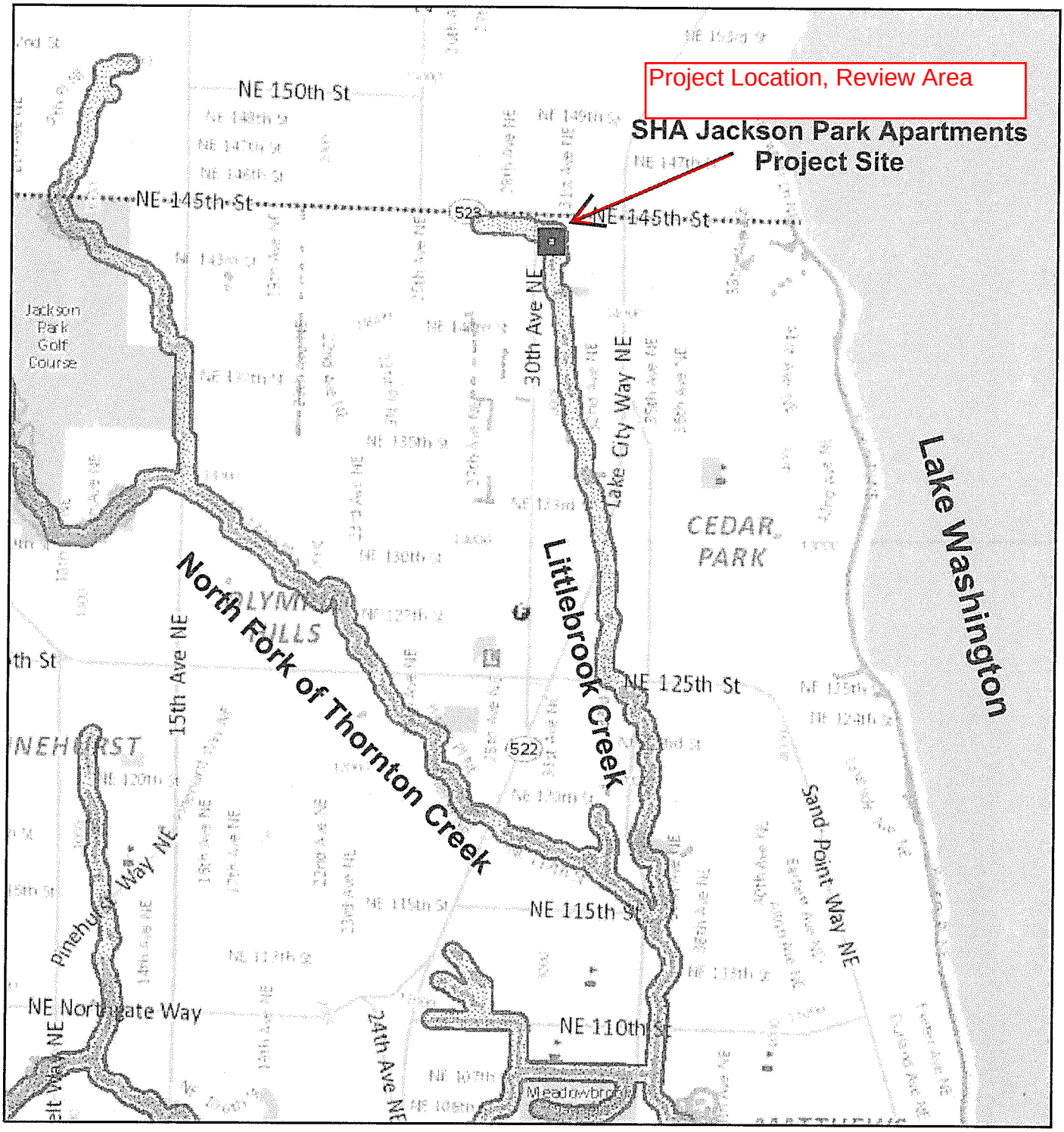
NWS-2019-107
Figure 1.

SDCI GIS Web Map



9/14/2018, 10:01:48 AM

1:19,200

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

- Wetland-ECA4
- Riparian Corridor-ECA3

PREPARED BY:

Raedeke Associates, Inc.
2111 N. Northgate Way, Suite 219
Seattle, Washington 98133

2/06/2019

Regulatory Program

INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): 2/06/2019

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): NWS-2019-00107

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:WA County/parish/borough: King County City: Seattle
Center coordinates of site (lat/long in degree decimal format): Lat. 47.732935, Long. -122.295892.
Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: ☒ attached ☐ in report/map titled .
☐ Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1): .

