WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

A. BACKGROUND

1. Name of proposed project, if applicable:

State Route 14 / Marble Road Vic. to Belle Center Road- Safety Improvement
SR 14 MP 22.00 to 24.70

2. Name of applicant: Washington State Department of Transportation

3.Address and phone number of applicant and contact person:

Barbara Aberle, Environmental Manager
P.O. Box 1709, Vancouver, WA 98668-1709
(360) 905-2186

4. Date checklist prepared: July 27, 2011
5. Agency requesting checklist: Washington State Department of Transportation
6. Proposed timing or schedule (including phasing, if applicable):
   BEGIN: Summer 2012
   END: Fall 2013

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Construction proposed to begin in the summer 2012 includes work from Milepost 22.0 to Milepost 23.50. It should be noted that only some minor work will occur between Milepost 23.30 and Milepost 23.50 to improve safety (i.e., signing, etc.). This work would be completed in summer 2013.

A separate nearby safety project called the SR 14, Cape Horn Road Vicinity to Cape Horn Bridge Vicinity (Milepost 25.50 to Milepost 26.70) began construction winter 2010. Two pedestrian undercrossings were added to this project. The east tunnel is located at MP 26.38 near the intersection of Salmon Falls Road. The west tunnel is located in the vicinity of Cape Horn at MP 24.65. Both tunnels are in construction and will be completed by fall 2011.

A portion of the safety project referred to as the Belle Center Road realignment and intersection improvements (Milepost 23.30 to Milepost 23.70) and a portion of the SR 14 Marble Road to Belle Center Road safety project referred to as the Big "S" Curve (Milepost 23.50 to Milepost 24.70) which would widen the roadway and construct a

Westbound Passing Lane are currently unfunded. Due to funding constraints, construction of the Big "S" Curve and Belle Center Road portion of the project improvements are deferred to an unknown date. Some minor safety work may still occur at the SR 14/Belle Center road intersection based upon current funding.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- A Biological Assessment covering both the SR 14, Cape Horn Rd. Vicinity to Cape Horn Bridge project that started construction in 2010 and the project work described in the SEPA checklist was completed and determined that the project impacts would have no effect on listed species.
- A Cultural Resources Survey with a finding of "No historic properties adversely affected" were prepared.
- A Biological Evaluation of Potential Impacts to Special Status Species Flora and Fauna, USDA Forest Services - Pacific Northwest Region Columbia River Gorge National Scenic Area was prepared.
- A Wetland Assessment Report and Natural Resources Mitigation Plan have been prepared and were updated after the redesign of Marble Road. An Alternative Analysis or No Practicable Alternative Test with engineering appendices were prepared to compare possible alternatives that meet safety objectives.
- The NEPA Documented Categorical Exclusion was authorized by the Federal Highway Administration's NEPA implementing regulation, 23 CFR 771.117.
- State-level environmental review of projects is required by the State Environmental Policy Act (SEPA).

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No governmental approvals are pending.

10. List any government approvals or permits that will be needed for your proposal, if known.

- The Columbia River Gorge National Scenic Area Land Use Consistency Review (USFS and Skamania County)
- WA ST Dept. of Ecology 401 Water Quality Permit,
- US Army Corps of Engineers 404 Permit,
- WA ST Dept. of Natural Resources Forest Practice's permit,
- WA ST Dept. of Fish & Wildlife Hydraulic Project Approval,
- WA ST Dept. of Ecology Construction Stormwater General permit,
- Temporary Erosion Sediment Control and Countermeasures (TESC) Plan
- Spill Prevention and Countermeasures and Control Plan (SPCC).

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

This project was identified by WSDOT as a high accident corridor experiencing an elevated rate of vehicular accidents. WSDOT proposes to improve safety along State Route 14 by realigning the highway to the north from MP 22.00 to MP 22.99. An existing

auxiliary climbing shoulder from MP 23.06 to MP 23.29 will be restored by building it to full depth and width. When future funding is available, the highway will be realigned to the south of the existing alignment from MP 23.27 to 23.50, including improvement to the Belle Center Rd/SR 14 intersection. The highway will be realigned to the north of the existing alignment from MP 24.13 to 24.57, including adding an additional westbound truck passing lane.

Two county roads and associated intersections with SR 14 will be improved to allow for safer turning movements. Marble Road will be realigned at the intersection with SR 14 to improve safety. Belle Center Road will be extended to match SR 14 realignment and left and right turn channelization will be added to SR 14 at MP 23.40. Approximately, 20.1 acres of vegetation will be cleared and grubbed in the project footprint for realignment and widening.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The project limits are located within Sections 17, 18, 19, and 20, Township 1N, R 3 E; Willamette Meridian, Skamania County, WA.

This project is located on SR14 between Milepost 22.00 to Milepost 24.70.

The project is located in mountainous terrain. (See the attached vicinity map, and aerial site plans,)

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . . .

b. What is the steepest slope on the site (approximate percent slope)?

100 percent

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Mountzion, skelida, skoly and Skamania series. The Skamania series consists of deep, well drained soils that formed in mixed alluvium form basalt, andesite and some volcanic soils.

Small areas of hydric soils are associated with wetlands delineated within the project limits.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Geotechnical research has identified presence of ancient landslides in the vicinity.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

The purpose of the fills is to construct roadway embankments and flatten slopes. Excavation at the sites will be necessary to flatten curves and widen the roadway. Any excavated material will be re-used for fill within the project..

