

# CHAPTER 1. Project Introduction

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*The purpose of the Highway 199 Expressway Upgrade project is to address issues of safety, access, capacity, and congestion along a segment of Highway 199 that has experienced a crash rate that is higher than the statewide average and includes several intersections that are experiencing congestion levels that are considered unacceptable per the 1999 Oregon Highway Plan (OHP).*

## 1.1 Project Identification and Description

The Highway 199 Expressway Upgrade Project is located in Grants Pass in Josephine County, Oregon (Exhibit 1-1). The project is 4.24 miles long, from mileposts 0.20 to 4.44. The area of potential impact (API) is the area within which potential environmental, social, and economic impacts from the project may directly occur. The API is defined as the general area of Highway 199 bounded by: Midway Avenue to the west and Tussey Lane to the east; Hubbard Lane from Highway 199 to Demaray Drive to the south; Redwood Avenue from Highway 199 to Dowell Road, and 500 feet north of Highway 199 along Ringuette Street (Exhibit 1-2).

**Exhibit 1-1. Project Identification**

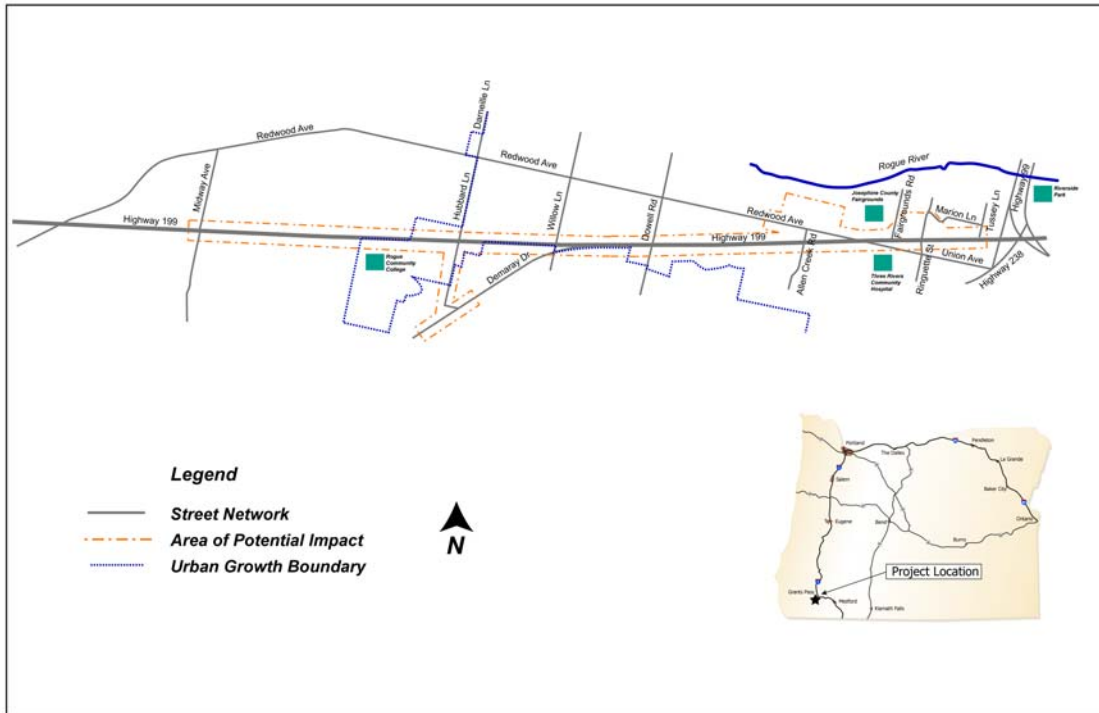
<b>Project Name:</b> Highway 199 Expressway Upgrade Project	<b>Funding Source:</b> FHWA and ODOT
<b>County:</b> Josephine	<b>State Improvement Program Status:</b> ENVDOC
<b>City:</b> Grants Pass	<b>Beginning Milepost:</b> 0.20
<b>ODOT Region:</b> 3	<b>Ending Milepost:</b> 4.44
<b>Highway/Roadway:</b> Highway 199	<b>Length:</b> 4.24 miles

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This environmental assessment is being prepared to comply with National Environmental Policy Act (NEPA) requirements for environmental review. This evaluation will be used by the Oregon Department of Transportation (ODOT) and Federal Highway Administration (FHWA) to determine whether a finding of no significant impact (FONSI) will be prepared, or if greater environmental review is needed in the form of an environmental impact statement (EIS).

