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# Chapter 14

## Recreation

### 14.1 Introduction

This chapter addresses the affected environment, impacts to the environment, mitigation measures, and significant unavoidable adverse impacts related to recreation associated with the various Brightwater Regional Wastewater Treatment System Alternatives.

A summary matrix that presents impacts and mitigation measures is provided in the Summary of Impacts and Mitigation section at the end of this chapter. Please note that all references and figures cited within Chapter 14 can be found at the end of the chapter.

#### 14.1.1 Overview of the Chapter

This chapter presents proposed treatment plant sites, conveyance corridors, and outfall zones as complete systems under the separate Route 9 and Unocal System discussions.

The conveyance corridor discussion has been modified to correspond with analysis that has provided specific candidate portal sites along each conveyance corridor. Only recreational facilities associated with identified candidate sites at either primary or secondary portal siting areas are discussed. As discussed in Chapter 3, secondary portals are not expected to be used based on current information and engineering; however, it may prove necessary to use one or more secondary portals along the proposed conveyance corridors. A decision on the need for secondary portals will not be made until the final design stage, at which time appropriate environmental review would be conducted.

Text has been added throughout this chapter to address comments received in response to the Draft EIS. Comments on the recreation chapter of the Draft EIS generally included the following:

- Concern about impacts to City of Edmonds parks, particularly Marina Beach Park and the associated dog park near the Unocal site, during and after construction
- Concern about impacts to the Bear Creek Grange and proposed Little Bear Creek Linear Park System near the Route 9 site
- Need to evaluate construction impacts (e.g., noise) effect on nearby recreational facilities along the conveyance corridors
- The level of mitigation King County would provide to recreational facilities that are impacted should be described

Information presented in this chapter details which recreational facilities near or within the treatment plant sites, conveyance corridor portal siting areas, and outfall zones may be impacted during and after construction based on further analysis conducted by King County since the issuance of the Draft EIS.

## 14.2 Affected Environment

Only those parks, open space areas, and the areas within them that potentially could be affected by surface construction at the treatment plant sites, conveyance portal locations, or outfall areas are discussed in this chapter.

For all of the conveyance alternatives, 1,000-foot-wide conveyance corridors and 72-acre portal siting areas were identified. Since the issuance of the Draft EIS, as discussed in Chapter 3, portals have now been characterized as either primary or secondary portals and specific candidate sites have been identified in each portal siting area. Although a park or open space area may be included within a candidate portal site, most recreational areas would not be affected along the conveyance corridor. A majority of the pipelines would be installed in deep underground tunnels, with minimal to no impact at the surface. Where surface construction is needed for pipelines, a 40-foot-wide construction zone would be required, and this would generally follow public rights-of-way, when possible.

In most cases, where a surface structure such as an odor control facility, dechlorination facility, or pump station (described in Chapter 3) is proposed at a primary portal in a park or open space area, a minimum of one to two acres could be impacted during portal construction. Some of the portal sites could be restored to pre-construction conditions, with a concrete pad as small as 10 by 10 feet at the completion of construction. Other areas may contain an above-ground structure for housing odor control equipment (approximately 1,400 to 4,400 square feet) and/or dechlorination facility (1,200 square feet). The greatest potential impact to recreational areas would occur if King County requires the use of an entire property during construction that is currently occupied by recreational facilities. However, this is not likely to occur.

Recreational resources and uses near the alternative outfall zones were identified through field surveys and telephone interviews during 2000–2002 (King County 2001b, 2002). Local parks and recreation departments near outfall Zones 6 and 7S were contacted to identify the areas where people visit and recreate. In addition, a year-long survey of recreational activities was conducted along the shoreline near the alternative outfall zones. This survey consisted of interviews with people encountered at various recreational sites (King County, 2002).

## 14.2.1 Affected Environment Common to All Systems

### 14.2.1.1 Regulatory Environment Common to All Systems

Recreational resources within the area that could be affected by the Brightwater project are managed by local governments as well as by private non-profit and for-profit organizations. Comprehensive plans and municipal and development codes of local governments provide the regulatory framework for the development and management of public park and recreational services and facilities.

Park and recreation elements of city and county comprehensive plans assess existing conditions, identify needs for parks, facilities, and programs, and establish level-of-service standards and implementation strategies to meet those needs.

Information about existing recreational facilities and activities in the vicinity of the alternative treatment plant sites, along conveyance corridors, and near the outfall zones was gathered from county and city comprehensive land use plans, zoning codes, comprehensive park plans, geographic information systems, local government Web sites, and limited field visits. The inventory included golf courses, trails, developed parks, and potential park and open space areas although some of these types of land use may not have been specifically designated as a park or recreation facility by the local jurisdiction.

### 14.2.1.2 Outfall Zones

The existing recreational facilities located near the alternative outfall zones consist of several parks located in the areas from Point Wells to the Edmonds Terminal. The most frequently used recreational area is just north of outfall Zone 6. This area includes parks along the Edmonds shoreline, such as Olympic Beach Park, Marina Beach Park, Brackett's Landing Beach, Edmonds Fishing Pier and Edmonds Underwater Park.

King County conducted a year-long survey to identify human recreational patterns along the Puget Sound shoreline within the Brightwater outfall siting area. During this survey, numerous site visits were made to public shorelines between Mukilteo and Seattle during spring, summer, fall, and winter months. Each site was visited between 38 and 54 times throughout the year. The number of people using each site was counted during one-hour site visits. Site visits were conducted between 6 am and 8 pm. Marina Beach Park and the nearby Edmonds Fishing Pier averaged the highest use, at approximately 29 people per one-hour survey count. The Olympic Beach Park locations averaged approximately 20 people per one-hour survey count.

Recreational activities in areas near both outfall zones include boating, fishing, picnicking, running, shellfish harvesting, swimming, and walking. The ten most popular activities, in order of frequency of observation, were sitting on the beach, walking/hiking on the beach, fishing from the shore or pier, digging in the sand, picnicking, wading, SCUBA diving, fishing from a boat, and motorized boating. Sitting or walking on the

beach and fishing were the most frequently observed activities at all of the sites visited. A comparison of all activities by season shows that the highest average number of people observed occurred during the summer months (King County, 2001b, 2002).

## **14.2.2 Affected Environment: Route 9 System**

### **14.2.2.1 Treatment Plant: Route 9**

The Bear Creek Grange Hall, located in the center of the site near the 228th Street SE intersection, is the only recreational feature that lies within the boundaries of the Route 9 site. Community members use the Grange Hall for numerous activities including dance sessions, community meetings, concerts, and workshops.

### **Existing Parks, Recreation Areas and Open Space in the Vicinity of the Route 9 Site**

The only recreational facility within close proximity of the Route 9 site is the Wellington Hills Golf Course, an 80.6-acre public golf course located approximately 1,000 feet southeast of the site in unincorporated Snohomish County (Figure 14-1). The City of Woodinville, in association with adjacent jurisdictions, is proposing to conserve or acquire a portion of the golf course in an effort to preserve the wooded hillsides along the west and north boundaries of the course for wildlife habitat and an open space buffer. Other improvements within the conservation areas may include access trails, viewpoints, and picnic facilities. Upland areas within the site may be developed into athletic fields, a golf driving range, and other active-use recreational activities (Woodinville, 1998).

No Snohomish County parks lie within one mile of the proposed Route 9 site. Parks to the west and southeast of the site are managed by individual municipalities. The majority of the parks managed by Snohomish County are located north of the Route 9 site near Mill Creek, Everett, and Lake Stevens. Currently, 24 combination parks (sites with one or more regional attraction) and community parks (active-use parks providing community activities and recreational opportunities) are located throughout unincorporated Snohomish County; this provides approximately one park for every 13,000 residents. Snohomish County analyzed the capacity of existing parks and determined they would be adequate to serve the population through 2012 (Snohomish County 1994 and updates).

### **Proposed Parks, Recreation Areas, and Open Space in the Vicinity of the Route 9 Site**

According to the City of Woodinville *Park, Recreation and Open Space Plan* (1998), the City plans to develop three trails within the vicinity of the Route 9 treatment plant site. Figure 14-1 shows the three proposed trail locations. The trails include a 15.0 mile Class 3 hiking trail along the existing Burlington Northern Santa Fe (BNSF) Railroad paralleling the eastern border of the site; a Class 2 or 3 trail that will extend along the Little Bear Creek corridor to the west of the site; and a Class 2 or 3 walking trail that would extend south of the Wellington Hills Golf Course and eventually connect with the Sammamish River Trail. Generally, walking and hiking trails categorized as Classes 2 through 5 provide 2-way travel on a crushed rock, bark or compacted dirt base varying between 2 and 5 feet in width. Class 2 to 3 trail segments are handicap accessible and usable by all age and skill groups (City of Woodinville, 1998).

According to the City of Woodinville's adopted *2004–2009 Capital Improvement Plan* (Woodinville, 2003a), funding will be allocated toward the design and construction phase of the Seattle, Lake Shore and Eastern Railroad (SLS&E) trail, which follows the existing BNSF railroad, between 2005 and 2009. Funding is not allocated toward the proposed Little Bear Creek Trail Corridor or the Neighborhood Trail System (which extends south of Wellington Hills Golf Course) in the *2004–2009 Capital Improvement Plan* (Woodinville, 2003a).

In addition, the City of Woodinville plans to purchase parcels of land along Little Bear Creek approximately one mile south of the Route 9 site as part of the Little Bear Creek Linear Park. The park would be a passive-use park that would provide trailheads, interpretive facilities, and habitat conservation and enhancement (Woodinville, 2003b). The proposed Little Bear Creek Linear Park is the feature nearest to the Route 9 site in the City of Woodinville, with the remainder of the proposed development associated with the Downtown–Little Bear Creek Master Plan bounded by SR-522 to the west, NE 171st to the south, and Woodinville–Duvall Road to the east. Funding has been allocated for the construction of the Little Bear Creek Linear Park in 2004 through 2009 (Woodinville, 2003a). Figure 14-1 shows the location of the Little Bear Creek Linear Park.

The Washington Department of Transportation is currently planning improvements along SR-9, directly adjacent to the Route 9 site that would include road widening (see Chapter 16). After completion of the project, the SR-9 shoulder would be designated as a Class IV Bikeway (see Chapter 16). Class IV Bikeways are roadways that are publicly maintained and accessible to bicyclists; however, they are not designated with signs or pavement markings (Huber, personal communication, 2002).

