Stormwater Site Plan - Buffer

PREPARED FOR:

Larson Automotive Group
1409 Alexander Avenue East
Fife, WA 98424-1109

PROJECT:

Larson River Road Storage
8424 River Road
Puyallup, WA 98371
2160102.10

PREPARED BY:

Christopher Watt
Project Engineer

REVIEWED BY:

Todd C. Sawin, PE, DBIA, LEED AP
Principal

DATE:

January 2025

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January 2025

I hereby state that this Stormwater Site Plan - Buffer for the Larson River Road Storage project has been prepared by me or under my supervision and meets the standard of care and expertise that is usual and customary in this community for professional engineers. I understand that the City of Puyallup does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities prepared by me.

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- Construction Stormwater Pollution Prevention Plan (CSWPPP)

1.0 Project Overview

1.1 Purpose and Scope

This Stormwater Site Plan accompanies the site development plans for the Larson River Road Storage Southern Buffer project located on Tax Parcels 0420204282, 0420204069, 0420204263, 0420208027, 0420208039, 0420213006, and 0420213038. The site is bordered by River Road to the north, a commercial business to the northwest, multi-family housing on the northern half of the western border, land on the southern half of the western border, single-family housing south of the project site, and to the east,15th Street NW with commercial businesses. Refer to Appendix A, Figure A-1 for a Vicinity Map.

This Stormwater Site Plan is for storm drainage approval. This report will demonstrate that the stormwater design for this project will meet the requirements of the 2024 Department of Ecology (DOE) *Stormwater Management Manual for Western Washington (SMMWW)*, as adopted by the City of Puyallup.

1.2 Existing Conditions Summary

1.2.1 Existing Site Features

The existing site is approximately 1.02 acre being disturbed under this permit. The site is currently developed and undeveloped land cover. Within the existing parcels, asphalt parking makes up the parcels adjacent to the site, while a gravel road connects the parking and the gravel access road to the southeast. The majority of the ground cover being disturbed is currently lawn.

There is a slight depression on the undeveloped land in the middle, southern part of the project. As the sites existing conveyance systems are predominately located in the paved parking areas, it is expected that most of the water in the lawn area ponds and slowly infiltrates. A topographic survey of the project site area was prepared by AHBL that shows existing site conditions and elevations. See Appendix A, Exhibit A-2 for the Existing Conditions Map.

1.2.2 Soils

The Natural Resources Conservation Service (NRCS) classifies the onsite soils as entirely Puyallup fine sandy loam – 31A. Appendix A, Exhibit A-4 provides the NRCS soil map. Puyallup fine sandy loam soils are classified as hydrologic soil Series C, which typically have low erosion and moderate infiltration potential.

1.3 Proposed Conditions Summary

The proposed improvements are limited to a short Eco-Block wall that holds up a vegetated berm. The berm slopes back towards the south property line, leaving space for an access road. Due to the scope of work, no flow control is required, and no pollution generating surfaces are proposed that would otherwise require treatment.

See Appendix A, Exhibit A-4, for the Developed Conditions Map.

2.0 Offsite Analysis Report

2.1 Upstream Analysis

There is no upstream basin. The project parcels are bordered by River Road to the north and 15th Street NW to the East. Both of these roads have their own collection system draining away from the project. The bordering commercial and residential areas have their own stormwater management systems and do not discharge onto the project site. Per the topographic survey performed on the existing site, along with field observations, the remaining parcels that border the proposed storage lot do not discharge any significant amount of stormwater onto the project site.

2.2 Downstream Analysis

The commercial properties have onsite storm collection and conveyance systems. There were two storm sump pump stations identified in the northwest parking lot. These systems pumping north to the adjacent city system in River Road. The River Road system has a CB located on the east side of the northwest driveway entrance (STCB#1173), this CB has an 18" CMP culvert that drains north under River Road to an outlet above the Puyallup River.

The eastern parking lot drains south towards likely entering onsite depressions, the onsite storm system to the south, or connecting to the city system in 15th Street. The residential properties drain south to an existing onsite system that is in poor condition. This system draining east to the city system in 15th Street.

3.0 Summary of Minimum Requirements

3.1 MR 1 – Preparation of Stormwater Site Plans

This report and the project plans represent the Stormwater Site Plan for this project and satisfy MR 1.

3.2 MR 2 - Construction Stormwater Pollution Prevention

A Construction Stormwater Pollution Prevention Plan (CSWPPP) has been prepared to satisfy MR 2 and is included as Appendix C of this report.

3.3 MR 3 – Source Control of Pollution

The proposed project is required to provide source control of pollution. Following are proposed measures to be implemented as part of the civil plans.

