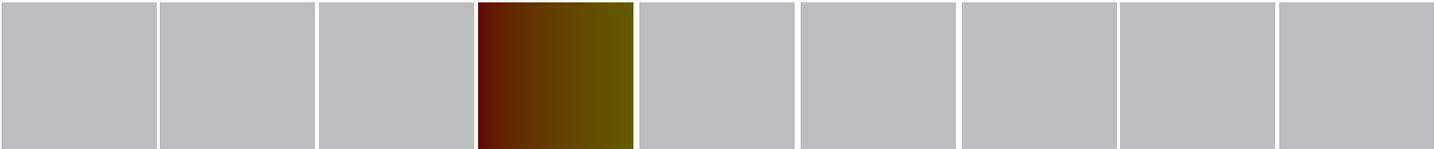
exist, develop a straight-line projection in order to base the forecast on existing trends.

- For corridors undergoing major growth shifts or where historical traffic counts are insufficient, correlate the increase in travel with the projected population increase or other measure.
- Develop forecasts for travel demand on modes that do not currently exist.

Identify Performance Deficiencies the Existing Transportation System May Have in Meeting the Future Travel Demand

- Evaluate the existing transportation system performance regarding its ability to meet the forecasted travel demand.
- Pinpoint the elements and location where the system (if unchanged) will fail to meet future demand.
- Use Congestion Analysis for Corridor Plans for analyzing future performance in the corridor or other accepted measures as approved by WSDOT.

CHAPTER 4



Chapter 4

Assembling a Transportation Planning Team

IDENTIFYING KEY STUDY TEAM MEMBERS

One of the keys to a successful planning study is assembling the Study Team. Planning studies represent a variety of interests such as traffic, environmental, land use, and landscape architecture. They might involve different modes such as aviation or transit. The study area might include a tribe or a national forest. Identifying and including members from these disciplines within WSDOT, as well as members from other agencies, is important because it establishes a bridge between the various disciplines. The team also creates connections with other agencies, as well as regional, local, and tribal governments, which lends credible input and consensus when formulating study recommendations. Additional benefits include building a diverse coalition that can lobby for funding of recommended projects from planning studies, as well as incorporating a study's recommendations into their comprehensive plans.

TEAM MEMBERS

Study Team

A study team should have members from the various disciplines within WSDOT. Because a planning study has many elements, it is important for a study team to have representatives from the following critical disciplines within WSDOT:

- Design
- Traffic
- Communications
- Landscape Architecture
- Environmental Services
- Maintenance Supervisor (Region)
- Operations
- Region Planner
- Highways and Local Programs
- Freight
- Modes (e.g., Aviation, Ferries, Transit, Rail)

A comprehensive study team brings extensive knowledge and experience to a planning study. Individuals from these critical disciplines can assist in identifying key issues within a study area from their respective disciplines and also greatly assist in developing feasible cost-effective recommendations for a study.

Stakeholders

The study area and the adjacent land ownership and uses will determine who from outside WSDOT should be a part of the stakeholder group. Depending on where the study is being conducted, the following groups, agencies, and jurisdictions may be involved:

- Minority, low income, and limited-English-proficiency populations
- Human Services Organizations
- Metropolitan Planning Organizations (MPOs)
- Regional Transportation Planning Organizations (RTPOs)
- Cities
- Counties
- Washington State Department of Fish and Wildlife
- Washington State Department of Natural Resources

- Tribal Governments
- United States Fish and Wildlife
- United States Forest Service
- United States Bureau of Land Management
- United States Department of the Interior
- Economic Development Councils and Business Associations
- Neighborhood Associations and Groups
- Scenic Byways Organizations
- Other public groups

The stakeholder group serves as an advisory board. Their role is consultative over the course of a study to assist the study team in identifying any issues that may need to be factored into the study's recommendations.

CRITICAL SKILL SETS AND EXPERTISE

A diverse and comprehensive study team can provide critical skill sets, as well as expertise from their individual disciplines.

As an example, a maintenance supervisor has knowledge about the physical nature of the roadways not reflected in WSDOT data sources. This individual can also provide the team with valuable anecdotal information about a study area. This includes drainage and pavement issues and where these are located within the study area. Additionally, the supervisor may have knowledge about issues to be addressed within the study area. A study team member from environmental services would be able to identify where some of the environmental issues may be within the study area and keep the group up-to-date on emerging issues and regulations impacting the recommendations and costs. Representatives from the various modes, such as aviation, ferries, or transit, would provide key input regarding those respective disciplines.

Each representative brings unique knowledge and expertise that would provide the resources

needed by the lead study planner. Additionally, having a comprehensive study team with the critical disciplines from within WSDOT and from other agencies builds communication and partnerships between the agencies for future funding and project implementation.

IDENTIFYING STAKEHOLDERS

Identifying stakeholders is one of the first steps that need to be taken in a planning study. Stakeholders are individuals who have an interest in the outcome of a planning study. These may be individuals who reside within the study area and travel through the area regularly, or business owners whose business and customers may be affected by the recommendations of a planning study. But who are stakeholders, and, more importantly, where does a planner find them?

PUBLIC GROUPS

In many instances, a planning study is initiated by an interest group. These groups are made up of local residents along a corridor who have approached the local region to initiate a study. These grassroots groups often can assist a planner to identify issues and local groups that should be involved and informed, as well as distribute information and communications within the study area for public outreach events. A representative from these groups can also play an advisory role.

Examples of public groups could be:

- Citizen Transportation Committees
- Local Schools
- Historical Societies

BUSINESS LEADERS AND ASSOCIATIONS

Regardless of where a planning study takes place, there are bound to be businesses within the study area. Business owners typically take a real interest in planning studies since the recommendations will have a direct effect on their business.

In numerous cities and counties, a business directory can be obtained from the Chamber of Commerce. Businesses may also belong to local Economic Development Councils. Some businesses in smaller rural communities form Independent Business Associations. These can often be located by contacting the economic development office of a local city or county.

DEVELOPER SERVICES

Land use and transportation are linked. And what happens with land use development changes the way a roadway functions. In many instances, a planning study is initiated because of land use changes.

Planners will need to establish a working relationship with local city and county developer services early in the study process. This will assist a study planner understand what land use changes are occurring within the study area and assist in developing the study's recommendations.

In most cities and counties, developer services are located in the Public Works Department where building and land use permits are issued.

COMMUNITY LEADERS

Community leaders are local elected officials who may be willing to participate in a planning study. These individuals could be city council members, county commissioners, or, in some cases, state representatives or senators. Community leaders can also be leaders of neighborhood or business associations within a study area.

Community leaders can be found by accessing the local political boundaries maps using city, county, and state legislative web sites.

CITIES AND COUNTIES

Cities and counties hold a stake in any planning study that is undertaken. A planner needs to contact city or county planning departments early in the planning study process to inform them a study is being conducted within their area. It is highly recommended to have a representative from a

city or county planning department as part of the team. A local city or county planner may also have information regarding local public groups.

ESTABLISHING THE DECISION-MAKING PROCESS, AND DEFINING ROLES AND RESPONSIBILITIES

Establishing the decision-making process and defining roles and responsibilities need to be accomplished in the early stages of a planning study. This will assist in developing the study options, and provide an easier path to reaching consensus on the study's recommendations later in the process.

DEFINING THE INTERNAL DECISION-MAKING PROCESS

Since becoming a cabinet agency in July 2005, the decision-making process at WSDOT has changed. In many areas of the department these changes may not be part of the daily operations. The level of involvement by the Secretary's office, the Office of Financial Management (OFM), and the Governor's staff will vary depending upon the route being studied and the political issues present.

There are four basic decision-making levels:

1. Region Planning Office
2. Region Administrator
3. WSDOT
4. Governors Office/Office of Financial Management

In most instances, but not all, the Region Planning Manager guides the development of staff work at the study team and region planning office level. This includes monitoring the approaches to data collection and analysis and determining which unanticipated issues should be brought to the

STAKEHOLDER CHECKLIST

1. Identify public groups.
2. Identify other agencies that provide relevant services in the study area.
3. Identify and contact business leaders through the local Chamber of Commerce.
4. Contact local business groups and local economic development agencies.
5. Contact and establish a working relationship with local, city, or county developer services.
6. Identify local community leaders by using city, county, or state legislative web sites.
7. Initiate communication with community leaders about the study.
8. Notify local city and county planners early, and communicate regularly with them about the upcoming study.

attention of the Region Administrator or the Office of the Secretary. Examples of decisions addressed at the Region Planning Manager level may include but are not limited to:

- Proposing which region planning studies are of greatest priority.
- Developing a staff and resource plan for conducting each planning study.
- Developing and approving the work plan for each study.
- Determining if consultants will be used to complete portions of the planning study.
- Selecting appropriate consultant teams to assist in completion of the planning study, as needed.
- Determining who should be on the stakeholder team and the internal study team, and recommending which executive levels (Region Administrator, Headquarters, Office of Financial Management, and Governors Office) should be involved in the study.

Examples of region-level decisions include, but are not limited to:

- Endorsing recommendations to the Secretary's Office by OFM and the Governor's staff, as appropriate.
- Determining throughout the study process the involvement of the Secretary's Office in guiding the region's study prior to key stakeholder meetings.

The internal decision-making process is critical to the success of a planning study. It is this process through which recommendations are ultimately decided. At the earliest point in a planning study, management and the planning study lead must determine who has advisory capacity and who has the ultimate decision-making role. Typically, the primary study team bears the responsibility for formulating the recommendations in a planning study. Planning study stakeholders provide input, advise the study team, and validate the recommendations, but typically do not have final decision-making capacity. The recommendations from a planning study need to address the statewide policies as well as define cost-effective solutions with public input.

TEAMS FOR THE STUDY

Several teams will need to be assembled to conduct the planning study. These teams will assist in providing valuable data and background pertinent to the study area, but will also assist in the development of the options for the study's recommendations.

The Study Team

The study team is the core of a planning study. Comprised of internal WSDOT divisions, its roles and responsibilities are to:

- Examine the issues for the planning study
- Review statewide policy for consistency

- Review local comprehensive plans for consistency
- Develop a long-term vision for the study area including phased/prioritized preliminary recommendations and planning-level cost estimates
- Assess and evaluate public input
- Decide and refine solutions into short-, mid-, and long-term cost-effective solutions that are consistent with statewide policy

The study team should be comprised of representatives from the various disciplines within WSDOT and local and regional planners with the critical skill sets needed for the study. The study team should have representatives from:

- Design
- Traffic
- Communications
- Landscape Architecture
- Environmental Services
- Maintenance Supervisor (Region)
- Operations
- Region Planner
- Highways and Local Programs
- Freight
- Modes (e.g., Aviation, Ferries, Transit, Rail)

The study team is responsible for communicating to their respective divisions as the study progresses. Lead members on the study team are responsible for seeking input from the general public, as well as the stakeholder team as the study's recommendations are formulated and defined.

Stakeholder Group

The stakeholder group is a representative group of external individuals identified through the early planning stage process. The stakeholder group is comprised of interest groups within the study area.

The stakeholder group serves as an advisory group and can provide additional input into the formulation and endorsement of the recommendations. This role needs to be clearly defined at the beginning of the planning process. The stakeholder group can serve as an additional sounding board for ideas as the study's options are formulated. This group should have representatives from:

- Public groups
- Business groups
- Legislature
- Neighborhood associations
- Local schools
- Law enforcement (local, county, or state)
- Resource agencies (state, federal)

This group can review the recommendations and provide advice as they are developed by the study team. In some instances, if consensus seems to be elusive, a stakeholder group can provide a different perspective that could enable the study team to reach consensus. However, it needs to be reinforced to members of the stakeholder group that the responsibility for deciding the final options is with the study team.

WORKING WITH CONSULTANTS

A consultant needs to be selected to conduct planning studies that will not be undertaken by internal WSDOT planning staff. This section describes who to contact, and how the guidelines are adhered to for format and content when working with a consultant. Consultant services are regulated under RCW 18, 39, 48, 51, and 82.

SELECTING A CONSULTANT

Agency procedures need to be adhered to in selecting a consultant for a planning study. In some instances, a region may have a contract for on-call services. When this does not exist, then a

consultant needs to be selected through the open-bid process.

The WSDOT Consultant Services Office is located at Headquarters. The office is responsible for managing the department's statewide consultant program for all of the planning regions. The Consultant Services Office provides manuals, forms, and worksheets for the selection of a consultant.

In order to be consistent with the consultant services regulations and policies, a planner should contact the Consultant Services Office at (360) 705-7104. The office also has a manual, available on-line at: <http://www.wsdot.wa.gov/consulting/#business>.

CONSISTENCY WITH GUIDELINE FORMAT AND CONTENT

When a consultant performs a planning study, the firm will typically produce a document to the specifications of that particular consultant firm.

When a planning study is conducted by a consultant, consistency of format and content to WSDOT standards is important. The lead planner will be responsible for detailing the planning study document expectations for appearance and content to the consultant. Consistency in appearance and content of all transportation planning studies is one of the goals set by these guidelines. The format for a planning study is detailed in Part II: How To Do a Planning Study.

STAKEHOLDER GROUP CHARTER

It may be necessary to establish a charter for a stakeholder group. This document clearly defines the roles and responsibilities of the stakeholder group members. To ensure compliance, it is advisable that each stakeholder group member agree in writing to adhere to the charter.

Quick Reference Checklist

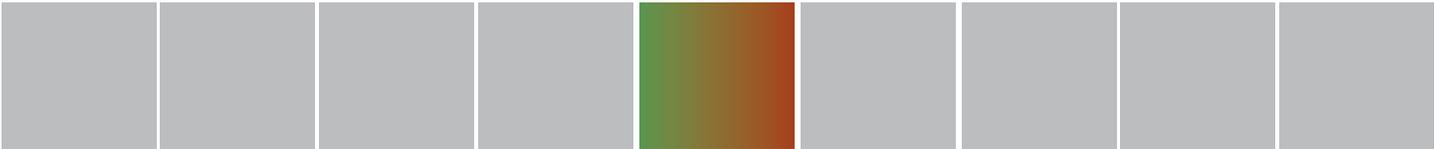
TASK ONE: IDENTIFY KEY TEAM MEMBERS

1. Identify representatives from within WSDOT disciplines that have an interest in the study area as potential study team members
2. Locate, identify, and contact stakeholders from groups, agencies, and jurisdictions within the study area.

TASK TWO: DEFINE THE DECISION-MAKING PROCESS

1. Develop a decision-making matrix including the Region Planning Manager, the Lead Study Planner, and the Study Team's roles, and the contributions of stakeholders and the general public.
2. Define the roles and responsibilities of study, stakeholder, and resource team members.
3. Consider developing individual stakeholder and resource team charters so team members understand their roles. Team members sign the charters.
4. If consultant services are necessary, follow established protocols through the WSDOT Consultant Services Office.

CHAPTER 5



Chapter 5

Communicating What Is In The Plan

COMMUNICATIONS BASICS

WHY IS COMMUNICATION IMPORTANT?

Communication is one of the critical elements in making a planning study successful. Planning studies summarize the analysis of technical data and complex information to formulate recommendations for long-term improvements. Effective and clear communication of the data analysis and recommendations is crucial.

Communicating key messages throughout the planning study process increases awareness, encourages different audiences to engage, and allows for valuable input into a meaningful planning study. The content that is communicated is going to be different for each study.

Each planning study will have a study team of internal experts and stakeholders, and seek input from the general public. Additionally, throughout the process, upper management should be kept informed as each region prefers, while at the same time striking a balance of information sharing with Headquarters and the Secretary's Office. This chapter illustrates several communications tools and tips for a planning study.

GUIDING PRINCIPLES

When developing your communications plan, it is important to follow these guiding principles:

Build consensus on the path to decision.

Citizens are often more willing to support the outcome of the process, even if their preferred option is not selected, if they participated in a fair and open process.

Inform and involve citizens.

Inform citizens about transportation issues, projections, the planning process, and budgetary and engineering constraints, in order to avoid surprises.

Incorporate citizen input into the decision process.

Communicate early what effect public input has on the decisions that are being made so that the decision making process is open, clear, and reflects citizen input.

Distinguish public involvement from public relations and public information.

A public information campaign is one-way communication between the agency and the public. Public relations involve the dissemination of information with an emphasis on promotion. Public involvement includes many elements of both public information and public relations, but adds another dimension: dynamic two-way communications that promotes public comment and uses those comments to transform the decision process and outcome. A public involvement program should inform citizens about various options and constraints, provide opportunities for their voices to be heard, and consider their differences. Doing this will help avoid the pitfalls that come with selling a program or option that could be interpreted as violating restrictions against lobbying or advocacy.

Communications is inclusive, involving decision makers and all interested stakeholders

Seek out groups and individuals with an interest in decision outcomes, particularly those who will be affected significantly. Many of these groups

and individuals will surface easily because they are interested in the decisions being made. Some groups and individuals are more difficult to reach because of cultural or economic isolation or because they are users of the facility who do not reside in the immediate study area. This inclusiveness almost always involves a heavy emphasis on partnering, achieving mutual understanding of the problem, and formal or informal agreements to work together to find and implement a solution. Partnering activities can be conducted with other agencies, jurisdictions, neighborhood associations, environmental organizations, chambers of commerce, and other third-party groups.

Communication activities should begin early and be proactive and ongoing throughout the study.

Start dialogue with the public early. Starting public involvement activities midway through the process engenders public distrust and may require a reexamination of decisions.

From the start, the decision process should be clearly defined.

Participants should understand the process and the decision points where they can have influence. Decision processes should be structured so outcomes reflect public input. However, it is important to communicate to the public and advisory groups that public involvement is only one input into a complex decision process, and transportation officials remain the decision makers.

Leadership is important for a successful public involvement campaign.

Technical experts, project managers, or spokespersons must be available to speak about WSDOT policy, operating procedures, and perspectives throughout the process. Ensuring adequate resources for public involvement,

including a budget for staff hours and materials, is also important so the public process is successful.

Getting to know the community is essential.

Developing an effective communication plan is conditional upon an accurate community assessment and appropriate outreach and opportunities to comment.

Show the public we are committed to informing and listening, and acknowledge that they have a voice in the decision-making process:

- Demonstrate explicit consideration and response to public input
- Provide reasonable and adequate notice of opportunities to comment, with ample time for review and comment at key decision points

WHAT GUIDANCE SHOULD I USE?

THE WSDOT COMMUNICATIONS MANUAL

The WSDOT Communications Manual and Appendix provides guidelines on the overall agency communications philosophy. Each section of the manual provides guidance on different topics. These include press releases and web page development that can be incorporated into the study process. This essential tool for all planners should be reviewed prior to conducting the community assessment and developing a communications plan for the planning study area.

HOW CAN THE COMMUNICATIONS MANUAL HELP?

The WSDOT Communications Manual assists WSDOT staff and consultants meet or exceed standards for public communication. The manual provides valuable guidance for developing communications strategies for your planning study, including:

- Communications planning
- Writing in an active voice
- Developing a public involvement plan²
- Developing a communications plan
- Developing printed materials and documents
- Graphics standards
- Web site planning
- Media relations
- Presentations and public speaking
- Communications resources

GOVERNOR'S EXECUTIVE ORDER 05-03: PLAIN TALK

In addition to the WSDOT Communications Manual, it is important to review the Governor's Executive Order 05-03, Plain Talk.

Recognizing that clear, easy-to-understand communications are essential to providing good public service, this executive order details how all state agencies will prepare and use communications materials.

- Write and speak using clear language commonly used by the intended audience
- Present only the information needed by the recipient in a logical sequence
- Use short sentences
- Write sentences in active voice, making it clear who is responsible for what
- Use a layout and design that help the reader understand the meaning on the first try. It is recommended to use adequate white space, bulleted lists, helpful headings, and other proven techniques.

² An expanded discussion of public involvement is included in Chapter 5 of this document. This chapter contains information on how to conduct a community assessment. The manual is available on-line at: www.wsdot.wa.gov/communications. A hard-copy of the manual can be obtained by contacting Headquarters Printing Services at (360) 705-7840, or at www.wsdot.wa.gov/printservices.

The goal of having reader-friendly texts is for relevant information to be easily understood by everyone involved in the planning study. Reader friendly writing helps those individuals who were not involved in the study pick up the study and easily understand what occurred.

DEVELOPING A COMMUNICATIONS PLAN

Develop a communications plan for your planning study. Design the communications plan to convey important information about the reasons for the study. It should inform citizens, targeted groups, and others on the progress of your study.

IDENTIFYING THE AUDIENCES

The first step is to identify and list the different audiences of your planning study. Once this has been accomplished, determine:

- How each audience prefers to receive information
- What level of information is critical for each audience

A communications matrix is a helpful tool. This matrix can list all of your audiences and then determine what level of information is appropriate. Exhibit 5 (on the following page) illustrates a sample communications matrix.

THE STUDY TEAM

How Do I Communicate with the Study Team?

The study team, comprised of WSDOT professionals, is the core of the planning study. It is valuable to have frequent discussions about new developments, follow-up action items, and political perspectives affecting your planning study. Effective study teams establish and maintain open, solid two-way information-sharing and communication to facilitate trust. The communications plan should facilitate the study's work plan.

How Often Should We Meet?

The frequency of study team meetings is best determined by assessing the overall time line and complexity of the study. Each region must determine on a study by study basis when team work sessions are needed.

Typically, study team meetings are established on a regular monthly schedule. Establish a regular meeting location that is convenient for the study team. If some study team members are from regions or divisions that require travel, consider if video conferencing is an option for the team. Several WSDOT facilities statewide have this capability. These meetings are to keep study team members current on the progress of the study, as well as solicit input from team members during the study process.

If using a consultant to staff the team, determine the number and frequency of study team meetings to minimize costs associated with the use of consultants prior to executing the contract. While cost is an important consideration, it should not compromise good communications.

At the first meeting, establish the rules and responsibilities for all aspects of the study. Most importantly, discuss how each member prefers to communicate. This develops smooth external communications.

What Should The Study Plan Contain?

A study team communications plan should include:

- A contact list of all study team members
- A regular schedule of the dates for study team meetings and updates
- Clear objectives and expectations of each study team meeting and work session
- Roles and responsibilities of study team members

**Exhibit 5:
Sample Communications Matrix**

Audience	Background Information	Technical Reports	Weekly Progress	Summarized Technical Data	Summary Info for Critical Decisions	Screening Criteria Development
Executive Management	✓			✓	✓	
DOT Study Team	✓	✓	✓	✓	✓	✓
Internal DOT Resources/Team	✓	✓	Make Avail	✓	✓	✓
Stakeholder Group	✓	Make Avail		✓	✓	✓
Targeted Groups	✓	Make Avail		✓	✓	✓
General Public	✓	Make Avail		✓	✓	✓

THE STAKEHOLDER GROUP

How Do I Communicate With The Stakeholder Group?

The stakeholder group membership for your planning study will be determined by the geographic location, number of jurisdictions, land ownership, and the issues facing the study area. As detailed in Chapter 3, the stakeholders may represent residents, land owners, businesses, schools, jurisdictions, elected officials, community groups, and public advocacy groups. It is very important to identify stakeholders and form the group prior to the beginning of the planning study process so that they are aware of the study and can shape the focus and identify common needs.

Communicating with the stakeholder group will require a different approach since stakeholders will be mostly volunteers and have competing priorities.

How Often Should We Meet?

Hold stakeholder meetings with a similar frequency as the resource team; prior to or at major milestones during the planning study. These meetings can also be a part of a public outreach event. Feedback from stakeholder meetings is relevant to share with the general public at key public outreach events.

Effective methods to accomplish this are discussed in Chapter 5; Public and Stakeholder Involvement.

Communication between the Study Team and the Stakeholder Group

While communication is an ongoing process between the teams throughout the planning study, these guidelines should be followed:

1. Establish a comment period for milestone deliverables, such as:

- Study focus
- Map of the study area
- Descriptive text of your scope of work
- Proposed goals
- Draft plan
- Prioritized recommendations
- Final draft plan

2. Develop a list serve to send out stakeholder meeting notifications or issues pertinent to the stakeholder group.
3. Determine deadlines and dates based upon milestone events of the work plan.
4. Create a project web page or document for the Internet, linked from the Planning Studies web page³. It should contain:

- Map of the study area
- Descriptive text of your scope of work
- Staff contact e-mail address and phone number
- Comment form for public feedback

Privacy may be an issue for some stakeholders. Always obtain written permission from all stakeholders regarding their e-mail and physical addresses, as well as any other contact information, prior to publishing it on a list serve or web page.

HOW OFTEN SHOULD MANAGEMENT BE BRIEFED?

Communicating with your management is just as important as communicating with the internal and external teams. Before setting up meetings with the teams, it's best to understand what region management expects from the study and the teams. Propose the types of messages and information you want to share with each group to region management. Additionally, it will be important to establish who approves the materials. It is important to brief your management after team meetings.

Establish with management what method would be best to share information. This provides management updates on the progress and issues that may arise from your planning study. It also allows you to be aware of statewide issues that may need to be shared with the study team. This communication can be very beneficial, especially if your planning study encounters controversial issues.

WHAT ARE THE MOST EFFECTIVE METHODS OF COMMUNICATION?

Both e-mail and SharePoint are quick, easy, and effective methods of communication. While e-mail is more rapid and accessible, SharePoint is more comprehensive and efficient.

WHAT IS THE BEST USE OF E-MAIL?

Microsoft Outlook on-line e-mail calendars are an efficient method to establish meeting and/or deadline announcements and keep team members informed of important steps and scheduled events.

E-mail is a good way to share information pertinent to your study team and planning study progress. All e-mails are public documents and should be written in a professional manner and with appropriate content. Establish several e-mail distribution lists. It

is important to maintain current lists during a study, since there may be changes in team member participation.

WHAT IS SHAREPOINT?

Another method of communication is to establish a SharePoint site for your planning study. SharePoint is a communications tool available to WSDOT staff. SharePoint allows multiple individuals to access digital files from a central location. The users can create a web site to manage and share information. A SharePoint site can also contain:

- Libraries of shared documents
- web links
- Lists of contacts, announcements, events, issues, and tasks

A SharePoint site can also serve as a "chat room" where study team and resource members can have dialogue interchanges. The use of a SharePoint site frees up space on WSDOT servers and personal hard drives.

Team members can have on-going discussions without disjointed, long chains of e-mails. The SharePoint site is secure. It can only be accessed by WSDOT employees who receive permission from the lead planner or designee. Currently, SharePoint is for internal WSDOT employee access only. In the future, it may be available for external users such as stakeholders and the public.

To establish a SharePoint site for your planning study, go to this link: <http://sharepoint.ersphome/DMcPEO/default.aspx>. Information Technology Services (ITS) can help establish a SharePoint site for your planning study.

Inclusion is an important element in a study.

PUTTING A COMMUNICATIONS PLAN INTO ACTION

WORKING WITH YOUR REGION COMMUNICATIONS STAFF

During your planning study, you will need to involve your region communications staff.

The region communications staff should be the primary contact to assist in developing external communications for your planning study. These individuals have contacts with local media, and can assist you in developing:

- Web page content
- Media materials, including press releases, and newspaper, radio, and television ads for outreach events
- Presentations
- Direct mailings
- Public outreach events

Region communications staff assist with the public to build relationships, avoid controversy, and maneuver through difficult issues. Communications staff can also help your team understand what your audience needs. The One DOT voice is important for content and when study staff interacts with the public.

