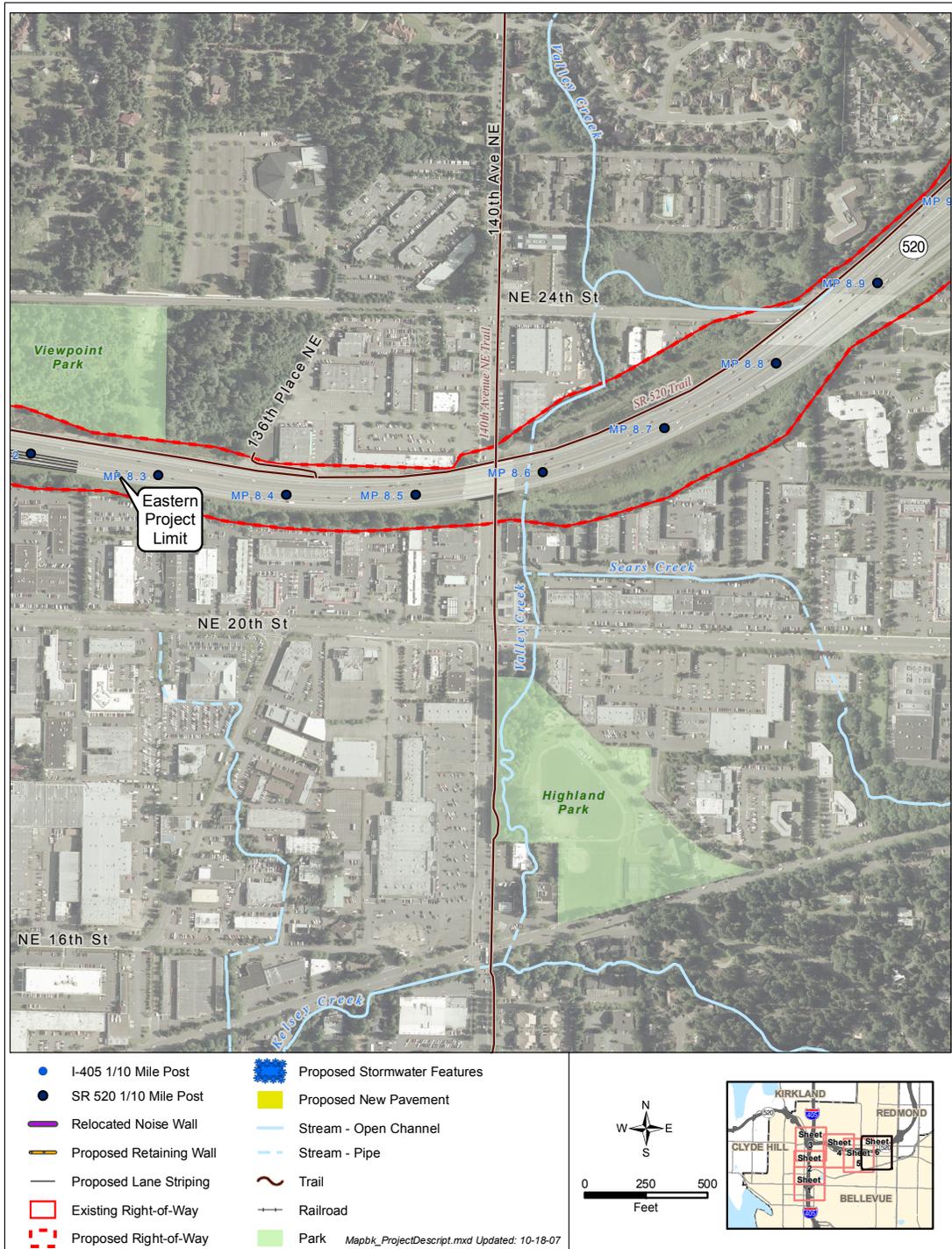


I-405, NE 8TH STREET TO SR 520 IMPROVEMENT PROJECT
ECOSYSTEMS DISCIPLINE REPORT

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



Southbound I-405 to SR 520 Improvements

- Realign the southbound I-405 to eastbound SR 520 loop ramp.
- Realign eastbound SR 520 to match the proposed improvements.

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),¹ M 31-16, and *Hydraulics Manual*,² M 23-03. The Department of Ecology has conditionally approved WSDOT's revised HRM for use as an equivalent

¹ WSDOT, 2006a.

² WSDOT, 2006b.

approach to Ecology's *Stormwater Management Manual for Western Washington*.³

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 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.

What are peak flows?

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

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

³ Ecology, 2005.

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 (see links to WSDOT's project-specific web pages at <http://www.wsdot.wa.gov/projects/>). Other

projects along the I-405 corridor and connecting highways include:

- Renton Nickel Improvement Project, 1-5 to SR 169 (under construction)
- Renton to Bellevue Project, SR 169 to I-90 (proposed)
- South Bellevue Widening (112th Avenue SE to SE 8th Street) Project (under construction)
- NE 10th Street Bridge Crossing Project (under construction)
- SR 520 Bridge Replacement and HOV Project (proposed)
- SR 520 to I-5 Widening Project (proposed)

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.

