

## Chapter 3. Existing Conditions

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This chapter summarizes the landscape setting, existing conditions of the wetlands and streams within or near the project setting, and watershed conditions.

### 3.1 Landscape Setting

The project is located on SR 14 from MP 22.60 to MP 23.70 in rural Skamania County between the towns of Washougal and Skamania. SR 14 is a major road and is the only road linking towns along the north shore of the Columbia River. This area experiences moderate amounts of automobile traffic, high levels of truck traffic, as well as significant amounts of rail and barge traffic.

The roadway in the project areas contains a sharp reverse curve and busy rural intersection, and ranges in elevation from approximately 400 to 600 ft. The south side of the road is comprised primarily of steeply sloping terrain descending southward in elevation toward the Columbia River. The north side terrain is more varied, ranging from steep forested slopes to rolling maintained pasture.

The project lies within the boundaries of the CRGNSA. Land uses within the project vicinity include natural forest (protected due to USFS ownership or conservation easements in CRGNSA), transportation, education (Mt. Pleasant School), recreation, and rural residential. Skamania County has a comprehensive plan that incorporates a subarea management plan and zoning for the CRGNSA in compliance with the Columbia River Gorge National Scenic Area Act. All land uses must comply with regulations administered under the CRGNSA to protect scenic, cultural, natural, and recreation values. The entire project lies within the restrictive Special Management Area (SMA). Figure 2 depicts the designated management zones throughout the project area.

Annual rainfall along the Columbia River is 50 inches increasing to 60 inches in the western portion of Skamania County. East of the Cascade crest, in the southeast corner of the county, annual rainfall averages 35 inches.

#### 3.1.1. Terrestrial Environment

Vegetation in the project vicinity is typical of plant assemblages found in the west end of the Columbia Gorge; much of the project area is forested, although the historic European settlement pattern has created open pastures, hedgerows, and small forest patches. Most of the forest in the project vicinity, dominated by a Oregon White Oak (*Quercus garryana*) and Douglas fir (*Pseudotsuga menziesii*) association, with riparian areas dominated by mixed Big-leaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*). Understory vegetation consists of vine maple (*Acer circinatum*), red elderberry (*Sambucus racemosa*), Common Snowberry (*Symphoricarpos albus*), stinging nettle (*Urtica dioica*), Cascade Oregon Grape (*Mahonia nervosa.*), Indian Plum (*Oemleria cerasiformis*), miner's lettuce (*Claytonia perfoliata*), and numerous other species.

The project corridor bisects a fragmented stand of Oregon White Oak. Oregon white oak (*Quercus garryana*) is Washington's only native oak. These oak woodlands provide food and shelter for an abundance of mammals, birds, reptiles, and amphibians, including species that are state listed as Sensitive, Threatened, Endangered, or candidates for these listings. These oak communities play a major role in sustaining the region's biodiversity, and support species directly by providing habitat and indirectly by maintaining open areas in the landscape. Often, the wildlife and plants that live and grow in oak communities are found in no other habitat type (USFS, 2008).

Priority Oregon white oak woodlands are stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is at least 25%; or where total canopy coverage of the stand is <25%, but oak accounts for at least 50% of the canopy coverage present. The latter is often referred to as an oak savanna. In non-urbanized areas west of the Cascades, priority oak habitat is defined as stands 0.4 ha (1 ac) in size. East of the Cascades, priority oak habitat is stands 2 ha (5 ac) in size. In urban or urbanizing areas, single oaks, or stands of oaks <0.4 ha (1 ac), may also be considered priority habitat when found to be particularly valuable to fish and wildlife (i.e., they contain many cavities, have a large diameter at breast height [dbh], are used by priority species, or have a large canopy) (Larsen and Morgan, 1998).

