

Habitat Management Plan

Proposed Riverfront Park Improvements
Spokane, Washington

for

City of Spokane Parks and Recreation

June 17, 2015



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File No. 0110-148-02

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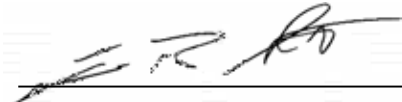
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LIST OF ACRONYMS

ADA—Americans with Disabilities Act

BMP—Best Management Practices

ESA—Endangered Species Act

HMP—Habitat Management Plan

JARPA—Joint Aquatic Resources Permit Application

NOAA—National Oceanic and Atmospheric Administration

NWI—National Wetlands Inventory

OHWM—ordinary high water mark

PHS—Priority Habitat and Species

RHA—riparian habitat areas

SMC—Spokane Municipal Code

T&E—threatened and endangered

UFC—Urban Forestry Commission

USACE U.S. Army Corp of Engineers

USFWS—U.S. Fish and Wildlife Services

USGS—U.S. Geological Survey

WAC—Washington Administrative Code

WDFW—Washington Department of Fish and Wildlife

WDNR—Washington Department of Natural Resources

WRIA—Water Resource Inventory Area

INTRODUCTION

This Habitat Management Plan (HMP) has been prepared for the City of Spokane (City) for the proposed Riverfront Park (Park) redevelopment project. The 100-acre Park site, located in the center of Spokane, Washington, encompasses both land (approximately 56 acres) and water (approximately 44 acres) and is owned and managed by the City of Spokane. The Park site includes Havermale Island, Canada Island and portions of the north and south banks of both channels of the Spokane River. Upland, river and marginal riparian habitat are also located within the Park. This HMP report summarizes the proposed redevelopment plan, evaluates that plan's potential for impact to priority species and/or habitat and provides general recommendations for potential mitigation and future ongoing park management/maintenance. The City will be the lead regulatory review authority for this project.

Project Location

Riverfront Park is located in downtown Spokane, Washington and is roughly contained by West Cataldo Avenue on the north; West Spokane Falls Boulevard on the south; the Spokane River Downstream of North Division Street on the east; and North Monroe Street on the west (Figure 1, Vicinity Map).

Background

In 1974 the City hosted the World Expo (Expo'74). In preparation for Expo'74, the City made significant improvements to the area of the current Park and adjacent properties by removing the rail yards, demolishing the Great Northern Railroad Depot on Havermale Island and increasing cleanup efforts on the Spokane River. The site was then developed with associated amenities, buildings, shelters and infrastructure, as illustrated in the current Park layout (Figure 1a, Existing Site Plan). Since hosting Expo'74, the City has made no substantial capital investments to the Park and much of the aging infrastructure is in disrepair and/or in need of significant upgrades. Numerous park studies were completed on various aspects of the Park prior to 2012; however, none of those studies included a comprehensive review of the overall park operation and ongoing viability of its uses. In 2012 the City conducted a comprehensive park review and completed the *Riverfront Park Master Plan* Fall 2014 (City of Spokane 2014). The 2014 Master Plan outlines the City's strategies and details how to guide growth and modernize infrastructure for the next 40 years within the Park.

Purpose / Project Description

The 2014 Master Plan was generated for the purpose of determining appropriate upgrades and/or redevelopment activities related to Park landscaping, amenities and general infrastructure. Although specific design details have not been developed as of this HMP, it is GeoEngineers' understanding that all redevelopment and construction activities will focus around the public's interest of maintaining open green space; minimizing actions in riparian buffers/setbacks; and enhancing existing riparian habitat where possible (Figure 1b, Proposed Site Plan). The 2014 Master Plan is referred to throughout this report and is considered the main source of information pertaining to the redevelopment of the Park.

Regulatory Framework

This HMP has been prepared in accordance with Spokane Municipal Code (SMC) 17E.020.090, which requires an HMP be prepared for proposed uses or activities that are: (1) located within fish and wildlife habitat conservation areas; or (2) that would have an impact on a priority species or habitat (including

shoreline management areas [SMA] and riparian habitat areas [RHA]). The City is further required to use the HMP to evaluate use or activities impacts for the purpose of determining mitigation measures (if needed) and/or developing management plan recommendations (SMC 17E.020.050).

Scope of Work

The primary focus of this HMP is to evaluate potential impacts that the Park redevelopment project could have on priority species and/or habitat within the Park boundary. This evaluation is based on information obtained from the 2014 Master Plan, personal communications with City staff and regulatory agencies and a visual survey. The goals of this HMP are outlined as follows:

- Verify potential priority habitat and species (including threatened and endangered species) within the Riverfront Park
- Evaluate existing conditions regarding aquatic, riparian and upland habitats
- Estimate the effect of the proposed project on potential fish and wildlife species habitat and shoreline jurisdictions
- Generally identify possible maintenance/mitigation measures to protect buffer/setback areas and to maximize function of the existing habitat features

METHODS

Initial Data Collection and Literature Review

GeoEngineers gathered multiple literature resources and contacted various jurisdictional agencies in an effort to review relevant information that would assist with overall site characterization. The following is a summary of the literature reviewed by GeoEngineers:

- Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) Maps/Data
- U.S. Fish and Wildlife Services (USFWS) ESA Species Data
- National Oceanic and Atmospheric Administration (NOAA) Endangered Species Act (ESA) Fisheries Species Data
- Washington Department of Natural Resources (WDNR) Natural Heritage Program
- U.S. Geological Survey (USGS) Topographic Maps
- USFWS ESA Maps
- General data from the City of Spokane, Washington

Field Reconnaissance

GeoEngineers generated digital maps for use with an iPad and global positioning system (GPS) application. The iPad was used in the field to verify location and data collection. Two GeoEngineers' biologists conducted a pedestrian survey of the Park while gathering general information related to species and habitat observations. Photographs were also collected in various areas across the site to document current site conditions, which are presented in Appendix A, Site Photographs.

RESULTS

Initial Data Collection and Literature Review

The following information was gathered during initial data collection and literature review efforts summarized above. Species listed under the ESA fall under the jurisdiction of one of two federal agencies: the USFWS for terrestrial and freshwater species and NOAA Fisheries for anadromous salmonid and marine species. GeoEngineers obtained a list of “listed” or “proposed” species and “designated” or “proposed” critical habitat that could potentially occur within the area of the Park from the USFWS (2015). GeoEngineers also obtained lists of “listed” or “proposed” species and “designated” or “proposed” critical habitat for salmonid species in Washington from NOAA Fisheries (2014). These official species lists are included in Appendix B, Species Data Compilation.

The USFWS and NOAA Fisheries lists identify species and critical habitat that could potentially be present within Spokane County, Washington. Consequently, due to lack of habitat or other ecological factors, not all species in these lists are expected to occur within the Park area. Additionally, information regarding the presence of listed species within the Park area was also obtained from the WDFW PHS dataset, which was acquired specific to the area of the Park (WDFW 2015a and b). The species lists and the WDFW PHS data were used to determine what species may actually be present within the Park area.

WDFW PHS Maps/Data

According to WDFW PHS data, there are no federally threatened or endangered species within 1 mile of the Park (WDFW 2015a and b).

Peregrine falcons (*Falco peregrinus*) are a Washington State sensitive species and a federal species of concern (WDFW 2015c). A Peregrine falcon nest is documented to be located just southwest of the Park boundary. Based on Peregrine falcon foraging requirements and range (Birdweb 2015), GeoEngineers assumes they are periodically present within the Park boundaries.

Rainbow trout (*Oncorhynchus mykiss*) are a Washington State candidate species and the Spokane River is mapped as containing rainbow trout. While rainbow trout might be present periodically within the Park boundaries, habitat conditions are poor; therefore, the population is likely sparse and comprised of transient downstream migrants.

As part of our due diligence to completing this HMP, GeoEngineers contacted WDFW representative Karin Divens on April 2, 2015 to discuss potential species that might not be included in the PHS data but might be found within the area of the Park. According to Ms. Divens, there is a Townsend’s big-eared bat (*Corynorhinus townsendii*) colony located at Sunset Bridge, which is approximately 2 miles southwest of the Park. The Townsend’s big-eared bat is currently listed as a Washington State candidate species but is not shown in the PHS data to occur within the Park boundaries. However, it is WDFW’s opinion that these bats likely forage in the area of the Park.

It is expected that Peregrine falcons, rainbow trout and Townsend’s big-eared bats might occur within the Park boundaries periodically; however, the Park represents only a small fraction of each species’ available range. Further, the conceptual redevelopment plans, proposed for the Park, are not likely to negatively affect existing habitats significantly enough to impact any of these species.

USFWS Species Data

The USFWS threatened and endangered (T&E) species list identified the potential for five T&E species to be present in the Park area: Yellow-billed cuckoo (*Coccyzus americanus*), bull trout (*Salvelinus confluentus*), Canada lynx (*Lynx canadensis*), water howellia (*Howellia aquatilis*) and Spalding's catchfly (*Silene spaldingii*). The USFWS list does not show critical habitat within the project area. Below are discussions of these species and their potential presence within the project area.

- **Yellow-billed cuckoo (*Coccyzus americanus*).** Yellow-billed cuckoos prefer deciduous forests with a thick undisturbed understory that are at least 25 acres in size (Natureserve 2015). Yellow-billed cuckoos are not expected to occur in urban environments with little to no forested areas (Birdweb 2015). The Park currently does not contain large areas of deciduous forest with thick undisturbed understory. Therefore, it is unlikely that a yellow-billed cuckoo would use habitats within the proposed project area.
- **Bull Trout (*Salvelinus confluentus*).** Bull trout occur in cold water streams within Spokane County (USFWS Bull Trout Species Fact Sheet). However, bull trout do not typically utilize streams that have seasonal high temperatures or low-flows such as Spokane River. Bull Trout are not mapped by WDFW PHS data as utilizing Spokane River within the vicinity of the proposed project (WDFW 2015a, 2015b). In addition, the USFWS indicated that although bull trout may be found further upstream, bull trout populations are not expected to be located within the vicinity of Park (personal communication with Michelle Eames, pers. comm.).
- **Canada Lynx (*Lynx Canadensis*).** According to WDFW PHS maps, there are no terrestrial threatened and endangered species located in or within 1 mile of the Park (WDFW 2015a and b). Canada Lynx are associated with moist, cool, boreal spruce-fir forests with a high prey density (USFWS Canada Lynx Species Fact Sheet). In addition, the proposed project site is located in a highly developed urban area with extensive human use and no forested habitat. Therefore Canada lynx are not expected to be located within the area of the proposed project.
- **Water Howellia (*Howellia aquatilis*) and Spalding's Catchfly (*Silene spaldingii*).** Washington Department of Natural Resources (WDNR) lists 36 rare plant species that are known occurrences within Spokane County, Washington including the two listed species (WDNR 2014a). However a WDNR search of its Natural Heritage Program database revealed no records of any listed plants, high quality ecosystems or other significant natural features within the vicinity of the proposed project site (WDNR 2014b). In addition, because of extensive human use and ongoing park maintenance, these plant species are not expected to be within the Park boundary.

NMFS Species Data

The Spokane River is blocked to anadromous fish migrations by hydroelectric dams in the mainstem Columbia River. Therefore, no anadromous fish species exist within the proposed project area.

WDNR Natural Heritage Program

There are a total of 36 rare plants that are found in Spokane County, Washington (WDNR 2014a); however, the project area is not located in a section, township and range that contain a natural heritage feature (WDNR 2014b).

Summary of Species Potentially within the Project Site

Based on the information obtained from the agencies listed above, no T&E plant, wildlife or aquatic species were mapped within a 1- mile radius of the Park. Additionally, the Park does not contain critical habitat for T&E species.

Information gathered from these same agencies indicates that state priority species that have the potential to occur on site likely include rainbow trout, Peregrine falcons and Townsend's big-eared bats. However, redevelopment activities proposed for the Park are not likely to impact existing habitat or populations of these species.

USGS Topographic Maps

GeoEngineers reviewed the Spokane Northwest 7.5-Minute Series Topographic Map dated 1974 photorevised 1986 (Figure 2, Topographic Map). The topographic map shows the general area of the Park as being located along the Spokane River within an urban setting. No wetland or other habitat areas were depicted on the map other than the Spokane River.

USFWS NWI Maps

GeoEngineers reviewed the USFWS Digital Wetlands Mapper (<http://www.fws.gov/wetlands/>) on March 31, 2015 (Figure 3, National Wetlands Inventory Map). The USFWS NWI Map identified the Spokane River as a Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded (R3UBH) system. No other wetlands were identified on the USFWS Digital Wetland Mapper within the area of the Park.

Field Reconnaissance

Two GeoEngineers' biologists conducted a site visit on March 9, 2015 to observe existing site conditions. Appendix A contains site visit photographs of the project area. Information from the site visit, together with available published information on the Spokane River watershed, was used to document existing baseline habitat conditions in the project area. The project area includes terrestrial, freshwater and marginal riparian habitats that are discussed below.

Terrestrial Habitat

Terrestrial environments within the Park generally consist of urban park-like features and landscapes that could likely provide habitat for song birds, waterfowl and rodents. Larger mammals (such as deer and coyote) are not expected to be within the Park area due to a lack of appropriate habitat, vegetative cover and the heavily urbanized downtown setting with no adjacent undeveloped areas. Vegetation within the Park largely consists of ornamental trees and shrubs with large areas of maintained lawn. Vegetation found within the Riverfront Park has been documented by City of Spokane and is included in Appendix B.

Federally listed terrestrial species are not mapped within 1 mile of the Park by WDFW PHS data (WDFW 2015a and b). There is no mapped terrestrial critical habitat or plant and/or animal species that are likely to utilize the surrounding terrestrial habitat within the Park area. The WDFW does map a Peregrine falcon nest just outside the southwest boundary of the Park and has further indicated through personal interviews that there is a Townsend's big-eared bat colony located approximately 2 miles southeast of the Park (WDFW 2015a and b; Karen Divens, pers.comm.). According to the WDFW PHS data (WDFW 2015a and b) there are no other priority terrestrial species mapped within 1 mile of the Park and there are no terrestrial mapped priority habitats within the vicinity of the Park. However, further information obtained from WDFW indicates

that the both the riparian and instream habitat with the Park, although not depicted on the WDFW PHS data maps, is designated, protected and managed as priority habitat by the WDFW.

Spring

During the March 2015 site investigation, a water feature was identified in the northwest portion of Havermale Island. Based on conversations with the City, this area is determined to be a natural spring where water discharges from the earth and flows in a northwest direction through a culvert and into the north channel of the Spokane River. According to the City, the spring was identified after the demolition of a former YMCA building sometime between 2009 and 2011. At the time of the visual survey, the spring channel had been landscaped to provide a more natural aesthetic feel but does not exhibit natural stream attributes and/or aquatic habitat.