#### **14.2.2.2 Conveyance: Route 9**

Two alternative corridors are being considered for the Route 9 conveyance system: the Route 9–195th Street corridor and the Route 9–228th Street corridor. Both corridors include the same influent corridor. The corridors pass through Woodinville, Bothell,

Kenmore, Lake Forest Park, Brier, Mountlake Terrace, Shoreline, Edmonds, Woodway, and unincorporated King and Snohomish Counties.

The following discussion summarizes recreational facilities within primary and secondary portal siting areas. The number of parks and types of usage vary along each of the Route 9 corridors (Figure 14-1).

### **Route 9–195th Street Corridor**

#### ***Existing Parks, Recreation Areas, and Open Space in the Vicinity of the Route 9 – 195th Street Corridor***

Five recreational and open space areas and a regional trail lie within portal siting areas along the Route 9–195th Street corridor. The parks and recreational field areas occupy a total of 142 acres. Only those recreational facilities that lie within candidate sites in primary portal siting areas are discussed below.

The Burke-Gilman/Sammamish River Trail is a regional trail maintained by the King County Department of Natural Resources and Parks (DNRP). It generally extends parallel to SR-522 from SR-104/Ballinger Way NE to I-405 in the project vicinity and is located near candidate portal sites in Portal Siting Area 11. The Burke-Gilman Trail extends from the Fremont neighborhood in Seattle around the northern portion of Lake Washington to Marymoor Park in Redmond. Blyth Park, a popular park with picnic areas located at the northern end of Lake Washington in Bothell, is generally considered the location where the Burke-Gilman Trail turns into the Sammamish River Trail as it continues east. This popular trail is used for walking, jogging, bicycling, and rollerblading.

#### ***Primary Portal Siting Areas***

Primary portal siting areas along the Route 9–195th Street corridor include Portal Siting Areas 5, 11, 19, 41, and 44. Existing recreational opportunities fall within two of the five primary portal siting areas along the Route 9–195th Street corridor as discussed in detail below. Table 14-1 identifies recreational facilities associated with candidate sites in the primary portal siting areas along the Route 9–195th Street Corridor. The above-ground structures associated with odor control are proposed at primary Portal Siting Areas 11 and 41.

**Table 14-1. Parks and Recreational Facilities in or Adjacent to Primary Candidate Portal Sites on the 195th Street Corridor**

Portal Siting Area	Proposed Aboveground Structures	Recreational Facility	Owner	Within Primary Candidate Portal Site?	Amenities
11	Odor Control & Electrical	Burke-Gilman Trail	King County DNRP	No	High-use regional trail
41	Odor Control & Electrical	North Creek Sportsfields	Bothell	Yes - Site 41D	Baseball/softball and soccer fields

**Portal Siting Area 11.** The Burke-Gilman Trail passes through Portal Siting Area 11. Candidate Site 11A, one of the three candidate portal sites within this portal siting area, lies directly adjacent to the trail corridor.

**Portal Siting Area 41.** One of the natural turf baseball/softball/soccer fields associated with the North Creek Sportsfields complex was identified as a candidate portal site (Site 41D). The field occupies approximately 4.6 acres. A synthetic turf field used for baseball, softball, and soccer fields, also part of the North Creek Sportsfield complex, is located directly west of the proposed candidate portal site.

#### *Secondary Portal Siting Areas*

Along the Route 9–195th Street corridor, secondary Portal Siting Areas include 7, 23, 27, and 45. As has been noted, based on current engineering, secondary portals are not likely to be needed for Brightwater construction. Table 14-2 identifies recreational facilities associated with the candidate portal sites in the secondary portal siting areas along the Route 9–195th Street corridor. With the exception of Portal Siting Area 23, if construction of secondary portals is required, each of the secondary portals along the Route 9–195th Street corridor would have the potential to affect recreational areas. This will depend on the final selection of the portal site in the portal siting areas described below, if secondary portal sites are determined to be needed. As previously noted, secondary portal sites would require a maximum of one-half acre and would have a shorter construction duration (up to six months) than primary portals. If any secondary portals are required during construction, efforts would be made to place the portal in a way to minimize impacts to recreational facilities.

**Table 14-2. Parks and Recreational Facilities in or Adjacent to Secondary Candidate Portal Sites on the 195th Street Corridor**

Portal Siting Area	Proposed Aboveground Structures	Recreational Facility	Owner	Within Secondary Candidate Portal Site	Amenities
7	None	Aldercrest Learning Center	Shoreline School District	Yes – Site 7A	Baseball/softball field and track
	None	Bruggers Bog Park	Shoreline	Yes – Site 7C	Playground, trails, and picnic areas
27	None	Nile Temple Golf Course	Privately owned	Yes – Site 27A	18-hole public golf course
45	None	Linwood Park	Kenmore	No	Playground, picnic facilities, open field area

**Portal Siting Area 7.** A portion of the Aldercrest Learning Center in the City of Shoreline has been designated as Secondary Portal Candidate Site 7A. Bruggers Bog Park, located within the City of Shoreline planning area, is considered as Secondary Portal Candidate Site 7C. The public park includes a children’s playground area, picnic tables, and trails. Lyon Creek flows through the undeveloped portion of this park.

**Portal Siting Area 27.** A portion of the Nile Temple Golf Course has been identified as Secondary Portal Candidate Site 27A within secondary Portal Siting Area 27. Nile Temple Golf Course is a privately owned, 18-hole golf course located in the City of Mountlake Terrace.

**Portal Siting Area 45.** Secondary Portal Candidate Site 45D within secondary Portal Siting Area 45 is located directly adjacent to the three-acre Linwood Park in the City of Kenmore.

#### ***Portal 41 Influent Pump Station Option***

The affected environment for the Route 9–195th Street Corridor IPS Option is the same as that described for the portal at PSA 41. As described, Candidate Site 41D is currently occupied by one of the North Creek Sportsfields.

#### ***Proposed Parks, Recreation Areas and Open Space in the Vicinity of the Route 9–195th Street Corridor***

No proposed parks or open spaces lie within portal siting areas along the Route 9–195th Street corridor.

## Route 9–228th Street Corridor

### *Existing Parks, Recreation Areas, and Open Space in the Vicinity of the Route 9 – 228th Street Corridor*

The Route 9–228th Street corridor could directly impact a portion of three existing recreational facilities. Brier Park, Terrace Creek Park, Mountlake Terrace Recreation Pavilion, in addition to Wallace Swamp Creek Park, the Burke-Gilman/Sammamish River Trail, and proposed Little Bear Creek Linear Park as previously discussed under the Route 9–195th Street corridor, are recreational areas that are located along the pipeline corridor but would not be affected by tunnel construction.

A portion of Poplar Ravine, a proposed City of Brier natural open space area, falls within primary Portal Siting Area 33; however, the specific location and acreage of this open space area has yet to be determined.

### *Primary Portal Siting Areas*

Primary portals along the Route 9–228th Street corridor include Portal Siting Areas 11, 19, 26, 33, 39, 41, and 44. Table 14-3 identifies recreational facilities associated within the candidate sites in the primary portal siting areas along the Route 9–228th Street corridor. Two recreational facilities that fall within the primary portal siting areas along the Route 9–228 Street corridor have been identified as candidate portal sites. A dechlorination facility and odor control is proposed in primary Portal Siting Area 26 and would be located aboveground. In addition, a proposed park in Brier and the Burke-Gilman Trail in Kenmore could be indirectly affected by portal construction depending on the portal site selected.

**Portal Siting Area 11.** Please refer to the Portal Siting Area 11 discussion for the Route 9–195th Street corridor.

**Portal Siting Area 26.** Approximately three acres within the Ballinger Playfield in Portal Siting Area 26 has been selected as a candidate portal site. Tennis courts and a grass playfield area associated with a baseball/softball infield at this Mountlake Terrace Park currently occupy the site.

**Portal Siting Area 33.** Since all of the proposed candidate portal sites within Portal Siting Area 33 are on relatively flat parcels, the proposed Poplar Ravine is not a candidate portal site. However, the Poplar Ravine could lie within close proximity of the selected portal site.

**Portal Siting Area 41.** Please refer to the Portal Siting Area 41 discussion in the Route 9–195th Street corridor discussion above.

**Table 14-3. Parks and Recreational Facilities in or Adjacent to Primary Candidate Portal Sites on the 228th Street Corridor**

Portal Siting Area	Proposed Aboveground Structures	Recreational Facility	Owner	Within Primary Candidate Portal Site	Amenities
11	Odor Control & Electrical	Burke-Gilman Trail	King County DNRP	No; adjacent to 11A	High-use regional trail
26	Odor Control, Electrical & Dechlorination Facility	Ballinger Playfield	Mountlake Terrace	Yes – Site 26A	Picnic areas, playground, playfield, and tennis courts
33	None	Poplar Ravine (proposed)	Brier	No; adjacent to Poplar Ravine	City of Brier proposed open space area with wooded slopes and ravines
41	Odor Control & Electrical	North Creek Sportsfields	Bothell	Yes – Site 41D	Baseball/softball and soccer fields

*Secondary Portal Siting Areas*

Secondary portals along the Route 9–228th Street corridor include Portal Siting Areas 22, 24, 30, and 37. As previously noted, secondary portals are not anticipated to be needed based on current engineering information. Table 14-4 identifies recreational facilities associated with the candidate sites in the secondary portal siting areas along the Route 9–228th Street corridor. A sportsfield associated with Brier Elementary School is the only recreational facility that has the potential to be affected depending on determination of need for secondary portal sites associated with the Route 9–228th Street corridor.

**Table 14-4. Parks and Recreational Facilities in or Adjacent to Secondary Candidate Portal Sites on the 228th Street Corridor**

Portal Siting Area	Proposed Aboveground Structures	Recreational Facility	Owner	Within Secondary Candidate Portal Site?	Amenities
30	None	Brier Elementary School Playfield	Brier Elementary School	Yes – Site 30A	Natural grass playfield area, tennis courts, running track

**Portal Siting Area 30.** A portion of the Brier Elementary School Playfield has been selected as Secondary Portal Candidate Site 30A. A dirt baseball/softball field with a natural grass outfield, tennis courts, and a portion of a running track currently occupy the area of the site that could be used as a secondary portal site.

#### ***Portal 41 Influent Pump Station Option***

The affected environment for the Route 9–228th Street Corridor IPS Option is the same as that described for Route 9–195th Street Corridor IPS Option.

