Draft Environmental Impact Statement (DEIS)

Summary

South Bend Weigh and Safety Station

Bend/Fort Rock Ranger District
Deschutes National Forest

Introduction

In compliance with the National Environmental Policy Act (NEPA) and other relevant federal laws and regulations, the Forest Service has prepared and Environmental Impact Statement on the proposed construction of a weigh and safety station south of Bend, Oregon by the Oregon Department of Transportation. This summary provides a concise description of key portions of the DEIS. For complete details, please refer to the DEIS.

The proposed weigh and safety station involves lands adjacent to the boundary of the Newberry National Volcanic Monument, Deschutes National Forest lands, as well as private lands not located on National Forest. The DEIS is designed to:

- Inform the public of the Proposed Action and range of alternatives, including the Preferred Alternative;
- Provide the opportunity for the public to respond to the Proposed Action;
- Identify issues related to the environmental effects of the Proposed Action;
- Indicate any irreversible commitment of resources and unavoidable adverse impacts that would result from each alternative proposed.

The DEIS analyzes a "No Action" alternative, two action alternatives located on National Forest lands, and one action alternative located on state-owned land outside of the agency's authority to implement. In addition, several additional alternatives were considered (including a site near La Pine, Oregon), but eliminated from detailed study.

Proposed Action

The Forest Service proposes to authorize a Special Use permit for construction, maintenance and operation of a permanent vehicle weigh and safety station on the northbound land of U.S. Highway 97, south of Bend, Oregon, between Mileposts 145 and 148, adjacent to the Newberry National Volcanic Monument. The legal location is Township 19 South, Range 11 East, Section 1, Northeast ½, Willamette Meridian. The lands associated with the Proposed Action are located within Deschutes County in Oregon.

Decision to be Made/Scope of Decision

Based on the analysis in the DEIS and the public response, the Responsible Official (the Forest Supervisor of the Deschutes National Forest) will decide whether or not to authorize the construction and operation of a weigh and safety station on National Forest lands and, if so, under what conditions. The Proposed Action would require a project-specific amendment to the *Deschutes National Forest Land and Resource Management Plan* to change the Visual Quality Objective of the Visual Management System from Retention (High Scenic Integrity) to the Modification (Low Scenic Integrity). The amendment would be applied specifically to the weigh and safety station site, the Weigh-In-Motion mechanism, and six associated signs.

The scope of the decision to be made is whether or not it is in the interest of the public to establish a weigh and safety

station on lands currently in federal ownership. The scope of the project's analysis focused on the construction of the weigh and safety station, describing the resulting effects to the physical, biological and social aspects of the environment. The analysis is limited to the expected effects of reasonable foreseeable activities by the respective agencies involved and their management objectives.

Purpose and Need for Action

U.S. Highway 97 is used as a major truck route for the Western United States. The route's relatively flat terrain and access to markets in the Willamette Valley, Northern California, the Puget Sound, and the Tri-cities (Kennewick, Pasco, Richland) all contribute to the heavy volume of truck traffic. Oregon Department of Transportation (ODOT), through its Motor Carrier Enforcement (MCE) Branch, weighs, measures, and inspects trucks to protect the motoring public and to ensure state highways do not prematurely deteriorate due to overweight vehicles. Permanent weigh stations are vital to this role. Additionally, the Pavement Management System of the Federal Highway Administration requires ODOT to manage the design life of the pavement by maintaining a comprehensive size, weight, and safety program. A safety check and weigh station in Central Oregon is needed to satisfy this requirement.

Weigh stations operate in two overlapping modes; the first is the weighing of commercial vehicles and the second is the inspection of vehicles and their drivers for operating violations. As a broad overview, personnel and the presence of a weigh station could:

- inspect trucks to make sure they are within the allowed weight limits or possess a valid overweight permit.
- intercept potentially unsafe trucks before they proceed through town.
- increase the probability of a local carrier eventually being inspected.

Scoping and Public Involvement

The NEPA scoping process (40 CFR 1501.7) was followed to determine the scope of issues and opportunities to be addressed in the environmental analysis and to identify major concerns related to the Proposed Action. Scoping and public involvement are ongoing processes used to invite public participation and to obtain input on the scope of the analysis, alternatives to be evaluated, and issues to be addressed.

A concerted effort was made to involve everyone interested in or affected by the South Bend Weigh and Safety Station process. A description of the Proposed Action was published in the Federal Register January 14, 2000. A scoping letter was also mailed to approximately 125 people on January 12, 2000. Names of interested and affected people were obtained using mailing lists from the Deschutes National Forest, the Deschutes County Planning Department, and from Oregon Department of Transportation Citizen Advisory Committee member records. Additional names were added to the list as information was disseminated to the public through the local newspaper. Approximately 10 people responded with comments supporting the proposed location between Mileposts 145 and 148. One person supported the proposed location, but suggested a site near La Pine, Oregon be evaluated. A site near La Pine was considered and eliminated from further study.

Key Issues

An issue is a point of discussion, debate, or dispute about environmental effects. Issues were developed through a public process that gathered comments from concerned citizens and from interdisciplinary team members who identified where to focus the analysis. These comments form the basis for the significant issues that are considered throughout the analysis and decision process. Eight significant issues concerning the Proposed Action or alternatives to the Proposed Action were identified.