The SR 14 Marble Road would have approximately 16,000 yd^3 of common borrow material.
The Belle Center Road would have approximately 42,400 yd^3 of common borrow material.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, erosion may occur along constructed embankments due to rain and runoff. Appropriate Best Management Practices will be implemented to control erosion and protect water quality during construction in accordance with WSDOT's Highway Runoff Manual. Following standard WSDOT roadside policy, all disturbed soils will be permanently stabilized and restored to pre-project character and function using a variety of methods. Steeper soil slopes may utilize erosion control fabric or bonded fiber matrix for longer term stability during vegetation establishment. These methods will be combined with permanent seeding (native herbaceous and woody species) and permanent planting. Compost blankets and bark mulch rings may also be used to aid in permanent stabilization and plant establishment measures.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

About 35 percent of the site will be covered with impervious surface. The amount of new impervious surface is about 9 percent.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

The WSDOT Highway Runoff Manual summarizes the stormwater management requirements and describes approval methods in managing stormwater runoff know as Best Management Practices (BMPs).

- Exposed soils will be revegetated by seeding of native herbaceous species or by planting and establishing native tree/shrub communities..
- Revegetation of construction easements and other areas will occur after the project is completed. Riparian vegetation will be replanted with native plants.
- Water pollution control during drainage modifications (i.e. silt fences and check dams).
- Install Best Management Practices (BMPs) between earthwork and the stream/creek/river as appropriate to contain sedimentation.
- All temporary and permanent erosion and sedimentation control measures will be inspected on a regular basis, maintained, and repaired to assure continued performance of their intended function.
- Water pollution control after drainage modifications (i.e., route drainage outfalls to vegetated surfaces and armor outlets).
- Compact all fills in thin lifts using free-draining granular material.
- Replant exposed streambanks with native vegetation.
- Standard WSDOT contract language prohibits the disposal of waste, construction materials, or any materials into natural waters bodies or groundwater.
- Water Quality Monitoring

a. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Construction equipment and vehicles will generate minor quantities of exhaust emissions (and possibly some dust during the summer months) for the life of the project. Fugitive dust is particulate matter that is suspended in the air by wind or human activities. Projects that require earthwork or otherwise have the potential to create fugitive dust are required to utilize Best Management Practices (BMPs) to control dust at WSDOT project sites.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Construction equipment and vehicles are required by law to have in place and functional the emission control devices they were equipped with at the time of their manufacture. Dust will be controlled as needed by water sprayed on work area.

3. **Water**

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Yes, there are three unnamed tributaries located at MP 22.97, MP 23.44, and MP 24.55 which convey rain-produced surface water and groundwater to lower elevations in the project vicinity. All three unnamed tributaries have year round flows. These tributaries flow south and discharge into the Columbia River. See the attached aerial photographs showing the proposed project and the unnamed tributary locations.

Two tributaries within the subbasin appear on the Washington State Department of Ecology's 303(d) list of impaired waterways for fecal coliform. Because these tributaries fall within the CRGNSA, many future impacts such as land development are limited. No data is available for tributaries within the project limits. The project will improve contamination levels in the project area by treating 3.07 acres and 1.02 acres of equivalent impervious surface for quality and quantity (flow control), respectively.

Several small jurisdictional category 3 and 4 wetlands associated with unnamed tributaries and springs have been delineated within the project vicinity.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes, work will be required within 200 feet of three unnamed tributaries to extend two of the existing culverts and replace a third. Two of the non-fish bearing culverts will be extended in-kind with the same dimensions as the existing and the third culvert will be replaced with a fish passable culvert. Quarry spalls will be placed at the end of the culvert for outfall protection as appropriate above the ordinary high water mark. Best Management Practices (BMPs) will be utilized for all the culvert and in-water work to control and prevent sediments from entering aquatic systems.

All in-stream work will be conducted during the in-water work window established by the Washington State Department of Fish and Wildlife Standard WSDOT contract language prohibits the disposal of water, construction, or any materials into the waters of natural bodies or groundwater.

Tributary MP 22.97 (Marble Road)
This tributary's length from the end of the culvert to the Columbia River is approximately 0.27 river mile. The tributary is associated with wetlands before entering a 24 inch culvert under Marble Road. The tributary enters a ditch between Marble Road and SR 14 before flowing under SR 14 through a 4ft x 4ft box culvert with a steep drop. Construction work is anticipated within the described waters to extend both ends of the culvert.

Tributary MP 23.44 (east of Belle Center Road)
The tributary at MP 23.44 is approximately 0.27 miles from the culvert to the Columbia River and flows through an adjacent forested ravine. This tributary has an average channel width of 8 feet and has a shallow depth of a few inches during late summer. The existing culvert is a 6ft x 4ft box culvert. Construction work is anticipated within the described waters to extend the culvert.

Tributary MP 24.55 (Big S-curve)
This tributary at MP 24.55 originates in the hillside of SR 14 and flow approximately 0.28 mile from the culvert downstream to the Columbia River. The tributary has a silt bottom and is approximately 3 feet wide prior to passing under SR 14 via a 3ft x 3ft arch culvert. For approximately 700 feet before entering the Columbia River, the tributary's gradient exceeds 20 percent including a 200 foot waterfall making the tributary inaccessible to fish from the Columbia River. The culvert is located upstream from the 200' waterfall, between the project and the Columbia River. However, WDFW has identified the culvert as needing to be fish passable so the existing 3ft x 3ft arch culvert will be replaced with a 10 foot diameter fish passable culvert when funding is secured and when the proposed highway will be shifted to the north.