Shoreline Riparian Habitat

The Spokane River is located within Water Resource Inventory Area (WRIA) 57 (Middle Spokane) (Ecology 2015). The Spokane River flows approximately 111 miles, originating in Coeur d'Alene, Idaho and flowing westerly, through the Park, and eventually discharging to the Columbia River. Uses along the River, adjacent to the Park, include residential, commercial and recreational development. Within this area, the Spokane River has banks that are largely defined by riprap or basalt cliffs. Within the Park, the riparian area lacks vegetation and mainly consists of concrete surfaces and steep basalt rock outcroppings. The limited vegetation immediately adjacent to the Spokane River largely consists of occasional trees, shrubs and mowed grasses.

During the March 2015 site visit, GeoEngineers verified the ordinary high water mark (OHWM) that had been previously surveyed by Adams and Clark, Inc. (Figure 4, Shoreline Jurisdiction Map). GeoEngineers agreed with the OHWM survey and no changes were made to the existing delineation.

REGULATORY SETTING

Shoreline Jurisdiction

The Washington Administrative Code (WAC) 173-22-040 establishes a 200-foot shoreline jurisdiction in and along the shoreline of the Spokane River, and it is regulated jointly by the City of Spokane and Washington State Department of Ecology (Ecology). The SMC defines shoreline jurisdiction as, "all upland areas, also referred to as shorelands, that extend 200 feet landward in all directions on a horizontal plane from the edge of the OHWM of the Spokane River (SMC 17E.060.050.C 1-3)." However, the City has further broken down the shoreline jurisdiction (within City limits) into shoreline districts with specific shoreline environment designations. SMC 17E.060.060 identifies the area in which the Park is located as the "Downtown" district with an "Urban Intensive Environment" designation. Under this designation the City allows uses or activities to occur within 50 feet of the OHWM if proper recommendations and management options are addressed in an HMP that supports the actions (Figure 4). The City has a 25-foot construction set back from the 50-foot buffer identified above that has been established in accordance with SMC 17E.060.770 and SMC 17E.060.380.

The City, in consultation with WDFW, has also established a RHA buffer that includes the outer edge of the 100-year floodplain or 130 feet from the OHWM (whichever is greater) as outlined in SMC 17E.020.050.f for the purpose of protecting priority species or habitat (Figure 4). Similar to the 50-foot buffer, the City

allows uses or activities to occur within the 130-buffer if proper recommendations and management options are addressed in an HMP that supports the actions.

Permitting

It is anticipated that various aspects of the Park redevelopment will have additional local, state and federal permitting requirements. As previously mentioned, specific redevelopment designs have not been developed; however, conceptual plans anticipate that redevelopment activities—associated with bridge renovations and/or streambank and riparian habitat enhancement—could include work below the OHWM of the Spokane River. In the event that these activities occur, the City will need to complete a Joint Aquatic Resources Permit Application (JARPA) that covers the following permits:

- Shoreline Substantial Development / Conditional Use / Variance and/or Exemption Permits—City of Spokane in conjunction with Ecology
- 401 Water Quality Certification—Ecology
- Hydraulic Project Approval (HPA)—WDFW
- Section 404 Permit—U.S. Army Corp of Engineers (USACE)
- Aquatic Use Authorization Permit—WDNR

The application process associated with each of these permits will also assist with furthering the avoidance, minimization and enhancement goals of the proposed Park redevelopment.

PROPOSED ACTIONS

The core concept of the 2014 Master Plan is to bring greater numbers of people and events to the Park, the Spokane Falls and to the Pavilion Event Center through improved circulation and the addition of a central plaza that can host large and small events (Figure 1a and Figure 1b). The 2014 Master Plan also indicates that efforts will be made during the design and construction process to honor the legacy of Expo '74 by being a leader in the protection of natural resources within the Park. The following areas were identified with the 2014 Master Plan as targeted for redevelopment.

- Howard Street Promenade and Plazas
- U.S. Pavilion Event Center
- Park Event Shelters
- Event Programming
- Havermale Loop
- Skate Park/Wheels Facility
- Loeff Carrousel
- Clock Tower Viewing Access
- Public Art
- Sister Cities Garden Center
- Ice Palace
- Parking/Passenger Drop-off Areas
- Improved Surrounding Arterials
- Public Transit Access
- Cycling
- People Movers and Skyride Extension
- Water / Power Infrastructure
- Americans with Disabilities Act (ADA) Access
- Wayfinding and Signage
- Fire Access and Safety
- Park Lighting

- Security Cameras and Phones
- Viewing Terraces
- Havermale Sculpture Garden

The following section identifies the concepts proposed for each area listed above. Please note, the concept descriptions provided below are a summary of the potential activities identified by the 2014 Master Plan only. As such, specific design plans are likely to differ from the Master Plan concepts. If so, the City will be required to assess the potential impacts that each action could have once final design is complete. In this scenario, the City might need to either complete a separate HMP related to site specific designs and/or amend this document accordingly.

Howard Street Promenade and Plazas

Three centrally located plazas along the Howard Street corridor will provide places to gather and host events. The City's plan is to develop a strong north-south corridor that provides a physical and visual connection while accommodating pedestrians, cyclists and potential vendors. The Howard Street Promenade will incorporate the following concepts:

- Updates to power and utility infrastructure, as needed, for temporary vendors and public events
- Installation of landscaping, outdoor furnishings, trash receptacles, drinking fountains and other various structures that reflect the overall concepts and goals identified in the 2014 Master Plan
- Development of significant gateways at the north and south park entrances
- Installation of lighting for accent and public safety purposes
- Development of signage that clearly defines pathways for pedestrians and cyclists

U.S. Pavilion Event Center

The City proposes to restore the U.S. Pavilion Event Center (Pavilion) as the central gathering place for the Park. Plans include the redevelopment of the Pavilion as a flexible use space able to host multiple event types of varying size (e.g. Hoopfest championship game, Bloomsday awards ceremony, musical concerts, Spokane Symphony and graduations). The City has determined that the following objectives will be used to guide design concepts around the redevelopment of the Pavilion:

- Enhance and restore the Pavilion's visual access to the Spokane River
- Restore the Pavilion's existing interior at a monumental scale
- Develop new and improved program uses that better represent the community and region as a whole
- Re-sheath the Pavilion in a material and shape that address previous design flaws while allowing for interior and exterior video projections
- Develop improved access to the Pavilion for pedestrians / improve event parking and access to the Pavilion and river

Park Event Shelters

Two open-air shelters and a public restroom facility are currently located at the north end of the Park. The City reports these facilities as being under-equipped and outdated and would like to see these structures enhanced or replaced with new structures that better accommodate catered events year-round. The City would further like to see increased use of these facilities in conjunction with the Havermale Island shelter and the storage building on Canada Island to increase potential revenue through leasing fees.

All current event shelters are outdoor only, which limits their use during winter months. These shelters are also outdated with limited restroom capacity, limited food service and little to no storage. The City proposes replacing the current event shelters with year-round indoor/outdoor event pavilions. This would provide the City with the opportunity to meet programmatic needs for expanded hosting capacity and revenue generation. The City indicates that each pavilion will be renovated to work within its own site determinants and respond to its place within the Park. As of this report, specific renovation designs have not been completed, however, the City anticipates that the North Bank and East Havermale event shelters could be renovated to house events with up to 150 to 350 people, respectively.

Increased Event Programming

The City reports that the Park currently hosts approximately 45 events each year. However, the City would like to increase the number of events to 120 to 150 events annually. With the hope of potentially tripling existing event attendance, the 2014 Master Plan has identified over 100 days of events that could possibly be held within the Park.

Havermale Loop

The City proposes the development of a trail that loops Havermale Island. This trail could become an extension to the Spokane River Centennial Trail. The loop-trail system would provide opportunities for passive viewing and would require the installation of various benches around its perimeter. The loop would also incorporate passage through the U.S. Pavilion Event in order to create a complete circle.

Skate Park/Wheels Facility

The City proposes the potential development of a skate park or wheels facility that would be located at the northern most end of the Park that would replace Parking Lot 4 that is currently a gravel lot. This facility would be a staffed pay-to-skate park which is anticipated to accommodate a variety of recreational wheeled activities (e.g. skateboards, longboards, roller blades and/or BMX bike racing). The City further believes that the existing Carnation Garage on Cataldo Street could be used, with the addition of multiple large overhead garage doors, for an indoor/outdoor skating experience.

Loeff Carrousel

The Loeff Carrousel (Carrousel) building is located between the Rotary Fountain and North Stevens Street on the south side of the south channel of the Spokane River. Currently, approximately 50 percent of the Carrousel building footprint is located with the 75-foot shoreline setback (50-foot Downtown-Urban Intensive Environment setback plus 25 feet for Downtown Construction setback [SMC 17E.060.770]). According to the 2014 Master Plan, the Carrousel building is in need of a significant remodel. Three development scenarios (Development Scenario A through C) for the Carrousel building have been proposed. However, the City Park Board has identified Development Scenario A as the preferred development

alternative; therefore, it is the only scenario that is summarized in this HMP (see 2014 Master Plan pages 57–59 for further details related to Development Scenario B and C).

Development Scenario A consists of keeping the Carrousel in its current location with building expansion occurring to the south (away from the Spokane River) outside of the 75-foot shoreline setback. In an effort to minimize the expanded footprint, the Carrousel building could potentially become a two-story structure with a building footprint of approximately 31,000 square feet. Areas adjacent to the Spokane River could then be restored to more natural conditions with grading and plant installation.

Clock Tower Viewing Access

The Clock Tower is located on the north shore of the south channel of the Spokane River on Havermale Island, between North Stevens Street and the pedestrian bridge. The tower consists of eight levels and is approximately 155 feet tall. The opportunity exists to open the Clock Tower to the public as a recreational and educational experience. The development of a new stair structure would allow visitors to climb the tower to a viewing platform.

Public Art

The 2014 Master Plan proposes to build, repair and improve upon the existing collection of public art within Riverfront Park and could include:

- Newly commissioned art that showcases regional artists and new technologies
- Community engagement art projects
- Repair of existing art within the Park
- Creation of better ongoing sources of revenue to maintain public art in the Park over the long term
- Coordination of all future hardscape developed with proposed public art prior to hardscape installation

Sister Cities Garden Center

The proposed Sister Cities Garden Center is being developed by the Sister Cities Association of Spokane. Slated to occupy the former site of Japanese Garden/Expo '74 legacy, the proposed garden will highlight art, plantings and river connections of the five sister cities (Spokane, Washington, Nishinomiya, Japan, Jilin City, China, Limerick, Ireland, and Jecheon, Republic of Korea). The overall design will incorporate an interactive centerpiece in the courtyard utilizing recycled glass paving. Specific details of the proposed planting and layout are not known at this time.

Ice Palace

The Ice Palace is located in the center of the Park under the Pavilion and is dated and in need of numerous repairs. The 2014 Master Plan proposes the development of a newly designed ice rink near the southwest corner of the Park with upgraded support facilities such as concessions, ice skate rentals, locker rooms and storage/workshop areas.

Parking /Passenger Drop-off Areas

The 2014 Master Plan proposes that Parking Lot 1, located near the north shore of the north channel of the Spokane River and south of the Central Park Maintenance (CPM) Building, would be converted to a regional playground (Figure 1). Parking Lot 2 (located directly northwest of the CPM building), Parking Lot 6 (located east of Post Street), and Parking Lot 7 (located north of West Summit Avenue) will be improved and/or expanded. Parking Lot 2 will also be converted to a parking garage when future funding is available. Parking Lots 3, 4 and 5 (located south of Cataldo Avenue to the north of Riverfront Park), are recommended to be converted to recreational uses and/or sold for private and/or public development. The 2014 Master Plan does not recommend absorbing additional park property for surface parking.

The Plan also proposes increased access and drop-off opportunities into the Park by extending North River Drive, west of Washington Street, into the Park which would provide access to an improved surface lot, as well as creating a passenger drop-off area and bus turnaround.

Improved Surrounding Arterials

Riverfront Park is surrounded by five City arterial streets: Washington Street to the east; Cataldo and Mallon Avenues to the north; Post Street to the west; and Spokane Falls Boulevard to the south. Cataldo Avenue may be redeveloped on the north bank with future public/private development. Mallon Street will be developed with a new north gateway and plaza and Washington Street will have improved access to the Park.

Spokane Falls Boulevard

Spokane Falls Boulevard is the primary gateway into the Park and connects the Park to the downtown core. Because Spokane Falls Boulevard is the primary access point for most Park users, it will prominently be outfitted with lighting, park banners, crosswalks and appropriate landscape. The 2014 Master Plan further recommends studying the benefits and weaknesses of angle-in parking, separate bicycle lanes, and faster and slower moving traffic lanes along the boulevard.

Post Street

Post Street runs along the western edge of the Park and is a one-way street from Spokane Falls Boulevard to Bridge Street, just north of the Post Street Bridge. Although recent landscape and sidewalk improvements have been completed along Post Street, because of recently completed Huntington Park, the bridge pedestrian experience is narrow, in disrepair, and unsightly due to concrete barriers and traffic cones.

The Master Plan recommends structural improvements to Post Street Bridge, sidewalks to be widened at both sides of the bridge, lighting to be incorporated and/or improved, the Spokane River Centennial Trail to be defined, and landscaping to be installed.

Public Transit Access

Spokane Transit Authority (STA) recommends adding three primary public transit access points to the Park: (1) Western Gateway (Parking Lot 7); (2) Main/Howard (via East–West Transit Corridor); and (3) Washington Bus Drop-Off. The 2014 Master Plan discusses the possibility of constructing a possible platform on the south end of Washington above the Park. There are two sets of bridges traveling through the center of the Park that offer the potential to provide transit access into the heart of the recreation area, the Howard Street bridges (set of three) and the Riverfront Park Bridge, Washington Street Bridge and North Stevens Street Bridge.

The three Howard Street bridges pose structural and operational challenges for transit because two of the structures would need to be replaced and transit service would need to be added or moved from existing resources. The 2014 Master Plan indicates that these improvements would require additional capital/operating dollars and would potentially create conflicts with pedestrians and cyclists during the year.

The Washington Street Bridge offers the opportunity to provide pedestrian access into the center of the Park (near the Clock Tower) with a smaller capital investment by using existing transit service. Slight modifications to the existing transit service will allow for a passenger platform near the shoreline of the south channel of the Spokane River. The platform would need to be constructed with an ADA-accessible elevator and stairs connecting the roadway elevation with the Park elevation.

The Blue Bridge (bridge crossing the south channel of the Spokane River) and south Howard Street Bridge (located on the north channel of Spokane River) are not structurally capable of handling bus traffic and would require replacement if used as such. As of this report, the 2014 Master Plan recommends replacing the South Howard Street Bridge and restoring the Blue Bridge. The 2014 Master Plan further recommends that all wheeled traffic be centrally located within all major promenades, pathways or trails, which may require the addition of curbing or changes to surface materials or landscaping

Cycling

The 2014 Master Plan proposes that the Spokane River Centennial Trail be re-routed closer to the north shoreline of the south channel of the Spokane River near the Clock Tower to ease congestion. Two primary branching pathways are also proposed that would connect Spokane Falls Boulevard and the south Howard Street Bridge to circumvent bicycle/wheeled traffic around the Rotary Fountain.

