

### 3.3 TREES AND VEGETATION

This section describes existing trees and vegetation on the site, and evaluates potential impacts from development under the Proposed Action and alternatives. Information on existing vegetation on the site is based on the November 2004 Site Reconnaissance Report prepared by Talasaea Consultants, Inc. and the March 2006 Tree Inventory/Forester's Report prepared by Washington Forestry Consultants (see **Appendix F**); the discussion of impacts following development is based on the proposed landscape plan (see **Figures 2-18** and **2-19**) and the proposed tree retention plan (see **Figures 3.3-1** and **3.3-2**).

#### 3.3.1 Affected Environment

Information on existing site conditions is based on a site reconnaissance performed in November 2004, and review of National Wetland Inventory and Thurston County Soils Survey maps.

##### **Existing Vegetation**

Approximately half of the approximately 21-acre site is forested with trees, including Douglas fir, black cottonwood, Oregon white oak and maple trees (see the Site Reconnaissance Report in **Appendix F** for further detail). Recent site investigations found a total of 434 trees on the site (the Tumwater Municipal Code defines trees as having a diameter of six inches or more measured four and one-half feet above ground level). Of these, it has been determined that 65 trees on the site are unhealthy; therefore, the total number of healthy trees on the site is 369. The stands of trees located in the northeast and southwest corners of the site were found to be healthy and in good condition. These include several healthy, large-diameter oak trees.

There is evidence that brush on the site has been cleared within the past two to three years. Existing understory vegetation includes some young trees 3 to 10 feet tall that have grown since the recent clearing, as well as Scot's Broom, Himalayan blackberry, black cottonwood saplings, tall Oregon grape, snowberry, Douglas spirea, and herbaceous grasses. Approximately half of the site is currently clear of vegetation. Soils on the site are generally conducive to the growth of healthy native vegetation and trees.

The National Wetlands Inventory Maps (USF&WS) do not show any wetlands or other aquatic features on the site. A small, isolated wetland is shown in the western portion of the site on the Thurston County Geodata web site. No other wetlands or aquatic features are shown on or immediately adjacent to the site on the Geodata web site. During site investigations performed in November 2004, one closed depression was observed in the western portion of the site; however, soils, vegetation and the lack of wetland hydrology indicated that the depression is not a wetland. Therefore, based on site investigations, and review of the USF&WS maps, it was determined that no wetlands or other aquatic features exist on the site (see **Appendix F** for further information).

##### **Tree Retention and Landscaping Regulations**

Tumwater Municipal Code Chapter 16.08 includes regulations governing the protection of trees and shrubs within the City. As stated above, TMC 16.08 defines trees as having a diameter of six inches or more measured four and one-half feet above ground level. Relevant provisions of

the tree and shrub protection regulations applying to the site are described below (see **Section 3.6, Relationship to Existing Plans and Policies**, for further discussion).

On commercial sites with more than 6 existing trees, the City's Code Administrator (Development Services Director) may require review of the site plan by the City's Tree Protection Professional. All land clearing must comply with specific standards unless alternate procedures, equal to or superior in achieving the purpose of this chapter of the Tumwater Municipal Code, are authorized by the Code Administrator (TMC 16.08).

When land clearing is to be performed in conjunction with a specific development proposal, not less than 20 percent of the existing trees, or not less than 12 trees per acre (whichever is greater) shall be retained (TMC 16.08.070). This standard may be waived or modified, and discretionary approval may be granted, if the Code Administrator determines that strict compliance would make reasonable use of the property impracticable. Where the standard is waived or modified, the applicant must plant no less than three trees for each tree cleared in excess of the standard. Replacement trees must be planted on the development site, unless the Code Administrator approves an alternate location. The applicant may contribute a cash payment to the City's Tree Account in an amount equal to 125 percent of the replacement cost (TMC 16.08).

It should be noted that, the City of Tumwater approved retention and replacement scenarios, including the removal and replacement of trees at a 3:1 ratio in lieu of preservation of the greater of 20 percent of trees or 12 trees per acre, for the development of the Costco and Fred Meyer properties in the vicinity of the site. The applicant is seeking a waiver or modification here, similar to that granted for site clearing and vegetation retention for Costco.

Landscaping regulations in the Tumwater Municipal Code (TMC 18.47) establish minimum requirements and standards of landscaping for multifamily residential, commercial, and industrial development. In particular, these regulations are intended to reduce the effects of objectionable activities (such as noise and glare); buffer and screen adjacent properties; enhance the appearance and character of neighborhoods and the city; and, provide shade. There are specific references in this chapter to the types and quantities of landscaping that must be provided in commercial developments and their parking areas (TMC 18.47.050).

### 3.3.2 Impacts

#### **Proposed Action**

Construction of the proposed retail store, gasoline station on the proposed future lease lot, and associated parking and driveway areas would require clearing of approximately 19.2 acres (91 percent) of the approximately 21-acre site; 1.8 acres of the site, including trees that would be retained under the Proposed Action, would not be cleared. The type of vegetation to be cleared would include Scot's Broom, Himalayan blackberry, black cottonwood saplings, tall Oregon grape, snowberry, and Douglas Spirea. The proposed project would comply with applicable standards of the Tumwater Municipal Code (TMC Chapter 16.08) regarding land clearing (see **Section 3.6, Relationship to Existing Plans and Policies**, for further discussion).

The proposed project would require clearing of a majority of the existing trees on the site. The existing 65 unhealthy trees and 324 of the healthy trees would be cleared. With development of

the site under the Proposed Action, 54 of the large diameter trees on the site would be retained (see **Figure 3.3-1**).

