Main Listing Information

Listing ID: 72390
Waterbody Name: SPOKANE RIVER
Medium: Water
Parameter: Bacteria - Fecal coliform
WQI Project: None
Designated Use: Recreation - Primary Contact

Cat 5

Year	Category
2018	5
2012	3
2010	3
2008	3
2004	3
1998	N
1996	N

Assessment Unit

Assessment Unit ID: 17010307010781_001_001
Size: 10.036 Kilometers
Associated Components(s): Reach: 17010307010781 0% - 100%, Type: Rivers/Streams
County: Spokane
WRIA: Lower Spokane

Basis Table

Assessment Year
2018

Sampling Year	Excursion Count	Sample Count	Criterion/Threshold	Aggregate	Calculated Value	Criterion 2	Aggregate 2	Calculated Value 2
2010	1	13	200 #col/100ml	Highest daily average	420	100 #col/100ml	Three-month geometric mean	125

Basis Statement

Remarks

Assessment Cycle 2018 - During water year 2010, the geometric mean of at least one three-month period exceeded the standards or the ten percent criterion was exceeded with at least two samples exceeding the criterion magnitude in the year.

Data Sources

Study Id	Location Id	Source Database
AMS001	54A130	EIM
AMS001E	54A130	EIM

Map Link

Map Link (https://apps.ecology.wa.gov/waterqualityatlas/wqa/map?lstid=72390)

✓ S. Gelhs
ECOS WSA
6/17/2025

Main Listing Information

Listing ID: 9044
Waterbody Name: SPOKANE RIVER
Medium: Water
Parameter: Zinc
WQI Project: Spokane River Metals TMDL
Designated Use: Aquatic Life - Toxics

Year	Category
2018	4A
2012	4A
2010	4A
2008	4A
2004	4A
1998	Y
1996	N

Assessment Unit

Assessment Unit ID: 17010307010781_001_001
Size: 10.036 Kilometers
Associated Components(s): Reach: 17010307010781 0% - 100%, Type: Rivers/Streams
County: Spokane
WRIA: Lower Spokane

Basis Table

See Basis Statement field.

Basis Statement

HISTORICAL INFORMATION

Hopkins and Johnson, 1997, 5 excursions beyond the criterion at RM 69.8 between 4/97 and 6/97.

Hopkins and Johnson (1997) station MEENACH (MEENACH BRIDGE MONITORING STATION) shows 2 excursions beyond the criterion out of 2 samples collected between 04/97 - 06/97.

Remarks

Assessment Cycle 2018 - A historical Category 4A determination was carried forward from a previous assessment or administrative decision. See Historical Basis Statement for previous assessment information.

Combined Listing: Listing ID 15336 was rolled into this listing

Part of Spokane River Dissolved Metals TMDL. Approved 8/25/99.

Data Sources

No Source Records

Map Link

Map Link (https://apps.ecology.wa.gov/waterqualityatlas/wqa/map?lstid=9044)

J. S. Collins
ECOS USA
6/17/2025

Main Listing Information

Listing ID: 9045
Waterbody Name: SPOKANE RIVER
Medium: Water
Parameter: Lead
WQI Project: Spokane River Metals TMDL
Designated Use: Aquatic Life - Toxics

Year	Category
2018	4A
~~2012~~	~~4A~~
2010	4A
2008	4A
2004	4A
1998	Y
1996	N

Assessment Unit

Assessment Unit ID: 17010307010781_001_001
Size: 10.036 Kilometers
Associated Components(s): Reach: 17010307010781 0% - 100%, Type: Rivers/Streams
County: Spokane
WRIA: Lower Spokane

Basis Table

See Basis Statement field.

Basis Statement

HISTORICAL INFORMATION

Hopkins and Johnson, 1997, 2 excursions beyond the criterion at RM 69.8 between 4/97 and 6/97.

Hopkins and Johnson (1997) station MEENACH (MEENACH BRIDGE MONITORING STATION) shows 2 excursions beyond the criterion out of 2 samples collected between 04/97 - 06/97.

Remarks

Assessment Cycle 2018 - A historical Category 4A determination was carried forward from a previous assessment or administrative decision. See Historical Basis Statement for previous assessment information.

Combined Listing: Listing ID 15323 was rolled into this listing

Part of Spokane River Dissolved Metals TMDL. Approved 8/25/99.