Issue 1 - Effects on Scenic Views

As directed by the Standards and Guidelines of the Deschutes National Forest, an objective of Retention is to be met. The Proposed Action would allow construction of a weight and safety station within an area where the emphasis is for scenic views. A scenic travel corridor encompasses much of the area visible from U.S. Highway 97. Within this scenic corridor, National Forest lands are specifically managed to perpetuate the characteristic natural landscape of the

Forest and Newberry National Volcanic Monument. Standards and Guidelines for the Scenic Views Management Area establish a Visual Quality Objective of "Retention" for the area adjacent to U.S. Highway 97. In order to maintain this objective, management must design activities/changes that are undetectable to the forest visitor (Forest Plan, M9-4). The Proposed Action would not meet these standards, and would require an amendment to the *Deschutes National Forest Land and Resource Management Plan* to change the Visual Quality Objective to "Modification."

Issue 2 - Risk of Wildfire

The Deschutes National Forest and Deschutes County shared a concern over the increasing risk of fire ignitions resulting from specific kinds of uses at the weigh station, and the ability to control a fire without affecting neighboring properties. Fire danger within an area is largely a function of variables such as fuels, topography, weather, resources at risk, ignition sources and suppression response time.

For the proposed project area, vegetation is comprised of a relatively young stand of ponderosa pine with an understory shrub component of bitterbrush and manzanita. In addition, the topography is generally flat with rolling terrain, containing areas where lava has created small rock outcroppings. Fire detection and response time is considered excellent with Lava Butte Lookout and shared suppression resources in the city of Bend being minutes away.

Issue 3 - National Forest and Private Land Values

A Special Use authorization to convert open public lands to a weigh and safety facility would alter the amount of National Forest lands available for other multiple uses for a minimum of ten years, and possibly for twenty to fifty years. It would change the landscape character and public use of the land, potentially affect the enjoyment and use of adjoining public lands due to visual and noise impacts, and contribute to the cumulative effects of reduced public lands available for multiple uses in southern Deschutes County.

Construction of a weigh and safety station may also affect neighboring private land values and uses. Visual alterations in the landscape, noise, and other infringements on private landowners may lower the perceived or actual current value of their lands as well as potential future values of those lands, affect the costs of managing their lands, and potentially affect the quality-of-life owners gain from using their land.

Losses in pubic and private land values and uses as well as financial expense to the public tax payer and trucking businesses must be weighed against benefits to the public in terms of safety to motorists and the environment resulting from siteing a weigh and safety station. Potential costs and benefits include:

- Cumulative effect of moving land from general public use into other public or exclusive uses
- Visual and noise impacts on public use and private land landowners
- Cost of facility construction and maintenance
- Savings in maintenance costs due to reduced overweight truck traffic
- Cost to trucking businesses in time and fuel expenses while complying with weigh and safety station checks.
- Benefits of public and environmental safety
- Current and potential future change in private property values

Issue 4 - Effects to Mule Deer

The cumulative result of the South Bend Weigh and Safety Station, the proposed traffic separation project, high volumes of traffic on U.S. Highway 97, and rural developments are expected to affect mule deer. They would be further limited in their movement in an important migration corridor, contributing towards a heightened risk of a deer and motor vehicle collision.

The Oregon Department of Fish and Wildlife classifies the proposed project area as mule deer winter range. The adjacent area is a Deer Habitat Management Area under the *Deschutes National Forest Land and Resource Management Plan*. This area receives moderate to heavy use by mule deer during the winter months in late November through mid April. Deer migrate into and out of this area in an east-west direction, crossing U.S. Highway 97 during migration and winter periods. The highway and the proposed weigh and safety station bisect this portion of the winter range in a north-south direction, affecting the east-west movement.

Issue 5 - Consistency with County and National Forest Land Use Plans

Between November 1998 and June of 1999, ODOT actively sought approval from Deschutes County to construct a weigh and safety inspection station on their fee-owned 200' right-of-way along U.S. Highway 97. This location was called "Site 8" in previous planning documents. In March 1999, after several public hearings, a Deschutes County Hearings Officer granted approval. The Hearings Officer's decision was overturned on appeal to the Deschutes County Board of Commissioners. The Board made several findings related to the appropriateness of the site in the requested location with regards to county ordinances and compatibility with adjacent private uses. Commission findings concerning fire danger, scenic quality, and compatibility with adjacent uses may be similar to effects of the Proposed Action on National Forest lands.

The site of the Proposed Action, also known as "Site 7," lies within a Forest (F1) Use and Landscape Management combining zone as described by Deschutes County. The proposed site is under federal ownership. However, State and County land use goals receive substantial consideration by the Forest Service in land use decisions. An earlier agreement called a "Memorandum of Understanding" between the Deschutes National Forest and the Deschutes County Planning Department agrees (to the extent practicable) in meeting separate responsibilities. It also states "it is desirable to reduce conflicts and promote compatibility between land uses."