TOOLS TO USE:

- **Establish recurring meetings** on a regular basis. Determine the frequency of your team's meetings based on the needs and workload of each member. Weekly may be too often; monthly may be too infrequent. To reinforce the WSDOT brand of accountability, try to meet in a location close for everyone. If possible, use phone conferences, video conferencing, or Internet conferencing to reduce travel costs and impacts on each individual's time.
- **E-mail** is always a good way to share information pertinent to your study team and planning study progress. All e-mails are public documents and should be utilized in a professional manner. If a planning study spans two or more years, establish an e-mail distribution list. The Information Technology Office E-mail Support can assist in establishing a distribution list.
- **Microsoft Outlook** is an efficient method to establish meeting and/or deadline announcements and to keep team members informed of scheduled events.
- **Displays or posters** work well for study team members in your office. Keep a calendar for important planning study events so members in proximity can stay informed.

Quick Reference Checklist

STEP ONE: UNDERSTANDING COMMUNICATION BASICS

- Read the WSDOT Communications Manual.
- Develop, invest in, and continue a relationship with key region communicators and staff.
- Develop a communications plan for study, resource, and stakeholder teams, and management.
- Adhere to WSDOT communications and graphics standards.
- Define the criteria for success for your team and study.

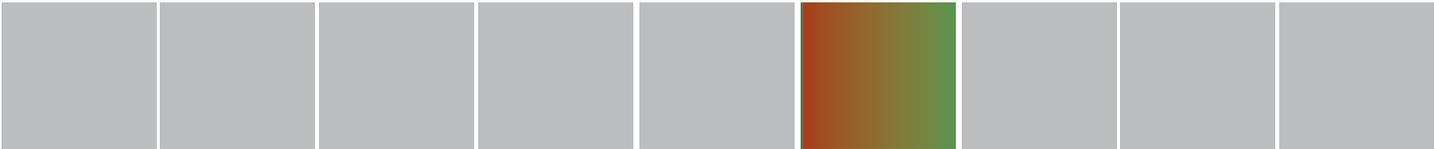
STEP TWO: DEFINING EXTERNAL COMMUNICATIONS

- Use region communications staff when communicating with media representatives.
- Know the study area, the geographic region, and the issues.
- Develop, invest in, and continue in relationships with stakeholders and public groups in the study area.
- Understand and communicate how the study area fits into the regional or statewide picture.

STEP THREE: COMMUNICATING INTERNALLY

- Understand where the study fits within the region and the agency's mission.
- Be aware of modal and specific WSDOT discipline perspectives.
- Prepare frequent briefs for management.
- Use models, demonstrations, and data to effectively communicate with the media.

CHAPTER 6



Chapter 6

Public and Stakeholder Involvement

INTRODUCTION

This chapter includes regulatory background, guiding principles, how to develop a public involvement plan, how to put it in action, and associated challenges.

Similar to good communication, public and stakeholder involvement are vital to a successful planning study. Public involvement is an integral element in a planning study, and the level of involvement will vary depending upon the complexity of the study. Engaging the public to provide input for solutions to the transportation system they use provides not only the opportunity to gain insight from the users of the system, but also provides WSDOT the opportunity to strengthen the connections with the communities we serve.

THE IMPORTANCE OF PUBLIC INVOLVEMENT

Public involvement is the process of two-way communications between citizens and government by which an agency gives notice and information to the public and use public input as a factor in decision making. Public involvement is critical to the success of a transportation effort, be it a planning study, project, or program. The public now scrutinizes almost everything WSDOT does. In particular, the planning process is of particular interest to citizens. A well-conceived and well-implemented public involvement program can bring major benefits to the transportation policy process and lead to better decision outcomes. Beneficial results include public ownership of policies and decisions, decisions that reflect community values, efficient implementation of transportation decisions, and enhanced agency credibility. When done well, public involvement at the planning level can prevent delays, lawsuits, and costly reassessment of policies. This benefits all divisions within WSDOT.

WHAT IS THE LEGAL AND POLICY BACKGROUND?

Federal Requirements

This section highlights the federal and state requirements for public involvement. Full texts of the federal and state requirements are located in the appendix.

Federal law promotes good transportation planning by providing incentives and encouragement to use planning studies in the National Environmental Policy Act (NEPA) process to reduce repetitive work. Preparing planning studies to be used in the NEPA process validates the studies' recommendations and streamlines the scoping, design, and environmental review processes, and ultimately project delivery.

For a planning study to be consistent with NEPA and used as part of the overall project development process under NEPA, the public involvement process of the planning study is required to achieve the following (23 CFR § 450.212 (b)).

The systems-level, corridor, or subarea planning study is conducted with:

- i) Involvement of interested state, local, tribal, and federal agencies;
- ii) Public review;
- iii) Reasonable opportunity to comment during the statewide transportation planning process and development of the corridor or subarea planning study;
- iv) Documentation of relevant decisions in a form that is identifiable and available for review during the NEPA scoping process and can be appended to or referenced in the NEPA document; and
- v) The review of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), as appropriate.

To both validate planning study recommendations and connect planning with NEPA, the above requirements establish the public involvement standards for WSDOT planning studies.

Title VI

The 1964 Civil Rights Act established Title VI, which prohibits discrimination against any person on the basis of race, color, national origin, or sex in the provision of benefits and services resulting from federally assisted programs and activities. This act resulted in the issuance of several supporting executive orders across federal transportation agencies:

- 1994: The President's Executive Order 12898 on Environmental Justice was issued to federal agencies
- 1997: The U.S. Department of Transportation Order 50125 on Environmental Justice was issued as an internal directive to each Operating Administration within DOT to develop specific procedures and incorporate principals as embodied in the Executive Order.
- 1998: The FHWA issued the order: FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which establishes policies and procedures for the Federal Highway Administration (FHWA) to use in complying with Executive Order 12898.
- 1999: A memorandum was issued by FHWA and FTA agency-wide to provide clarification on implementing the President's Executive Order, the U.S. DOT Order, and the FHWA Order.

The following has been extracted from the memorandum clarifying implementation of the Executive order:

Title VI states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI bars intentional

discrimination as well as disparate impact discrimination (i.e., a neutral policy or practice that has a disparate impact on protected groups).

The Environmental Justice (EJ) Orders further amplify Title VI by providing that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”

WSDOT’S COMMITMENT

The agency is committed to meeting the needs of individuals who otherwise may not participate in a planning study or project.

Identifying these groups and performing outreach to them are critical to your planning study. The following statement solidifies the agency’s commitment:

WSDOT TITLE VI STATEMENT TO THE PUBLIC

WSDOT ensures full compliance with the Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin, or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT’s Title VI Program, contact the Department’s Title VI Coordinator (360) 705-7098.

GUIDING PRINCIPLES OF PUBLIC INVOLVEMENT

The planning study process must provide for an open two-way exchange of ideas and information among the public, the study team, and stakeholder teams. Public involvement should provide opportunities for not only early, but continuous communication between the community and key

team staff. Public involvement results in better assessments and study decisions that reflect the community values. It also enhances the credibility of the assessment process and the study solutions.

DEVELOPING A PUBLIC INVOLVEMENT PLAN

WHAT IS A STUDY-LEVEL COMMUNITY ASSESSMENT?

Clearly defining the goals of the public involvement effort is the first step in developing the public involvement plan. Clearly communicating with the public their role in the decision-making process establishes the collaborative relationship.

The outcome of the decision-making process may have an unspoken predetermined selection by the individuals developing the plan. The assumptions instinctively arrived at, although founded on experience and professional training and education, must include the public perspective. Local social and economic effects cannot be accurately defined without public input. In order for the decision-making process to be sound, the best alternative to be selected, and to achieve the best possible outcome, the public’s contribution to influence the decision making process must be actively sought and given careful and deliberate consideration.

HOW DO WE DETERMINE WHAT LEVEL OF EFFORT IS NEEDED?

As stated in the Communications Manual appendix “How to write a public involvement plan,” the amount of effort required to develop a public involvement plan should be proportional to both the size of the planning effort and the degree of controversy expected. After further researching the community, the community assessment may signify greater controversy than anticipated.

The public involvement process should be considered a revolving door, with the exchange of information between the department and the public

being a continuous conversation. The level of effort necessary may increase as the level of community awareness of the plan grows and citizen concerns emerge.

HOW DO WE CREATE A COMMUNITY ASSESSMENT?

Researching the social, economic, and political structure of the communities is essential to understanding the issues and interests of concern to the affected parties. Additionally, assessing the history of public involvement activities and public awareness might indicate the need for greater levels of outreach and greater public involvement efforts. The community assessment is used to describe the study area. Typically, an assessment includes:

Visual Maps: depicting physical characteristics, neighborhood boundaries, land uses, public facilities, employment, and commercial centers.

Narrative Text: describing the community characteristics such as demographics, and economic and social history of the study area.

Illustrative Graphs: that summarize important data, such as demographics or employment trends.

HOW DO WE IDENTIFY WHO OUR PUBLIC IS?

In beginning the public involvement plan, defining the study area and identifying the parties affected by and interested in the project are essential to developing communication. As an example, neighborhood and community boundaries as well as business districts along the study route should be included. Environmental Justice calls for actively seeking out individuals and communities of low-income or minority populations and citizens with limited English proficiency.

HOW DO WE CONSIDER UNDERSERVED MEMBERS OF THE PUBLIC?

Environmental Justice calls for actively seeking out and identifying adverse impacts on human health or environmental effects, including social and economic effects.

- Seek out and consider the needs of those traditionally under-served by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services.
- From the beginning of the process, research on the limited English proficiency population must be addressed by providing multilingual translations for both written and spoken information.

HOW DO WE DETERMINE METHODS TO BEST INVOLVE OUR PUBLIC?

Demonstrate commitment to public involvement by extending the method or technique outside of traditional public meetings and newspaper ads to encourage two-way communication. Determining what methods will work best comes from knowing the study area through the community assessment.

Meetings should be held in readily accessible locations. Go to the public! Neighborhood or cultural centers, churches, or local libraries are terrific locations with easy access for the community.

Time is important to everyone. Meetings should be in the evening, including weekends when it is more convenient for individuals who work.

Local festivals are a great way to share and gather input from the public. Cultural festivals, county fairs, and carnivals can provide ready access to the public and provide input on the study.

- Up-to-date information to interested and affected parties: citizens, public agencies, and stakeholders; prompt updates are essential to maintaining the ongoing dialogue with the public.
- Make documents and information available in electronic and traditional print formats in order to

reach the maximum affected population within the study area.

- Use design visualization techniques to the maximum extent practicable.
- Provide reasonable access to technical and policy information in both electronic and traditional print formats.

WHY SET A TIMELINE FOR THE PUBLIC INVOLVEMENT PLAN?

The planning study workplan and major milestone events are linked to public involvement. The public assists in developing solutions in the planning study. Additionally, the public will expect to participate and provide input.

The timeline should be incorporated in the workplan. Major public involvement events should precede and coincide with the development of solution alternatives. They should also occur after solutions have been identified, to give the public the opportunity to provide feedback.

PUTTING THE PLAN INTO ACTION

MARKETING THE OUTREACH EFFORT AND GENERATING PUBLIC INTEREST

Getting The Word Out

Generating public interest in the planning study is key to gaining insightful input from those who would benefit from the improvements coming from the study.

Some interest-generating methods to consider:

- Individual mailings to all businesses and residences within the study area
- Touring the study area, and meeting with business owners
- Newsletters
- web postings

- Advertising displays in grocery stores, community and cultural centers, neighborhood newsletters, local libraries, and public transit
- Announcements and articles in the newspaper, on television, radio, and community access
- Utility bill supplements
- Neighborhood and community meetings and briefings

WHAT MAKES OUTREACH MATERIALS EFFECTIVE?

Outreach to Non-English-Speaking Populations

Providing written and verbal translation from the very beginning is essential to establishing and maintaining outreach and participation from limited English proficiency citizens. The Department of Social and Health Services maintains a list of service providers for both written and verbal translation. The WSDOT Office of Equal Opportunity also maintains a database of regions statewide with limited English proficiency. These resources should be used in assessing and meeting the language needs in your study area.

Public Meetings With Non-English-Speaking Populations

It is important to go to non-English speaking communities for public outreach events to seek their input. In many cases, these populations have left countries where there is a fear of the government. In order to gain input from these groups, public outreach events can be scheduled through:

- Cultural, community, or neighborhood centers
- web pages in the language of the community
- Community churches/temples
- Specific community language newsletters, newspapers, and radio or television
- Cultural festivals

Translation services will be needed at these events. This includes having printed materials specific

to the study in the language of the community. A phone contact number with a recording in the language of the community would allow for non-English speaking individuals to provide comment or ask for information about the study.

HOW CAN WE CONDUCT EFFECTIVE AND MEANINGFUL MEETINGS?

Opportunities for Participation at Convenient Locations and Times

Essential to the success of the public involvement effort and the level of quality participation is the degree to which the department reaches out to the public to provide information and receive feedback. Making ourselves available for the public at convenient locations and times demonstrates our consideration of and responsiveness to community concerns. Scheduling public outreach events at convenient locations and times may also increase the opportunity for participation by the community.

Examples of ideal opportunities for outreach are:

- Using existing community meetings as a platform
- Public festivals, fairs, and events

Other outreach options include:

- Open houses and listening posts
- Key-person interviews
- web sites
- Video kiosks
- Newsletters
- Briefings
- Information hot line
- Surveys
- Charettes
- Visioning
- Tours of the study area

WHAT ARE THE BEST WAYS TO HANDLE PUBLIC COMMENT?

Collecting and evaluating public input is vital to the study. Public input can provide insight into the needs of a community that study team members may not be aware of. Additionally, public involvement also fosters and strengthens relationships between the public and the agency.

Methods Of Recording Comments, Statements, and Questions

There are numerous methods for recording comments, statements, and questions from the public. When choosing a method, include how comments will be recorded, how the public will be responded to, and the time frame. Informative and timely response to the public builds trust. Documentation of the interaction creates a record of public involvement for the study.

Some methods for recording comments are:

- Direct phone line contact—create a phone log to record the date, time of call, and individual's name, as well as topic of discussion.
- Direct mail surveys and oral interviews
- Prepaid mail-back comment forms located at community and neighborhood centers and local libraries
- Project web page

Responding to Public Comment

Responding to public comment should be timely, concise, and at a level of understanding for the individual. Most public comment will be in a statement form and will contain an underlying interest or concern. People usually want a constructive response to their comments. The following tools should assist in addressing public comments.

At Meetings:

- Listen to the comment and demonstrate that you understand.
- Remove what's unproductive or what's in the way of problem solving such as position, threat, or demand.
- Look for the individual's interest in their comment.
- Restate the comment, using affirmative and neutral language and tone. Preface your restatement by saying:
 - "What's important to you is..."
 - "What concerns you is..."
 - "You need..."

In Writing:

- Restate the individual's comment to set the context of your reply.
- Use plain talk. The reply should be straightforward, concise and accurate. Do not elaborate, or go into too much technical detail.
- Use the "One DOT" branding in your correspondence.
- Maintain a record of written correspondence for all comments.

On the Phone:

- Speak clearly, politely, and in a professional manner.
- Stay focused. Do not wander on tangents. Restate the comment if needed.
- Address the comment directly with a concise, accurate reply.
- Maintain a phone log of all telephone inquiries by the public related to the study.
- Wrap up the conversation by asking, "Have I addressed your comment adequately?"

Why Should We Evaluate and Adjust Our Process?

Incorporating public involvement and the decision-making process is a complex step in a planning study. It is important to clarify the expectations for the public's influence on decision-making. The following are some points to consider regarding the public's role:

- Internal clarification of the region planning manager's willingness to involve the public in decision making
- Setting clear expectations with the public
- Establishing the boundaries of their influence in the decision-making process
- Providing timelines for input and involvement

Once public comment is collected, the next phase is to evaluate what has been heard. And more importantly, what of the public comments should factor into the decision-making process for the formulation of the study's recommendations.

When evaluating public comments, here are some tools to consider:

- How relevant are the comments to addressing the issues identified and the vision of the study area?
- Are the comments financially realistic?
- What comments would enhance the vision of the study area?
- Does the interest conveyed indicate opportunities for community partnerships for funding or implementation?

Creating a matrix of the comments received and performing a comparative analysis is one method to determine feasible input. This matrix can be created as a table, sorting the comments into categories that fit into the vision goals of the study.

PUBLIC INVOLVEMENT CHALLENGES

HOW DO WE DEAL EFFECTIVELY WITH PEOPLE?

Whenever the public is involved with a study, there are risks. These risks can be prevented by developing clear guidelines at the beginning the study for public involvement. Some of the risks of public involvement include:

- Discouraged or overly exuberant citizens
- Feelings of exclusion or inattention
- Negative public feedback
- Criticism of the validity of recommendations

WHAT ARE THE BEST WAYS TO DEFUSE CONFRONTATIONAL SITUATIONS?

1. It genuinely matters, even if I disagree
2. We don't already know what the person is going to say
3. Give all of your attention and focus—make eye contact
4. Focus on emotional and substantive content
5. Check out what you think you heard

When needed, follow with an open-ended question to get more information.

WHAT ARE COMMUNICATION ROADBLOCKS AND HOW CAN WE OVERCOME THEM?

There will never be a way to satisfy all of the public who participate in a study. This is the reality of public involvement. However, some of the following steps can help prevent the risks associated with public involvement:

- Set clear guidelines for the public involvement and comment process

- Describe clearly, the reason for the study, the fiscal realities and the possible time line phases for implementation of your study
- Describe how public comment will be collected and evaluated
- Explain clearly the boundaries for the influence of public comment and input on the study

HOW DO WE BUILD TRUST AND CREDIBILITY?

Being up-front and clear with the public concerning their comments and input sets the boundaries of their expectations. Managing these expectations will be an on-going process throughout the planning study and require patience and professionalism.

MANAGING COMMUNITY EXPECTATIONS

Connecting with community groups at the beginning of the public involvement process will help to identify the interests at stake and bring them to the forefront of the discussion. Addressing the most contentious issues from the beginning reduces the risk of more significant controversy appearing further along in the process.

Quick Reference Checklist

STEP 1: FORM THE PUBLIC INVOLVEMENT TEAM AND DEFINE ROLES AND RESPONSIBILITIES

- **Lead Public Involvement Coordinator:** responsible for coordinating public involvement team and planning studies team, maintaining interagency and stakeholder coordination, as well as regular reporting to the decision-making body on the public involvement process.
- **Meeting Facilitator(s):** individuals with facilitation skills and training, not necessary to be extremely familiar with the planning study, most essential need is to be able to facilitate public meetings and mediate conversations with the public and the department staff.
- **Point(s) of Contact:** individual(s) to answer the public's phone and e-mail questions.
- **Record Keeper:** central record keeper of public comments and questions, and agency responses, notes from public meetings, all published information, and public notices. These pieces comprise the record of public involvement and the decision-making process.
- Materials Preparation
- Community Liaison
- Logistical Coordinator
- Scribe(s)

STEP 2: WRITE A PUBLIC INVOLVEMENT PLAN

Determine Scope and Purpose of Public Involvement Process

The planning study scope of work should help define the scope of the public involvement effort, including but not limited to:

- Geographic boundaries
- Nature of study focus
- Range of alternatives

Defining The Public's And Stakeholders' Roles In The Public Involvement Process

Prepare a Community Assessment and Community Impact Assessment

Assess level of community awareness and publicity around the study and study area

Identify Key Groups and Stakeholders

- Those directly impacted by the plans for the study area
- Those indirectly impacted by the plans for the study area
- Those with perceived impacts by the plans for the study area
- Disadvantaged and minority populations
- Local community groups
- Local government and public agencies
- Special interest groups
- Tribal Governments

Determine The Most Appropriate Methods Of Communication With Community And Stakeholders, Tailored To The Community

Determine Applicable Laws:

Is the project likely to move into the NEPA process?

- **Yes:** Linking planning and NEPA is highly encouraged by Federal Guidance. Appendix A to 23 CFR 450 describes the necessary elements for planning studies to be used in the NEPA process and fulfill those requirements.
- **No:** Consider following NEPA standards so the planning study may be used should the alternatives potentially require NEPA. This could save time and money should this requirement come about.

Are there any environmental justice concerns anticipated with the impacts of the alternatives?

- Minority population(s)
- Economically disadvantaged population(s)

Set Goals For The Public Involvement Process

Measures or success factors for:

- Public Involvement Process
- Connection to Decision Making Process
- Method to measure effectiveness of public participation with public involvement process

Write Public Involvement Plan

1. Define roles of the agency, stakeholders, and the public
2. Define methods of communication to be used
3. Define goals of the public involvement process
4. Define schedule of events, tasks, and relation to planning study timeline and the decision making process
5. Define specific tasks and responsibilities of individual team members

STEP 3: PUT THE PLAN INTO ACTION.

CHAPTER 7



Chapter 7

Options, Strategies, and Screening Criteria

TOOLS AND APPROACHES: TURNING IDEAS INTO FEASIBLE OPTIONS

Developing options and strategies for implementing recommendations from the study can be challenging. It is important the options generated and discussed with the public and stakeholders are feasible options, and implementation strategies are fiscally realistic. Some of the steps that should be considered are:

- Develop screening criteria.
- Involve the public and stakeholders in the screening process.
- Summarize input to date into potential options for screening.
- Prepare conceptual map(s) of potential options and list or illustrate other improvements.
- Use resource team and stakeholder group input to refine the list of options and strategies.
- Organize a preliminary list of options and strategies.
- Apply screening criteria.
- Share outcome of the screening process internally.
- Present screened options and strategies to the public.
- Determine how to address options that fail to meet the criteria.

DEVELOPING THE CRITERIA

The resource team and stakeholder group as well should participate in the development of the screening criteria. The criteria should be framed as either pass/fail or be measurable on a numeric scale.

Using the tools detailed in this chapter will assist in identifying feasible options and strategies for a planning study.

DEVELOPING SCREENING CRITERIA

Criteria, as defined by Webster’s Dictionary, are; “standards, rules, or tests on which a judgment or decision can be based.” The options chosen for a planning study should be refined by using screening criteria. This is a comparative analysis of the list of options developed through the data collection, analysis, and collaborative processes. However, how do you build good criteria?

Good criteria are developed from employing adopted WSDOT standards and policies, and applying them to the planning study’s vision. Criteria are established as measurements through the collaboration of the study team and input from the stakeholders and the public to further refine the planning study’s goals.

The effectiveness of screening criteria is dependent on three primary factors. The first is the ability to apply them repeatedly to multiple options and get measurable outcomes or results. The second factor is the relevance of each criterion to the performance change that is desired or expected of the proposed investment. The third factor is the ability of the public, stakeholders, and the department to reach consensus for proposed options or investments. If the options are feasible, then they will score higher.

Screening criteria should include a way to measure whether each option or recommendation supports the statewide investment policy goals as specified in RCW 47.04.280. Each option/recommendation

should be assigned to one of the five primary categories:

- Preservation
- Safety
- Mobility
- Environment
- Stewardship

Within each of these categories, provide additional facts about the benefits or results of the recommendation.

Adding a passing lane or extending a deceleration lane contributes to improving mobility, but these types of improvements also provide safety and economic benefits. The important thing to remember is to use agreed-upon measures of system performance when you define your criteria. Every criterion is either “pass” or “fail,” or can be measured numerically.

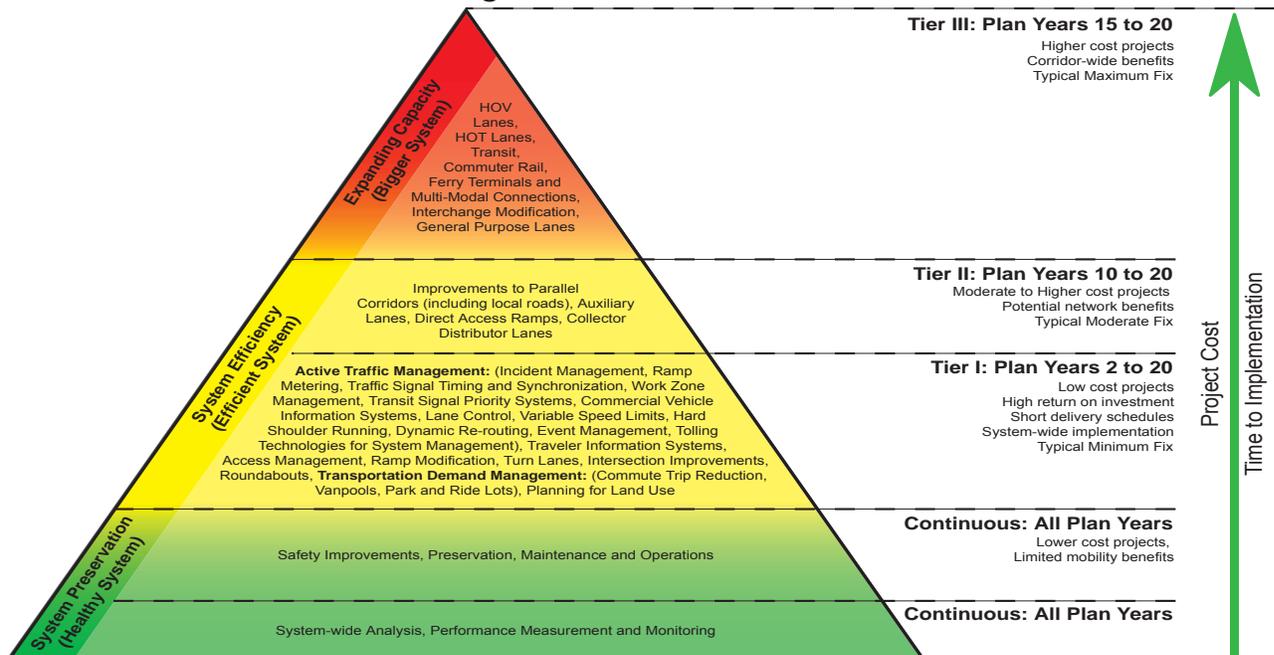
The Headquarters Systems Analysis Office is a resource for developing screening criteria for programmatic-level improvements. Consult them for review of the draft screening criteria before they are shared with stakeholders or the public.

Screening criteria can include:

- How well each option meets the vision and goals established for the study area.
- The costs of each alternative. While planning-level estimates will be adjusted in the scoping process, they are important at this step. Identify low-, medium-, and high-cost options.
- The effects of each option on the study area features, such as environmental resources, and its feasibility regarding environmental issues and regulations.
- The feasibility of each option regarding compatibility and consistency with local and regional transportation plan goals and priorities.
- Consider each option and how it may connect to improved access to important educational, medical, major employment, or recreational facilities.

2007-2026 Washington State Highway System Plan: Implementation Plan

Safety, Economic Vitality and Mobility Strategies



Screening

As mentioned, WSDOT has adopted standards that can also serve as criteria for refining options. For example, WSDOT has access control criteria for certain roadway classifications. These should be used when screening options that involve access issues.