Data Sources

No Source Records

Map Link

Map Link (https://apps.ecology.wa.gov/waterqualityatlas/wqa/map?lstid=9045)

✓ S. Gl
ECOS USA
4/17/2025

Main Listing Information

Listing ID: 15328

Waterbody Name: SPOKANE RIVER

Medium: Water

Parameter: pH

CAT 2.

WQI Project: None

Designated Use: Aquatic Life - Salmonid Spawning, Rearing, and Migration

Year	Category
2018	2
2012	2
2010	3
2008	3
2004	1
1998	N
1996	Y

Assessment Unit

Assessment Unit ID: 17010307010781_001_001

Size: 10.036 Kilometers

Associated Components(s): Reach: 17010307010781 0% - 100%, Type: Rivers/Streams

County: Spokane

WRIA: Lower Spokane

Basis Table

Assessment Year

2018

Sampling Year	Excursion Count	Sample Count	Criterion/Threshold	Aggregate	Calculated Value
2009	1	9	6.5 - 8.5 pH	Daily Extreme	8.6

Basis Statement

HISTORICAL INFORMATION

Cusimano (2001) station SPK67.6 (Spokane River (SPK67.6)) shows 0 excursions beyond the criterion out of 4 samples collected between 06/00 - 09/00.

Cusimano (2001) station SPK69.8 (Spokane River (SPK69.8)) shows 0 excursions beyond the criterion out of 4 samples collected between 06/00 - 09/00.

Remarks

Assessment Cycle 2018 - During 2009, at least one daily minimum or maximum value did not meet standards but there were not enough excursions to determine a Category 5.
Combined Listing: Listing ID 15329 was rolled into this listing
The Category 2 designation is based on data from 2009. An Assessment Unit is assigned a Category 2 designation for pH when both of the following conditions are met: 1) One or more pH values in the dataset being considered do not meet the pH criteria; and 2) fewer than 3 pH values in the dataset being considered meet the pH criteria and/ or less than 10 percent of samples do not meet the criteria.
As a result of merging of stream assessment units in 2014, this record was merged with the record formerly associated with Listing ID 15329.
High pH Excursions

Data Sources

Study Id	Location Id	Source Database
AMS001	54A130	EIM
AMS001-2	54A130	EIM
AMS001E	54A130	EIM

J S Gellus
ECOS/CSA
6/17/2025

Map Link

Map Link (https://apps.ecology.wa.gov/waterqualityatlas/wqa/map?lstid=15328)

Soil Map—Spokane County, Washington
(Drumheller Springs Park and Conservation Area City of Spokane, WA.)

Map Scale: 1:4,640 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Spokane County, Washington
Survey Area Data: Version 16, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 9, 2022—Aug 15, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2053	Speigle-Rock outcrop complex, 15 to 30 percent slopes	22.1	21.1%
3117	Northstar-Rock outcrop-Rockly complex, 0 to 15 percent slopes	17.6	16.8%
3143	Spens very gravelly loamy coarse sand, 30 to 65 percent slopes	5.7	5.5%
7110	Urban land-Opportunity, disturbed complex, 0 to 3 percent slopes	9.6	9.2%
7111	Urban land-Opportunity, disturbed complex, 3 to 8 percent slopes	10.9	10.4%
7121	Urban land-Marble, disturbed complex, 3 to 8 percent slopes	3.5	3.4%
7130	Urban land-Northstar, disturbed complex, 0 to 3 percent slopes	29.9	28.5%
7131	Urban land-Northstar, disturbed complex, 3 to 8 percent slopes	5.0	4.8%
7134	Urban land-Northstar, disturbed complex, 15 to 30 percent slopes	0.4	0.4%
Totals for Area of Interest		**104.8**	**100.0%**

WH-2 Drumheller Springs Creek Type N Waterbody
WH-3 Vernal Pool Area.
SP-1 Wet

Spokane County, Washington

3117—Northstar-Rock outcrop-Rockly complex, 0 to 15 percent slopes

Cocolalla - Hydric Wetland Soil

Map Unit Setting

National map unit symbol: 2wgq
Elevation: 1,800 to 2,550 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 100 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Northstar and similar soils: 30 percent
Rock outcrop: 25 percent
Rockly and similar soils: 20 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Northstar

Setting

Landform: Plateaus
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess with an influence of volcanic ash over residuum and/or colluvium derived from basalt

Typical profile

- Thick Dark Surface 10YR2/1 "See Pg. 3.