#### ***Proposed Parks, Recreation Areas and Open Space in the Vicinity of the Route 9–228th Street Corridor***

Potential open space areas listed in the City of Edmonds' *Park, Recreation, and Open Space Comprehensive Plan* (Edmonds, 2001) and the City of Brier *2000 Comprehensive Plan Update* (2000) along the Route 9 conveyance corridors are primarily located along SR-104 in Edmonds and near Swamp Creek in unincorporated Snohomish County. As stated above, the 228th Street Effluent Corridor falls within the vicinity of proposed Poplar Ravine (Figure 14-1). No proposed parks or open spaces would be affected by the Route 9–228th Street corridor.

### **14.2.2.3 Outfall: Route 9**

Outfall Zone 7S is located offshore of Point Wells. The shoreline area in this zone is primarily private property with limited public access. The closest public boat launches are located at the Edmonds Marina and at the Shilshole Bay Marina in North Seattle. Richmond Beach Park lies 0.75 miles south of Point Wells in the City of Shoreline in King County. Activities in this park, which provides beach access, include picnicking, running, shellfish harvesting, swimming, walking, and other beach-related activities (King County, 2002). Boating, fishing, and SCUBA diving occur infrequently in this area due to the lack of a boat launch or fishing pier; however, people may visit this area by boat.

## **14.2.3 Affected Environment: Unocal System**

### **14.2.3.1 Treatment Plant: Unocal**

The Unocal site was formerly occupied by an industrial facility. The portion of the Unocal property east of the BSNF railroad tracks is fenced from general public access, and no recreational facilities are located within the fenced area. However, approximately four acres of the City of Edmonds Marina Beach Park, a 4.5-acre active use park, is located within the Unocal property west of the BNSF railroad tracks. Unocal Corporation had leased Marina Beach Park to the City of Edmonds until December 2001, at which time the City purchased approximately five acres of Puget Sound shoreline, which

included the park. Amenities include a picnic area, children's play area, water access, an off-leash dog area, and a City of Edmonds designated Marine Protected Area (MPA) (JC Draggoo/MIG Inc., 2001). MPAs are areas of intertidal or subtidal terrain, together with their overlying water and associated flora, fauna, historical and cultural features that have been reserved by law or other means to protect or manage species, habitats, and ecosystems (Murray and Ferguson, 1998). Different levels of protection, access, and use are associated with different MPAs. The MPA associated with Marina Beach Park is permitted for human access; however, consumptive uses are not allowed.

Two new zoning designations added to the City of Edmonds Municipal Code, Master Plan Hillside Mixed Use 1 and 2 (MP1 and MP2), have been applied to the Unocal site; these designations regulate types of development permitted onsite. Both of these rezones provide for a variety of uses, including the development of parks. See Chapter 11 for a discussion of the policies associated with the rezoned areas.

### **Existing Parks, Recreation Areas, and Open Space in the Vicinity of the Unocal Site**

Recreational opportunities in the vicinity of the Unocal site focus on: (1) the Puget Sound shoreline; (2) offshore, in-water use of Puget Sound; (3) passive recreational activities and active sports activities at Edmonds City Park; and (4) passive recreational opportunities in the form of bird watching and wildlife observation at the Edmonds Marsh.

Four parks are located directly adjacent to the Unocal site: the Edmonds Marsh, Edmonds Fishing Pier, and Edmonds City Park are owned by the City of Edmonds (Edmonds, 2001), and Olympic View Park is owned by the Town of Woodway (2000a). Edmonds Marsh, a 23.2-acre natural open-space area directly north of the Unocal site, is a passive use park offering trails through a natural wildlife and wetland environment. Edmonds City Park, a 14.5-acre community park located approximately 200 feet across SR-104 from the Unocal site, is used frequently for community events, concerts, picnic rentals, and sports activities throughout the year.

Olympic View Park, an approximately 10-acre undeveloped park located in the Town of Woodway, is within 50 feet of the Unocal site boundary. The park extends along both sides of the BNSF railroad for approximately 1,300 feet south of the Edmonds/Woodway city limits. Access to the park is through the City of Edmonds to the north.

The Port of Edmonds Marina, located west of the Unocal site, is the primary business focus for the Port of Edmonds. The marina extends 500 feet west of the Puget Sound shoreline and is dredged to a depth of minus 13 feet. The marina provides 1,029 slips, which includes 300 dry storage spaces and 729 wet moorage slips. Ninety-nine percent of the available slips were occupied in 2000. In addition to the marina, a fuel dock and boat workyard are located within the marina property (Port of Edmonds, 2002).

Edmonds Fishing Pier is a one-acre fishing pier designated as a park by the city that provides a public saltwater fishing pier, restroom, and interpretive signage. This regional facility serves sports fishing needs in the area during squid and salmon seasons. The park was acquired and constructed through a partnership with the Port of Edmonds, Washington State Department of Fish and Wildlife, and the City of Edmonds.

Shoreline and offshore activities near the Unocal site are discussed in the section of this chapter titled Affected Environment: Unocal Outfall.

### **Proposed Parks, Recreation Areas, and Open Space in the Vicinity of the Unocal Site**

The City of Edmonds proposes to add or improve two special use and two open space areas within one mile of the Unocal Site between the years 2002 and 2007. The two special use areas are the 1.2-acre Deer Creek Hatchery site and 10 acres within the Unocal site. The Deer Creek Hatchery property, owned by Unocal and leased to the Edmonds Laebugten Salmon Chapter of Washington Council of Trout Unlimited, is listed as a high priority open space project in the Edmonds' *Parks, Recreation and Open Space Comprehensive Plan* (Edmonds, 2001). The City of Edmonds plans to develop an interpretive center at the hatchery. The City also is proposing that at least 10 acres within the Unocal site be preserved as a special use area that would include park amenities in any future development; the specific location of the 10-acre special use area on the Unocal site has not been determined.

The two proposed open space areas are the nine-acre SR-104 wetlands, located east of the Unocal site, and the three-acre Willow Creek site, located northwest of Willow Creek Park. The City proposes to continue open space habitat protection at the SR-104 Wetlands and acquire a continuous open space corridor between the SR-104 Wetlands and Willow Creek Park (Edmonds, 2001).

Based on an evaluation of park and recreation facilities included in the City of Edmonds *Parks, Recreation, and Open Space Comprehensive Plan* (Edmonds, 2001), Edmonds does not have enough acreage to satisfy year 2010 demands for neighborhood, community, lineal, and regional parks; special use areas; natural open space; gateways/entrance features; and beautification areas. The City of Edmonds also does not have enough baseball, softball, and soccer fields; indoor pools; or pathways and trails to meet year 2010 demands.

#### **14.2.3.2 Conveyance: Unocal**

The Unocal corridor passes through the cities of Bothell, Kenmore, Lake Forest Park, Mountlake Terrace, Shoreline, Edmonds, the Town of Woodway, and unincorporated areas of King and Snohomish Counties.

## Existing Parks, Recreation Areas, and Open Space in the Vicinity of the Unocal Corridor

The Unocal corridor could potentially directly affect one active-use public park (North Creek Sportsfields) in the City of Bothell and a playfield associated with the Aldercrest Learning Center in the City of Shoreline. In addition, the Burke-Gilman/Sammamish River Trail lies within Unocal corridor Portal Siting Areas 11 and 13. Above-ground structures associated with the Brightwater System are proposed along the Unocal corridor only in portal siting areas.

### *Primary Portal Siting Areas*

Primary portals along the Unocal corridor include Portal Siting Areas 3, 7, 11, and 14. Table 14-5 identifies recreational facilities associated with the candidate sites in the primary portal siting areas along the Unocal corridor. With the exception of Portal Siting Area 3, recreational areas fall within close proximity to candidate portal sites in each of the primary portals along the Unocal corridor. Recreational facilities in Portal Siting Areas 7 and 14 are included in designated primary candidate portal sites.

**Table 14-5. Parks and Recreational Facilities in or Adjacent to Primary Candidate Portal Sites on the Unocal Corridor**

Portal Siting Area	Proposed Aboveground Structures	Recreational Facility	Owner	Within Primary Candidate Portal Site?	Amenities
7	Odor Control & Electrical	Bruggers Bog Park	Shoreline	Yes—Site 7C	Playground, trails, and picnic areas
		Aldercrest Learning Center	Shoreline School District	Yes—Site 7A	Baseball/softball field and track
11	Odor Control, Electrical & New Pump Station	Burke-Gilman Trail	King County DNRP	No; adjacent to 11A	High-use regional trail
14	Odor Control & Electrical	North Creek Sportsfields	Bothell	Yes—Sites 14A and 14B *	Natural grass baseball, softball, and soccer fields

\*Two separate sportsfields within the North Creek Sportsfields complex, each occupying approximately four acres, have been designated as separate candidate portal sites.

**Portal Siting Area 7.** Refer to the previous Portal Siting Area 7 discussion under the Route 9–195th Street Corridor discussion for a description of recreational facilities at this Portal Siting Area.

**Portal Siting Area 11.** Refer to the previous Portal Siting Area 11 discussion under the Route 9–195th Street Corridor discussion for a description of recreational facilities at or near this Portal Siting Area. A new pump station and associated facilities (odor control,

substation, standby power) would be constructed at Portal Siting Area 11 for the Unocal System.

**Portal Siting Area 14.** Two separate natural grass turf athletic fields associated with the North Creek Sportsfields complex in Bothell are proposed as Candidate Sites 14A and 14B within Portal Siting Area 14. Each field is used as a soccer or baseball/softball facility depending on the athletic season. The athletic fields occupy approximately four acres each and accommodate both youth and adult practices and games throughout the year.

**Secondary Portal Siting Areas**

None of the candidate sites identified as secondary portals along the Unocal corridor include recreational facilities; however, the Burke-Gilman/Sammamish River Trail lies adjacent to candidate portal sites as indicated in Table 14-6 and discussed below. As previously mentioned, secondary portals are not expected to be used.

**Table 14-6. Parks and Recreational Facilities in or Adjacent to Secondary Candidate Portal Sites on the Unocal Corridor**

Portal Siting Area	Proposed Aboveground Structures	Recreational Facility	Owner	Within Secondary Candidate Portal Site?	Amenities
13	None	Park at Bothell Landing	Bothell	No	Waterfront access to the Sammamish River, historical buildings, amphitheater, picnic tables, and playground
	None	Sammamish River Park	Bothell	No	Trail, picnic tables, access to the Sammamish River Trail
	None	Sammamish River Trail	King County DNRP	No	High use regional trail

**Portal Siting Area 13.** Secondary Portal Candidate Sites 13A and 13B in secondary Portal Siting Area 13 are located adjacent to the Sammamish River Trail.