Exhibit 6: Study Objectives for Screening

3.4 OBJECTIVES

The SR 518 RDP has seven primary objectives:

1. Incorporate and build on the results of the *Existing Conditions and Future Baseline* studies (WSDOT's recently completed SR 518 / SR 99 Corridor Study, Phase I), and the Joint Transportation Study by the City of SeaTac and the Port of Seattle.
2. Identify improvements necessary to improve mobility and accessibility along the SR 518 corridor, and accommodate near-term and long-term (2025) travel demand. The improvements identified should:
 - a) Avoid or minimize detrimental effects to the natural and built environment by avoiding environmentally sensitive areas.
 - b) For those impacts that cannot be avoided, provide options that allow those impacts to be adequately mitigated.
 - c) Improve access to the Airport, to the surrounding communities within the corridor, and to the region by identifying a long-range vision of transportation improvements.
3. Evaluate the potential need for high-occupancy vehicle (HOV) and similar managed facilities connecting with and through the SR 518 corridor.
4. Accommodate aviation clearances as required near the Airport.
5. Identify improvements that are fully developed to state and national standards, and which provide clear and concise driver information/guidance. Generally improve driving safety along the SR 518 corridor, including elements that conform to driver expectation, weaving needs, and adequate decision point distance needs.
6. Develop a long-range vision that is compatible, to the extent possible, with the relevant plans and proposed projects established by neighboring agencies, including:
 - a) Compatibility with, and accommodation of projected travel demand resulting from, the Port's proposed expansion program at Sea-Tac International Airport.
 - b) Compatibility with the proposed Sound Transit Link Light Rail along the SR 99 corridor and/or the SR 518 corridor.
 - c) Compatibility with the City of SeaTac's Phase III improvements on International Boulevard, and incorporate, to the extent possible, the City's freeway access needs.
 - d) Compatibility with the City of Burien's vision for a "gateway" at the west end of the SR 518 corridor.
 - e) Compatibility with the City of Tukwila, King County Metro Transit, and other affected agencies, so that future improvements do not preclude the respective development plans and needs of those agencies.
 - f) Compatibility with other ongoing WSDOT projects, such as the SR 509 Extension EIS, STIA South Access, and the I-405 Programmatic EIS.
7. Maintain an open and meaningful dialogue with the public through the identified Stakeholders, and public outreach program.

PARSONS
BRINCKERHOFF

III - 2

Route Development Plan
SR 518 RDP/EA

Exhibit 7: Screening and Rating Criteria

SCREENING AND RATING CRITERIA

The screening criteria were determined based on the purpose and need of the project and input from the Stakeholders Workshop. It was determined that there are five criteria that could determine the success of the project. Each of the conceptual alternatives was rated according to the screening criteria on a scale of 1 to 5, 1 being the most unfavorable, 5 being the most favorable. The conceptual alternatives were rated qualitatively and ranked against all other conceptual alternatives. A description of the screening criteria and how they are scaled is provided below:

- ❑ **Does the concept improve level of service in the existing SR 28 corridor?** This is part of the purpose and need of the project, and is a cornerstone to its success. The preliminary rating is a qualitative judgement and factors considered were proximity to trip generators, service of growth areas including SR 2 around the Odabasian bridge, Fancher Heights, and near the airport, and whether the concept will improve level of service in the long term.
- ❑ **Does the concept improve safety?** The need to improve road safety for traffic moving through East Wenatchee is an important objective of the project. This rating is a qualitative judgement, and factors which were considered were formation of snow and ice, speed, change in severity of accidents, change in number of conflicts, and proximity to schools, parks and neighborhoods.
- ❑ **Is the concept constructable, and can it meet engineering criteria?** If a concept alternative cannot be constructed, or if it fails meet the design criteria/standards set by WSDOT for the project, then that concept is not subject to further engineering evaluation. This rating is a qualitative judgement, with the construction of large cuts and fills, or the construction of interchange ramps in high-density locations receiving low scores.
- ❑ **Would the concept likely receive required permits and approvals?** If a concept alternative is not likely to receive the required permits or NEPA/SEPA approval, it can not be constructed. This rating is a qualitative judgement, where an average permitting approval effort scores a 3. A conceptual alternative was given a score of 1 if it was determined that it would be unlikely to receive the required permits and/or approvals. No 5 scores were given as each alternative would require some permits and approvals.
- ❑ **Does the concept minimize displacements?** Displacements of homes and businesses can be expensive and disruptive to the community depending on the scale. This rating is a qualitative judgement, and is scored based on the numbers of homes and businesses likely to be displaced by each conceptual alternative.

WSDOT SR 28 Screening Analysis Report, 2001

Exhibit 8: Access Control Criteria

Full Access Control Criteria

Fully controlled access highways provide almost complete freedom from disruption by permitting access connections only through interchanges at selected public roads, rest areas, viewpoints, or weighing stations, and by prohibiting all crossings and private connections at grade. *I-90 is an example of a fully controlled access highway.*

Partial Access Control Criteria

Partial access control may be established when warranted on highways other than Interstate. Partial control provides a considerable degree of protection from traffic interference and protects the highway from future strip-type development. Access control on partially controlled highways is exercised to the degree that, in addition to connections with selected public roads, some crossings and private driveway connections may be permitted at grade. Commercial approaches are not allowed within the limits of partial access control. *US 2 from Day Mt. Spokane to Chatteroy (MP 298.48 to MP 306.11) is an example of a partially controlled access highway.*

Modified Access Control Criteria

Modified access control is intended to prevent further deterioration in the safety and operational characteristics of existing highways due to traffic interference associated with strip development by limiting the number and location of access points to the highway. In general, modified access control is applied where some degree of control is desired, but existing and potential commercial development precludes the implementation of partial or full control. *US 2 from Nevada Street to Day-Mt. Spokane (MP 294.10 to MP 298.487) is an example of a highway with modified access control.*

WSDOT US 2 Route Development Plan Study, 2006

CRITERIA/MEASURES OF EFFECTIVENESS

Criteria are the means of screening, evaluating, and measuring proposed solutions to determine their ability to meet the stated goals. Based on the study goals, criteria or measures of effectiveness are developed to evaluate and compare each proposed solution.

One of your study's goals is to maintain and improve mobility in the study area. The criteria you would use for mobility are:

1. Total travel time
2. Local travel time
3. Throughput for a 24-hour period based on the posted speed limit

Mobility is expressed as the ease of movement of persons and freight through the study area. It is related to levels of vehicular congestion and it is responsive to changes in travel demand and capacity.

SAFETY DATA

The Transportation Data Office (TDO) is the warehouse of safety data for WSDOT owned facilities statewide. Safety data is located on the [WSDOT GIS Workbench](#).

Perhaps another goal in your study is to provide a safe corridor for people to live along and to travel on. Safety measures the safety performance for a given option to indicate an increase or decrease in safety associated with each option identified in the study. Some of the criteria used would be:

1. Location and number and severity of potential motorized traffic accidents in the study area.
2. Location and number and severity of potential non-motorized traffic accidents in the study area.
3. Emergency Services access

The accident rate and associated societal costs should contribute to the determination of each option using standard safety forecasting practices.

NEPA/SEPA GUIDELINES

The National Environmental Protection Act (NEPA) and the State Environmental Protection Act (SEPA) provide suggested methods of screening options for planning studies.

Currently state transportation planning studies conducted by WSDOT are not required to meet SEPA. It is preferred planning practice to use the suggested methodologies in NEPA/SEPA to identify environmental features and the preliminary effects of recommendations to streamline future scoping efforts.

ECONOMIC FEASIBILITY

Economic feasibility measures the benefit derived from each option with an estimated cost of the option. The options examined will need to have cost estimation for the 20-year life cycle of the project. The cost effectiveness of each option indicates the benefits/costs over the option's lifecycle. Costs to be considered in the benefits/cost ratio calculations include:

- Project costs
- Annual operating costs
- Maintenance costs
- Implementation ability

Project, operating, and maintenance costs will need to be calculated forward 20 years using a percentage of inflation. While it is recognized that material and labor costs fluctuate, using the FHWA Construction Cost Index is the most accurate method to calculate the costs over the 20-year planning horizon. The WSDOT Capital Program Management System is where these index tables are located. Refer to the web site: <http://www.wsdot.wa.gov/ppsc/pgmgt/cpms>

Implementation ability relates to financial feasibility. No matter what option is selected, funding will be a challenge. The qualitative measure of implementation ability will determine the funding potential and ability to phase the implementation of a given option.

UNDERSTANDING PROPOSED OPTIONS AND THEIR RELATIONSHIP TO THE ENVIRONMENT

For each option developed in your planning study, there will be effects. These effects will have a direct correlation to which option(s) are ultimately selected.

Environmental Effects

Two categories under environmental effects should be considered:

1. Natural environment, and
2. Historic/cultural sites.

Natural environment is a quantitative measure of the effects of given options, including effects to sensitive areas such as wetlands, streams, woodlands, and endangered species. Effects on woodlands would be determined by the amount of acreage affected by each option. The effects each option would have on a stream is determined by the length of the stream crossing and the acreage within the buffer limits of each option, as well as the potential effects on fishery resources. The effects on wetlands are also determined by the amount of acreage of a wetland and its buffer that is affected.

Potential options may raise concerns regarding effects to the study area's historic character. Each option will need to be compared as to its potential impact on the number of historic and archeological resources within the vicinity and how they are affected by each option.

FEDERAL HIGHWAY ADMINISTRATION

The Federal Highway Administration has guidelines referencing the visual quality aspects of a corridor. While these guidelines apply mostly to federal facilities, they provide suggestions for the appearance of the landscape and the integrity of viewsheds along a facility.

SOCIAL EFFECTS

Social effect criteria indicate the potential disruption of the quality of life and the fabric of the community in the study area. Disruptions and changes in the character of the community within the study area may be beneficial or adverse. Beneficial changes could reduce congestion, improve mobility, and increase safety. Adverse changes could be disruptions in neighborhood or community cohesiveness, physical separation of residents from community facilities, decreased mobility, and safety or increased noise.

- Neighborhood effects criteria are subjective measures based on the results of analysis of the study's options potential for displacements and impacts on community cohesion.
- Displacement estimates the number of residences that would be displaced by a proposed study option.
- Noise effects assess an option's potential noise level changes and associated risks of implementing a study option.
- Community cohesion considers the effects of changes in access to travel patterns on a neighborhood as the result of implementing an option.
- Visual quality and sense of place refers to the aesthetics of the area and why people have chosen to reside in the area.

LAND USE EFFECTS

This criteria measurement determines if an option is consistent with local and regional plans. Any option in your planning study will need to support specific policy statements, goals standards, or objectives contained within regional and local land use or transportation plans. Additionally, this qualitative measure will determine the impact on rural land use and the character of the study area. Many counties have policies in place promoting and protecting commercial agricultural land for production. In other instances, agricultural land is protected as open space to preserve the rural character of the community within the study area.

Aesthetics effects refers to the study area's aesthetic or visual environment and the effects options would have on the visual, light, and view environment within a study area.

EQUITY EFFECTS

This impact evaluation refers to the extent that any option from a planning study provides fair distribution of benefits and costs among the various socioeconomic population and geographic groups within the study area. This measure is based on the results of the social, economic, and environmental analysis.

TITLE VI EFFECTS

Under a 1994 Presidential Executive Order, Title VI Environmental Justice directs all programs, policies, and activities to include minority and low-income populations in transportation policy decisions. In order to comply with this, WSDOT must appropriately address the concerns of individuals potentially affected by our activities. And those individuals must be appropriately involved in the development of projects that fit harmoniously within their communities without sacrificing safety or mobility.

Three fundamental principles of environmental justice include, but are not limited to:

- Ensure full and fair participation by all potentially affected communities in the transportation decision-making process.
- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

BUSINESS EFFECTS

Any option developed in a planning study must consider the potential effects on the economic conditions of the community within the study area. Business vitality and freight mobility within the study area need to be assessed with each option. Effects to businesses can be determined by considering the actual displacement of businesses, the proximity of the option to existing businesses, and its removal or alteration of access to freight suppliers.

MATERIALS FOR PUBLIC PARTICIPATION IN OPTION SELECTION

Prepare displays of the preliminary options. Maps work extremely well as illustrative tools in presenting conceptual representations of preliminary options.

COMPILE OPTIONS AND IMPLEMENTATION STRATEGIES

The study team should identify as many options and strategies as possible. Each option will then need to be reviewed to identify which improvements within the study area can be identified as feasible. There are aspects within each option that need to be reviewed to determine how each option can address the long-term vision of the study area. Some of the aspects need to be considered are, but are not limited to:

- Land use changes: what land use changes are occurring in the study area, and which option(s) will address them best?
- Age of the system (pavement, signals, structures etc.): will the option(s) address this?
- Travel growth: will the option(s) address future travel growth in the study area?
- Access control: will the option(s) address the access issues in the study area?
- Traffic operations: will the option(s) address the current and future operations in the study area?
- Intelligent Transportation Systems (ITS): which option(s) include ITS deployment and reduce construction costs, environmental impacts, and property damages.
- Transportation Demand Management (TDM): which option(s) include TDM and how will they address future study area needs?
- Right of way: will the option require obtaining more right of way?
- Alternate modes: can the use of existing roadway alignments accommodate bicycles and transit?
- Local system network: which option(s) take into consideration the needs of the local network and address local-state transportation system network issues?

Once the preliminary options are screened and are identified to meet the vision of the study area, the preliminary list of options should be developed.

STAKEHOLDER GROUP INPUT

The study team will want to involve the stakeholder group to gain their collective input and insight on the compiled list of options. The developed list of preliminary options for improvements can stimulate discussion for the production of a more complete list of feasible improvements and strategies. This completed list can then be presented at public outreach events.

Additional displays can include maps and reports prepared previously, a study area map, traffic

volumes, high incident locations, and environmental considerations.

PUBLIC PARTICIPATION

Public participation is necessary to gain input on the list of preliminary options and strategies. These options should be presented to the public for their input. The public should be encouraged to consider improvements not related to conventional solutions. Public participation allows for creative ideas and validation of the planning process. Seeking out public participation to develop the recommendations in the plan provides buy-in or ownership by the public of the recommendations for the study area.

Once the list of preliminary options is identified, refine the list by applying the screening criteria for the options.

HOW TO APPLY SCREENING CRITERIA/OPTIONS

The screening of a planning study's options can be one of the most challenging aspects of a planning study. There may be a few or many different options to reach the goals of a planning study. Several methods exist for screening and evaluating the options identified.

STAKEHOLDER PREFERENCES AND EXPECTATIONS

Stakeholders will provide feedback on specifically what they will want to see as the options chosen for a study. A stakeholder will most likely focus on several aspects:

- Minimize effects to their business/neighborhood
- Improve access to business
- Minimize cut-through traffic into neighborhoods

While a stakeholder's input is a valuable aspect of public involvement and can play a role in developing the options for a study, stakeholder

input must be weighed against the direction provided in the overall statewide policies.

CITIZEN PREFERENCES AND EXPECTATIONS

Citizen input is important to include as a part of the public involvement aspect of the planning study process. Incorporating citizen input adds ownership by the community regarding the options in a study. However, these options must be tempered with meeting statewide policies.

SURVEY METHOD

Using a survey to determine the relative importance of each option to the criteria provides a numeric value for each option. This method evaluates the importance of each goal using the screening criteria. The survey is distributed to study and resource team members to gain their feedback on the criteria. Each team member gives a numeric value to each goal, and the totals are averaged.

These criteria can be measured individually. Use an evaluation scoring scale of 1 to 5, with 1 being the least important and 5 being the most important. Options can be chosen in the same manner.

Exhibit 9: Survey Method: Criteria Screening Measures

Criteria	Average	Median	Mode
Mobility	3.8	4	4
Connectivity	3.5	4	4
Safety	4.3	5	5
Economic Feasibility	3.8	4	4
Environmental Impacts	3.3	3	2
Social Impacts	3.7	4	5
Business Impacts	3.9	4	5
Public Acceptance	3.7	4	4

Screening Measures Table 3.1 WSDOT US 101 Port Angeles Study, 2000

Using this method, the study and resource teams identify which options have the highest importance, and the priority of the improvements needed to meet the vision of the study area. Public participation in this process can assist in

determining the importance of each option being considered.

HOW DO YOU SCORE OR APPLY CRITERIA?

You need to develop criteria measurements for each option in your planning study. In the previous example, travel time shows the potential savings and or delay reductions for vehicle traffic. In this instance, total travel time considers the effects of through traffic on the study area. Local travel time considers the time it takes to travel through the study area and the waiting time at intersections and interchanges.

Throughput is based on the travel speed through the study area over a 24-hour period. This is expressed as a percentage. For example, measurements of throughput indicate the volume of traffic that travels at 70% of the posted speed limit through the study area over a 24-hour period on average. In other areas of the state, a mix of throughput and traditional Level of Service (LOS) measurement is used by local governments and MPOs.

The following are examples of criteria measurements that can be used to identify feasible options for your planning study.

Exhibit 10: Criteria and Measurement

Criteria Description	Measurement
Implementation Cost	Dollars
Distance Changes	Vehicle Miles
Problem Solved	Accident Reduction Potential
Impact to Neighborhoods	Homes Relocated
Impact to Businesses	Predicted Changes
Future Growth	Traffic Projections
Funding Potential	Benefit/Cost Ratio Incremental Implementation
Environmental Impacts	Potential impacts
Impact to Tribal Lands	Number of acres
School Bus Access	Alternate Route Provided
Emergency Vehicle Access	Response Time

WSDOT Lynch Road Safety Improvement Project, 2001

Quick Reference Checklist

- Gather input on potential options from local officials and agencies
- Generate a preliminary list of options that would appear to meet study area goals.
- Prepare displays for preliminary options and strategies such as maps and conceptual drawings, or illustrations of improvements.
- Prepare background study area information for distribution at public outreach events.
- Contact resource team and stakeholder group members to gain their input of the preliminary options, and screening criteria. Recommended criteria include the following:
 - The options implement existing statewide policy guidance;
 - Conformance to goals established for the study area;
 - Costs;
 - Effects on social, environmental, historic/cultural and economic resources in the study area;
 - Feasibility of each option regarding compatibility and consistency with local and regional transportation plan goals and priorities;
 - Degree of improved access to important area facilities, trip generators.
- Develop presentation of options materials needed for the selected public participation process.
- Ask the public to compare options and strategies, and achieve consent on the feasible options and strategies to screen.
- Prepare a list of feasible options and strategies to screen.
- Prepare a report summarizing the screening process, the public participation activities and the key decisions agreed to during the planning process.

COMPATIBILITY AND CONSISTENCY WITH LOCAL AND REGIONAL PLANS

Align potential options with local and regional plans. Options from your planning study should provide clear integration with what local and

regional plans have recommended. This approach will provide compliance with federal SAFETEA-LU requirements and with the local transportation network.

IMPLEMENTING STATEWIDE POLICIES

Screening the potential options can be accomplished by using one or a combination of all of the aforementioned methodologies. It is important to remember in selecting and screening options that those options should best meet statewide policies.

Selecting options meeting the statewide policies is a prudent strategy. While this does not ensure a study's recommendations will be funded, it does promote the study's recommendations into possible future programming.

DOCUMENT OPTIONS SELECTION PROCESS

Documenting the option selection process is beneficial to any planning study. This brief report summarizes the options identified, the process of elimination, and the selection of the preferred options and strategies. Additionally, it is important to document the public participation process in selecting the options for the study.

CHAPTER 8



Chapter 8

Study Recommendations

INTRODUCTION

The recommendations contained in the planning study should be tiered. The recommendations should also be prioritized to reflect the highest priorities that address the most pressing concerns or issues. This does not necessarily mean that these high priorities are the most expensive investments needed. The recommendations should be organized into a spreadsheet called the Implementation Action Matrix. This matrix lists the different types of solutions, options, and investments that were endorsed as the plan was developed. These projects, measures, and approaches will come in different sizes and be needed at different times over the next 20 to 30 years. Determining which investments should occur when in order to achieve specific benefits is a complex process. The management of external expectations can be challenging at this stage. Hopefully, by this time in the process, stakeholders are aligned with the direction the draft plan is heading. For each planning study this step will be guided by the decision-making process.

In the Implementation Action Matrix there is a place to identify additional key attributes of the recommendations. Many recommendations may not occur on the state-owned transportation system, but they will have a direct connection to the corridor that is being studied. Traffic signal improvements to local arterials adjacent to highway interchanges are an example of a system-level recommendation. Without this investment, the performance of the mainline may be impacted. The facility owner is identified in the matrix and it also includes a cost estimate and the time line for implementation. Additionally, the matrix identifies the lead agency or entity for securing funding.

The previous work on issues, developing the study area vision, defining goals, collecting data, performing analysis, and collecting public and stakeholder feedback has guided the recommendations and action steps up to this point. Lead planners should examine every possible source of funding so that the study recommendations become a blueprint for implementation. The matrix is a key communication tool that conveys essential information concisely.

THE STUDY'S FINDINGS

Detailing the study's findings is important to validate not only the entire planning study process, but also the process behind developing the options and the final study recommendations. The study's findings also illustrate the results of the analysis methodologies used on the options.

As the lead planner, it is important to detail the data collection results and analysis performed. Also explain the data findings and the use of the criteria described in Chapter 1 to refine the initial options.

Exhibit 1-8: Illustration of Study Findings

Findings & Recommendations	SR 291 Route Development Plan <i>Freya Street to Scotts Valley Road</i>
<p>Findings</p> <p>Currently Francis Avenue, from Freya to Assembly, is congested and functioning at capacity, with most intersections performing at Level of Service 'F'. This urban section of the study carries the highest traffic volumes with no reasonable alternate route corridor available for motorists. An expansion of the existing number of lanes is the only feasible mitigation for the long term. Less costly channelization, intersection improvements, and the potential development of the parallel city street system, are options for short term mitigation. SR 291 corridor is constrained by topography from the Nine Mile Community MP 8.5 to the Little Spokane River MP 10, and severely constrained from MP 10 to the Suncrest Community MP 12.5. Through these areas SR 291 is bordered by the Spokane River to the west, and steep embankments to the east. The embankment slopes vary from vertical rock outcroppings to grades steeper than 2:1 and the embankment height varies from 50 to 120 feet. Alternate routes have been proposed for these sections.</p> <p>Traffic movements throughout the entire corridor are projected to see significant growth over the next two decades. Public input during the Route Development Study was strongly in favor of mobility and safety mitigation for the SR 291 facility.</p> <p>The impacts of the North Spokane Corridor to SR 291 were analyzed as part of the study and found to be minimal to the SR 291 facility. Based on preliminary traffic modeling and analysis, Spokane County's proposed Northwest Urban Connector appears to have a positive impact on the SR 291 corridor, especially in Section 1 <i>Freya Street to Nine Mile Road</i>.</p>	

As illustrated in the example, these results explain the findings of the traffic data analysis. Included in the findings is a description of the embankments and geologic aspects of the study area. The study findings, as well as the criteria used, will assist in formulating the study's recommendations.

EVALUATING OPTIONS

A detailed analysis and evaluation of each option under consideration should be based on the results of the findings analysis. Refining the criteria to identify the options is done at this stage. Evaluate each option using the refined criteria as follows:

- Compare each option and strategy to the others in terms of cost and relative impacts.
- Determine ease of implementation.
- Determine right of way and facility requirements and constraints.
- Develop conceptual geometric configurations, for example, major bridges, intersections, etc.
- List social, residential, business, and environmental impacts, and evaluate each option equally.
- Examine which options are feasible for short-, mid- and long-term implementation and how each fits into the long-term 20-year corridor vision.

Stakeholder participation and input will assist the study team to examine the list of feasible options and strategies closer. The teams can also assist in refining and developing a comprehensive package of recommendations and strategies for implementation.

PUBLIC OUTREACH AND INPUT

Public input on evaluating and comparing options is an important element in ranking and defining the recommendations. The public's evaluation of the options can assist in reaching consensus on the study's recommendations and validates the planning process.

SCREENING PROCESS

The screening process used to determine the recommendations for the study area must be simple enough for everyone to understand and participate in an open, collaborative process. The screening process should also be structured enough to demonstrate substantiation of the chosen recommendations.

An example of screening criteria for an option is to give it a weighted value relative to its importance when compared to another option. These weight factors can be collaboratively developed by the study and resource teams. Each option can then be analyzed. After the analysis, each team reviews the findings.

The results of this type of analysis can range from numerical quantitative measures to qualitative impacts (high, medium, low). The study and resource teams can then review and rank each option on how it meets the goals for the study area. It is advisable not to allow ties for the rankings. This forces the study and resource teams to evaluate each option and provide their best judgments regarding its positive and negative characteristics.

The best-to-worst ratings can then be multiplied by the weighting factors to reflect the importance of each option and to develop a score. Scores can then be compared and the best option can be chosen as the preferred recommendation.

This simple methodology is effective in illustrating what the important issues are, as well as how each option compares against the other. While this approach can detail positive and negative attributes, it provides the means to determine the best option and, ultimately, the recommendations.

DEFINING FINANCIAL FEASIBILITY

Each option will need to be evaluated for financial feasibility. This determines how much each option will cost, and in turn determines where in the

implementation timeline each option will fit, whether short-, mid-, or long-term.

Planning-level cost estimation is not precise. However, using the Construction Cost Index, each recommendation's cost can be estimated within a reasonable range. When determining financial feasibility, recommendations should be categorized into three tiered levels:

Tier I—Short-term recommendations can be more accurately estimated, since these are typically 1 to 5 years from completion of the study, and address the most immediate needs.

Tier II—Mid-term recommendations are typically 5 to 15 years from the completion of the study. The accuracy of cost estimation begins to decline further from the study completion date.

Tier III—Long-term recommendations are fifteen to twenty years from the study's completion. This is when a planning study's vision should be obtained. Planning-level cost estimation is less accurate at this point, but still sufficient.

STRATEGIES FOR IMPLEMENTATION

To be implemented, a planning study's recommendations need to be financially feasible and have funding. Defining and identifying funding sources for recommendations can assist in managing internal and external expectations.

PROGRAMMATIC FUNDING

Recommendations addressing the statewide policy issues identified in the Five Investment Guidelines, as detailed in the WTP and draft HSP, may get programmed into statewide funding. While there is no clear assurance of program funding, if a study's recommendations indicate a previously unknown issue, statewide priorities can be modified as long as supporting data is included.

GRANTS FUNDING

Certain recommendations may present an opportunity to seek grant funding for implementation. The sources for these grants may be federal, state, local, and in some instances private. Some of the grants available can be for:

- Mobility
- Business and economic development
- Access
- Recreation
- Historic preservation
- Neighborhood enhancements

Grant funding is an open and competitive process. While providing no guarantees, it may provide an opportunity for certain study recommendations to obtain funding for implementation.

*If a study area encompasses a designated **Scenic Byway**, funding options might be available through the federal Byways Program. The Byways Program is funded by federal grants with matching state funds. Such funding has promoted rural tourism and historic preservation in areas of Washington.*

LOCAL FUNDING PARTNERSHIPS

Funding may also be obtained by establishing partnerships with local governments, agencies, or organizations. Local governments may assist in providing funding for study recommendations. For example, a local improvement district is providing business development funds to promote economic development for businesses immediately adjacent to a route serving as the main street in a rural community. Another example is that a local government may be able to provide street enhancement funds for landscaping or streetscape improvements. Other examples of funding partners are:

- Colleges and universities
- Public transportation agencies
- Business associations
- Neighborhood associations
- County economic councils
- Rural development agencies

If one of these groups has served as a stakeholder during the planning process, then it would be a great opportunity for that stakeholder to contribute to implementing the recommendations.

STATE LAND MANAGEMENT AGENCIES

In some instances, state lands are served by WSDOT roadways, and these agencies develop state land management plans. If such a roadway is within a study area adjacent to a state park, then that agency might serve as a potential source of funding for implementation.

***Fish Passage Barrier Removal:** A partnership between WSDOT and WSDFW provides for the identification, removal, and replacement of fish passage barriers along watersheds that WSDOT roadways cross. This partnership has enabled both agencies to improve not only fish stream habitats but roadway infrastructure as well.*

FEDERAL LAND MANAGEMENT AGENCIES

Similar to state lands, some WSDOT roadways are adjacent to or cross federal lands. Federal land management agencies might present funding partnership opportunities so that recommendations may be funded for implementation.

RECOMMENDATIONS AND THE VISION

The 20-year vision and the study's recommendations cannot realistically be implemented all at once. In most instances funding determines what recommendations can be implemented. Recommendations need to be phased over a period of years, to reach the 20-year

vision, so the recommendations from the study can be programmed and the corridor vision completed.

