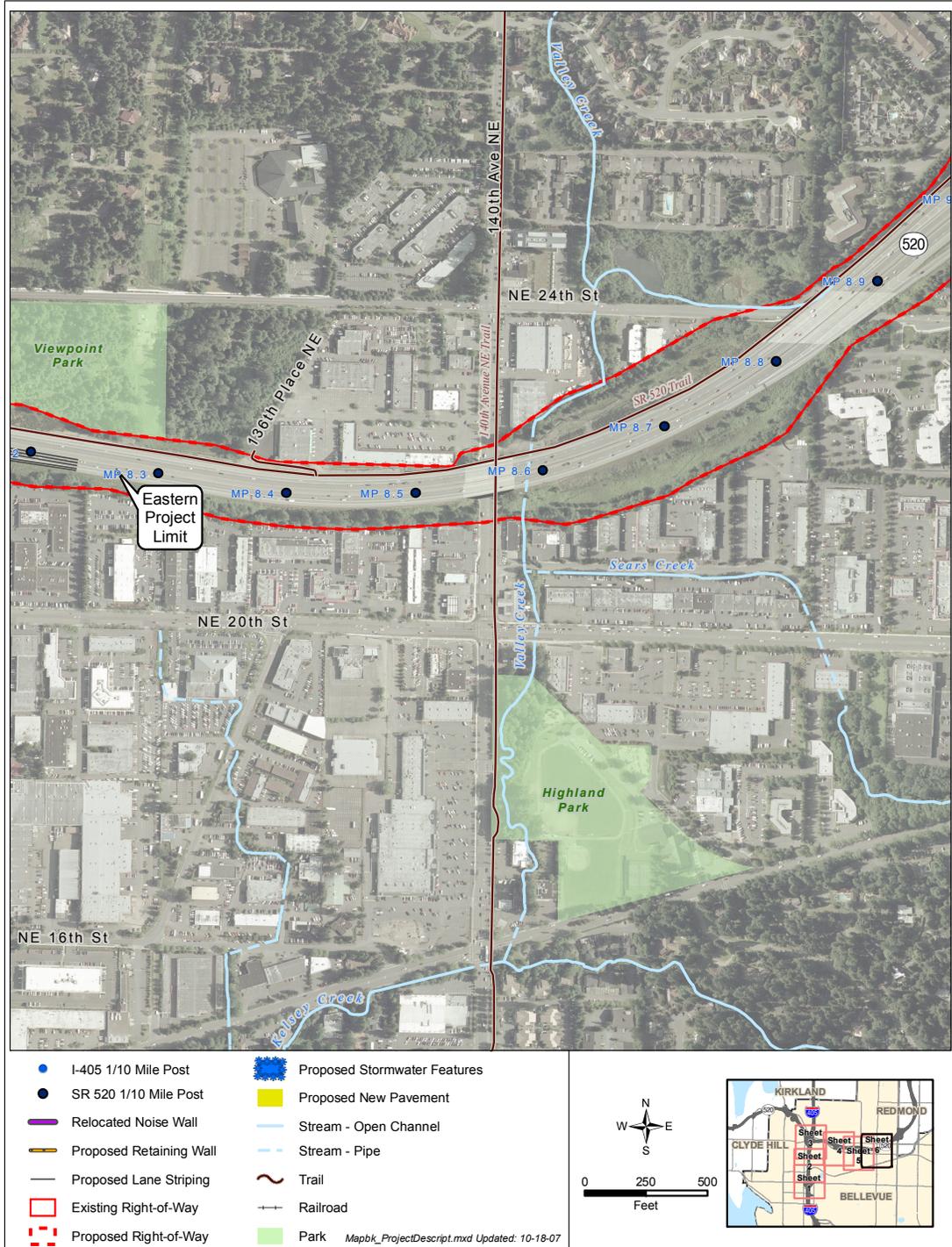


I-405, NE 8TH STREET TO SR 520 IMPROVEMENT PROJECT
SECTION 4(F) RESOURCES DISCIPLINE REPORT

Exhibit 2-3: Project Features - Sheet 6 of 6



Construction Staging

Construction funding is currently available for only some of the proposed improvements in the Build Alternative. Consequently, the project will be constructed in stages. The funded first stage will include the northbound I-405 improvements, including the braided ramps, the NE 12th Street bridge reconstruction, and the northbound NE 10th Street on-ramp. Additionally, one of the three proposed collector-distributor lanes from northbound I-405 to eastbound SR 520 will be constructed. This collector-distributor lane will cross over the existing NE 124th Street on-ramp before merging with SR 520. Construction of these funded improvements is scheduled to begin in 2009 and will be completed in approximately 3 years.