**Proposed Parks and Open Space in the Vicinity of the Unocal Corridor**

No parks or recreational facilities are currently proposed along the Unocal corridor.

**14.2.3.3 Outfall: Unocal**

Zone 6 is located just south of the Edmonds Ferry Terminal and Edmonds Marina. Recreational areas near Zone 6 include Olympic Beach, Brackett’s Landing Beach,

Edmonds Fishing Pier, Edmonds Marina, Marina Beach Park, and the Edmonds Underwater Park. According to information collected during the field and telephone interviews, these areas attract a large number of recreational visitors (King County, 2001b, 2002).

Recreational activities in this area include boating, fishing, picnicking, running, SCUBA diving, shellfish harvesting, swimming, walking, and other beach-related activities at the facilities listed above (King County, 2002). Scuba divers use the Edmonds Underwater Park and the area near the Edmonds Beach Marina Dock, which extends into Puget Sound just south of the marina, from Marina Beach Park. In addition, the Edmonds Beach Rangers lead educational classes on the shorelines with large groups of visitors. Zone 6 has more designated recreational facilities and a greater number of visitors than does Zone 7S—an observation supported by the results of a year-long survey of recreational users in the shoreline areas between Mukilteo and Seattle, which found that the Edmonds shoreline area averaged higher numbers of recreational users compared to the Point Wells shoreline adjacent to Zone 7S.

## 14.3 Impacts and Mitigation

Recreational facilities could be directly or indirectly affected by the construction of wastewater facilities. Direct impacts would result if proposed treatment, conveyance, or outfall facilities physically infringe upon recreational facilities. Indirect impacts would occur during construction if roadways providing access to recreational facilities are disrupted or if noise, dust, or construction light and glare affect the users' experience at existing recreational facilities.

The analysis of impacts from construction and operation of the Brightwater facilities is based on information about existing recreational facilities and activities in the vicinity of the identified treatment plant sites, candidate portal sites, and outfall zones.

### 14.3.1 Impacts and Mitigation Common to All Systems

#### 14.3.1.1 Treatment Plant Impacts and Mitigation Common to All Systems

##### Construction Impacts Common to All Systems: Treatment Plant

Both the Route 9 and Unocal treatment plant site boundaries contain community-oriented recreational facilities. The Bear Creek Grange Hall falls within the Route 9 site boundary and Marina Beach Park falls within the Unocal site boundary. As mitigation for the removal of the Bear Creek Grange Hall, King County is assisting in relocating the existing facility. At the Unocal treatment plant site, approximately four acres of Marina Beach Park is located on the Unocal site west of the BNSF railroad tracks. Parks and recreational facilities within the vicinity of the proposed treatment plants would not experience direct impacts as a result of construction or operation of the wastewater treatment plant. However, users of nearby recreational facilities could be subject to temporary indirect impacts from construction activities including increased noise, dust, light and glare from construction vehicles, equipment, and materials. These indirect impacts would likely be intermittent over the course of construction, which is anticipated to last up to 6 years. Traffic congestion could impact parks and recreational features near the proposed treatment plant sites; however, construction vehicle traffic is not expected to cause a major impact to the roadway system (refer to Chapter 16 for a complete discussion of traffic impacts associated with construction).

As a possible mitigation measure, King County could construct a community-oriented building on or near the Brightwater Treatment Plant site designed to accommodate

meetings and programs and serve as an education center. Please refer to Chapter 3 for a complete description of the potential community-oriented building.

### **Operation Impacts Common to All Systems: Treatment Plant**

With the exception of the re-location of the Bear Creek Grange Hall from the Route 9 site, operation of the treatment plant is not anticipated to cause long-term impacts to nearby recreational facilities. Impacts associated with the displacement of the Grange Hall are discussed in more detail under Impacts and Mitigation: Route 9 System.

The Brightwater Treatment Plant would incorporate noise control measures to comply with the local noise ordinance; noise that could indirectly affect adjacent recreational activities is not anticipated. Refer to Chapter 10 for a discussion of noise impacts. Traffic associated with workers' vehicles, biosolids trucks, and delivery trucks traveling to and from the treatment plant would use roadways that are used to access nearby recreational areas. However, this impact to existing traffic conditions would likely be minimal. Refer to Chapter 16 for further discussion of traffic.

### **Proposed Construction Mitigation Common to All Systems: Treatment Plant**

Mitigation techniques that would minimize impacts associated with noise, dust, and traffic would be required at both sites and coordination with all local park and recreation departments would occur as needed. Some of the mitigation measures that would be implemented at either site include public notification of construction hours, utilization of technologically efficient construction equipment that minimizes noise, and notification of impacts to roadways.

To address the impact construction traffic associated with the Brightwater Treatment Plant may have on recreational users in the project area, King County is proposing to develop a transportation management plan with the local jurisdiction. This plan is described in Chapter 16, and would help to minimize construction-related impacts to recreational users.

### **Potential Operation Mitigation Common to All Systems: Treatment Plant**

As potential mitigation, King County would work with the local community at the selected treatment plant location to evaluate the possibility of a community-oriented building to replace lost recreational opportunity at the treatment plant site.

### 14.3.1.2 Conveyance Impacts and Mitigation Common to All Systems

#### Construction Impacts Common to All Systems: Conveyance

For the conveyance corridors, the following discussion summarizes recreational facilities that may be affected by construction within portal siting areas. As previously discussed, primary portals would require construction periods ranging from 1 to 4 years. In contrast, the use of secondary portals along each proposed conveyance corridor is unlikely and depends on additional geotechnical analysis of the selected Brightwater Conveyance System. If secondary portals are required along the selected conveyance corridor, construction activities would impact one-half acre or less. Permanent facilities at the secondary portal siting areas would be limited to a manhole structure; no other above-ground facilities would be required.

Some recreational areas are located within identified candidate portal sites along each of the three proposed conveyance corridors. If a recreational area is included within a selected portal site, impacts could include permanent closure of a portion of the park area, loss of parking spaces, detour of trails, and construction-related traffic delays. Additionally, temporary impacts associated with traffic, noise, and dust from construction activities could affect adjacent recreational areas. Areas where the portals and local connections would be constructed could intermittently close nearby recreational facilities during construction.

Both the Unocal and Route 9 corridors have portal siting areas that could indirectly affect portions of the Burke-Gilman/Sammamish River Trail (traffic, noise, dust) during construction since all three corridors include Portal Siting Area 11 as a primary portal.

#### Operation Impacts Common to All Systems: Conveyance

After the conveyance pipeline is installed, several primary portals would become locations for above-ground facilities. Refer to Chapter 3 for a summary of proposed above-ground permanent facilities within each portal siting area. If a recreational area is selected as a portal site, the site may be landscaped and restored to pre-construction conditions, or it may be converted to new recreational areas minus the area required for any proposed structure. In some primary portal siting areas, King County may desire more than two acres for construction staging; in such a case, the portion of the site not required for a permanent structure could be restored to a recreational use after construction. Refer to Chapter 12 for a description of structures that could be located at various portal sites at the completion of construction and mitigation measures to ensure the new facility would blend into the surrounding environment.

Operation of a portal could reduce or relocate recreational opportunities if a primary portal is constructed in a park or recreational area (Tables 14-1 through 14-6). Some

primary portals may eventually contain above-ground buildings housing ventilation and/or odor control equipment or possibly a dechlorination facility (Portal Siting Areas 5 and 26 for the 195th Street and 228th Street Systems, respectively). All buildings would be designed to match the architecture of the surrounding community.

At the completion of the project no above-ground structures would be located at secondary portals, if secondary portals are used. Should they be needed, typical secondary portals would occupy less than one-half acre and would be designed either as at-grade slabs with secured tunnel access or turned into new recreational areas.

### **Proposed Construction Mitigation Common to All Systems: Conveyance**

Because the proposed portals for both the Route 9 and Unocal corridors would potentially impact nearby recreational facilities, the following mitigation measures would be implemented with the selection of conveyance alternatives for any of the three proposed corridors:

- Choose portal sites to avoid and/or minimize impacts to recreational facilities when feasible.
- Provide public notice of construction dates and routes.
- Establish detour routes, if necessary, for bicycle and pedestrian pathways (including the Burke-Gilman/Sammamish River Trail) that need to be temporarily closed during construction. Prior notices would be given and all disturbed pathways would be restored following construction.
- Coordinate with recreational service providers.
- If construction were required within a park or open space area, incorporate proper site safety and security measures at the construction sites, including perimeter fencing.
- Minimize dust and noise construction impacts (see Chapters 5 and 10).
- Minimize air emissions using construction management practices such as wetting and covering of disturbed soils and shutting off idling equipment (See Chapter 5).
- Temporarily move some recreational activities to another location.
- Minimize storage of heavy equipment and construction materials on park property and promptly remove the equipment after it is no longer needed at a specific location.

### **Proposed Operation Mitigation Common to All Systems: Conveyance**

The following measures would be implemented to mitigate potential impacts associated with the operation of the Brightwater conveyance facilities:

- Design permanent facilities to blend with adjacent properties, including recreational areas. Refer to Chapter 12 for a discussion of visual mitigation measures.
- Implement aesthetic controls including landscape buffers and setbacks and noise control dampers and buffers to reduce intrusiveness of the Brightwater Treatment Plant on surrounding parks and recreational facilities.
- Candidate portal sites without any permanent facilities would be restored to pre-construction condition or converted into new recreational park-like areas based upon input from the local community. Permanent facilities at secondary portals would be limited to an access manhole.
- Replace or relocate recreational facilities or uses that are permanently displaced by a portal or other Brightwater System utility structures. Mitigate portal sites on a case-by-case basis by coordinating with the local community to develop an accepted approach for recreational area enhancement depending upon the proposed long-term use of the portal site.

### **14.3.1.3 Outfall Impacts and Mitigation Common to All Systems**

#### **Construction Impacts Common to All Systems: Outfall**

Construction impacts common to both outfall zones relate to the potential noise, dust, light, and glare impacts associated with onshore and offshore construction activities. See Chapters 10 and 13 for additional discussion of impacts associated with construction activities. Noise and dust generated by heavy equipment could intermittently disrupt the normal recreational patterns of people using the beach, and offshore construction could disrupt recreational boating in the nearshore area.