Best Management Practices (BMPs) will be utilized for all the culvert and in-water work to control and prevent sediments from entering aquatic systems.

All in-stream work will be conducted during the in-water work window established by the Washington State Department of Fish and Wildlife.

Standard WSDOT contract language prohibits the disposal of water, construction materials, or any materials into natural water bodies or groundwater.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

An estimate of 0.15 acre of slope is wetland; 0.1 acre of depressional wetland; 0.059 acre of riverine wetland impact would be dredged and filled. The dredging and fill material are required to construct the culvert extensions and roadway embankment. This construction activity would require permitting by a US Army Corps of Engineers due to the Corps regulatory procedures that concern the quality of waters of the United States, including adjacent wetlands. Excavated material from the project will be used for fill material within the project limits. Any remainder will be disposed of by the contractor at an approved disposal facility.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Yes, temporary stream diversions will be implemented. An example is a temporary pumping system to divert the existing flow around the work area to provide a dry working environment for the construction activities (culvert extensions and replacement). The culvert installation work will be scheduled to occur during the time of year (summer-fall months) when the flows in the tributaries are low to minimize impacts to the stream. In addition, bypass pumps will have a backup bypass system in the event of equipment shut down. After the culvert installation activities are completed the temporary water bypass system will be removed and the channel stabilized before the channel flow is returned back to pass back through the culvert. No permanent withdrawals or diversion will be made.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The project is not within the 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The proposed project does not include any discharges of waste material to surface waters. All practicable measures will be taken to prevent any accidental discharges of waste materials to any surface waters. Stormwater will be treated with a quality BMP (combination detention/wet pond) and bioswale to remove pollutants and sedimentation. In addition, a Temporary Erosion and Sediment Control (TESC) Plan will be prepared to address construction activities impacting soil, air, and water quality during construction. No cleaning solvents or chemicals used for tools or equipment cleaning will be discharged to ground or surface waters. All equipment used for construction activities will be cleaned and inspected prior to arriving at the project site to ensure no potentially hazardous materials are exposed, no leaks are present and the equipment is functioning

properly.

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Groundwater withdrawals are not planned. Research was conducted using WSDOT ArcView GIS and no groundwater resources were identified in the project area.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material from septic tanks is expected.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Runoff from rainfall generates from high points on hill tops throughout the project limits and collects into ditches adjacent to SR 14 and the unnamed tributaries which flow south beneath SR 14 and eventually discharge into the Columbia River.

Currently, there is no treatment or flow control provided for roadway runoff. Stormwater runoff from SR14 is currently collected in road side ditches and conveyed to culverts crossing SR 14. Since land use immediately adjacent to SR 14 is mostly undeveloped, runoff not captured in ditches and conveyed to the unnamed tributaries within the project limits is dispersed off the shoulder as sheet flow, infiltrating and dispersing naturally over densely forested areas to the south

In the proposed condition, runoff from impervious surfaces will be collected and conveyed in open ditches and closed system networks (inlets and pipes). The closed system networks will collect and convey approximately -0.97 acres of impervious surfaces to a bioswale and medial filter drains (MFD)/compost amended vegetated filter strips (CAVFS) and 0.44 acres to an infiltration trench facility for water quality treatment and flow control, respectively in the Marble and Belle Center areas. For the Big "S" Curve area, closed system networks will collect and convey approximately 2.10 acres of impervious surfaces to a stormwater pond for water quality treatment and 0.58 acres for flow control. All facilities will discharge the flows back into the nearby unnamed tributaries and hillsides for continuation down to the Columbia River, except for the infiltration trench.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Yes, there is a remote possibility of an accidental spill on the project. Ground water is unlikely to be affected. Measures will be taken to protect surface water quality. The contractor will prepare a Spill Prevention, Control and Countermeasures (SPCC) Plan to account for this possibility. There will be no discharge of oil, fuels or chemicals to surface waters or onto land where there is a potential for reentry into surface waters.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

- Physical BMPs such as preserving vegetation, seeding and planting, wattles, etc. will be utilized.
- Work will be limited to only what is necessary to place the extensions or new culvert work from the area that are already cleared for project activities if possible.
- Equipment will remain outside the Ordinary High Water except during the in-stream construction work window.
- All equipment will be checked for leaks and cleaned of petroleum products prior to working near the tributaries.
- All in-water work will occur during the in-water work window provided by WDFW in the project Hydraulic Project Approval. To minimize sediment and turbidity increases in stream: flow will be diverted around the work area as culverts are extended. Sediment and turbidity increases are not expected to extend beyond 100 feet based on stream flows of up to 10 cfs.
- Armoring streambanks and drainage outfalls will be utilized as necessary.

4. **Plants**

a. Check or circle types of vegetation found on the site:

X deciduous tree: Red alder, Oregon white oak, Big leaf maple,, Oregon ash, aspen, Bitter cherry

X evergreen tree: Douglas fir, Grand fir, Western Red Cedar, pine, X shrubs: Native understory shrub communities dominated by Oregon Grape, Western Sword Fern, Common Snowberry, Indian Plum, Serviceberry, Oceanspray, Elderberry, Beeked Hazelnut, Salmonberry, Blackberry species.

X grass: a variety of native and introduced grass species

X Pasture : Grazed pasture

X crop or grain: Christmas tree farm (Noble Fir), Iris cultivars at Iris Farm near Marble Road.

X wet soil plants: Reed Canarygrass, Skunk Cabbage, Smartweed Nettle, Water Parsley, Youth on Age, Broadleaf Cattail, Fringed Willowherb, Soft Rush, American Speedwell.