People Mover & Skyride Extension

For elderly, disabled or tourists wanting to move quickly from the Convention Center to the north bank, the 2014 Master Plan proposes the development of a ground-level or elevated people mover. The 2014 Master Plan also explored the expansion potential of the Skyride to the convention center (located east of the Park) and/or to Kendall Yards (located west of the Park). However, the 2014 Master Plan did note that this plan did have the potential for ecological and visual impacts to the shoreline.

Water / Power Infrastructure

The 2014 Master Plan recommends that all power infrastructure within the Park be upgraded to meet current safety standards and accommodate large events. It was recommended that new power lines should be planned as needed and be contained underground or behind screens so not to detract from the natural beauty of the Park. The 2014 Master Plan further recommends that modern, code-compliant fountains and water bottle re-fillers be installed in conjunction with necessary bibs for additional irrigation support of water distribution throughout the Park. The irrigation system through the Park would also be upgraded as needed.

ADA Access

The 2014 Master Plan states that the guidelines and requirements found within the ADA will be incorporated in all design work. All public spaces including overlooks, plazas, meadows and playgrounds will be redeveloped for ADA access except for Clock Tower Viewing Platform Access and the Skyride. All

existing restrooms in the Park, with the exception of the Fountain Café, will be replaced and brought up to current codes and ADA requirements. Restroom quantity and improved restroom access will also be increased throughout the Park.

Wayfinding and Signage

According to the 2014 Master Plan, a well-designed lighting and signage plan would be developed in a comprehensive manner to improve park navigation.

Fire Access and Safety

The 2014 Master Plan proposes the addition of a 35- to 40-foot-wide promenade connecting Post Street to the east with the Central Plaza/Pavilion to the west. The southern bridge (located over the concrete channelized section of river that connects the south channels of the Spokane River to the north channel), would be redeveloped for increased carrying capacity and connected to a new Post Street Promenade. This would allow access to the center of the Park for emergency vehicles as well as garbage collection and events.

Park Lighting

The 2014 Master Plan indicates that new lighting features should reflect what has been installed throughout downtown Spokane; along Spokane Falls Boulevard; and the new Spokane Hotel. Specifics of a lighting plan are not clearly defined in the 2014 Master Plan at this time, but it is understood that lighting fixtures will be installed for public safety and aesthetics as needed throughout the Park.

Security Cameras and Phones

The 2014 Master Plan recommends the installation of security cameras and phones for public safety and to help reduce Park vandalism. Although the specifics of location and design have yet to be determined, the City anticipates the installation of 26 cameras, conduit and trenching at various locations thought out the Park.

Viewing Terraces

The Park currently has three river viewing terraces (not including the Pavilion). The 2014 Master Plan recommends redeveloping these three shelters as viewing terraces with new surface material, landscaping, benches and picnic tables. A fourth new viewing terrace on Canada Island is was also recommended to replace the existing under-used storage buildings from Expo '74.

Havermale Sculpture Garden

The 2014 Master Plan recommends developing the northeast end of Havermale Island adjacent to the north channel of the Spokane River with a sculpture garden and associated walking paths. The garden would incorporate low-impact development strategies related to stormwater garden use, permeable surfaces and drought-tolerant landscaping.

HABITAT MANAGEMENT PLAN

Objectives

Although detailed designs have not been completed as of this HMP, it is GeoEngineers' understanding that the Park redevelopment project will be designed to avoid, minimize and/or mitigate potential impacts and, where possible, improve the Spokane River riparian habitat and associated shoreline buffers/setbacks. The City anticipates that proposed redevelopment activities will result in the same or better protection of Spokane River habitat. Specific objectives of the Park redesign are anticipated to:

- Provide no-net loss of species and habitat within the park
- Develop design details in redevelopment areas that ensure operational activities do not negatively impact on-site species or critical areas
- Provide enhancement opportunities where possible to increase buffer functions
- Provide mitigation as needed, to mitigate for unavoidable impacts to the Spokane River habitat and/or buffers/setbacks

No Net Loss and Protection of Species/Habitat

Existing Conditions

As described above, the Park is generally developed with park-like features and landscapes. Vegetation within the Park largely consists of ornamental trees and shrubs with large areas of maintained lawn. Specific vegetation species found within the Park have been documented by the City and are included in Appendix B. The Park likely provides habitat for song birds, waterfowl and rodents. Larger mammals (such as deer and coyote) are not expected to be within the Park because of a lack of vegetated areas, being located within the downtown area with no adjacent undeveloped areas. In addition, as previously mentioned, the WDFW also maps Peregrine falcon and Townsend's big-eared bats within 2 miles (southeast) of the Park.

Within the Park, the Spokane River has distinct banks that are defined by riprap and basalt outcrops. Although marginal riparian habitat is found within Park boundaries (sparse trees and shrubs), it is predominantly located on steep rocky terrain with sparse native vegetation. Due to the highly altered urban environment, combined with considerable human disturbance, existing habitat conditions are moderately functional for habitat generalist species (native and non-native) tolerant of human activity.

Post Project Conditions

Based on information obtained from the 2014 Master Plan, it is understood that impacts to the Spokane River and buffer will be minimized and avoided where possible and mitigated if needed. The 2014 Master Plan also proposes to enhance existing buffer areas, where possible, and to increase buffer functions and the area of vegetation along the Spokane River. The proposed Park redevelopment concepts are not expected to negatively impact the size, function and/or value of the existing buffer habitat. Additionally, existing generalist habitat conditions will remain unchanged and associated species, currently using the Park habitats, are not likely to be impacted except possibly during construction activities. Further, it is unlikely that habitat for priority listed species (rainbow trout, Peregrine falcons and Townsend's big-eared bat), discussed above, will be impacted as a result of the redevelopment project.

Operational Activities

Existing Conditions

The Park is situated in the downtown area of the City and was first constructed in 1974. The current land use is typical of parks of this nature and includes paved trails, parking lots, grass areas, pavilions, viewing shelters, IMAX Theater, carousel and other various power and water infrastructure to support Park operations and uses. Operational activities associated with the Park have the potential to affect noise, water quality, and human use.

- Human use at the Park is considered high with an estimated 2.2 million visitors a year (2014 Master Plan). However, portions of the Park are no longer code compliant and cannot be accessed by the public. Also outdated infrastructure makes it difficult to host public events, which limits the amount and types of events that the Park can host.
- The Park has noise levels typical of downtown city environments and include noise from vehicles, music, and public events. The noise level of the Park is expected to be similar to the existing surrounding City uses.
- Currently the Park provides little to no stormwater or water quality treatment on-site. Water quality treatment will likely not change as a result of the project.

Post Project Conditions

Existing land use and the size of the Park will not change as a result of the proposed redevelopment. However, the City expects an increase in human use once the Park redevelopment is complete. The purpose of the improvements are to update portions of the Park that are outdated and no longer allow public access. Updating the infrastructure will increase Park events, thereby increasing Park visitors.

The City anticipates that construction noise levels will temporarily increase during redevelopment activities but are expected to return to current Park operation levels after construction is complete. A temporary increase in construction noise is expected because of heavy equipment use and potential increase of traffic volumes by contractors. Conservation measures should be incorporated to reduce noise impacts to adjacent neighbors and wildlife. Typical noise conservation measures may include minimizing and consolidating heavy equipment use as much as possible and/or using equipment within approved work hours typically between 7:00 AM to 6:00 PM.

There is potential for accidental releases to occur from contaminants such as fuel or hydraulic fluids from on-site construction, maintenance or refueling activities. Best Management Practices (BMPs) should be implemented as part of the Park's temporary construction and regular maintenance and operation activities. If appropriate BMPs are installed and are properly maintained, the risk for impacts can be attenuated. Furthermore, shoreline enhancement activities that remove concrete and are replaced with vegetative buffers can also have a positive effect on overall water quality.

Redevelopment activities associated with human use, noise and water quality protection are not expected to impact the Spokane River or associated buffer habitats. Any impacts that might occur during shoreline enhancement actions would be considered self-mitigating and an improvement to existing shoreline habitat.

Enhancement Opportunities

This section identifies three areas that have the potential for habitat enhancement within the Park. Although the enhancements identified below are considered general concepts only, GeoEngineers assumes that the final designs could incorporate some form of shoreline/riparian habitat enhancement into the redevelopment project.

Bank Enhancement

Based on information presented in the 2014 Master Plan and discussions with City representatives, there is a potential for enhancement along the south shoreline of the south channel of the Spokane River adjacent to the Loeff Carrousel. Redevelopment efforts associated with the Loeff Carrousel may include moving the Carrousel building structure further south, which would increase the distance from the shoreline. This would increase the shoreline buffer and provide sufficient space to replace the concrete river bank with a more natural condition by re-grading and installing native vegetation. Depending on final designs, there may be comparable areas with the Park that shoreline habitat/buffers could benefit from similar enhancement.

Vegetation Protection / Revegetation Efforts

Based on information obtained from the 2014 Master Plan, the Park was developed quickly in 1974 to meet the timeline associated with the opening of Expo'74. In an effort to meet the opening deadline, trees were overplanted with little regard for their long-term health. City arborists and park staff have been working to clear unhealthy trees that were too densely planted or that have exposed root structures or other health issues. The City arborist is also working with the Urban Forestry Commission (UFC) to identify trees that should be preserved, if possible, while accommodating park amenities associated with the redevelopment. The City also has indicated that all trees removed from within the Park (related to Park implementation of the 2014 Master plan) will be replaced within the city limits at a 1:1 ratio.

The potential also exists for additional areas within the Park to be evaluated and assessed for vegetation coverage. Areas that are identified as having inadequate coverage can then be planted where feasible, with appropriate native trees, shrubs and herbaceous species as needed. This could provide more cover and/or forage for smaller avian and terrestrial species.

Invasive Species Removal / Management

Control of undesirable species can be maintained by periodic weeding. Species to be removed could include, but is not limited to: Reed canarygrass (*Phalaris arundinacea*), Scotch broom (*Cytisus scoparius*), and English ivy (*Hedera helix*). Only desirable native plants should be encouraged to grow within the shoreline buffer areas.

Potential Mitigation Actions

There is potential that the redevelopment of the Park will have unavoidable impacts to aquatic/riparian habitat and associated buffers. This is due to the fact that a large portion of the Park is located within regulated buffers and buildings and all redeveloped structures cannot all be moved outside of the regulated buffers. Once project designs are completed, impacts should be calculated and a mitigation plan established. Potential mitigation actions to compensate for unavoidable impacts could include, but are not limited to:

- **Increasing Spokane River buffers.** This would provide additional buffer areas where possible along the river.
- **Preserving open space.** Buffer habitats and undeveloped areas could be preserved to ensure no additional impervious surfaces and structures are constructed.
- **Enhancing riverbank and native vegetation.** As described above in the Enhancement Opportunities section, there is potential for bank and vegetation enhancement within the Park, specifically along the north and south banks of the south channel, as appropriate and available.
- **Limiting access to habitat areas through development of additional signage.** Limiting access and adding signage will allow areas to receive less impact from human activities, assist with vegetation growth and potentially increase the amount of un-impacted RHA buffer.

Maintenance Plan

Although the City will need to prepare a thorough maintenance plan after final design, GeoEngineers anticipates that maintenance will likely include:

- Continued enforcement of shoreline jurisdiction and associated buffers
- Proper irrigation of installed plants until they have stabilized
- Control of undesirable/invasive plant species
- Proper inspection of enhancement areas to ensure bank stabilization
- Consistent efforts to remove trash and windblown debris from shoreline habitat areas
- Preparation of a BMP manual to protect water quality during stormwater runoff events and accidental spills.

Other possible maintenance responsibilities should be determined after final design.

CONCLUSION

This HMP describes current conditions within the Park; possible fish and wildlife uses; shoreline jurisdiction and associated buffers; and proposed redevelopment concepts. Park redevelopment concepts described in this HMP were obtained from the 2014 Master plan and discussions with City personnel. Also, GeoEngineers' biologists conducted a visual investigation of the Park to observe and record current site conditions. Site observations verify that the Park is located in a heavily used urban setting with very little riparian habitat. Although marginal riparian habitat is found within Park boundaries, it is located on steep, rocky terrain with sparse native vegetation and provides little to no function and value relative to assumed natural habitat conditions.

Shoreline jurisdiction, within Park boundaries, is established at 200 feet from the OHWM; however, the area in which the Park is located is classified as "Downtown" district with an "Urban Intensive Environment" designation. Under this designation, the City allows uses or activities to occur within 50 feet of the OHWM (with proper justification) with an additional 25-foot building setback. The City, in consultation with WDFW, has also established a riparian habitat area RHA buffer that includes the outer edge of the 100-year floodplain or 130 feet from the OHWM (whichever is greater). Similar to the 50-foot buffer, the City allows

uses or activities to occur within the 130-buffer (with proper justification). The majority of the building structures, located on site, fall within one or more of these shoreline jurisdictions, buffers or setbacks. Currently, these structures are considered to be “grandfathered in” since they were constructed prior to current regulations. Based on the 2014 Master Plan, the City anticipates that there will be no additional encroachment on shoreline jurisdiction and that any structure improvements will occur in the opposite direction if the shoreline of the Spoken River. Based on the understanding that the current building structures are “grandfathered in” and future building remodeling efforts will move away from the Spokane River shoreline, the proposed Park redevelopment does not appear to pose a significant threat to shoreline jurisdiction.

The USFWS identified Yellow-billed cuckoos, bull trout, Canada lynx, water howellia, Spalding’s catchfly as T&E species that have the potential to be present within the Park area. However, none of these T&E species were mapped within a 1-mile radius of the Park. Additionally, the Park does not contain suitable habitat conditions for any of those species nor are critical habitats designated within the Park or adjacent areas.

The WDFW identified the Peregrine falcon as a Washington State sensitive species and a federal species of concern while Townsend’s big-eared bats are identified as a Washington State candidate species as species that also have the potential to be present within the Park area. GeoEngineers expects that Peregrine falcons and Townsend’s big-eared bats might use the Park for foraging; however, redevelopment activities proposed for the Park should not alter the existing habitats enough to impact foraging for either species. Additionally, the Park only represents a small fraction of the area available for foraging for both species.

Based on the information contained within the 2014 Master Plan, City and regulatory agency interviews and observations during the site investigation, it is GeoEngineers’ professional opinion that the proposed park redevelopment activities do not pose a risk to priority species and/or habitat within the general area of the Park. However, GeoEngineers does recommend that the final Park design be reviewed by City and appropriate jurisdictional agencies to verify that any new proposed actions generated during the final design would not create a potential impact to species and/or habitat. GeoEngineers further recommends the final design incorporate BMPs, as appropriate, into the construction and operation of the Park to protect species and habitat.