The unfunded project improvements include the remaining two lanes of the three-lane collector-distributor system, improvements from southbound I-405 to the eastbound SR 520 collector-distributor, and the improvements from eastbound and westbound SR 520 to southbound I-405. Construction of these remaining improvements depends on when project funding becomes available.

Stormwater Management System Improvements

Stormwater for the I-405, NE 8th Street to SR 520 Improvement Project will be managed for both water quality and quantity using currently accepted best management practices (BMPs).

The I-405 Project Team is designing the stormwater management facilities to comply with the WSDOT *Highway Runoff Manual* (HRM),³ M 31-16, and *Hydraulics Manual*,⁴ M 23-03. The Department of Ecology has conditionally approved WSDOT's revised HRM for use as an equivalent approach to Ecology's *Stormwater Management Manual for Western Washington*.⁵

Runoff from existing paved surfaces on I-405 and SR 520 within the project limits is generally discharged to streams and ditches without treatment. The project will provide water quality treatment for all of the new impervious surfaces and a

³ WSDOT, 2006a.

⁴ WSDOT, 2006b.

⁵ Ecology, 2005.

What are peak flows?

The maximum instantaneous rate of stormwater flow during a storm, usually in reference to a specific design storm event.

portion of the existing untreated impervious surfaces. Existing conveyance facilities will be modified as required to satisfy water quality treatment and flow control design standards noted above, while maintaining existing flow patterns to each of the receiving water bodies.

The I-405, NE 8th Street to SR 520 Improvement Project will also manage peak flows and duration in accordance with the WSDOT *Highway Runoff Manual*. The stormwater management facilities will also manage peak flows and durations in accordance with the HRM. Six new flow control facilities and one existing facility (constructed as part of the NE 10th Street Bridge Project) will be used to provide stormwater detention. The proposed locations of these facilities are shown in Exhibit 2-3.

Wetland and Stream Mitigation Sites

To compensate for the permanent effects on wetlands, WSDOT will provide mitigation at a wetland mitigation site that is about one mile southeast of the southern project limit. Mitigation at this site was approved as part of the I-405, Bellevue Nickel Improvement Project and has been constructed. The wetland mitigation site is within the boundaries of Kelsey Creek Park (Exhibit 2-1). The site is located north of the intersection of Richards Road SE and the Lake Hills Connector. The mitigation site is an upland area adjacent to a large wetland complex that will be transformed to an emergent wetland. Its wildlife habitat will be enhanced by constructing habitat structures and replanting adjacent upland areas with forest-type vegetation.

We will also mitigate for unavoidable effects on the unnamed tributary to Sturtevant Creek. The mitigation will be in-kind and will be located within WSDOT right-of-way on the east side of I-405 south of NE 4th Street (Exhibit 2-3). Stream mitigation for permanent effects to the unnamed tributary to Sturtevant Creek will occur at Sturtevant Creek and will be designed to meet specific goals. Stream mitigation goals include:

- Increased hydrologic connectivity with two small riparian wetlands;
- Increased fish rearing habitat; and
- Improved riparian buffer conditions.

WSDOT will meet these goals by installing large woody debris and other in-stream channel enhancements. The stream's buffer will be revegetated with plant species native to the area, and invasive vegetation will be removed.

We provide more detailed information about mitigation efforts planned in conjunction with the I-405, NE 8th Street to SR 520 Improvement Project in the Water Resources and Ecosystems Discipline Reports.

Does this project relate to any other improvements on I-405 or connecting highways?

In 1998, WSDOT joined with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), Central Puget Sound Regional Transit Authority (Sound Transit), King County, and local governments to develop strategies to reduce traffic congestion and improve mobility in the I-405 corridor. In fall 2002, the combined efforts of these entities culminated in the I-405 Corridor Program NEPA/SEPA Final Environmental Impact Statement (EIS) and Record of Decision (ROD).