In addition to improvements along I-405 and SR 520, WSDOT has planned projects on SR 167, I-90, and SR 522 as recorded in WSDOT's *Highway System Plan*.⁴ This plan forecasts transportation needs for the next 20 years. The Metropolitan Transportation Plan for the central Puget Sound region, *Destination 2030*, revised in 2003, defines the region's action plan for the next 30 years.

The I-405 Corridor Program 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 express travel speeds and reliability. The footprint of the project 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

⁴ WSDOT, 2007a.

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?

The I-405 Team identified the study area based on the anticipated construction footprint of the project. The study area includes areas where temporary or permanent effects to ecosystem elements from the project may occur.

The study area for each ecosystem element is defined differently. The wetland study area extends 500 feet from the project footprint to incorporate wetland areas that may be directly or indirectly affected by the project. The aquatic resources study area includes all streams that either flow within 500 feet of the project footprint; or have a hydrologic connection to any wetland within the wetland study area; or that are in close proximity to wetlands that may be affected as a result of the project. The wildlife habitat study area extends 0.5 mile from the project footprint to allow the team to evaluate project effects on upland wildlife habitat. The combined study areas are shown in Exhibit 3-1. In total, the combined study area encompasses approximately 582 acres.

What policies or regulations are related to effects on ecosystem elements?

Federal, state, and local laws protect wetlands, aquatic resources, and wildlife habitat because of their ecological functions and social value. This section describes the laws, regulations, and associated government agencies that govern the ecosystem elements in the study area.

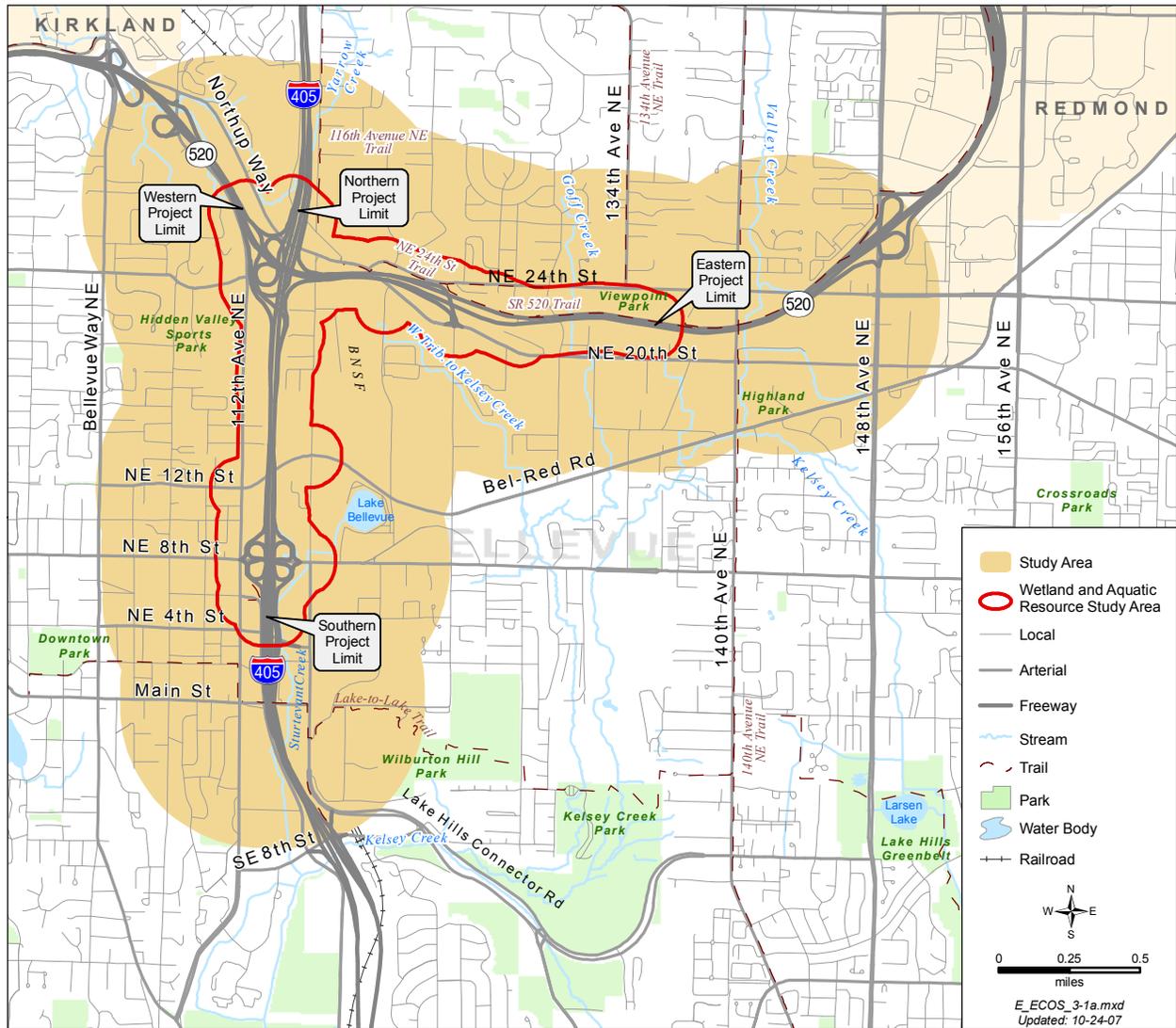
Wetlands

Federal, state, and local regulations govern development and other activities in or near wetlands. Three agencies have primary jurisdiction over wetlands in the I-405, NE 8th Street to SR 520 Improvement Project study area:

- U.S. Army Corps of Engineers (Corps)
- Washington State Department of Ecology (Ecology)
- City of Bellevue

The Clean Water Act (CWA) is the principal piece of federal legislation that regulates activities that may affect wetlands.