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Exhibit 1-2. Project Location and Area of Potential Impact (API)



The western segment of the project (Midway Avenue to Dowell Road) is located in an area that is rural with intermittent, residential neighborhoods on either side of the highway. Rogue Community College is located in the western portion of the project, along with a few churches. There are some large, intact stands of mature trees in this area and the terrain slopes gently.

The central segment of the project (Dowell Road to Fairgrounds Road) transitions to a more urban and developed setting. This segment supports a variety of uses ranging from residential to large commercial facilities, including the Josephine County Fairgrounds. Development density and traffic congestion increase as one travels from west to east. In addition, there are some stands of mature trees and some individual trees, shrubs, and bushes, and the terrain begins to transition from sloping to flat.

The eastern segment (Fairgrounds Road to Tussey Lane) of the project is in a highly and densely developed, urban part of Grants Pass. There are a variety of uses in this portion including but not limited to small businesses, neighborhoods, and a hospital. There is substantial congestion in this area. There are a few trees, shrubs, and bushes, and the terrain is mostly flat.

## 1.2 Project Purpose

The purpose of the project is to address vehicular and pedestrian safety, and current and future congestion and operational deficiencies along Highway 199 between Midway Avenue and Tussey Lane.

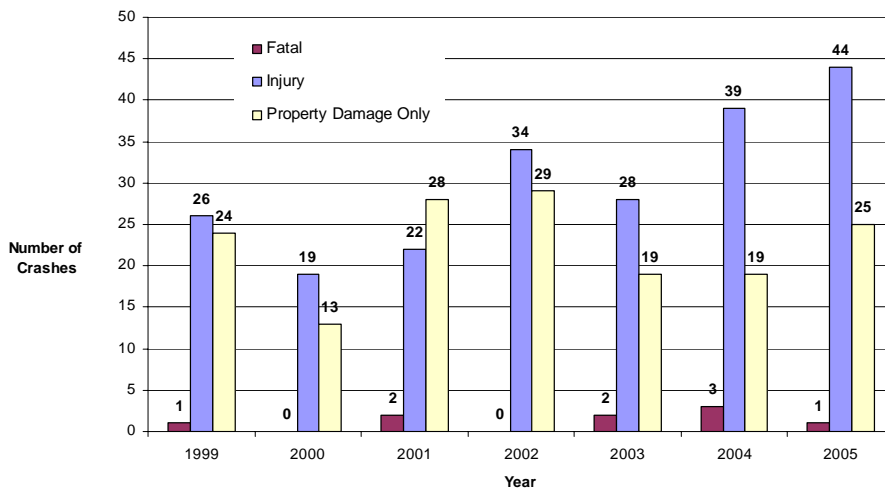
## 1.3 Project Need

The need for the project is based on the crash history, congestion, access, growth of surrounding area, and system efficiency of Highway 199.

### 1.3.1 Safety

There have been 378 crashes reported within the limits of the project between January 1, 1999, and December 31, 2005. Of these reported crashes, 2 percent included fatalities, 56 percent involved injuries, and 42 percent involved property damage only (Exhibit 1-3).

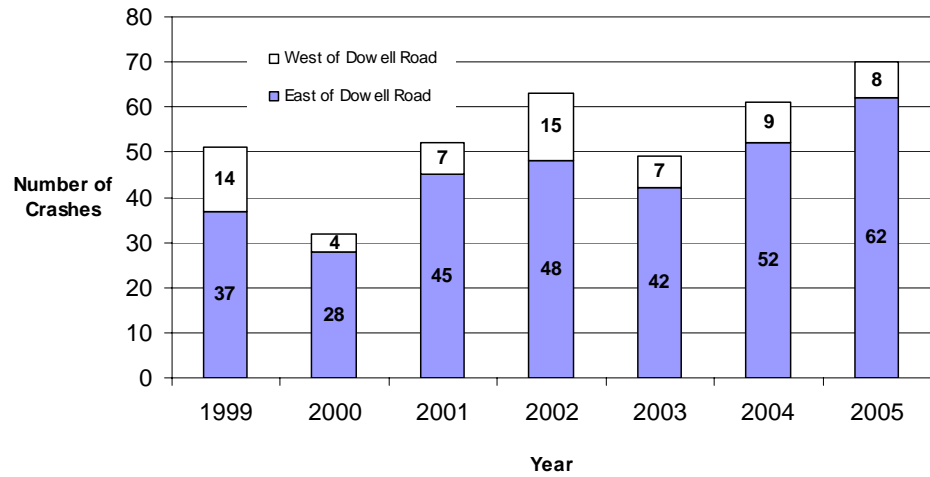
**Exhibit 1-3. Highway 199 Crash Summary between Tussey Lane to Midway Avenue**