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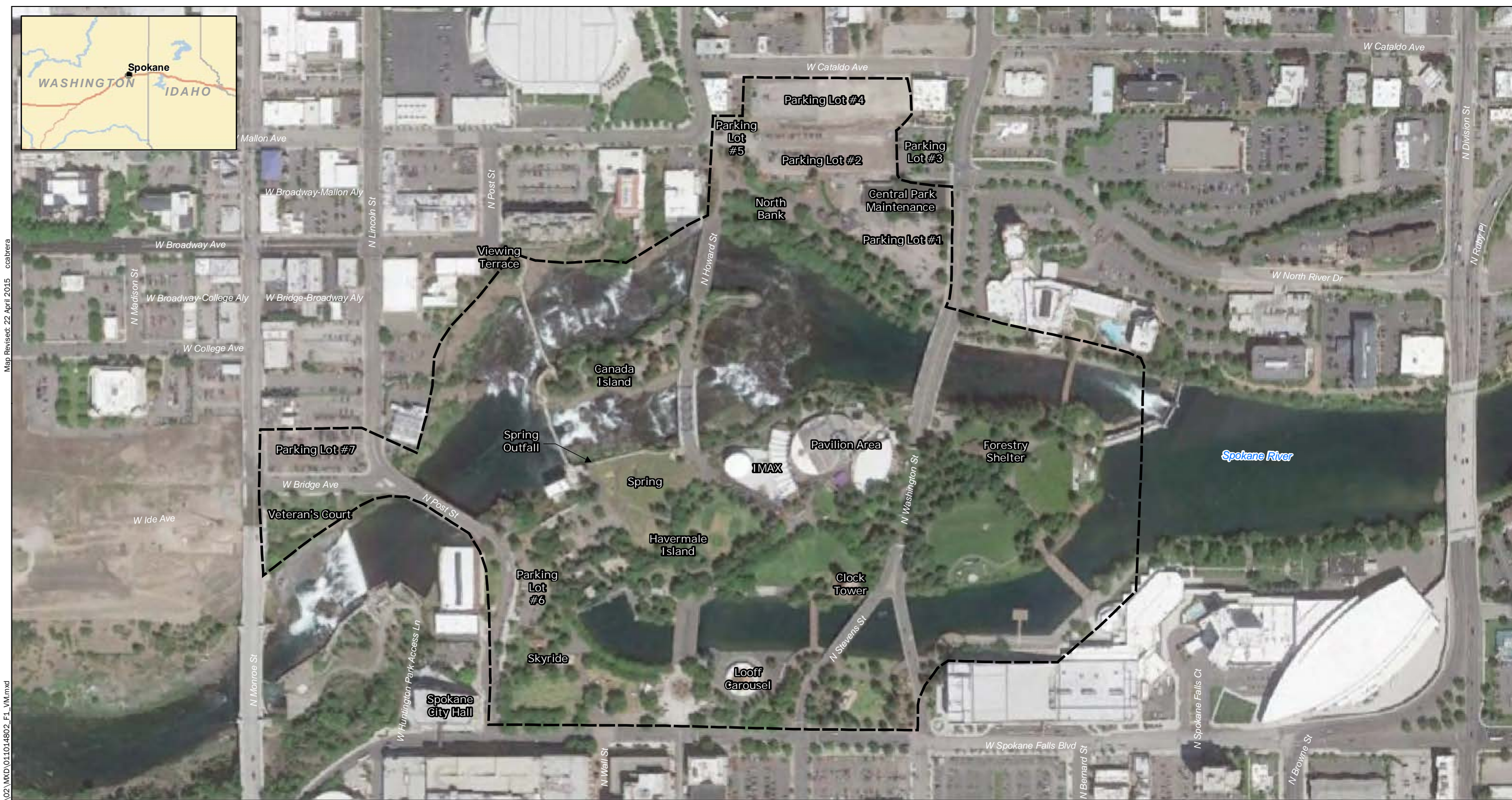
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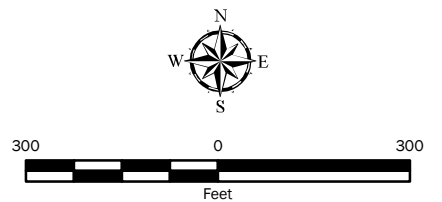
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 Aerial image from Google Earth Pro.

Notes:
 1. The locations of all features shown are approximate.
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Projection: NAD 1983 UTM Zone 11N

Legend

Approximate Spokane Riverfront Park Area Boundary



Vicinity Map	
Riverfront Park Spokane, Washington	
	Figure 1



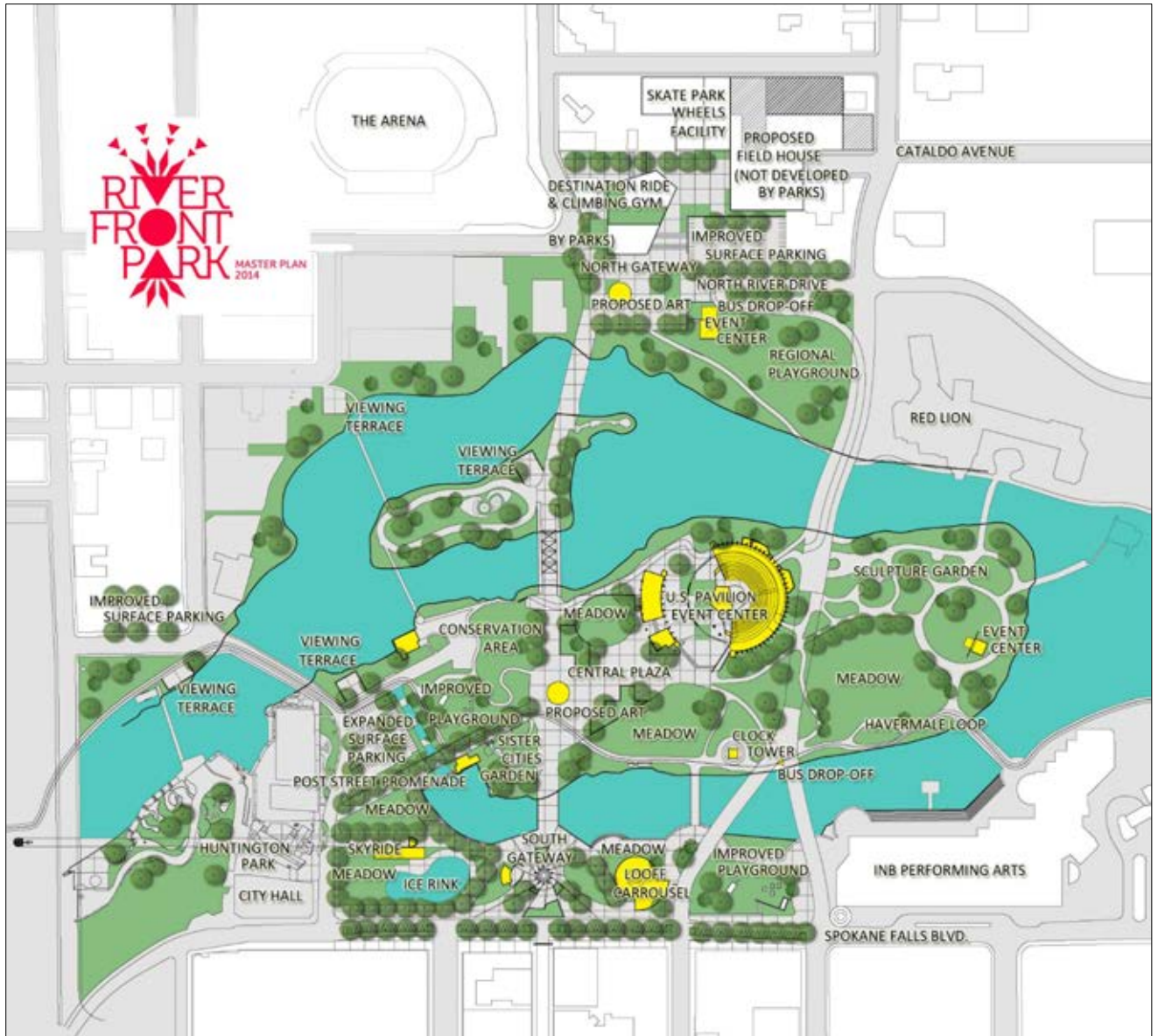
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Notes:

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Reference: Drawing obtained from the City of Spokane, Riverfront Park Master Plan 2014

Existing Site Plan	
Riverfront Park Spokane, Washington	
GEOENGINEERS	Figure 1a



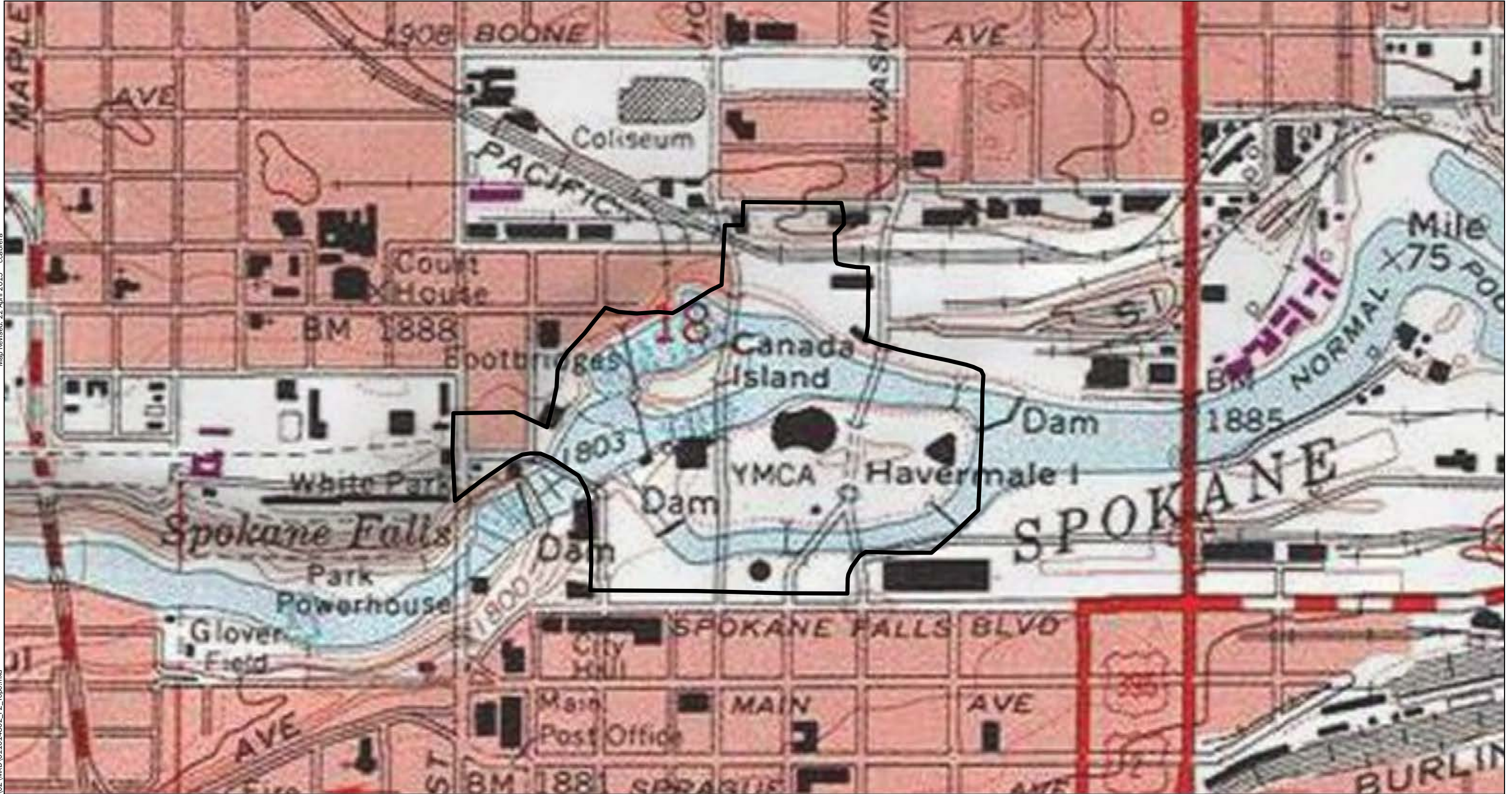
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Reference: Drawing obtained from the City of Spokane, Riverfront Park Master Plan 2014

Proposed Site Plan	
Riverfront Park Spokane, Washington	
GEOENGINEERS	Figure 1b

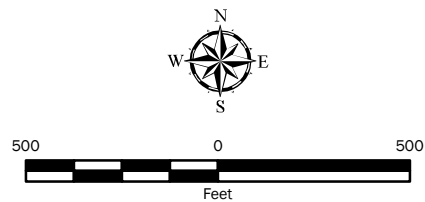


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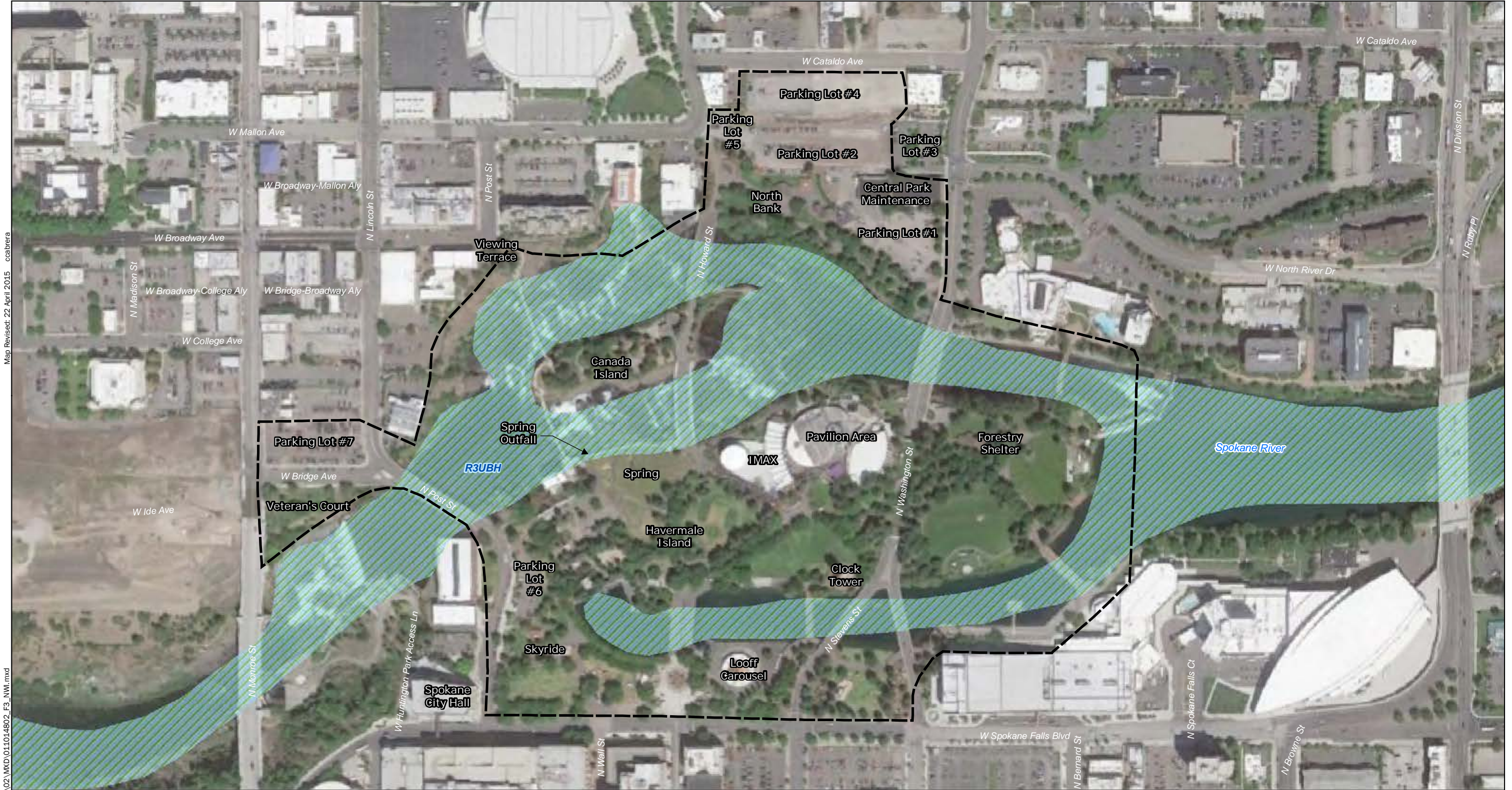
Legend
 Approximate Spokane Riverfront Park Area Boundary

Notes:
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Topographic Map	
Riverfront Park Spokane, Washington	
GEOENGINEERS 	Figure 2



Map Revised: 22 April 2015 ccabrera


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Data Source: Streets from City of Spokane GIS.
 NWI mapped wetlands from US Fish and Wildlife.
 Aerial image from Google Earth Pro.