Exhibit 3-1: Study Area



The CWA grants both the Corps and a designated state agency (Ecology in Washington) the authority to regulate certain activities in wetlands and other types of water bodies. At the local (city and county) level, Washington State’s Growth Management Act (GMA) requires that wetlands be protected under local zoning codes or other regulations that have been developed to manage wetlands along with other environmentally critical areas.

State and local resource agencies rate or categorize wetlands according to their relative rarity or importance. At the state level, wetlands are categorized by applying a rating system developed by Ecology: *Washington State Wetlands Rating*

System – Western Washington: Revised⁵ and Wetland Rating Form – Western Washington, version 2.⁶ Ecology developed this system to differentiate wetlands based on their sensitivity to disturbance, their significance in the watershed, their rarity, the ability to replace them, and the beneficial functions they provide to society. The City of Bellevue, through its critical areas ordinance (CAO), has adopted Ecology's system to categorize wetlands occurring within the city limits. All wetlands in the study area were categorized according to the Ecology rating system and buffers were established based on the City of Bellevue's regulated buffer widths.

The Ecology rating system requires the user to collect specific information about the wetland in a step-by-step process. Three major functions are analyzed: flood and erosion control; water quality improvement; and wildlife habitat. Wetland functions are described in the wetland functions discussion in Section 4. Wetland ratings are based on a point system where points are given if a wetland meets specific criteria related to the wetland's potential and opportunity to provide certain benefits. Per Ecology's rating system, wetlands are categorized according to the following criteria:

- Category I wetlands represent a unique or rare wetland type, or are more sensitive to disturbance, or are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime.
- Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions.
- Category III wetlands have a moderate level of function. They have been disturbed in some ways, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
- Category IV wetlands have the lowest levels of functions and are often heavily disturbed.

What are the Point Totals for Scoring Wetland Categories Based on the Ecology Rating System?

Category I = Score > 70

Category II = Score 51 - 69

Category III = Score 30 - 50

Category IV = Score < 30

Aquatic Resources

Federal, state, and local regulations govern development and other activities in or near aquatic resources. The main federal

⁵ Ecology, 2004.

⁶ Ecology, 2006.

regulations or statutes regulating activities that govern fisheries and aquatic resources in the study area are:

- The CWA
 - CWA, Section 401 for water quality
 - CWA, Section 404 for discharge of materials to waters of the United States, including wetlands
- The Endangered Species Act (ESA)
- The Rivers and Harbors Act (Section 10)
- The Coastal Zone Management Act (CZMA)

What is the Endangered Species Act (ESA)?

The ESA is an Act of Congress passed in 1973 that governs how animal and plant species whose populations are dangerously in decline or close to extinction will be protected and recovered.

State laws that regulate these resources include:

- The Washington State Hydraulic Code (Chapter 77.55, Revised Code of Washington [RCW])
- Water Quality Standards for Surface Waters of the State of Washington (Chapter 90.48, RCW)
- The Washington State Shoreline Management Act (SMA), implemented through Washington Administrative Code (WAC) (Chapter 90.58, RCW)

The Bellevue CAO also regulates these resources. In general, these regulations protect aquatic habitats and the species, both aquatic and terrestrial, that depend on these areas.

Wildlife Habitat

The Bellevue CAO primarily regulates wildlife habitat through protection of streams, wetlands, and their associated buffers. Certain species receive additional protections under state and federal statutes. Bald eagles (*Haliaeetus leucocephalus*) are protected by both state (Bald Eagle Protection Rule, WAC 232-12-292) and federal law (Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act). The ESA also regulates other federally listed upland plant and animal species.

How did we collect information on ecosystem elements for this report?

The I-405 Team collected existing information on ecosystems resources in the study area by reviewing available literature; performing internet searches; and conducting interviews with various state, county, and local agencies. The team collected additional information in the field by conducting wetland delineations, stream surveys, and vegetation and wildlife

habitat assessments to determine the quantity and quality of existing ecosystems resources. Additional general information was collected during an Interdisciplinary Team (IDT) site visit where experts in the fields of fisheries, wetlands, wildlife, road design, drainage design, and permitting reviewed the natural and manmade features located in the study area. The IDT site visit was preformed in November 2006.