Highway 199 from Tussey Lane to Midway Avenue has experienced a crash rate consistently higher than the statewide average for similar facilities. Along the eastern portion of Highway 199 from Tussey Lane to Dowell Road, the 2005 crash rate is 2.56 crashes per million vehicle miles (MVM) which is higher than other comparable suburban non-freeway Oregon highways (1.39 crashes per MVM). Within the western portion of Highway 199, from Dowell Road to Midway Avenue, the 2005 crash rate is 0.55 crashes per MVM which is lower than other comparable rural, non-freeway Oregon

highways (1.01 crashes per MVM). Exhibit 1-4 shows the number of crashes occurring on Highway 199 east and west of Dowell Road from January 1999 through December 2005.

**Exhibit 1-4. Crashes occurring on Highway 199 East and West of Dowell Road**



The highest number of crashes occurred between Tussey Lane and Dowell Road. Crashes within this segment tend to be less severe than crashes west of Dowell Road. Between January 1, 1999, and December 31, 2005, there have been 314 crashes in this segment, one of which involved a fatality. Approximately 75 percent of the crashes in this segment were a rear-end type.

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**Controlled Intersection**

An intersection that has signs or signals and establishes who has the right of way. It includes traffic signals or an all-way stop.

**Uncontrolled Intersection**

An intersection that has no signage or signals but where the basic right of way rule controls who has the right of way at the intersection (first at the intersection has the right of way, but yield to the right if two vehicles approach at the same time).

**Partially Controlled Intersection**

An intersection that has stop signs only on the side streets or the intersecting local roads.

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Between Dowell Road and Midway Avenue, there are fewer crashes, but the severity of the crashes is greater due to the higher speeds. From 1999 through December 2005 there have been 64 crashes, of which there were 9 crashes that included fatalities. The types of crashes occurring in this segment were angle (25 percent), parking/backing/fixed (25 percent), turning (23 percent), rear-end (13 percent), and various others (14 percent).

West of Dowell Road, there is a lack of safe areas for school buses to stop along the highway to pick up school children.

During peak traffic hours, vehicles at partially controlled intersections have long waits to find gaps in traffic to safely enter the highway. This is especially difficult for vehicles attempting to make left turns across multiple lanes of traffic. In these situations, drivers wait long time periods, become frustrated, and take higher risks to enter the highway.

### 1.3.2 Access

There are 15 intersections along Highway 199 in the API. Five of the intersections are controlled by 4-way signals, and ten are partially controlled by stop signs at the intersecting local roads. In addition to the controlled intersections, there are approximately 13 driveways that allow uncontrolled access to Highway 199. A particularly unsafe area occurs on westbound Highway 199 between Tussey Lane and Ringuette Street where there is no curb or defined driveways which allows uncontrolled access into dense commercial development. This presents a situation where traffic freely enters and exits the highway, increasing the crash risk.

The signals at Ringuette Street, Fairgrounds Road, and Redwood Avenue do not meet the standard signalized access spacing of at least 0.5 mile. Only the spacing from Allen Creek Road to Dowell Road signals currently meets this standard. Signal spacing standards are set to benefit traffic flow; hence, substandard signal spacing on Highway 199 reduces the ability of traffic to flow efficiently.

The current substandard spacing of signalized intersections, the multiple driveways and uncontrolled access along the highway, and the high traffic volumes during peak hour traffic has created an environment of stop-and-go traffic due to vehicles slowing and stopping to enter or exit the highway. These conditions diminish the ability of Highway 199 to function as an expressway where traffic should travel safely at efficient speeds and promote high volume traffic movements.

