Marion County
OREGON

ADMINISTRATIVE REVIEW APPLICATION

Do not double-side or spiral bind any documents being submitted.
Fee: Please check the appropriate box:

X Administrative Review - $770
☐ Primary Farm Dwelling - $1000
☐ Secondary Farm Dwelling - $1250
☐ Replacement Dwelling - $450
☐ Lot of Record - $1250 (staff); $1990 (hearing)
☐ Forest Dwelling - $1250

RECEIVED
AUG 28 2025
Marion County
Planning

PROPERTY OWNER(S):	ADDRESS, CITY, STATE, AND ZIP:
Denise Burnham	21855 Butteville Rd NE Aurora OR 97002
PROPERTY OWNER(S) (if more than one):	ADDRESS, CITY, STATE, AND ZIP
APPLICANT REPRESENTATIVE: Thomas Benke, Attorney	ADDRESS, CITY, STATE, ZIP PO Box 80458, Portland, OR 97280
DAYTIME PHONE (if staff has questions about this application): 503-890-4030	E-MAIL (if any): trbenke@env-compliance.com
ADDRESS OF SUBJECT PROPERTY: 21875 Butteville Rd NE, Aurora OR 972002	SIZE OF SUBJECT PROPERTY: 129.45 acres

THE PROPERTY OWNERS OF THE SUBJECT PROPERTY REQUEST TO (summarize here; provide detailed information on the attached "Applicant Statement" page):

Fill and contour the property with clean fill (soil from hydraulic vacuum excavation of utility lines and similar sources) for farm use, specifically to mitigate erosion, to fill low spots in arable areas, to expand arable area, and to improve access across the farm.

WILL A RAILROAD HIGHWAY CROSSING PROVIDE THE ONLY ACCESS TO THE SUBJECT PROPERTY?
( ) YES (X) NO IF YES, WHICH RAILROAD:

FOR OFFICE USE ONLY:

Township 4S	Range 1W	Section 8	Application elements submitted:
Tax lot number(s) 200			☒ Title transfer instrument
Zone: EFU			☒ Site plan
Zone map number: 4			☒ Applicant statement
			☐ GeoHazard Peer Review (if applicable)
Case Number: AR25-026			☒ Filing fee
☐ Urban ☒ Rural			Application accepted by: ~~TBS~~ Set up by: ~~TBS~~
Date determined complete:			Date: 8-28-2025

THE APPLICANT(S) SHALL CERTIFY THAT:

A. If the application is granted the applicant(s) will exercise the rights granted in accordance with the terms and subject to all the conditions and limitations of the approval.

B. I/We hereby declare under penalties of false swearing (ORS 162.075 and 162.085) that all the above information and statements and the statements in the plot plan, attachments and exhibits transmitted herewith are true; and the applicants so acknowledge that any permit issued on the basis of this application may be revoked if it is found that any such statements are false.

C. I/We hereby grant permission for and consent to Marion County, its officers, agents, and employees coming upon the above-described property to gather information and inspect the property whenever it is reasonably necessary for the purpose of processing this application.

D. The applicants have read the entire contents of the application, including the policies and criteria, and understand the requirements for approving or denying the application.

PRINTED NAME AND SIGNATURE of each owner of the subject property.

Denise Burnham _____
Print Name Signature

_____
Print Name Signature

_____
Print Name Signature

_____
Print Name Signature

DATED this 28th day of August, 20 25

The Environmental Compliance Organization LLC

~~7133 N Lombard St~~ ----- 7830 SW 40th Ave, Ste 2
~~PO Box 83706~~ ---------- PO Box 80458
~~Portland, Oregon 97283~~ Portland, Oregon 97280
Telephone 503/246-1514
environmental-compliance.com

Thomas R. Benke
Managing Member
trbenke@env-compliance.com

August 28, 2025

For Hand Delivery Only
Marion County Planning Division
c/o Austin Barnes
5155 Silverton Rd NE
Salem, OR 97305
planning@co.marion.or.us

Re: 21855 Butteville Rd NE Aurora OR 97002 Marion County
Administrative Review Application – Fill Activity on EFU-Zoned Property

To whom it may concern:

I am writing on behalf of my client, Denise Burnham, who owns property located at 21855 Butteville Rd NE Aurora OR 97002, in Marion County, which is zoned Exclusive Farm Use (EFU) under the Marion County zoning ordinance.

Enclosed please find an Administrative Review Application signed by Denise Burnham, including:

Most recently recorded title transfer instrument

Site Plan consisting of

Figure 1 – Farm Grading Plan
Figure 2 – Pre-Existing Conditions Topographic Map
Figure 3 – Existing Conditions Topographic Map
Figure 4 – Existing Conditions Topographic Map (enlarged)

Applicant Statement

Declaration of Denise Burnham dated July 20, 2025, with aerial photograph

EVREN NW Geotechnical Memorandum for Existing Berm Evaluation

Assessor's Property Identification

Supporting Case Law

Friends of the Creek v. Jackson County, LUBA No. 98-158
Swenson v. DEQ, LUBA No. 83-032
Ehler v. Washington County, LUBA No. 2006-094

Payment in the amount of $770.00 has been made to Marion County with submission of this Application. If you require additional information or would like to conduct a site visit, please do not hesitate to contact me directly.

Sincerely,

Thomas R. Benke
Attorney – Managing Member

Applicant Statement (required)

It is up to the applicant to fully explain your proposal and how it conforms to Marion County land use regulations. This is ***your*** opportunity to provide detailed information on the "who, what, where, when and why" that is specific to your proposal.

There are specific criteria and regulations for each zone; these are available from the Planning Division. We strongly encourage you to obtain a copy of this information, review it, and then prepare your "applicant's statement".

These are a few items you should consider including (where applicable):

- Describe the property as it exists now and after implementation of the proposal: topography, existing structures and their use, new or alteration of structures, etc.
- Describe surrounding properties: type of land use, scale of development, etc. and any impact your proposed use might have on these properties such as dust, noise, fumes or odors, traffic, etc. And, if so, what measures will you take to mitigate these impacts?

See Declaration of Denise Burnham dated July 20, 2025, and attached Applicant Statement

(use additional paper if needed)

DB

APPLICANT STATEMENT
BURNHAM FARM ADMINISTRATIVE REVIEW APPLICATION

The subject real property is zoned for Exclusive Farm Use in accordance with Marion County Code Chapter 17.136. The use that is the subject of this Administrative Review Application is a permitted use in accordance with MCC Ch. 17.136.020A in that it is a "farm use" as that term "farm use" is defined at MCC 17.110.223 and ORS 215.203(2)(a).

The subject property is dedicated to farm use, mainly the cultivation and harvesting of food crops, with some uncultivated woodland. At present, most of the farm is planted with hazelnut (filbert) trees and the rest with wheat. In previous years, row crops and ornamental nursery plants have also been cultivated on the farm. Applicant proposes to fill some parts of her farmland with top soil that has been hydraulically excavated from utility trenches and similar shallow excavations in order to mitigate erosion, to fill low spots and to improve access across her farm. Only arable soils will be used as clean fill and all of the filled area will continue to be used for raising, harvesting and selling crops.

Description of the property as it exists now

The attached Site Plan Figures 3 and 4 show present topography. An engineered berm (the area highlighted in red contours) has been constructed across the head of the gully located at the northwest corner of the property. Figure 2 shows topographic contours prior to construction of the berm. The berm provides access to the northwest corner of the property and mitigates a longstanding erosion problem at the farmland-woodland interface. As stated in Mrs. Burnham's Declaration, the gully there was vulnerable to chronic wash-out before the berm was constructed. The berm was constructed with load bearing clay deposits excavated on-site and compacted in lifts to ensure long term structural stability of the berm. See attached Geotechnical Memorandum of EVREN NW for construction details and stability evaluation.

Contours associated with the berm and immediate upland areas (including the part of the preexisting gully that is sometimes described as a "pit") on Figures 3 and 4 are highlighted because they represent interim elevations existing presently only because the clean fill activity temporarily ceased due to neighbor concerns that Applicant was "dumping" solid waste and/or wastewater into a "pit" at the back of her property and then to subsequent government investigation. Applicant has successfully addressed those concerns by demonstrating that only clean fill is being accepted at the site and that there is no discharge of pollutants to waters of the state associated with the fill activity. Most recently, Applicant demonstrated to the Department of Environmental Quality that the berm is at low risk of failure in both the short and long term and that there is therefore no threat of imminent harmful pollution to the waters of the state.

OB

Description of the property after implementation of the proposal

Figure 1 shows proposed contours after the fill activity is completed. Mrs. Burnham proposes to import and place clean fill (arable soil only) as necessary to bring her farm to a more uniform grade (e.g., to fill low spots across the farm to reduce the incidence of farm equipment getting bogged down and to aid in planting, irrigation and spraying) and to contour the western boundary of the farm as necessary to reroute stormwater drainage across a wider reach of the farmland-woodland interface (e.g. to promote sheet flow of stormwater rather than the gullying that persists now.) These improvements will have the secondary but not insignificant effect of increasing the cultivatable area of the farm. See the Site Plan attached to Mrs. Burnham's Declaration for additional information.

Sources of clean fill

The sources of clean fill placed at the property will be hydraulically excavated soil collected regionally (most commonly from utility trenches) and transported to the farm by Vactor trucks. A Vactor (or vac-) truck uses high-pressure potable water to dislodge soil and a powerful vacuum to remove it from the excavated area without damaging vulnerable infrastructure such as utility lines. Because the clean fill excavated and transported to the property by Vactor trucks will be used to modify surface contours across the farm only arable soils will be accepted as clean fill from vetted Vactor truck operators.