In addition to the background information detailed above, the team also reviewed information on wetlands, aquatic resources, and wildlife habitat collected for the Bellevue Nickel Improvement Project; the Kirkland Nickel Project; the I-405, SR 520 to I-5 Improvement Project; and the SR 520 – Bridge Replacement and High-occupancy Vehicle (HOV) Project. The team coordinated with the staff working on these other ongoing WSDOT projects to ensure areas of overlap between the project are characterized in a consistent manner.

Wetlands

As recommended in the Ecology⁷ delineation manual, the I-405 Team conducted a review of existing wetland information before proceeding with the wetland field work. We reviewed recent aerial photographs of the study area, the National Wetlands Inventory (NWI),⁸ King County Sensitive Areas Map Folio,⁹ City of Bellevue Critical Areas Ordinance,¹⁰ and Washington State Department of Fish and Wildlife (WDFW) Priority Habitat Species (PHS) database.¹¹ We obtained additional information about the location of known hydric soils by using maps published by the Natural Resources Conservation Service (NRCS).¹²

The review of existing information provided the I-405 Team with a general idea of where wetlands might be located within the study area. Often, subsequent field visits were necessary to confirm wetland locations and sizes.

⁷ Ecology, 1997.

⁸ United States Department of Interior, 1988.

⁹ King County, 1990.

¹⁰ City of Bellevue, 2006.

¹¹ WDFW, 2006.

¹² NRCS and USDA, 1995.

What is an interdisciplinary team?

An interdisciplinary team (IDT) is a team of individuals with skills from different disciplines that focus on the same task or project. IDTs provide multiple perspectives in evaluating and avoiding effects to wildlife and wetlands from construction activities.

What are the three wetland criteria, or indicators, for determining a wetland ?

The most distinguishing features of a wetland include the presence of water at or near the surface, wetland soils, and vegetation adapted to or tolerant of saturated soils (Ecology, 1997).

What is the Cowardin system?

The Cowardin system is a habitat classification system (e.g., forested, scrub-shrub, and emergent) developed by wetland ecologists that was adopted by the USFWS in 1979 for use in federal wetland databases, and is recognized by state and local jurisdictions.

Wetland habitats were classified in the study area according to the Cowardin classification system. This system, published in 1979 by a team of U.S. Fish and Wildlife Service (USFWS) scientists led by L.M. Cowardin, bases the classification of wetlands on their physical characteristics, such as the general type of vegetation in the wetland (trees, shrubs, grass or forbs, etc.) and the quantity and location of water in the wetland. Specifically, we assigned each wetland to the following Cowardin classes: palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and palustrine aquatic bed (PAB).¹³

Wetlands in this report are described by location in sequence from south to north along I-405 and from west to east along SR 520. Each wetland in the study area was assigned a number based on its location relative to the nearest I-405 or SR 520 milepost (MP), starting with I-405 MP 13.8 at the southern end of the study area and extending north to MP 15.6 immediately north of the I-405 and SR 520 interchange. The reach of SR 520 within the study area includes SR 520 MP 6.7 to MP 8.3.

The naming convention is as follows:

- “L” if the wetland is located on the left (west) side or southbound lane of I-405 or the left (north) side or eastbound lane of SR 520
- “R” if it is located on the right (east) side or northbound lane of I-405 or the right (south) side or eastbound lane of SR 520
- “M” if the wetland is located within the I-405 or SR 520 median

For example, a wetland found at the midpoint between MP 14 and MP 15 on the left side of I-405 would be Wetland 14.5L.

Aquatic Resources

The I-405 Team worked with local, state, and federal permitting agencies and other resource agencies to identify baseline information on the fisheries and aquatic resources in the study area. The team collected additional information on fisheries and aquatic resources in the field by conducting surveys on the streams in the study area to determine the

¹³ Cowardin et al., 1979.

quantity and quality of existing riparian habitat. During October and November 2006, the team surveyed and characterized the in-stream and riparian habitats of seven streams in the study area:

- Sturtevant Creek
- An unnamed tributary to Sturtevant Creek
- An unnamed tributary to Yarrow Creek
- Yarrow Creek
- West Tributary to Kelsey Creek
- Goff Creek
- Valley Creek

The I-405 Team performed the stream surveys to measure and quantify stream characteristics such as length, width, and depth of the water body; the quantity and quality of in-stream habitat; the nature and type of riparian vegetation; substrate composition; the presence and size of large woody debris (LWD); and any observed fish use. The habitat surveys were conducted from 300 feet upstream to 1,320 feet downstream of the project footprint for each stream. The stream surveys followed specific methodologies, which are summarized in Appendix A. Additional surveys were performed to quantify and qualify LWD recruitment for streams in the study area. The results are summarized in Appendix G.

The I-405 Team also identified existing fish passage barriers in the study area.

Wildlife Habitat

The I-405 Team used land cover geographic information system (GIS) data received from King County and WSDOT to create a map detailing existing land use cover types and wildlife habitats within the study area. We then field verified the map by comparing the expected land use cover types in the map with actual cover types found in the study area. In addition, the team collected background information on wildlife habitat in the study area by reviewing plant and animal databases, including:

What is riparian habitat?

Riparian habitat is defined as the aquatic and terrestrial habitat adjacent to streams, lakes, estuaries, or other waterways.

What is a land use cover type?