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 3 inches: moderately decomposed plant material
A1 - 3 to 6 inches: extremely cobbly ashy loam
A2 - 6 to 11 inches: extremely cobbly ashy loam
BA - 11 to 17 inches: very gravelly ashy loam
Bw - 17 to 26 inches: extremely gravelly loam
R - 26 to 36 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 23 to 43 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.9 inches)

SGolla
ECOS USA
6/10/2025

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F009XY001WA - Mesic Xeric Loamy Hills and Canyons Ponderosa Pine Moderately Warm Dry Shrub
Other vegetative classification: ponderosa pine/common snowberry (CN170)
Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Description of Rockly

Setting

Landform: Plateaus
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess mixed with minor amounts of volcanic ash over residuum derived from basalt

Typical profile

A - 0 to 3 inches: very cobbly loam
Bw - 3 to 6 inches: very cobbly loam
R - 6 to 16 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 4 to 12 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D
Ecological site: R009XY001WA - Very Shallow
Hydric soil rating: No

Minor Components

Fourmound
Percent of map unit: 10 percent
Landform: Plateaus
Microfeatures of landform position: Mounds
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Other vegetative classification: ponderosa pine/common snowberry (CN170)
Hydric soil rating: No

Cocolalla
Percent of map unit: 5 percent
Landform: Depressions, drainageways
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R009XY988WA - Wetland Complex
Hydric soil rating: Yes

Speigle
Percent of map unit: 5 percent
Landform: Escarpments
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: ponderosa pine/common snowberry (CN170)
Hydric soil rating: No

Rubble land
Percent of map unit: 5 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Spokane County, Washington
Survey Area Data: Version 16, Aug 26, 2024

✓S. Gehr
ECOS USA
6/10/2025

Spokane County, Washington

7130—Urban land-Northstar, disturbed complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2mdnj
Elevation: 1,800 to 2,360 feet
Mean annual precipitation: 17 to 19 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 100 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 60 percent
Northstar, disturbed, and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Description of Northstar, Disturbed

Setting

Landform: Plateaus
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess with an influence of volcanic ash over residuum and/or colluvium derived from basalt

Typical profile

A1 - 0 to 6 inches: extremely cobbly ashy loam
A2 - 6 to 11 inches: extremely cobbly ashy loam
BA - 11 to 17 inches: very gravelly ashy loam
Bw - 17 to 26 inches: extremely gravelly loam
R - 26 to 36 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F009XY001WA - Mesic Xeric Loamy Hills and Canyons Ponderosa Pine Moderately Warm Dry Shrub
Other vegetative classification: ponderosa pine/common snowberry (CN170)
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 8 percent
Hydric soil rating: No

Rockly, disturbed

Percent of map unit: 3 percent
Landform: Plateaus
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R009XY001WA - Very Shallow
Hydric soil rating: No

Springdale, disturbed

Percent of map unit: 3 percent
Landform: Outwash terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: ponderosa pine/common snowberry (CN170)
Hydric soil rating: No

Lakespring, disturbed

Percent of map unit: 1 percent
Landform: Outwash plains, terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Convex
Other vegetative classification: ponderosa pine/ninebark (CN190)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Spokane County, Washington
Survey Area Data: Version 16, Aug 26, 2024

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2053	Speigle-Rock outcrop complex, 15 to 30 percent slopes	22.1	21.1%
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Upl ✓ 7130	Urban land-Northstar, disturbed complex, 0 to 3 percent slopes	29.9	28.5%
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✓ S. Collins
ECOS USA
6/11/2025

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Spokane County, Washington
Survey Area Data: Version 16, Aug 26, 2024