The decline of Oregon white oak woodlands has been accelerated by human activities, primarily oak removal. Conifer encroachment is a significant threat to remaining oaks, particularly on the west side of the Cascades and in portions of the Columbia Gorge, and is aggravated by urban development, fire suppression, timber conversion, and cattle grazing. Grazing is a primary use of oak woodlands and reduces species richness of ground cover, increases soil moisture, compacts soils, and disturbs sod, all of which may promote conifer growth and encroachment west of the Cascades.

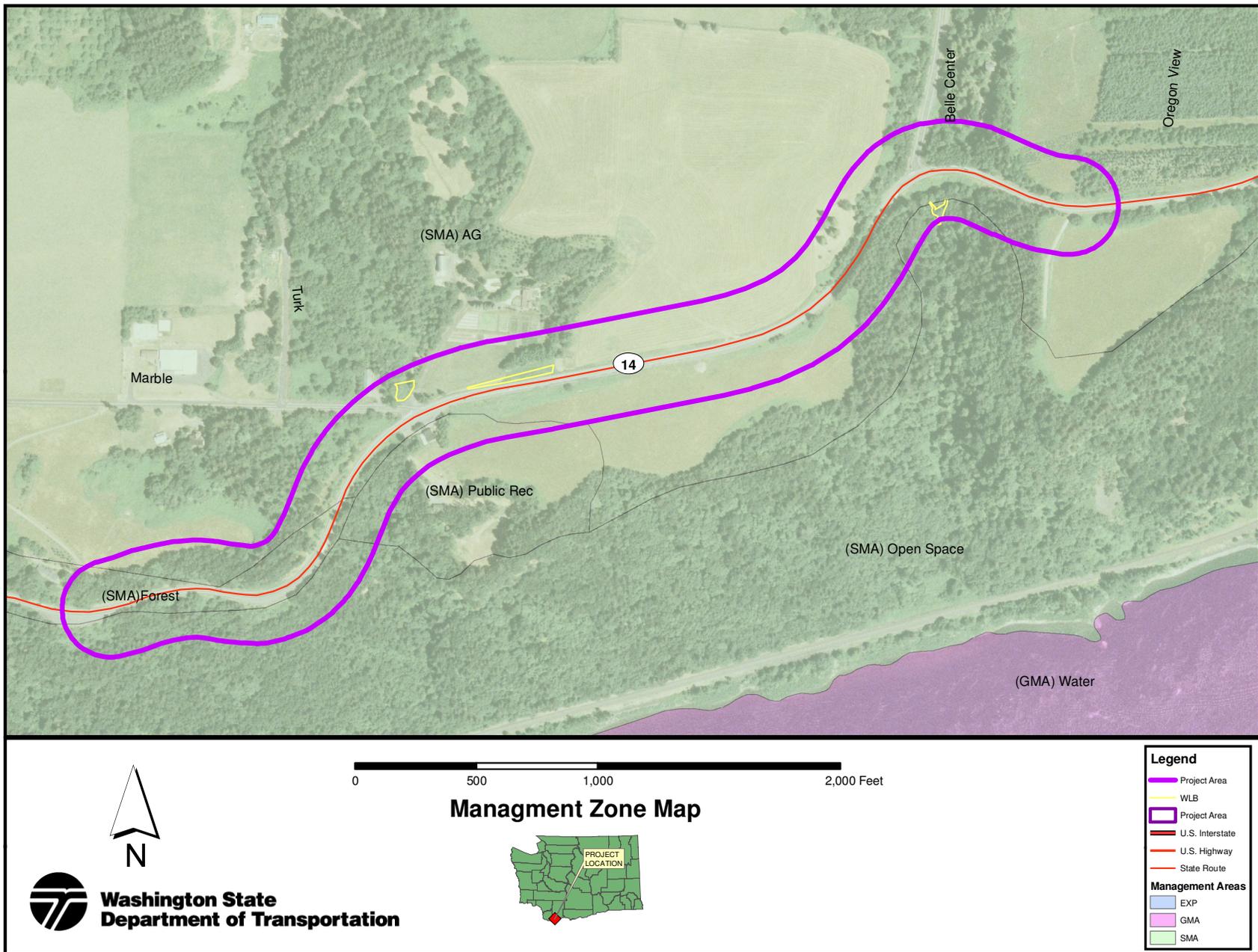


Figure 2. Map of Management Area Boundaries

### 3.1.2. Aquatic Environment

The project is located in water resource inventory area (WRIA) 28, which encompasses the southern half of Clark County and the southwest corner of Skamania County, an area of approximately 494 square miles. The eastern portion of the WRIA where the project is located is the Bonneville Tributaries Subbasin. This Bonneville Tributaries Subbasin includes all of the Washington tributaries that enter the Columbia River upstream of the Washougal River to Bonneville Dam. The tributaries in this subbasin flow down the steep walls of the Columbia River Gorge at moderate to high stream gradients before entering the Columbia River floodplain. Stream flow is derived chiefly by rain-produced surface and ground water runoff (Wade 2001).

The Columbia River flows south of SR 14 adjacent to the action area (Figure 1). The Columbia River is the fourth largest watershed in the United States, draining 259,000 square miles. It has the second largest volume of any river in the United States (LCREP 1999). The lower Columbia River runs 146 river miles from Bonneville Dam to the Pacific Ocean. Within the action area, the river flows downstream from Bonneville Dam through the Columbia Gorge emerging 20 miles east of Portland. The river is relatively narrow in this segment with reaches as narrow as 925 ft. West of Washougal, just outside the action area, the river flows through a valley with a broad floodplain to the Pacific Ocean.