- All pollutants, including waste materials and demolition debris created onsite during construction, shall be handled and disposed of in a manner that does not cause contamination of surface water.

- Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and non-inert wastes present on the site (see Chapter 173-304 WAC for the definition of inert waste).

- Maintenance and repair of heavy equipment and vehicles that may result in discharge or spillage of pollutants to the ground or into surface water runoff must be conducted using spill prevention measures such as drip pans.

- Concrete Handling (BMP C151) and Sawcutting and Surfacing Pollution (BMP C152) shall be used to prevent or treat contamination of surface water runoff by pH modifying sources.

The CSWPPP provides details on the control of pollution during construction.

3.4 MR 4 – Preservation of Natural Drainage Systems and Outfalls

The area associated with this project ponds in existing condition before infiltrates into the lawned landscape. This project proposes to vegetate the area, which will improve the natural drainage conditions.

3.5 MR 5 – Onsite Stormwater Control

This project proposes to satisfy Minimum Requirement #5 through the list approach. As this project only proposes lawn and landscaped areas, BMP T5.13: Post-Construction Soil Quality and Depth will be implemented.

4.0 Construction Stormwater Pollution Prevention Plan

A Temporary Erosion Control Plan is included with the plan set, and a CSWPPP for the project is included as Appendix E of this report.

5.0 Special Reports and Studies

The project site is not within a 100-year flood plain, as seen in Appendix A, Exhibit A-6.

6.0 Other Permits

A State Environmental Policy Act (SEPA) Checklist has been completed for this project. Coverage under DOE's Construction Stormwater General Permit must be obtained.

7.0 Conclusion

Based on our understanding and the attached documentation, we believe the proposed improvements conform to City of Puyallup and Washington State Department of Ecology standards. We conclude that this project, as proposed, will not have adverse impacts to the site or the downstream drainage system.

This analysis is based on data and records either supplied to or obtained by AHBL. These documents are referenced within the text of the analysis. The analysis has been prepared using procedures and practices within the standard accepted practices of the industry.

AHBL, Inc.

Christopher Watt
Project Engineer

JLI/CJW

January 2025
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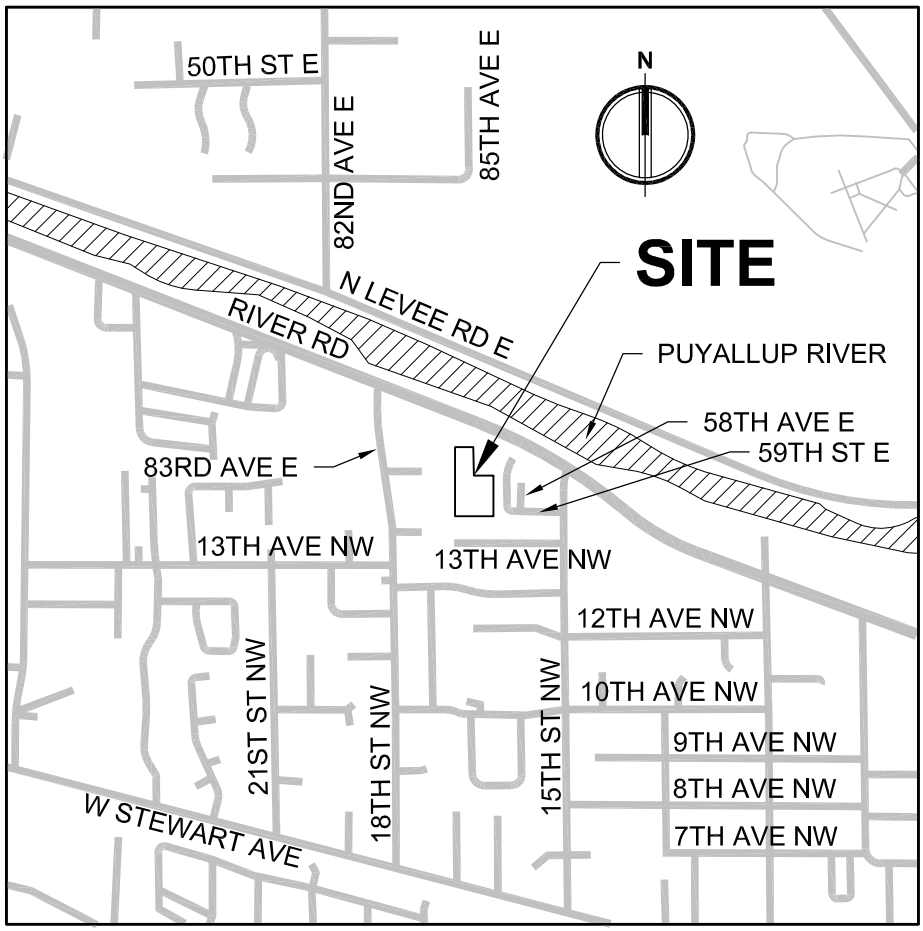
Appendix A