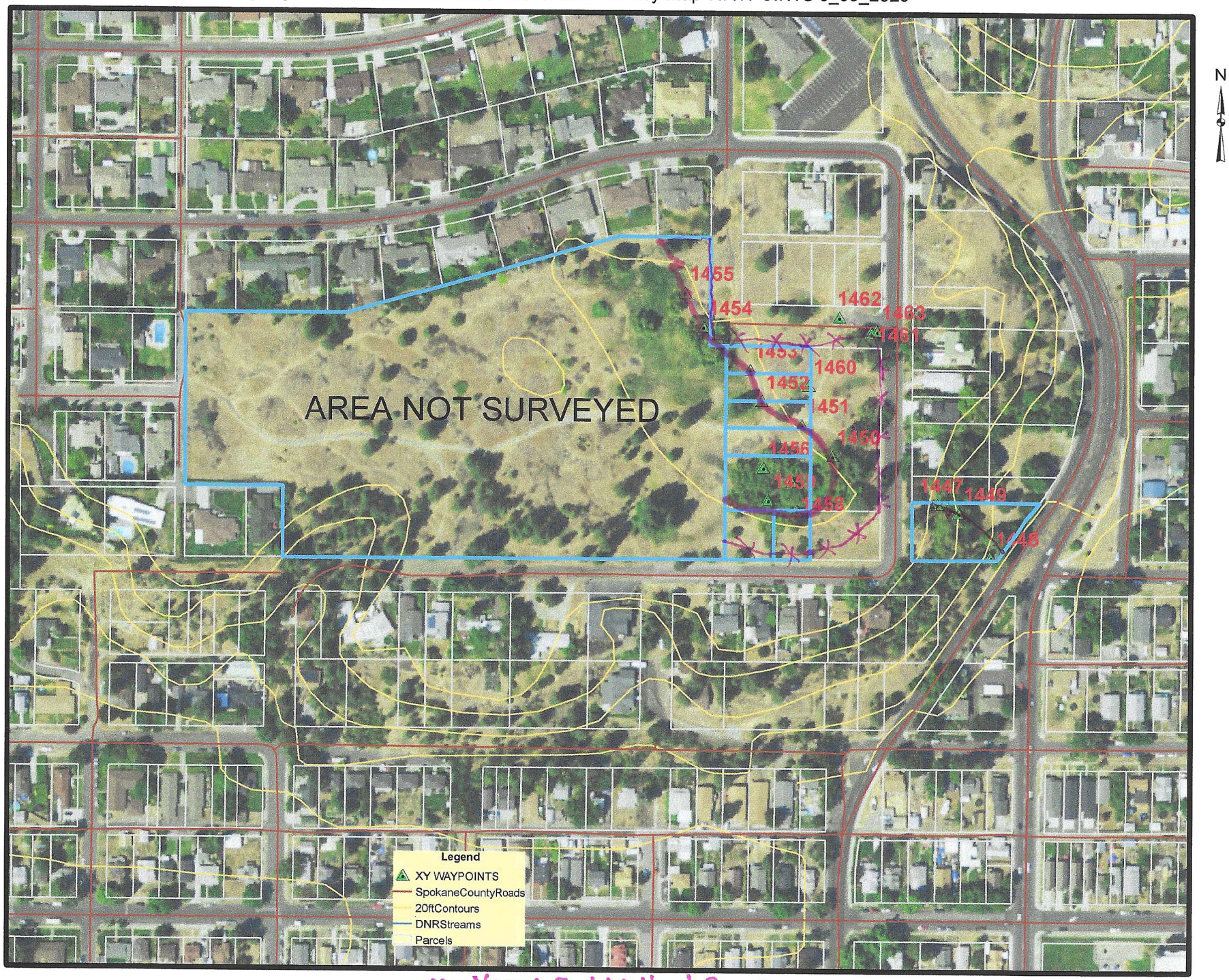
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 9, 2022—Aug 15, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

SGCC #20554A 6/11/2025

Drumheller Springs Park and Conservaton Area Wetland Survey Map WAYPOINTS 6_03_2025



—X— Vernal Pool Wetland Boundary
—▲—▲— PEM1C " " WW-2 / WW-3

Prepared by: S. Collins DBA ECOS USA 6_09_2025
USDA NAIP APFO GIS Server Online

Soil Map—Spokane County, Washington
(Drumheller Springs Park and Conservation Area City of Spokane, WA.)