### 1.3.3 Capacity and Congestion

The average daily traffic (ADT) between Tussey Lane and Dowell Road ranges from 38,000 to 22,000 and from Dowell Road to Midway Avenue it ranges from 22,000 to 12,000. Congestion is occurring throughout the Highway 199 corridor. Currently four intersections within the corridor are functioning at an unacceptable volume to capacity (v/c) level, and two intersections are nearly at the unacceptable level (Exhibit 1-5). A v/c ratio above 0.70 for highways such as Highway 199 is considered unacceptable per the 1999 Oregon Highway Plan and its amendments.

Traffic simulations were developed to determine where delays and traffic queues may impact adjacent intersections along the corridor.



Unrestricted access on Highway 199 near Tussey Lane

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#### Volume to Capacity (v/c) Ratio

A measurement of highway/roadway service quality that compares the number of vehicles using or expected to use a given road or segment of road (the volume) with the number of vehicles that the facility is designed to handle safely (the capacity).

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#### Queue

A waiting line of vehicles.

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## Freight Movement

Congestion and lack of capacity on Highway 199 adversely affect truck and freight movement in the same manner that passenger vehicles are affected. Slow freight movement is costly in terms of schedule, labor, and travel expenses, which can then be passed onto businesses and their customers.

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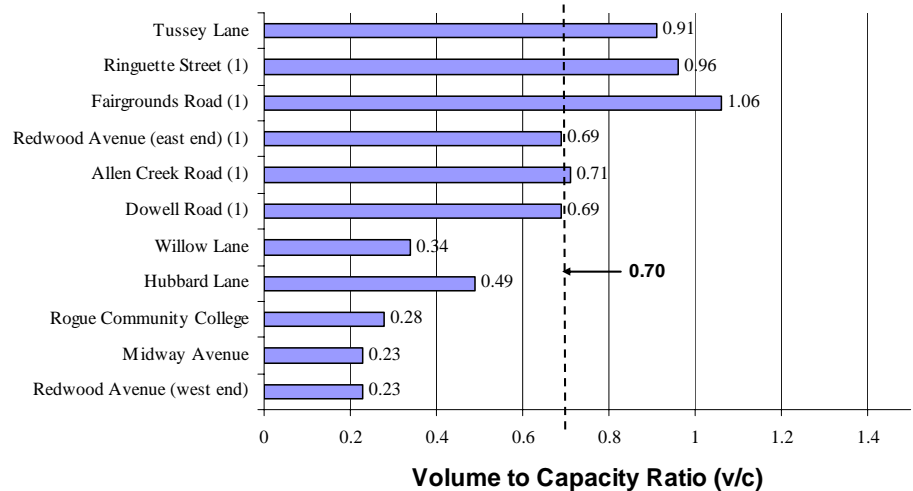
## South Y Interchange

The South Y Interchange is located just east of the Highway 199 Expressway Upgrade project API. The South Y Interchange is the intersection of three state highways: Highway 199, Oregon 238, and Oregon 99.

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The simulation analysis indicates that significant queues would form in both directions at Ringuette Street affecting traffic operations at adjacent intersections in both directions. Additionally, the intersection of Allen Creek Road with Redwood Avenue, which is currently a stop sign for traffic on Allen Creek Road and no stop sign or signal for Redwood Avenue traffic, in the future would likely queue through the Highway 199/Allen Creek Road intersection, affecting traffic operations along Highway 199. Congestion levels at the South Y Interchange would also continue to affect overall traffic operations eastbound on Highway 199. Resolving the congestion at the South Y Interchange will be addressed in a separate study, which is expected to begin in 2007.

**Exhibit 1-5. V/C Ratios for Intersections on Highway 199 (2005)**



(1) Signalized Intersection (assumed with 120-second cycle length)

## 1.3.4 Growth

Grants Pass, the second largest city in Southern Oregon and the largest city in Josephine County, has experienced a high population growth rate, averaging 2.9 percent annual increase from 1996 to 2005. Over the last 10 years, the population of Grants Pass has increased by 29 percent. The current estimated population of Grants Pass is 26,085 (Portland State University, 2006). Development is occurring at a high rate within and near the Highway 199 project limits. With the increase in population comes an increase in traffic. Traffic west of Dowell Road is growing at a rate of 1.5 to 2 percent

per year. Growth in Grants Pass is likely to increase over the next several years due in part because of the likely expansion of its urban growth boundary. This growth in turn adds more traffic to the currently congested Highway 199.