D. REVIEW PERFORMED FOR SITE EVALUATION:
☒ Office (Desk) Determination Only. Date: 2/06/2019.
☐ Office (Desk) and Field Determination. Office/Desk Dates: Field Date(s): .

SECTION II: DATA SOURCES

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: SDCI GIS Web Map (9/14/2018), Little Brook Creek Area Study (9/17/2018), Thorton Creek Subwatersheds (2018).
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  ☐ Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: .
  ☐ Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon: .
  Revised Title/Date: .
☐ Data sheets prepared by the Corps. Title/Date: .
☐ Corps navigable waters study. Title/Date: .
☐ CorpsMap ORM map layers. Title/Date: .
☐ USGS Hydrologic Atlas. Title/Date: .
☐ USGS, NHD, or WBD data/maps. Title/Date: .
☐ USGS 8, 10 and/or 12 digit HUC maps. HUC number: .
☐ USGS maps. Scale & quad name and date: .
☐ USDA NRCS Soil Survey. Citation: .
☐ USFWS National Wetlands Inventory maps. Citation: .
☐ State/Local wetland inventory maps. Citation: .
☐ FEMA/FIRM maps. Citation: .
☐ Photographs: ☐ Aerial. Citation: . or ☐ Other. Citation: .
☐ LiDAR data/maps. Citation: .
☒ Previous JDs. File no. and date of JD letter: NWS-2009-1412, 4/17/2010.
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify): Thornton Creek Drainage Description. Sheets 4 and 5 .

SECTION III: SUMMARY OF FINDINGS

Complete ORM "Aquatic Resource Upload Sheet" or Export and Print the Aquatic Resource Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:

☐ "*navigable waters of the U.S.*" within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.

- **Complete Table 1 - Required**

NOTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "*waters of the U.S.*" within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. **Check all that apply.**

☐ (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))

- **Complete Table 1 - Required**

☐ This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.

☐ (a)(2): All interstate waters, including interstate wetlands.

- **Complete Table 2 - Required**

☐ (a)(3): The territorial seas.

- **Complete Table 3 - Required**

☐ (a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.

- **Complete Table 4 - Required**

☒ (a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 5 - Required**

☐ (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

- **Complete Table 6 - Required**

☐ Bordering/Contiguous.

Neighboring:

☐ (c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.

☐ (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.

☐ (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.

☐ (a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

☐ (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

C. NON-WATERS OF THE U.S. FINDINGS:

Check all that apply.

☐ The review area is comprised entirely of dry land.

☐ Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

☐ Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

☐ Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):

- **Complete Table 10 - Required**

☐ (b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.

☐ (b)(2): Prior converted cropland.

☐ (b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

☐ (b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

☐ (b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).

☐ (b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.

☐ (b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.

☐ (b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.[1]

☐ (b)(4)(iv): Small ornamental waters created in dry land.[1]

☐ (b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.

☐ (b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.[1]

☐ (b)(4)(vii): Puddles.[1]

☐ (b)(5): Groundwater, including groundwater drained through subsurface drainage systems.[1]

☐ (b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.[1]

☐ (b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

☐ Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).

- **Complete Table 11 - Required.**

D. ADDITIONAL COMMENTS TO SUPPORT AJD: .

[1] In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

Jurisdictional Waters of the U.S.

Default field entry is "N/A". Delete "N/A" and fill out all fields in the table where applicable for waters/features present in the review area.

Table 1. (a)(1) Traditional Navigable Waters

(a)(1) Waters Name	(a)(1) Criteria	Rationale to Support (a)(1) Designation Include High Tide Line or Ordinary High Water Mark indicators, when applicable.
N/A	Choose an item.	N/A

Table 2. (a)(2) Interstate Waters

(a)(2) Waters Name	Rationale to Support (a)(2) Designation
N/A	N/A

Table 3. (a)(3) Territorial Seas

(a)(3) Waters Name	Rationale to Support (a)(3) Designation
N/A	N/A

Table 4. (a)(4) Impoundments

(a)(4) Waters Name	Rationale to Support (a)(4) Designation
N/A	N/A

Table 5. (a)(5)Tributaries

(a)(5) Waters Name	Flow Regime	(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows	Tributary Breaks	Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.
Little Brook Creek	Perennial	Lake Washington	No	Little Brook Creek is part of the Thornton Creek Watershed which drains an area of 7,263 acres. Thornton Creek discharges into Lake Washington (a1 Water of the U.S.) at Mathews Beach. Little Brook Creek begins near 145th Street and flows through a series of open water, pipes, and culverts as it travels through the Lake City Business district. It next enters a stormwater detention pond, and then travels through a steep ravine before joining the North Fork of Thornton Creek, which travels approximately a half-mile until it joins the South Fork of Thornton Creek and forms the main channel of Thornton Creek, before discharging into Lake Washington. See Figures 1 and 3 for the flow path and Figure 2 for the areas of where the creek is piped or open water in relation to the review area.
N/A	Choose an item.	N/A	Choose an item.	N/A
N/A	Choose an item.	N/A	Choose an item.	N/A
N/A	Choose an item.	N/A	Choose an item.	N/A

