HOOD STREET PROJECT

PRELIMINARY WETLAND MITIGATION PLAN

Camas, Washington

Prepared for:
Modern NW.
8101 NW Glisan
Portland, OR 97213

Prepared by:
Olson Environmental, LLC
222 E. Evergreen Blvd.
Vancouver, WA 98660
(360) 693-4555

August 31, 2021

OLSON ENVIRONMENTAL LLC
ENVIRONMENTAL SERVICES • GIS • HABITAT RESTORATION

TABLE OF CONTENTS

LIST OF FIGURES

PRELIMINARY WETLAND MITIGATION PLAN

Project: Hood Street
Applicant: Modern NW
Location: 1811 Hood Street, Camas, Washington
Legal Description: NE & NW ¼ of Section 09,T1N, R3E, W. M., Clark County
Serial Number(s): 127415-000 (4.67 ac.) and 127440-000 (1.41 ac.)
Local Jurisdiction: Camas
Study Area Size: 6.08 acres
Watershed: Lacamas Creek/Dwyer Creek (10)
WRIA: 28 Salmon/Washougal
Project Type: Residential
Zoning: R-7.5
CompPlan: SFM (Single Family Medium)
Assessment by: Kevin Terlep
Report Date: August 31, 2021

1.0 INTRODUCTION

This report details a preliminary wetland mitigation plan prepared by Olson Environmental, LLC (OE) for Modern Northwest (Applicant). The study area is located at 1811 Hood Street in Camas, Washington (Fig 1). The study area is a total of 6.08 acres and includes the entirety of parcel 127415-000 (4.67 acres) and 127440-000 (1.41 acres). The Applicant is proposing to build a 17-unit single-family residential housing development, including roads and parking spaces (Fig. 2). This report addresses compensatory mitigation for proposed direct and indirect impacts to a wetland occurring on the site, as regulated by the Camas Municipal Code (CMC) 16.53 (Wetlands), the Washington State Department of Ecology and the US Army Corps of Engineers under Sections 404 and 401 of the Clean Water Act, respectively.

2.0 EXISTING CONDITIONS

The majority of the study area is open grassland, it slopes moderately from the northeast to the southwest (Fig. 3). One existing house is located in the northeast corner of the property. The eastern property line is immediately parallel to Northwest Hood Street and NW Columbia Summit Drive and NW Klickitat Street are to the north and west, respectively. The property is located within the Dwyer Creek sub-watershed of the Lacamas Creek watershed (WRIA 28). Photographs of the study area are provided in Photo-Sheet 1.

2.1 WETLANDS

OE conducted a wetland assessment within the project area on June 11, and 14, 2021 using the USACE methodology found in the Regional Supplement to the Manual (USACE 2010). Through the course of the field investigation, one (1) wetland was identified along the west property line (Fig. 4) in the area indicated by a previous wetland study. This wetland appears to be a remnant of a larger wetland that extended to the northeast and continues onto the property to the west. Vegetation within the wetland is dominated by soft rush (*Juncus effusus* -FACW), teasel

(*Dipsacus fullonum* -FAC), velvet grass (*Holcus lanatus* -FAC) and reed canary grass (*Phalaris arundinacea* -FACW). Soils within the wetland are characterized by dark brown to very dark grayish brown matrices (7.5-10YR 3/1) at depths of 0-16 inches, with 2-5% strong brown (7.5YR4-6) redox concentrations occurring at depths 6-16 inches within the matrix. The hydric soil indicator for these soils was redox dark surface (F6). The wetland hydrology indicators were geomorphic position (D2), oxidation within the rhizosphere of living roots (C3) and passing the FAC-neutral test (D5). A summary of the identified wetland is provided in Table 1.

Table 1. Summary of Identified Wetlands

Wetland Identifier	HGM Class	Surface Area	
A	Slope	11,480 sq. ft.	.26 ac.

2.2 WETLAND FUNCTIONAL ASSESSMENT

The 2014 Update of Washington State Wetland Rating System for Western Washington (Hruby, 2014) was used to assess the functional characteristics of the identified wetland unit. For the purposes of the functional rating, the HGM class of the wetland unit was used to determine the applicable rating form. The delineated wetland was rated as a Category IV slope wetland with a habitat score of 3 (Table 2). The wetland exhibits emergent vegetation, seasonal saturation from precipitation, and surface runoff.