Map Scale: 1:4,640 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

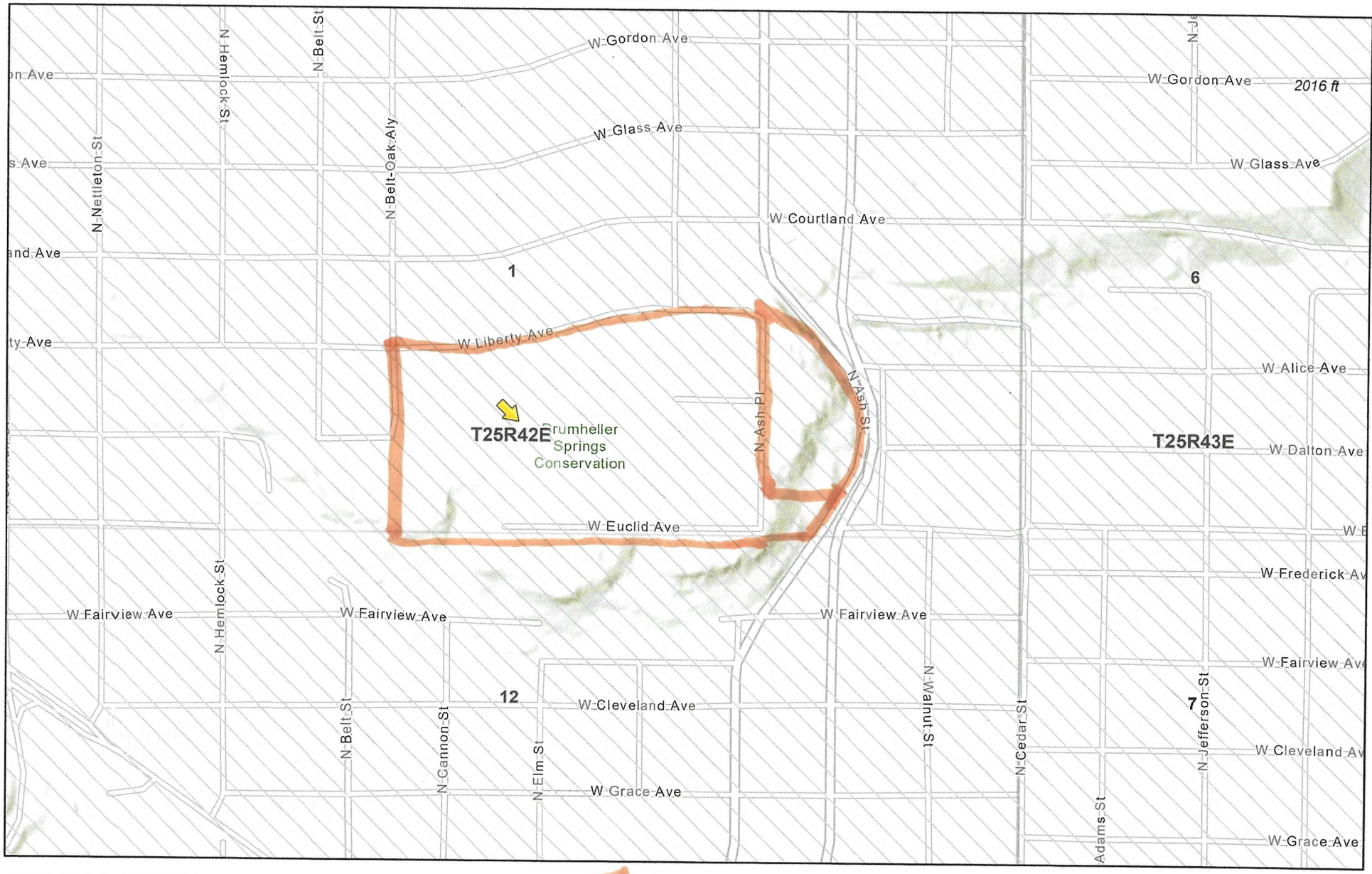
J.S. Gill
RCDS USO 6/11/2025

USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

WNHP Ecological Integrity Assessment Data

ATT 3



5/28/2025, 3:28:02 PM

Historical Rare Plants and Rare & High-quality Ecosystems

- Rare Plant
- Public Land Survey Sections
- Public Land Survey Townships
- State Boundary
- County Boundaries
- World_Hillshade