Notes:
 1. The locations of all features shown are approximate.
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document.
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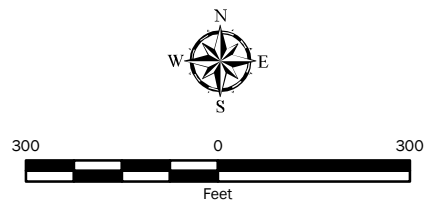
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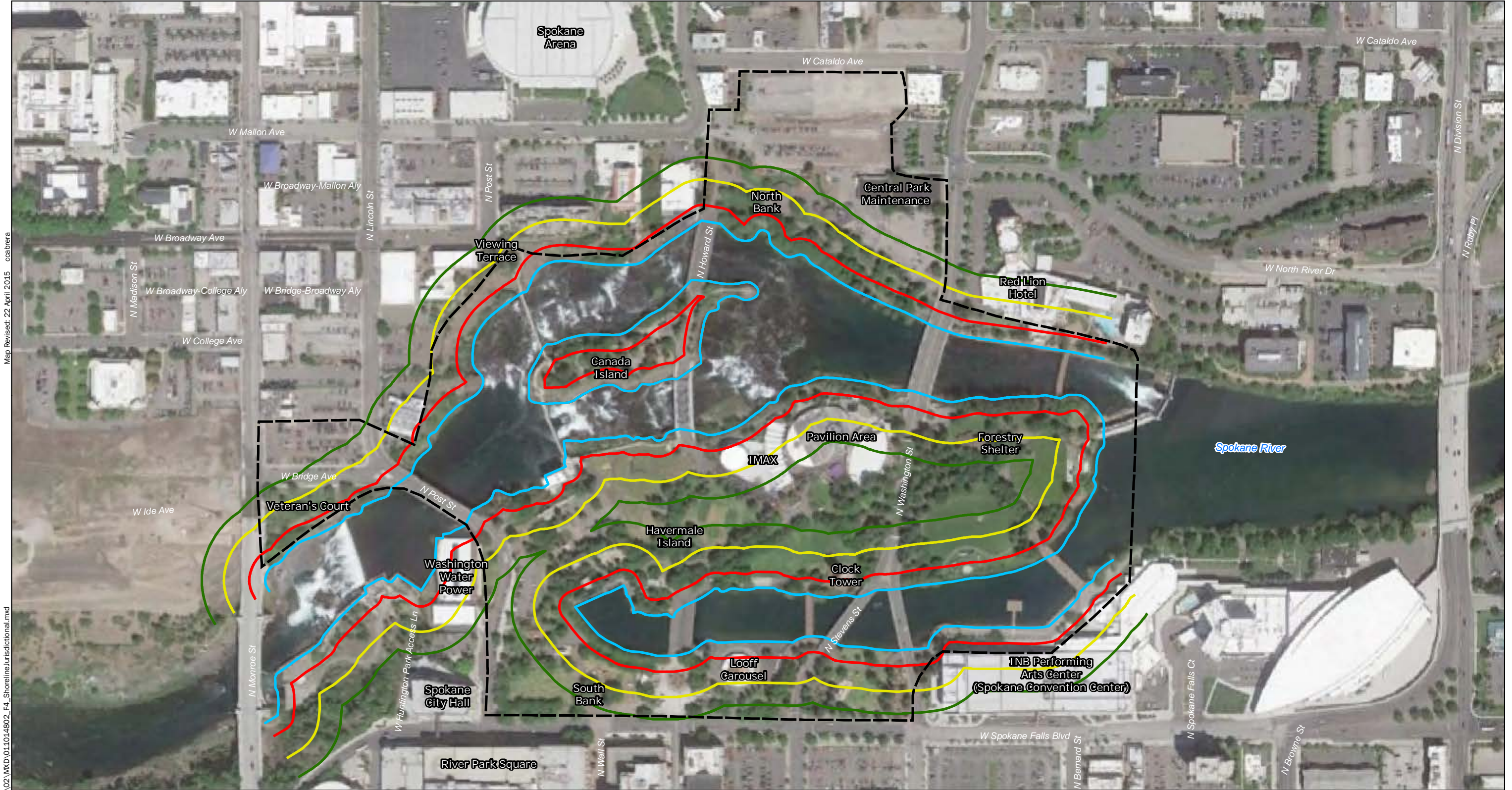
 Approximate Spokane Riverfront Park Area Boundary

 Mapped Wetland Boundary

Wetland Classification
 R3UBH: Riverine Upper Perennial Unconsolidated Bottom



National Wetland Inventory Map	
Riverfront Park Spokane, Washington	
	Figure 3








Map Revised: 22 April 2015 ccabrera

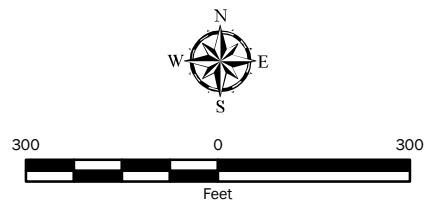
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Data Source: Streets from City of Spokane GIS.
 Aerial image from Google Earth Pro.

Notes:
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Projection: NAD 1983 UTM Zone 11N

- Legend**
-  Approximate Spokane Riverfront Park Area Boundary
 -  Ordinary High Watermark (OHWM)
 -  50' Downtown District/Urban Intensive Environment (Measured from OHWM)
 -  130' Riparian Habitat Buffer (Measured from OHWM)
 -  200' Shoreline Jurisdiction (Measured from OHWM)



Shoreline Jurisdiction Map	
Riverfront Park Spokane, Washington	
	Figure 4

APPENDIX A
Site Photographs



Photograph 1. Loof Carrousel building and walkway adjacent to the south channel of the Spokane River (facing southwest).



Photograph 2. General view of the South Howard Street Bridge (facing northwest).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-1



Photograph 3. Proposed Ice Palace location near the southwest corner of the Park (facing southwest).



Photograph 4. Parking Lot 6 located on the west side of the Park adjacent to North Post Street (facing west).

Site Photographs

Spokane Riverfront Park
Spokane, Washington



Photograph 5. General view looking west towards the middle North Howard Street Bridge. Yellow arrow also identifies the location of the outfall of the spring in to the north channel of the Spokane River.



Photograph 6. General view of the spring located on the northwest portion of Harvermale Island (facing east).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-3



Photograph 7. General view of the North Howard Street middle bridge (facing south).



Photograph 8. General view of the of North Howard Street north bridge (facing north).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-4



Photograph 9. General view of the Spokane River and associated basalt outcrops and steep banks (facing west).



Photograph 10. General view of the Spokane River with north side of Havermale Island and the Pavilion beyond (facing southwest).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-5



Photograph 11. General view of the Pavilion area (facing north).



Photograph 12. General view of the Pavilion and Spokane River bank (facing southeast).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-6



Photograph 13. General view of the Clock Tower and surrounding vicinity (facing east).



Photograph 14. General view of the area around the Forestry Shelter (facing west).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-7



Photograph 15. General view of Parking Lot 2 and the existing shelters near the north bank of the park (facing south).



Photograph 16. General view of Parking Lot 4, north of the park and parking lot 2 (facing east).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-8



Photograph 17. General view of Parking Lot 7 (facing west).



Photograph 18. General view of the Viewing Terrace located on the north shoreline of the north channel of the Spokane River (facing southeast).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-9



Photograph 19. General view of the riparian habitat along the north channel of the Spokane River just east of N Post Street (facing north).



Photograph 20. General view of Canada Island from the west (facing east).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-10



Photograph 21. General view of the area north of the Skiride (facing south).



Photograph 22. General view of the northwest portion of Havermale Island (facing east).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-11



Photograph 23. General view of north shoreline of the south channel of the Spokane River across from the Loof Carrousel (facing northwest).



Photograph 24. General view of the Howards Street Promenade (facing southwest).

Site Photographs

Spokane Riverfront Park
Spokane, Washington

GEOENGINEERS 

Figure A-12

APPENDIX B
Species Data Compilation

Status of ESA Listings & Critical Habitat Designations for West Coast Salmon & Steelhead

PUGET SOUND DOMAIN

- Puget Sound Chinook (T) [FCH 9/2/05]
- Hood Canal Summer Chum (T) [FCH 9/2/05]
- Ozette Lake Sockeye (T) [FCH 9/2/05]
- Puget Sound Steelhead (T) [CH under dev.; ANPR 1/10/11]

WILLAMETTE/LOWER COLUMBIA DOMAIN

- Columbia River Chum (T) [FCH 9/2/05]
- Lower Columbia River Coho (T) [CH Under dev.; ANPR 1/10/11]
- Lower Columbia River Chinook (T) [FCH 9/2/05]
- Lower Columbia River Steelhead (T) [FCH 9/2/05]
- Upper Willamette River Chinook (T) [FCH 9/2/05]
- Upper Willamette River Steelhead (T) [FCH 9/2/05]

OREGON COAST DOMAIN

- Oregon Coast Coho (T) [FCH 2/11/08]

SOUTHERN OREGON/NORTHERN CALIFORNIA COAST DOMAIN

- Southern Oregon/Northern California Coast Coho (T) [FCH 5/5/99]

CENTRAL VALLEY DOMAIN

- Sacramento River Winter Chinook (E) [FCH 6/16/93]
- Central Valley Spring Chinook (T) [FCH 9/2/05]
- Central Valley Steelhead (T) [FCH 9/2/05]

NORTH-CENTRAL CALIFORNIA COAST DOMAIN

- Central California Coast Coho (E) [FCH 5/5/99]
- California Coastal Chinook (T) [FCH 9/2/05]
- Northern California Steelhead (T) [FCH 9/2/05]
- Central California Coast Steelhead (T) [FCH 9/2/05]

SOUTH-CENTRAL/SOUTHERN CALIFORNIA COAST DOMAIN

- South-Central California Coast Steelhead (T) [FCH 9/2/05]
- Southern California Coast Steelhead (E) [FCH 9/2/05]

INTERIOR COLUMBIA DOMAIN


- Snake River Sockeye (E) [FCH 12/28/93]
- Snake River Fall Chinook (T) [FCH 12/28/93]
- Snake River Spring/Summer Chinook (T) [FCH 12/28/93; 10/25/99]
- Snake River Steelhead (T) [FCH 9/2/05]
- Upper Columbia River Spring Chinook (E) [FCH 9/2/05]
- Upper Columbia River Steelhead (T) [FCH 9/2/05]
- Middle Columbia River Steelhead (T) [FCH 9/2/05]

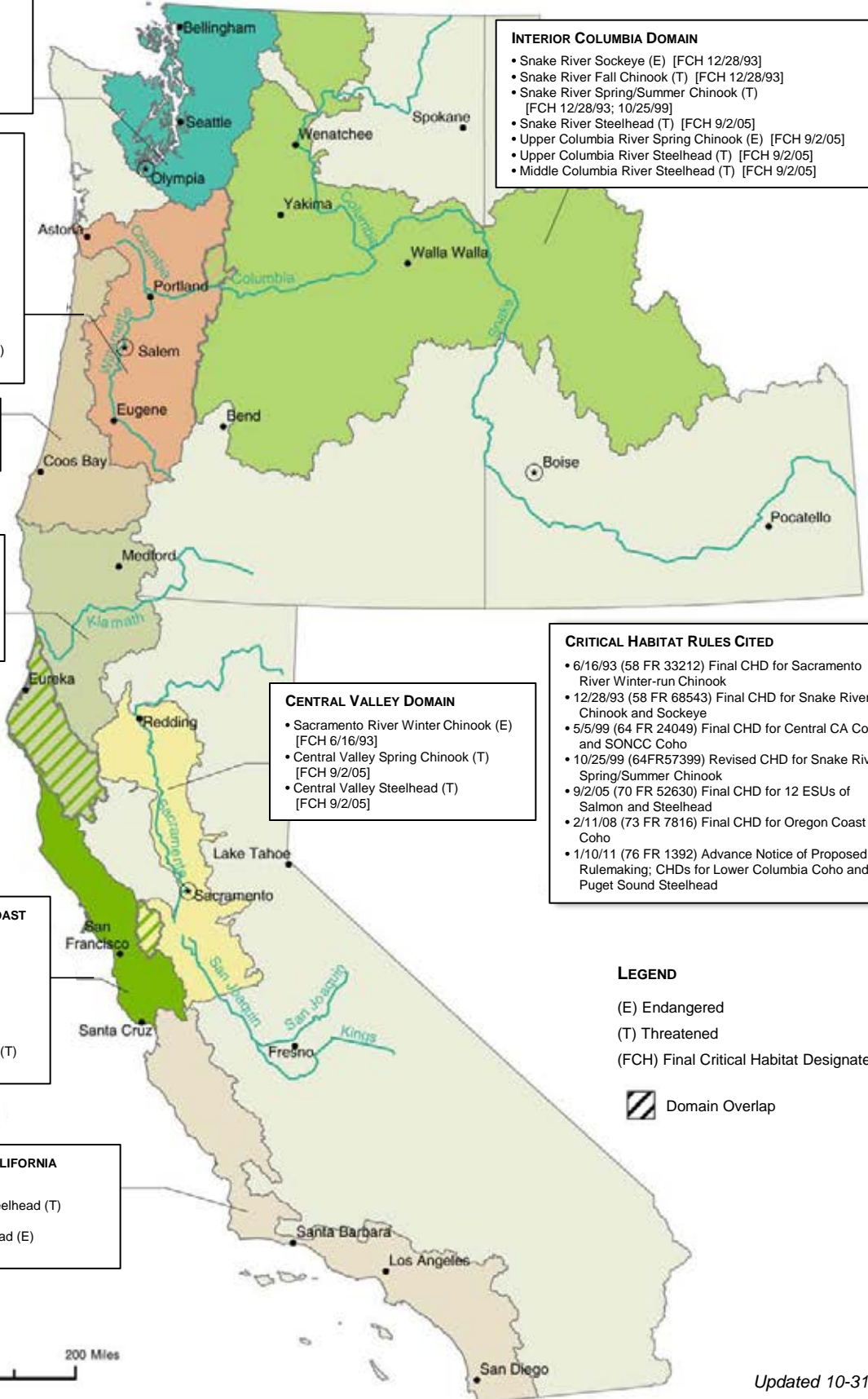
CRITICAL HABITAT RULES CITED

- 6/16/93 (58 FR 33212) Final CHD for Sacramento River Winter-run Chinook
- 12/28/93 (58 FR 68543) Final CHD for Snake River Chinook and Sockeye
- 5/5/99 (64 FR 24049) Final CHD for Central CA Coast and SONCC Coho
- 10/25/99 (64FR57399) Revised CHD for Snake River Spring/Summer Chinook
- 9/2/05 (70 FR 52630) Final CHD for 12 ESUs of Salmon and Steelhead
- 2/11/08 (73 FR 7816) Final CHD for Oregon Coast Coho
- 1/10/11 (76 FR 1392) Advance Notice of Proposed Rulemaking; CHDs for Lower Columbia Coho and Puget Sound Steelhead