WSDOT created the I-405 Corridor Program as a comprehensive strategy to reduce congestion and improve mobility throughout the I-405 corridor. The corridor begins at the I-405/I-5 interchange in the city of Tukwila and extends northward 30 miles to the I-405/I-5 interchange in the city of Lynnwood. The program's purpose is to provide an efficient, integrated, and multimodal system of transportation solutions.

The I-405, NE 8th Street to SR 520 Improvement Project is one of several I-405 projects. Other projects along the I-405 corridor include the SR 520 to SR 522 Kirkland Nickel Improvement Project, the Bellevue Nickel Improvement Project (I-90 to Southeast 8th Street), the SR 520 to I-5 Improvement Project, the SR 169 to I-90 Renton to Bellevue Project, the Renton Nickel Improvement Project (the I-5/I-405 interchange to SR 169), and the Tukwila to Renton Improvement Project.

The Corridor EIS identified possibilities to better manage the corridor through tolling. WSDOT could achieve this through the use of express toll lanes that would be managed through a variable toll system to regulate their use and thereby maintain

What are express toll lanes?

An express toll lane is a limited-access freeway lane that is actively managed through a variable toll system to regulate its use and thereby maintain express travel speeds and reliability. Toll prices rise or fall in real time as the lane approaches capacity or becomes less used. This ensures that traffic in the express toll lane remains flowing at express travel speeds of 45 to 60 miles per hour. Toll prices may differ for carpools, transit, motorcycles, and single-occupant vehicles. Tolls are collected electronically using overhead scanners that read a transponder inside the vehicle and automatically debit the operator's account.

express travel speeds and reliability. Express toll lanes could be created through the conversion of the HOV lane and of one of the new lanes proposed for this project. The footprint identified in this document would not preclude implementation of express toll lanes. The freeway system would, however, operate differently if express toll lanes are used. If express toll lanes are to be implemented in the future, additional operational analysis and any necessary environmental documentation would be prepared. Therefore, an operational change to express toll lanes would be a future decision.

What is the No Build Alternative?

The No Build Alternative assumes the new NE 10th Street bridge across I-405 that is being constructed as part of another project will be in place. The No Build Alternative assumes that only routine activities such as road maintenance, repair, and minor safety improvements would take place over the next 20 years. The No Build Alternative does not include improvements that would increase roadway capacity, reduce congestion, or improve safety on I-405 or SR 520. For these reasons, it does not satisfy the project's purpose—to reduce congestion created by weaving traffic on I-405 and SR 520.

The No Build Alternative has been evaluated in this discipline report to establish a reference point for comparing the effects associated with the Build Alternative.

SECTION 3 STUDY APPROACH

What is the study area and how was it determined?

For the I-405, NE 8th Street to SR 520 Improvement Project, the project team inventoried the 4(f) resources located within one-quarter mile of the project's proposed improvements along I-405 and SR 520. This is the generally accepted distance from which an affected resource might experience proximity effects. The project limits along I-405 are defined as NE 4th Street to the south (I-405 milepost [MP] 13.6) and 115th Avenue NE to the north (I-405 MP 15.1). The project limits along SR 520 are defined as mid-way between MP 6.6 and MP 6.7 to the west, just west of the I-405 interchange, and MP 8.3 to the east near 136th Place NE.

What policies or regulations are related to Section 4(f) resources?

We prepared the Section 4(f) Resources Discipline Report based on guidance contained within the Federal Highway Administration (FHWA) Section 4(f) Policy Paper issued March 1, 2005;⁶ Section 4(f) of the U.S. Department of Transportation Act of 1966, Title 49 of the United States Code (USC) Section 303; 23 CFR, Section 771.135 (Section 4(f)); and the WSDOT *Environmental Procedures Manual* published in April 2007.⁷ These documents explain how Section 4(f) applies generally and to specific situations. They are based on court decisions, experience, and policies developed by the FHWA and the DOT over the years. The FHWA Policy Paper serves as a guide for how Section 4(f) applies to common project situations often encountered by state departments of transportation. The manual clarifies the coordination and documentation procedures.

⁶ DOT, 2005.

⁷ WSDOT, 2007a.

What constitutes a "use" of Section 4(f) resources?

"Use" of Section 4(f) resources as defined by 23 CFR Part 771⁸ occurs under the following circumstances:

What is "permanently incorporated"?