X water plants: water-starwort

X other types of vegetation: ferns

b. What kind and amount of vegetation will be removed or altered?

Approximately 20 acres of native trees, shrubs, and grasses will be cleared and grubbed in the project footprint for realignment and widening. Some Oregon White oak trees will be removed. An isolated remnant Priority Habitat Species (PHS) oak woodland was identified located southwest of Marble Road and impacts to this mature forest are expected. Minimization, protection measures and mitigation will restore function of the oak woodlands in compliance with National Scenic Area requirements.

Some riparian vegetation will be removed for the extension of 3 culverts conveying non-fish bearing unnamed tributaries to the Columbia River.

Some wetland vegetation will be removed for the realignment and widening.

To mitigate for unavoidable impacts to wetlands, riparian areas, buffers, and priority habitat areas (Oregon White Oaks), a comprehensive natural resources mitigation strategy will be implemented in accordance with the guidance outlined in Chapter 22.20 of Skamania County Critical Area Ordinance, the mitigation recommendations outlined in the *Wetland Mitigation in Washington State* (Ecology et

al.2006s), applicable measures from other environmental permits, and WSDOT roadside restoration policy. Disturbed areas within the project limits will be revegetated to provide permanent erosion control, slope stabilization, sensitive area buffering, visual screening, bank stability, shading, food chain support, and corridor connectivity. In coordination with the United States US Forest Service (USFS), WSDOT has located several potential off-site compensatory natural resource mitigation areas suitable for environmental enhancement and restoration of the various natural communities including oak woodlands and wetlands. See the attached Marble Rd Oak and Wetland mitigation sites location map. Oregon White Oak mitigation will follow a comprehensive multi-part strategy. First, impacts to the existing isolated oak woodland fragment will be minimized by detailed design efforts including varying slope topography to reduce tree removal and to match existing terrain, shortening cut slope lengths by utilizing natural rock retaining walls, and redesign of a water quality swale to reduce width. Second, disturbed areas within the project limits will undergo a soils restoration process followed by intensive vegetation restoration, primarily native woody plants and trees. Vegetation communities will be patterned on adjacent native plant communities including Oregon White Oak and associated understory species. Third, WSDOT is partnering with the USFS to restore Oregon White Oak woodlands on disturbed USFS-owned parcels within the vicinity of the project. The compensatory acreage (or replacement ratio) of restored Oregon White Oak woodland will be agreed to by WSDOT, USFS, WDFW, and Skamania County as part of the mitigation process. Soil preparation and restoration, planting, and long term site establishment will be similar to other restored areas of vegetation within the project area. Finally, WSDOT may purchase or participate in the protection of an undetermined acreage of existing Oregon White Oak woodland adjacent to the Washougal Oaks Natural Area Preserve, managed by the DNR Natural Areas Program.

WSDOT follows the federal mitigation sequencing procedure by first avoiding environmental impacts wherever possible. When avoidance is not possible, impacts to the natural resource (Oregon White Oak woodland) are minimized using analysis, alternative designs, and various design/construction techniques. Remaining impacts are fully mitigated for no net loss of resource or function following a comprehensive mitigation strategy developed specifically for the individual project by qualified professionals.

The affected stand of oaks (approximately 2.25 acres) is located on the periphery of a very large Oregon white oak forest association (over 1,600 acres) in Southeast Clark County and Southwest Skamania County. Nearly all of the forest association has been approved for acquisition and/or designation as the 1,656 acre Washougal Oaks Natural Area Preserve (NAP) and Resource Conservation Area (NRCA) under the Natural Area program of the Washington Department of Natural Resources. Per a publication by the Washington Natural Heritage Program, the core 226 acres of the NAP/NRCA were designed to protect the largest contiguous, unfragmented stand of Oregon white oak/oval-leaf viburnum-poision oak forest association found in the area, adjoining ravines associated with Lawton Creek, and smaller stands of oak located in and adjacent to the ravines. The supporting soil type is predominately mapped as Lauren gravelly loam. The portion of the Oregon white oak/oval-leaf viburnum-poision oak forest association within the Washougal Oaks NAP is considered one of the two best remaining examples in western Washington and is ranked as a G1S1, Priority 1 habitat by the Washington DNR *Natural Heritage Plan 2007*. This association prefers dry to very dry, often stony or shallow bedrock soils and are found on moderate to steep slopes. All of the NAP and NRCA is located within Clark County. Oregon White Oak woodlands are categorized by the Washington Department of Fish and Wildlife as a priority habitat; they are not currently listed as "Threatened" or "Endangered" by State or Federal

resource agencies, and management of these priority habitats occurs at the county level through the WA Growth Management Act.

The 2.25 acres of Oregon white oak forest association proposed to be affected by the project are outside of the final approved boundaries of the Natural Area Preserve and Conservation Area and are completely within Skamania County. Field reviews indicate that this narrow, linear band of oak (150-200 feet in width and 800 feet in length per GIS measurements) is an Oregon white oak-Douglas fir/snowberry association (understory primarily common snowberry and sword fern), ranked as a G4S3, Priority 3 habitat by the Washington DNR. This association prefers moderately dry to dry, gravelly or shallow bedrock soils on moderate or flatter slopes, although this association may occur on a variety of aspects and slopes. This particular stand occurs on Skelida silt loam, 5-15% slopes as does the proposed 12 acre Cleveland Oak Woodland mitigation site located 1.5 miles northeast of the impact area. The stand proposed to be affected by highway realignment has undergone significant fragmentation since the 1800's as a result of rural agricultural development associated with the historic Mt. Pleasant community and has been physically isolated from the larger Oregon white oak forest association to the south and southwest by the existing highway (alignment constructed as early as 1908), Marble Road, private driveways and other historic road grades. Oak woodlands that may have been located north of the historic SR-14 alignment have undergone significant clearing to develop the present field and woodlot pattern evident on the landscape today. The stand contains sections of undisturbed common snowberry understory as well as large areas of the invasive Himalayan blackberry. Within the 2.5 acres of potential impact, WSDOT has identified 9 Oregon white oaks with a diameter of 30 inches or greater. Seventy-five percent of potentially impacted oaks have a diameter of less than 20 inches.