A land use cover type refers to what is on top of the land. For example, the landscape cover of a hillside may be primarily vegetated (forested, brush, grass, etc.) or constructed (urban, suburban, industrial, etc.). Constructed areas are typically identified as areas primarily composed of impervious surfaces.

- Washington State Department of Natural Resources (WDNR) Natural Heritage Program (NHP), which details known records of rare plants and rare plant communities¹⁴
- PHS Program administered by WDFW, which details priority habitats and species information¹⁵

The I-405 Team then overlaid the proposed project improvements on the map and used it to quantify the amount of habitat and document sensitive wildlife species that the project will disturb or remove.

Additionally, we worked with local regulators and WDFW and USFWS staff to verify the presence of important upland plant and animal species in the study area.

How did we evaluate effects on ecosystem elements?

The project will affect existing ecosystem elements. These effects could be either temporary or permanent in nature. Using computer-aided design (CAD) software, the I-405 Team calculated these effects by overlaying the temporary and permanent construction areas onto a map detailing the ecosystem elements in the study area.

Effects to wetland and wetland buffers were evaluated to determine whether the extent of the effects would impair the overall function and viability of each wetland and riparian buffer. Effects to these buffers were calculated by evaluating the project's temporary and permanent construction effects that would occur within the City of Bellevue's regulated wetland or wetland buffers. Direct effects from shading from new structures and potential increases in stormwater flow, and indirect effects on streams generated by the project were also evaluated.

The I-405 Team determined the extent of existing vegetation and impervious surfaces, and evaluated project effects to wildlife habitat in the study area by performing a GIS-based land cover analysis, which included field level reconnaissance to verify the accuracy of the GIS data. If discrepancies between the data and ground conditions were observed, the

What are indirect effects?

Indirect effects are effects that occur later in time or are removed in distance from the proposed action, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems.

¹⁴ WDNR, 2005.

¹⁵ WDFW, 2006.

data was adjusted as necessary. We then compared this information to the anticipated effects from the project to determine and evaluate project effects to wildlife habitat including changes to habitat types and increases in impervious surface within the study area. In addition, we worked with stormwater experts to assess to what degree, if any, new potential stormwater generated from the project would affect wildlife habitat.

SECTION 4 EXISTING CONDITIONS

What ecosystem elements exist in the study area?

The ecosystem elements in the I-405, NE 8th Street to SR 520 Improvement Project study area include wetland, aquatic, and wildlife habitats in which specific plants or animals naturally live, grow, and reproduce. These habitats provide the plants and animals in the study area with adequate food, water, shelter, and living space. Habitats found in the study area are typically degraded when compared to natural conditions due to the urban nature of the study area; however, a large variety of plants and animals still occupy the various habitats found therein.

What are the characteristics of ecosystem elements located in the study area?

Wetlands

The I-405 Team identified 12 wetlands totaling approximately 7.29 acres within or adjacent to the study area for the I-405, NE 8th Street to SR 520 Improvement Project. Of the 7.29 acres, six wetlands encompassing approximately 6 acres (80 percent) occur within the study area, but outside of the actual project footprint.

Wetlands identified in the study area are typically associated with streams, hillside seeps, or drainage ditches that receive road runoff and convey stormwater and meet the three wetland criteria: vegetation, soils, and hydrology.

In general, wetlands in the study area have actual buffers that are smaller in size than the regulated buffers detailed in the City of Bellevue CAO due to their proximity to the highway and its associated impervious surfaces. These wetlands also typically contain a low percentage of native plant species. Himalayan blackberry (*Rubus armeniacus*), a non-native, invasive species, is a common wetland buffer species observed in the study area due to the disturbed conditions that favor invasive plant species. These wetlands receive large volumes of untreated stormwater runoff. The wetlands do not have the ability to efficiently treat stormwater runoff because of the

wetlands' compromised ability to detain or retain large volumes of water during storm events.

A summary of the study area wetlands, their associated local and state ratings, and their buffers is presented in Exhibit 4-1. The size of each wetland has been expressed in acreage and is accurate to two decimal places. The City of Bellevue does not regulate buffers for wetlands smaller than 0.06 acre (2,500 square feet). Therefore, no buffers are shown in Exhibit 4-1 for Wetlands 15.24L and 15.25L.

Exhibit 4-1: Summary of Wetland Ratings in the Study Area

Wetland	Size (acres)	Cowardin Classification	State Rating (Ecology)/ City of Bellevue Rating ¹	Local Jurisdiction Buffer Width (feet)
6.8L	0.50	Emergent	IV	40
6.9L	0.18	Emergent	IV	40
6.9R	0.23	Emergent	IV	40
6.95R	0.39	Emergent	IV	40
7.18L	0.59	Forested, scrub-shrub, and emergent	III	60
7.2L	0.12	Forested	III	60
7.3R	4.14	Forested, scrub-shrub, and emergent	II	75
8.1L	0.04	Forested, scrub-shrub, and emergent	III	60
8.5L	0.74	Forested and scrub-shrub	IV	40
8.5R	0.34	Forested and scrub-shrub	IV	40
15.24L	<0.01	Forested	IV	NA ²
15.25L	<0.01	Forested	IV	NA ²
Total	7.29			