LEGEND

- (E) Endangered
- (T) Threatened
- (FCH) Final Critical Habitat Designated

 Domain Overlap





United States Department of the Interior



FISH AND WILDLIFE SERVICE
Washington Fish and Wildlife Office
510 DESMOND DRIVE SE, SUITE 102
LACEY, WA 98503
PHONE: (360)753-9440 FAX: (360)753-9405
URL: www.fws.gov/wafwo/

Consultation Code: 01EWF00-2015-SLI-0475

April 02, 2015

Event Code: 01EWF00-2015-E-00376

Project Name: Riverfront Park Improvement Habitat Management Plan

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated and proposed critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. The species list is currently compiled at the county level. Additional information is available from the Washington Department of Fish and Wildlife, Priority Habitats and Species website:

<http://wdfw.wa.gov/mapping/phs/> or at our office website:

http://www.fws.gov/wafwo/species_new.html. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether or not the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). You may visit our website at <http://www.fws.gov/pacific/eagle/for> information on disturbance or take of the species and information on how to get a permit and what current guidelines and regulations are. Some projects affecting these species may require development of an eagle conservation plan: (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Also be aware that all marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas. The importation of marine mammals and marine mammal products into the U.S. is also prohibited. More information can be found on the MMPA website: <http://www.nmfs.noaa.gov/pr/laws/mmpa/>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Related website:

National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Riverfront Park Improvement Habitat Management Plan

Official Species List

Provided by:

Washington Fish and Wildlife Office
510 DESMOND DRIVE SE, SUITE 102
LACEY, WA 98503
(360) 753-9440
<http://www.fws.gov/wafwo/>

Consultation Code: 01EWF00-2015-SLI-0475

Event Code: 01EWF00-2015-E-00376

Project Type: Development

Project Name: Riverfront Park Improvement Habitat Management Plan

Project Description: The current improvement project proposes designs that will avoid and/or minimize impacts to critical areas and buffers while improving habitat. The 100 acre park site, located in the center of Spokane, Washington, encompasses both land (approximately 56 acres) and water (approximately 44 acres) and is owned and managed by the City of Spokane.

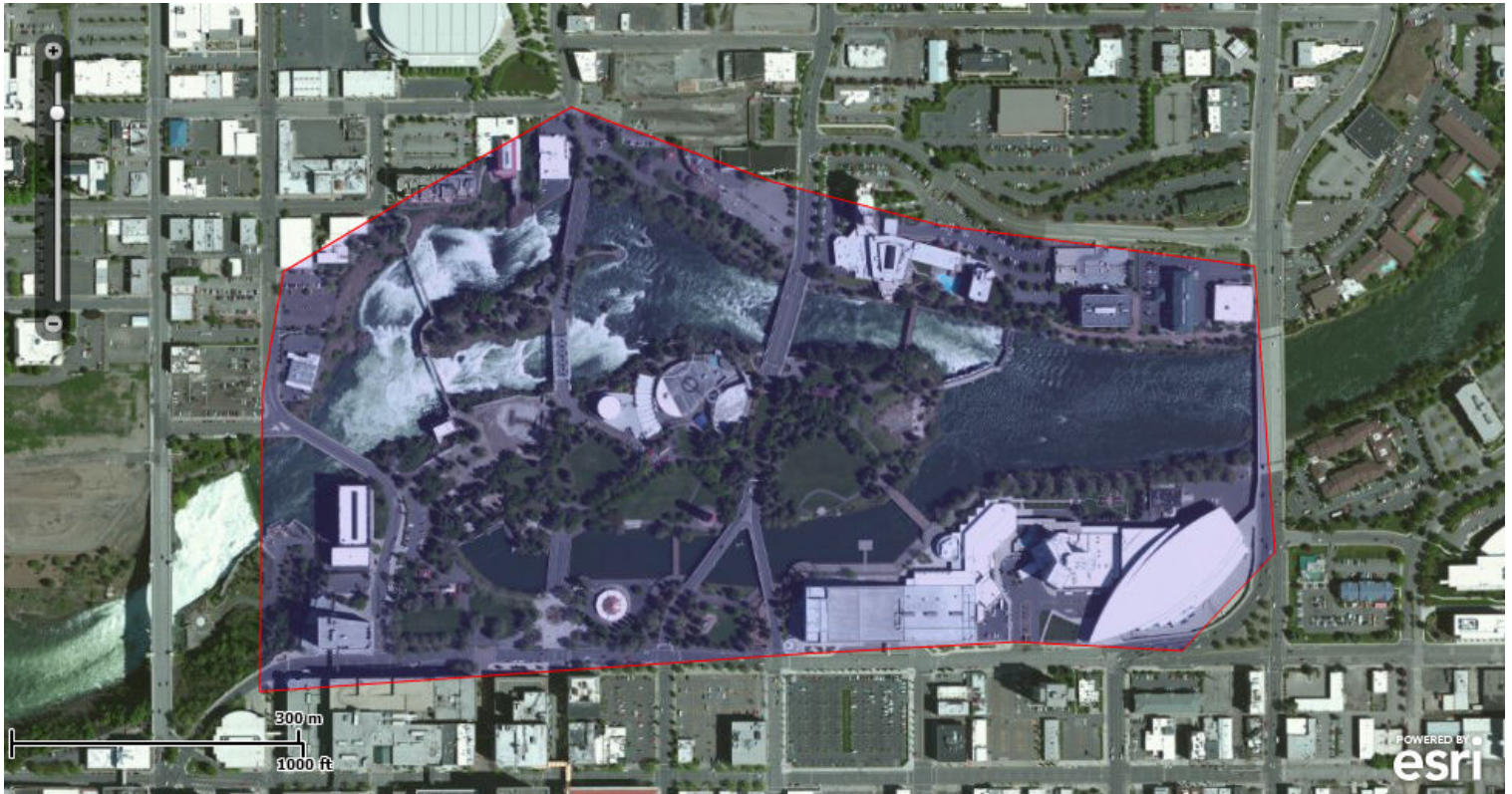
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Riverfront Park Improvement Habitat Management Plan

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-117.42518 47.6626749, -117.4248881 47.6637877, -117.4231715 47.6644755, -117.4208841 47.6653282, -117.4180839 47.6646316, -117.4157558 47.6642241, -117.4113805 47.6638382, -117.4110951 47.6611575, -117.4123826 47.6602369, -117.4146839 47.6603192, -117.4176676 47.6602094, -117.4252207 47.6598532, -117.42518 47.6626749)))

Project Counties: Spokane, WA



United States Department of Interior
Fish and Wildlife Service

Project name: Riverfront Park Improvement Habitat Management Plan

Endangered Species Act Species List

There are a total of 5 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS	Threatened	Proposed	
Fishes			
Bull Trout (<i>Salvelinus confluentus</i>) Population: U.S.A., conterminous, lower 48 states	Threatened	Final designated	
Flowering Plants			
Spalding's Catchfly (<i>Silene spaldingii</i>)	Threatened		
Water howellia (<i>Howellia aquatilis</i>)	Threatened		
Mammals			
Canada Lynx (<i>Lynx canadensis</i>) Population: (Contiguous U.S. DPS)	Threatened	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: Riverfront Park Improvement Habitat Management Plan

Critical habitats that lie within your project area

There are no critical habitats within your project area.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES POLYGON CROSS REFERENCE REPORT
IN THE VICINITY OF T25R43E SECTION 18

Report Date: March 24, 2015

Priority Habitats and Species (PHS) polygons are labeled, on the map, with a unique number (PHS Poly#) and "+" symbol, roughly in the center of the polygon. This PHS Poly# refers to a list of form numbers (Form#) contained in the PHS Polygon Cross Reference Report, listed below. The Form#'s refer to the attached Priority Habitats and Species Polygon Report. This report details each species or habitat depicted as a polygon on the map.

There will be some polygons, on the map, without PHS Poly# labels. These areas are "no data" or "donuts" created by surrounding polygons. These polygons indicate that the species or habitat information is unknown or the area was not mapped.

PHS Polygon Cross Reference Report

<u>PHS Poly#</u>	<u>Form#</u>
1	920012-920017
2	920012
3	920012-920017-920026
4	903036-920026
5	903035-920012-920017
6	903036-920012-920017-920026
7	903035-920012

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
 PRIORITY HABITATS AND SPECIES POLYGON REPORT
 IN THE VICINITY OF T25R43E SECTION 18

Report Date: March 24, 2015

Information About Priority Habitats and Polygon Report

Priority Habitats and Species (PHS) polygons are labeled, on the map, with a unique number (PHS Poly#) and "+" symbol, roughly in the center of the polygon. This PHS Poly# refers to a list of polygon numbers and form numbers (Form#) contained in the PHS Polygon Cross Reference Report. The Form#'s refer to the PHS Polygon Report, listed below. This report details each species or habitat depicted as a polygon on the map.

Priority Habitats and Species Polygon Summary List

This report and the accompanying maps contain species and habitats that are considered to be priorities for conservation and management by Washington Department of Fish and Wildlife (WDFW). The most current Priority Habitat and Species List is available on our web site at <http://www.wdfw.wa.gov/conservation/phs/list>. YES or Y under the "Priority" column in the Summary List below indicates the species or habitat occurrence is on WDFW's Priority Habitats and Species List (PHS). The occurrence has been refined to match the priority area listed for the species or habitat on the PHS List (e.g., any occurrence, breeding areas, regular concentrations). NULL or Blank under the "Priority" column indicates the species or habitat occurrence is not on WDFW's PHS List.

Priority	State Status	PHS Code	Common Name	Species Use Criteria
YES		BAC	BIODIVERSITY AREAS AND CORRIDOR	
YES		ODHEH	MULE DEER	REGULAR CONCENTRATION
YES		ODVIO	NORTHWEST WHITE-TAILED DEER	REGULAR CONCENTRATION
YES		OG	OLD-GROWTH/MATURE FOREST	

PHS Polygon Report

Form#: 903035 PHS Code: BAC Scientific Name:
 Season: Common Name: BIODIVERSITY AREAS AND CORRIDOR
 Species Use Criteria: Accuracy: ACCURATE WITHIN A QUARTER MILE
 Priority: YES State Status: Federal Status:
 Site Name: LOWER HANGMAN CREEK
 General Description: BIODIVERSITY AREA THAT IS ASSOCIATED WITH UNKNOWN NUMBERS OF NESTING RED-TAILED HAWKS, WINTERING BALD EAGLES, NESTING WESTERN BLUEBIRDS. FURBEARER USE OF RIVER INCLUDES MINK, MUSKRAT, + BEAVER. BANK SWALLOW USE ON STEEP BANKS OF CREEK.

Source Date: 91 Source: DEMERS, DINAH WDW
 Source Code: PROF Synopsis: FIELD SURVEYS CONDUCTED 1990-1991

Source Date: 91 Source: ASHLEY, PAUL WDW
 Source Code: PROF Synopsis: TRAPPING CONDUCTED IN EARLY 1980'S

Source Date: 093094 Source: JOHN ANDREWS, WDFW, DINAH DEMERS WDFW
 Source Code: PROF Synopsis: UNOS ADJUSTMENT TO EDIT MAPPING ERROR

Source Date: 111408 Source: FERGUSON, HOWARD WDFW WILDLIFE DISTRICT BIOLOGIST
 Source Code: PROF Synopsis: CHANGED UNOS TO BIODIVERISTY AREA (BAC) AND MODIFIED THE GENERAL DESCRIPTION.

Source Date: 111408 Source: FERGUSON, HOWARD WDFW WILDLIFE DISTRICT BIOLOGIST
 Source Code: PROF Synopsis: CHANGED UNOS TO BIODIVERISTY AREA (BAC) AND MODIFIED THE GENERAL DESCRIPTION.

Form#: 903036 PHS Code: OG Scientific Name:
 Season: Common Name: OLD-GROWTH/MATURE FOREST
 Species Use Criteria: Accuracy: ACCURATE WITHIN A QUARTER MILE
 Priority: YES State Status: Federal Status:
 Site Name: THREE SPRINGS SITE
 General Description: OLD GROWTH/MATURE TIMBER ASSOCIATED WITH PILEATED WOODPECKER FORAGING, USE BY WHITE TAILED DEER, WINTER + SPRING USE BY BALD EAGLES

PHS Polygon Report

Source Date: 87 Source: DNR ORTHOPHOTO QUAD MAP 1:24,000 SCALE
Source Code: ORTHO Synopsis:

Source Date: 91 Source: KING, MADONNA WDW, DEMERS, DINAH WDW AND MYERS, WOODY WDW
Source Code: PROF Synopsis: INCIDENTAL OBSERVATIONS, 1989-1991

Form#: 920012 PHS Code: ODHEH Scientific Name: ODOCOILEUS HEMIONUS HEMIONUS
Season: W Common Name: MULE DEER
Species Use Criteria: REGULAR CONCENTRATION Accuracy: ACCURATE WITHIN A QUARTER MILE
Priority: YES State Status: Federal Status:
Site Name: LINCOLN-SPOKANE MULE DEER HERD
General Description: REGULAR CONCENTRATION IN WINTER TIME IN AREAS OF SHRUB. DEER ARE CONCENTRATED ON THE EDGE OF AG IN SHRUBS AND SPARCER TREED HABITAT. SOUTHERN EDGE OF LAKE ROOSEVELT AND LAKE SPOKANE. MORE COMMONLY UTILIZING WINTER WHEAT AREAS.

Source Date: 11 10 Source: FERGUSON, HOWARD WDFW WILDLIFE BIOLOGIST
Source Code: SURV Synopsis: MULE DEER SURVEYS CONDUCTED DURING ANNUAL BIGHORN SHEEP HELICOPTER SURVEYS SW OF SPOKANE. SURVEYS ARE CONDUCTED PRIMARILY FROM ROADS DUE TO AIR SPACE ISSUES.