The degree to which recreational users would experience this disruption would depend in part on the season, as shoreline areas tend to be used more heavily during the summer months. Construction of the outfall could occur for up to 12 months, potentially extending through two summer construction seasons. Construction activities in Zone 6 are likely to be more disruptive to normal recreational patterns than they would be in Zone 7S, since Zone 6 is closer to more highly utilized recreational areas. As construction occurs onshore for Zone 6, the construction zones would be signed and fenced or roped off to keep the public out of the construction area. Following construction near Marina Beach Park, the existing parking lot area and park area impacted by construction would be restored.

### **Operation Impacts Common to All Systems: Outfall**

Operational impacts associated with the outfall and diffuser would be minimal since these facilities would be submerged and underground.

### **Proposed Construction Mitigation Common to All Systems: Outfall**

Noise mitigation measures as described in Chapter 10 will reduce noise-related disruption to shoreline users during outfall construction. Outfall construction will be coordinated with the Coast Guard to minimize impacts to recreational boaters. In addition, as described in Chapter 13, all but essential lights will be turned off daily after construction activities cease and the lights will be aimed toward the site, thereby minimizing impacts to shoreline visitors. The following mitigation measures would be incorporated during outfall construction:

- Clearly mark construction and operation areas to ensure that the public does not enter areas that could be hazardous.
- During construction and operation in Zone 7S, follow local and state regulations to ensure the safety of the public and to minimize access restrictions, noise pollution, and other potential impacts to recreational users and nearby residents.
- Develop temporary access routes to ensure that park and beach access is disrupted as little as possible.
- Additional surveys may be required in unsurveyed portions of outfall zones to identify known and unknown shipwrecks that may be significant.

### **Proposed Operation Mitigation Common to All Systems: Outfall**

In addition, King County will use state-of-the-art BMPs to operate and maintain the outfall and monitor effluent on an ongoing basis to ensure facilities operate at peak efficiency. County staff receive ongoing training relating to all aspects of facility operations. These measures will result in a very low risk of spills or other discharges that could affect recreation in the areas near the treatment plant, conveyance or outfall facilities.

## **14.3.2 Impacts and Mitigation: Route 9 System**

Recreational impacts from treatment plant construction relate to the relocation of the Bear Creek Grange Hall offsite. Potential impacts associated with portal construction would depend upon the location of the final portal site. The siting of portals would attempt to avoid impacts to parks and recreational facilities; however, this may not always be possible. Mitigation measures at portal sites occupied by recreational features would be determined on a case-by-case basis with input from the local community.

### 14.3.2.1 Treatment Plant: Route 9

#### Construction Impacts: Route 9 Treatment Plant

If the Route 9 site is selected for the Brightwater Treatment Plant, the most significant impact to recreational opportunities at the Route 9 site is that the Bear Creek Grange Hall would be permanently removed from the site and relocated. Community meetings, recreational programs, and other activities that are programmed at the Grange Hall would also have to be relocated.

No direct impacts to the Wellington Hills Golf Course or the proposed Little Bear Creek Linear Park are expected to occur as a result of construction at the Route 9 site.

The golf course, located approximately 1,000 feet south of the Route 9 site, is higher in elevation than the Route 9 site and is separated from the Route 9 site by SR-522. Therefore, indirect adverse impacts arising from noise and dust would not be detected by users of the golf course. Although major traffic routes used by construction vehicles (including SR-522 and SR-9) would experience increased traffic volumes as a result of truck trips generated by construction, traffic impacts would not impact roadway levels-of-service (LOS) and would therefore not be great enough to adversely impact golf course users traveling to and from the course.

The Little Bear Creek Linear Park site is located approximately one mile south of the Route 9 site in the City of Woodinville. Treatment plant construction activities are not expected to directly adversely impact the park.

#### Operation Impacts: Route 9 Treatment Plant

There are no anticipated long-term impacts related to Brightwater Treatment Plant operation that would affect recreational facilities in the vicinity of the Route 9 Treatment Plant Site. Noise control methods would be incorporated in the design of the treatment plant; therefore, users of these recreational areas are not expected to detect noise from the treatment plant. Employees at the Brightwater Plant would generate vehicle traffic, though it is not expected to significantly impact recreational facilities, as described in Chapter 16.

#### Proposed Construction Mitigation: Route 9 Treatment Plant

Mitigation associated with construction activities are discussed under Impacts and Mitigation Common to All Systems.

## Potential Operation Mitigation: Route 9 Treatment Plant

King County could develop a community-oriented building on or near the Route 9 site as a potential mitigation option. This facility would be developed in close coordination with the local community to replace and enhance meeting and educational opportunities provided by the Bear Creek Grange Hall. King County would assist in the relocation of the Bear Creek Grange Hall.

### 14.3.2.2 Conveyance: Route 9

#### Route 9–195th Street Corridor

##### *Construction Impacts: Route 9–195th Street Corridor*

Construction of the effluent portion of the Route 9 conveyance corridor would take place in tunnels. The following discussion pertains to construction impacts within the portal siting areas. It should be noted that the influent portion of the corridor would be the same for either the 195th Street corridor or the 228th Street corridor.

Following is a summary of specific construction impacts to recreational facilities within the proposed Route 9–195th Street corridor portal siting areas. Recreational areas are listed based on whether they are located in a primary or secondary portal siting area. As previously stated, impacts are not likely to occur in secondary portal siting areas because these are not likely to be needed.

##### *Primary Portal Siting Areas*

Construction within primary Portal Siting Areas 11 and 41 along the Route 9–195th Street corridor could impact recreational facilities. The degree of impact would depend upon the selection of the portal site, as discussed below.

**Portal Siting Area 11.** Although construction would not cause direct impacts to the Burke-Gilman Trail, construction at Candidate Site 11A, located near the trail, could cause indirect impacts to users of the trail. Trail users may detect dust, noise, light and glare from the nearby construction site. Construction at Portal Siting Area 11 is anticipated to occur over two years. If another candidate site is chosen, these impacts to trail users would not occur.

**Portal Siting Area 41.** Construction at Candidate Site 41D could affect recreational activities at the sportsfield located at the site. If Site 41D were selected, it could result in the permanent removal or relocation of the sportsfield depending on where construction occurs on the site. In addition, users of the adjacent sportsfield may experience indirect impacts from construction activities pertaining to noise, dust, light, and glare. These indirect impacts could also occur with the selection of Sites 41A, 41C, 41J or 41X;

however, impacts would not be significant given the distance between these candidate sites and the sportsfields. Due to its location west of I-405, construction at Candidate Site 41W would not impact recreational facilities or uses in the area. Construction at Portal Siting Area 41 is anticipated to occur over three years.

#### *Secondary Portal Siting Areas*

Portal Siting Areas 7 and 27 along the Route 9–195th Street corridor include recreational facilities that have been identified as candidate secondary portal sites. If secondary portals are needed, Portal Siting Areas 7 and 45 could indirectly affect recreational areas. As mentioned, secondary portals are not expected to be used, but if selected, secondary portals would require no more than one-half acre during construction.

**Portal Siting Area 7.** If Portal Siting Area 7 is required as a secondary portal, users of Bruggers Bog Park could experience either direct or indirect impacts depending on which candidate portal site is selected. If Candidate Site 7C were selected as a portal site, one-half acre or less of the 4.5 acres the park occupies could be temporarily closed during construction. With the selection of Candidate Sites 7A or 7B as a portal, users of the active-use park could experience noise and dust from the nearby construction activities.

**Portal Siting Area 27.** If Portal Siting Area 27 is required as a secondary portal, one-half acre or less of the 7.2 acre-site on the 18-hole Nile Temple Golf Course could be required during construction. The portion of the golf course within the candidate portal site includes a heavily forested area and fairway; therefore, modification of the golf course may be necessary. Golfers could experience increased levels of dust and noise associated with construction activities. No adverse traffic access impacts would occur to the golf course property or users.

**Portal Siting Area 45.** If Portal Siting Area 45 is required as a secondary portal, Linwood Park, although not considered a candidate portal site, could experience temporary indirect construction impacts similar to those discussed for Portal Siting Area 41 and the North Creek Sportsfields due to the park's proximity to Candidate Site 45D in Portal Siting Area 45. Users of the passive-use park could experience increased noise and dust if the candidate portal site directly east of the park is selected as a portal site.

#### *Portal 41: Influent Pump Station Option*

Impacts related to construction of the IPS at Portal 41 are similar to those identified for portal construction. However, because the addition of the IPS would increase the intensity of construction activity, there could be increased impacts to recreational users in the North Creek Business Park during the first 2 years of the 3-year construction period. Construction impacts to recreation are related to dust, noise, and traffic delays and access, which could impact recreational users during their activities as well as traveling to and from the sportsfields and trails.

***Operation Impacts: Route 9–195th Street Corridor***

Operation impacts would occur only at selected portal sites, as described below.

***Primary Portal Siting Areas***

Operation of utility structures associated with the Brightwater System would have the greatest potential impact on recreation at Portal Siting Area 41, since an athletic field could be selected as a portal.

**Portal Siting Area 11.** No long-term operational impacts are expected to adversely affect users of the Burke-Gilman Trail within this portal siting area.

**Portal Siting Area 41.** One of the four playfields associated with the North Creek Sportsfields, used for soccer, baseball, and softball, could be permanently removed to accommodate a portal structure associated with the Route 9–195th Street corridor. If the sportsfield were selected as a portal site, the City of Bothell would have one less athletic field available for recreational use. Users of a separate field associated with the North Creek Sportsfield complex, located directly adjacent to the proposed candidate portal site, would not be significantly impacted during routine maintenance operations.

***Secondary Portal Siting Areas***

No significant operational impacts are expected at secondary portals because these facilities are not likely to be used. If needed, secondary portals would have no above ground structures and would be designed either as at-grade slabs or manholes with secured tunnel access or turned into new recreational areas. Should any of the secondary portals be required for the project, the greatest potential to affect recreational features at those portals along the Route 9–195th Street corridor could occur at Portal Siting Areas 7 or 27, depending on the selection of the preferred candidate site. Both secondary portal siting areas have recreational areas that have been identified as candidate portal sites.

**Portal Siting Area 7.** If Site 7C at Bruggers Bog Park were selected as a secondary portal location, a new at-grade slab or large manhole cover for tunnel access could be permanently located at the site. Portal operations would not be expected to significantly impact recreational use of the site.

Similar to the operational impact at Bruggers Bog Park, with the selection of the Aldercrest Learning Center site (Site A), a portion of the sports complex (baseball/softball field, tennis courts, or running track) would be modified as described for Bruggers Bog. With the exception of the manhole cover, the field could be restored to pre-existing conditions at the completion of construction.