## 3.2 Wetlands

WSDOT wetland specialists delineated three wetlands within the proposed project area, all of which would be considered jurisdictional by the USACE, Ecology, and Skamania County. Some of the wetlands extend beyond the project boundaries and are components of larger wetland complexes. The project area contains three Category III wetlands, according to the *Washington State Wetland Rating System for Western Washington* (Hruby 2004).

The wetlands were all classified as PFO and PEM wetlands according to the Cowardin Classification system. The biological, chemical, and physical functions provided by these wetlands range from low to moderate. The majority of the wetlands provide low to moderate levels of water quality, hydrologic, and habitat functions. Complete descriptions of each wetland are provided in the *SR-14 Marble Rd to Cape Horn Rd Safety Project Wetland Assessment Report* (Appendix A).

### 3.2.1. Buffers/Uplands

The wetland and riparian buffers were designated using the guidance outlined in Chapter 22.20.020 (G) for General Management Areas and Chapter 22.28.010 (B) for Special Management Areas of the Skamania County Code. The code requires buffers for all regulated activities adjacent to regulated wetlands, lakes, ponds, and streams. When riparian and wetland buffers overlapped, the greater of the two distances was used to calculate impacts.

Two types of wetland/riparian buffers were present within the project corridor: mixed deciduous/coniferous forest and the vegetated shoulder of SR-14. The mixed deciduous/coniferous forest and vegetated shoulder of SR-14 were both characterized by steep

slopes and were dominated by a range of species including *Acer macrophyllum* (big-leaf maple) FACU, *Corylus cornuta* (beaked hazelnut) FACU, *Oemleria cerasiformis* (Indian plum) FACU, *Mahonia nervosa* (Cascade Oregon grape) NL, *Polystichum munitum* (western swordfern) FACU, *Symphoricarpos albus* (snowberry) FACU, *Rubus ursinus* (California blackberry) FACU, *Oplopanax horridus* (Devil's club) FAC, *Alnus rubra* (red alder) FAC, *Corylus cornuta* (beaked hazelnut) FACU, *Holodiscus discolor* (oceanspray) NL, *Acer circinatum* (vine maple) FAC-, *Vaccinium parviflorum* (red huckleberry) NL, *Rubus spectabilis* (salmonberry) FAC+, and *Pseudotsuga menziesii* (Douglas-fir) FACU.