Form#: 920017 PHS Code: ODVIO Scientific Name: ODOCOILEUS VIRGINIANUS OCHROURUS
Season: W Common Name: NORTHWEST WHITE-TAILED DEER
Species Use Criteria: REGULAR CONCENTRATION Accuracy: ACCURATE WITHIN A QUARTER MILE
Priority: YES State Status: Federal Status:
Site Name: LAKE ROOSEVELT WHITE -TAILED WINTER RANGE
General Description: WINTER RANGE CONCENTRATIONS OF WHITE-TAILED DEER ALONG THE SOUTHERN SHORELINE OF LAKE ROOSEVELT AND LAKE SPOKANE. UTILIZING RIPARIAN AND WOODED AREAS NEXT TO AG LANDS.

Source Date: 01 11 Source: ATAMIAN, MIKE WDFW WILDLIFE BIOLOGIST
Source Code: PROF Synopsis: MANY YEARS OF BIOLOGIST OBSERAVATIONS MADE BY DISTRICT WILDLIFE STAFF.

Form#: 920026 PHS Code: BAC Scientific Name:
Season: Common Name: BIODIVERSITY AREAS AND CORRIDOR
Species Use Criteria: Accuracy: ACCURATE WITHIN A QUARTER MILE
Priority: YES State Status: Federal Status:
Site Name: SPOKANE AND LITTLE SPOKANE BIODIVERSITY AREA
General Description: NESTING AND BROODING AREA FOR WATERFOWL AND WESTERN GREBES. WINTERING BALD EAGLE WINTERING WATERFOWL CONCENTRATIONS, CAVITY NESTING DUCKS, PILEATED WOODPECKER ACCIPTER BREEDING, GBH ROOKERY, BEAVER, OTTER, MINK, MOOSE, DEER, COUGAR ETC.

Source Date: 10 Source: FERGUSON, HOWARD WDFW WILDLIFE BIOLOGIST
Source Code: PROF Synopsis: FIELD OBSERVATIONS MADE FROM 1995 TO 2010 BY DISTRICT WILDLIFE STAFF.

PHS Polygon Report

Codes Used In Priority Habitat and Species Polygon Report

Form#: Unique number that links the information in the reports to features on the map.

PHS Code: This contains a code that identifies the fish and wildlife species found in the area or the habitat that occurs there. The field Common Name contains the description of this code.

Scientific Name: Scientific name of the species.

Season: Season of species use. Use is indicated by the presence of a non-blank character in one or more positions or sub-strings of the field position.

Position 1: W = Winter use. Position 2: S = Spring use.

Position 3: U = Summer use. Position 4: F = Fall use.

Position 5: S = Severe winter use.

Common Name: Common name of the species or habitat.

Species Use Criteria: Criteria that identifies how the area is used by the indicated species. This field is not used if a habitat is described.

Accuracy: Mapping accuracy of the line delineation as determined by the mapper.

Priority: Species and habitats that are considered to be priorities for conservation and management by Washington Department of Fish and Wildlife (WDFW).

The most current Priority Habitat and Species List is available on our web site at <http://www.wdfw.wa.gov/conservation/phs/list>.

YES or Y = Indicates the species or habitat occurrence is on WDFW's Priority Habitats and Species List (PHS). The occurrence has been refined to match the priority area listed for the species or habitat on the PHS List (e.g., any occurrence, breeding areas, regular concentrations).

NULL or Blank = Indicates the species or habitat occurrence is not on WDFW's PHS List.

State Status: State listing status of species.

Federal Status: Federal listing status of species.

Site Name: Name assigned to the area based generally on a local place name.

General Description: Description about the area, including how it is used and why it is important.

Source Date: Date of source of information.

Source Code: Code identifying the source of information.

Source: Identifies and describes the source responsible for the information described on the form or drawn on the map. Single or multiple sources may be cited.

Synopsis: Brief narrative describing content of source of information.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
 WILDLIFE POINTS AND AREAS FROM THE WILDLIFE SURVEY DATA MANAGEMENT (WSDM) DATABASE
 IN THE VICINITY OF T25R43E SECTION 18

Report Date: March 24, 2015

Information About Wildlife Points and Areas

Wildlife points and areas on the map can be referenced to this report by noting the occurpointid or occurpolyid number where they occur on the map, and then looking up the information listed below. This report is sorted by the occurpointid and occurpolyid and provides details on each species on the map. The information displayed on the map and in the reports, from the Wildlife Survey Data Management Database, only includes species that are considered to be priorities for conservation and management by Washington Department of Fish and Wildlife. Priority species include state Endangered, Threatened, Sensitive and Candidate; vulnerable aggregations of species; and species of recreational, commercial and/or tribal importance that are vulnerable, all other species from this database have been excluded.

Wildlife Species Point Summary List

This report and the accompanying maps contain species or habitats that are considered to be priorities for conservation and management by Washington Department of Fish and Wildlife (WDFW). The most current Priority Habitat and Species List is available on our web site at <http://www.wdfw.wa.gov/conservation/phs/list>. YES or Y indicates the species or habitat is on WDFW's Priority Habitats and Species (PHS) List. You need to consult the List itself to verify whether a specific occurrence of the species or habitat is considered a priority; the List defines specific priority areas for some species (e.g., Western Washington only, breeding areas or migration corridors only). Null or Blank indicates the species or habitat occurrence is not on WDFW's PHS List.

Priority	State Status	Species Code	Common Name	Occur Type	Occur Class
YES		FACO	MERLIN	BIOTIC DETECTION	UNKNOWN
YES	SENSITIVE	FAPE	PEREGRINE FALCON	ARTIFICIAL STRUCTURE/HACKING	
YES	SENSITIVE	FAPE	PEREGRINE FALCON	NEST	BREEDING

Wildlife Species Points

OccurpointID: 59560 **Species Code:** FACO **Scientific Name:** Falco columbarius
Priority: YES **Verify Status:** Verified **Common Name:** Merlin
Occur Type: Biotic detection **Occur Class:** Unknown **State Status:**
Effort Date: 10/31/1986 **Effort Date Accurate To:** Day **Federal Status:**
Township-Range-Section: T25-0N R43-0E S16 **Site Name:** SPOKANE
Occurrence#: 13 **Sequence#:** 1 **Location Accuracy:** 1/4 mile (Quarter Section)
Occur Notes: MERLIN SWOOPED UNDER CAR PARKED ALONGSIDE WALKWAY ON S SODE OF SPOKANE R, JUST E OF MISSION ST BRIDGE. EMERGED WITH SPARROW IN TALONS. DESCRIPTION: BIGGER THAN KESTREL, SMALLER THAN FALCON (SIC) UNIFORM BROWN W/STREAKS ON TAIL. F OR IM

OccurpointID: 60011 **Species Code:** FAPE **Scientific Name:** Falco peregrinus
Priority: YES **Verify Status:** Verified **Common Name:** Peregrine falcon
Occur Type: Artificial structure **Occur Class:** Hacking **State Status:** Sensitive
Effort Date: 01/01/1991 **Effort Date Accurate To:** Year **Federal Status:** Fed Spp Concern
Township-Range-Section: T25-0N R43-0E S18 **Site Name:** SPOKANE
Occurrence#: 41 **Sequence#:** 1 **Location Accuracy:** 1/4 mile (Quarter Section)
Occur Notes: PEREGRINE FALCON HACK SITE, LOCATED ON BUILDING ON S SIDE OF RIVER JUST E OF DAM.

OccurpointID: 60065 **Species Code:** FAPE **Scientific Name:** Falco peregrinus
Priority: YES **Verify Status:** Verified **Common Name:** Peregrine falcon
Occur Type: Nest **Occur Class:** Breeding **State Status:** Sensitive
Effort Date: 05/02/2012 **Effort Date Accurate To:** Day **Federal Status:** Fed Spp Concern
Township-Range-Section: T25-0N R42-0E S24 **Site Name:** SPOKANE 2
Occurrence#: 74 **Sequence#:** 1 **Location Accuracy:** 1/4 mile (Quarter Section)
Occur Notes: PEREGRINE FALCON EYRIE UNDER I-90 OVERPASS. ESTABLISHED BY BANDED BIRDS HACKED 1991 & 1994 FROM EAST CLARK FORK HACK SITE NEST ON OLD SUNSET BRIDGE OVER LATAH CREEK.

Wildlife Species Areas Summary List

This report and the accompanying maps contain species or habitats that are considered to be priorities for conservation and management by Washington Department of Fish and Wildlife (WDFW). The most current Priority Habitat and Species List is available on our web site at <http://www.wdfw.wa.gov/conservation/phs/list>. YES or Y indicates the species or habitat is on WDFW's Priority Habitats and Species (PHS) List. You will need to consult the List itself to verify whether a specific occurrence of the species or habitat is considered a priority; the List defines specific priority areas for some species (e.g., Western Washington only, breeding areas or migration corridors only). Null or Blank indicates the species or habitat occurrence is not on WDFW's PHS List.

<u>Priority</u>	<u>State Status</u>	<u>Species Code</u>	<u>Common Name</u>	<u>Occur Type</u>	<u>Occur Class</u>
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Codes Used In Wildlife Points and Areas Report

OccurpointID/OccurpointpolyID: A unique identifier for each record.

Species Code: Alphanumeric code which identifies the species by using Washington Department of Fish and Wildlife's standard species codes derived from genus and species. The field Common Name contains the description of this code.

Scientific Name: Scientific name of the species.

Priority: Species and habitats that are considered to be priorities for conservation and management by Washington Department of Fish and Wildlife (WDFW). The most current Priority Habitats and Species List is available on our web site at <http://www.wdfw.wa.gov/conservation/phs/list>. YES or Y = Indicates that the species or habitat is on WDFW's Priority Habitats and Species (PHS) List. You will need to consult the List itself to verify whether a specific occurrence of the species or habitat is considered a priority; the List defines specific priority areas for some species (e.g., Western Washington only, breeding areas or migration corridors only).
NULL or Blank = Indicates the species or habitat occurrence is not on WDFW's PHS List.

Verify Status: Reliability of information.

Common Name: Common name of the species.

Occur Type: The biological entity that is being observed (nest, communal roost etc.).

Occur Class: Biological classification of the occurrence.

State Status: State listing status of the species.

Effort Date: Date an effort was conducted.

Effort Date Accurate To: The accuracy of the date.

Federal Status: Federal listing status of the species.

Township-Range-Section: The legal description of the species occurrence by township, range, meridian, section, quarter, and quarter/quarter section.

Site Name: Name of the site based on location. Generally, the nearest definable geographic place.

Occurrence#: Number assigned sequentially to occurrences. The number is unique by species.

Sequence#: Number assigned sequentially to subgroups for a given occurrence/occurno.

Location Accuracy: Locational accuracy of the data as it was observed.

Occur Notes: Occurrence notes.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY FISH REPORT FROM THE STATEWIDE WASHINGTON INTEGRATED FISH DISTRIBUTION (SWIFD) DATABASE
IN THE VICINITY OF T25R43E SECTION 18

March 24, 2015

Information About The Fish Presence Report

The Statewide Washington Integrated Fish Distribution (SWIFD), is a GIS fish distribution (presence) dataset, managed by the Washington Department of Fish and Wildlife (WDFW) for the entire state of Washington. Within the Treaty Tribes and Washington State co-management areas of Western Washington, the Northwest Indian Fisheries Commission (NWIFC) and WDFW have collaborated and consolidated fish distribution (presence) data and are to co-steward the data in those areas. The fish presence in this report only includes information that WDFW and NWIFC, in co-managed areas, maintain in a central computer database. This information only documents the location of important fish resources to the best of our knowledge. It is not a complete inventory of the fish species in the state. The fish species listed below are considered to be priorities for conservation and management by WDFW. The most current Priority Habitat and Species List is available on our web site at <http://www.wdfw.wa.gov/conservation/phs/list>. The fish presence data has been refined to match the priority area listed for the species on the Priority Habitats and Species List (e.g. any occurrence, breeding areas, regular concentrations).

Streams with priority fish species presence from SWIFD are highlighted on the accompanying map. Due to the complexity of displaying linear features individual species that utilize each river reach are not distinguishable. If more species specific information is needed, users should request digital data or contact the SWIFD database manager. Call WDFW Priority Habitat and Species at (360) 902-2543 or e-mail phsproducts@dfw.wa.gov to find out how to request digital data or to get information about the database manager.

State status information is not available in the SWIFD database for these species. Please see WDFW Species of Concern List for current status. For a copy of this list, contact WDFW Endangered Species Section at (360) 902-2515, or it is available on our web site at <http://www.wdfw.wa.gov/conservation/endangered>.

Priority Fish Presence

<u>Species Code</u>	<u>Species Name</u>	<u>Stream Name</u>	<u>Stream LLID</u>
RBT	Rainbow Trout	Hangman Creek	1174565476600
RBT	Rainbow Trout	Spokane River	1183415478936

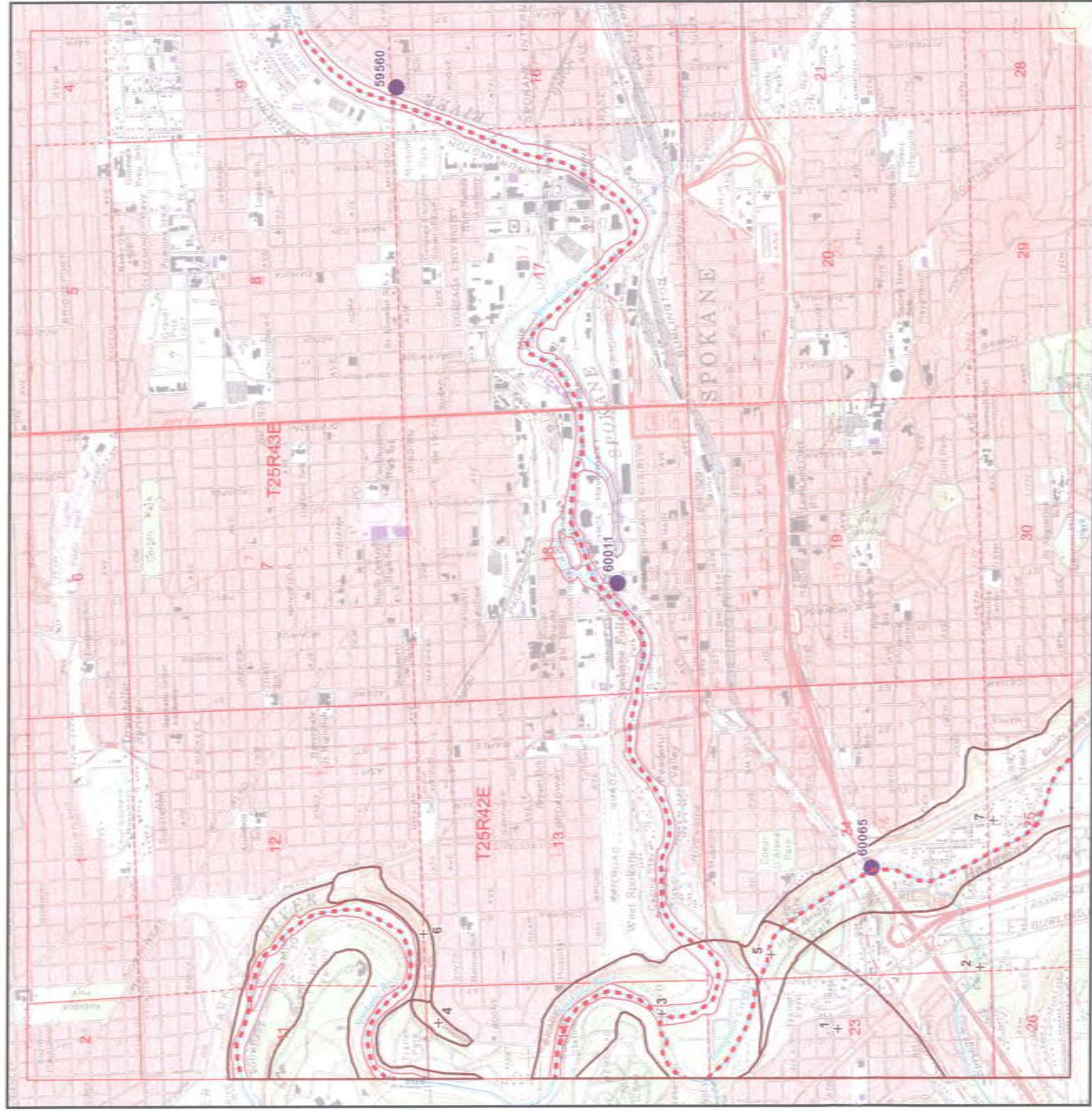
Codes Used In The Priority Fish Presence Report

Fish Code: WDFW unique code that identifies each fish species. The field **Species Name** contains the description of this code.