Proposed clean fill activity

Because Vactor truck soils are inherently watery the soils may be placed initially in the gully (or "pit" created by prior construction of the berm) at the northwest corner of the property, where the soils will be passively dewatered before being moved elsewhere across the site as needed to achieve the stormwater control objectives of the clean fill activity. No processing other than this passive dewatering will occur.

Applicant plans to first fill the areas directly upland and adjacent to the berm, then to fill low spots around the farm, then finally to fill the gully to complete the contouring as necessary to prevent further gullying and to mitigate erosion from ongoing agricultural operations.

Applicant may construct a second berm across the gully at the southwest corner of the farm and conduct similar clean fill operations for similar purposes.

All fill area is, and will remain, "farmland" as referenced at MCC 17.110.223.

Description of surrounding properties

The Burnham property is bounded on the north and south by similarly agricultural intensive farmland, by Butteville Rd to the east, and by woodlands draining to Ryan Creek to the west. The property east of Butteville Rd is similarly agriculture intensive farmland. The property west of Ryan Creek is mixed agricultural and industrial uses. A private airfield, McGee Airport, is approximately 1,600 feet from the Burnham property bounds. The nearest large industrial facility is the Oregon Hazelnut Growers processing facility, approximately 1,800 feet from the Burnham property bounds.

Impacts on neighboring property

The impact of the proposed clean fill activity on surrounding properties is expected to be negligible.

Access to the fill area will be from Butteville Road at the southeast corner of the Burnham property. Ingress to and egress from the fill site will be gated and limited to Vactruck operators preapproved by Applicant.

The on-property access road has been topped with gravel, and the area where Vactor trucks will off-load clean fill has been asphalted, to minimize dust generation from vehicles accessing the site. No Vactor trucks will be parked or maintained on Applicants property other than as necessary to deliver hydraulically excavated soil.

The clean fill activity, including the passive dewatering of Vactor truck soils, is "farm use".

"Farm use" is a permitted use in an Exclusive Farm Use ("EFU") zone. ORS 215.203(1). Friends of the Creek v. Jackson County, LUBA No. 98-158 (Or. LUBA 1999).

As defined at ORS 215.203(2)(a) and MCC 17.110.223:

*"Farm use" means the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, furbearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use of animal husbandry of any combination thereof. * * * "Farm use" includes the on-site construction and maintenance of equipment and facilities used for the activities described in this subsection. * * *

As defined at ORS 30.930(2):

> *"Farming practice" means a mode of operation on a farm that:*
>
> *(a) Is or may be used on a farm of a similar nature;*
> *(b) Is a generally accepted, reasonable and prudent method for the operation of a farm to obtain a profit in money;*
> *(c) Is or may become a generally accepted, reasonable and prudent method in conjunction with farm use;*
> *(d) Complies with applicable laws; and*
> *(e) Is done in a reasonable and prudent manner.*

ORS 215.203(2)(b)(F) provides:

> *..."current employment" of land for farm use includes...land under buildings supporting accepted farm practices...*

ORS 215.203(2)(c) provides that...

> *... "accepted farm practice" means a mode of operation that is common to farms of a similar nature, necessary for the operation of such farms to obtain a profit in money, and customarily utilized in conjunction with farm use.*

In her Declaration, Applicant landowner Mrs. Burnham's stated four reasons why she wants to fill her property with hydraulically excavated top soil:

a. The berm and (eventually) filled pit will improve access to the backside of my farm;

b. Filling the gullies on the backside of my farm will mitigate erosion to the Ryan Creek watershed by rerouting stormwater drainage across a wider area (meaning as sheet flow rather than by channeling);

c. The arable area of the farm will be increased; and

d. Filling low spots across the farm will reduce the incidence of farm equipment getting bogged down and will aid in planting, irrigation and spraying.

Grading and fill can be, but is not necessarily, a customarily accepted agricultural activity, depending on such factors as the prior use of the property and prospects for future agricultural use. Ehler v. Washington County, LUBA Opinion No. 2006-094. As the Ehler, court noted, "a proposal to place fill at volumes or in a manner that exceeds agronomic necessity would tend to suggest that the proposal is something other than a customarily accepted agricultural activity." The Ehler court upheld a hearing officer's determination that the fill activity was not allowed of right as "farm use" under Oregon's Right to Farm law based on prior use of the site as a

"landfill" (including rocks, asphalt, chunks of cement, and large boulders) and only the "mere promise of farm use to follow and without ongoing farm use of the land." By contrast, Applicant Denise Burnham establishes in her Declaration the fact of "agronomic necessity" when she describes the primary purpose of the activity as preventing chronic wash-out of the gullies at the edge of her filbert orchard, the mitigation of erosion generally, and the filling of low spots to aid in cultivation of row crops.

Notably, the statutory definition of "current employment" of land for farm use promulgated at ORS 215.203(2)(b) also includes at subsection 2(b)(E)...

> *Wasteland, in an exclusive farm use zone, dry or covered with water, neither economically tillable nor grazeable, lying in or adjacent to and in common ownership with a farm use land and which is not currently being used for any economic farm use.*

That definition of "wasteland" fairly describes the two gullies that Applicant proposes to fill with arable top soil. Applicant's proposal is literally to increase the arable area of her farm by filling wasteland at the western edge of her property.

It does not matter whether the parties responsible for generating, transporting, and placing the Vactor truck soils on Applicant's property have any other purpose. See Friends of the Creek v. Jackson County, LUBA No. 98-158 (OR LUBA 8/31/1999). In that case, the City of Ashland purchased property near its wastewater treatment plan and proposed to pipe both the effluent and sludge to land in an EFU zone in order to avoid the cost that would otherwise be incurred to dispose of that effluent and sludge in other ways. The LUBA Court found that irrigation with the City's effluent, and fertilization with the City's sludge, constituted the "current employment of land for farm use". Likewise, the LUBA Court found that pipes needed to transfer the effluent and sludge, the effluent reservoir, the sewage lagoon, and the onsite storage, maintenance and office structure all fell within the express provisions at ORS 215.203(2)(a) for "onsite...equipment and facilities used for [farm use]."

The Friends of the Creek court relied on the case Swenson v. DEQ, LUBA No. 83-032 (9/6/83) in which the LUBA court found that onsite treatment of wastewater from a nearby commercial cannery in a 20-acre pond and disposal by spray irrigation was "farm use". In Swenson, the LUBA court ruled that "the fact that the project will serve another governmental purpose, that of disposal of wastewater, is not relevant to the analysis" in that the property would still be used for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops. LUBA took it as "common knowledge" that some crops require irrigation and so took notice of that fact pursuant to ORS 40.065, and so concluded that construction of the 20-acre treatment pond and the spray irrigation of treated effluent was an "accepted farm practice" as that term appears at ORS 215.203(2)(b)(F).

CB

Neither is the charging of a tipping fee determinative of whether the fill activity is a customarily accepted agricultural activity. Ehler. Applicant Mrs. Burnham states in her Declaration as follows:

> *Fees paid to All-Ways Excavating USA LLC by the vac-truck operators would cover the cost of these improvements as necessary to transport, dewater and place the hydraulically excavated soil as clean fill.*

In other words, Mrs. Burnham is not proposing to operate a landfill for profit.

Alternatively, if the dewatering activity is not "farm use", then the dewatering activity is a Conditional Use (e.g. commercial activities in conjunction with farm use) which may be permitted in an EFU zone.

If the acceptance and/or dewatering of Vactor truck soils is not itself "farm use" as described above, the activity is a "commercial activity in conjunction with farm use" as referenced in ORS 215.283(2)(a) and MCC 17.136.050.

"Commercial activities in conjunction with farm use" refers to business activities that are directly related to, and supportive of, farm uses occurring in the area. In Craven v. Jackson County, 308 Or 281 (1989) the Oregon Supreme Court defined "commercial activities in conjunction with farm use" broadly as activities "which are auxiliary to and supportive of agriculture." Here, Applicant is proposing to condition native soil (by passive dewatering) to make it suitable for placement onsite as clean fill without escapement offsite. The dewatered soils are arable soils. Fill areas will be planted with filbert trees or row crops by Applicant. The dewatering and fill activity will therefore have a close, functional relationship to farming.

As required at MCC 17.136.060 (D), the dewatering activity:

1. Is primarily a supplier of farm uses, the provision of arable soil;

2. Enhances the farming enterprises of the local agricultural community, specifically that of Applicant's farming enterprise;

3. Occurs together with the Applicant's farming enterprise; and

4. Is essential to the practice of agriculture in that the dewatered top soil is necessary for agricultural production and provides a bulwark against gullying and continued loss of arable soil at the farmland-woodland interface.