Permanently incorporated refers to the physical and permanent procurement of a protected resource for use by a transportation project. This is also known as an actual or direct use.

What is "temporary occupancy"?

A temporary occupancy of land is a "use" as determined by the length of occupancy, scope of work, anticipated permanent adverse physical impact on the land, and whether the resource can be restored to its original condition prior to occupancy. There must be documented agreement of the appropriate federal, state, or local officials having jurisdiction over the resource regarding the above conditions.

What is "constructive use"?

Constructive use is a type of indirect use in which a transportation project's proximity effects (as opposed to direct effects) on a resource are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Examples include excessive noise level increases, diminished aesthetic features, ecological intrusions, and other indirect impacts on the resource's environment or utility.

1. Land is permanently incorporated into a transportation facility.
2. The land is subject to temporary occupancy and/or temporary or permanent adverse changes (such as contour alterations or removal of mature trees and other vegetation) may occur during project construction. Temporary occupancy during construction will not always constitute a Section 4(f) use. Short-term, temporary occupancy or effect (such as for a construction easement) does not constitute a use under Section 4(f) as long as all of the following conditions are met:
 - Occupancy is temporary (i.e., shorter than the construction period for the entire project) and there is no change in ownership.
 - Changes are minimal.
 - No permanent adverse physical effects result and there is no interference with the activities or purposes of the resource on either a temporary or permanent basis.
 - The land being used will be restored to a condition which is at least as good as that prior to the project.
 - Documented agreement(s) exist between relevant jurisdictions regarding temporary use of the resource.
3. There is a constructive use of the facility.

Pursuant to 23 CFR Part 771(p)(iii)(2), "Constructive use occurs when the transportation project does not incorporate land from a section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished." FHWA has reviewed

⁸ 23 CFR 771.135(p)(1) and (2) is where DOT specifically describes 4(f) "use."

the following situations and has determined that a constructive use may occur when:

- Noise from the project substantially interferes with the use and enjoyment of the resource, such as enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance, or enjoyment of any park where serenity and quiet are substantial attributes. The noise increase must not only be detectable to the human ear (i.e., an increase greater than 2 to 3 decibels) and exceed the FHWA noise abatement criteria (NAC) as contained in Table 1 of 23 CFR Part 772, but it must be severe enough to truly impair enjoyment of the Section 4(f) resource; or
- The proximity of the proposed project substantially impairs aesthetic features or attributes of the resources, where these features or attributes are considered important contributing elements to the value of the resource. An example is the location of a roadway that obstructs or eliminates a view or substantially detracts from the setting of a park or historic site that derives its value in substantial part due to its setting; or
- The project restricts access and would result in a substantial decrease in the use of the resource; or
- Vibration from the project substantially impairs the use of the resource.

In all instances, a "substantial impairment" of the resource is necessary for a constructive use to occur; an adverse effect or considerable change to a resource resulting from a proximity effect is not sufficient to cause a constructive use.

FHWA has reviewed the following situations and has determined that a constructive use may not occur when:

- In consultation with the State Historic Preservation Officer (SHPO), and in compliance with Section 106 of the National Historic Preservation Act, it is agreed that the proximity effects of the proposed action on a National Register listed or eligible historic site result in a finding of "no effect" or "no adverse effect"; or
- The projected traffic noise levels of the proposed project do not approach or exceed the FHWA NAC as contained in Table 1 of 23 CFR part 772; or

- The projected traffic noise levels exceed the relevant threshold in 23 CFR Part 772 because of high existing noise, but the increase in the projected noise levels with the project is barely perceptible (3 decibels or less), when compared to projected noise levels without the project; or
- There are proximity effects, but a governmental agency's right-of-way acquisition, an applicant's adoption of project location, or FHWA's approval of a final environmental document established the location for a proposed project before the designation, establishment, or change in the significance of the resource; or
- There are effects, but the proposed project and the resource are concurrently planned or developed; or
- Overall (combined) proximity effects caused by the proposed project do not substantially impair the activities, features, or attributes that qualify a resource for protection under Section 4(f); or
- Proximity effects will be mitigated to a condition equivalent to, or better than, that which would occur under a no-build scenario; or
- Change in accessibility will not substantially diminish the utilization of the Section 4(f) resource; or
- Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause a substantial impairment of the resource.