Clearing and removal of portions of the oak woodland will affect some attributes of wildlife habitat, and may modify or remove potential nesting or breeding habitat for sensitive terrestrial species. Additionally, the removal of trees, many of which cannot be left in place as habitat (snags or fallen trees), will impact potential denning and foraging habitat and food (insects, spiders, acorns, fungi) abundance. Vegetation removal also has the ability to impact moist surface microclimates, having detrimental effects to surface-dwelling amphibians and invertebrates reliant on cool, moist conditions. The proposed clearing limits do not contain documented known nesting locations, and will not destroy or modify designated critical habitat. Again, with the implementation of minimization and/or avoidance measures (i.e. potential seasonal restriction of disturbance activities outside of the species' nesting/rearing season), project activities are expected to have insignificant impacts to sensitive species.

WSDOT will implement a comprehensive multi-site natural resources mitigation strategy for all environmental impacts, including Oregon White Oak:

- Impacts to the existing isolated oak woodland will be minimized by detailed design effort including varying the slope topography to reduce the tree removal.
- Disturbed areas within the project limits will undergo soils restoration followed by intensive vegetation restoration with native woody trees and shrubs. Vegetation communities will be patterned on adjacent native plant communities including Oregon White Oak and associated understory species.

- WSDOT will provide compensatory mitigation for Oregon White Oak woodland impacts at a minimum of a 5:1 ratio. Oak mitigation components include:
    - Restore 1.5 acres of Oregon White Oak Woodland in disturbed areas of the project limits including complete restoration (pavement removal, slope reconstruction, and planting) of abandoned sections of SR-14.
    - Establish 12 acres of Oregon White Oak woodland at a USFS-owned parcel in the vicinity of Cape Horn (Cleveland Parcel)
    - Enhance 1.1 acres of degraded Oregon White Oak woodland habitat at the Homestead Lake Mitigation Site (Beacon Rock State Park)
- WSDOT will preserve 3.1 acres of ecologically threatened Oregon White Oak woodland at the WSDOT-owned Wind Mountain parcel. This site will be transferred into USFS ownership for long term management and stewardship.
- WSDOT will create 1 acre of wetland and enhance 4 acres of wetland and riparian buffer at the Homestead Lake Mitigation Site (Beacon Rock State Park). This partnership effort with WA State Parks will expand existing wetland around the margins of Homestead Lake and enhance habitat for the Western Pond Turtle.

WSDOT will monitor and establish all project mitigation areas for 10 years in accordance with approved performance measures.

c. List threatened or endangered species known to be on or near the site.

Plant surveys conducted during the flowering season did not yield any detection of federal or state listed threatened or endangered plants. Surveys yielded detections of one rare plant species: Tall bugbane. Tall bugbane is a State Sensitive species and a Federal Species of Concern. There are scattered populations of Bugbane located in the S-curves portion of the project which is currently not programmed or funded.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

- Preserve as much existing vegetation as possible.
- Disturbed soil surfaces will be reseeded with an acclimated grass species.
- Protect water quality during and after drainage modifications (i.e., silt fences and armored culvert ends).
- Following WSDOT standard roadside policy, all disturbed soils will be permanently stabilized and restored to pre-project character and function.
- The area will be revegetated with native woody trees and shrubs to replicate natural forested conditions.
- Native woody species will include, but not limited to: Douglas fir, Western Red Cedar, Grand fir, Bigleaf Maple, Oregon Ash, Vine Maple, Ocean Spray, Western Hazel, Indian Plum, Oregon Grape, Red Flowing Currant, Snowberry, and Sword Fern.
- Installation work will be conducted during the first dormant planting season following construction.
- Plant material will be established (vegetation management, weed control, replanting) for at least 5 years until NSA screening requirements are met.

5. **Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other: slender-billed white-breasted nuthatch, pileated woodpecker, Purple martin, Peregrine falcon, Bald eagle
mammals: deer, coyotes bear, elk, beaver,
fish: bass, salmon, trout, herring, shellfish,

b. List any threatened or endangered species known to be on or near the site.

Multiple site visits were conducted and available databases were researched to determine the presence of federally listed threatened or endangered species or designated critical habitats designated under the ESA by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) within the project area. WSDOT biologists have determined that no federally listed species are documented within the project and surrounding areas. Additionally, no state listed threatened or endangered species are known to occur on or near the project site.

Although several runs of listed fish are documented within the Columbia River, in-water work activities will have no impacts on the Columbia River and will not affect listed fish species.

c. Is the site part of a migration route? If so, explain.