Table 2. Wetland Functional Ratings and Buffers

Wetland Identifier	HGM Class used for Rating	Water Quality Score	Hydrologic Score	Habitat Score	Total Score	Wetland Category
A	Slope	4	4	3	11	IV

2.3 WETLAND BUFFERS

CMC 16.53.040 provides for the protection of wetlands within Camas's jurisdiction. The ordinance establishes protective buffers associated with wetlands and specifies that certain permits or approvals be obtained for projects containing wetlands or their respective buffers.

CMC requires that Category IV wetlands with habitat function scores of 3 to be protected with a 50-foot high-intensity land use buffer (CMC Table 16.53.040-1). The buffer width for the identified wetland is depicted in Figure 4 and summarized in Table 3, below. In addition to CMC 16.53, jurisdictional wetlands are also regulated at the federal and state levels by the US Army Corps of Engineers (USACE) and the Washington State Department of Ecology (Ecology) under Sections 404 and 401 of the Clean Water Act, respectively. Any impacts to the wetlands may require notification and approval from the USACE and Ecology.

Table 3. Wetland Buffers – High Land Use Intensity

Wetland Identifier	Local Jurisdiction	Wetland Category	Habitat Score (level of function)	Adjacent Land Use Intensity	Buffer Width (feet)
A	City of Camas	IV	3 (Low)	High	50 ft.

3.0 AVOIDANCE AND MINIMIZATION

The proposed project was designed to avoid direct and indirect wetland impacts to the greatest extent possible. However, to provide for an economically viable project, the Applicant is unavoidable direct and indirect impacts which are outline in Section 4.0. The following additional measures will be taken to avoid additional impacts:

1. The wetland, and wetland buffer boundaries will be temporarily flagged in the field prior to construction.
2. Erosion control measures (e.g. straw bale sediment barriers or sediment fence) will be installed to prevent siltation from entering the sensitive areas during construction.
3. The erosion control measures will be removed once construction is completed and vegetation has become established.

4.0 PROPOSED WETLAND IMPACTS

Following the determination of wetland boundaries and buffer areas, the proposed site plan of the project was used to determine the area of unavoidable impacts associated with development activities. Based on the proposed site plan, Wetland A will be impacted by leveling, excavation and filling as part of the residential development, resulting in approximately 0.09 acres (3,384 ft^2) of direct wetland impact and .13 acres (5,656 ft^2) of indirect wetland impact (Fig. 5). The proposed impact areas are summarized in Table 4, below.

Table 4: Summary of Total Impact Area

Wetland Identifier	Wetland Category	Total Area	Impact Area	
			Direct Impacts	Indirect Impacts
A	IV	11,480 ft^2 (.26 ac)	3,874 ft^2 (.09 ac)	5,656 ft^2 (.13 ac)

5.0 MITIGATION APPROACH

For the proposed unavoidable wetland impacts associated with the project, the Applicant is proposing the purchase of bank credits as a means of compensation, as provided by CMC 18.270.120.D. The direct and indirect impacts to Wetland A for the Hood Street Project will be compensated through the purchase of credits from the Terrace Wetland Bank (TWB). TWB is located approximately 8.75 miles northwest of the project area (Fig. 6), within the Burnt Bridge Creek Watershed. The bank site has been extensively farmed for at least 60 years, which has drastically altered all aspects of the wetland, including the hydrology through the installation of drain tiles, the soils through repetitive plowing, and the vegetation through continued agricultural

production. There was the potential to create a significant amount of functional lift to wetlands and other aquatic resources on the project site, by reestablishing and restoring the historic wetland system and improving existing stream complexity. Ecology's Selecting Wetland Mitigation Sites Using a Watershed Approach (2009) was used to evaluate the mitigation potential of the site. The bank sponsor is proposing to re-establish 85.02 acres of wetland, rehabilitate 4.02 acres of wetland, enhance 0.10 acres of wetland, and the enhancement of 2.53 acres of open channel enhancement along Burnt Bridge Creek.