Issue 6 - Noxious Weed Control
Aggressive, non-native plants, or noxious weeds, can invade or displace native plant communities causing long-lasting management problems. The U.S. Highway 97 segment between the Baker Road interchange and La Pine has a large noxious weed population of knapweed, toadflax, and Russian thistle in addition to non-native invaders such as cheat grass and mullein. Activities associated with the Proposed Action cause a new potential for introducing or spreading populations of weeds into the forest or the adjacent Newberry National Volcanic Monument.

Forest Service direction requires prevention and early detection of noxious weeds. All projects that have a high risk, such as this one, must identify control measures that would be undertaken. Prevention of the introduction of new invaders is identified as the first priority.

Issue 7 - Access
The proposed location of the weigh and safety station would change public access to National Forest lands. Currently, the public can access National Forest land via Forest Road 1801. The Proposed Action would eliminate this public access to eliminate hazards associated with competing traffic merging in the same lane as accelerating motor carriers and to meet highway interchange spacing safety standards (the distance between roads that intersect a highway). The construction of the station may also remove existing natural barriers to access, contributing towards an increase of unintended uses on National Forest lands or trespass onto adjacent private lands.

The recent designation of U.S. Highway 97 as an "Expressway," will establish new safety spacing standards that the Proposed Action and Alternatives would not meet. ODOT would require a "Deviation" from expressway interchange spacing standards before authorizing the construction and operation of the site. Construction of the weigh and safety station would limit the ability to provide access to public and private lands in the future by establishing an "interchange" spacing standard requirement for the weigh and safety station. This standard can affect potential future access to lands surrounding the station site or increase the cost of access.

Issue 8 - Operational Characteristics
A truck weigh and safety inspection station can be located on almost any piece of open ground. However, from an operation and design standpoint, the costs associated with the design, construction, and operation are, to a great extent, affected by the location of the site. Factors such as ramp grades, rock excavation, amount of fill material, visibility of the site, relationship of the elevation of the highway to the site, setback from the highway, spacing between intersecting roads, and the distance from power sources are all factors that can affect the cost, design and operational desirability of a site.

Other Environmental Factors

Other elements were identified, discussed and analyzed as part of the planning process. These other factors identified include:

- Wildlife

- Proposed, Threatened, Endangered and Sensitive Species
- Vegetation
- Public and Environmental Safety
- Noise
- Hazardous Materials
- Geology/Soils/Unique Land Forms
- Cultural Resources
- Air Quality
- Civil Rights/Environmental Justice
- Floodplain Management/Wetlands Protection
- Prime Lands
- Energy
- Effects on Other Plans

Development of Alternatives

The process used to develop alternatives began with a review of the purpose and need for action by the Interdisciplinary (ID) team. The ID team also relied on the direction provided by the 1990 *Deschutes National Forest Land and Resource Management Plan* (Forest Plan), the *Newberry National Volcanic Monument Plan*, and the Oregon Department of Transportation *U.S. Highway 97 Corridor Strategy*. In addition, the ID team relied on input received during the scoping process.

A range of alternatives was developed in accordance with the National Environmental Policy Act (NEPA) to represent different management actions to address the purpose and need for action and the issues described in Chapter 1. Besides the "No Action" alternative (Alternative 1), two action alternatives (Alternatives 2 and 3) on National Forest lands were identified in this process. An additional "Action" alternative (Alternative 4) is considered on lands that are not located on National Forest. This alternative compares the initial site on the right of way owned by ODOT and previously identified as "Site 8" that was considered and rejected by Deschutes County Commissioners. Also included in this chapter is a brief discussion of alternatives that were considered but were eliminated from detailed study.

In 1997, ODOT formed a Citizen Advisory Committee (CAC). The CAC was a group of non-technical stakeholders formed to advise ODOT on non-technical issues related to siting the weigh station. In response to the CAC meeting in May, a technical advisory committee decided to focus on sites located north of South Century Drive. Each potential site was rated using criteria such as "safety," "environmental," and other factors that pertain to construction and operation of the facility. The focus was narrowed to three sites that rated the highest: U.S. Highway 97 at the main exit to Sunriver (Site 1), the northern Deschutes National Forest boundary (Site 7), and on ODOT lands near the Baker Road interchange (Site 8). ODOT also met with Deschutes County Planning, the Forest Service, and an adjacent property owner to assess potential land use issues surrounding the three potential sites.

Alternatives Considered But Eliminated from Detailed Analysis

A number of possible alternatives were identified in the analysis process, but were not examined in detail for a variety of reasons. The following section describes those alternatives briefly considered but eliminated from detailed study, and the rationale for those decisions.

Several alternative sites for placing the weigh and safety station were considered, in particular, south of Lava Butte or between Bend and Prineville, Redmond, Sisters or Madras. Groups comprised of local citizens and an ODOT technical team unanimously agreed the acceptable area of consideration would range from Baker Road south of Bend to South Century Drive (main exit for Sunriver). Any site farther south would not meet the Purpose and Need for the following reasons:

- Ability to circumnavigate the weigh station
- Inability to weigh and inspect local truck traffic
- Weather-related operating and staffing efficiency

Alternative Considered in Detail

Four alternatives were considered in detail.