Table 6. (a)(6) Adjacent Waters

(a)(6) Waters Name	(a)(1)-(a)(5) Water Name to which this Water is Adjacent	Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Table 7. (a)(7) Waters

SPOE Name	(a)(7) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; discuss whether any similarly situated waters were present and aggregated for SND; discuss data, provide analysis, and summarize how the waters have more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Table 8. (a)(8) Waters

SPOE Name	(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to subject water and aggregated for SND; discuss data, provide analysis, and then summarize how the waters have more than speculative or insubstantial effect the on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Non-Jurisdictional Waters

Default field entry is "N/A". Delete "N/A" and fill out all fields in the table where applicable for waters/features present in the review area.

Table 9. Non-Waters/No Significant Nexus

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the (a)(1)-(a)(3) Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

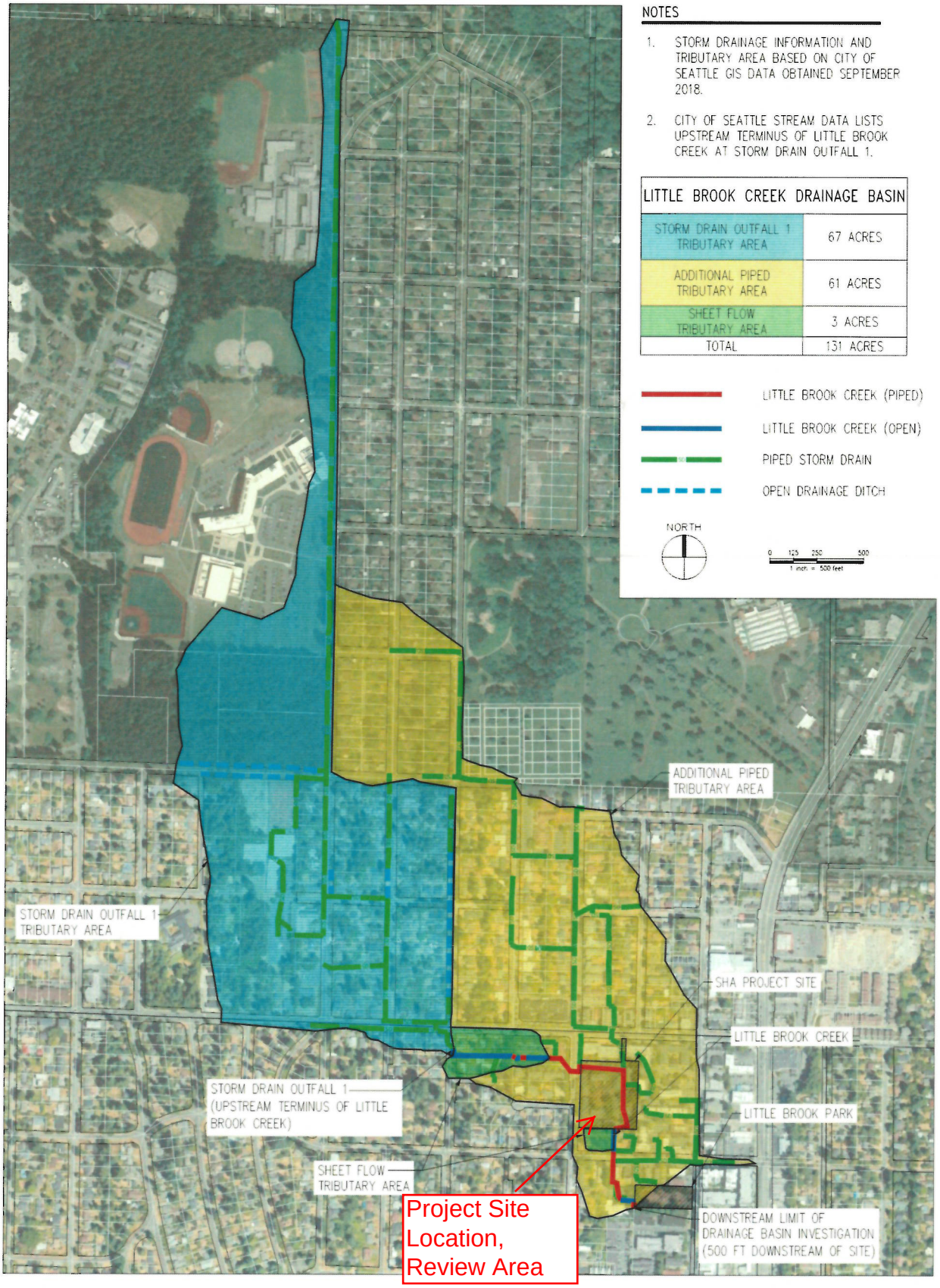
Table 10. Non-Waters/Excluded Waters and Features