Recommendation Prioritization

Each recommendation needs to be prioritized. This prioritization is based on an evaluation of the recommendations by the study team, and the estimation of the costs for each recommendation. Each recommendation will need to be categorized into short-, mid-, and long-term.

Based on the recommendation categorization and funding available, a study's recommendations will need to be implemented over a period of 20 years.

The greater the cost of a study's recommendation, the longer it will take to implement. The lower cost recommendations typically provide a higher return on investment, and can be accomplished within short delivery schedules. These short-term

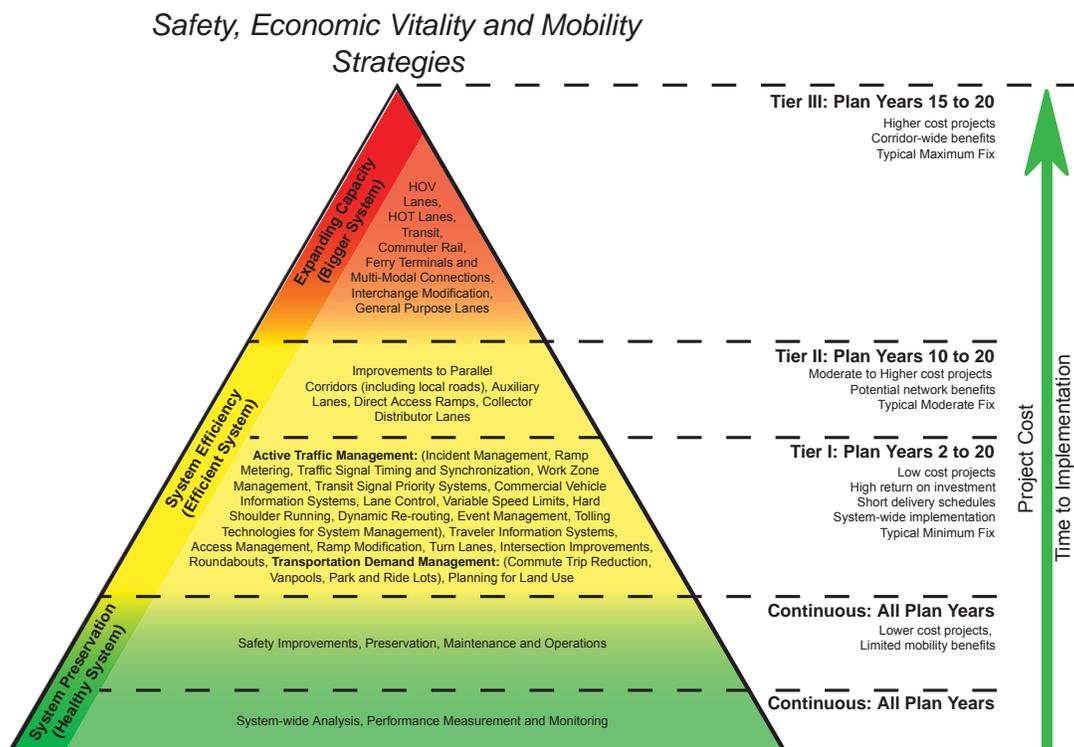
investments also provide the public with tangible products and the perception their expectations are being met.

RECOMMENDATIONS AND THE WSDOT DESIGN MANUAL

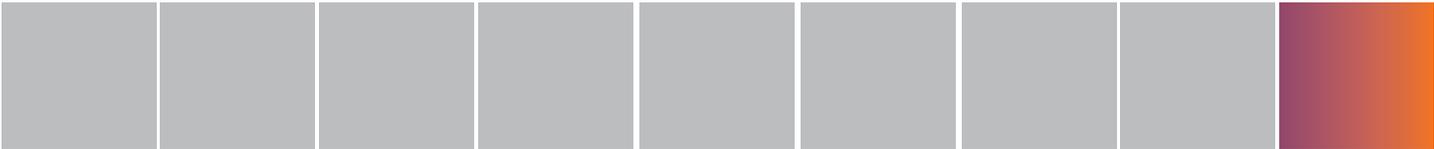
A study's recommendations need to be consistent with and meet the standards of the WSDOT Design Manual. Incorporating public and stakeholder feedback is as important an element as community influenced design, vision, and conceptual alternatives development. The final recommendations should meet the standards in the WSDOT Design Manual.

Exhibit 2-8: Timeline

2007-2026 Washington State Highway System Plan: Implementation Plan



CHAPTER 9



Chapter 9

Scoping, Programming, and Project Delivery

INTRODUCTION

Corridor Planning Studies add tangible value to project delivery. Planning study recommendations should contain a sufficient level of detail on each of the tiered recommendations to adequately inform the project scoping process. Linking planning study recommendations to program development and project delivery streamlines the scoping process.

Analyzing of the transportation system's performance and managing our assets are the first steps in program development. Corridor Planning Studies identify the transportation system needs from which the goals and objectives for each implementation action/project are identified. Planning studies tie together multiple needs throughout a corridor and provide a comprehensive vision to ensure route continuity.

Project delivery begins with the programming of a given project. When a project is programmed it is included in the state's Capital Improvement and Preservation Program. This provides a seamless flow between planning and the implementation of the tiered recommendations. This applies to one or more projects over the 20-year vision of the corridor. The purpose of this section is to assist region planners in preparing solid recommendations ready for inclusion into the scoping and programming process.

It is important to share with communities and the public that the recommendations need to have:

- Planning level cost estimates
- Tiered cost effective options
- Summaries of identified environmental issues
- Projects that can be readily scoped with little additional data collection analysis
- Stakeholder support

PROGRAMMING DEVELOPMENT GUIDANCE

How do we scope our projects? What type of guidelines should we follow? Every other year, WSDOT Systems Analysis and Programming provides project programming guidance and distributes it to the Regions from Headquarters. This guidance illustrates how scoping should occur in preparation for the upcoming biennium. The most current guidance is available online: <http://wwwi.wsdot.wa.gov/ppsc/pgmmgt/PgmDev/2>

SCOPING PROCEDURES AND GUIDELINES: LINKING PLANNING STUDY RECOMMENDATIONS TO PROGRAM DEVELOPMENT

Why do we scope projects? Who uses this information and how does it support project delivery? More importantly, how can a planning study contribute to providing the right information just prior to when the recommendations need to be scoped?

It is important to ensure the recommendations are aligned with:

- The five transportation policy goals
- The five investment guidelines identified in the Washington Transportation Plan
- The strategic direction of the Highway System Plan

A study's recommendations should support the statewide policy guidance.

The Highway System Plan addresses the following program categories:

- Pavement Preservation
- Bridge Preservation
- Highway Asset Preservation

- Highway Safety
- Mobility
- Economic Vitality
- Health and Environment

STATEWIDE TRANSPORTATION POLICY GOALS

Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.

Safety: To provide for and improve the safety and security of transportation customers and the transportation system.

Mobility: To improve the predictable movement of goods and people throughout Washington state.

Environment: To enhance Washington's quality of life through transportation investments that promotes energy conservation, enhance healthy communities and protect the environment.

Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

Source: RCW 47.01.012

² See 2009-2011 Program Guidance 7-07.doc from SA&PD

WASHINGTON TRANSPORTATION PLAN FIVE INVESTMENT GUIDELINES

1. **Preservation:** Preserve and extend prior investments in existing transportation facilities and the services they provide to people and commerce.
2. **Safety:** Target projects, enforcement, and education to save lives, reduce injuries, and protect property.
3. **Economic Vitality:** Improve freight movement and support economic sectors that rely on the transportation system.
4. **Mobility:** Facilitate movement of people and goods to contribute to a strong economy and a better quality of life for our citizens.
5. **Environmental Quality and Health:** Bring benefits to the environment and our citizens health by improving the existing infrastructure.

Source: *The Washington Transportation Plan 2007-2026*

HIGHWAY SYSTEM PLAN NEEDS IDENTIFICATION

A programmatic approach to scoping is the fish passage barrier removal program. In the fish passage barrier removal process, the first step occurs when a fish barrier is identified by the Department of Fish and Wildlife. The Systems Analysis and Program Development staff work with WSDOT data stewards to inventory all highway system assets and evaluate their condition on a regular basis.

The second step is to identify condition deficiencies. These deficiencies are then factored into the project including the fish passage barrier removal. This additional step means WSDOT will not have to come back and do additional work along the same section of roadway.

Asset inventory and condition assessment is available in the WSDOT Geographic Information System Workbench: http://wwwi.wsdot.wa.gov/GIS/supportteam/gis_workbench/ProjectCharter.pdf

IDENTIFYING CRITICAL INFORMATION FOR SCOPING AND PERFORMING COST ESTIMATION

How important is it to identify critical needs in a planning study? Which needs should be identified?

Critical needs must be identified in the planning study to adequately scope and perform cost estimation at the project level. The greater the level of detail a planning study provides, the broader the awareness of critical needs. Each study will be different because of its purpose and each recommendation, because of its tiered nature will also be different. Some of these critical needs can be described as:

- Environmental considerations
- Right of way issues
- Land Use issues
- Utility challenges
- Bridge conditions
- Pavement conditions
- State-owned roadside facilities
- Connections to other modes
- Route continuity

SOLUTIONS OR OPTIONS ADDRESSING THESE NEEDS

When identified in the planning study analysis, details such as these can provide a more efficient and realistic cost estimate during scoping and may preclude problems that could delay implementation of a study's recommendations.

Cost estimation at the planning level is important because it improves future project delivery by providing tiered options and recommendations for the scoping process over the 20-year planning cycle of a planning study. Tiered solution recommendations improve future project delivery. Material costs fluctuate over time. However, it is

possible to estimate with relative accuracy material costs within five to ten years beyond the year the planning study was completed. WSDOT uses the Capital Program Management System database. This extensive database contains the actual annual materials cost increases from 1967 to the present. Factoring in inflation, this database is updated every six months. The database also contains cost tables, which a planner can use to calculate future materials costs.

Systems Analysis and Program Development provides specific instructions each biennium to prepare a project proposal (scoping) that addresses the greatest needs in a corridor by determining which of those immediate needs will provide the greatest improvement in performance for expenditure. Determining the preliminary cost of solving these needs then becomes an essential element of determining which problems to solve first.

Addressing system operations for system preservation, safety, mobility, and environmental retrofit is similar to asset preservation in many respects. Each area has a data steward. These specialists, located in Systems Analysis and Program Development, gather, compile, and analyze the specific data as it relates to each area. This data is maintained, needs are assessed and priorities are strategized to reach statewide policy goals. The preliminary costs to determine which needs to scope first are also identified.

In order to maximize the performance of WSDOT assets and system operations, multiple alternatives need to be evaluated as part of a long-range vision for the corridor. Upon completion of a planning study, preferred cost-effective alternatives can be implemented over a period of years to maximize system performance in the corridor and across the statewide transportation system as funding becomes available.

PROJECT DEVELOPMENT

A report is created in the project development process. This report is called the project definition document. It provides the framework for further development of the project and records key decisions made early in the project development process. This is the basis for a proposed project and establishes WSDOT's project delivery commitment to the Legislature and Governor. The project definition report formally documents the project's scope.

The importance of good coordination between planners, programming staff, and project designers is magnified at the project development stage. Planners can provide the history and background from the planning study process regarding why certain recommendations were chosen. If details or issues have been missed in a planning study, they become evident at this phase. Additionally, any streamlining of a planning study's recommendations during the project scoping process could lead to modifications with detrimental financial effects on a project's scope, schedule, and budget. And it can also create an undesirable outcome from the local or regional perspective.

Typically, designers have been solely responsible for project development. However, the complexity and the characteristics of a project area and the expectations of the stakeholders that participated in the planning study requires an expanded effort. Individuals from WSDOT divisions should be included as a part of the project development phase. In many instances, this involvement may include the same participants from the planning study. Technical groups within the following WSDOT divisions at Headquarters and within the region may include:

- Environmental Services
- Real Estate Services
- Utilities
- Access Management

- Bridge and Structures
- Traffic
- Modal Divisions
- Maintenance and Operations
- Construction Services
- Facilities Office

Participation of these divisions and offices is important during the project development phase. If a division is not included, the scope and cost estimate may be compromised.

PROJECT DELIVERY

Project delivery is the final phase that implements the legislative intent of a project as approved in the Transportation Budget. The original goals and objectives from the planning study's recommendations should be included in the project definition and addressed during the project delivery process.

The planners who participated in a planning study become stakeholders in the project delivery process. The approved design decisions can be reviewed to ensure the goals of the planning study will be implemented. A planner should shepherd the planning study recommendations during this phase as a stakeholder of the project delivery team.

During the contract advertisement and award process, contractors may have questions regarding various aspects of a project. In many instances, these questions can only be answered by the planners who have the historical knowledge and background about certain aspects of the project. Planners provide the detailed history so the intent of the planning study recommendations are followed and stakeholder endorsement can be maintained.

Preconstruction meetings are held when a contract has been awarded for a project. Depending upon the scope of work and elements in the project, it may be appropriate to have a planner from the

study serve as a representative to provide any additional information. These meetings provide the opportunity to discuss commitments or features of the project from the planning study's recommendations.

During the life of a project, it is important that a planner continue to serve as a stakeholder member of the project delivery team. Elements within the planning study recommendations may not be clearly understood and could result in a proposed change from the original intent of the study's recommendations. When attempts to deviate from the original project scope occur, it is the responsibility of the planner to make certain the original recommendations are followed. WSDOT's legislative commitment is the project scope as defined in the Transportation Budget. WSDOT further defines this scope within the project definition process. However, these should all stem from the original scope identified in the planning study.

Part III



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PART III CASE STUDIES

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WORKING EFFECTIVELY WITH STAKEHOLDERS

SR 7 Route Development Plan, Phase 1 (2006)

- Regions: Southwest and Olympic
- County: Lewis
- Location: SR 7 East from Morton to SR 706 in Elbe

WHAT WAS THE PURPOSE?

SR 7 is a two-lane highway serving both rural communities and suburbs, and crosses Southwest and Olympic Regions. The regions worked together to study this corridor in three phases.

Phase 1 of SR 7 is used year-long as a major logging-truck route (regional sawmill at Morton), it provides access the region's only hospital (also in Morton), and is used seasonally by tourists to Mt. Rainier National Park. It is also Morton's "Main Street."

WHAT WERE THE GOALS?

The goals of this plan were to improve safety, preserve the scenic quality, provide excellent service, address local community needs, protect wildlife, improve fish habitat, and recommend appropriate improvements.

WHAT WERE THE POSITIVE OUTCOMES?

The project team clearly defined the roles and responsibilities of the stakeholders and the general public. This reduced time and frustration and allowed participants to concentrate only on the pertinent issues. Each meeting was focused and productive and didn't result in "scope creep." Relationships were strengthened between the two WSDOT regions and between WSDOT and the communities.

HOW DID THE TEAM DO THIS?

The two regions involved (Southwest and Olympic) worked together and formed a stakeholder committee made up of mayors, county commissioners, chambers of commerce, county public works departments, landowners, affected tribes, businesses, school districts, historical societies, the Washington State Patrol, permitting agencies, transit agencies, bicycle interest groups, and the regional transportation planning organization. The regions also conducted open houses.

Meetings had prepared agendas, informative presentations, and good facilitation. At the beginning of each meeting, the project team clearly detailed the purpose and expectations of the meeting. The team wrote and posted the project vision, goals, and objectives, and the criteria for comments.

WHAT TOOLS DID THE PROJECT TEAM USE?

Vision Statement: This was shared with the stakeholders and the public at meetings and on the project web site. Comments were analyzed for consistency with the vision.

Study Goals: This was created by WSDOT with additions from the stakeholder committee. They were also shared at meetings and posted on the project web site. Comments were analyzed for consistency with the goals.

Internet: Two web pages were developed—one for the stakeholder committee and one for public meetings. Each page posted meeting agendas and very detailed minutes. The minutes included photos and charts presented at the meetings as well as key discussion points.

Geographic Information Systems (GIS): A variety of maps were available at the meetings and on the web pages. These displayed resource issues, access control, traffic analysis, project scheduling, and comments.

Outreach: The team used local newspapers, stakeholder meetings, public meetings, flyers, mailings, phone calls, e-mails, and local access Mike's TV.



SR 7 in Lewis County
Courtesy of WSDOT Kelso Area Office

WHAT HAPPENED WITH THE STUDY?

As of the summer of 2007, the safety improvements identified in the study have moved to the environmental and design phase. The next two phases of the corridor study are scheduled for planning in 2008.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- A number of collisions where motorists have driven off sections of the roadway.
- Log truck traffic expects to double in the next 20 years.
- Tourists expect to travel along SR 7 quickly, while locals expect to cross it safely.
- SR 7 crosses threatened and endangered species' habitats and has many wildlife crossings.
- Hundreds of tourists attend Morton's annual "Loggers' Jubilee."

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DEVELOPING A COMMUNICATIONS PLAN

Bainbridge Island Ferry Terminal Improvement Project Study (ongoing)

- Division: Washington State Ferries
- County: Kitsap
- Location: East end of SR 305 on Bainbridge Island

WHAT WAS THE PURPOSE?

Washington State Ferries (WSF) received funding from the legislature to make improvements to the terminal in the 2007-2009 biennium. The funding was based on a 1998 Master Plan that needed updating, because the growth in ferry passengers is expected to increase beyond the current capacity of the terminal.

WHAT WERE THE GOALS?

The project goals were to replace structural elements and improve the circulation of transit, cars, pedestrians, and bicycles for current and projected levels of use.

WHAT WERE THE POSITIVE OUTCOMES?

*The alternatives have been accepted by the City of Bainbridge Island, the surrounding community, the riders, and WSF. **The project team recognized the need to identify stakeholders and address their concerns.** By doing so, WSF has strengthened relationships with the local agencies and riders.*

HOW DID THE TEAM DO THIS?

WSF realized the 1998 master plan was outdated and asked for more time to develop a revised plan. By partnering with the City of Bainbridge Island, WSF gained:

- Consistency with the city's comprehensive plan thus ensuring compliance with growth management.
- A consultant was hired to develop an urban design plan that incorporates the needs of the ferry terminal much of the required environmental planning for the terminal be collected by the consultant.
- Community access through the city's internet sites. These sites displayed maps, photos, meeting dates, meeting agendas, SEPA documents, and opportunities to receive project updates through e-mails.
- Management of a community advisory group.
- City and ferry passenger support of the final plan.

WHAT TOOLS DID THE PROJECT TEAM USE?

Internet: Two web pages—one for the stakeholder committee and one for public meetings. Each page posted meeting agendas and very detailed minutes. The minutes included photos and charts presented at the meetings as well as key discussion points.

Geographic Information Systems (GIS): A variety of maps were available at the meetings and on the web pages. These displayed resource issues, access control, traffic analysis, project scheduling, and comments.

Posters/Boards: Available at meetings

Newspapers: The team placed advertisements and legal notices in local newspapers. They also monitored letters, editorials, and stories. If they saw misinformation, the team sent letters to the editor and asked reporters to write articles to clarify the project.

Public Involvement Plan: WSDOT and Bainbridge Island made the Public Involvement Plan accessible by posting it on the project web site.

WHAT HAPPENED WITH THE STUDY?

The scoping comment period has ended. Comments were unsubstantial. The next step is to develop a draft Environmental Impact Statement.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- A limited time frame. The legislature funded the study it based on an outdated (1998) master plan and WSF needed additional time to complete the project.
- Incorporating local plans developed after 1998. The 1998 Master Plan is inconsistent with plans from the City of Bainbridge Island, Kitsap Transit, and Winslow Tomorrow, the Waterfront Park Master Plan, and comprehensive plan updates.
- Development of an Environmental Impact Statement or an Environmental Assessment.

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*Aerial photo of Bainbridge Island Ferry Terminal
 Courtesy of WSDOT Photogrammetry*

ENVIRONMENTAL JUSTICE

I-405 Corridor Project (ongoing)

- Region: Northwest
- County: King
- Location: East of Lake Washington. I-405 is an alternative to the Seattle section of I-5 and runs from Tukwila through Bellevue to Lynnwood.

WHAT WAS THE PURPOSE?

Develop a plan incorporating the needs of cities, counties, transit, businesses, and the public. This corridor study includes more than 150 individual projects.

WHAT WERE THE GOALS?

The goals are to improve safety, reduce congestion, and improve the transit system.

I-405 provides access to large employment centers. It is also used by commuters from Bellevue to Seattle and by travelers trying to avoid downtown Seattle traffic on I-5. As a result, it experiences 6 to 10 hours of congestion per day. The goal is to save more than 13 million travel-time hours each year—an estimated annual value of \$569 million.

WHAT WERE THE POSITIVE OUTCOMES?

A segment of the population typically underserved through traditional outreach programs provided valuable comments. This population relies on public transit and their needs must be identified and addressed. The team had a higher level of confidence determining no adverse health or environmental effects were expected to fall disproportionately on minority or low-income populations.

HOW DID THE TEAM DO THIS?

- Analyzed census studies and mapped the distributions of minority populations. The distributions of low-income populations were not mapped because their numbers were too few to be apparent at the Census Block Group level.
- Determined the impact each alternative would have on these populations.
- Determined if high and adverse impacts fell disproportionately on these populations.
- See the Final EIS Appendix G, I-405 Corridor Program, Environmental Justice Analysis, on the project web page.

WHAT TOOLS DID THE PROJECT TEAM USE?

Research: The team identified organizations representing the target groups. The organizations suggested the use of service providers and to not rely on meetings (either open houses or organizations' meetings). The targeted populations relied on public transit, which has limited service at the times and locations of traditional public meetings. However, transit access to service providers is much broader.

Service Providers: These were used to identify effective outreach methods, to disseminate information, and to collect comments. Targeted providers were those who serve minorities, refugees, and immigrants; teach English as a Second Language and citizenship classes; offer counseling; and provide food and housing assistance.

Translations: Fact sheets were translated into Chinese, Russian, and Spanish, and were distributed through the service providers, libraries, and city halls.

WHAT HAPPENED WITH THE STUDY?

Twelve funded improvement projects have started.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- The corridor is longer than 30 miles and contains more than 500,000 people.
- Target populations do not belong to tightly affiliated organizations and have few media outlets.

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*Aerial view of the I-405 Corridor
Courtesy of WSDOT Photogrammetry*

EFFECTIVE COMMUNICATIONS

I-90 Spokane Viaduct Bridge Deck Repair (2006 and 2007)

- Region: Eastern
- County: Spokane
- Location: Downtown exits to Spokane, from Maple Street to Division Street

WHAT WAS THE PURPOSE?

WSDOT needed to rehabilitate the viaduct bridge deck. This 1.17 miles of I-90 has 2-inch deep ruts. Driving in these ruts has damaged expansion joints. During construction, the project was built one half at a time, enabling two lanes of through traffic in each direction. Long term on- and off- ramp closures were needed to perform the work.

WHAT WERE THE GOALS?

The goal is to improve safety and prevent structural damage while minimizing the impacts to downtown businesses and residents.

WHAT WERE THE POSITIVE OUTCOMES?

- *Renewed cooperation and trust between WSDOT, Washington State Patrol, and the City of Spokane.*
- *Drivers knew which exits and streets to use to get to their destinations and could plan accordingly, resulting in no bottlenecks.*
- ***No vehicle accidents in the construction site during the 2006 and 2007 season—even though this stretch of I-90 normally has an average of 17 accidents during this time frame.***
- *Changing the City of Spokane’s signal timing system did not cause damage and worked as planned.*
- *No delays or complaints from the three local hospitals—no emergency vehicles stranded, no patients unable to navigate the detours.*
- *No problems with fire or police response.*
- *No complaints from the downtown business core—initially they had major reservations with the detours and the perceived loss in business.*

HOW DID THE TEAM DO THIS?

They developed and followed a communications plan. They formed a communications group, designated a communications specialist, and hired a communications consultant. The group tried to identify all the stakeholders and planned ways to minimize impacts.

Once they had the plan, they fully implemented it. The result was a coordinated effort with one consistent message, rather than numerous information sources with conflicting information.

WHAT TOOLS DID THE PROJECT TEAM USE?

Radio: Jingles and traffic reporters advised drivers to check <http://www.downtownfreewayfix.net> before leaving home. Highway advisory radio (AM 530).

Television: Downtown Spokane Partnership ran ads promoting the downtown retail core. This helped businesses avoid being impacted by exit detours. On the first mornings of construction in 2006 and 2007, WSP and WSDOT appeared on all three Spokane stations to promote the project and encourage use of the web site.

Internet: WSDOT created a Web site called “Downtown Freeway Fix” with traffic cameras, route maps, ramp closures, hospital detours, and a link to the project’s site.

Signing: Signs were placed along I-90 and through downtown Spokane to guide drivers on and off I-90, to area hospitals, state parks, and colleges. Both variable message signs and portable changeable message signs were used.

Streets: The timings of Spokane’s street traffic lights were modified and their intersection lanes were re-configured.

Modified Construction Schedule: Work was delayed or restricted work to avoid local festivals.

WSP: Identified and coordinated comments from emergency services personnel in the study area.

WHAT HAPPENED WITH THE STUDY?

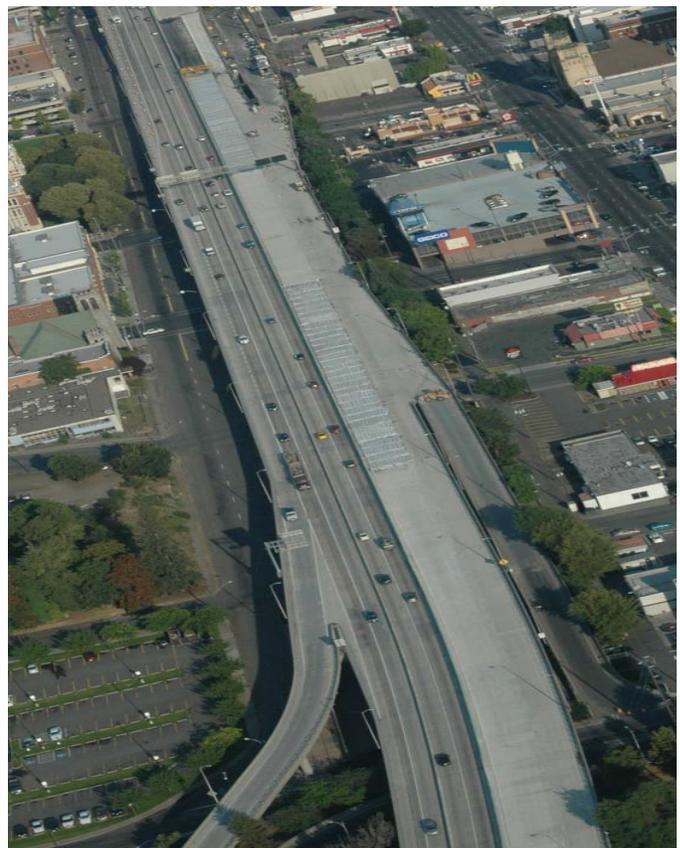
The project was completed in August 2007, one month ahead of schedule.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- High volumes of traffic—up to 100,000 vehicles per day—and no detours able to handle it.
- I-90 bisects downtown Spokane and is used as a city street.
- Closing exits to three hospitals, three colleges, downtown Spokane, and arterial highways.
- Changing the city’s signal timing system: this involved many engineers, technicians, and decision-makers.

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*Aerial view of I-90 in downtown Spokane
Courtesy of the I-90 Spokane Viaduct Project Office*

DATA COLLECTION

SR 99 North Corridor Study (2003)

- Region: Northwest
- County: King
- Location: Seattle, on Aurora Avenue North (SR 99) from the north end of the Battery Street Tunnel to North 145th Street.