How did we collect information on Section 4(f) resources for this report?

To identify existing public park and recreational facilities, we conducted a field reconnaissance of the study area. In addition, we reviewed aerial photos, City of Bellevue GIS data, and City plans, including the 1999 *Pedestrian and Bicycle Transportation Facility Plan*,⁹ and the 2003 *Bellevue Parks & Open Space System Plan*.¹⁰ Using these data, we searched for designated open space areas, designated parks and play areas, bicycle and pedestrian facilities, and playfields associated with

⁹ *City of Bellevue, 1999.*

¹⁰ *City of Bellevue, 2003.*

public schools. We also contacted representatives from the Bellevue Parks & Community Services Department to gather information about ongoing and planned park and recreation facilities and activities in the study area.

The team evaluating cultural resources surveyed all historic resources in the study area that predate 1959. WSDOT selected the year 1959 to cover all cultural resources that would be 50 or more years old prior to the time construction is to begin (2009). To identify existing resources, cultural resources staff conducted a pedestrian survey of areas of proposed ground disturbance and assessed all buildings within the APE for historic structures. In addition, staff performed a literature search and searched the Washington State Department of Archaeology and Historic Preservation (DAHP) database of recorded potential sites and resources. Please refer to the Cultural, Historic, and Archaeological Technical Memorandum for more detailed information on cultural resources.

Why do we use 50 years when considering cultural resources?

The federal government uses specific criteria to determine the significance of a cultural resource. The resource must be a building, site, structure, object, or district and it must be at least 50 years of age to be eligible for the National Register (36 CFR 60).

How did we evaluate effects on Section 4(f) resources?

After identifying the Section 4(f) properties within the study area, we evaluated those properties subject to a “use” as defined by 23 CFR Part 771. To evaluate direct effects on parks and recreation facilities, we compared the proposed project footprint to existing park and recreation facility locations. Also, we reviewed the Air Quality, Noise, Visual Quality, Land Use, and Traffic and Transportation discipline reports¹¹ to determine potential indirect effects (also referred to as “constructive use”) to such facilities, such as shadow effects and access restrictions.

To evaluate effects on historic resources, the project team identified and photographed buildings and structures within the project APE that appeared to be substantial under the criteria for listing in the NRHP or WHR. These resources were documented with architectural descriptions, and their significance under the criteria was determined. Also, we reviewed the Air Quality, Noise, Visual Quality, Land Use, and Traffic and Transportation discipline reports to determine

¹¹ WSDOT, 2008a, b, c, d, and 2007b.

potential indirect effects on historic structures, such as visual changes to the character and setting of the resource and traffic congestion or restricted access to the property.

What are feasible and prudent avoidance alternatives?

In analyzing alternatives that avoid the use of Section 4(f) resources, the guidance documents require that each avoidance alternative be evaluated in terms of whether it is feasible and prudent. In accordance with 23 CFR 771.135(a)(2), “feasible” implies that the alternative can be designed and built to operate both efficiently and safely. The term “prudent” refers to how reasonable the alternative is—whether or not it makes sense. “Prudence” generally is based on an evaluation of the following factors, as identified in the FHWA Section 4(f) Policy Paper:¹²

- Does it meet the project purpose and need?
- Does it involve extraordinary operational or safety problems?
- Are there unique problems or truly unusual factors present?
- Does it result in unacceptable and severe adverse social, economic, or other environmental impacts?
- Would it cause extraordinary community disruption?
- Does it have additional construction costs of an extraordinary magnitude?
- Is there an accumulation of factors that collectively, rather than individually, have adverse impacts that present unique problems or reach extraordinary magnitudes?

What coordination was conducted with other agencies?

As part of the preparation of this Section 4(f) Resources Discipline Report, the project team coordinated with the officials of the agencies owning or administering the protected resources (“local officials with jurisdiction”). The City of Bellevue Parks and Recreation Department was contacted

¹² DOT, 2005.

regarding Bellevue park and recreation facilities. The SHPO at the DAHP was consulted regarding historic sites, the APE, and potential mitigation measures.