Yes, it is within the Pacific Flyway used by many species of migratory birds.

d. Proposed measures to preserve or enhance wildlife, if any:

- Establish clearing limits using High Visibility Fencing.
- Restore disturbed soils with native woody and herbaceous species.
- Protect water quality during drainage modifications (i.e., silt fences and armored culvert ends).
- Preserve as much existing vegetation as possible

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The primary source of energy used to construct this project will be from the combustion of fossil fuels, primarily diesel, used to power heavy equipment and trucks.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

None.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Minimize haul distances and use fuel-efficient equipment

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Yes, there always exists at least a remote risk of spills, fire and/or explosion whenever the project requires the transport, use and temporary storage of heavy equipment and volatile, flammable petrochemical products.

1) Describe special emergency services that might be required.

Fire, police, ambulance and/or HAZMAT spill team.

2) Proposed measures to reduce or control environmental health hazards, if any:

- Practicing prudent safety precautions when operating equipment or handling fuels, coolants and lubricants.
- All State personnel and most contractors' employees are trained in advanced first aid and emergency traffic control procedures.
- WSDOT has an on-call hazardous waste consultant available at all times, in addition to local authorities.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Existing traffic is the main source of noise in the area.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Heavy equipment and trucks will generate noise during active construction. Noise will return to ambient levels of traffic at the end of construction. Daytime hours will be from 7 a.m. to 7 p.m. Nighttime hours of impact will likely be 8 p.m. to 5 a.m. The likely night activities would be excavation and haul of material; a 24-hour traffic signal for all traffic, or other traffic control.

3) Proposed measures to reduce or control noise impacts, if any:

All trucks and equipment used on the project are required to have adequate mufflers as installed by the manufacturer. It is anticipated that most work will be performed during daylight hours but some night work may occur.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties?

The current site is a highway facility, USFS property, and a few residential properties.

b. Has the site been used for agriculture? If so, describe.

It is possible that the site was used for agriculture at some point in the past but the site is currently not used for this purpose.

c. Describe any structures on the site.

None.

d. Will any structures be demolished? If so, what?

None.

e. What is the current zoning classification of the site?

Columbia River Gorge National Scenic Area or CRGNSA - Special Management Area.

Zoning includes residential, commercial, and federal lands.

f. What is the current comprehensive plan designation of the site?

The majority of land in Skamania County is in federal ownership, with the remaining land in state and private ownership. Skamania County is not required to plan fully under the Growth Management Act (GMA); however, Skamania County is required to designate and protect critical areas. There are approximately, 90,200 acres in the county that are designated Columbia River Gorge National Scenic Area (CRGNSA). The USFS land within our project is protected by a conservation easement.

Currently, the 2007 Skamania County Comprehensive Plan includes all land geographically located within the unincorporated county. Skamania County also has established a critical area ordinance that regulates development of wetlands and streams.

A management plan for the scenic area was created by the Gorge Commission and concurred with by the U.S. Secretary of Agriculture.

g. If applicable, what is the current shoreline master program designation of the site?

None.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The Washington Natural Heritage Program (WNHP) maintains a database of rare and imperiled species and plant communities for the state. Part of the land to be acquired for WSDOT right of way is mapped by WNHP as an Oregon white oak–Douglas fir high-quality habitat area. The same habitat has also been classified by WDFW as priority habitat, defined as those habitat types with unique and significant value to many fish or wildlife species. Plant surveys yielded detections of one rare plant: Tall bugbane. Tall bugbane is a State Sensitive species and Federal Species of Concern. Although some suitable habitat may occur, plant surveys yielded detections of no other rare vascular plant species in the project area. Also there is no additional documented unique or high quality habitats that will be impacted by the proposed project.

i. Approximately how many people would reside or work in the completed project?

Residences are prohibited on the State highway right-of-way.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

WSDOT will continue to coordinate with all land use and resource management agencies with jurisdiction, through circulation of this document and public comment period and acquisition of the necessary regulatory permits, as well as through direct communication.

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

None.

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The WSDOT Steel Light Standard Plan specifies that the Luminaire Pole height shall not exceed 50 feet. The suggested mounting height of the light source is 20-40 feet consistent with the NSA management plan.

b. What views in the immediate vicinity would be altered or obstructed?

The project occurs within the CGR National Scenic Area and will affect visual quality and visibility within the immediate project corridor, as well as from off-site areas with view of the project corridor. Several views would be altered due to vegetation removal and excavation. All

changes to the visual environment are subject to the provisions of the Scenic Area Act. The Act's first purpose, as stated in Section 3(1) includes a mandate to protect and enhance scenic resources of the Columbia River Gorge (source: CRGNSA Management Plan) and WSDOT is required to meet these objectives as they are described in the SR-14 Corridor Management Plan.

A Final Visual Quality Assessment report was completed in April 2011 and includes detailed view and project exposure analysis, Key Viewing Area visibility analysis and descriptions, impact analysis, and description of visual mitigation techniques that will be implemented during project design and construction process to meet the "visually subordinate" standard of the NSA Management Plan and overall compatibility with the landscape setting.

The project area will be visible from numerous Key Viewing Areas defined in the Scenic Area Act including the Vista House, Portland Women's Forum State Park, Rooster Rock State Park, SR-14, and the Columbia River.