The service area for TWB is shown in Figure 7 and includes the project area. The credit-debit ratio for the bank is outlined in Table 5 (Bank Instrument – Appendix E, Table E-2). Wetland A is a Category IV wetland as rated by Ecology's updated rating system for western Washington (Hruby 2014). As per the approved TMB bank instrument, Category IV wetlands are compensated at a rate of .85:1. The indirect wetland impacts for Wetland A are compensated at one-half the direct impact ratio as per previous discussions with Ecology.

Therefore, the applicant is proposing to purchase 0.132 bank credits (Table 6) to compensate for the 0.09 acres of direct wetland impacts and 0.13 acres of indirect impacts to Wetland A. No credits are currently available and new credits will not be released until the spring of 2022. The Applicant is working with the bank manager to reserve credits until they are released.

Table 5: Typical Credit-Debit Ratios from Terrace Mitigation Bank Instrument.

Resource Impact	**Bank Credits: Impact Acreage**
Wetland, Category I	Case-by-Case
Wetland, Category II	1.2:1
Wetland, Category III	1:1
Wetland, Category IV	.85:1
Critical Area Buffer	Case-by-Case

Table 6: Mitigation Bank Credits Proposed for Wetland A Impacts

Total Wetland Area		**Direct Impact Area**		**Indirect Impact Area**		**Wetland Rating**	**Credits Required per ratio/impact**		**Proposed Mitigation Credit Purchase**
.26 ac	11,480 ft^2	.09 ac	3,874 ft^2	.13 ac	5,656 ft^2	IV	Direct .85:1	Indirect .425:1	.132
							.077	.055	

6.0 LITERATURE CITED

City of Camas, WA Municipal Code. Title 16 -Environment. Ch. 16.53 -Wetlands. 2021. [Internet] [accessed 2021 Sept 07]. Available online at https://library.municode.com/wa/camas/codes/code_of_ordinances?nodeId=TIT16EN_CRAR_CH16.53WE

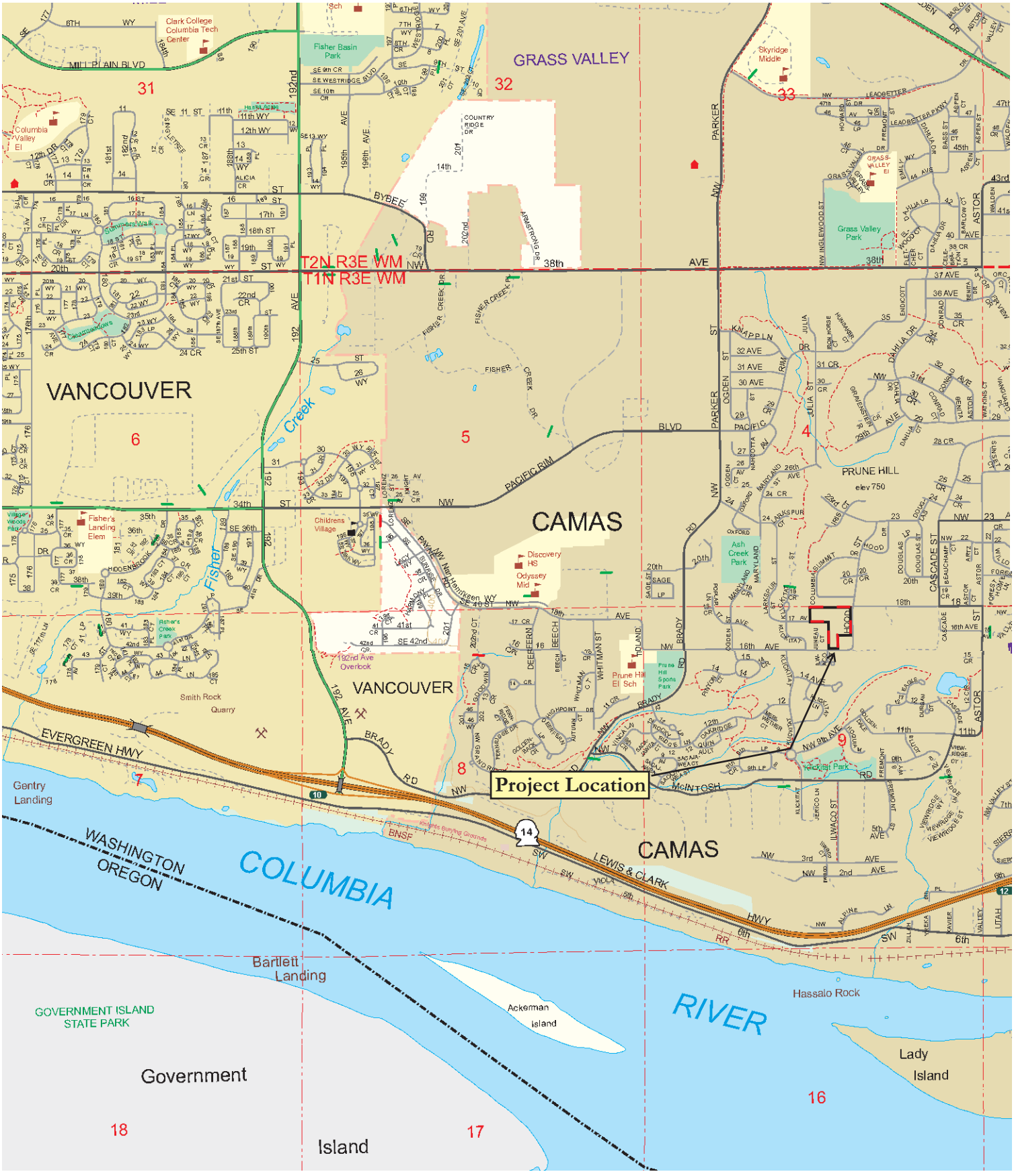
Cowardin, L.M., V. Carter, F.C. Bolet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* U.S. Fish and Wildlife Services Biological Services Program FWS/OBS-79/31. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

