

## TECHNICAL MEMORANDUM

May 9, 2023

To:	Jesse Barham, City of Olympia Chelsea Morris, WDOE
From:	William J. Taylor, Raedeke Associates, Inc. Jennifer H. Saltonstall, AESI
RE:	Olympia Bioretention Study III – Site Eligibility Round One Technical Memorandum (R.A.I. No. 2023-002-001)

This memorandum has been prepared to provide a summary of our selection process for identifying bioretention sites eligible for the Olympia Bioretention Study III. A total of 62 potential sites have been nominated for the study. Presently, 24 sites have been identified as eligible for the study, with several of these 24 site owners having provided authorization to use the sites. We are requesting approval from the City of Olympia to begin data collection at the approved sites. The goal is to evaluate a total of 50 sites in the study and additional sites are currently under consideration.

### IDENTIFICATION OF POTENTIAL SITES

The Olympia Bioretention Study III is investigating long-term efficacy of bioretention sites in the Puget Sound Basin. Therefore, only sites that have been in operation for at least ten years are considered eligible. Identification of potential sites began with a review of previously evaluated sites from past studies, as well as reaching out to numerous contacts for site recommendations. As stated above, a total of 62 potential sites have been identified to date.

### SITE FIELD EVALUATION

In April 2023, Alex Johanson from AESI began conducting field evaluations to determine study eligibility of each potential site. The field evaluation includes verification that the site is a bioretention facility, as opposed to a grass swale, stormwater detention pond, constructed wetland, noneligible rain garden, or other noneligible

landscape feature. During each field evaluation, data has been collected to count the number of individual bioretention cells, their approximate size, and accessibility of a water source. Photos were taken to document site conditions and an evaluation form was completed for each potential site.

#### **ASSESSMENT OF SITE ELIGIBILITY**

Following field evaluations, each bioretention site has been rated in half point increments on a scale of 0 to 1 in the following categories: 1) water access, 2) site access, 3) vegetation presence, and 4) ponding depth capacity. Sites with a total score of 2.5 or higher have been determined to meet sufficient criteria to be included in the study. At present, 24 eligible sites have been identified (see Attachment 1).

#### **CONCLUSION**

In this initial round of site evaluation, 24 eligible sites have been identified. In consideration of potential time and scheduling constraints, we respectfully submit this initial list and request approval from the City of Olympia and Ecology to begin data collection at these sites. We will submit another list of eligible sites in the future as additional sites continue to be evaluated for study eligibility.

Respectfully submitted,

William J. Taylor, MS  
Principal Investigator/Aquatic Scientist  
Raedeke Associates, Inc.

Jennifer H. Saltonstall  
Principal Geologist/Hydrogeologist  
AESI

ATTACHMENT 1 - 2023 Olympia Bioretention Study III  
 List of Eligible Sites - Round 1, 5/8/23

City	Project Name	Location	Study Eligibility
Bellevue	145th Pl	1880 145th Pl SE	Y
Bellingham	Bellingham City Hall	210 Lottie St.	Y
Bellingham	Bloedel Donovan Park	2144 Electric Ave	Y
Kirkland	Cedar Park	11215 NE 132nd St	Y
Mount Vernon	David Brookings Rain Garden	1800 Continental Place	Y
Mukilteo	Rosehill Community Center	304 Lincoln Ave	Y
Olympia	McPhee	436 McPhee Rd SW	Y
Olympia	Yauger Park	3100 Capital Mall Dr. SW	Y
Olympia	Decatur	1015 Decatur St SW	Y
Poulsbo	Waterfront Park	18809 Anderson Pkwy NE	Y
Poulsbo	4th Ave	390 NE Hostmark	Y
Poulsbo	Noll Road Roundabout	204060 Noll Rd NE	Y
Poulsbo	Viking Ave	21056 Viking Ave NW	Y
Redmond	185th Ave (South)	7120 185th Ave NE #150	Y
Redmond	185th Ave NE (Northern)	18500 185th Ave NE	Y
Redmond	Redmond Central Connector Park	16101 NE Redmond Way	Y
Seattle	107th Cascade	10727 1st Ave NW	Y
Seattle	110th Cascade	102 NW 110th St	Y
Shoreline	Aurora Ave	17525 Aurora Ave N	Y
Shoreline	Ashworth Ave	1716 N 192nd St.	Y
Spanaway	Spanaway Park	14905 Bresemann Blvd S	Y
Tacoma	Meadow on the Hylebos	1412 69th Ave E	Y
Tacoma	The Woods at Golden Given	10506 10th Ave E	Y
Tacoma	Sprinker Recreation Center	14824 C St. S	Y