Views from private property adjacent to the project may be altered by clearing and grading activities, exposing the properties to new view of and from the highway corridor. The final alignment and revisions to the clearing limits will maintain the scenic compliance of surrounding structure. No properties will be put out of compliance with scenic provisions of the NSA Management Plan/Skamania County Code thus no additional mitigation for individual properties will be required. Per comments received from the U.S.Forest Service, WSDOT will re-establish a strip of Oregon White Oak along the top of the northern cut line to maintain the unbroken tree line as viewed from key viewing areas in Oregon.

d. Proposed measures to reduce or control aesthetic impacts, if any:

Following implementation of the proposed project, much of the existing highway and associated traffic and nighttime headlights will no longer be visible from the previously noted Key Viewing Areas. This will be primarily achieved through highway realignment north of the existing alignment and partial retention of a vegetated hillside immediately north of the current highway. Abandoned sections of SR 14 will be removed, the areas re-graded to match the existing surrounding topography, and revegetated as Oregon White Oak woodland. Scenic/visual resource mitigation techniques include but are not limited to minimizing clearing limits, specialized grading to reduce the effect of new cuts/fill on the landscape while facilitating revegetation, modified blast pattern in rock removal areas to produce more natural surfaces, weathering agent application on newly exposed rock, native topsoil salvage and compost blankets, intensive replanting/restoration of native woody plant communities on new cuts and fills and other disturbed areas, screen planting, and weathering steel guardrail. Large concrete or boulder retaining walls, concrete traffic barrier, and traditional stormwater treatment facilities (detention ponds) are not part of the final design.

Additional grading, reclamation of the abandoned section of SR-14, and intensive vegetation restoration and mitigation efforts throughout the corridor (and associated long-term establishment) will minimize the disturbance visible from KVA's as required by the NSA management plan.

The Columbia River Gorge National Scenic Area (CRGNSA) Management Plan states that exterior lighting will be directed downward and site, hooded, and shielded such that it is not highly visible from key viewing areas.

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No, the increased lighting would improve safety at the intersection of SR 14 and Belle Center Road.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

Realigning the highway north of the existing SR-14 and partial retention of a vegetated hillside immediately north of the current highway will effectively reduce the amount of headlight glare visible from Oregon Key Viewing Areas. Intensive vegetation restoration and mitigation efforts throughout the corridor (and associated long-term establishment) will minimize the disturbance visible from Oregon Key Viewing Areas and properties adjacent to the highway.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?

Beacon Rock State Park is located approximately 8 miles to the east. The Cape Horn Viewpoint adjacent to SR 14 is located east of the project at MP 25. The Cape Horn Trail has a trailhead located on Salmon Falls Road near its intersection with SR 14.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No. People wishing to access the Cape Horn hiking trail will still have access to the Community Park & Ride lot and trailhead. The trail will remain in operation during the project construction.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Traffic impacts will be held to a minimum during weekends and holidays to accommodate recreational travel.

13. **Historic and cultural preservation**

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Seven archaeological resources were identified within the Area of Potential Effect (APE) and none were eligible for listing in the National Register of Historic Places (NRHP).

Within the APE of the project area, only one historic resource, the 1891 Mount Pleasant Grange is recommended eligible for listing in the NHRP. Other historic properties within the project area were studied but not NHRP eligible and include the 1932 Miller's Store (Walker's Mt. Pleasant Store), Marble Road Rock Wall, Marble Road Box Culvert, and the Wing Box Culvert. The project will not adversely affect the Mount Pleasant Grange or the Mount Pleasant Cemetery and parking area which is located north of the project along Marble Road. The project will not impact this cemetery or any visitors accessing the cemetery.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

WSDOT contracted with a consultant to prepare a cultural resources study and to address the possible impacts of the proposed project on significant archaeological and historical cultural resources. The work was done following federal compliance standards and was done by consultants meeting the professional qualification standards of the Secretary of the Interior. A Cultural Resources Study was completed with the finding of "*No Historic Properties Adversely Affected.*" The project area surveyed for cultural resources was 38 acres. Delineation-phase shovel tests and evaluation-phase quarter test units were excavated in the winter of 2008. Survey and shovel testing for the proposed stormwater retention facilities were done in spring 2008.

c. Proposed measures to reduce or control impacts, if any:

In the event of discovery of unanticipated archaeological resources of human remains, all ground-disturbing activity in the immediate vicinity of the find would be halted and WSDOT cultural resources personnel will immediately be notified.

14. **Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Marble Road and Belle Center Road are both county roads that access the SR 14 highway.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No, a Community Park & Ride lot is located at the intersection of Salmon Falls Road /SR 14. Skamania County transit provides public transportation to serve the local communities between Vancouver and Carson.

c. How many parking spaces would the completed project have? How many would the project eliminate?

The project will not provide or eliminate any parking space. Parking is prohibited on state highways.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

None.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

No additional trips will be generated by this proposal.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire pro-tection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

WSDOT will coordinate with emergency services to minimize delays in response time.

16. **Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Existing utilities will be relocated to provide for roadway improvements. No new utilities will be required based upon this project. Existing utilities include electricity and telephone located underground and on utility poles. Several utility poles will be relocated with large construction equipment.

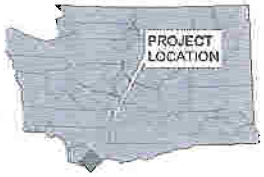
C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Barbara Abule

Date Submitted: 7/27/2011

T.1N. R.5E. W.M.