Under TMC 16.08, the applicant is required to preserve the greater of 20 percent of trees (20 percent of 434 trees equals 87 trees) or 12 trees per acre (21.5 acres at 12 trees per acre equals 258 trees). Or, in lieu of preservation of 258 trees, and if approved by the Code Administrator, the applicant may preserve fewer trees and replace the remainder that would be required at a 3:1 ratio either onsite or offsite, based on approval of the Code Administrator. The applicant proposes that a waiver be granted by the Code Administrator for the balance of the trees not retained under the proposal.

In addition to the 54 trees that would be retained onsite, 133 trees would be planted onsite as replacement for cleared trees, and planting or funding of an additional 479 trees at a yet to be determined location offsite as part of the City's Tree Fund Program would occur, for a total of 612 trees to be planted (both on and offsite) as replacement for cleared trees. An additional 260 trees would be planted onsite per TMC 18.47 landscaping regulations (i.e., to provide buffers between the site and adjoining properties and interior buffers within parking areas), for a total of 393 trees planted onsite under the Proposed Action; this would be in addition to the 54 trees that would be preserved on the site.

Following development of the site under the Proposed Action, approximately 17.9 acres (85 percent of the site) would be in impervious surfaces (buildings, driveways and parking areas), approximately 1.8 acres in existing vegetation and trees (9 percent of the site) would be preserved, and approximately 1.3 acres (6 percent of the site) would be in landscaped area. The landscape plan for the Proposed Action would include the planting of several large-diameter (25- to 30-foot tall) evergreen trees along the site frontage to create a landscape buffer similar to the Costco property's frontage along Littlerock Road. Similar to the Costco and Fred Meyer projects, several groves of trees would be retained onsite, mainly in the southwest and northeast portions of the site (see **Figures 2-5 and 3.3-1**).

### **Alternative 1**

As described for the Proposed Action, development of Alternative 1 would require clearing of approximately 18.7 acres (90 percent of the site), somewhat less than under the Proposed Action (approximately half the site is currently vegetated). Under Alternative 1, 68 of the existing, healthy, onsite trees would be retained (see **Figure 3.3-2**). Under this alternative, the applicant would propose to meet the provisions of TMC 16.08, which requires preservation of 251 trees on the site or replacement at a 3:1 ratio, by planting 549 new trees both on and offsite, if approved by the Code Administrator, or a monetary contribution (funding of additional plantings offsite) would be made to the City's Tree Account. The required tree preservation would be less than under the Proposed Action, because the site area, 20.9 acres, would be less than the 21.5 acres under the Proposed Action. Of the new trees planted under Alternative 1, 249 would be planted onsite. Per the landscaping regulations in TMC 18.47, an additional 208 trees would be planted onsite, for a total of 457 new trees planted onsite (in addition to the 68 retained trees).

Following development of the site under Alternative 1, approximately 17.9 acres (85 percent of the site) would be in impervious surfaces (buildings, driveways and parking areas), approximately 2.3 acres of existing vegetation and trees (11 percent of the site) would be preserved, and approximately 0.8 acres (4 percent of the site) would be in landscaped area. As

**Figure 3.3-1  
Tree Retention Plan, Proposed Action**

under the Proposed Action, the landscape plan for Alternative 1 would include the planting of several large-diameter (25- to 30-foot tall) evergreen trees along the site frontage to create a landscape buffer similar to the Costco property's frontage along Littlerock Road. Groves of trees would be retained in the southwest and northeast portions of the site under Alternative 1, similar to the Proposed Action and the Costco and Fred Meyer projects (see **Figures 2-8 and 3.3-2**).

### **No Action Alternative**

The No Action Alternative would require no clearing and would not result in any potential for impacts to existing trees and vegetation on the site. However, any future development on the site would likely result in a similar potential for impacts to trees and vegetation as described for the Proposed Action.

#### 3.3.3 Mitigation Measures

- Clearing of vegetation would follow the applicable provisions of the Tumwater Municipal Code and Department of Natural Resources (DNR) Forest Practices Rules.
- A total of 54 healthy, large-diameter trees would be preserved on the site.
- A total of 612 trees would be planted on and offsite, to meet the requirements of TMC 16.08, or a monetary contribution would be made to the City's Tree Account for offsite plantings. (This number would be in addition to trees required based on landscaping regulations in TMC 18.47). Planting and/or funding of trees to meet TMC 16.08 requirements would include 133 replacement trees planted onsite, and planting or funding (through the City's Tree Fund Program) of an additional 479 trees offsite.
- An additional 260 trees would be planted onsite per TMC 18.47 landscaping regulations (i.e., to provide buffers between the site and adjoining properties and interior buffers within parking areas).
- Groves of trees would be retained in the southwest and northeast portions of the site, similar to the Costco and Fred Meyer projects.
- Several large-diameter (25- to 30-foot tall) evergreen trees would be planted along the site frontage to create a landscape buffer along Littlerock Road (see **Figure 2-5**).
- Following development, approximately 1.8 acres of existing vegetation and trees (9 percent of the site) would be preserved, and approximately 1.3 acres (6 percent of the site) would be in landscaped area.

#### 3.3.4 Significant Unavoidable Adverse Impacts

The project would result in clearing of a majority of the vegetation and trees onsite; however, approximately half of the site has already been cleared. Fifty-four (54) healthy, large-diameter trees would be preserved, and tree protection provisions of the Tumwater Municipal Code would

**Figure 3.3-2  
Tree Retention Plan, Alternative 1**

be met through the planting of 612 new trees both on and offsite at approved locations, to include several large-diameter (25- to 30-foot tall) evergreen trees on the site, or through a monetary contribution to the City's Tree Account. Therefore, with implementation of mitigation measures, no significant unavoidable adverse impacts would result.