WHAT WAS THE PURPOSE?

This is a 25-year plan with recommendations for WSDOT (responsible for the paving and bridges), the City of Seattle (responsible for traffic operation improvements), and King County Metro (responsible for funding and operating bus service).

WHAT WERE THE GOALS?

The study goals were to improve driver and pedestrian safety while minimizing impacts to property owners and businesses. Additional goals includes improving transit operations, access control, reducing congestion, and improving the corridor's aesthetic values.

WHAT WERE THE POSITIVE OUTCOMES?

Many projects from this study are completed. The study recommendations were consistent with the local government comprehensive plan(s). WSDOT, King County Metro, and the City of Seattle successfully collaborated and strengthened their relationships.

HOW DID THE TEAM DO THIS?

The project team gathered the following data:

- **Existing Conditions:** Bus routes and stops, bicycle facilities, medians, lane widths, lane restrictions, right-of-way widths, signs, signals, sidewalk widths, pedestrian and bicyclist access on bridges, speed limits, off- and on-street parking, distances from center line to existing structures, locations of driveways, and sight distance at curves and obstructions.
- **Resource Inventory:** Zoning and current land uses (public parks, schools, and cemeteries), known slide areas, landfills and buffers, wildlife habitat, and potential liquefaction areas.
- **Field Visits:** To locate unmapped wetlands and stream crossings, potential historic resources, areas sensitive to construction noise, and potential sources of hazardous materials.
- **Studies:** Present traffic counts, accident statistics, and freight use.
- **Models:** Synchro traffic simulation model.
- **Comments:** From stakeholders and the general public.

WHAT TOOLS DID THE PROJECT TEAM USE?

Internet: Project web site with meeting handouts, photos, contact information, and a space for comments.

Database: Kept track of parties interested in the project, comments, questions, open house attendees, representatives of community and civic organizations, and local media.

Other Plans: The Washington Transportation Plan, planning documents from neighborhood groups, Seattle's Comprehensive Plan, Puget Sound Regional Council's Metropolitan Transportation Plan.

WHAT HAPPENED WITH THE STUDY?

Metro has:

- Increased the frequency of bus service.
- Installed new electronic reader boards with time of the next bus.
- Installed shelters, lighting, and garbage cans.

The City has:

- Incorporated the study's recommendations into their Transportation Strategic Plan.
- Designated the outside lane a Business Access and Transit (BAT) lane during morning commutes. BAT lanes are for buses and right-turning vehicles only. This saved time for bus riders (2,740 person hours annually) and increased capacity in existing lanes of traffic.
- Designed the section between North 100th and North 145th Street with construction as early as 2008. This schedule depends on the timing of upgrades to utilities in the corridor.



*Aurora Avenue Bridge
Courtesy of the City of Shoreline*

WSDOT has:

- Installed suicide-prevention phones and signs on the Aurora Avenue Bridge.
- Installed a barrier (bridge rail) between the pedestrian/bicycle lane and the traffic lanes on the Aurora Avenue Bridge.
- Completed a seismic retrofit on the Aurora Avenue Bridge to meet current earthquake standards.
- Installed a pedestrian/bicycle overpass over SR 99 at Galer Street. This is the only legal way to cross SR 99 between Mercer Street and the Aurora Avenue Bridge. This location provides commuter access from Queen Anne Hill on the west side of SR 99 to transit stops on the east side of SR 99.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- The Aurora Avenue Bridge (George Washington Memorial Bridge) is a Seattle Landmark listed by WSDOT as an historic bridge. Structural changes need to comply with federal and state historic preservation laws.
- Heavy residential and business daily use.
- Competing views and recommendations: Commuters wanted free flow and residents wanted a more residential, aesthetically attractive street.
- Existing environmental issues.
- Proximity of public parks, schools, and a cemetery to the project site.

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APPLICATION OF THE IMPLEMENTATION TIMELINE PYRAMID

US 97 – Okanogan Trails Corridor Management Plan (2005)

- Region: North Central
- County: Okanogan
- Location: From Pateros to the Canadian Border (just north of Oroville)

WHAT WAS THE PURPOSE?

The purpose of the plan was to improve safety and extend the road life while preserving the unique character of the area.

WHAT WERE THE GOALS?

- Develop a collaborative and community-driven planning and implementation process.
- Increase tourism and educational opportunities, enhance services, gain access to funding, and incorporate the diverse needs of the users.
- Designate the corridor as a National Scenic Byway.

WHAT WERE THE POSITIVE OUTCOMES?

The plan is accepted by the communities and is being implemented within two years of completion, starting with the lowest-cost improvements. WSDOT cost-shared improvements with the town of Oroville.

HOW DID THE TEAM DO THIS?

The team invited the stakeholders to be active members of the planning effort by creating the Byway Steering Committee. This plan had a clear vision and a detailed action plan that followed the implementation plan pyramid detailed in Chapter 1.

WHAT TOOLS DID THE PROJECT TEAM USE?

Outreach: The steering committee conducted open houses, held workshops and meetings, wrote press releases, news articles, and fact sheets, and gave presentations.

Vision Statement: This was shared with the stakeholders and the public at meetings and on the project web site. Comments were analyzed for consistency with the vision.

Study Goals: These were shared and maintained. Comments and recommendations were analyzed for consistency with the goals.

Consultation: Even though the Confederated Tribes of the Colville Reservation were active in the planning study, North Central Region consulted with them before installing the guardrails located on the stretch of US 97 within the reservation boundary. This resulted in no impacts to historic or cultural sites, and continued a cooperative relationship.

Internet: Project information was posted on the project web site.

Cost Share: WSDOT cost-shared with Oroville to install sidewalk ramps on the street sections of US 97.

WHAT HAPPENED WITH THE STUDY?

This project identified long-term and short-term projects. The following short-term projects have been funded and/or completed:

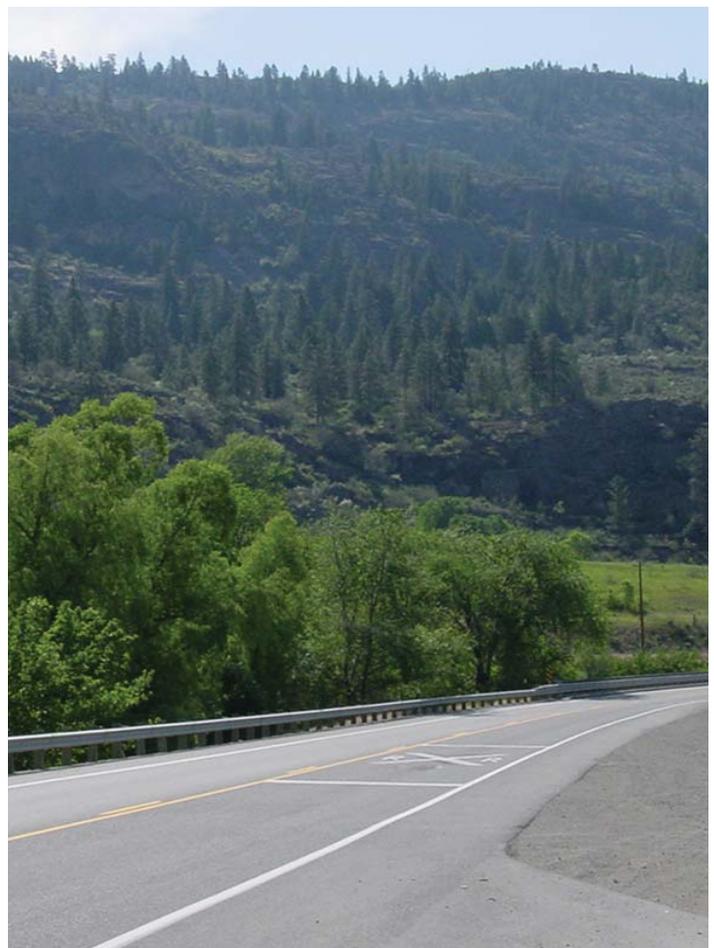
- Apply thicker asphalt to 10 miles of US 97, and install sidewalk ramps where US 97 is a city street in Oroville.
- Install guardrail to improve safety along the corridor.
- Improve drainage and reduce sediment delivery.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- Funding
- Familiarity with WSDOT. This plan’s steering committee included many stakeholders unfamiliar with transportation planning and with WSDOT. The team’s challenge was to develop goals WSDOT could implement.

For More Information, Contact:

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US 97 at milepost 324
 Courtesy of Sandy Salisbury, WSDOT Design Office

PUBLIC INVOLVEMENT

I-90 Snoqualmie Pass East Project (ongoing)

- Region: South-Central
- County: Kittitas
- Location: The east side of Snoqualmie Pass from Hyak to Easton

WHAT WAS THE PURPOSE?

The project purpose is to expand the number of lanes over the east side of Snoqualmie Pass from four to six. I-90 is a critical link connecting Puget Sound's large population and business centers with the farmlands, diverse industries, and extensive recreational areas of eastern Washington. The uninterrupted movement of people, and freight over Snoqualmie Pass is essential to the quality of life and the economic vitality of Washington.

WHAT WERE THE GOALS?

The goals are to make long-term improvements to address safety concerns due to falling rocks, avalanches, wildlife crossings, and sharp curves. Additional goals identified by the stakeholders and the public are being analyzed.

WHAT WERE THE POSITIVE OUTCOMES?

*The plan incorporates the needs of WSDOT (more permanent fixes, rather than stop-gap measures); wildlife (overpasses and underpasses for wildlife corridors and improved fish passage); and the public (safety, convenience, and more parking for those partaking in recreational activities). **South-Central Region strengthened interagency cooperation and trust.** Comments for the Draft EIS were overwhelmingly positive.*

HOW DID THE TEAM DO THIS?

They formed an interdisciplinary team of agency representatives to gather comments for the Environmental Impact Statement, then reorganized the same group as stakeholders for the project team. This saved time, money, and frustration. It also led to a better understanding of each agency's objectives.

WHAT TOOLS DID THE PROJECT TEAM USE?

Interdisciplinary Team (IDT): The project team clearly defined the roles and responsibilities of the team and how these changed once the Environmental Impact Statement was complete. The roles changed from official comments necessary to mitigate to advice from the agency's perspective.

Media Kit: Movie poster, full-color folio, and design visualization CD.

Internet: Innovative technology showing visuals of the project provided on <http://www.YouTube.com>, Project pages with electronic comment/question page, newsletters, environmental documents, and web cams.

Meetings: Public meetings were held in Seattle and Spokane (populations recognized as users of Snoqualmie Pass) as well as the local communities.

Outreach activities: Included a poster contest of elementary school children and distribution of a “Burl the Squirrel” activity book.

WHAT HAPPENED WITH THE STUDY?

The Final EIS will be based on more than 3,300 comments received on the draft.

The first phase (Hyak to Keechelus Dam) is funded and scheduled to start in 2010.

WHAT CHALLENGES DID THE STUDY TEAM FACE?

- High volumes of traffic: up to 58,000 per day (commercial, military, and private)
- Limited detours
- Threatened and Endangered species and wildlife habitat and crossings
- History of unstable slopes and avalanches
- National Scenic Byway status
- Intrinsic Resources: historic, cultural, natural, recreation, archeological
- Tribal consultation

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*I-90 snowshed in winter
Courtesy of the WSDOT I-90 Project Office*

Part IV:

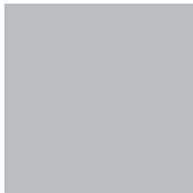
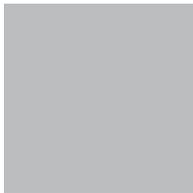
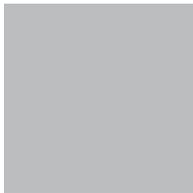
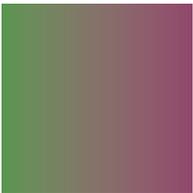


APPENDICES

PART IV: APPENDICES

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APPENDIX A



Appendix A

Data Collection and Analysis

Contacts and Links

Environmental	Environmental Assessment Office	http://www.wsdot.wa.gov/environment
GIS Workbench	WSDOT Geographic Services	http://www.wsdot.wa.gov/mapsdata/geoservices.htm
Functional Classification	TDO - Travel Analysis	http://www.wsdot.wa.gov/mapsdata/tdo/travelanalysis.htm
Route Classification	TDO - Roadway Systems	http://www.wsdot.wa.gov/mapsdata/tdo/roadwaydata.htm
Highway Access	HQ Access and Hearings Office	http://www.wsdot.wa.gov/eesc/design/access/
Freight and Goods	TDO - Travel Analysis	http://www.wsdot.wa.gov/mapsdata/tdo/travelanalysis.htm
Geometric	TDO - Roadway Systems	http://www.wsdot.wa.gov/mapsdata/tdo/
Climbing Lanes	TDO - Roadway Systems	http://www.wsdot.wa.gov/mapsdata/tdo/
Bridge and Structures	WSDOT Bridge Office	http://www.wsdot.wa.gov/TA/Operations/bridge/bridgehp.htm
Traffic Control Inventory	HQ Traffic	http://www.wsdot.wa.gov/biz/trafficoperations/
Right of Way	HQ Design	http://www.wsdot.wa.gov/eesc/design/default.htm
Wetland	Environmental Assessment Office	http://www.wsdot.wa.gov/Environment/Biology/Wetlands/wetlands.htm
Fish Passage	Environmental Assessment Office	http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm
Air Quality	Environmental Assessment Office	http://www.wsdot.wa.gov/Environment/Air/default.htm
Hazardous Materials	Environmental Assessment Office	http://www.wsdot.wa.gov/Environment/HazMat/default.htm
Traffic Volumes	TDO - Highway Usage	http://www.wsdot.wa.gov/mapsdata/tdo/highwaybranch.htm
Level of Service	Regional Planning Offices	possibly with Traffic Offices
Intersection Capacity	Regional Planning Offices	possibly with Traffic Offices
Safety	TDO - Collision Data and Analysis	http://www.wsdot.wa.gov/mapsdata/tdo/accidentdata.htm
Geological issues	United States Geological Survey	http://www.usgs.gov
Natural Resources	Washington State DNR	http://www.dnr.wa.gov/
Freight	WSDOT Freight Systems Division	http://www.wsdot.wa.gov/freight
Land use	Community, Trade and Economic Dev.	http://www.cted.wa.gov/site/21/default.aspx
Design	WSDOT Design Office Design Manual	http://www.wsdot.wa.gov/eesc/design/policy/DesignPolicy.htm

DATA COLLECTION BASICS

All transportation planning studies are data-driven. Obtaining quality data from credible sources, both internal and external, is a top priority. Since data can be obtained from many agencies and offices, the person collecting is responsible for verifying that the data collected is the best available. Where applicable, data collected from sources other than WSDOT may be used to verify WSDOT information if the results are challenged during the planning study process. A planning study's recommendations should always be based upon the most solid, up-to-date collected and analyzed data.

Concentrated data collection and analysis primarily occurs three times during the study. The initial analysis occurs when the Region Planning Office determines that a specific corridor has sufficient

issues or concerns present. Planners refer to existing base data, and review it to validate the existing technical knowledge of a study area.

The second time data collection and analysis occurs in a comprehensive manner is after the first internal planning study team meeting has identified gaps in existing data and knowledge. This prepares the planning team for the first stakeholder meeting and public outreach effort. During these two external conversations, "community perceptions" will surface. Verify these by using existing or collecting additional data to test the perception as being factual. For example, the public believes the delay on a state highway is caused by tourists, when in fact origin and destination survey findings indicate local traffic is causing the delay.

Sources of Data

TRAFFIC, OPERATIONS, AND SAFETY State

The primary source for roadway related data is the Washington State Department of Transportation Data Office (TDO). TDO is responsible for collecting, processing, analyzing, and disseminating transportation data pertaining to the Washington State Highway System. Information and data request forms are on the TDO's web site at <http://www.wsdot.wa.gov/mapsdata/tdo>.

TDO is interested in serving customers with the best available transportation data. TDO staff work proactively with their customers to identify their data needs, as well as to ensure the appropriate type of data is selected to meet those needs. For more information about TDO and the importance of good data, see TDO's publication "Better Decisions Through Better Data," available at: <http://www.wsdot.wa.gov/mapsdata/tdo/communication.htm>.

Comprehensive traffic collision data is available for collisions occurring on state routes, county roads, city streets, and other miscellaneous trafficways.

Collision reports submitted by both officers and citizens alike are used as the source for the available collision data. Officer reports account for approximately 90 percent of the reported collisions, and citizen reports account for the rest. To make an official collision data request to the TDO, use the following web site: <http://www.wsdot.wa.gov/mapsdata/tdo/collisiondatarequest.htm>.

TDO also has data for roadway systems and travel analysis. For example, data for roadway systems would include roadway classification. The travel analysis database contains important information for mobility. Examples of this data include percentages of total traffic, average annual daily traffic, time of day patterns, and growth in traffic.

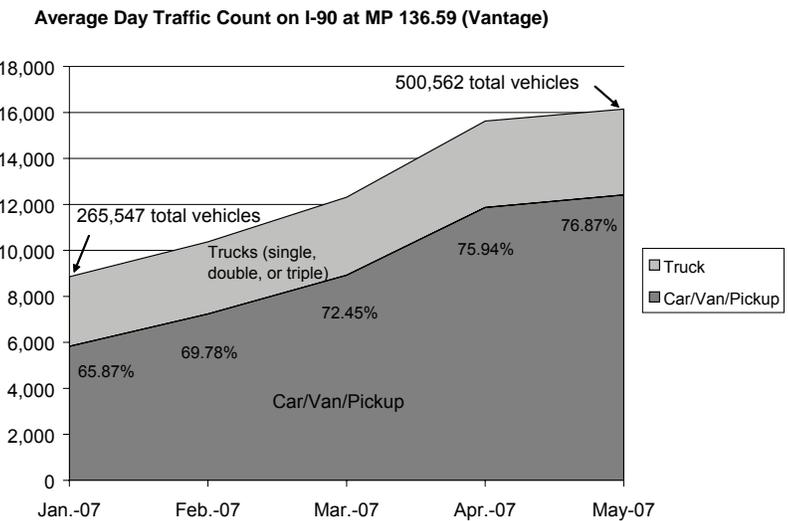
This data is also categorized based on vehicle type. Freight traffic, specifically trucks, in this database is categorized similarly to passenger vehicles. This database category is useful when determining the level of freight activity included in a planning study.

While TDO's database is comprehensive, information about transit, aviation, ferries, environmental conditions and concerns, land-use, local jurisdictions, and municipalities also need

Exhibit 1-A: Raw Data Sheet from TDO

STATE OF WASHINGTON - DEPARTMENT OF TRIP SYSTEMS									
AXLE DATA SUMMARY									
FOR YEAR 2007									
RECORDER NUMBER	R042	LEG	DIRECTION			BOTHWAYS			
LOCATION	SR	E/O	HUNTZINGER	ROAD	I/C	CLE	ELUM	MP	136.59
"	AVERAGE WEEKDAY	AVG WKND DAY	AVERAGE DAY	MONTHLY TOTAL	% OF TOTAL	AADT/ AWD			
JAN	CAR/VAN/PU	4,623	6,981	5,831	174,924	65.8731			
	SINGLE TRK	639	689	658	19,744	7.4352			
	DOUBLE TRK	2,305	1,405	1,895	56,836	21.4034			
	TRIPLE TRK	626	289	468	14,043	5.2883			
	TOTAL BASED ON DAYS	8,193	9,364	8,852	265,547				
		13	12	30					
FEB	CAR/VAN/PU	5,568	8,885	7,238	202,656	69.7750			
	SINGLE TRK	674	744	711	19,900	6.8516			
	DOUBLE TRK	2,030	1,235	1,670	46,766	16.1017			
	TRIPLE TRK	965	488	754	21,120	7.2717			
	TOTAL BASED ON DAYS	9,237	11,352	10,373	290,442				
		12	12	28					
MAR	CAR/VAN/PU	6,785	11,487	8,922	276,584	72.4484			
	SINGLE TRK	789	882	829	25,695	6.7305			
	DOUBLE TRK	2,420	1,461	1,989	61,653	16.1494			
	TRIPLE TRK	737	403	575	17,835	4.6717			
	TOTAL BASED ON DAYS	10,731	14,233	12,315	381,767				
		13	14	31					
APR	CAR/VAN/PU	8,522	15,412	11,867	178,004	75.9429			
	SINGLE TRK	893	1,151	1,010	15,156	6.4661			
	DOUBLE TRK	2,124	1,400	1,778	26,671	11.3788			
	TRIPLE TRK	1,251	664	971	14,561	6.2122			
	TOTAL BASED ON DAYS	12,790	18,627	15,626	234,392				
		5	7	15					
MAY	CAR/VAN/PU	8,294	17,235	12,412	384,782	76.8700			
	SINGLE TRK	955	1,127	1,035	32,094	6.4116			
	DOUBLE TRK	2,618	1,589	2,183	67,688	13.5224			
	TRIPLE TRK	684	304	516	15,998	3.1960			
	TOTAL BASED ON DAYS	12,551	20,255	16,146	500,562				
		15	12	31					

Exhibit 2-A: Sample Graphic from TDO Data



to be collected. This data is available from other individual WSDOT divisions, such as the WSDOT Systems Analysis and Program Development.

Cities and Counties

Cities and counties are useful sources of traffic-related data to augment the TDO data. Local municipalities and counties collect similar data and should be included as a part of data collection. Contact all appropriate city, county, and local community governments and associations within your study area and inquire about data as well as their concerns in the area. This can also foster beneficial partnerships, adding value to the study and optimizing effectiveness.

ENVIRONMENTAL DATA

Environmental data is extremely important to collect and include as part of the planning study. The WSDOT Environmental Services Office (ESO) is the repository of environmental data. This data includes wetlands, critical habitats, endangered species, and sole source aquifers. Additionally, ESO has data concerning noise abatement, storm water, and air quality.

ESO does not actually collect the data, but serves as the data clearinghouse. The data comes from cities, counties, and federal and state agencies. Much of this information is found in the data layers of the GIS Workbench. Contact Environmental Services to obtain access. Environmental Services staff can help with mapping and data collection. The data sources are described below.

Federal

The United States Environmental Protection Agency (EPA) is the primary source for environmental information from the federal government. They set federal policy and keep track of federal laws, regulations, and court dockets that will apply to your study area. A good place for you

to start your federal environmental data search is the EPA web site: <http://www.epa.gov>.

State

While the GIS Workbench is comprehensive, gaps exist in some of the data. The Washington State Department of Fish and Wildlife (WDFW) and the Washington Department of Natural Resources (WDNR) collects some environmental data. For example, WDFW collects the fish passage barrier program data. If data is missing in the Workbench for your study area, or if you have difficulty accessing it, contact the Environmental GIS Workbench support person. The Environmental GIS Workbench user's guide will assist with installation and instruction on using the Workbench.

Cities and Counties

Cities and counties are often great resources for environmental data and information about sites of historical significance. Contact the county(ies), cities, and communities in the study area to find out what environmental data they have and where it came from. Many counties have readily accessible GIS environmental data. Contacting cities and counties can help with environmental data collection and will help foster partnerships.

GIS WORKBENCH

The Environmental GIS Workbench, maintained by ESO, is a custom GIS application built to help WSDOT staff access more than 60 layers of environmental and natural resource management data. The Environmental Information Program works with appropriate federal, state, and other agencies to maintain a collection of the best available data for statewide environmental analysis. This application is an ArcView extension providing WSDOT staff with tools for locating transportation projects and displaying a wealth of environmental data themes for that location. While the best available environmental GIS data often

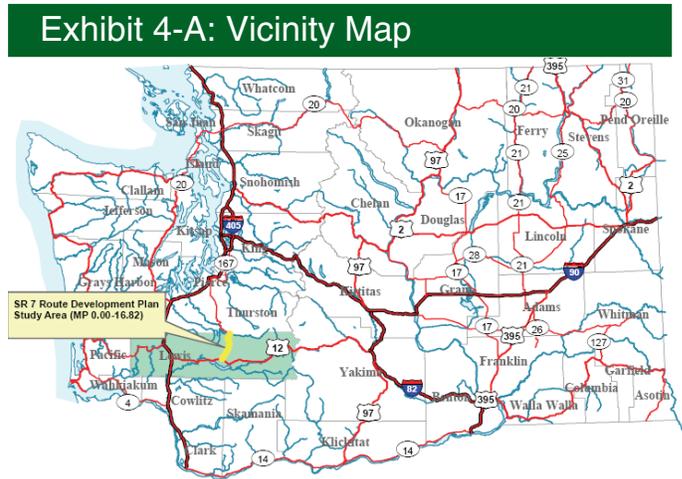
has considerable limitations, it generally provides a good flag for environmental issues likely to affect project planning.

STUDY AREA LIMITS

A planning study should have logical beginning and end points. Include communities that will be affected in the study area on a map. Give a brief explanation of special destinations (parks, skiing, camping, lakes, recreation areas), area events (fairs, festivals, special events), and the transportation significance of the study (HSS, Freight Corridor, etc).

Maps are a good graphic tool to convey a study's limits. It is important to include a vicinity map.

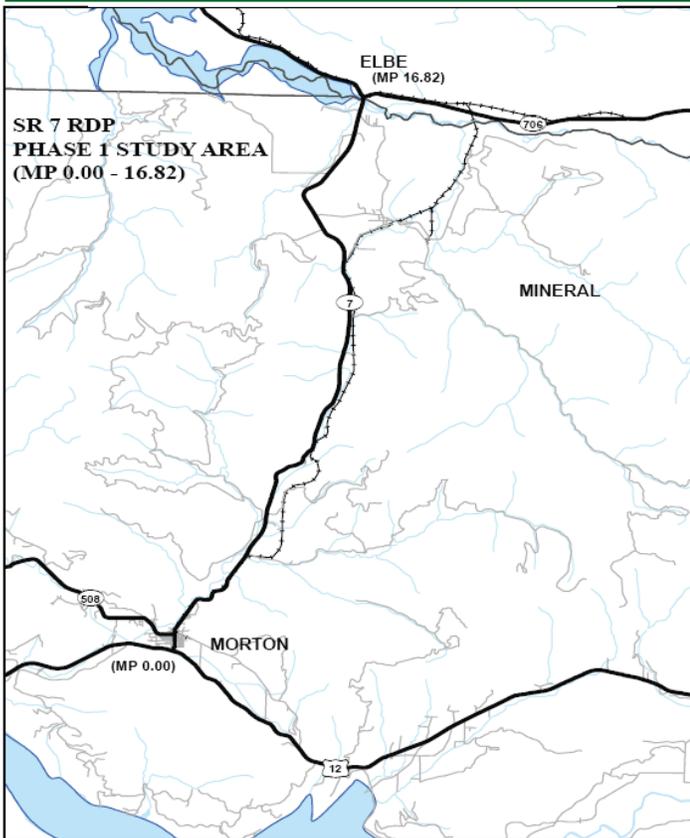
EXISTING CONDITIONS



Source: WSDOT SR 7 Route Development Plan

The existing conditions within a study area form the foundation for why the planning study is being initiated. These provide the study team, stakeholders and the public with the issues to examine and assist when developing the study's goals. This section provides guidance on what data needs to be collected.