Project Area

J. Gallion 5/28/2025

1:9,047

0 0.05 0.1 0.2 mi

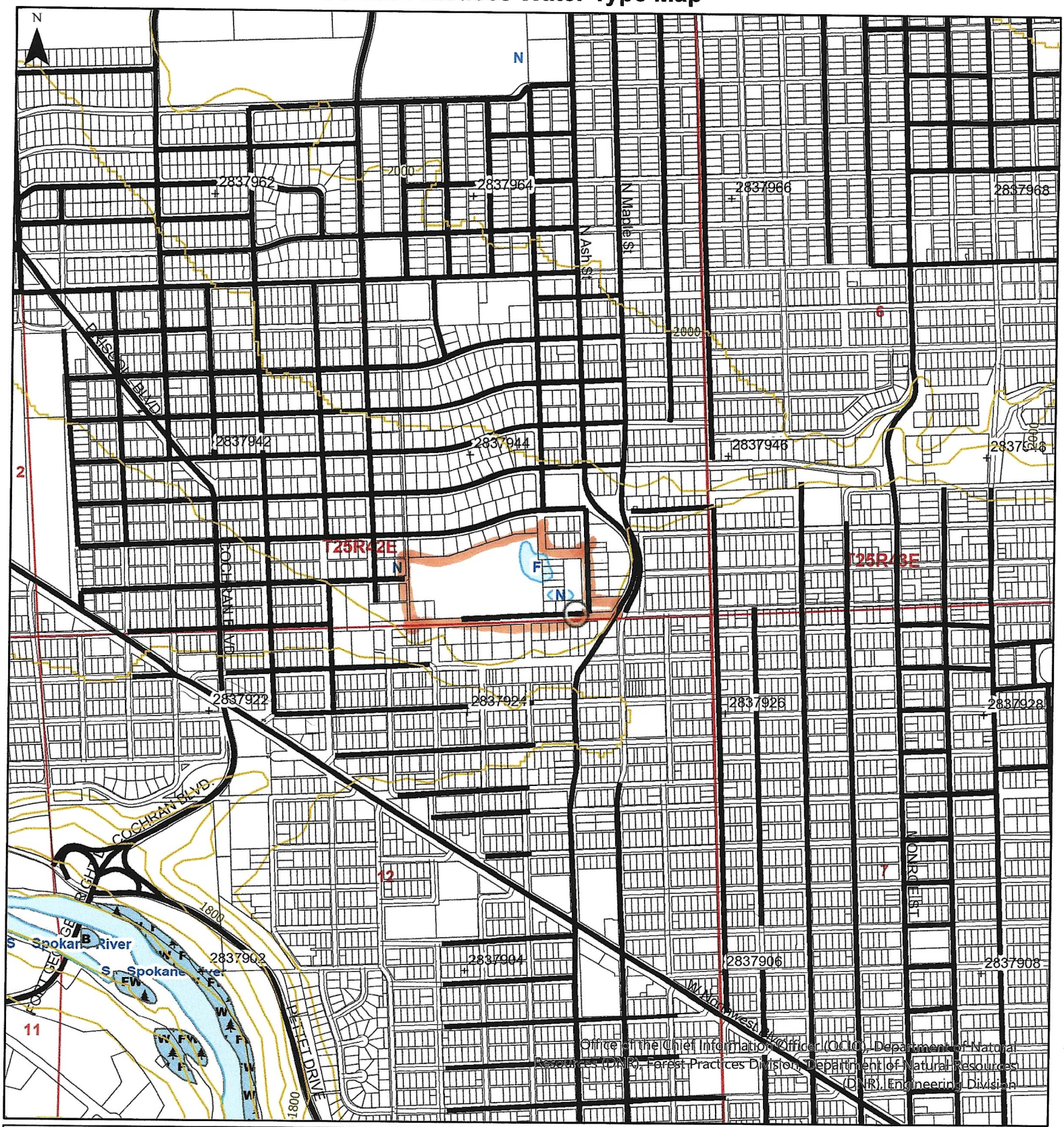
0 0.07 0.15 0.3 km

Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

WNHP Plant & Ecosystem Map Viewer

KNOWN PLANT AND ECOSYSTEM LOCATIONS REFLECT KNOWN OCCURRENCE LOCATIONS BUT MAY NOT REFLECT ALL OCCURRENCES OF RARE PLANTS OR ECOSYSTEMS.

Forest Practices Water Type Map



Map Symbols

- New Stream
- Proposed Water Type
- Stream Removal
- Break between water types
- Start and End Point of Surveyed Reach
- Natural Fish Barrier
- Manmade Barrier
- End of Fish or Last Fish

Additional Information

City of Spokane Drummheller Spring Park/Conservation Area
1915 W. Dalton Ave. Spokane,WA.

Project Area

V.S. Colbert
ECOSYSA 5/28/2025

Legal Description

S07 T25.0N R43.0E, S11 T25.0N R42.0E, S02 T25.0N R42.0E, S12 T25.0N R42.0E, S06 T25.0N R43.0E, S01 T25.0N R42.0E

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.

Approximate Scale : 1:12,000

0 500 1,000 2,000 Feet

Date: 5/10/2025 Time: 12:08 PM