No Action Alternative
Alternative 1 would continue management of the National Forest lands according to the Management Plans for the Deschutes National Forest and the Newberry National Volcanic Monument with an objective of Retention within the scenic corridor. A permanent weigh or safety inspection station would not be constructed or operated on Deschutes National Forest lands. The following actions would occur:

- U.S. Highway 97 would continue as the third most important freight route in Oregon and an average of 2,000 trucks per day would not be checked.
- The current rate of premature highway deterioration would continue.
- The Oregon State Police and the Deschutes County Sheriffs would continue to focus their limited patrol resources on commercial vehicles within this segment of the highway
- The State of Oregon Motor Carrier Enforcement Division would continue to randomly deploy portable truck scales during daylight hours in the summer.

Alternatives 2 and 3 – Alternatives located on National Forest Lands
The Forest Service would authorize the construction and operation of a vehicle weigh and safety inspection station and Weigh-in-Motion dynamic scale adjacent to the northbound lane of U.S. Highway 97, south of Bend, Oregon. A Special Use Permit would be issued, which would include an abandonment plan if the facility were not sufficiently used for its intended purposes within one year [DEIS Figure 3, Alternative 2 (Proposed Action); Figure 6, General Site Layout].

Amendments
A site-specific amendment to the Forest Plan would change the objective in the Scenic Views Management Area from "Retention" (High Scenic Integrity) to "Modification" (Low Scenic Integrity). The amendment would be applied specifically to the site, the Weigh-In-Motion mechanism, and six associated signs.

Vegetation
Clearing of vegetation in the area would be needed for construction and operation of the primary facility. Clearing would not be needed to install communication and power because they are all in an existing cleared zone maintained for the highway. Depending on the alternative, between 4-5 acres of trees and shrubs would be removed for construction of a building, ramps and parking areas. To promote rapid revegetation and to prevent the spread of noxious weeds, the area of ground disturbance would be confined to clearly identified areas pre-approved by the Forest Service, and revegetated promptly following completion of construction activities. Where possible, a combination of native and short-lived non-native plants would be used to revegetate the area around and between the station and the highway.

In addition, early prevention, detection and treatment for invasive, non-native species (noxious weeds) would be required. Prevention methods include: pretreatment of known populations prior to construction activities, careful removal, storage and distribution of topsoil contaminated with weed seeds, prompt revegetation of disturbed areas, and cleaning of vehicles and equipment entering and leaving the area during construction of the facility.

For both action alternatives, a fuel reduction area of approximately 100 feet would be required to reduce the risk of an uncontrollable wildfire spreading from the facility. Trees would be thinned to a 12-15 foot spacing to provide a clear space between crowns for a radius of 100 feet immediately adjacent to the parking and inspection areas, and shrubs and grasses would be mechanically cut to a height of 8-10 inches. A shrub height not exceeding 2 feet would be maintained by the permittee within the fuel reduction area.

Access
With Alternatives 2 and 3, the proximity of Forest Road 1801 to the entrance ramp of the facilities to the highway causes a traffic hazard with accelerating trucks and vehicles attempting to access the highway. Therefore, under both

alternatives, public access to National Forest lands by using Forest Road 1801 would be eliminated. The junctions of Forest Roads 1801-850 and 9701-100 would be signed to deter uncontrolled access onto the entrance ramp to U.S. Highway 97. Installation of the gate and signs, barriers, monitoring, and maintenance would be the responsibility of the permittee. Actions to reinforce closures including blocking mechanisms such as boulders or other barriers placed adjacent to the road would be approved by the Forest Service.

Weigh Station Design
The building would be constructed to facilitate traffic views and would measure approximately 240 square feet (16.5x14.7) and 12 feet tall. The building and barriers protecting the facility would be constructed, designed and maintained in muted earth tones to blend with the characteristic landscape. Non-reflecting roofing would be constructed of fire-resistant materials and colors that blend into the natural landscape. To reflect the character of the adjacent Newberry National Volcanic Monument, the lower portion of the building below the windows would be sided with rock or similar-appearing materials to blend in with the surrounding area. Included within the building would be an incinerating restroom facility for weigh station employees that would not require a septic system, a storage area for inspection equipment, a telephone that could be used by the motor carriers to call for service, and an area for personnel to complete paperwork and observe operations. A final design that meets these criteria would be subject to approval by the Forest Service without further analysis.

The parking and work areas would be constructed to minimize risk of ignition sources coming in contact with forested areas outside of the primary facility. Design characteristics would include a designated work area with paved surface and gravel border maintained free of vegetation for any trucks placed temporarily out of service. Physical barriers such as boulders would be placed as needed to preclude vehicle travel into the forest in the area surrounding the scale and building.

While the weigh station is in operation, illumination similar to light standards found at interchanges would be provided as minimum coverage at the exit ramp, entrance ramp, and at the inspection area around the scale house. The would be approximately 9 standards consisting of metal poles measuring 30 feet in height with flat glass cut-off style, high-pressure sodium lights. While the station is not in operation, photosensitive lighting would remain on for building security. Power and communication to the site and the Weigh-in-Motion scale would be supplied by extending and burying the line from inside the existing ODOT right-of-way along the east side of U.S. Highway 97.