The proposed dewatering activity satisfies the Conditional Use Criteria of MCC 17.136.060 and the Farm Impacts Test of ORS § 215.296 in that the activity:

CB

A) Will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; and

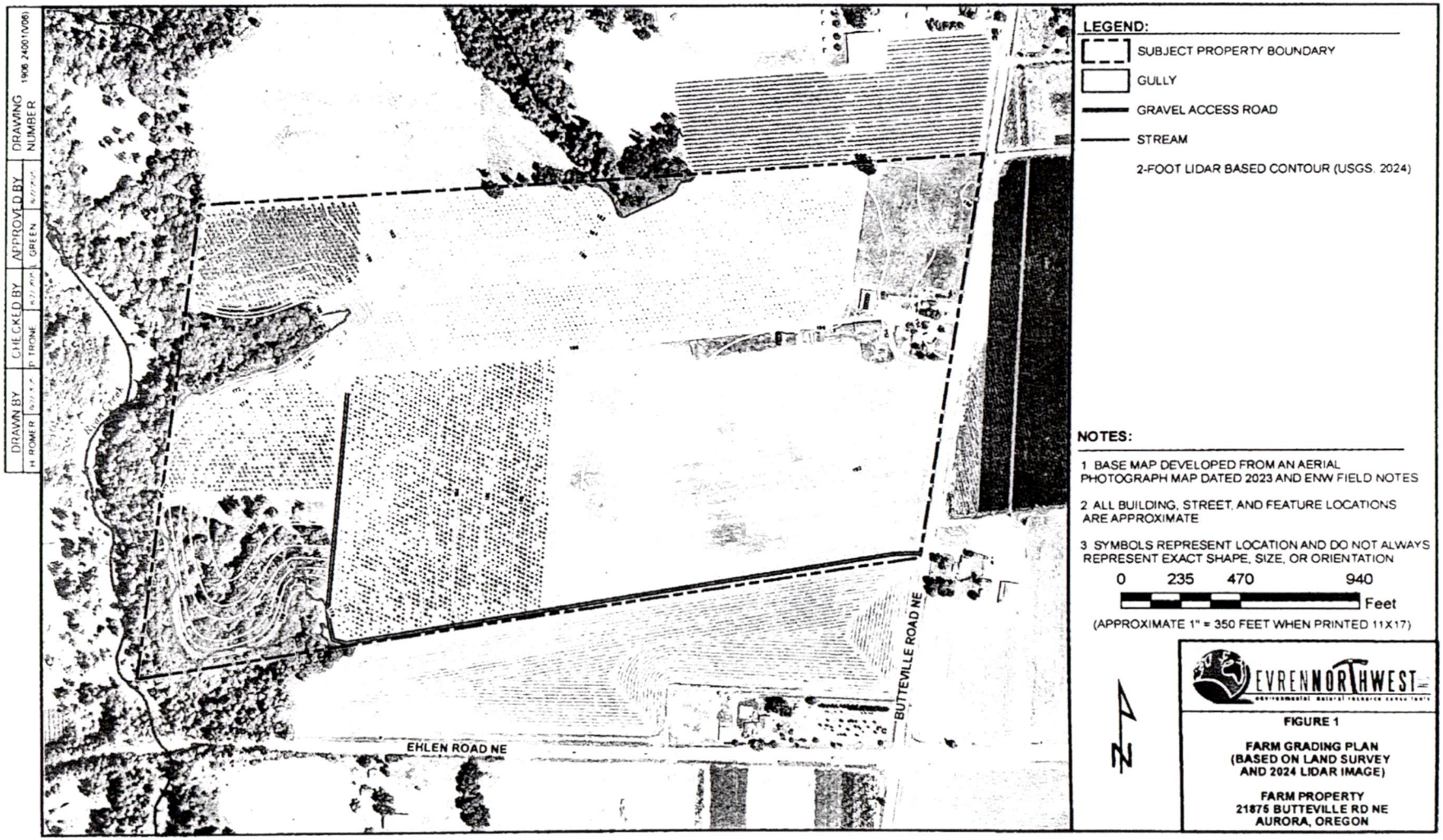
B) Will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.

The Marion County No. 1 Fire District provides the subject parcel with fire protection services. All other rural services are, or will be, available when the use is established. The Marion County Fire Safety Code may be referenced as a condition of approval.

The proposed dewatering activity will not have a significant impact on watersheds, groundwater, fish and wildlife habitat, soil and slope stability, air and water quality. Applicant has included herein a geotechnical report concluding that the berm constructed across the gully at the western edge of the property is at low risk of failure both short term and long term when the "pit" is filled to maximum capacity. The dewatering activity is purposely proposed to avoid the types of offsite impacts that could occur from direct placement of Vactor truck soils as fill. Contouring of the farmland-woodland interface to promote sheet flow will ensure that Ryan Creek is not negatively impacted by traditional farming practices upland.

There will be no discernable noise impacts on neighboring properties in that no active processing of Vactor truck soils is proposed and the closest neighboring residences are no less than 1,400 feet from the dewatering activity and screened by thick woodlands.

There are no nearby water impoundments or mineral and aggregate sites identified in the Comprehensive Plan which would conflict or be adversely impacted by the proposed use.


DRAWING NUMBER 1906 24001V06
APPROVED BY GREEN
CHECKED BY P. TRONE
DRAWN BY H. ROMER
LEGEND:
SUBJECT PROPERTY BOUNDARY
GULLY
GRAVEL ACCESS ROAD
STREAM
2-FOOT LIDAR BASED CONTOUR (USGS, 2024)
NOTES:
1 BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023 AND ENW FIELD NOTES
2 ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE
3 SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION
0 235 470 940
Feet
(APPROXIMATE 1" = 350 FEET WHEN PRINTED 11X17)
BUTTEVILLE ROAD NE
EHLEN ROAD NE
N
ENVRENNORTHWEST
FIGURE 1
FARM GRADING PLAN
(BASED ON LAND SURVEY AND 2024 LIDAR IMAGE)
FARM PROPERTY
21875 BUTTEVILLE RD NE
AURORA, OREGON

B

Declaration of Denise M. Burnham

I, Denise M. Burnham, declare and depose:

1. I am over the age of 18 and competent to make this declaration.

2. I make this declaration voluntarily and based on my personal knowledge unless otherwise stated.

3. I own, personally and as beneficiary of the Burnham Living Trust, an approximately 130 acre farm located at 21855 Butteville Rd, NE, Aurora, Oregon 97002, tax lot 041W080000200.

4. Except for the residence, all the property is dedicated to farm use, mainly the cultivation and harvesting of food crops, with some uncultivated woodland. At present, most of the farm is planted with hazelnut (filbert) trees and the rest with wheat. In previous years, row crops and ornamental nursery plants have also been cultivated on the farm.

5. I don't run any business out of my residence except for farming.

6. I have attached to this declaration a map of the property showing the location of my residence and various other locations referenced in this declaration.

7. The area where the berm and pit are presently, located on the west or backside of my property, chronically washed out before the berm was constructed. Arable upland was repeatedly lost to erosion and access to the northwest corner of my property was often difficult or impossible. The unimproved route along the northern boundary of my property is not a good option because the gully there impedes movement of large trucks and farm equipment.

8. Greg Wing suggested to me and to my son-in-law Cheyne Fobert, who manages the farm, that he could build a berm across the washed out area on the backside of my property using material excavated from the gully. The overburden would be set aside and the good clay beneath excavated to build the berm. The remaining pit would be used to dewater hydraulically excavated soil collected and transported to the farm by vacuum trucks (or "vac-trucks"). Dewatered soil would be moved to fill the area upland of the pit, and to other low spots across the farm, before the pit is ultimately filled to the top of the berm. We have discussed, but have not decided upon, doing something similar in the vicinity of the gully to the south, the "future fill

The Environmental Compliance Organization LLC
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area" shown on the attached map.

9. Because of the number of trucks accessing the farm, to avoid having the trucks tear up the asphalt drive where I live, I asked that All-Ways Excavating USA LLC improve the roadway running along the southern boundary of my property and then extend the road northward to the primary fill area. It's always important to have good roads in and around your croplands to facilitate cultivation, irrigation, spraying and harvesting of cash crops.

10. Fees paid to All-Ways Excavating USA LLC by the vac-truck operators would cover the cost of these improvements as necessary to transport, dewater and place the hydraulically excavated soil as clean fill.

11. There are at least four reasons why the dewatering and placement of the hydraulically excavated soil is beneficial to my farm:

a. The berm and (eventually) filled pit will improve access to the backside of my farm;

b. Filling the gullies on the backside of my farm will mitigate erosion to the Ryan Creek watershed by rerouting stormwater drainage across a wider area (meaning as sheet flow rather than by channeling);

c. The arable area of the farm will be increased; and

d. Filling low spots across the farm will reduce the incidence of farm equipment getting bogged down and will aid in planting, irrigation and spraying.

I hereby declare that the above statement is true to the best of my knowledge and belief, and that I understand it is made for use as evidence in court and is subject to penalty for perjury.

Denise S. Burnham 7/20/25

Denise M. Burnham (date)

The Environmental Compliance Organization LLC
PO Box 80458, Portland OR 97280
503-890-4030 / trbenke@env-compliance.com

EVREN NORTHWEST INC.
environmental & natural resource consultants

PERSONAL AND CONFIDENTIAL

Main Office: PO BOX 14488, Portland, Oregon 97293
Main Tel: (503) 452-5561 / E-Mail: ENW@EVREN-NW.com
Satellite Offices: Bend, Oregon / San Rafael, California

June 26, 2025

All-Ways Excavating USA, LLC
PO Box 235
Hubbard, Oregon 97032
Attn: Greg Wing

Email: Greg@allwaysx.com
Phone: 503-969-9005

Site Location
21875 Butteville Road NE, Aurora, Oregon

- Taxlot Number: 041W080000200

Re: GEOTECHNICAL MEMORANDUM FOR EXISTING BERM EVALUATION

EVREN Northwest, Inc. (ENW) is pleased to present our geotechnical memorandum for the referenced project. Our memorandum summarizes our understanding of the berm construction, document review, geotechnical engineering field and laboratory data, engineering analyses of the short and long-term stability of the berm, and our conclusion and recommendations for the berm. Our work was completed in general accordance with our January 2024 General Services Agreement.