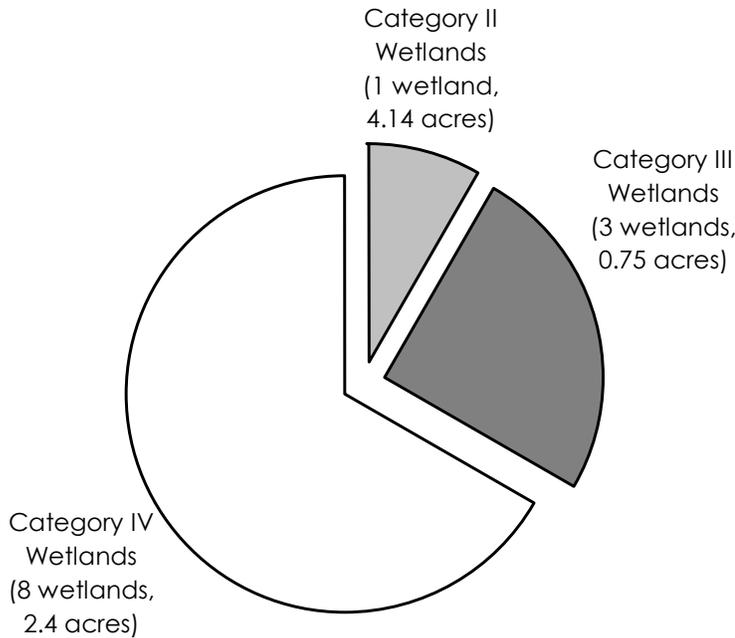
1 The City of Bellevue has updated its CAO portion of its Land Use Code to emulate Ecology's rating system.

2 NA – Not Applicable – The City of Bellevue does not regulate buffers for wetlands smaller than 0.06 acre.

The wetland areas presented in Exhibit 4-1 represent the total area of wetlands delineated, not just those areas that will be affected by construction of the roadway improvements. Exhibit 4-2 visually presents the percentages of wetlands in the study area by the Ecology rating system.

Ecology's wetland rating field data forms are presented in Appendix C.

Exhibit 4-2: Number of Wetlands in the Study Area Categorized by Ecology Rating System



Wetland Classification

The I-405 Team categorized the 12 wetlands in the study area using Ecology's rating system. In the study area, eight wetlands (67 percent) were classified as Category IV wetlands; three (25 percent) as Category III wetlands; and one (8 percent) as a Category II wetland. No Category I wetlands were identified within the study area.

The City of Bellevue's guidelines were also used to establish the wetlands' buffer widths. Effective August 1, 2006, the City of Bellevue updated its CAO portion of its Land Use Code, including their wetland rating system.¹⁶ The City has adopted the state wetland rating system, as described previously.

The study area spans six different drainage basins, or watersheds (clockwise from south to north then west to east): Sturtevant Creek, Yarrow Creek, West Tributary to Kelsey

¹⁶ *City of Bellevue, 2006.*

Creek, Goff Creek, Kelsey Creek, and Valley Creek. Within the study area, only four of these basins contain wetlands: Yarrow Creek, West Tributary to Kelsey Creek, Goff Creek, and Valley Creek. Exhibit 4-3 details the drainage basins in the study area.

The following sections describe the wetlands located within each basin and their sizes. Wetland locations are shown on Exhibit 4-4.