Dynamic scales for the Weigh-in-Motion (WIM)/Automatic Vehicle Identification (AVI) system would be located south of the exit ramp to the facility. Equipment typically includes in-road sensors, a roadside computer cabinet, two overhead detectors mounted on two overhead metal detector poles comprised of materials in neutral colors, an AVI cabinet mounted on a 5 foot tall AVI cabinet pole, and two AVI poles that overhang the highway.

There would be six signs associated with the primary facility and the Weigh-In-Motion/Automatic Vehicle System installed within the existing ODOT right-of-way. The farthest sign would be located 1.5 miles from the Weigh-in-Motion dynamic scale and would measure 14 feet 6 inches wide by 7 feet tall. The lettering would be black on a white base and would read "Trucks Use Right Lane Next 1 1/2 miles." A second, smaller sign would be located between the Weigh-in-Motion scale and the first sign and would read "Trucks Right Lane Only Weigh-in-Motion." The next sign would measure 9 feet wide by 6 feet tall, would have white lettering on a green base and would read "Weigh Station" and the distance. The fourth sign would have lettering of black on a white base and would read "All Trucks Over 20,000 GVW Next Right." The fifth sign would would read "Weigh Station Next Right." On the bottom of this sign would be an illuminated neon "Open/Closed" sign. The sixth and last sign would be right at the entrance to the facility, and would read "Weigh Station" with a directional arrow.

Operational Requirements
To reduce potential for fire hazard and maintain a clean, cared-for appearance, the permittee would be required to monitor and maintain the site in a trash-free condition on a weekly basis or more frequently upon notification from the Forest Service. Welding, cutting, or other repair or maintenance operations would be required to meet Forest Service fire requirements, which would be prominently posted at all times and readily visible to drivers or workers. The entrance ramp would be signed to inform drivers that the use of unmuffled Jake brakes is prohibited and illegal.

Wildlife
Construction operations would be required to observe Deschutes National Forest Plan requirements for restrictions on

site-disturbing operations near raptor nests that may become established between the time a decision authorizing this activity occurs and the actual activity itself. To provide roosting habitat for western big-eared bats, as well as other cavity nesting species, snags would be created on adjacent land for each acre of forested habitat removed.

Alternative 2 (Site 7) – The Preferred Alternative
Alternative 2 is the Proposed Action identified in the scoping notice sent to the public (January 2000), and was the site identified by ODOT as their first preference for sites on National Forest lands after rejection of Site 8 (Alternative 4) by the County on their own land. This alternative would place the weigh station between Mileposts 145.69 and 146.25 (Figures 3, 15 – General Site Layout), as near as possible to the boundary of National Forest lands and as far as possible from the Newberry National Volcanic Monument, in order to minimize the land use fragmentation associated with non-forest uses. The one-mile advanced warning sign for the High Desert Museum would be moved to another location within one half mile of the entrance road.

Construction and Clearing
Alternative 2 would require clearing of about 4.8 acres of trees and shrubs for the primary site. This easement does not include authorization of the proposed facility. Around 450 trees would be removed for construction of the primary site. This alternative would also require blasting of two visible rock outcrops for the construction of the deceleration lane (exit ramp from the highway), and would require removal of material from higher areas and fill in low areas to bring the ramps and facility relatively level with the roadway within the bounds of the site. Approximately 8,860 cubic yards of material would be excavated and 11,280 would be needed for fill. This alternative would require approximately 2,400 cubic yards of fill material to be brought in from outside sources. The paved exit and entrance ramps would be about 2,953 feet.

The Weigh-in-Motion system would be sited close to Milepost 146.50. Signing for the system would be located at Milepost 148.0 and closer to the facility. No signs for the facility would be located within the portion of the highway within the Newberry National Volcanic Monument.

Operation and Design Characteristics
The building and scale site would be relatively level with the highway. The back of the site would be approximately 154 feet from the fog line of the highway. The exit ramp grade from the highway to the scale would be –2.90% and the entrance ramp from the scale to the highway would be –5.00%. Excavation of rock formations at the exit ramp is anticipated, which may include blasting. Approximately 2.7 miles of trenching would be associated with extending power from the source to the main facility and the Weigh-In-Motion devices within the existing ODOT right-of-way.

Alternative 3 (Site 6a)
This alternative was developed to respond to Issue #5 by placing the weigh and safety station in a location on the northbound lane of U.S. Highway 97 to be more consistent with the new "Expressway" standard, to reduce rock excavation, and to allow ramp grades to be more consistent with the highway grade. The location would be between Mileposts 146.16 and 147.75, approximately ½ mile south of the proposed site in Alternative 2.

Construction and Clearing
Alternative 3 would require clearing of about 4.6 acres of trees and shrubs for the primary site. Currently, approximately three acres of the area is included in a roadway easement to ODOT that has an existing zone cleared of vegetation for most of that area. This easement does not include authorization of the proposed facility. Around 400 trees would be removed for construction of the primary site. Of this total, 22 trees are over 21" diameter at 4.5 feet. This alternative would require removal of material from higher areas and fill in low areas to bring to level with the roadway areas adjacent to the roadway within the bounds of the site. Blasting for rock would not be expected, but could be encountered during construction. Approximately 4,500 cubic yards of material would be excavated and 11,900 would be needed for fill. This alternative would require approximately 7,500 cubic yards of fill material to be brought in from outside sources. The paved exit and entrance ramps would be about 3,117 feet long.