Exhibits



VICINITY MAP

SCALE: 1" = 1/4 MILE (1320')

AHBL
TACOMA · SEATTLE
2215 North 30th Street, Suite 300, Tacoma, WA 98403 253.383.2422 TEL
316 Occidental Avenue South, Suite 320, Seattle, WA 98104 206.267.2425 TEL

Civil Engineers
Structural Engineers
Landscape Architects
Community Planners
Land Surveyors
Neighbors

LARSON RIVER ROAD STORATE
2160102.10

VICINITY MAP

A-1

N

GRAPHIC SCALE

0 40 80 160

1" = 80 FEET

SR 167 (RIVER ROAD)

D16" DITCH

RIVER GLEN
APN 0420204004

OAK TREE
APN 0420204059

RIVERSMOKE
APN 0420204384

SWALE

D15TH STREET SW

F8"

C18"/8"

C8"/6"

F6"

C8"/10"

F18

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Neighbors

LARSON RIVER ROAD STORAGE
2160102.10

EXISTING CONDITIONS

A-2

Map Scale: 1:1,540 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N 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: Pierce County Area, Washington
Survey Area Data: Version 16, Jun 4, 2020

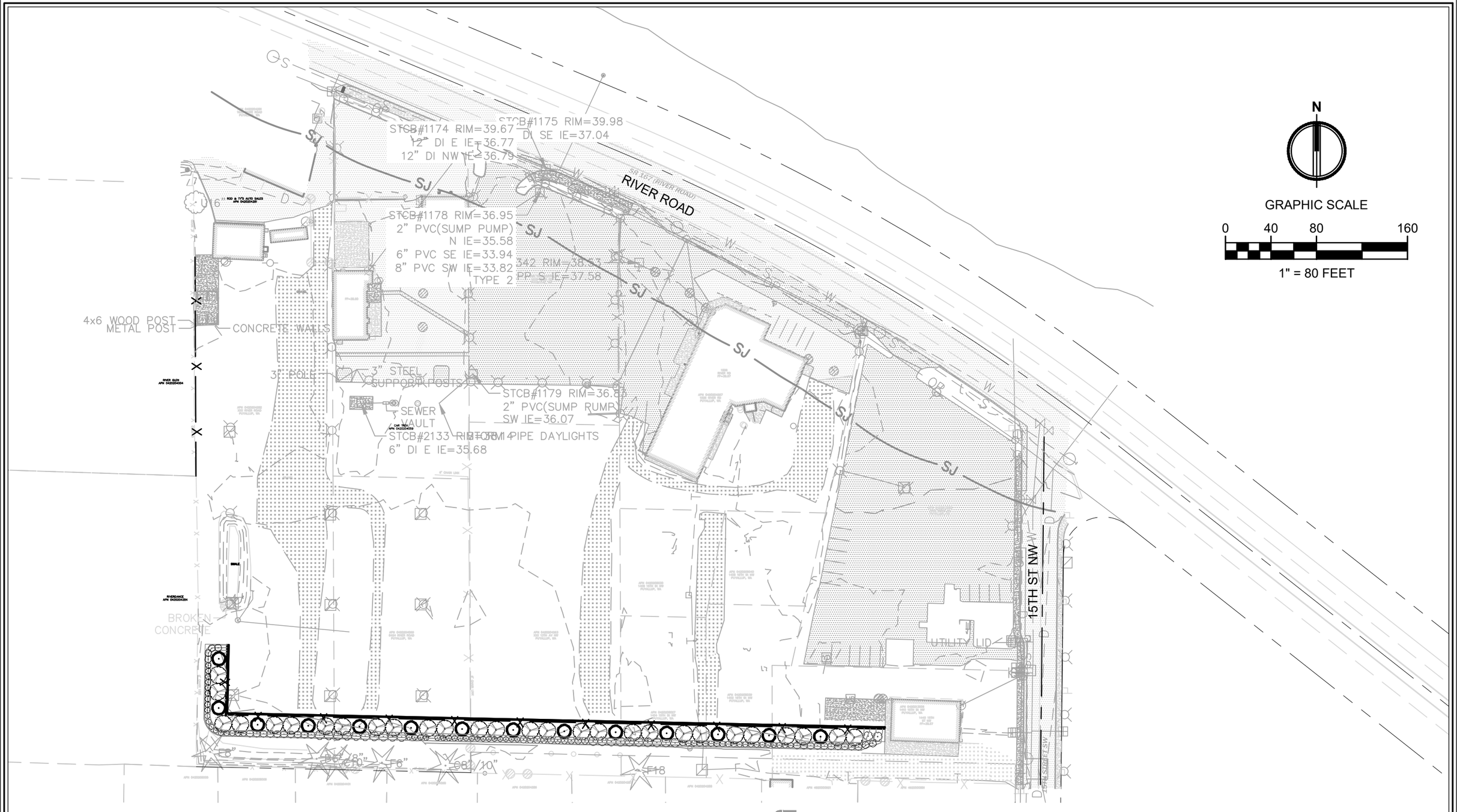
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 29, 2018—Jul 22, 2019