INTRODUCTION

The subject fill site is a low area on the western portion of the 129.45-acre Burnham farm property (Tax Lot No. 041W080000200) at 21875 Butteville Road, in Aurora, Oregon, which is a Century farm that includes five residences, and nine farm buildings located on the eastern side of the property distally from the fill area (Figure 1). The farm grows and harvests primarily hazelnuts from its orchards. ENW understands that All-Ways Excavating, USA (All-Ways) constructed a berm around the low area on the property in the fall of 2023 in agreement with the property owner. The tallest part of the berm was on the downgradient (west) side of the low area near the top of a natural ravine and is referred to as the west berm (see Figure 2). A low perimeter berm was constructed around the remainder of the fill area and joined the north and south ends of the west berm. The purpose of the bermed fill area was to receive and dewater clean soil from Vactor trucks, which soil was sourced from vacuum-excavated dry utility trenches. During the vacuum excavation process, clean potable water was used to loosen the soil so that the resulting clean wet soil could be vacuum extracted. The clean wet soil was then transported to the site and deposited into the bermed area. ENW understands that the plan was to fill the low area to the top of the berm to create a flat area to increase arable land for cultivating hazelnut orchards.

Historical photos from Google Earth show that berm was constructed around a low area of farmland that was adjacent to a heavily vegetated ravine. The western portion of the berm was heavily vegetated with trees and understory, and the eastern portion of the berm an open area surrounded by hazelnut orchards.

BERM FILL AREA CONFIGURATION

The west berm is north-south trending and approximately 140 feet long, 10 feet wide at the crest, has 2(H):1(V) side slopes on both the upstream and downstream sides (see Figures 2, 3 and 3A). The downstream slope is approximately 34 feet long and the upstream slope is 24 feet long (see Figure 3). The fill area upstream of the western

berm is approximately 190 feet long and 140 feet wide (see Figure 2 and 3). The bottom of the fill area slopes gently to the southwest and is surrounded with a perimeter berm that is up to 5 feet high with respect to the surrounding farmland and 5 feet wide at the top (see Figure 3).

On April 28, 2025, a survey was completed of the bermed fill site, and surrounding area by Axis Mapping and Surveying Company (see Figure 2). The survey shows topographic one-foot contour lines to describe overall surface geometry of the berm and the water level of the pond enclosed by berm on the day of the survey (see Figure 2). The elevations of the west berm crest range from 174 feet above mean sea level (NAVD88) at the north end and 179 feet NAVD88 on the south end (see Figure 2). The toe of the berm on the downstream side is approximately 142 feet NAVD88 and the upstream side approximately 151 feet NAVD88 (see Figure 2). The elevation of the top of the perimeter berm is approximately 171 feet NAVD88.

BERM CONSTRUCTION

Based on conversations with All-Ways Excavation, the berm around the fill area was constructed as follows: All-Ways started the project by stripping the vegetation and removing the topsoil from the footprint of proposed fill area. Once the area was cleared, All-Ways excavated a 10-foot-wide key trench close to the centerline of the west berm until they intercepted an existing drain tile that was used to drain the agricultural fields. The estimated depth of the drain tile was about 13 feet below the existing ground surface (bgs). The key trench was backfilled with native clay that was scraped from the fill area, placed in 12-inch-thick lifts, and compacted with a sheepsfoot roller (see Figures 3 and 3A). Once the key trench was backfilled, All-Ways built up the core of the west berm by spreading the clayey soil out to create a 20-foot-wide base for the berm (see Figure 3A). The height of the compacted core, including the key trench, was approximately 25 feet above the bottom of the fill area (see Figures 3 and 3A). Once the core of the west berm was graded, a layer of loose soil was cast on the downstream and upstream sides of the berm. Because of the steepness of the slopes and the difficulties of getting equipment on the slope, the soil on the downstream face of the berm remained loose and not compacted compared to the core of the berm. All-Ways used similar materials to construct the perimeter berm to a height of approximately 5 feet, which joined the north and south ends of the west berm.

DEQ LETTER

On March 13, 2025, Oregon Department of Environmental Quality (DEQ) issued a Department Order to abate the threat to water quality presented by the existing berm constructed on the property. DEQ issued the order because "the berm and pit are not designed and constructed in a manner to ensure the berm's stability. Due to the current condition of the berm, DEQ had determined that the berm is at risk of failing and causing pollution to Ryan Creek through the uncontrolled discharge of soil and sediment".[1]

GEOTECHNICAL FIELD INVESTIGATION

On March 19 and April 21 and 22, 2025, ENW conducted two geotechnical field investigations for the referenced project. During the March 2025 fieldwork, ENW advanced two (2) hand auger borings (designated HA-1 and HA-2, see Figure 2 and Appendix A) along the top of the west berm to depths between 7 and 9 feet below the ground surface (bgs). Grab samples were collected from the hand augers for field identification. Photographs were taken during the field investigation (see Appendix B).

During the April 2025 fieldwork, ENW observed Dan J Fischer Excavating, Inc., of Forest Grove, Oregon, advance four (4) drilled borings at the center (B-1 and B-1A), north end (B-2), and south end (B-3) of the west berm to depths of up to 50 feet bgs (see Figure 2 and Appendix A). In borings B-1, B-2, and B-3, soil samples were collected continuously

[1] Oregon Department of Environmental Quality (DEQ). March 13, 2025. Department Order – Case No. WQ/I- WR-2024-100

from ground surface to native material and at 5-foot intervals from native soil to the total depth of the borings (see Appendix A). No samples were taken in B-1A, which was advanced next to B-1 for installation of a vibrating wire piezometer.

Standard Penetration Test (SPT) method (ASTM D 1586) was used to collect continuous soil samples with an 18-inch-long split-spoon sampler driven with a 140-pound hammer. The number of blows required to drive the sampler 18 inches were recorded in three (3) 6-inch intervals. The number of blows for the last two intervals were added together to determine the blow count (N) or blows per foot (bpf), which are used to estimate the in-place consistency or density of the soil. Relatively undisturbed samples were collected using a Shelby tube (ASTM D1587). The soil types, sampling method, and blow counts were documented on boring logs (see Appendix A). An ENW field geologist logged the borings and collected soil samples. The soil samples were taken to a soil laboratory for testing.

SURFACE AND SUBSURFACE CONDITIONS

The following surface and subsurface conditions observed during our field investigations are presented below (see boring logs in Appendix A and photographs in Appendix B).

SURFACE CONDITIONS

The bermed fill area is at the east end of an existing ravine that drains west into Ryan Creek. To the north and east of the fill area is a hazelnut orchard and to the south is a newly constructed asphalt pad for Vactor trucks to deposit their clean wet soil into the fill area (see Appendix B). To the west of the west berm, the existing ravine and creek are vegetated with evergreen and deciduous trees and thick understory of ferns, vine maple, and blackberries. Water intermittently flows through the ravine to Ryan Creek.

The west berm is approximately 25 feet above the bottom of the fill area with side-slopes that are approximately 2(H):1(V) on both the upstream and downstream of the berm. The native clay soil from which the west berm was constructed was scraped from the fill area and placed in lifts into an excavated keyway parallel to the footprint of the west berm. The lifts of clay soil were compacted with a sheepsfoot roller up to the height of the west berm. All-Ways was unable to compact the soil on the side slopes of the west berm, and as a result, the downstream face of the berm has a shallow slough, resulting in a 3- to 4-foot-high scarp along the top of the berm (see Appendix B). ENW observed ground water seepage and soil eroding from the toe of the west berm. The erosion at the toe of the berm resulted in a scarp that was up to 4 feet high, and eroded soil that was saturated and very soft (see Appendix B).

SUBSURFACE CONDITIONS

Field data indicate that there are up to six inches of Topsoil and 30 feet of Fill overlying the native Missoula Flood Deposits (see Figure 3). The Fill comprises up to 13 feet of the Compacted West Berm Fill overlying up to 17.5 feet of an Undocumented Fill. The materials are described below.

Topsoil. Approximately six inches of sandy Silt Topsoil was encountered in the borings. The sandy Silt was soft to medium stiff, moist, with trace roots and plant debris (see Appendix A).

Compacted Berm Fill. The Compacted Berm Fill was encountered from the top of the berm to 13 feet bgs in Boring B-1, to 12 feet bgs in Boring B-2, to 11 feet bgs in Boring B-3, and the total depths of HA-1 and HA-2 (see Appendix A). The material was sandy CLAY (CL) gray to brown, moist, medium plasticity, some fine sand and silt, trace mica (see Appendix A). Measured blow counts ranged from 5 bpf to 7 bpf in the upper 5 feet and 11 bpf to 15 bpf in the lower 6 to 12 feet, indicating that the soils in the upper 5 feet were medium stiff, and the remainder of the compacted in-place soil ranged from medium stiff to very stiff sandy CLAY (CL) to SILT (ML).

Undocumented Fill. Undocumented Fill was encountered below the Compacted Berm Fill from about 13 feet bgs to 30.5 feet bgs in Boring B-1. Undocumented Fill was only observed in boring B-1 and corresponds to the alignment of the existing ravine. The material was sandy CLAY (CL) gray to brown, moist, medium plasticity, some fine sand, trace mica (see Appendix A). Layers of highly organic soil material were encountered at 13.5 feet bgs and 26.5 bgs. At 26.5 feet bgs, the layer was 4.5 feet thick, black, and had a strong organic odor. Measured blow counts ranged from 8 bpf at 13 feet bgs to 17 bpf at 20 feet bgs, indicating that the Undocumented Fill was medium stiff to very stiff sandy CLAY (CL).

Missoula Flood Deposits. Native Missoula Flood Deposits were encountered below the Undocumented Fill in B-1 and below the Compacted Berm Fill in borings B-2 and B-3, to the total depth of the borings (see Appendix A). The native soil was a sandy Silt that was gray to blue, moist to wet, low plasticity, fine-grained sand, and little clay (see Appendix A). Measured blow counts in native soil ranged from 2 bpf at 20 feet bgs to 24 bpf, indicating that the native soil was soft at 20 feet bgs to very stiff sandy SILT deeper in the boring.