The Weigh-in-Motion system would be sited close to Milepost 147.35. Signing for the system would be located at Milepost 148.85 and closer to the facility. The Weigh-in-Motion sign would be established outside of the Newberry National Volcanic Monument, requiring a deviation from the standard 1.5 miles of prewarning to 0.75 miles of prewarning.

Operation and Design Characteristics

The building and scale site would be relatively level with the highway. The back (east side) of the site would be approximately 123 feet from the fog line of the highway. The exit ramp grade from the highway to be scale would be –1.60% and the entrance ramp from the scale to the highway would be –2.00%. There are no visible rock formations to excavate on site, although they may be encountered in the subsurface. Approximately 3.2 miles of trenching would be associated with extending power from the source to the main facility and the Weigh-In-Motion devices within the existing ODOT right-of-way. The closest road to the site would be Forest Road 1801 at approximately 2600 from the end of the entrance ramp to the highway.

Alternative 4 (Site 8)
Under this alternative, ODOT would construct and operate a vehicle weigh and safety inspection station within their right-of-way that was obtained in 1952. The facility would be located adjacent to the northbound lane of U.S. Highway 97 between Mileposts 144.19 and 144.80, approximately 1 mile from the Baker Road interchange and 0.25 miles from the entrance to the High Desert Museum at Milepost 145.05.

Alternative 4 would require clearing of about 5.1 acres of trees and shrubs for the primary site. Currently, just over three acres of the area are included in ODOT right-of-way that has an existing zone cleared of vegetation for most of that area. Less than 400 trees would be removed for construction of the primary site. This alternative would require removal of material from higher areas to place the level of the building and scale facility approximately 6 vertical feet above the elevation of the highway within the bounds of the site. Approximately 27,480 cubic yards of material would be excavated and 6,860 would be needed for fill. This alternative would require approximately 20,620 cubic yards of excavated material to be hauled off to outside sources. The paved exit and entrance ramps would be about 3,210 feet long and 16 feet with a 4-6 foot wide gravel shoulder for most of that length.

Public Access
Under this alternative, there would be no public or private roads closed.

Facility Design
Aspects of building design are similar as those discussed in Alternatives 2 and 3 except the building siding would not be sided with rock or similar-appearing materials. The siding and roofing would be constructed of materials and colors that blend into the landscape. Parking and work areas are designed similarly as described in Alternatives 2 and 3 except fencing would be required between the facility and private land to reduce the potential for trespass onto adjacent private lands.

The Weigh-in-Motion system would be sited close to Milepost 146.50. Signing for the system would be located at Milepost 148.0 and closer to the facility. No signs for the facility would be located within the portion of the highway within the Newberry National Volcanic Monument.

Signing, construction, and operation would be as described on page 34 of the DEIS for Alternatives 2 and 3 except there would be no restrictions for blasting activities.

The proposed site would be about 6 feet above the level of the highway. The back of the site would be approximately 175 feet from the fogline of the highway. The exit ramp grade from the highway to be scale would be +1.78% and the entrance ramp from the scale to the highway would be split between –4.66% and –2.88% due to terrain. Excavation of rock is anticipated to be considerable, which may include blasting. Approximately 2.7 miles of trenching would be associated with extending power from the source to the main facility and the Weigh-In-Motion devices within the existing ODOT right-of-way. The closest road to the site would be the entrance road to the High Desert Museum at approximately 1,200 feet from the beginning of the exit ramp to the facility. The site would be visible from the highway for motorists, including truck drivers and law enforcement vehicles.

Comparison of Alternatives

The physical, biological, and socio-economic effects of the alternatives are examined in detail in Chapter 3, Affected Environment and Environmental Consequences. Table 1 provides a quick comparison of the alternatives as they relate to the issues identified earlier.

Table 1. Comparison of the Alternatives

Issue	Alternative 1	Alternative 2	Alternative 3	Alternative 4
#1 – Effects on Scenic Views				
	No change	Most noticeable to visitors who are familiar with the topography and would perceive the removal of the rock outcrops for the exit lane.	Greatest amount of fragmentation of National Forest and closest distance to the Monument	Least amount of fragmentation of National Forest, farthest distance from the Monument, and most visible from the highway.
#2 – Fire Risk				
	No change	Low risk but greatest wildfire threat is to the High Desert Museum	Low risk but greatest wildfire threat is to the High Desert Museum	Low risk but greatest wildfire threat is to adjacent Windlinx and Kerr properties
#3 – National Forest and Private Land Values				
Private Lands	N/A	Neutral	Neutral	Potential noise and illumination to adjacent landowners
Public Lands	N/A	Dedicates public lands to an exclusive use	Dedicates public lands to an exclusive use	Neutral
#4 – Effects to Mule Deer				
	No change	Effect to mule deer movement across the highway is not as great as in Alternative 3 and greater than Alternative 4.	Greatest effect on mule deer movement and risk of motor vehicle/deer collisions. Greatest amount of deer movement across highway.	Least effect on mule deer movement and risk of motor vehicle/deer collisions. Least amount of deer movement across highway.
#5 - Consistency With County and National Forest Land Use Plans				
Fire Danger	No change	Consistent	Consistent	Inconsistent due to unmonitored and unpoliced use; insufficient fuelbreak