**Portal Siting Area 27.** If Candidate Site 27A is selected for a secondary portal, one-half acre or less of the Nile Temple Golf Course could be modified to accommodate the a portal. Facility operations are not expected to significantly impact recreational use of the golf course. Because only an at-grade manhole would remain at the surface, the site could be restored close to pre-construction conditions.

**Portal Siting Area 45.** Linwood Park is not expected to experience adverse impacts as a result of operation of a portal with the selection of Candidate Site 45D.

*Portal 41 Influent Pump Station Option*

If Candidate Site 41D were selected, one sportsfield would be displaced, creating more demand on other sportsfields in the area. Noise from the operation of the pump station would be mitigated through layout and design of the facilities; therefore, impacts to adjacent recreational use would be minimal.

***Proposed Construction Mitigation: Route 9–195th Street Corridor***

As described in the section titled Mitigation Measures Common to All Systems, portals without any permanent access or equipment facilities would be removed after construction activities and would be restored to pre-construction activities or converted into new recreational park-like areas.

***Proposed Operation Mitigation: Route 9–195th Street Corridor***

Operation mitigation for the Route 9–195th Street corridor would be the same as discussed under Proposed Mitigation Common to All Systems: Conveyance.

**Route 9–228th Street Corridor**

***Construction Impacts: Route 9–228th Street Corridor***

*Primary Portal Siting Areas*

Similar to the construction impacts discussed for the Route 9–195th Street corridor, construction within the primary portal siting areas could affect active use recreational facilities, including the Burke Gilman Trail. In addition, users of passive use recreational areas such as the proposed Poplar Ravine could be adversely affected by construction activities.

**Portal Siting Area 26.** As a result of recent Level 2 portal screening, a portion of the Ballinger Playfield in Mountlake Terrace is considered a candidate portal site (Site 26A). Up to two acres of this three-acre site would be needed for portal construction. The portal area could include a tennis court and an open grass area that is used as an outfield area for an adjacent baseball/softball field and soccer field. During construction, baseball, softball, and soccer games and practices at the Ballinger Playfield would not occur and would be relocated to nearby facilities. Since only a portion of the baseball/softball outfield would be required for the Brightwater portal, the outfield area that would remain may be able to accommodate little league baseball and softball practices and games which would not require the extensive dimensions of adult baseball fields. The tennis court on the northern portion of the field, primarily used by recreational tennis users, would no longer be available at the park.

If King County, in coordination with the City of Mountlake Terrace, allows the remaining ballfield and open field area to be used for games and practices, users of the modified athletic field may experience indirect impacts from adjacent construction activities pertaining to construction noise, dust, light and glare, and traffic from construction vehicles using nearby Lakeview Drive.

Construction at Portal Siting Area 26 is anticipated to last up to one year.

**Portal Siting Area 33.** The City of Brier has a proposal to designate a new open space area, called Poplar Ravine, within Portal Siting Area 33. The exact acreage and date of designation for this system have not yet been determined; however, the future use of this system of wooded slopes and ravines would be preserved as undeveloped open space. The ravine has not been selected as a candidate portal site due to topographical constraints. Dust and noise resulting from construction activities at adjacent candidate portal sites may temporarily impact this natural open space area.

**Portal Siting Area 11.** Refer to the Construction Impacts discussion for the Route 9–195th Street corridor above for construction impacts at Portal Siting Area 11.

**Portal Siting Area 41.** Refer to the Construction Impacts discussion for the Route 9–195th Street corridor above for construction impacts at Portal Siting Area 41.

#### *Secondary Portal Siting Areas*

Only one recreational facility is located within the potential secondary portal sites along the Route 9–228th Street corridor, in Portal Siting Area 30. As previously noted, secondary portals are not likely to be used.

**Portal Siting Area 30.** A portion of an open grass field area on the northern portion of the Brier Elementary School property has been identified as Candidate Portal Site 30A. Construction is not expected at this secondary portal site.

However, if this candidate site is selected for a secondary portal, approximately one-half acre or less of the playfield area could be unusable by students of Brier Elementary School during construction. Students would be restricted from using this open area before and after school, during recess, and during outdoor physical education programs. Students and faculty using the adjacent play area as well as classroom activities would be subject to indirect dust and noise impacts resulting from construction activities.

#### *Portal 41: Influent Pump Station Option*

The impacts associated with the Route 9–228th Street Corridor IPS option are the same as those described for the Route 9–195th Street Corridor IPS option above.

***Operation Impacts: Route 9–228th Street Corridor******Primary Portal Siting Areas***

Long-term disruption of recreational activities could occur at Portal Siting Areas 26 and 41 if the candidate portal sites identified in sportsfield areas are selected. No other operational impacts are expected to occur to existing recreation facilities in other primary portal siting areas along the Route 9–228th Street corridor.

**Portal Siting Area 26.** If Ballinger Playfield were selected as a portal, odor control and dechlorination facilities associated with the Brightwater System would occupy a portion of the playfield. King County is proposing to install a dechlorination facility at Portal Siting Area 26 that would occupy up to one half acre and would include an access road, loading area, and space for landscaping and security around the building. See Chapters 3 and 12 for a discussion of the facility size.

**Portal Siting Area 33.** Because each of the candidate portal sites within Portal Siting Area 33 are not within an area considered as a ravine, operational impacts are not expected to impact the Poplar Ravine.

**Portal Siting Area 11.** Refer to the Operation Impacts discussion for the Route 9–195th Street corridor above for construction impacts at Portal Siting Area 11.

**Portal Siting Area 41.** Refer to the Construction Impacts discussion for the Route 9–195th Street corridor above for construction impacts at Portal Siting Area 41.

***Secondary Portal Siting Areas***

As previously discussed, secondary portals are not expected to be used. If selected, no significant operational impacts are expected at candidate secondary portal sites that are located in recreational areas. If needed, secondary portals would occupy less than one half acre in size and would be designed either as at-grade slabs or manholes with secured tunnel access.

Should any of the secondary portals be required for the project, the only potential to affect recreational features along the Route 9–228th Street corridor would be in Portal Siting Area 30.

**Portal Siting Area 30.** If the candidate Site 30A associated with the 2.5-acre Brier Elementary School playfield were required for operation of a portal, the 12-foot diameter slab or manhole would be located in the outdoor playfield (ball field, tennis courts, and a running track). Recreational activities may have to be modified accordingly as the layout of the existing playfield. With the exception of the at-grade manhole cover, the playfield could be restored to pre-existing conditions at the completion of construction.

***Proposed Construction Mitigation: Route 9–228th Street Corridor***

As described in the section titled Proposed Mitigation Common to All Systems: Conveyance, portals that do not require utility facilities would be restored to pre-construction condition or converted into new recreational park-like areas, with input from the local community. If long-term disruption of recreational activities is likely to occur, King County will work with the local jurisdiction to find replacement locations for the displaced facilities.

***Proposed Operation Mitigation: Route 9–228th Street Corridor***

Operation mitigation for the Route 9–228th Street corridor would be the same as discussed under Proposed Mitigation Common to All Systems: Conveyance.

**14.3.2.3 Outfall: Route 9****Construction Impacts: Route 9 Outfall**

Zone 7S lies several miles south of the Edmonds waterfront area and about 0.75 mile north of the Richmond beach community. Construction of the marine outfall and diffuser is not expected to directly impact normal shoreline recreational patterns in these areas, as this zone is already restricted from public use by the Chevron Richmond Beach Asphalt Terminal located in this area. Although no designated recreational activities are located adjacent to Zone 7S, local residents could access the Puget Sound shoreline near the outfall zone. In addition, the shoreline area adjacent to Point Wells is actively used for clam digging. Likely impacts could include restriction of normal boat traffic lanes and disruption of wildlife viewing along the Puget Sound shoreline near construction activities. The construction impacts to the recreational areas near Zone 7S are likely to be less disruptive than impacts at Zone 6.

**Operation Impacts: Route 9 Outfall**

Operation of the marine outfall and diffuser is not expected to directly impact the normal recreational pattern in these areas, as this zone is already restricted from public use by the Chevron Richmond Beach Asphalt Terminal. Open-water recreation would not be adversely impacted by outfall operations.

**Proposed Construction Mitigation: Route 9 Outfall**

See the section titled Proposed Construction Mitigation Common to All Systems: Outfall.

## **Proposed Operation Mitigation: Route 9 Outfall**

See the section titled Proposed Operation Mitigation Common to All Systems: Outfall.

### **14.3.3 Impacts and Mitigation: Unocal System**

#### **14.3.3.1 Treatment Plant: Unocal**

##### **Construction Impacts: Unocal Treatment Plant**

Five designated recreational facilities exist on or within 200 feet of the Unocal site: Marina Beach Park, the Port of Edmonds Marina, Edmonds Marsh, Edmonds City Park, and Olympic View Park. Marina Beach Park and the adjacent dog park would likely be the most significant features impacted during construction of the Brightwater Treatment Plant at the Unocal site due to increased levels of dust, noise, and traffic associated with construction vehicles and machinery and the proximity of the park.

The access to adjacent parks and recreation opportunities including Marina Beach Park and the adjacent dog park, the Port of Edmonds Marina, Edmonds Marsh, and Olympic View Park could temporarily be impacted as construction vehicles utilize the same roadways including SR-104 and Admiral Way. Congestion could result in longer access times for park users.

The Port of Edmonds Marina, Edmonds Marsh, Olympic View Park, and Edmonds City Park would be subject to increased noise and dust associated with construction activities; these impacts would be intermittent over the construction period.

Passive recreation at the Edmonds Marsh could be temporarily disrupted during peak construction periods. Bird watching would likely be reduced because of construction noise. Elevated noise levels in general would likely deter park users during peak construction periods.

### **Operation Impacts: Unocal Treatment Plant**

No significant impacts to existing recreational facilities or users are expected to occur as a result of the Brightwater Treatment Plant operations at the Unocal site as control measures would be incorporated into the design of the treatment plant to address noise, odor, and light and glare.

### **Proposed Construction Mitigation: Unocal Treatment Plant**

Mitigation measures that would be implemented to minimize construction and operational impacts to the recreational facilities adjacent to the Unocal site including the Port of Edmonds Marina, Edmonds Marsh, Olympic View Park, and Edmonds City Park are as follows:

- Maintain access to recreational areas, including Edmonds Marsh, the Port of Edmonds Marina, Edmonds City Park, and Olympic View Park when construction activities are near these areas. Detour routes would be clearly posted.
- If construction were required within a park or open space area, incorporate proper safety measures at the construction sites, including perimeter fencing.
- Consider the addition of other trail connections as appropriate mitigation funded by the Brightwater project.