Exhibit 4-3: Drainage Basin Boundaries within the Study Area

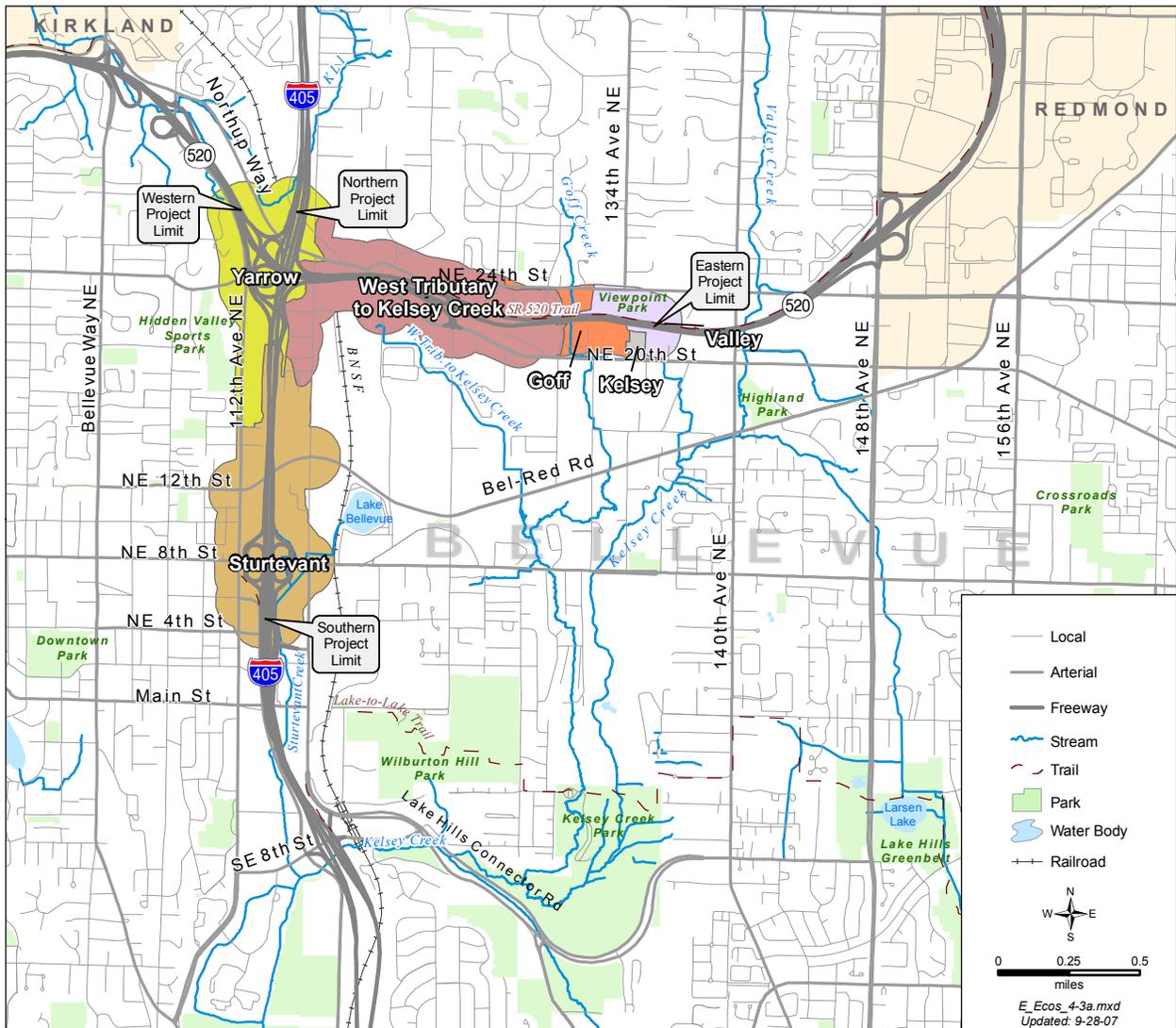


Exhibit 4-4: I-405, NE 8th Street to SR 520 Improvement Project Wetlands and Streams Sheet 1