Species Name: Common name of each fish species.

Stream Name: Stream name based on the US Geological Survey, Geographic Names Information System database.

Stream LLID: Unique stream identifier (ID) generated from the node latitude and longitude located at a stream's mouth. This ID is to be construed only as an ID, and not necessarily as a reference to a stream's location.



Washington Department of Fish and Wildlife HABITATS AND SPECIES MAP IN THE VICINITY OF T25R43E SECTION 18

Map Scale 1:24,000 - Production Date: Mar 24, 2015
Coordinate System - State Plane South Zone 5626 (NAD83 HPGN)
Map Designed by WDFW Habitat Program GIS

PLEASE NOTE

This map and the accompanying reports are not for general distribution. Washington State Law (RCW 42.56.430(2)) exempts Sensitive Fish and Wildlife Information from public inspection and copying.

Washington Department of Fish and Wildlife (WDFW) considers sensitive species and habitat locations displayed on this map and accompanying reports to be confidential. WDFW is the exclusive owner of the Sensitive Fish and Wildlife Information and locations shall in all respects be treated as proprietary information in accordance with all procedures reasonably necessary to protect WDFW's proprietary rights therein.

DISCLAIMER

This map and the accompanying reports only include information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources.

Locations of mapped wildlife and habitat features are generally within a quarter mile of the locations displayed on this map. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using maps more than six months old and information should not be used for future projects.

For questions about how the information may apply to a specific project or site, contact the WDFW Regional Office for your region at:

<https://www.wdfw.wa.gov/about/regions>

MAIN DATA SOURCES

Priority Habitats and Species polygons, Priority Habitat sites, Klickitat County Oak, Wildlife Survey Data Management (WSDM) areas/sites, Marbled Murrelets, Spotted Owls, Seal/Sea Lion Haulouts, Priority Fish presence, Rivers and Streams data: Wa. Dept. of Fish and Wildlife.
Seabird Colony data: US National Oceanic and Atmospheric Administration.
Kelp Beds, Oak Stands, Eelgrass, Turf Algae and Township/Section data: Wa. Dept. of Natural Resources.
Wetland data: US Fish and Wildlife Service, National Wetlands Inventory.
1:24K Quadrangle Image: US Geological Survey.

Map Legend

Priority Habitats/Species:

- Priority Habitats and Species (PHS) Polygon Borders
- Priority Wildlife Areas (WSDM)
- Priority Wildlife Sites (WSDM)
- Priority Habitat Sites
- Marbled Murrelet Occupancy Sites
- Spotted Owl Sites - Status 1-3
- Spotted Owl Sites - Status 4
- Priority Seabird Colonies
- Priority Seal/Sea Lion Haulouts
- Priority Fish Presence
- National Wetlands Inventory
- Oak Stands
- Kelp Beds
- Eelgrass
- Turf Algae

Other Habitats/Species:

- Other Seabird Colonies
- Other Seal/Sea Lion Haulouts
- Spotted Owl Management Circles Established Territory
- Spotted Owl Management Circles Insufficient Evidence to Establish Territory
- Marbled Murrelet Detection Sections (WDFWSTAT 1 through 4)
- Marbled Murrelet 1.5 Mile Buffers (Status 1 through 3)

Other Symbols:

- Rivers and Streams
- Section Lines
- Township Lines



Area Location Map

0 0.5 1 Miles

Miles

Species Detail

Riverfront Park Species Distribution

Report universe: All Subset

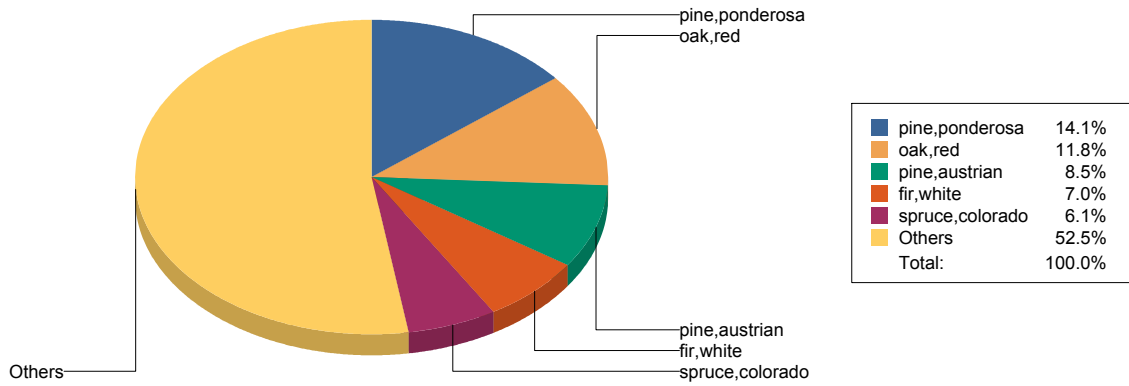
Rank	Percent	Common Name	Botanic Name	Average		Tree Count
				Condition	Diameter	
1	14.1%	pine, ponderosa	pinus ponderosa	69	15	136
2	11.8%	oak, red	quercus rubra	69	14	114
3	8.5%	pine, austrian	pinus nigra	67	15	82
4	7.0%	fir, white	abies concolor	70	14	67
5	6.1%	planetree, london	platanus x acerifolia	75	20	59
6	6.1%	spruce, colorado	picea pungens	67	15	59
7	5.2%	maple, red	acer rubrum	70	13	50
8	5.2%	pine, scotch	pinus sylvestris	67	16	50
9	4.6%	maple, red 'columnar'	acer rubrum 'columnar'	70	11	44
10	4.1%	spruce, norway	picea abies	64	14	40
11	4.0%	honeylocust	gleditsia triacanthos	66	11	39
12	3.7%	fir, douglas	pseudotsuga menziesii	69	16	36
13	3.3%	maple, norway	acer platanoides	64	14	32
14	1.2%	willow, weeping	salix babylonica	53	26	12
15	1.0%	crabapple	malus species crabapple	66	9	10
16	1.0%	linden, littleleaf	tilia cordata	69	15	10
17	1.0%	linden, silver 'sterling silver'	tilia tomentosa 'sterling slv'	60	10	10
18	0.9%	hornbeam, european	carpinus betulus	66	10	9
19	0.6%	ginkgo	gingko biloba	70	8	6
20	0.5%	alder, european black	alnus glutinosa	42	2	5
21	0.5%	fir, fraser	abies fraseri	53	11	5
22	0.5%	hemlock, canadian	tsuga canadensis	66	9	5
23	0.5%	parrotia, persian	parrotia persica	78	4	5
24	0.5%	pine, lodgepole	pinus contorta	52	11	5
25	0.4%	lilac, japanese tree 'ivory silk'	syringa reticulata 'ivory silk	70	3	4
26	0.4%	maple, red 'armstrong'	acer rubrum 'armstrong'	65	12	4
27	0.3%	beech, european	fagus sylvatica	73	19	3
28	0.3%	birch, european white	betula pendula	70	10	3
29	0.3%	dogwood, kousa	cornus kousa	70	4	3
30	0.3%	honeylocust, thornless	gleditsia triacanthos x inerm	63	7	3
31	0.3%	maple, japanese	acer palmatum	63	1	3
32	0.3%	maple, red 'red sunset'	acer rubrum 'red sunset'	70	6	3
33	0.3%	unknown	unknown	70	11	3
34	0.2%	birch, paper	betula papyrifera	60	6	2
35	0.2%	cherry	prunus cerasus	50	8	2
36	0.2%	corktree, amur	phellodendron amurense	75	15	2
37	0.2%	elm, japanese 'accolade'	ulmus japonica x wilson 'morto'	60	4	2
38	0.2%	fir, subalpine	abies lasiocarpa	53	9	2

Rank	Percent	Common Name	Botanic Name	Average		Tree Count
				Condition	Diameter	
39	0.2%	hawthorn	crataegus species	80	3	2
40	0.2%	horsechestnut, red	aesculus carnea	80	12	2
41	0.2%	maple, silver 'cutleaf'	acer saccharinum 'cutleaf'	60	19	2
42	0.2%	maple, silver	acer saccharinum	50	14	2
43	0.2%	pine, bristlecone	pinus aristata	70	11	2
44	0.1%	birch, gray	betula populifolia	70	12	1
45	0.1%	buckeye, ohio	aesculus glabra	70	17	1
46	0.1%	buckeye, red	aesculus pavia	70	17	1
47	0.1%	cherry, black	prunus serotina	70	15	1
48	0.1%	cherry, weeping 'higan'	prunus subhirtella pendula	80	8	1
49	0.1%	kentucky coffeetree	gymnocladus dioicus	90	4	1
50	0.1%	hawthorn, washington	crataegus phaenopyrum	50	5	1
51	0.1%	hawthorn, downy	crataegus molis	70	7	1
52	0.1%	hophornbeam, american	ostrea virginiana	70	8	1
53	0.1%	juniper	juniperus species	80	1	1
54	0.1%	katsuratree	cercidiphyllum japonicum	80	3	1
55	0.1%	maple, norway 'columnar'	acer platanoides 'columnar'	80	13	1
56	0.1%	maple, norway 'crimson king'	acer platanoides 'crimson kng'	70	12	1
57	0.1%	maple	acer species	70	13	1
58	0.1%	mountain ash, european	sorbus aucuparia	70	11	1
59	0.1%	oak, english columnar	quercus robur columnar	70	14	1
60	0.1%	oak, english	quercus robur	70	9	1
61	0.1%	pine, eastern white	pinus strobus	50	8	1
62	0.1%	pine, japanese white	pinus parvifolia	70	11	1
63	0.1%	pine, jeffrey	pinus jeffreyi	80	25	1
64	0.1%	pine, western white	pinus monticola	50	10	1
65	0.1%	serviceberry, apple	amelanchier grandiflora	70	6	1
66	0.1%	tuliptree	liriodendron tulipifera	80	4	1
67	0.1%	willow	salix species	50	15	1
68	0.1%	zelkova, japanese	zelkova serrata	70	11	1
Totals				68	14	964

Species Distribution

Riverfront Park Species Distribution

Report universe: All Subset



Top 20 Species

Species	Percent	Count
pine,ponderosa	14.1%	136
oak,red	11.8%	114
pine,austrian	8.5%	82
fir,white	7.0%	67
planetree,london	6.1%	59
spruce,colorado	6.1%	59
mapl,red	5.2%	50
pine,scotch	5.2%	50
mapl,rd columnr	4.6%	44
spruce,norway	4.1%	40
honeylocust	4.0%	39
fir,douglas	3.7%	36
mapl,norway	3.3%	32
willow,weeping	1.2%	12
crabapple spp	1.0%	10
linden,littleleaf	1.0%	10
linden,slv strl s	1.0%	10
hornbeam,european	0.9%	9
ginkgo	0.6%	6
alder,europ bck	0.5%	5
Others_	9.8%	94
Total		964

GeoEngineers Inc.

COMMUNICATION RECORD

JOB NO.

010-148-02

PHONE IN MEETING PROSPECTIVE JOB PAST JOB
PHONE OUT OTHER CURRENT JOB ADMIN.
MARKETING

ROUTE TO:

DATE:

4/2/15

TIME: AM OR PM

10:20

FILE NAME (OWNER):

Proposed Riverfront Park Improvements Habitat Management Plan

PERSON

FIRM

PHONE NO.

RECORDED BY:

Michelle Eames

USFWS

509.893.
8010Jennifer
Dudisman

SUBJECT: Species information at the Riverfront Park project site

REMARKS:

Bull Trout - They would not expect bull trout at the park but they are located upstream. So project should have no effect on bull trout.

Bats - Bats are not a federal issue, so they aren't concerned.

Migratory birds - Doesn't think migratory birds will be an issue but should use our best judgment. We then discussed there are no mapped eagle nests but there is a mapped peregrine falcon nest on a building.

CONTINUED

ACTION REQUIRED:

none

ACTION TAKEN:

none

ACTION BY:

DATE:

GeoEngineers Inc.

COMMUNICATION RECORD

JOB NO.
0110-148-02

PHONE IN MEETING PROSPECTIVE JOB PAST JOB
PHONE OUT OTHER CURRENT JOB ADMIN.
MARKETING

ROUTE TO:

DATE:
4/2/15
TIME: AM OR PM
9:00

FILE NAME (OWNER):

Proposed Riverfront Park Improvements Habitat Management Plan

PERSON

FIRM

Karin Divens

WDFW

PHONE NO.

509.892.1001

RECORDED BY:

Jennifer Dedisman

SUBJECT: PHS data at the Riverfront Park project site.

REMARKS:

Bull Trout - I mentioned USFWS mentioned bull trout were in the project area and during the site meeting she said there was no bull trout. She clarified by saying there is not a population of bull trout in the area but there were a couple individuals over the years that were discovered during electrofishing. She doesn't know why USFWS keeps saying they are in Spokane River because they aren't but they did agree with USFWS to protect foraging habitat.

Best Habitat - I pointed out PHS data doesn't map bats but she mentioned them during the site visit. She said that it was strange but some in WDFW don't want bat habitat mapped. She knows for sure there is a maternal colony with females and young under Sunset bridge. We need to talk about potential to disrupt their foraging area. Potential mitigation would be to add bat houses.

CONTINUED on back

ACTION REQUIRED:

None

ACTION TAKEN:

None.

ACTION BY:

DATE:

Migratory Birds - She doesn't have any concerns about birds because this is a "really urban project".

Have we delivered World Class Client Service?

Please let us know by visiting www.geoengineers.com/feedback.