We also coordinated with the Recreation and Conservation Office (RCO) (formerly the Interagency Committee for Outdoor Recreation, or IAC) to determine if there were any outdoor recreation properties in the study area acquired through the Land and Water Conservation Fund (LWCF) Program. Section 6(f)(3) of the LWCF Act of 1965 (16 USC Section 460l-4) contains provisions to protect federal investments in park and recreation resources and the quality of those assisted resources. According to this Act, property acquired, developed, or renovated using LWCF assistance must be retained for public outdoor recreation use in perpetuity. This requirement applies to all parks and other sites that have been the subject of LWCF grants of any type, and includes acquisition of parkland and development or rehabilitation of park facilities. A review of the LWCF grants database found no record of LWCF assistance for property acquisition or development within the study area.

What is the RCO?

The Recreation and Conservation Office is a state agency that serves two boards, the Recreation and Conservation Funding Board and the Salmon Recovery Funding Board. The agency is charged with implementing policies and programs established by the boards, the State Legislature, and the Governor. The RCO administers state and federal grant programs for recreation and habitat conservation.

SECTION 4 EXISTING CONDITIONS

What Section 4(f) resources exist in the study area?

There are 11 publicly owned parks and recreation resources, no historic sites, and no waterfowl or wildlife refuges within the proposed I-405, NE 8th Street to SR 520 Improvement Project study area. Exhibit 4-1 compares each of the resources with Section 4(f) criteria and identifies those resources that will be protected Section 4(f) properties. The locations of these properties in the study area are shown in Exhibit 4-2.

The Section 4(f)-protected properties within the I-405, NE 8th Street to SR 520 Improvement Project study area are described below, beginning with the southern study area limit and continuing north along the I-405 corridor, and then from the western study area limit and continuing east along the SR 520 corridor. One existing and two planned recreational facilities in the study area that are non-Section 4(f) resources are also described.

I-405 Corridor

BNSF Railway Eastside Rail Line

Although King County plans to acquire ownership of the Burlington Northern Santa Fe (BNSF) Railway Eastside rail line sometime in the future and convert it to recreational trail use, this property was privately owned at the time this report was prepared and, therefore, was not considered a Section 4(f) protected property. It is presented here for information purposes only.

In late 2003, the BNSF Railway indicated to WSDOT and the Puget Sound Regional Council (PSRC) that they were considering divesting their interest in a 42-mile regional rail corridor it owns in east King and south Snohomish counties and asked these agencies if they would consider acquiring the rail corridor right-of-way. In 2005, King County paid for exclusive bargaining rights with BNSF Railway to acquire the 100-foot-wide right-of-way for this corridor, which stretches from Renton to the city of Snohomish.



BNSF Eastside Rail Line

Exhibit 4-1: Park and Recreation Areas Compared to Section 4(f) Criteria

Property	Publicly Owned	Open to the Public	Major Purpose is Recreation	Substantial as a Park	Section 4(f) Protected Property
Park and Recreation Areas					
I-405 Corridor					
Lake-to-Lake Trail and Greenway ^a	Yes	Yes	Yes	Yes	Yes
Ashwood Playfield	Yes	Yes	Yes	Yes	Yes
McCormick Park	Yes	Yes	Yes	Yes	Yes
Bovee Park	Yes	Yes	Yes	Yes	Yes
Hidden Valley Sports Park	Yes	Yes	Yes	Yes	Yes
116th Avenue NE Trail	Yes	Yes	Yes	Yes	Yes
SR 520 Corridor					
SR 520 Trail	Yes	Yes	No	No	No
Cherry Crest Park	Yes	Yes	Yes	Yes	Yes
Viewpoint Park	Yes	Yes	Yes	Yes	Yes
134th Avenue NE Trail	Yes	Yes	Yes	Yes	Yes
NE 24th St. Trail	Yes	Yes	Yes	Yes	Yes

^a Planned park and recreation resource along Main Street and NE 2nd Street west of 112th Avenue SE.

In the Section 4(f) study area, the BNSF Railway line extends parallel to and east of I-405, then crosses under SR 520 immediately east of the I-405/SR 520 interchange and then under I-405 immediately north of the I-405/SR 520 interchange (see Exhibit 4-2).

In partnership with WSDOT, PSRC obtained federal grant funds to conduct a study to identify desirable potential uses (including trail uses) of this railway corridor, which is referred to as the Eastside line. In January 2007, the PSRC's BNSF Corridor Advisory Committee endorsed King County's plan to acquire the Eastside line for a walking and biking trail.