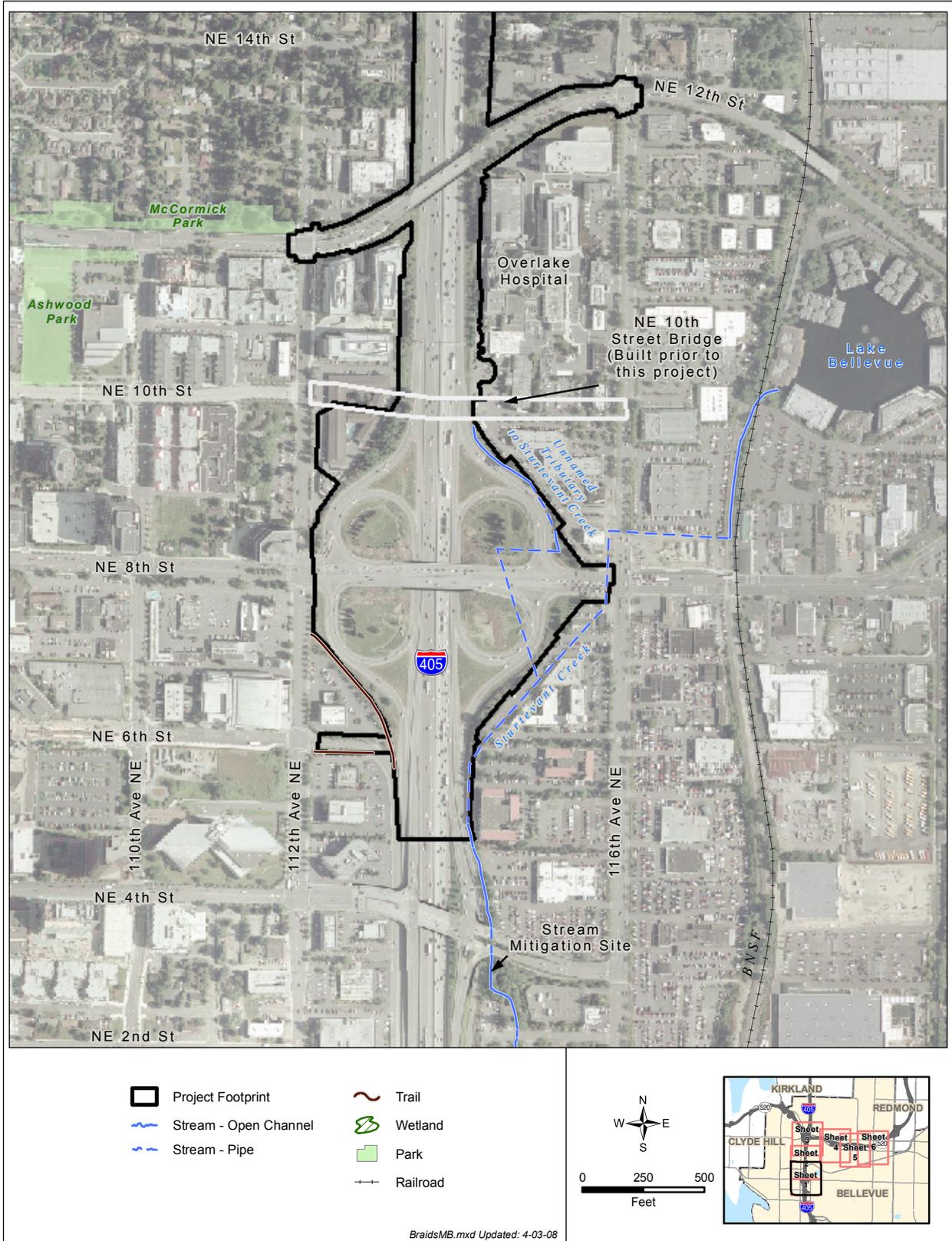


Exhibit 4-4: I-405, NE 8th Street to SR 520 Improvement Project Wetlands and Streams Sheet 2

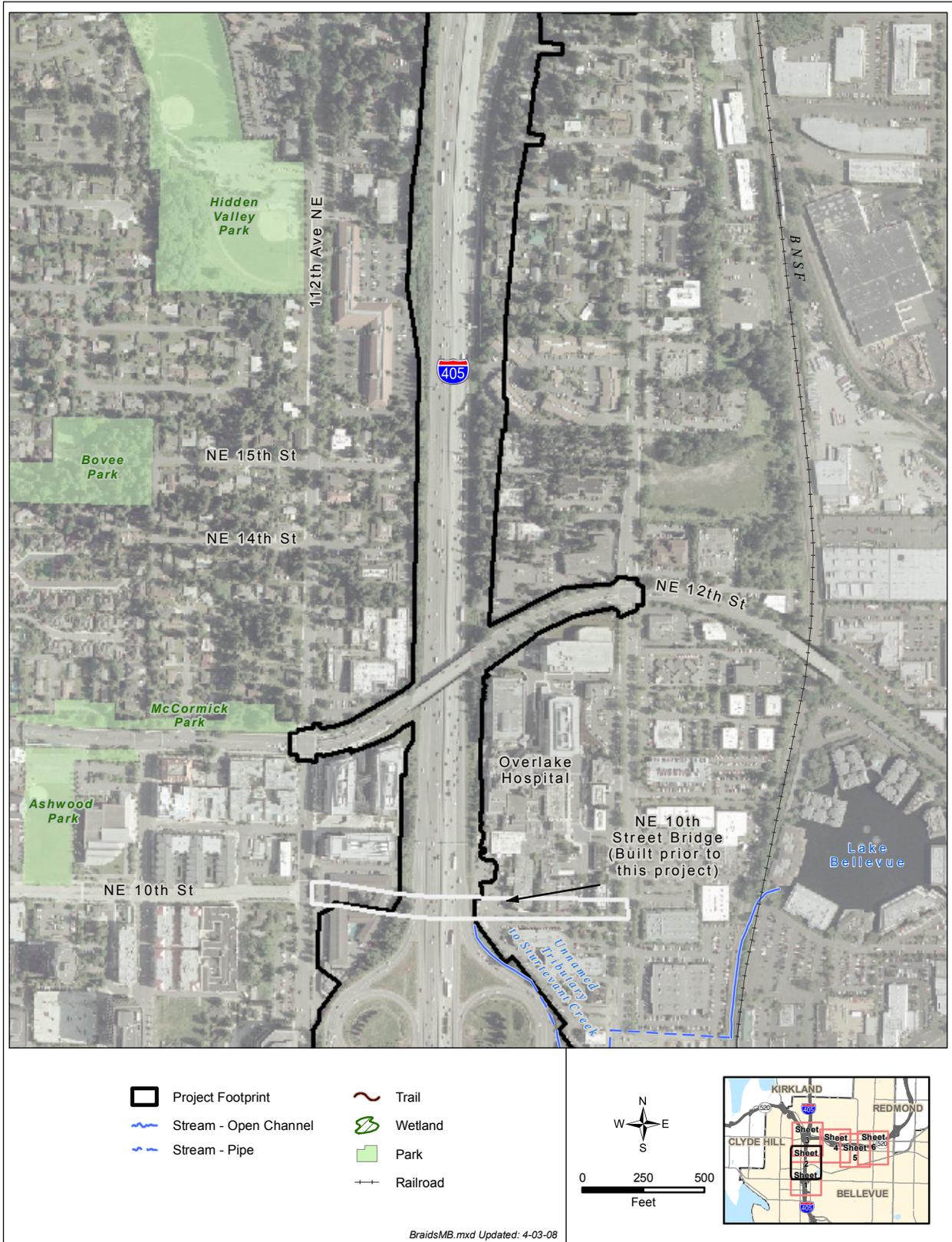


Exhibit 4-4: I-405, NE 8th Street to SR 520 Improvement Project Wetlands and Streams Sheet 3