### **Potential Operation Mitigation: Unocal Treatment Plant**

As a potential mitigation measure, King County would work with the City of Edmonds to identify potential opportunities for a community-oriented building located offsite, depending on community needs.

## **14.3.3.2 Conveyance: Unocal**

### **Construction Impacts: Unocal Conveyance**

Tables 14-5 and 14-6 in the Affected Environment section identify those recreational facilities that are at or near primary and secondary candidate portal sites along the Unocal corridor. Up to two acres could be required at each primary portal location. Primary Portal Siting Area 14 has the highest potential to directly affect parklands. Potential construction impacts to specific recreational facilities within portal siting areas along the Unocal corridor are listed below based on their location within a primary or secondary portal along the Unocal conveyance corridor.

### ***Primary Portal Siting Areas***

Recreational facilities in Portal Siting Areas 7 and 14 could experience the most significant impacts from construction along the Unocal corridor since the sportsfields within each portal siting area have been identified as candidate portal sites.

**Portal Siting Area 7.** If Candidate Site 7C were selected as a portal site, up to two acres of the Bruggers Bog park area could be temporarily closed during construction. With the selection of Candidate Sites 7A or 7B as a portal site, users of the active-use park could experience noise and dust from the nearby construction site.

If the playfield associated with the Aldercrest Learning Center in the City of Shoreline were selected as the preferred candidate portal site (Site 7A), the baseball/softball field and tennis courts would be closed throughout the duration of construction. Up to two acres of the approximate nine-acre sports complex, which includes an outdoor running track, is expected to be used during portal construction. During construction, the track would likely be unusable since the site includes approximately one-quarter of the track running surface. Student and community use of the athletic facility would be temporarily displaced during the construction period.

**Portal Siting Area 11.** Construction impacts would be similar to those discussed under the Route 9–195th Street corridor discussion for Portal Siting Area 11. Because a pump station and associated facilities (odor control, substation and standby power) would be constructed at Portal Siting Area 11 for the Unocal corridor, the intensity of construction activity would be greater and the construction period would last 3.5 to 4 years. Therefore, impacts would be extended over a longer period.

**Portal Siting Area 14.** Athletic fields used for soccer and baseball/softball currently occupy two of the three candidate portal sites (Sites 14A and 14B) within this Portal Siting Area. If one of the athletic fields were selected for the location of a portal, sports activities could be permanently displaced by an odor control facility at the particular sportsfield, and a decreased area could be available for games and practices in the City of Bothell. Dust, noise, light and glare from construction activities could impact sports teams on either field due to the proximity of the three candidate sites within the portal siting area. Construction at Portal Siting Area 14 is expected to last up to one year.

### ***Secondary Portal Siting Areas***

Secondary portals are not expected to be needed. If secondary Portal 13 is required, each of the three candidate portal sites lies within the vicinity of a recreational facility. No other secondary portal siting areas along the Unocal corridor would affect recreational facilities during construction activities.

**Portal Siting Area 13.** Although no recreational areas within Portal Siting Area 13 were selected as candidate secondary portal sites, with approximately 14 acres of park/trail area included within this portal siting area, construction activities could indirectly impact adjacent recreational facilities. Potential impact areas include the Park at Bothell Landing, Sammamish River Park, Triangle Park, and the Sammamish River Trail. Areas

disrupted could include parking areas, lawn/picnic areas, and portions of the Sammamish River Trail. Increased levels of dust and noise from construction activities would be present at these parks if construction were near these recreational facilities. Users of the Sammamish River Trail, which is within close proximity to the three candidate secondary portal sites, would not experience detours or delays along the trail.

### **Operation Impacts: Unocal Conveyance**

Any operational impacts to recreational facilities along the Unocal conveyance corridor would be similar to those described for portal siting areas under the Operation Impacts discussion of the Route 9 System.

#### ***Primary Portal Siting Areas***

Operational impacts could occur at Portal Siting Areas 7 or 14, depending on the amount of land required for portal construction. Both portal siting areas have recreational sportsfields that have been identified as candidate portal sites and could be permanently converted to a utility structure.

**Portal Siting Area 7.** Primary Portal Siting Area 7 would require an above-ground odor control structure that could infringe upon recreational activities depending on the location of the structure (the playfield associated with Aldercrest Learning Center (Site 7A) or Bruggers Bog Park (Site 7C)) are selected as a portal site.

**Portal Siting Area 11.** Users of the Burke-Gilman Trail could notice a pump station and associated facilities (substation, odor control, standby power) required at Primary Portal Siting Area 11; however, this should not interfere with trail use. Depending on the proximity of the new pump station to the Burke-Gilman Trail, trail users could notice the pump station near this section of the trail. Potential noise and aesthetic impacts would be mitigated through facility design.

**Portal Siting Area 14.** With the potential installation of a portal at one of the North Creek Sportsfields, a natural turf field currently used for baseball, softball, and soccer activities could be downsized if rebuilding the full-size field is not possible with the presence of an above-ground odor control facility. Minimal maintenance requirements at the portal would not impact users of the adjacent North Creek Sportsfields.

#### ***Secondary Portal Siting Areas***

Operational impacts to recreation facilities within secondary portal siting areas along the Unocal corridor would be confined to one portal siting area. As noted, secondary portals are not anticipated to be needed.

**Portal Siting Area 13.** Operational impacts to parks and the Sammamish River Trail are expected to be negligible since the trail is separated from candidate portal sites and only a manhole would be required at secondary portals.

**Proposed Construction Mitigation: Unocal Conveyance**

See the section titled Proposed Construction Mitigation Common to All Systems: Conveyance.

**Proposed Operation Mitigation: Unocal Conveyance**

See the section titled Proposed Operation Mitigation Common to All Systems: Conveyance.

**14.3.3.3 Outfall: Unocal****Construction Impacts: Unocal Outfall**

Zone 6 is located just south of the Edmonds waterfront area that includes the ferry dock, fishing pier, marina, and Brackett's Landing South Park. Due to the proximity of this zone to areas of intense human use, construction of the outfall and diffuser could impact recreational activities. Construction of the outfall and diffuser could result in temporary restricted access to portions of the shoreline. The trenched outfall pipeline would extend along the road accessing the southern Marina Beach Park parking lot and would extend underneath the parking lot just south of the Edmonds Fishing Pier. The outfall construction zone, estimated at 60 feet in width, would occupy a grassy area approximately 40 feet wide along the parking area. Construction materials and equipment storage would occur in this area and parking spaces would be temporarily removed. Access to the off-leash dog area would be disrupted during construction.

In addition, noise from the construction site resulting from pavement breaking and construction equipment could disrupt recreational users and local residents. Finally, construction activities could affect fish or shellfish populations that are beneficial for local angling, SCUBA diving, nature observation, and birdwatching.

**Operation Impacts: Unocal Outfall**

Operational impacts associated with the marine outfall and diffuser relate to displacement of aquatic resources along the outfall alignment as discussed above. On-land structures associated with the outfall would be buried and are not expected to interfere with existing recreational activities.

**Proposed Construction Mitigation: Unocal Outfall**

Mitigation measures that would be used during construction of the outfall are previously discussed in the section titled Proposed Construction Mitigation Common to All Systems: Outfall.

### **Proposed Operation Mitigation: Unocal Outfall**

Mitigation measures that would be used during operation of the outfall are previously discussed in the section titled Proposed Operation Mitigation Common to All Systems: Outfall.

### **14.3.4 No Action Alternative**

No construction or operational impacts would occur with the selection of the No Action Alternative. Existing activities would continue at recreational facilities in and near the project area.

### **14.3.5 Cumulative Impacts**

Depending on the specific location of portal, pump station, and wastewater treatment facilities, park and recreation facilities within the Brightwater project area could potentially experience temporary adverse impacts relating to increased noise, traffic, and dust during construction. These impacts would largely be eliminated after construction is complete. Reduced availability to the dog use area near Marina Beach Park in Edmonds could create temporary increased use at other area dog parks if the Unocal site is selected. If improvements to parks or to the Burke-Gilman/Sammamish River Trail occur in the project vicinity, concurrent with the Brightwater project, the amount of recreational opportunities available for community use could temporarily decrease during construction. King County will coordinate with local parks departments to reduce potential impacts associated with concurrent construction.

## **14.4 Significant Unavoidable Adverse Impacts**

### **14.4.1 Treatment Plant Sites**

The removal of the Bear Creek Grange Hall from the Route 9 site would be a significant impact to the local community members who currently use the Grange Hall. Activities currently held at the Grange Hall would have to be permanently relocated to a new local facility. Relocation of this facility to a replacement facility near the Route 9 site would reduce the significance of this impact. Construction impacts to the nearby golf course would be intermittent, depending on the type of construction activity (for example, periods of significant construction traffic) over the construction period, and would not be significant.

Marina Beach Park, the Port of Edmonds Marina, Edmonds Marsh, Edmonds City Park, Olympic View Park, Marina Beach Park and the adjacent dog park could be adversely impacted during construction of the Brightwater Treatment Plant at the Unocal site due to increased levels of dust, noise, and traffic associated with construction vehicles and machinery and the proximity of the parks.

### **14.4.2 Conveyance Corridors**

A permanent loss of recreation space could occur if a park or open space area is selected as a primary portal site. King County has attempted to preserve areas designated for recreational activities where possible in the siting of portals. If taking an existing recreational facility were unavoidable, appropriate compensation would be implemented as part of construction mitigation.

In the event a park is not selected as an area for a portal but is adjacent to a portal, recreational users would be subject to noise, dust, and traffic associated with construction activities. These impacts would be temporary and are not expected to present long-term significant impacts.

### **14.4.3 Outfall Zones**

Potential unavoidable impacts to the areas surrounding the outfall zones include restriction of areas during construction of the outfall, increased noise, and potential impacts to aquatic resources. Because these impacts are temporary, they are not expected to have a long-term significant impact.

A closure zone around the outfall may be established by the Washington Department of Health, which will prohibit geoduck and other bivalve harvest in the event that the area offshore is eventually opened to harvest. Refer to Chapter 7 for a complete discussion of the potential closure zone near the outfall zones.