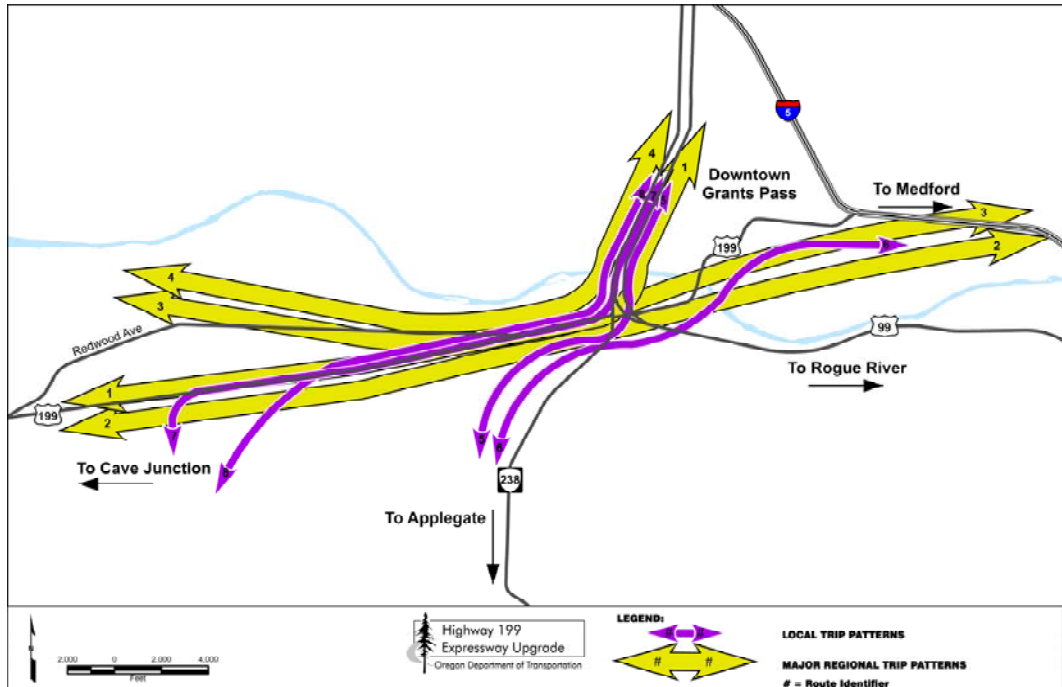
### **1.3.5 System Efficiency**

Highway 199 is currently not functioning as an expressway as defined by the OHP. The 1999 OHP defines an expressway as a highway that provides for safe and efficient high speed and high volume traffic movements. The primary function of an expressway is for interurban travel and connections to ports and major recreation areas with minimal interruptions. Private access is discouraged and public access is highly controlled. Freight, commuters, and tourists cannot effectively move through the Highway 199 corridor due to high traffic congestion, slower speeds, and numerous access points that have negatively impacted inter-regional and regional travel.

Exhibit 1-6 shows the origin and destination of both local and regional through trips. Regional trips on Highway 199 tend to flow between I-5 and the Oregon Coast (see trips identified as 1-4). Local users use Highway 199 to make short trips, such as to the hospital, local businesses, or community college located next to the highway (see trips identified as 5-8). Local users are often making more turning movements onto and off of the highway, which puts local use in conflict with regional through users, which contributes to congestion. High traffic volumes on Highway 199 also create a barrier for north-south local travelers trying to use local roads.

This high level of local and regional use limits Highway 199 from functioning as an expressway since the current high volume of traffic is not moving at high speeds due to congestion. Furthermore, limited access control along Highway 199 in the API exacerbates the operational and safety concerns on this designated expressway for both passenger vehicles and freight trucks.

Exhibit 1-6. Major Regional and Local Trip Patterns



## 1.4 Project Goals and Objectives

Chapter 5 contains more detailed descriptions of the CAC and PDT.

In addition to the purpose and need, several project goals and objectives have been identified by the Citizen Advisory Committee (CAC) and Project Development Team (PDT). The goals and objectives were identified to aid in developing conceptual alternatives and in screening alternatives to determine those that would be further studied. The project goals and objectives are:

### Goal: Improve safety within the Highway 199 corridor

- Minimize conflicts at access points
- Provide safe turnout locations for school buses and other service vehicles that use the roadway shoulders
- Minimize deviations from design standards
- Promote driver education and safety awareness

### Goal: Avoid or minimize community and environmental impacts

- Comply with all applicable environmental laws and regulations
- Avoid or minimize effects to fish and wildlife



Shoulders and median on Highway 199 in the west segment; lack of safe left turn areas.