SHALLOW GROUND WATER LEVELS

During drilling, shallow ground water was encountered in borings B-1 and B-2, and B-3 (see Appendix A). In boring B-1, shallow ground water was observed during drilling at 19 feet bgs and at 31 feet bgs. In B-2, the shallow ground water was first encountered at 19 feet bgs and then rose to 15.5 feet bgs. In B-3, shallow ground water was encountered at 19 feet bgs. In all the borings shallow ground water was below the bottom of the Compacted Berm Fill.

LABORATORY TESTING

Representative soil samples from the April 2025 fieldwork were transported to ACS Testing, Inc., of Tigard, Oregon, for laboratory testing. The testing includes Atterberg Limits (ASTM D-4318), Moisture Content (ASTM D2216), Passing No 200 (ASTM D1140), and a Direct Shear Test under Consolidated Drained Conditions (ASTM D3080) (see Table 1 and Appendix C).

Table 1 – Summary of Laboratory Testing

Sample	Depth (ft)	Material	USCS	Atterberg Limits LL/PL/PI	Moisture Content (%)	Passing No 200 (%)	Unit Weight (pcf)	Shear Strength PHI/Cohesion (degree/psf)
B-1-8	10.5 – 12	Compacted Fill	CL	37/16/21	20.6	91.6	-	-
B-1-12	16.5-17.5	Undocumented Fill	-	-	-	-	118	30/638
B-1-16	22-23.5	Undocumented Fill	CL	32/22/10	24.3	91.6	-	-
B-1-24	40-41.5	Missoula Flood	ML	30/25/5	34.3	97.5	-	-
B-2-6	7.5-9	Compacted Fill	CL	34/23/11	25.0	91.6	-	-
B-2-13	18-19.5	Missoula Flood	ML	29/27/2	36.2	96.3	-	-
B-3-2	1.5-3.0	Compacted Fill	ML	34/26/8	27.1	88.3	-	-
B-3-10	13.5-15.0	Missoula Flood	ML	27/24/3	28.7	91.4	-	-

Notes: LL = Liquid Limit, PL = Plastic Limit, PI = Plasticity Index, Psf = Pounds per square foot, Pcf = Pounds per cubic foot

INSTRUMENTATION INSTALLATION

ENW and Dan Fischer Excavating installed a vibrating wire piezometer and inclinometer in borings B-1A and B-1, respectively. The vibrating wire piezometer and inclinometer were installed to measure shallow ground water levels and slope movement, respectively.

VIBRATING WIRE PIEZOMETER

On April 21, 2025, a vibrating wire piezometer with a continuous data logger was installed in boring B-1A at 25 feet bgs. The purpose of the piezometer and data logger was to measure the fluctuation of the water levels within the berm. During the drilling of B-1A, no ground water was encountered. Data recorded between April 21 and June 5, 2025, indicates that the shallow ground water level has stabilized at 17.5 feet bgs or between elevations 176.45 feet and 159.00 feet (see Appendix D). This water level is about 4.5 feet below the bottom of the Compacted Berm Fill (see Figure 3 and Appendix D).

INCLINOMETER

On April 21, 2025, an inclinometer was installed in boring B-1 to measure the depth and direction of potential slope movement. The inclinometer was installed to 50 feet bgs, which is approximately 20 feet into the native soil (see Appendix A). The inclinometer casings are 2.75 inches in diameter and have two sets of groves oriented 90 degrees apart. The casings were grouted into place so that one set of grooves is aligned with the anticipated movement. Boring B-1 was finished with a monument housing flush to the ground surface.

The potential movement was measured with a Durham Geo Slope Indicator (DGSI) Digitilt Inclinometer Probe. The probe consists of a stainless-steel body with a connector for a control cable and two pivoting wheel assemblies. Within the steel body are two force-balanced servo-accelerometers that measure tilt. One accelerometer measures the "A-axis, which is in the direction of the anticipated landslide movement, and the second accelerometer measures the "B-axis", which is oriented 90 degrees from the anticipated. As slope movement occurs, the casing distorts with the soil movement.

On April 28, 2025, ENW took the baseline inclinometer reading and the second and third readings were taken May 6 and June 5, 2025. Changes in the profiles indicate that no measurable movement has occurred since the inclinometer was installed (see Appendix E).

GLOBAL STABILITY ANALYSIS

ENW evaluated the global stability of the existing berm using the GSTABL7 computer program (see Appendix F). The purpose of the analysis was to evaluate the short-term (0 to 2 years) and long-term (2 to 20 years) global stability risk level of the berm. ENW modeled the existing condition of the berm using field investigation data, inclinometer and piezometer monitoring data, and the April 2025 land survey (see Appendices A, C, and D).

SLOPE STABILITY MODEL

The surface condition of the berm was based on the April 2025 topographic survey (see Figures 2 and 3). The subsurface conditions were based on the soils encountered in boring B-1 and ground water levels measured in B-1A. The berm comprises the 13 feet of Compacted Berm Fill and 17.5 feet of Undocumented Fill overlying the native Missoula Flood Deposits (see Figure 3A).

Laboratory tests were completed on the Compacted Berm Fill, Undocumented Fill, and the underlying Missoula Flood Deposits (see Appendix C). The laboratory indicates that the Compacted Berm Fill was medium stiff to stiff sandy Clay (CL) to Silt (ML), that the Undocumented Fill was a sandy Clay (CL) with isolated layers of organics, and the Missoula Flood Deposits were a Silt (ML).

The ground water and pond water levels were based on field data collected on June 5, 2025. The ground water was measured at 17.5 feet bgs, and the pond water level was based on a measured elevation of 167 feet NAVD88, or 9 feet below the top of the berm (see Figures 3 and 3A).

LABORATORY SHEAR STRENGTH – COMPACTED BERM AND UNDOCUMENTED FILL

A Direct Shear under consolidated drained conditions (ASTM D3080) was conducted on sample B-1-12 collected 16.5 to 17.5 feet bgs (see Appendix A). The soil sample was identified as the Undocumented Fill that was situated 3 feet below the Compacted Berm Fill. The results of the direct shear test indicate that the Undocumented Fill had a friction angle of 30 degrees and a cohesion of 638 psf (see Tables 1 and 2). Blow counts from boring B-1 were similar for the Compacted Berm Fill and the Undocumented Fill, thus indicating the in-place densities are similar (see Appendix A).

BACK CALCULATED ENGINEERING LOOSE SOIL PROPERTIES FOR THE BERM FACE

ENW used the Back Calculation Method to estimate the engineering properties of the loose soil on the berm face. The method assumes that the Factor of Safety (FS) for slope stability is equal to 1.0.[2] The FS is defined as the ratio between the forces resisting slope movement (soil strength) and the forces driving the slope movement. If the FS is less than 1.0, then the slope is moving; if FS = 1.0, then the slope is on the verge of moving; and if the FS 1.25 or higher, then the slope is stable.

The Back Calculated Method was used along the face of the berm where a FS equal to 1.0 was acceptable. The resulting shear strengths were found to be reasonable for the existing conditions measured in the field (see Table 2). Field data indicated that the downstream face of the berm had failed, creating a 4-foot-high scarp along the top of the berm and that ground water was seeping through the toe berm, thus causing an isolated shallow failure of the berm toe. Drilling data indicated that the core of the berm was medium stiff to stiff with no indication of soft soils within the berm. The inclinometer data, collected between April and June 2025, has not measured movement within the bermed fill (see Appendix E).

Table 2 – Summary of Soil Shear Strength

Material	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)
Compacted Berm Fill (CBFL)	118*	638*	30*
Undocumented Fill (UFL)	118*	638*	30*
Missoula Flood Deposit (Native)	110**	200	35
Loose Soil for Berm Face (LSBF)	100**	20	28
Imported Clean Soil (ICS)	100	0	28
*Laboratory Data – Direct Shear Test Result ** Back Calculated Engineering Parameters			

[2] Cornforth, D.K. 2005. Landslide in Practice – Investigation, Analysis, and Remedial Prevention Options in Soils. John Wiley and Sons, Inc.

GLOBAL STABILITY ANALYSES

ENW evaluated the global short-term and long-term slope stability of the west berm. As noted above, the field data, laboratory data, and April 2025 land survey were used to model both the subsurface and surface conditions of the berm. The global short-term conditions were modeled on the existing condition and the global long-term condition was modeled with assumed future conditions.

Short-term Global Stability. ENW evaluated the short-term global stability of the berm based on the existing conditions of the berm (see Appendix F). The results of the analysis show that the short-term global stability of the berm has an FS of 1.87 (see Appendix F). These results are consistent with the field observations and data collected at the site.

Long-term Global Stability. ENW evaluated the long-term global stability of the berm by increasing the level of ground water and pond water to the maximum levels possible. The pond water level is dependent on the elevation of the perimeter berm of the pond, which is 171 feet NAVD88 or approximately 5 feet below the top-center of the west berm (see Figures 2 and 3). The ground water level evaluated for long-term stability-would be approximately 7 feet below the top-center of the west berm (see Appendix F). The long-term global stability analysis resulted in a FS of 1.68. (see Appendix F). This indicates that the long-term stability of the berm is acceptable.

CONCLUSIONS

CONCLUSIONS

Based on our review of the information provided by our client, the results of our field data, soils laboratory data, our piezometer and inclinometer monitoring data, and results of our slope stability analyses of the west berm, it is ENW's opinion that the short-term and long-term risk of the berm failing is low. ENW does acknowledge that the downslope face of the berm and the toe of the berm shows signs of slumping and erosion. It is our opinion, however, that the observed erosion is localized and that it does not affect the short-term or long-term global slope stability of the berm.