Scenic Views	No change	Requires an amendment to the Forest Plan	Requires an amendment to the Forest Plan	Inconsistent; could not be evaluated due to the lack of a site plan.
#6 – Noxious Weed Control				
	N/A	Intermediate risk from adjacent population	Highest risk from largest adjacent population	Least risk because of small existing population
#7 - Access				
	No change to access onto public lands	Forest Road 1801 would be closed to future access. Future new access may be restricted within 2 miles of the facility.	Forest Road 1801 would be closed to future access. Future new access may be restricted within 2 miles of the facility.	No change to existing public access. Future new access may be restricted within 2 miles of the facility.
#8 – Operational Characteristics				
Setback	N/A	154’	123’	175’
Ramp Lengths (Approx. Total)	N/A	2,953’	3,117’	3,210’
Exit Grade to Facility	N/A	-2.90%	-1.60%	+1.78%
Entrance Grade to Facility	N/A	-5.00%	-2.00%	-4.66% & -2.88%
Footprint	N/A	4.8 acres	4.6 acres	5.1 acres
Vertical Distance of Building Above Roadway	N/A	Even	Even	6’
Fill	N/A	11,280 cu. yd.	11,910 cu. yd.	6,860 cu. yd.
Excavation	N/A	8,860 cu. yd.	4,490 cu. yd.	27,480 cu. yd.
Issue	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**

Comparison of Action Alternatives on Other Issues

Wildlife
Although future down logs would be removed adjacent to the proposed sites to maintain a fuel break, an operational requirement was developed to offset the loss of forested habitat and the deficiency of snags by creating two snags per acre of clearing in adjacent stands.

Mule Deer - Construction of a facility would further fragment habitat in a key migration corridor between the rural developments south of Bend and the lava flow at Lava Butte. Also, construction and operation of the weigh and safety station would increase the distance that mule deer would have to cross, their exposure to traffic, and the risk of a motor vehicle/deer collision. Activities associated with operation of the facility, as well as vehicles entering and exiting the weigh and safety station increase the risk of startling deer across the highway into the path of oncoming vehicles.

The cumulative effects of high volumes of traffic on U.S. Highway 97, residential and rural developments, the proposed weigh and safety station locations, and the proposed median barrier project are expected to result in increased numbers of motor vehicle/deer collisions and deer mortalities between Mileposts 144.5 and 150.

Raptors, Cavity Nesters and Other Species - Implementation of any of the action alternatives would have negligible effects to these species.

Proposed, Threatened, Endangered and Sensitive Species
Surveys have been conducted and no plant or animal species listed under State or Federal guidelines as Threatened, Endangered, or Sensitive were found. There are no expected direct, indirect, or cumulative effects to PETS plants or their habitats by implementation of this project.

The pre-field review determined that potential roosting habitat of the western big-eared bat (*Corynorhinus townsendii*) is found within the project area. Potential habitat is provided by several rock outcroppings. No other Protected, Endangered, Threatened, or species listed as Sensitive or their habitat are known or suspected to occur within or adjacent to the project area. Except for those effects to bats listed in Alternative 2, all action alternatives would have **No Effect/No Impact** to the remaining Protected, Endangered, Threatened, and Sensitive wildlife species.

Vegetation
There are no areas classified as riparian within the project area. The closest stream, pond, lake, reservoir, seep, spring, or bog is the Deschutes River approximately three miles to the west. No rare plants have been found in the project area. Noxious weed populations including spotted knapweed and dalmation toadflax are common along the U.S. Highway 97 corridor and threaten native plant habitats. Weed control efforts are currently reducing existing noxious weed populations.

Public and Environmental Safety
With a comprehensive enforcement program afforded by a weigh and safety station, the expected rate of truck-related traffic accidents should remain at current levels or be slightly reduced, given a 3.1% per year increase of traffic. Research indicates that a highly visible enforcement facility is likely to reduce violation rates. Concentrated enforcement efforts on Horse Ridge (U.S. Highway 20 east of Bend) and Cline Falls Highway (U.S. Highway 126 between Sisters and Redmond, Oregon) have helped contribute towards a decline in violation rates.

Currently, the Deschutes County Sheriff's office and the Bend and Redmond Police Departments are operating under a formal contract with the State of Oregon Motor Carrier Enforcement Division for normal inspections and saturated patrols. This agreement was initiated because U.S. Highway 97 was identified by the Federal Drug Enforcement Agency (DEA) as a corridor for tracking and intervention of the illegal transportation of drugs, mainly by trucks. Also, U. S. Highway 97 near Bend was identified as a location where there is a high level of truck crashes.

Cost of Construction and Revenues
Construction for the weigh and safety station would begin the summer of 2003. Deschutes County would receive a greater amount of revenue generated by citations issued for motor carrier violations. An indirect effect would be a greater number of vehicles would be placed out of service for violations, requiring drivers to patronize local mechanics

and parts supply stores for repairs in order to be allowed back in service.