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
31A	Puyallup fine sandy loam	7.6	100.0%
Totals for Area of Interest		**7.6**	**100.0%**



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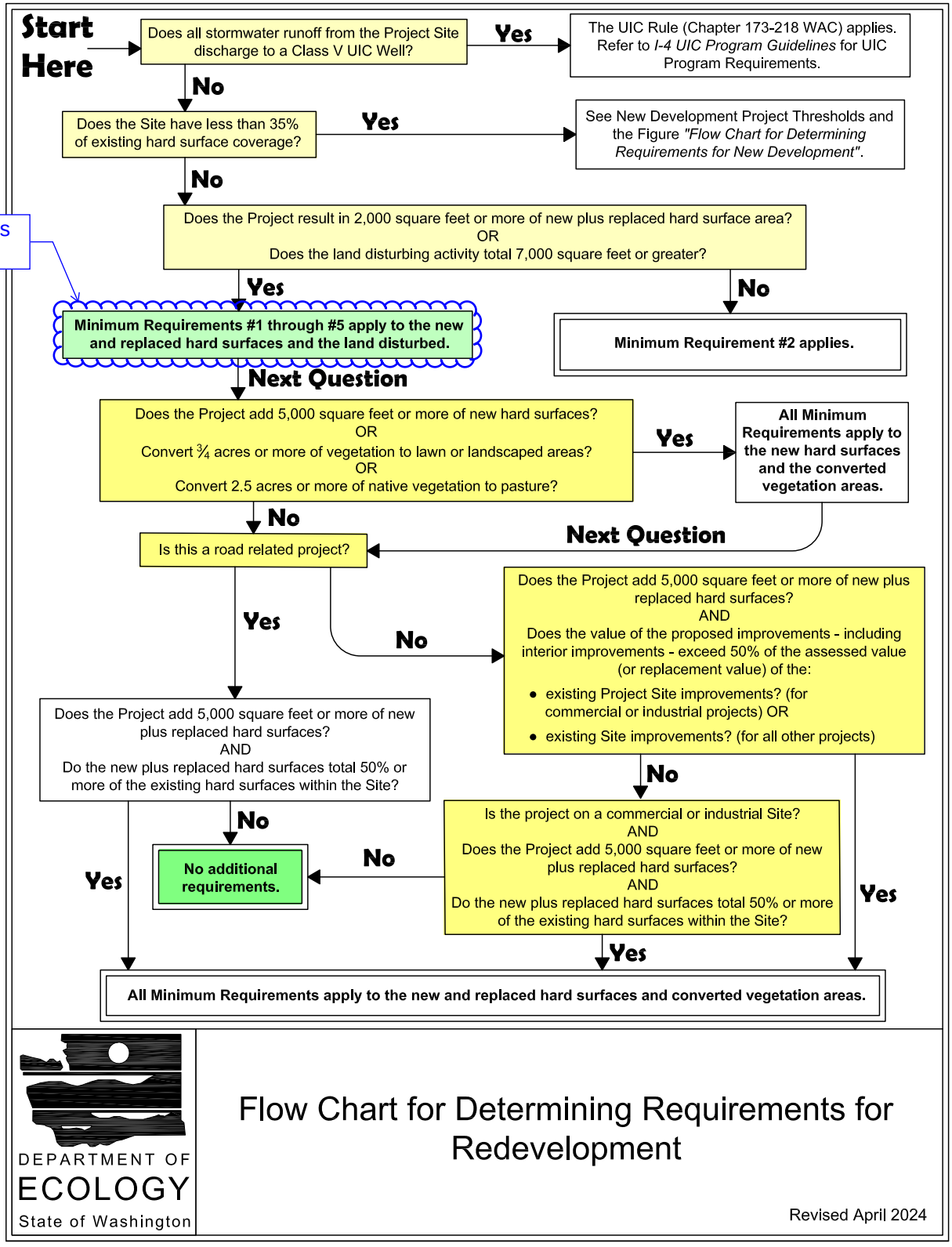
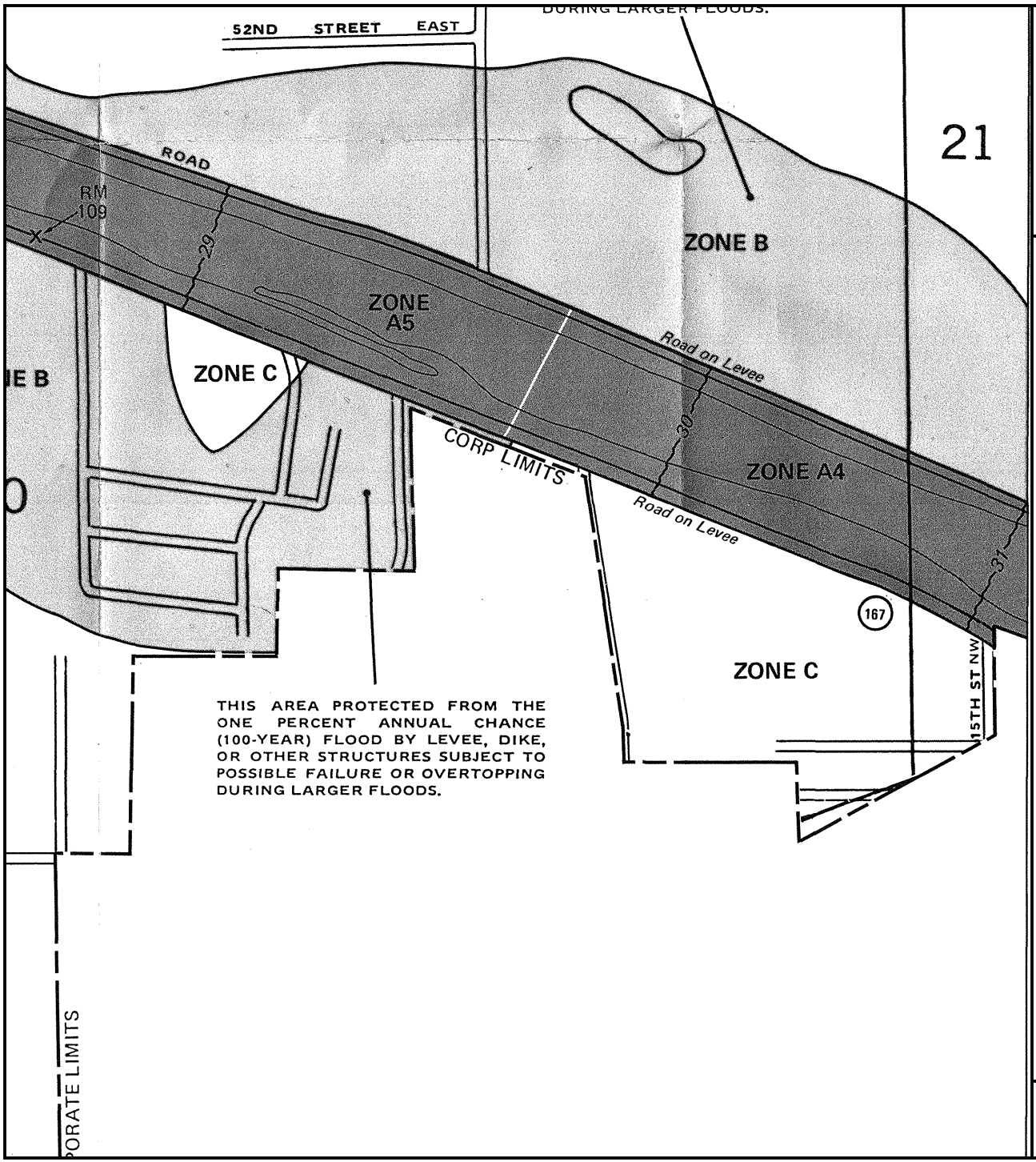
LARSON RIVER ROAD STORAGE
2160102.10

DEVELOPED CONDITIONS

A-4

Figure I-3.2: Flow Chart for Determining Requirements for Redevelopment





N

APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

PIERCE COUNTY, WASHINGTON

(UNINCORPORATED AREAS)

PANEL 329 OF 1375

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
530138 0329 C

EFFECTIVE DATE:
AUGUST 19, 1987

Federal Emergency Management Agency

Appendix B

- Construction Stormwater Pollution Prevention Plan (CSWPPP)