LIMITATIONS

Geotechnical engineering is characterized by a certain degree of uncertainty. Professional judgments presented are based partly on our understanding of the project and partly on our general experience. Our engineering work and judgments rendered meet current professional standards; no other warranties, either expressed or implied are made.

It has been a pleasure providing you with the geotechnical services for this project. If you have any questions, please call 503.452.5561.

Sincerely,

EVREN Northwest, Inc.

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Registered Geologist, OR-**G1178**

REGISTERED PROFESSIONAL GEOLOGIST
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PAUL M. TRONE
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17857PE
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JULY 25, 1995
CYNTHIA L HOVIND
EXPIRES: 6/30/2027

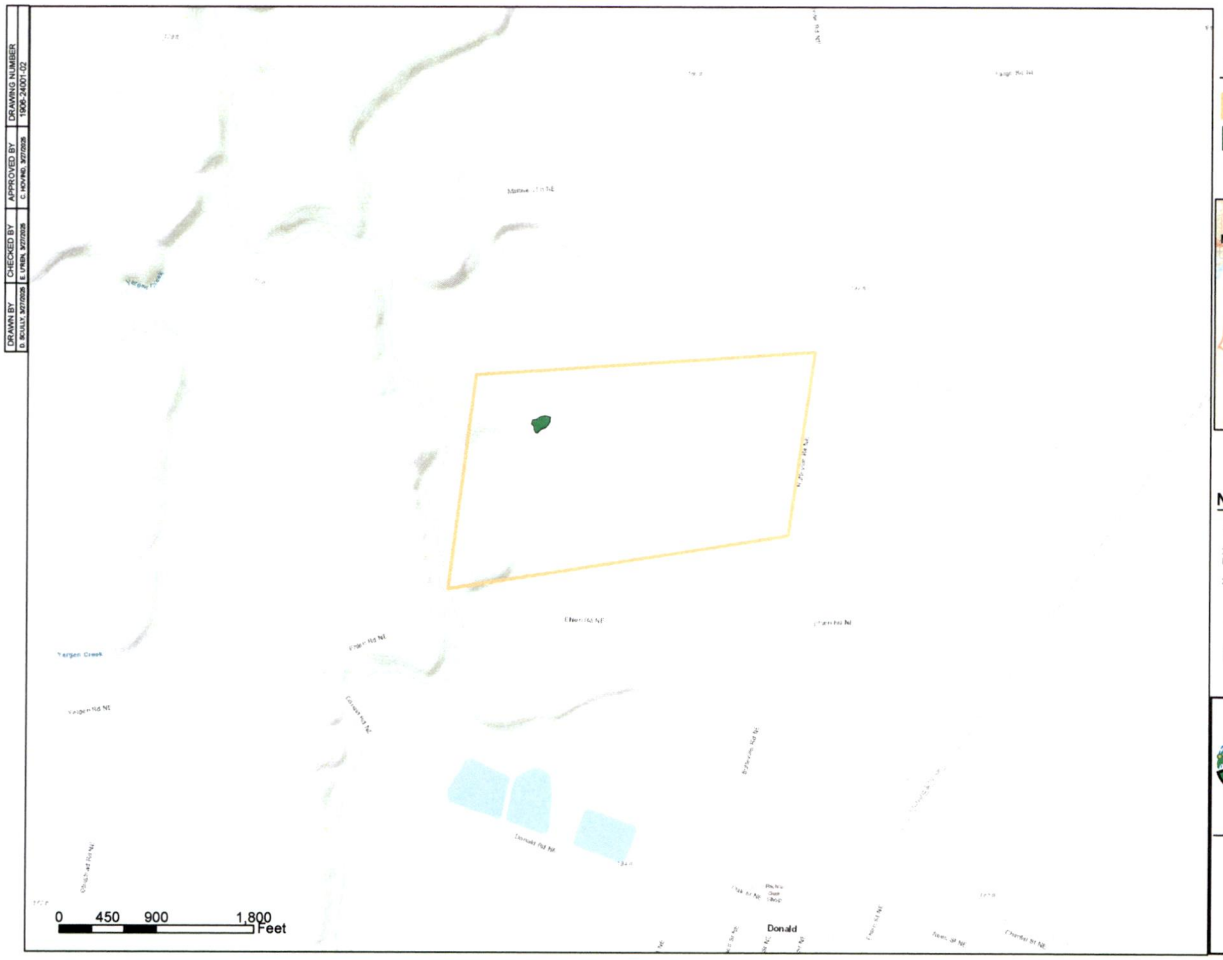
FIGURES

Figure 1	Vicinity Map
Figure 2	Existing Conditions
Figure 3	Bermed Fill Area Cross Section A
Figure 3A	Detailed Bermed Fill Area Cross section

APPENDICES:

Appendix A	Hand Auger and Boring Logs
Appendix B	Photo Log
Appendix C	Laboratory Testing
Appendix D	Vibrating Wire Piezometer Data
Appendix E	Inclinometer Data
Appendix F	Slope Stability Analyses

Figures



LEGEND

- REFERENCED PROPERTY
- PIT

NOTES:

1. BASE MAP IMAGERY FROM ESRI.
2. MAP FEATURES FROM MARION COUNTY AND ENW FIELD NOTES DATED 3/19/2025.
3. CONTOUR LAYER MODELED FROM DOGAMI LIDAR (2009).

N

EVREN NORTHWEST INC.
environmental · natural resource consultants

FIGURE 1

SITE VICINITY MAP

ALL-WAYS EXCAVATING
21595 BUTTEVILLE ROAD NE
AURORA, OREGON

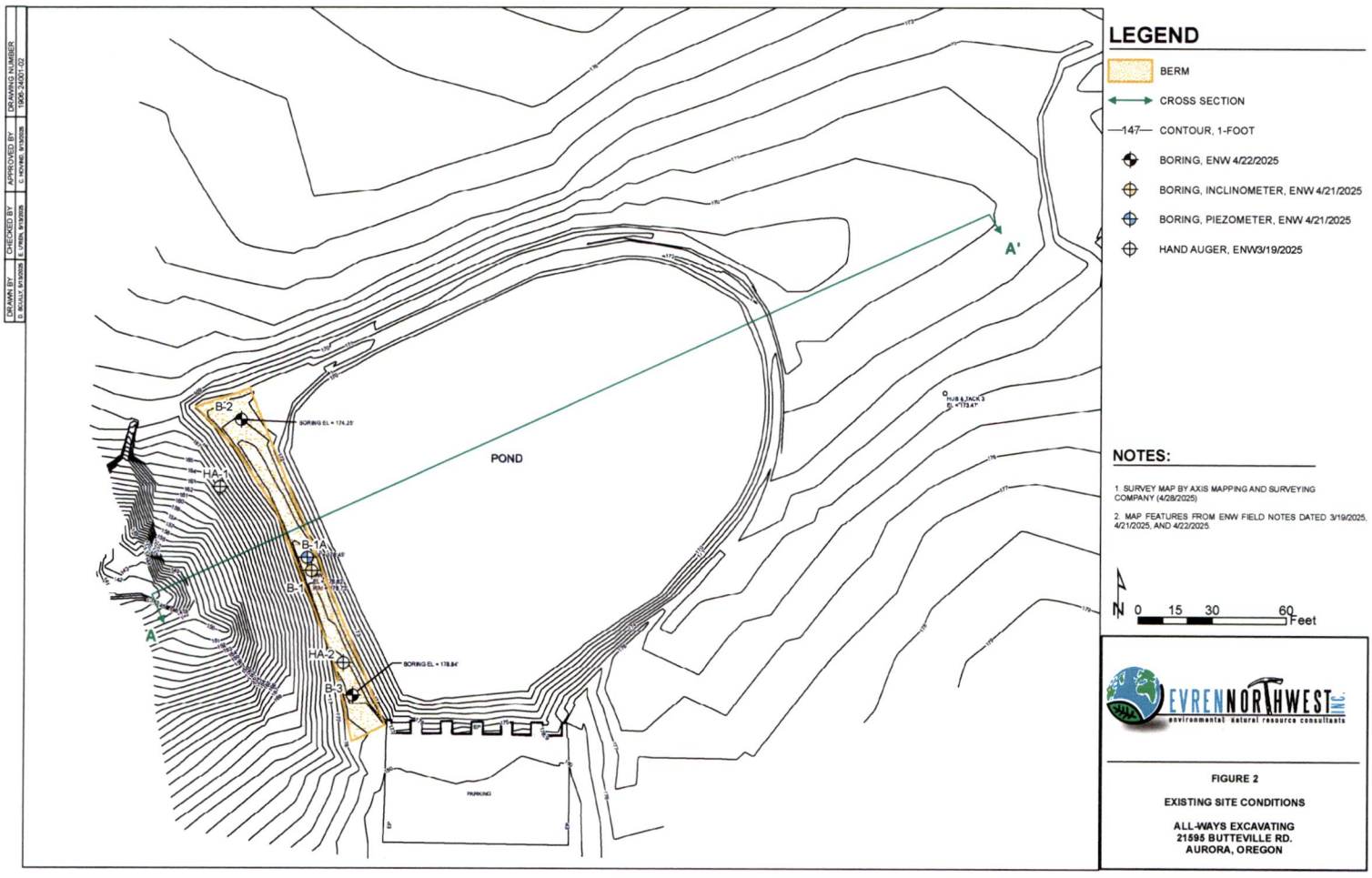
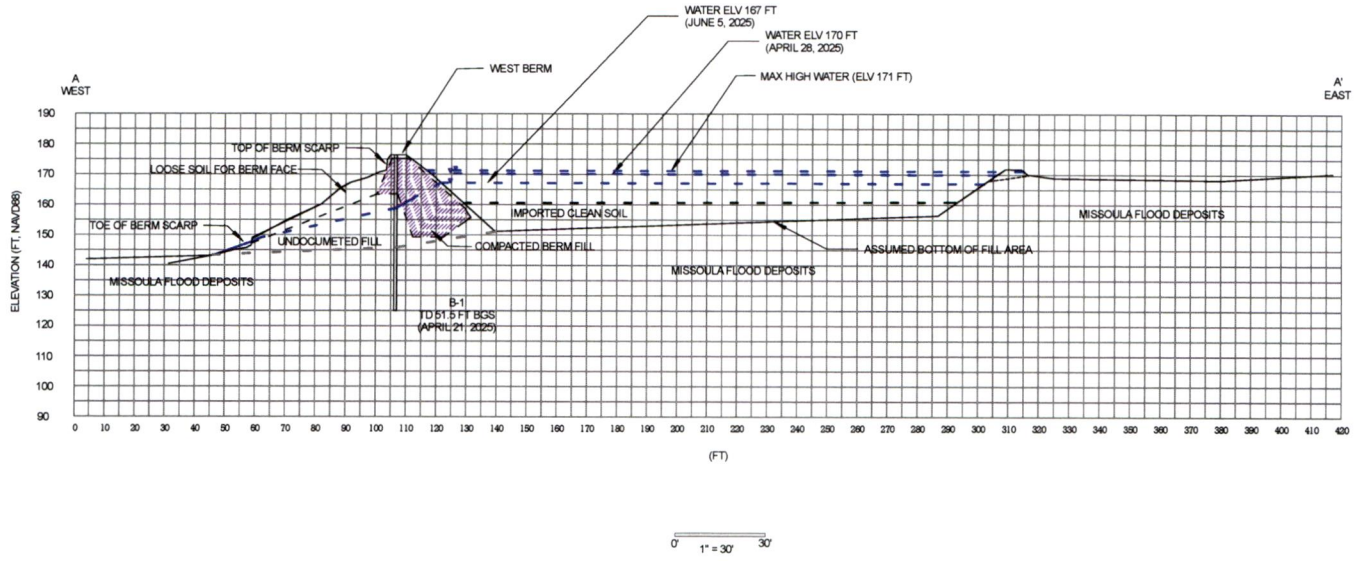