Exhibit 3-A: Example Study Area Limits

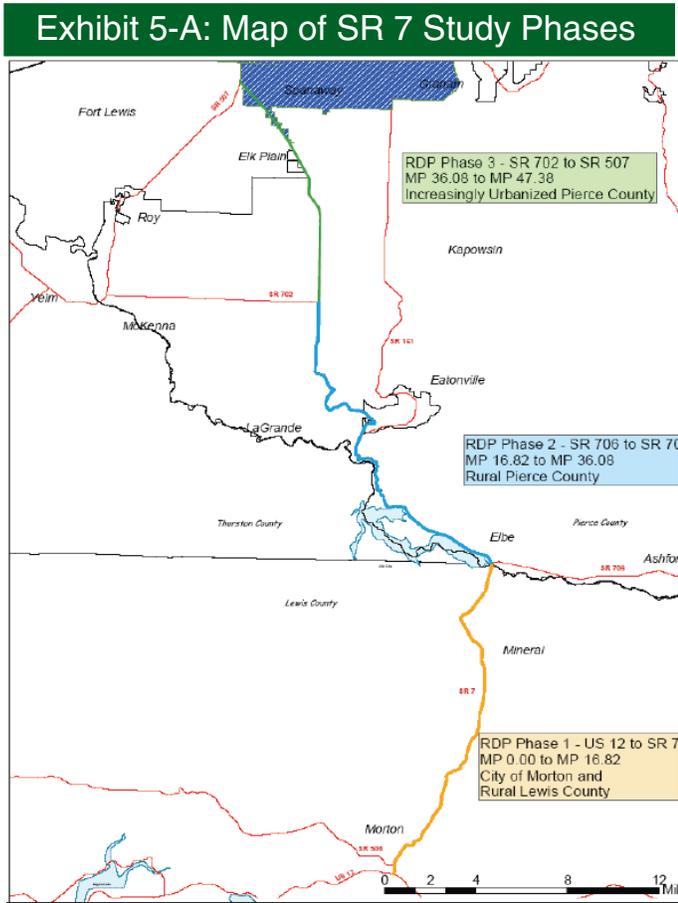


Source: WSDOT SR 7 Route Development Plan

Existing Condition information:

- Route Class
- Access Class
- Roadside/Terrain Class
- Physical/Geometric Characteristics
- Traffic Volumes
- Incident History

Collect information on the physical, operational and functional characteristics of the route, existing roadside features, freight operations, travel data, environmental issues, communities, surrounding land use, operating conditions based on current and projected traffic volumes, the current performance of the route, and gaps in physical and operational infrastructure.



Source: WSDOT SR 7 Route Development Plan

FUNCTIONAL CHARACTERISTICS OF THE ROUTE

There are a number of ways to characterize the route being studied, depending on the criteria being considered. The following sections detail the data to collect and provide the background and overview of the route being studied.

ROUTE CLASSIFICATION

The route classification is important in order to determine the appropriate design standards. Route classification affects what types of funding mechanisms can be used. Include an explanation (consider a table or chart) of how Federal Functional Class classifies the area being studied. Also include State Functional Class, National Highway System, Freight and Goods Transportation System, Scenic/Recreational Status, Terrain Type (level, rolling or mountainous), and Access Classification.

ACCESS CLASSIFICATION

RCW 47.50 establishes rules for controlling access to roadways. WSDOT has developed WAC 468-51 and 468-52. Access management includes location, spacing, design, and operation of driveways, median openings, and street connections. The route studied may contain several different classes of managed access. The objective of access

Exhibit 6-A: Access Classification						
Class	Speed	Volume	Spacing-Approach	Spacing-Intersect	Multilane median	Notes
1	High	High	1320 ft	1 mile	Median is required	Longer trips - serves regional function
2	Medium to High	Medium to High	660 ft	0.5 mile	TWLT* may be substituted if ADT <20,000	Longer trips. Direct access allowed only if no other alternative
3	Medium	Medium	330 ft	.5 mile	Median not required	Shorter trips. Two way left turn lane allowed if warranted.
4	Medium	Medium	250 ft	.5 mile	Median not required	Short trips. Two way left turn lane is typical here.
5	Low to Medium	Medium to High	125 ft	.25 mile	Median not required	Short trips. Property access is emphasized.

*Two way left turn lane

Source: WSDOT Design Manual

management is to minimize disruptions to traffic flow by vehicles entering and exiting the roadway. WAC 468-52 establishes five classification categories for non-limited access highways based on surrounding land uses and highway function.

Note which of the five access classifications are appropriate for the route you are studying. Your route may include multiple access classifications.

ROADSIDE AND TERRAIN CLASSIFICATIONS

The roadside classification encompasses the area between pavement edge and the right-of-way boundary. It is WSDOT policy is to protect and restore the roadside as designated in the Roadside Classification Plan² and to incorporate the plan into regional and route planning. All projects disturbing the roadside require complete restoration to the requirements specified by the roadside classification within the project limits.

The WSDOT State Highway Log lists the terrain classification. Terrain may consist of urban or rural conditions, as well as elevation changes. An abundance of rocky terrain can impact the study as well and should be noted. Slope information is important because steep slopes can cause restrictions to horizontal and vertical alignment. The frequency and steepness of hills affect truck speed and can impact the design of passing lanes, truck lanes, etc.

FREIGHT AND GOODS TRANSPORTATION SYSTEM (FGTS) CLASSIFICATION

The FGTS data set is a statewide ranking of roadways by the estimated average gross annual truck tonnage carried. The FGTS identifies those routes heavily used by trucks and provides factual data supporting improvements identified in a

planning study. The WSDOT Office of Freight Strategy and Policy maintains the FGTS data. The FGTS system is available from the WSDOT GeoData Distribution Catalog at <http://www.wsdot.wa.gov/mapsdata/GeoDataCatalog>.

PHYSICAL CHARACTERISTICS

Physical characteristics of a roadway provide insight on how it is functioning. Characteristics relate to roadway geometry, the roadway section, horizontal and vertical alignments, and the surrounding area such as right of way and environmental resources. Physical characteristics can also include safety hazards or characteristics impeding mobility.

GEOMETRIC ELEMENTS

Knowledge of a roadway's function helps us understand how it can be improved. Collect data such as roadway alignment, profile, and section to help analyze the roadway being studied. Obtain current information about roadway geometry from the Washington State Highway Log Planning Report and other TDO sources. Use other WSDOT records and resources, such as as-built highway plans, in this analysis.

The existing roadway section includes lanes, medians and shoulders. Analyze the roadway section being studied to ensure it meets WSDOT standards based on current traffic volumes. Note areas not currently meeting WSDOT standards for lane, median, and shoulder width.

Analyze existing vertical and horizontal alignment data to determine whether the alignments are acceptable for work related to a new or existing alignment. This includes elements known to impede freight mobility such as on- and off-ramps, merge and weave issues, and lane widths. Summarize general vertical and horizontal curve information. Include more detailed information in the appendix of your plan.

² <http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/RCP.pdf>

CLIMBING LANES

If applicable, include a climbing lane inventory. Climbing lanes are more common on rural state highways. The inventory should include information about passing lane length and width, shoulders, and roadside data. Climbing lanes will need to be listed as part of the existing system.

BRIDGES AND STRUCTURES

The WSDOT Bridge and Structures Office provides services to ensure safe, economical, and reliable structures for the state's transportation system. List bridges and structures located on the route being studied. A table may be a good way to do this. Include the name of each bridge or structure, structure identification (bridge number and structure identification are two different numbers), state route number, and milepost. Also include any relevant information regarding about bridge and structure, the perception by the people who use the corridor. List known or perceived safety or operational issues with existing bridges or structures. Include proposals and recommendations for improving or correcting problems with existing bridges and structures. Check appropriate maps such as those available from the Washington Department of Natural Resources and the United States Geological Survey, for issues such as seismic vulnerability and liquefaction.

TRAFFIC CONTROL INVENTORY

Inventory existing traffic control devices such as stoplights, stop and yield signs, flashing lights, etc. Document the ownership of the equipment and verify that state-owned traffic control devices are included in WSDOT's inventory. Determine if this corridor has been included in an Intelligent Transportation System (ITS) assessment, or plan update. This section may be quite lengthy, or there could be no traffic control measures in the area being studied. Include milepost and any other relevant area information.

RIGHT OF WAY

Note the width of the existing right of way along the route being studied. Widths will vary. List the range of variance and if state-owned property exists adjacent to or in close proximity to the route. Include specific milepost information where relevant and list any areas such as borrow pits, wetlands, or operational facilities that might present a challenge for the proposed project.

ENVIRONMENTAL ELEMENTS

Environmental elements described in the planning study should consist of information collected to identify and document potential concerns as part of the study process. Include both the natural and human environment. Identifying these concerns early in the planning stage will streamline the scoping process. The study team will examine potential environmental impacts and identify areas where mitigation may be necessary.

WETLANDS

Wetlands will need to be identified if they exist in the project area. If so, note their location(s). List wetlands by specific mileposts and any other relevant area information. Consult map information, such as National Wetland Inventory Maps, and examine the area to identify any wetlands not previously identified or mapped. Wetlands should be avoided wherever possible when designing roadway improvements. If unavoidable, impacts to wetlands should be minimized to a practical level, and mitigated according to WSDOT's "no net loss" policy regarding wetland functions and values. Wetland filling is regulated by the US Army Corps of Engineers, relevant county(ies), and the Department of Ecology through Section 401 of the Clean Water Act.

FISH PASSAGE BARRIERS

Restoring fish populations is an important issue in Washington. WSDOT and the Washington State Department of Fish and Wildlife (WDFW) have worked together since 1991 to inventory and remove fish passage barriers at all state highway crossings. List any fish passage barrier inventories along the corridor study route. A brief summary will do. If possible, include a table in the appendix.

If no inventory has been done contact the WSDOT Environmental Services Office. They will contact WDFW for you.

HISTORICAL RESOURCES

Section 106 of the National Historic Preservation Act requires that federal agencies consider the effects of their projects on historical properties (sites, districts, objects, or structures eligible for listing in the National Register of Historic Places). Consult the Washington Heritage Register and the National Register of Historic Places to identify historical properties within the study area. List all historical properties, as well as all properties that may qualify for designation as a historical place specifically by name and location, as well as why they are significant. The WSDOT Environmental Services office (cultural resources branch) has staff to help identify any eligible properties.

CULTURAL RESOURCES

WSDOT's Environmental Services Office can help determine if any archeological sites exist in the study area. Any proposed slope-flattening or ground-disturbing activity may require a cultural resources survey. This can include a literature search to determine if any previously documented sites or resources are located in the area. It may also include a ground survey to determine the potential for encountering artifacts of an historical or archaeological nature during construction.

During this step, Section 106 requires consultation with local area tribes and others with historical ties to the area. The State Historic Preservation Office

will need concurrence of potential construction effects. WSDOT has a Centennial Accord Plan that includes the WSDOT Tribal Consultation Policy³ and a Dispute Resolution Policy. Contact the Tribal Liaison office for more information.

AIR QUALITY

The Washington State Department of Ecology maintains a GIS layer for air quality. Consult this to determine any relevant air quality issues in the study's vicinity. The study should check particulate, ozone, and carbon monoxide levels to ensure they meet state and federal air quality standards. If they do not, list what steps will be taken to address air quality issues.

NOISE

In 1976, the U.S. Congress passed legislation requiring the states to provide mitigation for highway noise (considered an environmental impact) at impacted locations where it is reasonable and feasible as a part of all Type I Federal Aid projects. Any sensitive outdoor human-use activity area that is predicted to have a design year traffic noise level of 66 decibels or greater (A-weighted for human hearing) is considered an impacted area.

Consider the impacts of noise to citizens' quality of life in the study area during the public involvement phase of the study. In some studies this will be minimal; in others it may be a major concern requiring mitigation and abatement. Consult WSDOT's Air and Noise Program. For more information about noise mitigation and air quality concerns, visit WSDOT's Environmental Services Office at: <http://www.wsdot.wa.gov/Environment/Air/>.

³ Adopted by the Transportation Commission on February 19, 2003

HAZARDOUS MATERIALS

The Washington State Department of Ecology maintains databases on Hazardous Sites, the toxic cleanup program, and leaking underground storage tanks. Use these databases to determine if you may encounter potentially hazardous materials during construction of improvements recommended by the study. List possible sites found on these databases in a table or chart containing location information such as county, city, property listed, address or location, and comments such as “awaiting cleanup,” “cleanup started,” “monitoring,” etc.

SOLE SOURCE AQUIFER

Check the area of the study to see if it is located in a Sole Source Aquifer, or an area identified by the Critical Areas Ordinance as an Aquifer Recharge Area of Concern. Best management practices are encouraged to the maximum extent possible for stormwater management. If the area being studied is not in a Sole Source Aquifer or identified by the Critical Areas Ordinance as an Aquifer Recharge Area of Concern, standard WSDOT water quality and water quantity treatment practices should be adequate.

WATERSHED RESOURCE INVENTORY RESOURCE AREA

This database contains the watersheds statewide and is used for watershed planning by the Washington State Department of Ecology and the Department of Natural Resources. It is important to reference this data base when conducting a planning study to identify the watersheds included in the study area considered, and what issues may need to be considered.

ENVIRONMENTAL MITIGATION

Identifying environmental issues is important to avoid negative environmental impacts and reduce the environmental costs associated with

study recommendations. Where possible, study recommendations should avoid sites requiring mitigation, and minimize impacts where avoidance is impossible. Identify potential mitigation sites adjacent to the study area.

FREIGHT SYSTEM USERS

If freight activity is significant in the study area, consult the Freight System Plan. WSDOT maintains partnerships and forums with freight system users. Statewide commercial shippers, carriers, trucking companies, and community associations partner with WSDOT to maintain a database of known highway features impeding truck movement. Identify freight activity generators within the study. This includes freight generators just outside of the actual study area generating activity within the study limits.

TRANSIT

Identify the transit services available in the area being studied. Include provider and level of service offered. Talk to the provider(s) to determine if they have any improvements planned for the study area. Examine what impacts the project being studied will have on both transit operations and infrastructure. Document park-and-ride lot use and need, where appropriate.

RAIL

Identify and inventory rail infrastructure, ownership of the rail system and the freight customers served in the study area. An open discussion or one-on-one interview with rail owners and customers will determine their needs and what impacts the study could have on their services and infrastructure.

UTILITIES

Identify all utilities in the study area. It is important to locate any potential utility concerns

in the planning stage so these matters can be incorporated later in the scoping and design process. Include a table of existing utility franchises in the appendix of the study.

TRAFFIC ANALYSIS METHOD

Reasonable current and future traffic volume estimates are required to determine the operating conditions for route planning. This data is applied to procedures described in the Highway Capacity Manual (HCM) (Transportation Research Board, 2000). This approach provides analysis for roadway segments and intersections within the study area. Present these results in terms of traffic volumes, level of service (LOS) measurements, and intersection capacity. Analyze any peak-hour issues along your route.

Some studies are divided into segments for reasons such as transitions from urban to rural, or city or county boundaries. If your study is divided into segments, list them by state route milepost.

TRAFFIC VOLUMES

Traffic volumes can be analyzed using vehicles per hour, peak hour, peak period, or Average Daily Traffic (ADT). Many corridors have peak-hour or peak-period issues, especially in urban areas or where many people commute long distances to work. Some of these studies will use 24-hour traffic analysis. Traffic volume information is also used to calculate collision rates on a statewide basis to compare specific roadway sections to a group of roadways with similar characteristics.

As of March 2007, the year 2030 is generally used as the forecast year. This year should be adjusted to be consistent with local comprehensive plans and the Washington Transportation Plan as they are updated periodically.

Exhibit 7-A: SR 291 ADT chart

Mile Post	Year				K%
	2001	2004	2015**	2025**	
Seven Mile Rd (MP 5.22)	12000	12000	15700	20200	0.09
Rutter-Parkway (MP 9.11)	7900	8600	11300	14400	0.11
Charles Rd (MP 9.20)	9000	10000	13100	16800	0.09
Swenson Rd (MP 12.98)	7100	7700	10100	12900	0.11
Sunrise/Blackstone Dr. (MP 13.36)	*	7800	10200	13100	0.10
Suncrest Drive (MP 13.82)	6900	7000	9200	11800	0.10
Wylie Drive (MP 14.35)	*	5600	7300	9400	0.09
Moriah Drive (MP 15.13)	*	4000	5200	6700	0.10
Jergens Rd (MP 15.96)	*	3600	4700	6000	0.09
Whitmore Hill Rd (MP 16.05)	3100	3100	4100	5200	0.09
Stonelodge Rd (MP 18.41)	*	1800	2400	3000	0.08
McAllister Rd (MP 21.36)	990	1200	1600	2000	0.07
Scotts Valley Rd (MP 22.31)	*	980	1300	1600	0.07

Source: 1999-2002 Annual Traffic Report and WSDOT Trips System * Traffic counts not available ** Based on 2.5% growth rate from year 2002 & 2003 actual counts K% - ratio of design hour traffic to AADT

SOCIAL DEMOGRAPHICS

Consider growth rates within the study area. This information is available from the US Census Bureau, the Washington State Office of Financial Management, or the WSDOT Data Library. Growth rates can be derived from regional travel demand models. However, model growth rates should always be compared to rates provided by WSDOT's Transportation Data Office or developed by the planner based on historical traffic data. Consider the estimated annual growth while studying an area's transportation need. Perform demographic analyses, including minority or disability status, age, and percent of population in poverty. Identify limited-English-speaking populations (more than 5 percent in a census block) and prepare appropriate materials for public involvement. This will comply with Title VI and Executive Orders 12898 on Environmental Justice and 13166 on Limited English proficiency. Most of this information can be identified from U.S. Census data. Consider the type of community in the project area when

deciding what, if any, capacity should be added (SOV, transit, light rail, etc.). Land use can also be examined as it relates to transportation for both peak-hour and discretionary trips.

ENVIRONMENTAL JUSTICE

Environmental justice refers to the adverse effects of transportation programs, projects, or activities on the social, economic, and health status of minority and low-income populations in a community. WSDOT's management principles include environmental responsibility, which includes avoidance, minimization, or mitigation of disproportionate or adverse effects on these populations by WSDOT activities. In order to accomplish this, we seek full and fair participation of potentially affected communities throughout the transportation decision-making process. Identify potential environmental justice populations as part of preparations for public involvement activities. A population can be as small as several individuals. The U.S. Census Bureau is a good source of information for environmental justice communities, but should be supplemented with data from another source, such as local schools, due to aging of census data.

LAND USE CHARACTERISTICS

Consult local and county comprehensive plans for land use restrictions and regulations that might affect a study. Contact the county or city land use planning department for land use data. This data can have an impact on near-term deficiencies and options identified to address the deficiencies. The Washington State Department of Community, Trade, and Economic Development can help direct your land use search, as well.

Review urban growth areas and zoning restrictions. Cities and counties in the area regularly update their comprehensive plans, and it is important to contact these jurisdictions to determine if their respective plans are currently being updated. Contact major employers along the study route about the proposed study.

LEVEL OF SERVICE

The WSDOT Design Manual Chapter 610 defines level of service (LOS) as a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed, travel time, freedom to maneuver, traffic interruptions, comfort, and convenience.

Determine congestion level where appropriate. One determinant of congestion within a study area is Percent of Time Spent Following (PTSF). This indicates how congested the roadway is and to what extent a driver's progress is impeded by other traffic. This measurement is then converted into one of the six gradients (A-F) of level of service (LOS) designation based on the table located in Exhibit 8-A in the Highway Capacity Manual (HCM). Exhibit 8-A is an example of the LOS criteria for a two-lane, class II highway.

Document the LOS in the existing conditions. The existing LOS can vary along your corridor due to conditions such as population density and topography. For example, a steep hill may slow down trucks, resulting in a greater PTSF in an area, whereas another area may have a long, gradual downhill slope and low population density, resulting in a lower PTSF.

Future Conditions

Include the projected LOS in the planning study area to planning year 2030.

INTERSECTION CAPACITY ANALYSIS

Analyze all intersections along your corridor. Software is available for this type of analysis; one type is "Synchro" which calculates average delay per vehicle and the LOS at intersections. Another type of intersection software is "aaSidra" which is used to evaluate and compare capacity, LOS, and performance of roadway treatments involving roundabouts.

Express intersection LOS in seconds of delay. Identify whether each intersection is a signalized,

**Exhibit 8-A:
LOS Criteria for Two-Lane, Class II Highways**

Level of Service (LOS)	Percent Time Spent Following (PTSF)
A	≤40
B	> 40 - 55
C	> 55 - 70
D	> 70 - 85
E	>85
F	Volume > capacity

Source: Highway Capacity Manual

two-way or four-way stop and if there are turn lanes. The Highway Capacity Manual (HCM) (Transportation Research Board, 2000) can be consulted for LOS criteria for intersections.

The US Census and the Washington State Office of Financial Management are great sources for growth rates of intersection traffic. You can make a reasonable estimate of corridor and intersection LOS based on current volume relative to population using the growth rate and estimated population in the future.

SAFETY

TDO keeps safety data for routes statewide. Analyze information about your corridor, including areas with a high number of fatal and disabling collisions and perceived safety issues. Areas where the highest concentrations of collisions occur are sometimes referred to as “hot spots.” Document these within the study area as a part of the existing conditions. Include information about the amount of delay due to incidents in the study area. The department is phasing out its use of High Accident Locations (HALs), and High Accident Corridors (HACs). These still exist, but are not necessarily a measure of roadway performance, and can often be attributed to factors such as driver behavior.

**Exhibit 9-A:
Intersection Level of Service Criteria Table**

Level of Service (LOS)	Average Control Delay (s/veh)	
	Signalized	Unsignalized
A	≤ 10	≤ 10
B	> 10 - 55	> 10 - 15
C	> 20 - 70	> 15 - 25
D	> 35 - 85	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Source: Highway Capacity Manual (TRB, 2000)

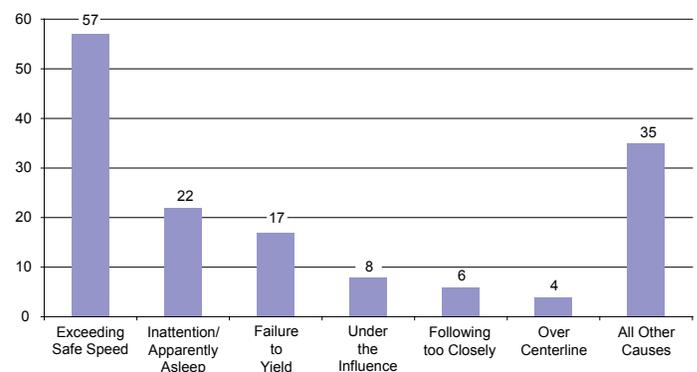
Mention Federal Law 23 Section 409 in safety discussions. Section 409 restricts department-maintained safety data from being used in court proceedings.

PUBLIC INPUT ON SAFETY ISSUES

Include specific community concerns obtained through the public involvement process.

Exhibit 10-A: Cited Cause of Collision

Cited Cause of Collision (149 Total)



Source: WSDOT SR 7 RDP

COLLISION HISTORIES AND SUMMARIES

TDO can provide collision histories and summaries. The over-arching areas of driver/pedestrian/ bicyclist behavior, vehicle information, roadway environment, and severity information pertaining to collisions are available for customers. Any requesting party can make an official collision data request to the WSDOT-TDO via the following web site: <http://www.wsdot.wa.gov/mapsdata/tdo/collisiondatarequest.htm>.

Collect and include any applicable data in the existing conditions analysis to see if any infrastructure improvements can be identified.

Convey the information collected for traffic counts as and the number of collisions, convey the information. A graph similar to Exhibit 11-A comparing the two would be effective.

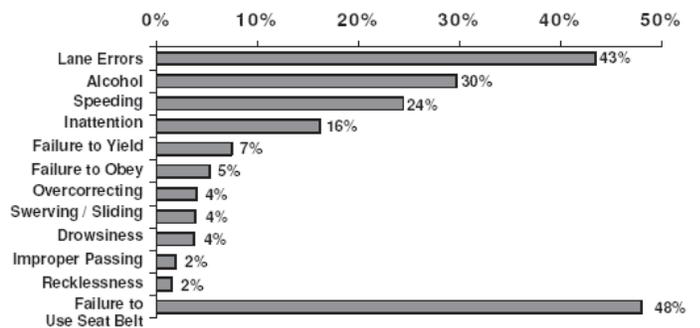
Include a table describing the data in more detail. What kinds of collisions are reported? Are the majority of collisions single-vehicle, head-on, crossover sideswipes, or something else? What types of vehicles are involved in collisions? Is there an unusually high volume of large trucks? If so, are they involved in a high percentage of the collisions? Are the collisions weather or season-related? Graphics such as pie charts can be used to show single-vehicle versus multiple-vehicle crashes, or collisions by weather condition.

What is the most frequently cited contributing factor associated with collisions in the study area? What proposals for addressing collisions will be included?

If a bar graph depicting contributing factors is deemed appropriate, include it with the study.

Address crashes by urban and/or rural factors in this section. If parts of your study area are in urban areas and other part(s) are in rural areas, how do they compare for collision data?

**Exhibit 12-A:
Incident Cause Sample Graphic**



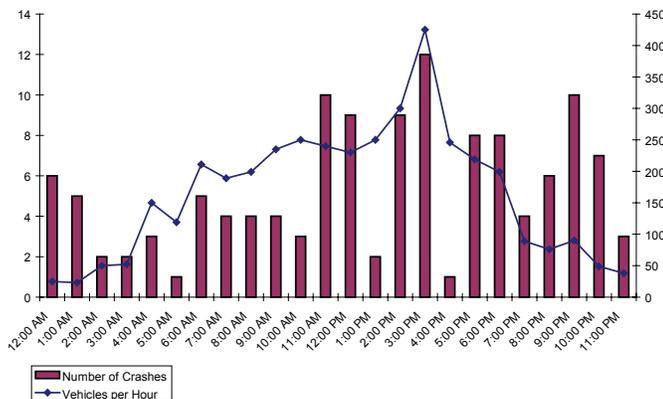
Source: WSDOT Data Library; Transportation Data Office

CONCLUSIONS FROM DATA COLLECTION AND ANALYSIS

Following the data collection and analysis process, ask, “What did the data tell us?” This conclusion will vary largely depending on what the data analysis conveyed. Did the data support the reason for the study? What unexpected issues arose, if any? Dedicate this section to explaining problem areas and issues from the data collection and analysis phase of your study. This approach allows you to direct any challenge to the conclusions to the actual data used.

The data analysis might conclude the route or corridor within the study area does not need any further attention now, but might need capacity improvements in the next 10 years. Instead, the data analysis could identify operational issues to be addressed in the study’s recommendations, such as access issues addressed by implementing

**Exhibit 11-A:
Incident Data Table Sample Graphic**



improved access management. The data analysis could identify a myriad of concerns and possible improvements.

You should conduct a cost/benefit analysis for your proposed improvement(s). The best option to a problem could be the most costly; therefore, a less expensive option may be considered if it satisfactorily addresses the issue(s) identified in your study. Consider population growth, changes in land use, effects on communities and the environment, future demand on the system, applicable or likely zoning changes, travel trends, and other relevant issues for your conclusions and recommendations.

PRIORITIZATION OF STUDY FOCUS

The prioritization of your study's focus will depend largely on what conclusion you came to following the data collection and analysis phase. Once you have answered the question, "what did the data tell us?" you should be able to come to a logical prioritization sequence.

Your prioritization should be in a tiered format and should follow the Washington Transportation Plan's five investment guidelines. The five investment guidelines are, in order: Preservation, Safety, Economic Vitality, Mobility, and Environmental Quality and Health.

For example, if you have low-cost preservation needs as well as higher-cost mobility needs, you would prioritize the lower-cost (tier I) preservation over the higher-cost (tier II or III) mobility needs.