Paragraph (b) Excluded Feature/Water Name	Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.
N/A	N/A
N/A	N/A

Table 11. Non-Waters/Other

Other Non-Waters of U.S. Feature/Water Name	Rationale for Non-Waters of U.S. Feature/Water and Additional Discussion.
N/A	N/A

NWS-2019-107
Figure 2.



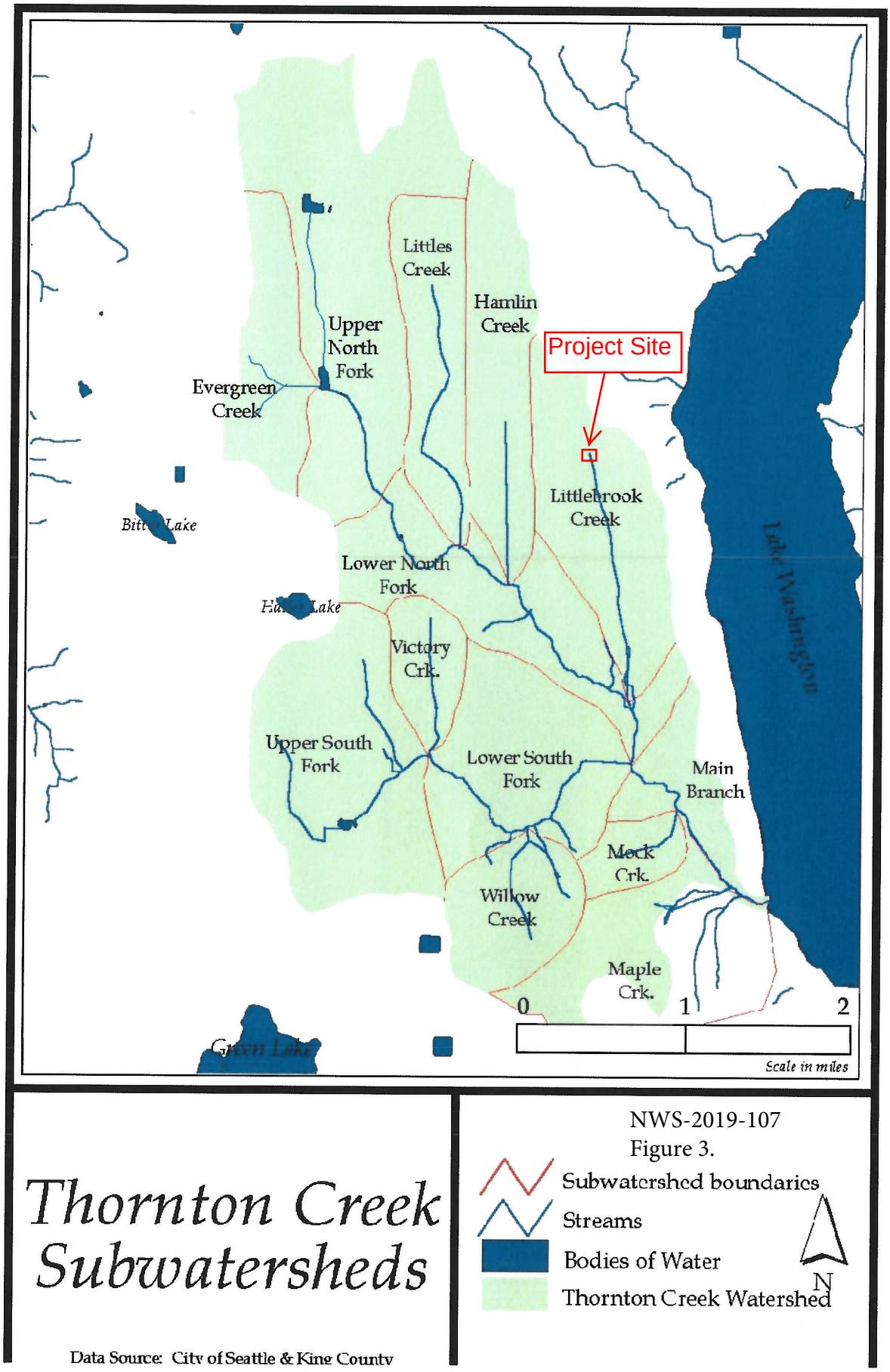
2/06/2019

LITTLE BROOK CREEK
TRIBUTARY AREA STUDY

JACKSON PARK VILLAGE
REDEVELOPMENT
SEATTLE HOUSING AUTHORITY

kpff

DRAWN BY: BCR
CHECKED BY: MDH


Littles Creek
Hamlin Creek
Upper North Fork
Evergreen Creek
Project Site
Littlebrook Creek
Lake Washington
Lower North Fork
Victory Crk.
Upper South Fork
Lower South Fork
Main Branch
Mock Crk.
Willow Creek
Maple Crk.
0
1
2
Scale in miles
Thornton Creek Subwatersheds
NWS-2019-107
Figure 3.
Subwatershed boundaries
Streams
Bodies of Water
Thornton Creek Watershed
N
Data Source: City of Seattle & King County

THORNTON CREEK DRAINAGE

The Thornton Creek drainage network is influenced by the topography of the land and modern infrastructure, such as drainage outflows and roads. The 7,263 acre Thornton creek watershed can be generally divided into three main sub-watersheds, referred to as the North, South and Main branches (see sub-basin map). The North branch covers land in both the cities of Seattle and Shoreline. It drains 4,446 acres and can be further divided into the sub-watersheds of its tributaries, Littles Creek and Little Brook. The headwaters of the North Branch originate in Shoreline's Ronald Bog, (N 175th St and Meridian Ave N). The pond located at the area of the bog is not a natural feature, but was created during a peat mining period in the 1950's. From here, the water flows in a southerly direction to Twin Ponds (Corliss Ave N and N 155th St.). From Twin Ponds, the creek passes through a detention pond and then into a 72-inch pipe which takes the water under I-5. From the pipe, the water surfaces into a section known as Jones Creek which passes through Jackson Park Golf Course, a wetland, Thornton Creek Park, and a condominium complex, before joining the Littles Creek tributary at NE 130th St. and !0th Ave NE.

