

comprised of sedimentary parent material.

The western boundary of the proposed area is based on the change of the sedimentary soils from the volcanic soils of the coastal range of hills. The higher elevations of the coastal hills to the west, generally ranging from 1,000–2,000 feet, are much cooler than the proposed area and have proven unsuitable for the production of vinifera varieties. At the southwestern boundary, the almost purely sedimentary parent material of the proposed Yamhill-Carlton District changes to a mix of basalt, slate, and sedimentary material. The southern boundary transitions to valley floor that contains deep soil comprised of Willamette silts. The frost-prone nature of this lower elevation area, combined with its high permeability and fertility, make it unsuitable for production of quality vinifera grape varieties. Abbey and Kuehne Roads serve as the eastern border of the proposed area and mark the change of sedimentary parent material to volcanic soil of the Red Hills of Dundee, as well as highlight a natural drainage between the two areas.

Millican Creek drains along this boundary, flowing from north to south and eventually joining the Yamhill River near the town of Lafayette. The Chehalem Creek estuary is a vast drainage area that separates the proposed Yamhill-Carlton District from the Ribbon Ridge area (a spur of the Chehalem Mountains) to the east. While the two areas are both based on sedimentary material, the proposed Yamhill-Carlton District sedimentary soil is generally coarser in texture and subject to more faulting, uplifts, and erosion than the soils of Ribbon Ridge.

The Wapato Lake Bed serves as a large, low drainage area on the northeastern boundary of the proposed Yamhill-Carlton District, separating it from the Chehalem Mountains. The soils of these two areas are vastly different in that the proposed Yamhill-Carlton District is highly eroded sedimentary parent material while the Chehalem Mountains, which lie across the Wapato Lake Bed, are formed from wind-blown mixed material and overlying basalt. Finally, the northern border of the proposed area coincides with the vast low areas of Patton Valley with predominately wind-blown soil.

Regarding historical evidence, two vineyards can lay claim to being first planted in the proposed Yamhill-Carlton viticultural area. In 1974, Roy and Betty Wahle planted 8 acres of vinifera grapes comprised of Pinot Noir, Chardonnay, Riesling, and Gewurztraminer. That same year, Pat

and Joe Campbell planted Elk Cove Vineyards, an 8-acre plot comprised of Pinot Noir and Chardonnay. The next significant era of planting occurred between 1989 and 1992. Doe Ridge Vineyard, McCrone Vineyard, Shea Vineyard, Stag Hollow Vineyard, and Willakenzie Estate combined to plant a total of 183 acres during this period.

The first commercial wine from the proposed Yamhill-Carlton area was the 1977 Elk Cove Estate Pinot Noir. As of the date of this petition, 10 commercial wineries operate within the boundaries of the proposed area.

Growing Conditions

Distinctive Geographic Features

The petitioner describes the proposed Yamhill-Carlton District viticultural area as a south-facing bowl consisting of a horseshoe-shaped series of highly eroded hills comprised of sedimentary parent material bordered by a high-elevation coastal range to the west, a cooler maritime-influenced area to the south, and natural lowland drainage areas to the east and north. The soils contained in the proposed Yamhill-Carlton District differ from those in surrounding areas either by basic rock or age of the parent material.

Soil

The petitioner states that the most significant feature that separates the proposed Yamhill-Carlton District from nearby grape-growing regions is the predominance of ancient sedimentary soils. He believes these soils impart distinct and unique characteristics to the fruit they grow. Wines made from grapes grown in these sedimentary soils often contain distinct aromatic flavors (coffee, cocoa, anis, cedar, tobacco) not found in wines made from the same variety of fruit grown in different soils. Also the wines made from grapes grown in these sedimentary soils are consistently lower in acidity than wines made from grapes grown in basaltic or wind-blown soils.

According to "The Roadside Geology of Oregon" (David Alt and Donald W. Hyndman), the soils of the proposed Yamhill-Carlton District, formed in the Eocene era, were derived from marine sediments and ocean floor volcanic basalt that have a high water-holding capacity with moderate to high erosion levels. A map prepared by Alan Campbell of NW Vineyards on the vineyard soils of Yamhill County shows that the western hills of the proposed Yamhill-Carlton District are comprised of two soils groups, Willakenzie on the lower elevation slopes and Peavine on the upper slopes. Peavine soils

dominate the northern section of the proposed viticultural area, while the eastern slopes are comprised of Wellsdale and Willakenzie soil series. The petitioner states that the sedimentary soils of the proposed Yamhill-Carlton District are millions of years older than the soils in the surrounding areas.

By contrast, the petitioner states that the Eola Hills (south of the proposed Yamhill-Carlton District), Chehalem Mountains (north and east of the proposed Yamhill-Carlton District), and Red Hills (southeast of the proposed Yamhill-Carlton District) are dominated by volcanic-based soils formed in the Miocene Era. The Eola Hills area has predominately basalt soil series (Neika, Gelderman, Ritner) that are characterized by their low water capacity, slow permeability, and moderate erosion level. The Chehalem Mountains have a combination of Columbia River basalt, ocean sedimentation, and wind-blown loess derivation soil types. The Red Hills contain soil mainly derived from Columbia River basalt lavas (largely based on the Jory series), which are moderately fertile and well drained, with slight to moderate erosion levels.

The petition documentation also states the Ribbon Ridge area, which is immediately east of the proposed district, also contains primarily sedimentary soils. However, these were formed in the Oligocene Era and are younger, finer, and more uniform than the sedimentary soils of the proposed Yamhill-Carlton District.

Elevation

The petitioner defines the proposed Yamhill-Carlton District viticultural area as lands, within the proposed boundaries, that are at or above 200 feet in elevation and at or below 1,000 feet in elevation. The petitioner justifies the bracketed elevation with the following information. The floor of the proposed region is comprised of fine-grained soils deposited as a result of the Missoula floods, which occurred 12,000 years ago. These soils, identified as Willamette silts, occur at elevations below 200 feet and have greater depth, fertility, and water-holding capacity than soils of the proposed viticultural area. The fertility and water-holding capacity of these low soils extends the vegetative period of the vine and delays the ripening of vines planted in this area. Further, low elevation areas are also prone to frost. Conversely, areas within the proposed area with elevations greater than 1,000 feet are significantly cooler and lack necessary heat units required to properly ripen