FORECASTING TOOLS

Models are used to predict changes in traffic patterns and volumes over time. Before beginning your forecasting, you should determine the design year. This year is typically selected according to requirements set by the Washington Transportation Commission, Metropolitan Planning

Organizations, the Federal Highway Administration, the Environmental Protection Agency, or other approving authorities. Often the time period selected will be within a 20-year planning horizon.

The basis for your future land-use and traffic growth models will be the data you have collected about population, employment, preferred travel mode, travel trends, etc.

The models used should predict changes in traffic patterns and volumes over time, reflecting changing economics, demographics, infrastructure, and policy within the study area. It may be appropriate for the planner to contact the Transportation Management Area or Metropolitan Planning Office for data outputs from existing regional transportation demand models when conducting a study.

A number of forecasting and modeling tools are available for planners. The most common software applications at WSDOT are:

- **aaSIDRA** - a micro-simulation model used to analyze roundabout operations
- **Analyze** - traffic data analysis and reporting
- **Emme** - Travel demand
- **HCS** - Highway capacity
- **Precision Mapping** - Route optimization
- **SimTraffic** - Simulation tool for signalized intersections
- **Synchro** - Signalized intersection optimization and level of service
- **Trafman** - Traffic data management
- **Vissim** - Multi-Modal Micro-simulation model used to analyze freeways, intersections, arterial operations as well as transit operations and transit signal priority
- **Visum** - Macroscopic Travel demand model used to forecast travel demand
- **WASIST** - Model used to identify and evaluate potential carbon monoxide air quality concerns

To have these programs installed on your computer, go to Information Technology (IT) at: <http://wwwi.wsdot.wa.gov/IT/StdSoftware.htm>.

All of these applications require specialized/limited licenses, so check with your supervisor and local IT support for details.

Another tool you should use during the data collection and analysis phase is Travel Demand Surveys. Travel Demand Surveys can be in different formats, such as origin-destination, travel time, and other studies. Surveys can be conducted online, by mail, or in person.

Origin-Destination surveys are fairly common and are used to collect information about driving habits and travel patterns on specific highways. The data produced describes where trips come from and where they go. This data may be gathered and summarized at different levels of detail. The highest level of detail would be from specific address to specific address. More commonly, an area is divided into zones and trips are assigned a beginning and end zone. The smaller the zone, the more accurate the study.

The Origin-Destination survey is usually conducted either verbally or in writing and may include such elements as: population, population growth, vehicle ownership, vehicle travel, land-use, land value, facility information, functional characteristics, etc.

EMERGING ENVIRONMENTAL ISSUES

BACKGROUND

Global discussions and growing statewide interest have recently generated greater attention to the topic of climate change. Increasing government action at national and state levels prompts a closer look at the impacts of climate change and the role of transportation planning in Washington.

Recent discussions and actions by the Washington State Legislature, and Governor Executive Order 07-02 start to address greenhouse emissions

and their transportation-related sources. The Executive Order focuses on reducing greenhouse gas emissions to 10 million metric tons below 2004 emissions by 2020, 30 million metric tons by 2035, and 50 million metric tons by 2050.

To meet these goals, the Governor has appointed a Climate Advisory Team, assisted by sector-focused technical working groups. The Climate Advisory Team must submit recommendations on a set of greenhouse gas reduction policies and strategies to the Governor by January 2008. Several states are in the process of requiring state agencies to quantify and mitigate greenhouse gas emissions associated with the development of projects. Since Washington has not enacted development or transportation-related greenhouse gas reduction statutes, how WSDOT is expected to respond to the forthcoming policies and strategies is unclear.

IDENTIFYING AND PLANNING FOR CLIMATE CHANGE IMPACTS ON STATE-OWNED TRANSPORTATION FACILITIES

Long-term planning for transportation facility improvements suggest, the need to recognize that many important transportation facilities are susceptible to severe, more frequent effects of changing weather patterns. Transportation facilities at the most risk are those vulnerable to sea-level rise and prone to flooding. Identifying and preparing for impacts of climate change on these facilities require a more thorough analysis of potential impacts and practical alternatives as the effects of climate change become more significant in the next few decades.

QUANTIFYING THE CARBON VALUE

Significant interest in the pricing or trading of carbon-based market systems as a means of controlling greenhouse gas emissions is increasing. Many ways of identifying climate change impacts from a planning perspective do not currently exist. Currently, discussions on developing the framework and trading mechanisms for carbon emissions are occurring. Currently in Washington no mechanisms exist for carbon-emissions trading or quantifying the

amount of carbon-value a transportation solution may have. However, it is anticipated that in the very near future planning studies will be required to assess potential costs or cost savings associated with excess emissions or emissions reductions associated with proposed solutions.

Quick Reference Checklist

Contact the Right People

The offices and agencies listed below can help you with the tasks listed below.

- WSDOT's Transportation Data Office.
- All appropriate city, county, and local community governments and associations within your study area.
- The WSDOT Environmental Services Office (ESO) is extremely important to contact for data regarding wetlands, critical habitats, endangered species, and sole source aquifers, as well as other environmental data such as noise abatement, storm water, and air quality.
- Any/all tribal interests in your study area.
- The United States Environmental Protection Agency (EPA) is the primary federal source of environmental data. They set federal policy and keep track of laws, regulations, and pending and recent court decisions. <http://www.epa.gov> is a good starting point to contact them.
- The Washington Department of Fish and Wildlife (DFW) and the Washington Department of Natural Resources (DNR) collect data for the WSDOT ESO. Contact them for the latest environmental data in your study area.
- The US Census Bureau and the Washington State Department of Financial Management are considered the best sources of population and demographic data. You may not need to contact them, but be sure to research their web sites for population data and trends.

Research and Analyze the Existing System

Gather information about each of the transportation system components in your study area.

- Highways and streets (public, private, state, and local streets and highways);

- Railroads (freight and passenger);
- Airports (freight and passenger);
- Transit services (public, private, general citizen, and special needs);
- Bicycle facilities (locations and routes);
- Pedestrian facilities (locations, signalized, and non-signalized);
- Intermodal connection facilities and stations (park-and-ride lots, railroad and port truck transfer stations, bicycle, pedestrian, and airport transfer facilities); and
- Utilities.

Research the Role of Transportation in the Corridor Area

Define the role of the corridor by asking the following questions

- Is this a Highway of Statewide Significance, Freight Corridor, Scenic Byway, NAFTA Corridor, etc.?
- Does tourism have a central role in the area economy?
- Is there a need for quick farm-to-market trucking?
- Is this a heavy commuter route or a key freight route?

Develop Base Maps

Develop base maps for the corridor. The WSDOT Geographic Services Office (360.709.5500) can help you.

Research Land Uses and Other Characteristics of the Region

- Census data and Washington Office of Financial Management population statistics;
- Population projections;

- Location of low income or minority populations;
- Employment characteristics, such as journey-to-work reports, commuting pattern studies, labor force data, and employment by industry statistics;
- Land-use assumptions from city and county comprehensive plans;
- Zoning classifications and planned developments for the corridor area;
- Pipeline and large utility locations;
- Human and neighborhood characteristics; and
- Lists of historical buildings and sites and cultural resources.

Identify Critical Environmental Factors

Gather the following information in the corridor area:

- Applicable federal, state, and local environmental laws, regulations, and policies;
- Existing environmental studies that include geotechnical, hydrological, and soil types;
- Major geologic and general terrain features;
- Environmental and socioeconomic resources and issues; and
- Map environmental resources, list environmental issues, and identify areas that require further analysis.

Estimate Future (20-year) Transportation Travel Demand in the Corridor

Use models with caution and only if they correspond with the corridor boundary. Otherwise, estimate travel demand by using one of the following approaches.

- Where little change is anticipated in the area's spatial pattern and historical traffic counts

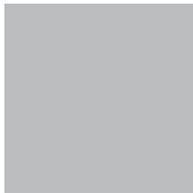
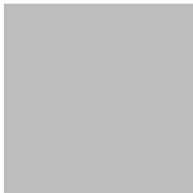
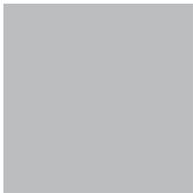
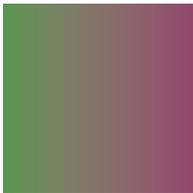
exist, develop a straight-line projection in order to base the forecast on existing trends.

- For corridors undergoing major growth shifts or where historical traffic counts are insufficient, correlate the increase in travel with the projected population increase or other measure.
- Develop forecasts for travel demand on modes that do not currently exist.

Identify Performance Deficiencies the Existing Transportation System May Have in Meeting the Future Travel Demand

- Evaluate the existing transportation system performance regarding its ability to meet the forecasted travel demand.
- Pinpoint the elements and location where the system (if unchanged) will fail to meet future demand.
- Use Congestion Analysis for Corridor Plans for analyzing future performance in the corridor or other accepted measures as approved by WSDOT.

APPENDIX B



Appendix B

Geographic Information Systems

WHAT ARE GEOGRAPHIC INFORMATION SYSTEMS?

Geographic Information Systems (GIS) are a set of technologies used for collecting and managing data relating to geographic locations. GIS allows you to collect, store, analyze and display data about features in the real world such as roads, bridges, lakes, streams, cities, and counties.

GIS produces “smart maps,” documents showing both the locations of things and database information associated with spatial display. GIS is an effective modeling tool and can be used to help determine where things might be changing, how they are distributed spatially, and how information is related in the landscape. This makes it easier to visualize information, show relationships, and solve problems. The databases are easily updated, and presenting results using GIS is more effective than ever before.

Since its inception, GIS has been important in natural resource management, including land use planning, timber management, wildlife habitat analysis, and natural hazard assessment. In more recent years, GIS has been used in emergency planning, facilities management, and transportation planning. The integration of GIS with other technologies such as Global Positioning Systems (GPS) and the Internet has introduced new applications. GIS can be used to store and process GPS data and prepare maps. Interactive mapping allows Internet users to select map layers for display and make their own maps. Typically, GIS provides the database, the query, and the mapping functionalities for mapping on the Internet.

Just about everything done at WSDOT has a geographic component—the highways the department plans, builds, and maintains, the

vessels it operates, the facilities it maintains, and the funding it distributes locally. All of these features or events have a geographic location.

WSDOT has a robust and demonstrated ability to perform high-level analysis using GIS. The GIS Workbench, designed to increase the ease of accessing the department’s many spatial data sets. This combination of powerful software, an extensive corporate library of spatial data, and a user-friendly interface for accessing spatial data, has broadened the range of GIS applications and brought GIS to many subsets of the Department.

HOW TO USE GIS IN PLANNING AND SCOPING

GIS technology can easily be applied to development planning. For example, GIS might be used to find wetlands needing protection from potential runoff resulting from highway construction nearby. GIS can examine accident locations and determine if a certain stretch of highway or even a certain type of highway alignment is particularly dangerous.

Additionally, GIS can help establish consistency in the planning process used around the state. The technology can minimize the need for staff to learn new programs and access multiple applications. GIS can also assist staff in providing quicker responses to the legislature and other decision makers.

GIS allows the user to query (ask a question of) the database for information or to show a certain relationship. The software allows easy map exporting in a variety of formats (.pdf, .tiff, .jpg, etc.), and data used for reporting.

WHO TO CONTACT FOR INFORMATION, ASSISTANCE OR TRAINING

WSDOT offers free beginning and intermediate GIS training through the ATMS training system, or you can call the WSDOT GIS Training Coordinator. WSDOT GIS staff can answer GIS questions and provide training one-on-one or to small groups. The GIS Training Coordinator also provides monthly Technical Learning Groups to help WSDOT GIS users gain a better understanding of ArcGIS (more information can be found on the GIS Support Team web site).

INSTALLING GIS

To have ArcGIS installed, contact the GIS/OIT help

GIS Training, Tumwater, WA

360-709-5509

fogdej@wsdot.wa.gov

<http://wwwi.wsdot.wa.gov/gis/SupportTeam/Training/Training.asp>

GIS Questions (Help Desk for Planning), Tumwater, WA

360-709-5506

buschmw@wsdot.wa.gov

desk in your area. They will contact a GIS staff member to help you within 24 hours.

ONLINE GIS SUPPORT

GIS Support Team

The GIS Support Team web site offers a wealth of information about GIS at WSDOT. You can learn more about software, meetings, data, classes, and applications as well as find answers to frequently asked questions.

- <http://wwwi.wsdot.wa.gov/GIS/supportteam/default.asp>

Environmental Systems Research Institute, Inc. (ESRI)

The web site for ESRI, the company that produces the ArcGIS software used at WSDOT, is a great source of information.

- <http://www.esri.com>

ESRI's introduction to GIS

- <http://www.gis.com/index.html>

United States Geological Survey (USGS)

This poster is an excellent source for learning basic GIS concepts.

- http://erg.usgs.gov/isb/pubs/gis_poster

The Geographer's Craft Project

This web site from the University of Colorado at Boulder is great for learning about coordinate systems, data sources, and other GIS concepts.

- <http://www.colorado.edu/geography/gcraft/contents.html>

Wikipedia

- http://en.wikipedia.org/wiki/Geographic_information_system

DATASETS AND THE GIS WORKBENCH

WHAT DO THE DATASETS CONTAIN?

Geospatial data represents real-world features such as roads, rivers, or cities. Each dataset is referenced to a coordinate system such as latitude/

longitude coordinates. This process enables the GIS to properly overlay separate layers of data.

WSDOT's GIS data sets are stored in digital formats, created and read by ArcGIS (ArcView and ArcInfo), the department's standard GIS software.

WHO COLLECTS AND MAINTAINS THE DATA?

A variety of data stewards throughout the department create and maintain WSDOT geospatial data. Data may be created for general use, such as the Linear Referencing System (LRS) serving as a backbone too much of WSDOT's work, or for a specific project.

WHAT IS METADATA?

Metadata is data about data, and helps the GIS user determine if a given dataset is suitable for their purposes. It may describe when, where and by whom the data was collected; who the data steward is; the accuracy and reliability of the data; and keywords allowing the data to be searched.

Geospatial data follows a standard created by the Federal Geographic Data Committee (FGDC), an interagency committee promoting the coordinated national development, use, sharing, and dissemination of geospatial data. The standard answers commonly asked questions in a format followed by federal, state, and local agencies.

Some metadata is created automatically in the ArcGIS software, such as the geographic extent of the data. Other metadata, such as the purpose of the data and the contact information for the person who created it, is entered manually.

WHAT INFORMATION SHOULD METADATA CONTAIN?

Metadata is divided into seven sections:

1. Identification Information (when, why, and by whom the data was created, what format it is in,

who to contact with questions about the data, and restrictions on use)

2. Data quality information (scale and accuracy of the data, steps taken to create it).
3. Spatial data organization information (information about the coordinate system the data is stored in)
4. Spatial reference information
5. Entity and attribute information (what the data set depicts, what the attributes fields in the data table mean).
6. Distribution information
7. Metadata reference information

The FGDC Web site² contains more detailed information about the above metadata standards.

For users working with feature data (points, lines, polygons) the most pertinent information will likely be found in the identification information, data quality information, and the entity and attribute information sections.

For users working with imagery data, the most pertinent information will likely be found in the identification information, data quality information and spatial reference information sections.

IMPORTANCE OF UNDERSTANDING THE METADATA

When using data to make a decision, it is important to know how accurate or current the data is, what the data that was intended for, or if there are any restrictions on how it can be used. For example, roads data is accurate to 40 feet will likely be used differently than roads data accurate to 800 feet. Metadata can help to answer these questions.

Good documentation protects the data user's investment in the resources they have created or purchased. Without knowledge of data accuracy,

² <http://www.fgdc.gov/metadata>

provenance, and age, the user can't have a high level of confidence in decisions based on that data.

WHAT IS THE GIS WORKBENCH?

The GIS Workbench is a custom ArcGIS Desktop extension providing WSDOT GIS users with custom tools and simplified data access for connecting to WSDOT's enterprise GIS database. The original Workbench was created in order to improve the Environmental Review portion of planning proposals. The Workbench is now expanded and presents menus of data and tools tailored for selected business activities.

WHAT THE WORKBENCH CONTAINS

The workbench contains data organized into several business areas: WSDOT GeoData Catalog, environmental, northwest region, transportation analysis, transportation data, and facilities. The same data layers are often found in multiple business areas.

The Workbench also features tools allowing the user to complete a variety of tasks. Tools allow the user to find a specific State Route location by clicking on the map or entering milepost or ARM information, or to find a specific point using geographic (latitude and longitude) coordinates from a table of from user input. The SR View tool displays a static image more than 1/10 of a mile along the highway, allowing the user to "drive" through video images going along the roadway with the location indicated by a flag on the GIS map. Additionally, the user can change the projection (coordinate system) of the map document or create a buffer around a specific feature or create a map with a title, legend, and other information. The Workbench can display the metadata for a particular layer.

THE WSDOT GEODATA CATALOG

The WSDOT GeoData Catalog contains all of WSDOT's GIS data, organized by subject area as well as the agency that created the data.

THE TRANSPORTATION ANALYSIS WORKBENCH

The Transportation Analysis Workbench contains a select sub-set of WSDOT data specific to planning, scoping, and analysis. This includes collision information, asset management information, such as bridge and pavement data, and aerial photos. The collisions data is restricted and requires permission from the Collisions Data Steward in order to access it.

THE ENVIRONMENTAL WORKBENCH

The Environmental Workbench contains data typically used in the environmental review process. This includes FEMA flood zones, wetland locations, soil liquefaction zones, and salmon habitat locations. Some of the data in the Environmental Workbench, namely locations of certain endangered plant and animal species and archaeological data, requires permission from the Environmental Office GIS Manager in order to access.

In addition to the tools offered by the Workbench in other business areas, the Environmental Workbench offers a graphic area reporter tool allowing the user to create a polygon using the draw tool (similar to the draw tool in Microsoft Word, allowing the user to draw shapes and lines) and determine the area of the polygon.

USING WORKBENCHES AND DATASETS IN PLANNING

The GIS Workbench provides planners the data for locating transportation projects and displaying a wealth of information for a specific location. While GIS generally provides a good flag for likely issues affecting project planning, the best available GIS data often has considerable limitations however. This is particularly true as it relates to Environmental data—GIS data does not provide a substitute for a site review.

MANAGING DATA QUALITY AND DATA SOURCES

Incorporating GIS from other sources

Much of the data in the GIS Workbench was not created by WSDOT. In addition to data created internally, the Workbench contains data created by local, state and federal agencies, universities, regional entities, and private companies. WSDOT obtained some of this data for free, through sharing agreements with the data creators.

If a dataset is not in the GIS Workbench, it is essential they first contact the GIS Help Desk or the GIS Data Steward. It is possible WSDOT already has the data set—it may be listed under a different name in the Workbench or it may not have been loaded into the Workbench. Also, it is important the other sources WSDOT obtains data not receive multiple requests for the same data from different GIS staff. This can lead to confusion, duplication of effort, and cost overruns.

USING GIS AS AN ANALYSIS TOOL

DATASETS AS AN ANALYSIS TOOL

How do they relate to planning?

GIS can enhance both transportation planning and project design and development, helping the department to provide a safe, efficient, and reliable highway system. Applying GIS to planning provides staff with modeling and analysis tools to better inform the process. Additionally, GIS maps offer a critical means by which to communicate the significance of essential data to decision makers and the public.

USING GIS TO DEVELOP LONG-TERM PLANNING INVESTMENT RECOMMENDATIONS

GIS can be used to enhance both transportation planning and decision-making throughout the

development process, helping the department to provide a safe, efficient, and reliable highway system. Applying GIS to planning provides staff with modeling, analysis, and decision-making tools to better understand and communicate needs and strategies.

Additionally, GIS maps offer a critical means by which to communicate the significance of essential data to decision makers and the public.

USING GIS TO DEVELOP A CORRIDOR VISION AND LONG-TERM PLANNING HORIZON.

GIS allows planners to examine data at the local, regional, and state level, to assess existing constraints within a study area, as well as to analyze potential solutions to the issues identified within a study area.

For example, GIS can be used to identify critical habitats and wetlands within a study area. If a proposed solution is to add capacity, the planner can identify what the potential impact may be to habitats and wetlands. It can be a visual tool illustrating the proposed solution and the impacts it would have.

Another example is using GIS to identify the HACS and HALS within a study area. If the goal is to improve safety within the study area, then through GIS a planner can map the existing HACS and HALS, and identify where the safety improvements need to be invested.

In both examples, GIS assists the scoping process by identifying where the issues are, and where mitigation measures are needed. When a designer begins the scoping process they have a detailed inventory of where the issues are, and how the design perspective they need to be addressed from.

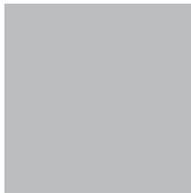
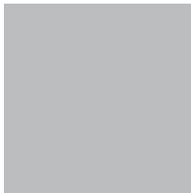
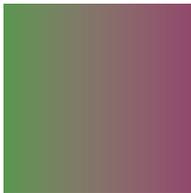
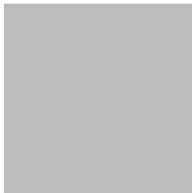
HOW GIS CAN BE USED TO IDENTIFY AND PRIORITIZE TIERED CORRIDOR IMPROVEMENTS.

GIS helps planners analyze current and projected highway conditions, develop initial screenings of

environmental concerns, and identify necessary route improvements and potential restrictions on those investment recommendations.

By identifying patterns, searching for clusters, and locating impact areas, GIS assist to identifies the location of needs and demonstrates strategies to address those needs.

APPENDIX C



Appendix C

Coordination of Priorities With Existing Plans and Agencies

COORDINATION OF STUDY RECOMMENDATIONS

Review existing plans from local, regional, statewide, and federal agencies. This includes reviewing modal plans such as the ferry system and public transportation operating in the study area. This ensures consistency and coordination of your study’s recommendations to existing local, regional and statewide transportation plans. The study team, prior to formulating recommendations will need to be aware of existing plans goals to gain insight from these plans when formulating your study’s recommendations. The following details the plans to review and modes, divisions as well as local, regional, state and federal agencies as a part of the planning study.

STATEWIDE PLANS

2007-2026 Washington Transportation Plan: This plan provides the over arching “Five Investment Guidelines” of Preservation, Safety, Economic Vitality, Mobility, and Health and the Environment. The investment guidelines provide direction for prioritizing planning studies, as well as a state-wide perspective on program-level needs and examples of specific projects and the expected benefits they delivered.

Highway System Plan: The Highway System Plan (HSP) guides WSDOT in prioritizing and budgeting for highway projects and is updated every two years. The HSP is a result of federal and state legislative action introducing greater integrated and coordinated planning processes. Together with the WTP, the HSP assesses future transportation needs through a collaborative planning process with the goal of ensuring the transportation system provides convenient, reliable, safe, efficient, and seamless connections and services.

Exhibit 1-C: Consistency With Statewide Plans			
Improvement Category	Objective	Applicable Action Strategies	Proposed Improvements*
Congestion Relief	Reduce person and freight delay on WTP Corridors.	Access Management within Developed Corridors – Along corridors, which are fully developed, reduce the travel delay by utilizing access management techniques where appropriate.	<ul style="list-style-type: none"> During redevelopment of property bordering SR 99 North, look to reduce the number of driveways directly accessing SR 99 North.
		Congested HSS – Where adopted congestion thresholds are surpassed, make targeted transportation investments considering all transportation strategies.	<ul style="list-style-type: none"> Maximize the people moving capacity of the corridor northbound and southbound during peak periods of congestion In conjunction with property redevelopment, increase existing narrow through lane widths (see roadway sections). Continue transit speed and reliability improvements
		Develop bicycle/pedestrian corridors where they support public transportation facilities and are viable commute corridors.	<ul style="list-style-type: none"> Create a system of continuous sidewalks by filling in gaps in the existing sidewalk system.

*All proposed improvements are explained in detail in Chapter 6 from page 6-2 to page 6-25.

Example of consistency with statewide plans; WSDOT SR-99 Route Development Plan

Exhibit 1-C illustrates an example of a method to show consistency of a planning study's proposed improvements with the HSP.

Strategic Highway Safety Plan: In accordance with the current federal transportation requirements of Safe, Accountable, Flexible, Efficient, Transportation Equity Act-A Legacy for Users (SAFETEA-LU) 23 USC 148; the Strategic Highway Safety Plan identifies the statewide safety needs and provides investment guidance. This collaborative effort between the Washington Traffic Safety Commission, the Washington State Patrol, WSDOT, and other stakeholders has the primary goal to achieve "Target Zero," eliminating fatal collisions and serious injuries on the statewide transportation system.

More detailed information about these plans is available at <http://www.wsdot.wa.gov/planning>

STATE MODAL AND DIVISION PLANS

Each WSDOT modal (public transit, aviation, bicycle and pedestrian) divisions each produce a plan. These plans are specific to the individual mode or division and contain goals and objectives that may affect your study area. It is important to review these plans if applicable to your study area and to contact planners in these divisions.

A link to the modal plans produced by WSDOT is online at <http://www.wsdot.wa.gov/planning/ModalPlans>

The following are brief descriptions of the mode and division plans:

Aviation Plan

The Long-Term Air Transportation Study (LATS) is a long-term planning study for general aviation and commercial airports statewide. The purpose of LATS is to understand the current capacity of

aviation facilities and what will be needed to meet future demand for air transportation.

For more information, see: <http://www.wsdot.wa.gov/aviation/LATS>

Bicycle and Pedestrian Plans

WSDOT Highways and Local Programs supports alternate transportation through local infrastructure funding and technical assistance statewide. Presently, WSDOT is in the process of updating the statewide Bicycle and Pedestrian Plan.

For more information, see: <http://www.wsdot.wa.gov/TA/HomePage.HLPHP>

Ferry System

If your study area includes a state ferry facility, then reference the Washington State Ferries Long-Range Strategic Plan. The plan provides guidance on the services and investments through 2030. These include route specific programs including route structures, service frequencies and carrying capacities. The plan also serves as the strategic investment plan for vessel and terminal improvements.

For more information, see: <http://www.wsdot.wa.gov/ferries/planning>

Freight and Goods Transportation System Plans

Freight system plans are conducted by the state, metropolitan and regional transportation planning organizations. These plans provide guidance on long-term freight system investments.

The WSDOT freight plan update and research report information is available online at: <http://www.wsdot.wa.gov/freight>

Rail Plans

The Passenger Rail Plan provides guidance for passenger rail in the long-range plan for Amtrak Cascades, the passenger rail operator

in Washington. Metropolitan and Regional Transportation Plans may also contain rail elements if applicable.

Additionally, the private rail corporations Union Pacific and BNSF Railway have long-term investment strategies that need to be factored for planning studies.

Public Transportation

Developed with the vision that people should be able to easily and efficiently move through congested intercity corridors using a variety of transportation options, the Public Transportation Plan guides the state in its public transportation role, describes the condition of public transportation, discusses significant issues, identifies future needs, and proposes realistic strategies and responsibilities for achieving the vision. It provides the framework for preserving the public transportation system while improving mobility for a growing population.

Statewide Intelligent Transportation System Plan

The WSDOT Maintenance and Communications Office has prepared a plan for the implementation of Intelligent Transportation System (ITS) technology statewide. This plan identifies the priority corridors in the statewide system.

Roadside Classification Plan

The Roadside Classification Plan provides policy and guidelines for the management of Washington state highway roadsides, including planning, design, construction, and maintenance activities. The intent of this plan is to provide a uniform framework for consistent, proactive roadside management statewide and to facilitate cost-effective restoration of roadsides. In coordination with the Highway System Plan, it sets statewide goals and objectives for roadside management, establishes roadside character classifications,

ROADSIDE MASTER PLAN

WSDOT recommends a Roadside Master Plan (RMP) be prepared for every planning study. A roadside master plan coordinates the planning, design, construction and maintenance activities with route development, construction projects and environmental or other commitments. The RMP is intended to reduce design documentation by providing a basis for construction project preparation, right of way considerations, coordination between roadside design and maintenance and communication with the public. For more information, reference: <http://www.wsdot.wa.gov/eesc/design/roadside>.

provides guidelines for roadside restoration, and advocates the use of native plants, integrated vegetation management (IVM), and a long-term approach to achieve sustainable roadsides.