FIGURE 2

EXISTING SITE CONDITIONS

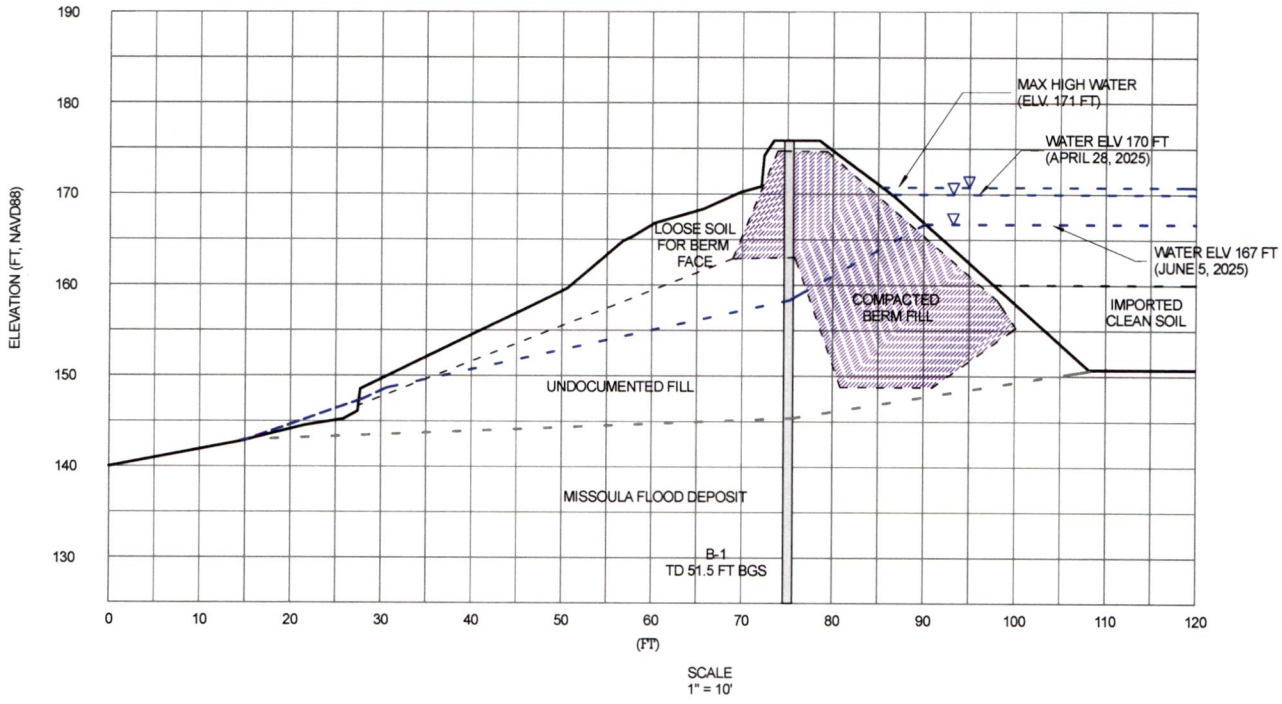
ALL-WAYS EXCAVATING
21595 BUTTEVILLE RD.
AURORA, OREGON

BERMED FILL AREA
CROSS SECTION A - A"



	EVREN Northwest, Inc PO Box 14488 Portland, Oregon	All-Ways Excavation 21595 Butteville Rd NE Aurora, OR
	Project No. 1906-24001-02	Cross Section A-A' — FIGURE 3

BERMED FILL AREA
CROSS SECTION A-A'



SCALE
1" = 10'

	EVREN Northwest, Inc PO Box 14488 Portland, Oregon	All-Ways Excavation 21595 Butteville Rd NE Aurora, OR
	Project No. 1906-24001-02	CROSS SECTION A-A' — Figure 3A

Appendix A

Hand Auger and Boring Logs

EVREN Northwest, Inc.

Boring Log No. B-1
All-Ways Excavation

Location: 21875 Butteville Road NE, Aurora, Oregon			**WO#: 1906-24001-02**
Method: Solid Stem Auger			**Ground EL:**
Hammer: Safety		**Hammer weight (lb): 140**	**Hole depth (ft): 51.5**
Sampler: Split Spoon/Shelby	**Drop (in): 30**	**G.W.T. @ Drilling (ft): 31**	**Sampled by: DMS**
Driller: Dan J Fischer Excavating, Inc.		**Drill Date: 04/21/25**	**Logged by: DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	Notes
0			1		5-2-2	CL	6 inches of Sandy Silt TOPSOIL (TP), 10YR(3/2), soft to medium stiff, moist, some roots and plant debris, few gravel.	
			2		2-2-3		CLAY (CL), 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) strong brown, 7.5Y(5/3) light olive brown, medium stiff, moist, medium plasticity, few fine sand, mixed inclusions of light and dark clay, trace mica (COMPACTED BERM FILL).	
			3		2-3-3		Trace 7.5YR(5/8) soils at 3 feet.	
5			4		3-3-4		Trace 2.5YR(6/8) weathered fine gravel at 4.5 feet.	
			5		5-6-9		Stiff to very stiff at 6 feet.	
			6		2-5-5		Stiff at 7.5 feet.	
10			7		3-5-5			P200 - 91.6%, LL - 37, PL - 16, PI - 21
			8		3-5-6			
			9		3-4-4		Medium stiff to stiff at 12 feet.	
			10		6-6-7	ML	SILT (ML), 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) brown, 7.5Y(5/3) light olive brown, very stiff, moist, medium plasticity, few fine sand, mixed inclusions clay, trace mica and organics (roots) (UNDOCUMENTED FILL).	
15			11		0-3-3			
			12				Stiff with wood debris in shoe at 13.5 feet.	Pushed Shelby Tube, 8 inches Recovery
			13		6-7-10		Medium stiff, possible water seep, with woody debris in bottom 6 inches of sample at 15 feet.	
20			14		6-7-10		Inclusion of roots in different colored soil 7.5YR(N5) gray, stiff at 19 feet.	
			15		4-3-4		Medium stiff at 20.5 feet.	
			16		2-4-7		Stiff at 22 feet.	
		3:30	17		5-7-9		Very stiff at 23.5 feet.	P200 - 91.6%, LL - 32, PL - 22, PI - 10
25			18		4-3-5		Medium stiff to stiff, no organics at 25 feet.	
			19		2-3-4		5Y(2.5/2) black, medium stiff, some organics (roots) at 26.5 feet.	
			20		2-3-4		Decrease in organics, strong organic smell at 28 feet.	
30		3:00	21		2-4-8	ML	SILT (ML), 2.5Y(N4) dark gray to 2.5Y(N3) very dark gray, stiff, wet, low plasticity, fine trace sand and plant material (Missoula Flood Deposits).	
			22		3-7-12		Very stiff, no organics at 31 feet.	
35								

SPT. blow/ft ■ Moisture % ○ (0, 20, 40, 60)

Remarks:

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech Invest)\Logs\Boring Logs\1906-24001-02 Boring Logs (V04).log Date: 6/20/2025

Plate 1

EVREN Northwest, Inc.