- Avoid or minimize effects to wetlands
- Minimize noise effects to residences adjacent to Highway 199
- Enhance visual clues from rural to urban to ease travel in the corridor
- Reduce visual clutter
- Minimize residential displacements
- Minimize business displacements

**Goal: Improve multimodal transportation**

- Provide safe, convenient bicycle and pedestrian travel
- Improve connectivity of bike and pedestrian facilities across and adjacent to the highway
- Reduce conflicts between vehicle traffic and bicycle and pedestrian users
- Provide bicycle and pedestrian facilities that meet current standards

**Goal: Improve operation of the expressway**

- Address all users (local, through, and tourism)
- Meet design year (2030) volume/capacity ratios for expressway
- Address off-system/local street effects
- Maintain adequate local access
- Improve highway function as an expressway
- Encourage the use of all roads to their correct function
- Consider Intelligent Transportation System (ITS) solutions

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**Intelligent Transportation System (ITS)**

ITS is the application of advanced technology to address transportation problems. ITS makes use of advanced communication and computer technology to address these problems and enhance the movement of people, goods and services.

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**Goal: Minimize impacts to freight travel**

- Accommodate freight access to commercial and industrial properties
- Minimize traffic flow interruptions, especially for large trucks

## Goal: Address project funding constraints

- Define a project that can be built either with available funding or in phases

## 1.5 Scoping Summary

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Chapter 5 contains more detailed discussion on project coordination and public involvement efforts.

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### Public Scoping – Issues Identified

The following issues of concern were raised by the public:

- Safety
  - Speed
  - Congestion
  - Access
  - Hwy 199 changes
  - Project responsibility
  - Driver education
  - Effects on businesses
  - Emergency access
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### CETAS Agencies

- **Federal:** Federal Highway Administration (FHWA), United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE).
  - **State of Oregon:** Oregon Department of Fish and Wildlife (ODFW), Oregon Department of Environmental Quality (DEQ), State Historic Preservation Office (SHPO), Oregon Department of State Lands (DSL), Department of Land Conservation and Development (DLCD).
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Scoping is the process by which ODOT and FHWA gather input from the public and interested agencies on the nature and extent of issues and impacts associated with the project and how they will be addressed in the EA. The scoping process also provides input into the methods by which these issues and impacts will be evaluated.

Scoping for the Highway 199 Expressway Upgrade project occurred from December 2004 through March 2005. Project scoping was conducted by gathering input through a variety of efforts. One effort included identifying project stakeholders (public and agency) and then asking these stakeholders to share their thoughts and concerns about environmental resources and transportation issues in the API. A second effort of gathering involved collecting public input through an initial survey, two CAC meetings, and a public open house held March 3, 2005. The purpose of the survey was to ask respondents how they use the highway (daily commuter, business owner, resident, etc.) and what they saw as the most significant problems, and to search for public representatives for the CAC. The CAC was assembled to ensure that the project considered the community's interests, issues, knowledge, and recommendations. The CAC consisted of residents, commuters, business owners, elected and appointed officials, property owners, and special interest groups.

The project's first Open House was held March 3, 2005. This meeting served as the public scoping meeting for the project, and its purpose was to collect people's issues and concerns about the project. A variety of comments were received and issues identified during the scoping meeting.

Agency input on the project was conducted when ODOT presented the Highway 199 Expressway Upgrade Project to the Collaborative Environmental and Transportation Agreement on Streamlining (CETAS) committee in April 2005. This committee is composed of both federal and state agencies that would have an interest in the project. The agencies had the opportunity to learn about the project and to identify key resources and issues for the project. However,

due to the limited nature of anticipated natural resource effects the CETAS committee decided not to formally review this project. Resource and regulatory agency input also occurred through on-going coordination through ODOT's liaison program.

In addition, other state and local agencies were involved in the decision making process throughout the project by participating as members of the PDT. Agencies represented on the PDT included the City of Grants Pass, Josephine County, Grants Pass Chamber of Commerce, and Oregon State Police.