Littles Creek flows through a residential area south along 12th Ave on the east side of I-5. It passes through Paramount Park, and its associated wetland areas and then crosses under NE 145th St. before flowing through the Jackson Park golf course. Afterwards the creek travels though commercial areas before it enters a 30-inch pipe along 10th Ave NE.

The North Branch next flows through a residential area for one and half miles where it is joined by the Little Brook tributary.

Little Brook begins near 145th St. where it flows south through a series of open water, pipes, and culverts as it travels through the Lake City Business district. It next enters a storm water detention pond, and then travels through a steep ravine area before joining the North Branch, which travels several more blocks until it joins the South Branch.

The South Branch, also known as Maple Leaf Creek drains 2,333 acres within the city of Seattle, and includes the sub-watersheds of the Victory Creek, Willow Creek, and Kramer Creek tributaries. Its headwaters originate west of I-5 near the Evergreen Cemetery, Seattle North Precinct Police Station and North Seattle Community College. Crossing under I-5 the piped creek water is fed more water by another small tributary, as well as considerable runoff associated with the Northgate shopping mall. The water emerges from the pipe near NE 103rd ST and 5th Ave NE, and then flows through Thornton Creek parks #6 and #2. Within this stretch the creek is fed water from numerous storm drains, and is joined by the waters of Victory Creek. The creek flows southeast through a residential area, being joined by Willow creek, and finally by the North Branch at NE 107th St and 35th Ave NE.

The Main Branch, which drains an additional 488 acres after the convergence of the North and South, flows into the Meadowbrook Detention pond. The pond is located at the site of the former Lake City Sewage Treatment Plant. An important change in the historic drainage patterns of Thornton Creek is found in a 72-90 inch diameter pipe located at Meadowbrook that diverts high flow water directly to Lake Washington. The remainder of the water flows toward the lake and is joined by the waters of Mock Creek and Maple Creek. Finally at

Matthews Beach, nearly all of the water draining from the 7,263 acres of the Thornton Creek watershed, enters into Lake Washington.

RETURN TO DRAINAGE