Scenic Byway Corridor Management Plans

These studies often focus on vehicular use of roadways in rural areas for tourism and sight-seeing. But these plans also consider how people and goods can be moved efficiently. In urban sections of a scenic byway, they should include looking at transit services, use of commute trip reduction, walking, and bicycling as appropriate. While somewhat different in purpose than a highway, route, or corridor plan, Corridor Management Plans (CMPs) provide an analysis of a corridor over a 20-year planning horizon.

CMPs are developed in coordination with the United States Department of Transportation and the Federal Highway Administration Scenic Byways program. These plans follow FHWA guidelines for a master planning process along a corridor, with a focus both within and outside of the highway right of way.

CMPs establish community-based goals and implementation strategies along a corridor and describe how to use community resources efficiently, how to conserve intrinsic qualities of

the corridor, and how to enhance its value to the community.

Port and Navigation Plans

Port and navigation plans are typically developed by port districts within metropolitan and regional transportation planning organizations. In some instances, port plans are a part of the regional subarea plans.

Check with the local MPO or RTPO for port and navigation plans that may affect your study area.

Human Services Plans

Human Services Plans developed by local human service transportation providers. Typically grant-funded, these human service transportation providers develop plans with metropolitan planning organizations and regional transportation planning organizations, as well as WSDOT in accordance with the federal SAFETEA-LU requirements to provide transportation in local communities.

LOCAL COMPREHENSIVE PLANS

Local comprehensive plans prepared under the Growth Management Act (GMA) must include six elements, including a transportation element.

THE TRANSPORTATION-LAND USE CONNECTION

The transportation element must implement and be consistent with the land use of GMA comprehensive plans. The transportation element must include an inventory of land, water, and air transportation system facilities. Additionally, standards for the performance of locally-owned transportation facilities and a list of improvements needed to meet demand need to be included. Local governments must address the impact of their transportation plan and land use assumptions

on other jurisdictions and on state highways and reassess land uses that can't be served by existing or planned facilities and services. The transportation improvements identified in the transportation element must be connected to a clear and specific funding strategy.

ENVIRONMENTAL ELEMENT

Noise, stormwater mitigation, and air pollution are important concerns. Environmental elements in these plans are critical to review. In some instances, air quality in areas listed as non-attainment might have serious affects on what solutions can be developed for a planning study. In addition, noise abatement and stormwater mitigation have become important considerations that need to be factored in the development of planning study solutions.

REGIONAL TRANSPORTATION PLANS

Regional Transportation Plans (RTP) are developed by the fourteen Regional Transportation Planning Organizations (RTPOs). RTPOs plan and coordinate regional transportation issues and data analysis statewide. These plans contain strategies guided by the regional transportation strategy and countywide planning policies and guidelines.

A map showing the locations of the statewide RTPOs is located in the Maps section.

LAND USE CONNECTION

Regional Transportation Plans typically have a land use development section. Within this section, the connection is detailed between land use and transportation. This connection is accomplished by performing transportation modeling on the proposed land use changes and their affect on the transportation system.

TRANSPORTATION ELEMENT OF THE REGIONAL TRANSPORTATION PLAN

Regional transportation improvement programs are developed in collaboration with WSDOT, public transportation operators, local jurisdictions and tribal governments.

Bicycle and Pedestrian Plans

Cities and counties typically have plans. Additionally, metropolitan and regional transportation planning organizations typically have these elements within their comprehensive plans.

TRIBAL PLANS

In accord with Executive Order E 1025.00, February 19, 2003, WSDOT employees are to provide consistent and equitable standards for working with the federally recognized tribes in Washington State. Each tribe is a distinct sovereign nation. A durable relationship between the state and tribes, promoting coordinated transportation partnerships that provide a service to all citizens is the intent of this executive order. It is

important that the Tribal Liaison Office is aware of planning-related contact or consultation with tribal governments to ensure open communication. There may be statewide issues in a context beyond the study area. Typically, each region office staffs a tribal coordinator.

CENTENNIAL ACCORD

The 1989 Centennial Accord was a historic agreement that involved the collaboration of the federally recognized tribal nations of Washington State and state government agencies. The plan describes how various WSDOT offices and departments work with the tribes.

Tribal governments may have natural resource or land management plans to be reviewed. It is recommended to meet and coordinate with Tribal governments and their transportation and natural planning departments during the planning study.

STATE TRIBAL LIAISON OFFICE

The Tribal Liaison Office is responsible for assisting tribes and the department with implementing effective government-to-government relations. The Tribal Liaison Office also serves as the point of

Exhibit 2-C: Comprehensive Plan Inclusion

Seattle's Comprehensive Plan Transportation Goals

The City of Seattle's Comprehensive Plan lists the following transportation goals (TG) in *Toward a Sustainable Seattle*. These goals are consistent with recommendations of this Route Development Plan:

- **TG2** Reduce and/or mitigate air, water, and noise pollution from vehicles.
- **TG3** Promote energy-efficient transportation.
- **TG4** Meet the current and future mobility needs of residents, businesses, and visitors with a balanced transportation system.
- **TG5** Provide a range of viable transportation, including transit, bicycling, and walking.
- **TG8** Make the best use of the City's limited street capacity, identify key functions of streets, and seek to balance competing uses.
- **TG9** Ensure adequate capacity on the street system for transit and other important uses.
- **TG10** Support a shift towards transit, carpools and vanpools, bicycling, and walking.
- **TG11** Support efficient freight and goods movement.
- **TG17** Provide mobility and access by public transportation for the greatest number of people to the greatest number of services, jobs, educational opportunities, and other destinations.
- **TG18** Increase transit ridership, and thereby reduce use of single-occupant vehicles to reduce environmental degradation and the societal costs associated with their use.
- **TG19** Increase walking and bicycling.
- **TG20** Create desirable, safe, convenient environments that are conducive to walking and bicycling.
- **TG21** Preserve and improve commercial transportation mobility and access.

contact with WSDOT to ensure tribes gain access to appropriate staff to assist in understanding programs, policies and procedures. Additionally, the office assists WSDOT with tribal issues, making contacts, initiating consultation and promoting ongoing coordination with the tribes.

FEDERAL REQUIREMENTS

The new federal SAFETEA-LU requirements specify that Tribal Planning needs to be consulted on coordinating transportation planning. Consultation means respectful, effective communication in a cooperative process that works toward building consent before a decision or action is taken. Tribal planning may involve land use or resource management decisions that could affect the state highway system.

The Bureau of Indian Affairs Indian Reservation Roads (IRR) program is funded under 23 USC Section 204 Federal Lands Program from the Highway Trust Fund. These IRR funds are distributed by formula to the regional Bureau of Indian Affairs (BIA) Regional Offices. The IRR includes all public roads on or providing access

to Indian lands and tribally-controlled vocational school routes. In Washington State has 1,440 miles of BIA and tribal public roads, and 2,233 miles of state and local IRR roads (Transportation Guide for Indian Tribal Governments, January 2004).

The BIA Northwest Regional Office administers funds for tribal governments in Washington State. The BIA is responsible for IRR road inventories and planning and implementation for tribal governments with regard to tribal road projects. The prioritization of roadway projects is identified through the implementation of the Tribal Transportation Improvement Program (TIP). Tribal TIPs are incorporated into the State Transportation Improvement Program through the BIA and Federal Lands Highway Office.

Exhibit 3-C: Consistency with Local Plans Table

PSRC's Destination 2030	SEATTLE'S TOWARD A SUSTAINABLE SEATTLE	As Applicable, Corridor Wide Proposed Improvements
RT-8. 1,3	TG-8, 9, 11, 21, 22	<ul style="list-style-type: none"> In high accident areas with significantly narrow lanes, consider parking removal to provide wider lanes
RT-8. 3, 14	TG-5, 8, 10, 19, 20	<ul style="list-style-type: none"> Provide for pedestrian crossing improvements at locations with a preponderance of pedestrian crossing related accidents.
RT-8. 1, 8, 12, 14, 16, 29, 39 36, 38	TG-2, 3, 4, 5, 8, 9, 10, 11, 17, 18, 21, 22	<ul style="list-style-type: none"> Maximize the people moving capacity of the corridor northbound and southbound during peak periods of congestion In conjunction with property redevelopment, increase existing narrow through lane widths (see roadway sections). Continue transit speed and reliability improvements
RT-8. 3, 12, 14	TG-4, 5, 8, 10, 17, 19, 20	<ul style="list-style-type: none"> Provide a safer place for pedestrians and other non-motorized users by improving crossings and adding or widening sidewalks, curbs, and gutters along the corridor as needed
RT-8. 1, 3, 8, 12, 14, 29, 36, 38	TG- 3, 4, 5, 8, 10, 17, 18, 19, 20	<ul style="list-style-type: none"> Install bus shelters, lighting, and litter receptacles to make Aurora safer and cleaner for transit riders
SOUTH (in conjunction with private redevelopment)		
RT-8. 1, 3, 36, 38	TG-2, 3, 8, 9, 11, 21, 22	<ul style="list-style-type: none"> Reduce accidents and congestion on SR 99 by providing traffic operation improvements to N. 38th St., Bridge Way N., and Fremont Way North
RT-8. 1, 3, 36, 38	TG-5, 8, 11, 20, 21, 22	<ul style="list-style-type: none"> Reduce accidents and congestion on SR 99 North by relocating the Aurora Bridge sidewalks beneath the bridge deck thereby providing space for wider lanes and the installation of a median barrier to separate opposing directions of travel.
RT-8. 1, 3, 36, 38	TG-11, 21, 22	<ul style="list-style-type: none"> Reduce accidents and congestion on SR 99 North by improving the operation of the southbound intersection of Raye Street and SR 99 North and the northbound intersection of Halladay Street and SR 99 North.
CENTRAL (in conjunction with private redevelopment)		
RT-8. 1, 3, 36, 38	TG-3, 8	<ul style="list-style-type: none"> Implement left-turn restrictions in high accident areas with a preponderance of left-turn related accidents.
RT-8. 1, 8, 36, 38	TG-2, 3, 8, 9, 11, 21, 22	<ul style="list-style-type: none"> Intersection phasing improvements to mitigate angle and turning accidents
RT-8. 1, 3, 36, 38	TG-3, 8, 11, 21, 22	<ul style="list-style-type: none"> Provide signal improvements at intersections with a significant number of turning related accidents.
NORTH (in conjunction with roadway redevelopment)		
RT-8. 1, 3, 36, 38	TG-3, 8	<ul style="list-style-type: none"> Implement left-turn restrictions in high accident areas with a preponderance of left-turn related accidents.
RT-8. 1, 8, 36, 38	TG- 3, 8, 11, 21, 22	<ul style="list-style-type: none"> Widening travel lanes to mitigate sideswipe accidents
RT-8. 1, 3, 36, 38	TG-3, 8, 11, 21, 22	<ul style="list-style-type: none"> Provide signal improvements at intersections with a significant number of turning related accidents.

Example of Planning Study's consistency with Regional Plan, WSDOT SR- 99 Route Development Plan.

RESOURCE AGENCY PLANS

Coordination with resource agency plans is important to link planning with the state and national Environmental Policy Acts, and to provide recommendations in a planning study.

STATE RESOURCE AGENCIES

Reviewing and coordinating with resource agency plans is relevant to transportation planning studies because these resource agencies are served by our transportation system, and any recommendations from your study need to be coordinated with the plans that each agency produces.

Washington State Parks and Recreation Department

The Washington State Parks and Recreation Commission oversees planning and developing the state's parks. As a part of the Centennial 2013 celebration for the state park system, Washington State Parks is creating master plans for each of the 120 state parks. These master plans will guide the future development and use of each park in the state park system. A list of state park master plan is located at <http://www.parks.wa.gov/plans>.

Washington State Department of Fish and Wildlife

The Washington State Department of Fish and Wildlife (WDFW) manages wildlife areas and state fish hatcheries. Each area of focus has a management plan. Consult their website for contact information:

<http://wdfw.wa.gov>.

Washington State Department of Natural Resources

The Washington Department of Natural Resources (DNR) is responsible for managing state trust lands. These include forested, agricultural; aquatic (tidelands and beds of navigable waters); and natural areas. Each type of land has a variety of management plans. These include Habitat Conservation Plans.

Contact the local manager for more information. Contact information is at: <http://www.dnr.wa.gov>.

FEDERAL RESOURCE AGENCIES

Similar to those of the state resource agencies, the federal government resource agencies management plans need to be reviewed. The federal resource agencies most affecting state transportation planning are listed below:

United States Department of Agriculture: Forest Service

The Pacific Northwest Region headquarters in Portland, Oregon manages resources in Washington State. The USDAFS provides the leadership in the protection, management and use of the Nation's forest and grasslands ecosystems. This agency also manages the Mount St. Helens National Volcanic Monument.

The USDAFS has numerous plans and databases. Check their website for contact information at;

<http://www.fs.fed.us>

United States Department of Interior Fish and Wildlife Service

The Fish and Wildlife Service has four strategic goals: resource protection, resource use, recreation and serving communities. The National Wildlife Refuge Improvement Act 1997 details the management plans for land areas, resource uses, condition goals and objectives. Program constraints and management practices are detailed as well.

The plan may include additional detailed plans, support action, implementation sequences, and monitoring standards that WSDOT planners need to be aware of if the study area is adjacent to or encompasses lands under USFWS oversight.

See their website at: <http://www.fws.gov/refuges>.

National Park Service

The Pacific-West Region in Seattle manages the national parks, recreation areas and trails; historic sites and historic landmarks. Each site is managed by a superintendent. Most NPS park units have a General Management Plan. Contained within these management plans are guidance policies that provide direction for each park unit for a 10-15 year time frame. These policies may include assessments of the archeological and historic character of the built environment, ethnographics and natural systems resources within each park unit. Additionally, the management plans also contain guidance on threatened and endangered species, wetlands, flood plains, and riparian resources. The general management plans also contain information on adjacent land uses and local, state, and tribal land management plans.

To view the plans for each park unit in Washington State, go to: <http://planning.nps.gov>

Bureau of Land Management

Two BLM district offices are located in Washington State. The BLM Wenatchee District office provides management oversight for western Washington and the BLM Spokane District office provides management oversight for eastern Washington. Most BLM land is located in west-central and eastern Washington.

To view district resource plans, visit <http://www.blm.gov/wo/districts>.

Bureau of Reclamation

This bureau is responsible for managing land adjacent to irrigation and hydroelectric dams.

The Pacific Northwest Region includes the entire Columbia River basin watershed. Major projects and their management plans are listed on this website:

<http://www.usbr.gov/gov/main/regions.html>

United States Bureau of Indian Affairs (BIA)

The BIA manages trust lands for federally recognized tribal governments. This includes managing forest and agricultural lands which have their own management plans. The BIA also manages the Indian Reservation Roads database which is an inventory of all public roads within or that provides access to an Indian reservation or trust lands.

For information regarding BIA plans, go to:

<http://www.doi.gov/bureau-indian-affairs.html>

Quick Reference Checklist

STEP ONE: REVIEW FEDERAL RESOURCE PLANS

1. Determine if federal resource lands are adjacent to, or a part of the study area.
2. Review and determine if federal resource management agency plans have effects on your study area.

STEP TWO: REVIEW TRIBAL PLANS

1. Determine if the study area will be adjacent to tribal lands.
2. If applicable, review tribal plans to determine effects on the study area.

STEP THREE: REVIEW STATEWIDE PLANS

1. Determine if study issues are consistent with the Five Investment Guidelines policy in the WTP.
2. Identify if roadway within the study area is a priority corridor in the HSP.
3. Determine if issues in the study area are consistent with the priorities identified in the SHSP.

4. Review all state resource agency plans to determine if there are recommendations applicable to your study area.

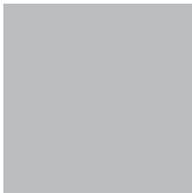
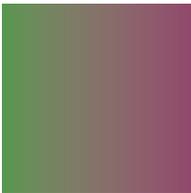
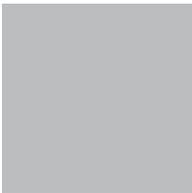
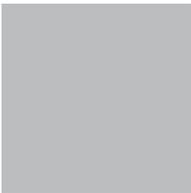
STEP FOUR: REVIEW STATE DIVISION/ MODAL PLANS

1. Review all WSDOT modal and operational plans to determine if these have recommendations applicable to the study area.

STEP FIVE: REVIEW LOCAL AND REGIONAL PLANS

1. Determine if local and regional comprehensive plans include study area, and if recommendations from these plans may affect your study.
2. Review and determine if local modal plans (transit, public works) may affect your study.
3. Determine if private companies (railroads, utilities) have plans in the study area.

APPENDIX D



Appendix D

National Environmental Policy Act, State Environmental Policy Act, Growth Management Act, and Planning Studies

WHAT IS THE NATIONAL ENVIRONMENTAL POLICY ACT?

Recognizing the impact of human activity on the natural environment, the US Congress enacted the National Environmental Policy Act (NEPA) in 1969 and it was signed by President Nixon in 1970. NEPA is the national policy for the protection of the environment.

NEPA procedures ensure environmental information is available to public officials and the public prior to decisions and actions being made. The documents resulting from the NEPA process concentrate on issues significant to proposed actions. The process is intended to assist decision makers to make decisions based on an understanding of the environmental consequences and to take actions that protect, enhance, and restore the environment. (40 CFR 1500.1)(c). Federal agencies are required to integrate the NEPA process with other planning at the earliest possible time to ensure planning decisions reflect environmental values, avoid delays later in the process, and to avoid potential conflicts.

NEPA regulations are applicable to all projects receiving federal aid and were developed by the Council on Environmental Quality (CEQ). They are codified as 40 CFR 1500-1508, Regulations for Implementing the Procedural Provisions of NEPA. Federal Highway Administration (FHWA) regulations applicable to federally aided highway projects are codified as 23 CFR 771, Environmental Impact and Related Procedures.

The full text of NEPA (42 USC 4321 et seq.), CEQ implementing regulations (40 CFR 1500-1508) and other guidance is online at: <http://ceq.eh.doe.gov/nepa/nepanet.htm>

FHWA environmental impact and related regulations (23 CFR 771) are at: <http://www.fhwa.dot.gov/>

WHAT IS THE STATE ENVIRONMENTAL POLICY ACT?

Administered by the Washington State Department of Ecology, the State Environmental Policy Act (SEPA), adopted in 1971, provides a way to identify possible environmental impacts resulting from decisions related to public or private projects, policies, or plans. SEPA allows review of possible alternatives or mitigation measures to reduce the impact of a project.

Information provided through the SEPA process assists decision-makers and the public to understand how a proposed study or project could affect the environment.

SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: A LEGACY FOR USERS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was enacted in 2005. This legislation affects many aspects of the NEPA

environmental review and documentation process. In Sections 3005, 3006, and 6001 of the legislation it established the following:

- The transportation planning process provides for actions and strategies protecting and enhancing the environment, promoting energy conservation, improving the quality of life, and promoting consistency between transportation improvements and state and local planned growth and economic development patterns;
- Transportation plans developed in consultation with state, tribal, and local agencies responsible for land-use management, natural resources, conservation, environmental protection, and historic preservation;
- This consultation involve a comparison of transportation plans with state, tribal, and local conservation plans and maps, if available, and with inventories of natural and historic resources, if available; and
- Transportation plans include a discussion of potential environmental mitigation activities and potential areas to carry out these activities.

SAFETEA-LU specifies that the lead agencies also must give the public the opportunity for involvement during the development of the purpose and need statement and the identification of the range of alternatives to be considered. Prior to SAFETEA-LU, the public scoping process typically included these elements of a NEPA review, but there was no explicit federal requirement to provide an opportunity for public involvement on purpose and need and on the range of alternatives in advance of the draft environmental impact statement (DEIS).

EXISTING REGULATIONS

HOW THEY APPLY TO PLANNING STUDIES Federal Regulations

Federal regulations issued on February 14, 2007, included the first changes in 13 years. One of the major changes in the rule (450.212) was the

elimination of the major investment study (MIS) as a separate requirement and integration of MIS and associated studies into transportation planning and NEPA. The final rule allows, but does not require, states to conduct corridor or subarea planning studies. It allows the results of those studies to be used in the NEPA process.

Additionally, under the final rule, states, Metropolitan Planning Organizations (MPOs) or public transportation operators “may undertake a multimodal systems-level corridor or subarea planning study” as a part of the statewide or metropolitan transportation planning process.

The final rule also states: “To the extent practicable, development of transportation planning studies shall involve consultation with, or joint efforts among, the State(s), MPO(s) and/or public transportation operator(s). The results or decisions of these transportation planning studies may be used as part of the overall project development process.”

The rule also states that corridor or sub area studies may result in producing any or the following for a project:

1. Purpose and need or goals and objective statements;
2. General travel corridor and/or general modes definition (highway, transit or a highway/transit combination);
3. Preliminary screening of alternatives and elimination of unreasonable alternatives;
4. Basic description of the environmental setting; and/or
5. Preliminary identification of environmental impacts and environmental mitigation.

The final rule also specifies conditions under which documents produced as part of these planning studies may be incorporated—either directly or by reference—into NEPA documents.

State Regulations

SEPA applies to transportation plans produced by metropolitan planning organizations, regional transportation planning organizations, cities and counties. The lead agency of a planning study is responsible for identifying and evaluating the potential adverse environmental impacts of the planning study's recommendations.

WSDOT planning studies do not need to meet SEPA requirements. WSDOT projects, programs actions, and activities are integrated through the Transportation Commission and Department Environmental Policy Act Rules.²

Careful review of plans by other jurisdictions is critical to ensure minimal impacts.

SEPA (RCW 43.21C), SEPA Rules (WAC 197-11), SEPA Handbook and forms including the Environmental checklist are on the Department of Ecology's web site: <http://www.ecy.wa.gov/>

Local Regulations

Depending upon where the study area is located, local environmental regulations might also warrant consideration. In rural areas, county environmental requirements need review. An urban area, such as Seattle or Spokane, may also have storm water or air quality environmental regulations needing review.

PRELIMINARY ANALYSIS

The new rules regarding linking planning and NEPA allow for planning studies to have a level of detail for environmental considerations streamlining the review process. These new rules allow, with adequate environmental identification and inclusion of resource agencies, for the planning study's recommendations to go to the project implementation phase.

² WAC 468-12

Preliminary analysis is the identification of environmental considerations within a study area. These environmental considerations could affect a planning study's recommendations. Identification of environmental areas such critical habitats, wildlife corridor connectivity, wetlands, and sole source aquifers need to be identified and included in a planning study. This also includes identifying socioeconomic areas within the study area to determine if the proposed recommendations will affect areas considered under Title VI. Once these areas have been identified, perform an analysis of what effect the study's proposed solutions will have on these identified environmental areas. This level of detail provides documentation of the preliminary analysis process and evaluation of the environmental conditions within the study area and assists in determining if the proposed recommendations will have any affect or if proposed recommendations may need to be reassessed.

This approach allows the planning study to take place within the guidelines under NEPA. It encourages interaction with resource agencies as well as local jurisdictions.

Secondly, the preliminary analysis assists in the later project scoping and the design phase. Performing a preliminary analysis provides the level of detail needed to adequately scope a planning study's recommendations when it reaches the project development stage. Environmental consideration identification at the planning stage can inform future project-level environmental documentation.

GROWTH MANAGEMENT ACT

OVERVIEW

State statute defines the relationship between local and regional land use planning and state-owned transportation facilities in the Growth Management Act (GMA). The GMA was adopted in 1990 by

the Washington State Legislature creating a state policy framework for local comprehensive planning. The GMA requires local governments to include information about state-owned transportation facilities in their comprehensive plans. The GMA also identifies the role of the Regional Transportation Planning Organizations (RTPOs) in the planning process.

The GMA's intent is to address uncoordinated and unplanned growth and to express common goals for conservation and wise land use. The GMA identifies 14 statewide planning goals and a process as well as certain minimum requirements, for the adoption and update of land-use plans by local governments. The GMA also outlines the requirements for implementing land-use regulations. Currently, 29 counties and 218 cities, representing 95 percent of the state's population, plan under the GMA. The remaining 10 counties and 63 cities plan under the GMA for resource lands and critical areas only.

THE TRANSPORTATION CONCURRENCY REQUIREMENT

Local Requirements

Transportation facilities have a statutorily defined concurrency requirement not specified for other public services or facilities. Local governments are required to establish level of service (LOS) standards of performance for transportation facilities and services. The measures used to establish LOS standards vary by city or county. Level of service measures may be based on volume of traffic compared to the capacity of the facility, travel time, travel speed, or variable performance indicators accounting for factors such as road conditions or safety hazards. The LOS standards may be measured for a single intersection, a road segment, a traffic corridor, or a zone.

Once an LOS standard is established, the local government must adopt an ordinance to deny proposed developments if they cause the levels of service to decrease below the standard. The

only exceptions are if improvements or strategies to accommodate the development's impacts are made "concurrent with development." This means the proposed improvements are in place at the time of the development, or a financial commitment is in place to complete the improvements or strategies within six years.

Local governments must include in their comprehensive plans:

- An inventory of state-owned transportation facilities in their boundaries
- An estimate of traffic impacts to state-owned facilities resulting from their land-use assumptions
- A list of state transportation system improvements needed to meet demand
- The adopted level of service standards for state-owned highways

State Requirements

The process for establishing level of service standards on state highways and ferry routes depends on the designation of the facility. The Transportation Commission establishes and the legislature adopts a list of Highways of Statewide Significance HSS. Established by the Transportation Commission, the HSS must be planned for in the statewide multimodal plan and given higher priority for correcting identified deficiencies. The legislature declared approximately half of the state's highway system to be of statewide significance.

HSS routes include the following:

- Interstate Highway System
- Inter-regional state principal arterials
- Major Ferry Routes

The remaining state-owned highways are of regional, not statewide, significance and are classified as follows;

- Collector Routes

- Non-Inter-regional principal arterials
- Minor ferry routes

Island County has an exemption to the concurrency requirement on HSS routes under GMA(RCW 36.70A(6)(a)(iii)(C)). For counties whose only connection to the mainland are state highways or ferry routes, the level of service standards for state highways and ferry route capacity must be a factor in meeting the concurrency requirements.

WSDOT has the authority to make the final decisions on the level of service standards for highways and ferry routes of statewide significance, after consulting with local governments.³ The levels of service standards for other state-owned facilities are collaboratively set by WSDOT and RTPOs.⁴ The purpose of including level of service standards in local land use plans is to monitor system performance, evaluate improvement strategies and facilitate state and local coordination.

**Exhibit 1-E:
Facility, Level of Service, and
Concurrency**

Facility	Level of Service	Concurrency
Local Transportation Systems	LOS set by locals through local planning process.	Concurrency required under GMA for local transportation facilities.
State Highways and Ferries	LOS set jointly by RTPO and state.	Concurrency requirement does not address state-owned transportation facilities other than HSS.
Highways of Statewide Significance (HSS)	LOS set by state in consultation with locals.	Concurrency requirements of GMA do not apply to HSS, except in Island & San Juan Counties.

LOS Authority & Concurrency Vary by Transportation Facility Table, The GMA Concurrency Goal & State Transportation System, December 2006

³ RCW 47.06.140

⁴ RCW 47.80.030(1)(c)