BEACON ROCK
STATE PARK
MITIGATION SITE
EXISTING SR 14 CL
MP 33.49

END PROJECT
SR 14 MP 24.70

BEGIN PROJECT
SR 14 MP 22.00

VICINITY MAP

REFERENCE:	NWS-2011-544
APPLICANT:	WSDOT
PROJECT NAME:	SR 14 MARBLE RD VIC SAFETY IMPROVEMENT
PURPOSE:	CONSTRUCT SAFETY IMPROVEMENT ON SR 14
APPLICATION FOR:	PROPOSED AND EXISTING WORK
LOCATION:	SKAMANIA COUNTY, WASHINGTON START PROJECT LATITUDE: 45.6833 N. LONGITUDE: -120.5733 W. END PROJECT LATITUDE: 45.6841 N. LONGITUDE: -120.5621 W. SECTION 17, 19, 20 T1N, R5E, W.M.
DATUM:	N.A.D. 83/91
	WETLAND MITIGATION SITE LATITUDE: 45.6169 N. LONGITUDE: -122.0395 W. SECTION 35 T2N, R6E, W.M.
SHEET: 1 OF 5	DATE: JULY 21, 2011

SEPA

SR 14 / MARBLE RD PROJECT LIMITS

SHEET 2 OF 5

SEPA

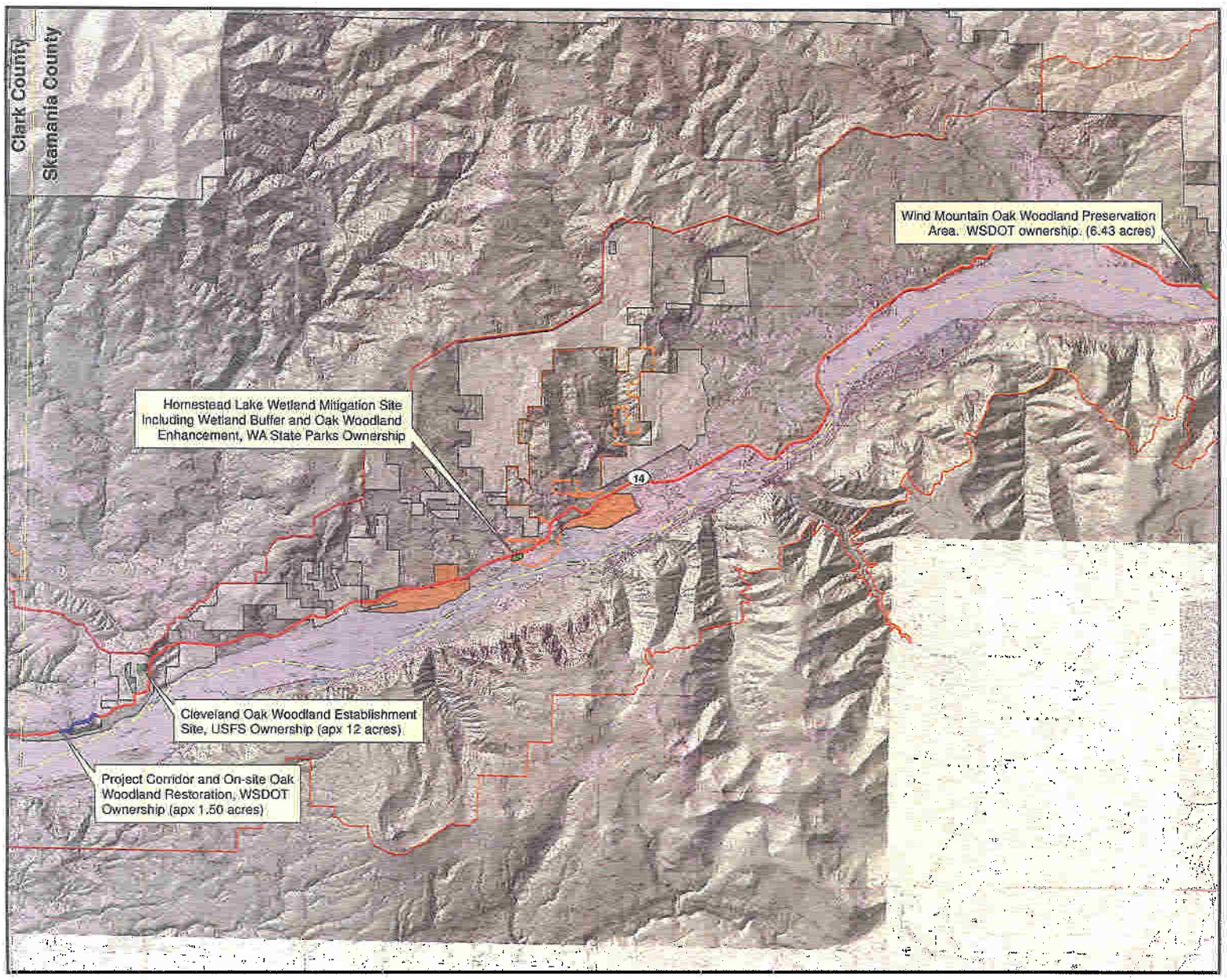
AERIAL VIEW - SR 14 / MARBLE ROAD

SEPA

AERIAL VIEW - SR 14 / BELLE CENTER ROAD

SEPA

AERIAL VIEW - SR 14 BIG "S" CURVES



SR-14
Marble Rd. Vic. to Belle Center Rd. Vic. Safety Improvements

Natural Resource Mitigation Sites Map

- ScenicAreaBoundary
- Beacon Rock proposed mitigation APE
- Cleaveland Oak Establishment Site
- Marble On-site Oak Restoration
- Interstate
- U.S. Highway
- State Route
- Wildlife Refuge (Fed/State)
- State Park

0 1.25 2.5 5 Miles

Data Source: WSDOT GIS

Washington State Department of Transportation

11x17LandscapeSidoLegend.mtz / Print Data