Cost for construction of the weigh and safety station range from 1.2 million for Alternatives 2 and 3 to 1.4 million dollars for Alternative 4. All costs displayed are estimates and differences are noted specifically under each alternative.

Noise
The closest housing development to the project area is the Deschutes River Woods Subdivision, west of U.S. Highway 97. A prediction of traffic noise associated with the proposed weigh and safety station at the closest site to houses based on current peak hour traffic conditions indicates an increase of 1 decibel, which is a level considered not perceptible. The acoustics predicted for the weigh and safety scale would be far below the noise level of 65 decibels, which is typically the level where noise begins to interfere with speech.

Hazardous Materials
Currently, there is a daily average of between 1,100 and 1,200 trucks using the U.S. Highway 97 corridor between La Pine and Bend. It is estimated that 2%, or a daily total of 23 of these trucks carry materials classified as hazardous.

Implementation of any of the action alternatives would construct a permanent weigh and safety station to consistently check a percentage of trucks between 32 and 40 hours per week on a random basis. It is more likely that unsafe drivers passing through Central Oregon would know about the possibility of being checked and would either remedy their violations before reaching the check point, or would select an alternative route.

The truck inspection and parking area would be designed to control leaks of hazardous materials, should one occur while being inspected. The parking and inspection area at the facility would be paved and surrounded by gravel to facilitate containment. In the event of a spill, 911 would be contacted prompting notification of the Area 4 Maintenance Manager for ODOT and a response from the nearest Hazmat team in Redmond, Oregon.

Geology/Soils/Unique Land Forms
This area is a geologically young volcanic region consisting of numerous outcroppings of basalt rock. Construction of the facility for Alternative 2 (Site 7) would remove approximately less than ¼ acre of these outcroppings. Although scenic, these outcroppings are common within the watershed and highway corridor.

The project area has well to excessively drained soils formed from a moderately thick volcanic ash layer over glacial till. The action alternatives would detrimentally compact and pave with asphalt approximately 5 acres of this soil. Loss of soil would be an irretrievable commitment for the time period the asphalt remains in place.

Cultural Resources
There would be no known direct, indirect, or cumulative effects to these resources.

Air Quality
Construction or operation of the proposed weigh and safety station is not expected to adversely affect air quality.

Civil Rights and Environmental Justice
Inspection of commercial carriers could disproportionately affect individuals in low-income groups if they cannot afford transponders to use weigh-in-motion facilities. These carriers may incur longer inspections and weighing times at the stations. The average length of time a carrier spends in the weigh and safety station is estimated to be 30 minutes. Therefore, these potential disparate effects are small.

Floodplain Management and Protection of Wetlands
There are no areas adjacent to the proposed weigh and safety station locations that would be considered a wetland or within a mapped floodplain. All alternatives have no specific actions that would affect these resources.

Prime Lands
There are no lands within the project area that are classified as prime timber, farm or rangelands.

Energy
All of the action alternatives would result in increased energy use. This increase is primarily associated with fuel consumption required for acceleration upon leaving the weigh and safety station. Other energy uses include lighting and heating of the facility.

Incomplete and Unavailable Information
Predictions of effects were made with the most current information available. The following information is either unavailable or incomplete.

Air Quality
While emissions from on-road vehicles have been studied for many years, differences of opinion still exist for the best approach to quantify these emissions. No practical direct method exists for estimating mobile emissions (e.g. the increase in release of hydrocarbons and particulate matter from diesel engines while idling versus operating at peak performance). The increase in hydrocarbon and particulate matter from trucks idling while waiting to be inspected at the facility is expected to be relatively minor.

Pavement Deterioration Rates
A measure of the rate of pavement damage attributed to overweight vehicles was not obtainable for this portion of U. S. Highway 97. It is assumed that rates of overloaded trucks increase when there is no likely chance of being weighed, especially when local traffic is a factor.

Another unknown is the weight distribution on a vehicle. All vehicles, including passenger cars, contribute to the deterioration of the roadway. The rate of road damage is largely due to the number of axles on a vehicle, and this factor can vary. A common pattern is evident in all the studies on overloading conducted to date. As the number of trucks overloading increases, the amount by which these trucks overload increases as well. This causes far greater road damage than predicted.

Unavoidable Adverse Impacts

Scenic Quality
The sites, including the Weigh-in-Motion/Automatic Vehicle Identification system and the associated six signs would be noticeable and visible on a stretch of highway that currently has very few signs of development fronting the highway. There would be very little vegetative screening provided along the highway.

The Visual Management System objective of "Retention" would not be met. Although Alternative 4 is on State-owned lands and not subject to Federal standards, the effects are similar to Alternatives 2 and 3 where Visual Management System objectives of Retention would not be met.

Topographic Features
All action alternatives would change the natural topography to some extent, either through removing basalt outcroppings or through extensive grading.

Wildlife Habitat
Construction of a facility would further fragment habitat in a key migration corridor between the rural developments south of Bend and the lava flow at Lava Butte. Also, construction and operation of the weigh and safety station would increase the distance that mule deer would have to cross, their exposure to traffic, and the risk of a motor vehicle/deer collision. Activities associated with operation of the facility, as well as vehicles entering and exiting the weigh and safety station increase the risk of startling deer across the highway into the path of oncoming vehicles.