Hruby, T., K. Harper, and S. Stanley (2009). *Selecting Wetland Mitigation Sites Using a Watershed Approach.* Washington State Department of Ecology Publication #09-06-032.

Hruby, T. 2014. *Washington State Wetland Rating System for Western Washington – 2014 Update.* Washington State Department of Ecology Publication # 14-06-29. Available online at <http://www.ecy.wa.gov/pubs/0406025.pdf>

Terrace Mitigation Bank, LLC. 2017. Terrace Mitigation Bank Mitigation Banking Instrument. [Internet] [accessed 2021 Sept 07]. Available online at https://fortress.wa.gov/ecy/ezshare/sea/MitigationBanking/Terrace/MBI.pdf

U.S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. ERDC/EL TR-10-3, Vicksburg MS.



APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

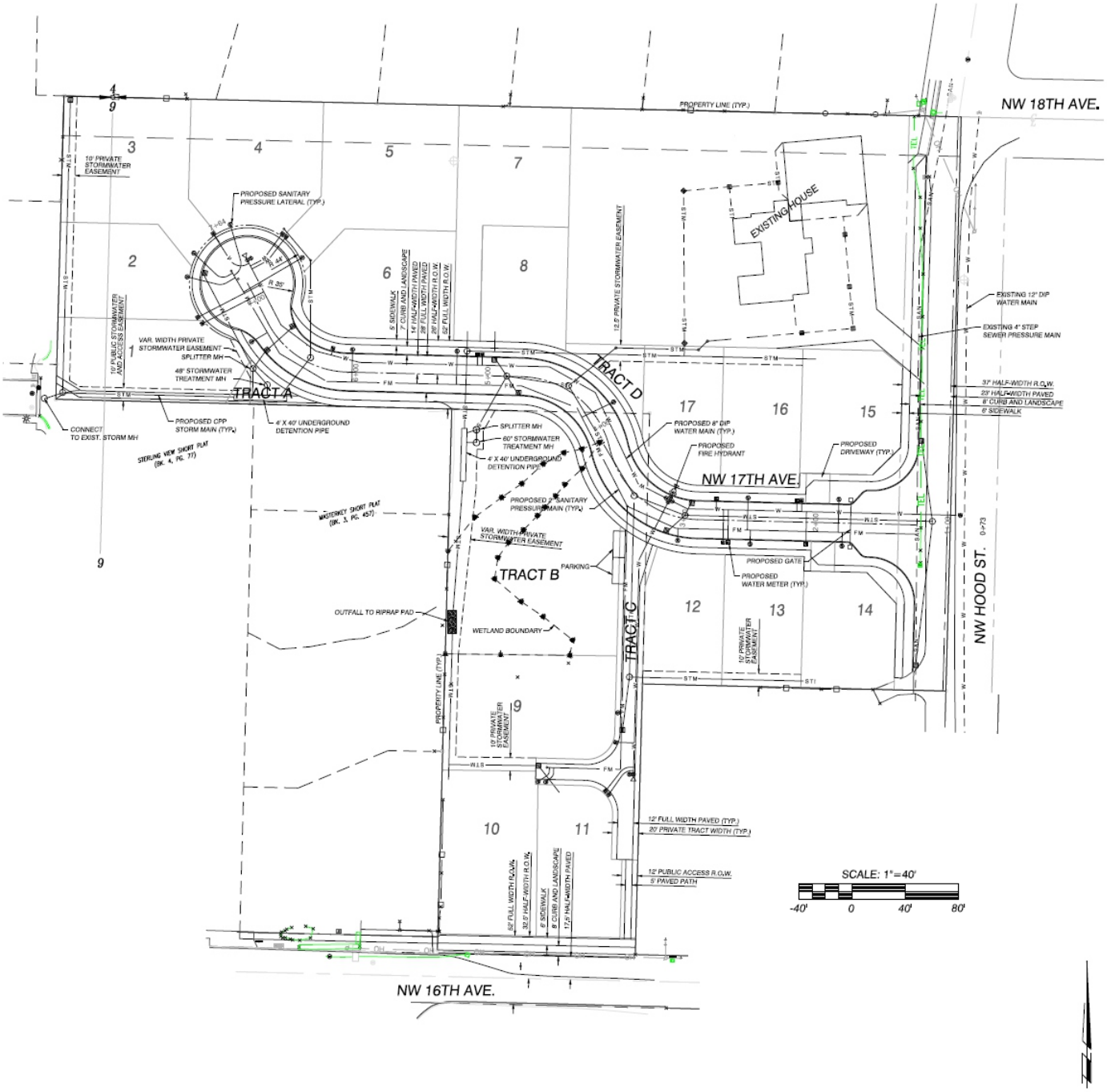
PURPOSE:
Preliminary Wetland Mitigation Report

Project Location
1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 1



APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

PURPOSE:
Preliminary Wetland Mitigation Report

Proposed Site Plan
1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
ENVIRONMENTAL SERVICES • GIS • HABITAT RESTORATION
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 2

APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

PURPOSE:
Preliminary Wetland Mitigation Report

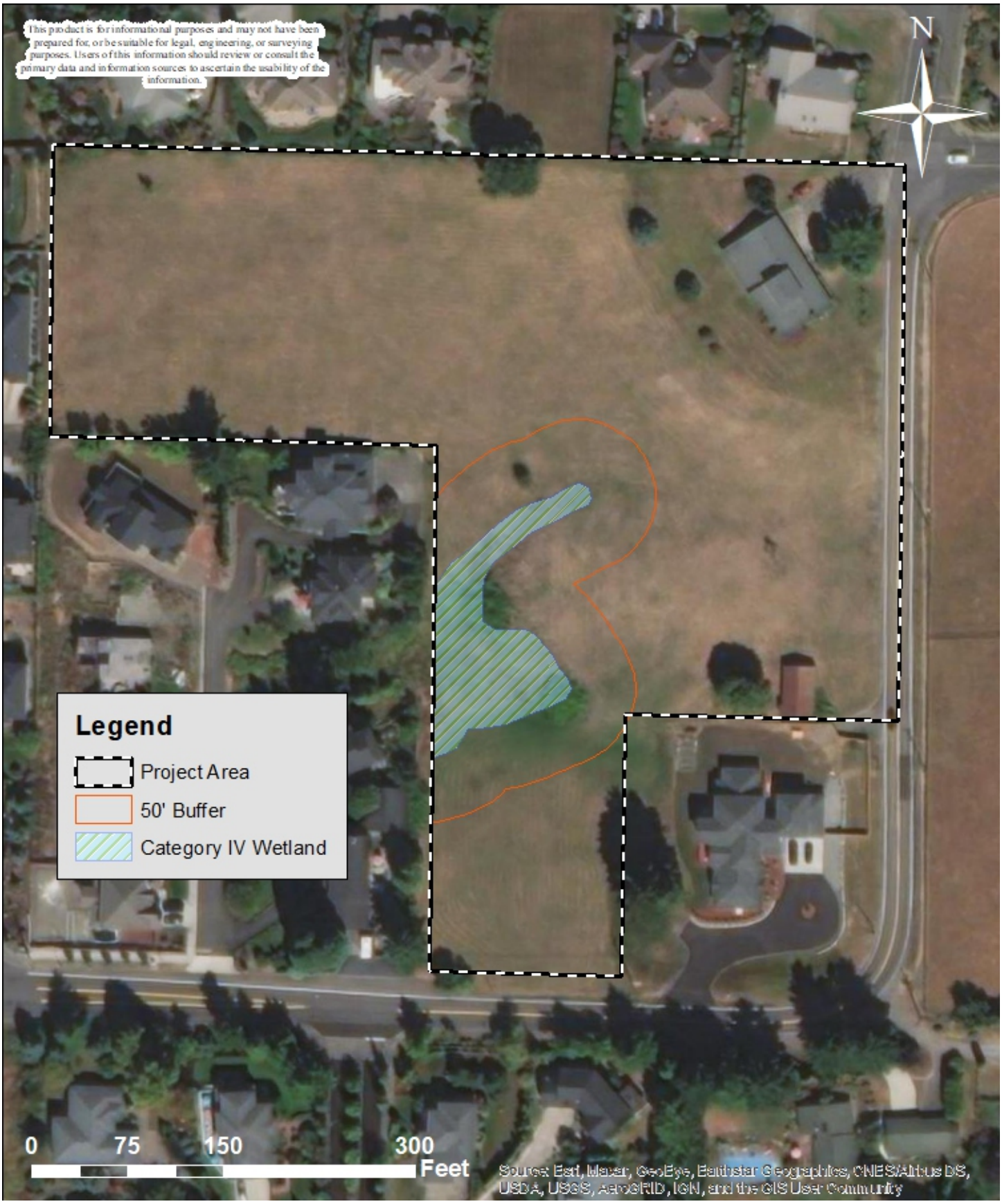
Topographic Map [Clark County GIS]

1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 3



APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

PURPOSE:
Preliminary Wetland Mitigation Report

Delineated Wetland and Buffers - High LUI

1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
ENVIRONMENTAL SERVICES • GIS • HABITAT RESTORATION
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 4

APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

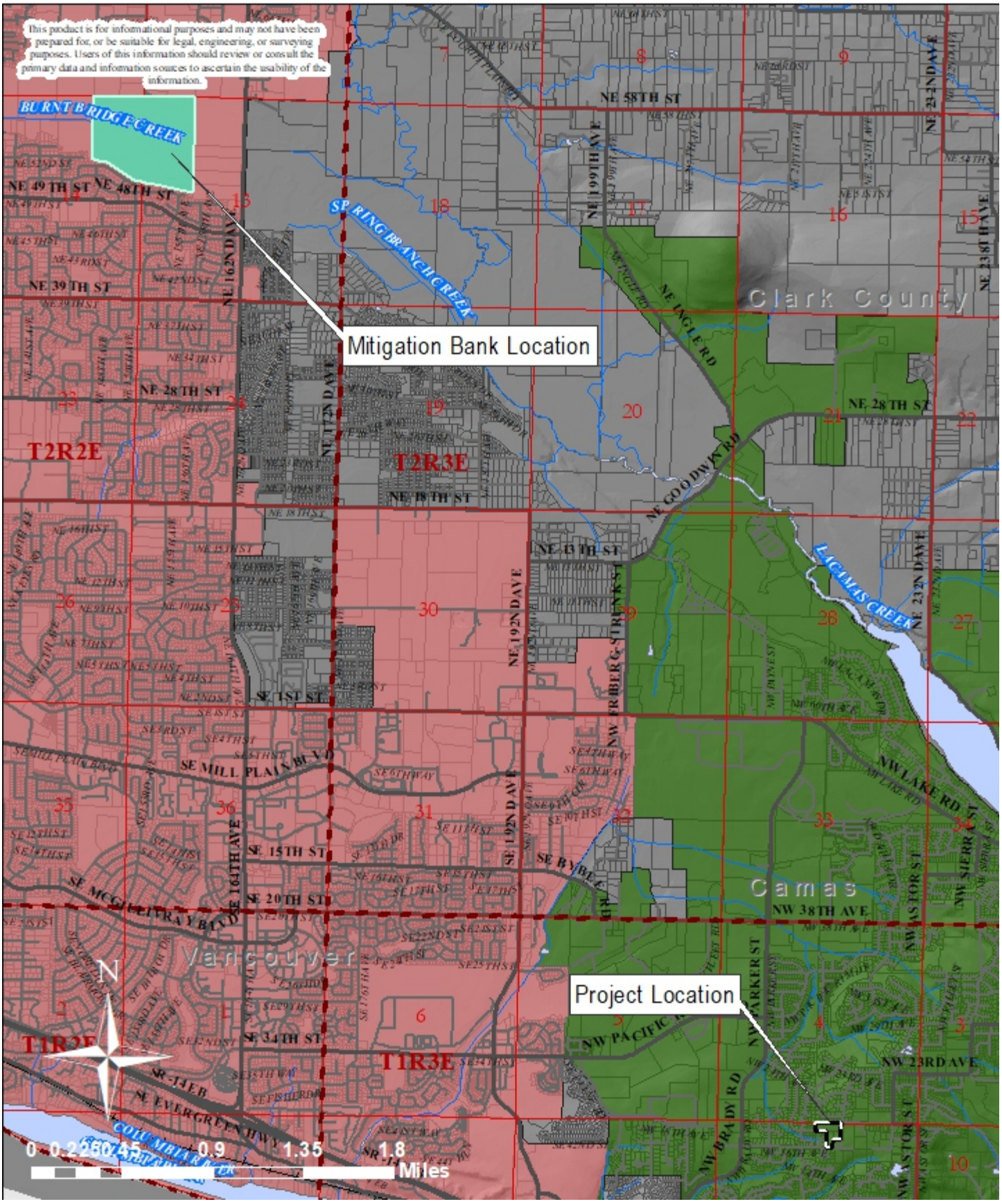
PURPOSE:
Preliminary Wetland Mitigation Report

Direct and Indirect Impacts
1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
ENVIRONMENTAL SERVICES • GIS • HABITAT RESTORATION
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 5



APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

PURPOSE:
Preliminary Wetland Mitigation Report

Project and Terrace Wetland Bank Locations
1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 6

APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

PURPOSE:
Preliminary Wetland Mitigation Report

Project Location & Terrace Wetland Bank Service Area
1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Figure 7

Wetland Finger Facing East

Top of Wetland Facing West

Wetland Finger Facing West

Maples Along Northern Property boundary

Bottom of Wetland Facing South

Western Property Boundary Facing 16th Ave

APPLICANT:
Modern NW
8101 NW Glisan
Portland, OR 97213

PURPOSE:
Preliminary Wetland Mitigation Report

Photo Sheet 1

1811 NW Hood Street
Camas, Washington

OLSON ENVIRONMENTAL LLC
222 E. Evergreen Blvd., Vancouver, WA 98660 ph: 360-693-4555 fax: 360-699-6242

PROPOSED ACTIVITIES IN:
Lacamas Creek Watershed
LEGAL: NE & NW 1/4 of S09, T1N, R3E W. M.
NEAR: Camas, Washington
COUNTY: Clark County
DATE: 08/31/2021

Photo-Sheet 1