Due to the proximity of the Zone 6 outfall to areas of intense human use, construction of the outfall and diffuser could impact recreational activities. Construction could result in temporary restricted access to portions of the shoreline. Parking spaces at Marina Beach Park would be temporarily removed and access to the park and the off-leash dog area would be disrupted during construction.

## **14.5 Summary of Impacts and Mitigation**

Table 14-7 summarizes impacts and mitigation measures associated with recreational facilities during construction and operation of the Brightwater Regional Wastewater Treatment System.

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems**

Brightwater System	System Component	Impacts	Proposed Mitigation
Common to All Systems	Treatment Plant	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Users of nearby recreational facilities could be subject to temporary, intermittent impacts from construction activities including increased noise, dust, light and glare from construction vehicles, equipment, and materials.</li> <li>Traffic congestion could have a minor impact on access to parks and recreational features near the proposed treatment plant sites.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Public notification of construction hours, utilization of technologically efficient construction equipment that minimizes noise, notification of impacts to roadways.</li> <li>Establish detour routes, if necessary, for bicycle and pedestrian pathways (including the Burke-Gilman/Sammamish River Trail) that need to be temporarily closed during construction. Prior notices would be given and all disturbed pathways would be restored following construction.</li> <li>King County is proposing to develop a transportation management plan to minimize construction-related transportation impacts to recreational users.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>No long-term impacts to nearby recreational facilities are expected.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems (cont.)**

Brightwater System	System Component	Impacts	Proposed Mitigation
Common to All Systems (cont.)	Conveyance	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• If a recreational area is included within a portal site, impacts could include permanent closure of a portion of the park area, loss of parking spaces, detour of trails, and construction-related traffic delays.</li> <li>• Temporary traffic, noise, and dust from construction activities could affect adjacent recreational areas such as portions of the Burke-Gilman/Sammamish River Trail.</li> <li>• Areas where the portals and local connections would be constructed could intermittently close nearby recreational facilities during construction.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Portal sites would be chosen to avoid/minimize impacts to recreational features.</li> <li>• A public notice of construction dates would be provided.</li> <li>• Site safety and security measures would be used at construction sites (e.g., perimeter fencing and coverage of exposed earth).</li> <li>• Some recreational activities could be temporarily moved to another location.</li> <li>• If equipment were stored on park property, it would be minimized and promptly removed after no longer needed at a construction site.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>• Operation of a portal could reduce or relocate recreational opportunities if a primary portal is constructed in a park or recreational area. Some primary portals may eventually contain above-ground buildings. No above-ground structures would be located at secondary portals (if secondary portals are used).</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>• Permanent facilities would be designed to blend with adjacent properties.</li> <li>• Recreational facilities/uses permanently displaced could be replaced in another location.</li> <li>• Some recreational facilities impacted during construction would be returned to pre-construction conditions to allow recreational use to continue.</li> <li>• Aesthetic controls (e.g., landscape buffers and setbacks, noise control dampers and buffers) would be implemented.</li> <li>• King County will coordinate all mitigation of recreational areas with local recreational service providers.</li> </ul>

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems (cont.)**

Brightwater System	System Component	Impacts	Proposed Mitigation
Common to All Systems (cont.)	Outfall	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Potential noise, dust, light, and glare associated with onshore and offshore construction activities could intermittently disrupt the normal recreational patterns of people using the beach.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Local and state regulations would be followed to ensure the safety of the public and minimize access restrictions, noise pollution, and other potential impacts to recreational users and nearby residents.</li> <li>Construction areas would be clearly marked.</li> <li>Temporary beach access routes would be provided.</li> <li>BMPs would be used through the completion of the outfall and diffuser construction.</li> <li>Additional surveys may be required in unsurveyed portions of outfall zones to identify known and unknown shipwrecks that may be significant.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Minimal impacts since facilities would be submerged and underground.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>A state-of-the-art operation and maintenance program would be implemented to ensure facilities operate at peak efficiency with ongoing monitoring of effluent.</li> <li>King County staff will receive ongoing training relating to all aspects of Brightwater facility operations.</li> </ul>
Route 9–195th Street System	Treatment Plant	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>The Bear Creek Grange Hall would be removed during initial site clearing.</li> <li>Recreational facilities within one mile of the site are not expected to experience adverse impacts during construction.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>King County would assist in the relocation of the Bear Creek Grange Hall.</li> <li>Other measures same as those listed for Common to All Systems, above.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>No anticipated long-term operation impacts to nearby existing recreational facilities.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems (cont.)**

Brightwater System	System Component	Impacts	Proposed Mitigation
Route 9–195th Street System (cont.)	Conveyance Corridor	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• A sportsfield associated with the North Creek Sportsfields complex (Candidate Site 41D) is a potential portal site in primary PSA 41. If selected, the City of Bothell would have one less facility to accommodate baseball, softball, and soccer activities.</li> <li>• Users of parks including the North Creek Sportsfields, Bruggers Bog, Linwood Park, and the Burke-Gilman Trail could experience indirect impacts from construction (noise and dust) if nearby candidate sites are selected as portal locations.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Same as Common to All Systems, above.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>• A portion of an athletic field associated with North Creek Sportsfields (primary PSA 41) would be permanently changed to a Brightwater utility structure/above-ground odor control facility with the selection of Candidate Site 41D.</li> <li>• No anticipated long-term operation impacts to recreational facilities near portal areas with the implementation of appropriate mitigation measures.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>• Same as Common to All Systems, above.</li> </ul>
	Outfall Zone 7S	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Outfall and diffuser construction is not expected to directly impact normal recreational patterns.</li> <li>• Impacts could include restriction of normal recreational boat traffic and disruption of wildlife viewing due to construction noise.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Same as Common to All Systems, above.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>• Operation of the outfall is not expected to directly or indirectly impact normal recreational patterns.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>• Same as Common to All Systems, above.</li> </ul>
Route 9–228th Street System	Treatment Plant	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Construction impacts would be the same as those discussed under the Route 9–195th Street Corridor for the Treatment Plant.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Same as Common to All Systems, above.</li> </ul>

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems (cont.)**

Brightwater System	System Component	Impacts	Proposed Mitigation
Route 9–228th Street System (cont.)	Treatment Plant (cont.)	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Operational impacts would be to the same as those discussed under the Route 9–195th Street Corridor for the Treatment Plant.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
	Conveyance Corridor	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Approximately two acres of the Ballinger Playfield (Candidate Site 26A) in primary PSA 26 could be temporarily impacted during portal construction.</li> <li>A North Creek Sportsfield athletic field (Candidate Site 41D) in primary PSA 41 could be temporarily impacted during portal construction.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>The dechlorination facility proposed at Portal Siting Area 26 would be designed to blend into the surrounding area.</li> <li>Other measures same as Common to All Systems, above.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>The North Creek Sportsfield would be modified to accommodate a portal associated with the Brightwater project.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
	Outfall Zone 7S	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Impacts of Zone 7S are discussed under the Route 9–195th Street Outfall Zone.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Impacts of Zone 7S are discussed under the Route 9–195th Street Outfall Zone.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
Unocal System	Treatment Plant	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Indirect construction impacts including noise and dust could be detected by users of nearby parks including Marina Beach Park, the Port of Edmonds Marina, Edmonds Marsh, Edmonds City Park, and Olympic View Park.</li> <li>Congestion could result to nearby parks due to construction vehicles accessing the construction site.</li> <li>Passive recreation at the Edmonds Marsh could be adversely affected by construction noise.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Access to recreational areas would be maintained when construction activities occur near park areas.</li> <li>Proper safety measures would be incorporated at construction sites, including perimeter sound fencing and dust control.</li> <li>Consider the addition of other trail connections as appropriate mitigation funded by the Brightwater project.</li> </ul>

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems (cont.)**

Brightwater System	System Component	Impacts	Proposed Mitigation
	Treatment Plant (cont.)	<u>Operation</u> <ul style="list-style-type: none"> <li>No significant impacts to existing recreational facilities or users are expected to occur.</li> </ul>	<u>Operation</u> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
Unocal System (cont.)	Conveyance	<u>Construction</u> <ul style="list-style-type: none"> <li>Construction impacts within or in the immediate vicinity of a recreational facility would be similar to impacts discussed under the Route 9–195th Street Corridor.</li> <li>Direct impacts to Aldercrest Learning Center and Bruggers Bog Park in primary PSA 7 could occur depending on the selection of the above-ground facilities location within the portal siting area.</li> <li>Users of the Burke-Gilman/Sammamish River Trail could be temporarily affected during construction in primary PSA 11 with the selection of Candidate Site 11A.</li> <li>Two sportsfields currently used for soccer and baseball/softball associated with the North Creek Sportsfields are proposed as Candidate Sites 14A and 14B in primary PSA 14 and would be unusable if selected as a portal site.</li> <li>Recreational facilities adjacent to candidate portal sites including the Burke-Gilman/Sammamish River Trail, Bruggers Bog Park, the Park at Bothell Landing, Sammamish River Park, and Triangle Park could detect temporary dust and noise associated with construction activities.</li> </ul>	<u>Construction</u> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>

**Table 14-7. Summary of Potential Recreation Impacts and Proposed Mitigation for Brightwater Systems (cont.)**

Brightwater System	System Component	Impacts	Proposed Mitigation
	Conveyance (cont.)	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Operational impacts would be similar to those discussed under the operational impacts discussion for the Route 9–195th Street Corridor.</li> <li>If one of the fields at the North Creek Sportsfields is selected as a candidate portal site, one less full-size field could be available for soccer, baseball, and softball in Bothell.</li> <li>Depending on the location of the pump station in relation to the Burke-Gilman Trail, trail users may notice the pump station structure from the trail.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
Unocal System (cont.)	Outfall Zone 6	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Could result in temporary restricted access to portions of the Puget Sound shoreline.</li> <li>The outfall pipeline would be constructed through the Marina Beach Park boundary over a period of approximately 12 months.</li> <li>Construction noise could disrupt nearby recreational facility users and residents.</li> <li>Construction activities could affect wildlife distribution, SCUBA diving, and wildlife viewing.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
		<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Operational impacts would be similar to those discussed under outfall Zone 7S.</li> </ul>	<p><u>Operation</u></p> <ul style="list-style-type: none"> <li>Same as Common to All Systems, above.</li> </ul>
No Action Alternative		<ul style="list-style-type: none"> <li>No construction or operational impacts would occur.</li> </ul>	<ul style="list-style-type: none"> <li>No mitigation is proposed.</li> </ul>

## 14.6 References

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The figures for this chapter are provided as separate files on this web site.

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## **LIST OF FIGURES**

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