Boring Log No. B-1
All-Ways Excavation

Location: 21875 Butteville Road NE, Aurora, Oregon			**WO#: 1906-24001-02**
Method: Solid Stem Auger			**Ground EL:**
Hammer: Safety		**Hammer weight (lb): 140**	**Hole depth (ft): 51.5**
Sampler: Split Spoon/Shelby	**Drop (in): 30**	**G.W.T. @ Drilling (ft): 31**	**Sampled by: DMS**
Driller: Dan J Fischer Excavating, Inc.		**Drill Date: 04/21/25**	**Logged by: DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	Notes
35			23		6-5-10		SILT (ML), 2.5Y(N4) dark gray to 2.5Y(N3) very dark gray, stiff, wet, low plasticity, fine trace sand and plant material (Missoula Flood Deposits). Stiff to very stiff at 35 feet.	
40			24		5-6-7		Stiff at 40 feet.	P200 - 97.5%, LL - 30, PL - 25, PI - 5
45			25		8-11-13		Very stiff, low plasticity at 45 feet.	
50			26		7-9-13		Boring completed at 51.5 feet, Inclinometer installed at 50 feet bgs.	
55								
60								
65								
70								

SPT. blow/ft ■ Moisture % ○

0 20 40 60

Remarks:

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech Invest)\Logs\Boring Logs\1906-24001-02 Boring Logs (V04).log Date: 6/20/2025

Plate 2

EVREN Northwest, Inc.

Boring Log No. B-1A
All-Ways Excavation

Location: 21875 Butteville Road NE, Aurora, Oregon			**WO#: 1906-24001-02**
Method: Solid Stem Auger			**Ground EL:**
Hammer: Safety		**Hammer weight (lb):**	**Hole depth (ft): 25**
Sampler:	**Drop (in):**	**G.W.T. @ Drilling (ft):**	**Sampled by: DMS**
Driller: Dan J Fischer Excavating, Inc.		**Drill Date: 04/21/25**	**Logged by: DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	SPT. blow/ft ○ Moisture % (0 20 40 60)	Notes
0						CL	6 inches of Sandy Silt TOPSOIL (TP), 10YR(3/2), soft to medium stiff, moist, some roots and plant debris, few gravel. CLAY (CL), 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) strong brown, 7.5Y(5/3) light olive brown, medium stiff, moist, medium plasticity, few fine sand, mixed inclusions of light and dark clay, trace mica (COMAPCTED BERM FILL).		
5									
10									
15						ML	SILT (ML), 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) brown, 7.5Y(5/3) light olive brown, very stiff, moist, medium plasticity, few fine sand, mixed inclusions clay, trace mica and organics (roots) (UNDOCUMETED FILL).		
20									
25							Boring completed at 25 feet. Piezometer SN 2400797 installed at 25 feet. Soil descriptions based on boring B-1. No sampling was completed in B-1A.		
30									
35									

GWT not encountered

Remarks:

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech Invest)\Logs\Boring Logs\1906-24001-02 Boring Logs (V04).log Date: 6/20/2025

Plate 5

EVREN Northwest, Inc.

Boring Log No. B-2
All-Ways Excavation

Location: 21875 Butteville Road NE, Aurora, Oregon			**WO#: 1906-24001-02**
Method: Solid Stem Auger			**Ground EL:**
Hammer: Safety		**Hammer weight (lb): 140**	**Hole depth (ft): 26.5**
Sampler: Split Spoon	**Drop (in): 30**	**G.W.T. @ Drilling (ft): 19**	**Sampled by: DMS**
Driller: Dan J Fischer Excavating, Inc.		**Drill Date: 4/22/2025**	**Logged by: DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	Notes
0			1		2-2-3	ML	6 inches of Sandy Silt TOPSOIL (TP), 10YR(3/2), soft to medium stiff, moist, some roots and plant debris, few gravel.	
			2		2-3-3		SILT (ML) 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) strong brown, 7.5Y(5/3) light olive brown, medium stiff, moist, few fine sand and clay, low plasticity, trace mica (COMPACTED BERM FILL).	
			3		3-3-3			
5			4		2-2-4		Stiff at 6 feet.	
			5		3-4-5		Medium stiff to stiff at 7.5 feet.	
			6		2-3-5		Medium stiff at 9 feet.	P200 - 91.6, LL - 34, PL - 23, PI - 11
10			7		2-2-5			
			8		3-4-7		Inclusion of roots in different colored soil 7.5YR(N5) gray, stiff at 10.5 feet.	
			9		8-10-12	ML	SILT (ML) 2.5Y(4/4) to 10YR(4/4) and 2.5Y(5/2), very stiff, moist, low plasticity, trace fine sand, little clay (Missoula Flood Deposits).	
15		13:45	10		3-5-6		With 5YR(3/2) dark reddish brown, stiff at 13.5 feet.	
			11		3-5-5			
			12		3-4-5		Decrease in clay at 16.5 feet.	
		11:00	13		4-3-3		Medium stiff at 18 feet. Wet at 19 feet.	P200 - 96.3, LL - 29, PL - 27, PI - 2
20			14		2-1-1		Very soft to soft, increase in sand at 20 feet.	
25			15		8-9-8		Very stiff at 25 feet.	
							Boring completed at 26.5 feet.	
30								
35								

SPT. blow/ft ○ Moisture %

0 20 40 60

Remarks:

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech Invest)\Logs\Boring Logs\1906-24001-02 Boring Logs (V04).log Date: 6/20/2025

Plate 3

EVREN Northwest, Inc.

Boring Log No. B-3
All-Ways Excavation

Location: 21875 Butteville Road NE, Aurora, Oregon			**WO#: 1906-24001-02**
Method: Solid Stem Auger			**Ground EL:**
Hammer: Safety		**Hammer weight (lb): 140**	**Hole depth (ft):**
Sampler: Split Spoon	**Drop (in): 30**	**G.W.T. @ Drilling (ft): 19.1**	**Sampled by: DMS**
Driller: Dan J Fischer Excavating, Inc.		**Drill Date: 4/22/2025**	**Logged by: DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	Notes
0			1		5-2-2	ML	6 inches of Sandy Silt TOPSOIL (TP), 10YR(3/2), soft to medium stiff, moist, some roots and plant debris, few gravel.	
			2		2-1-2		SILT (ML) 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) strong brown, 7.5Y(5/3) light olive brown, soft to medium stiff, moist, few fine sand and clay, low plasticity, trace mica (COMPACTED BERM FILL).	P200 - 88.3%, LL - 34, PL - 26, PI - 8
			3		1-2-3			
5			4		2-3-4		Soft at 1.5 feet.	
			5		2-4-4		Medium stiff at 3 feet.	
							Large root in shoe at 4.5 feet.	
			6		2-4-6		Medium stiff to stiff at 6 feet.	
							Stiff with trace black and green soil inclusions at 7.5 feet.	
10			7		3-5-5		Medium stiff to stiff at 9 feet.	
							Stiff at 10.5 feet.	
			8		3-5-8	ML	SILT (ML) 2.5Y(4/4) olive brown to 10YR(4/4) dark yellowish brown and 2.5Y(5/2) grayish brown, stiff, moist, low plasticity, few fine sand, little clay (Missoula Flood Deposits).	
			9		4-5-5			
			10		7-6-5		Increase in moisture at 13.5 feet.	P200 - 91.4, LL - 27, PL - 24, PI - 3
15			11		2-3-2		2.5Y(4/4) olive brown with 10YR(5/8) yellowish brown mottles, medium stiff, wet	
		13:15						
20			12		2-3-3			
25			13		3-2-3		Increase in sand at 25 feet.	
							Boring completed at 26.5 feet.	
30								
35								

SPT. blow/ft ■ Moisture % ○ (0, 20, 40, 60)

Remarks:

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech Invest)\Logs\Boring Logs\1906-24001-02 Boring Logs (V04).log Date: 6/20/2025

Plate 4

EVREN Northwest, Inc.

Boring Log No. HA-1
All-Ways Excavation

Location: 21595 Butteville Road, Aurora, OR			**WO#: 1906-24001-02**
Method: Hand Auger			**Ground EL:**
Hammer:		**Hammer weight (lb):**	**Hole depth (ft): 25**
Sampler:	**Drop (in):**	**G.W.T. @ Drilling (ft):**	**Sampled by: EMU and DMS**
Driller:		**Drill Date: 3/19/2025**	**Logged by: EMU and DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	SPT. blow/ft ○ Moisture % (0 20 40 60)	Notes
0							6 inches of Sandy Silt TOPSOIL (TP) 10YR(3/2), soft to medium stiff, moist, some roots and plant debris, few gravel (TOPSOIL).		0
						CL	Sandy CLAY Fill (CL), 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) strong brown, 7.5Y(5/3) light olive brown, medium stiff, moist, medium plasticity, some fine sand, mixed inclusions of light and dark sandy clay, trace mica (COMPACTED BERM FILL		
2			1						2
			2						
4			3						4
			4						
6									6
			5						
8			6						8
							Boring completed at depth of 9 feet.		
10									10
12									12
14									14

GWT not encountered

Remarks:

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech Invest)\Logs\Hand Auger Logs\1906-24001-02.ButteVille.HALogs.log Date: 6/16/2025

Plate 1

EVREN Northwest, Inc.

Boring Log No. HA-2
All-Ways Excavation

Location: 21595 Butteville Road, Aurora, OR			**WO#: 1906-24001-02**
Method: Hand Auger			**Ground EL:**
Hammer:		**Hammer weight (lb):**	**Hole depth (ft): 7**
Sampler:	**Drop (in):**	**G.W.T. @ Drilling (ft):**	**Sampled by: EMU and DMS**
Driller:		**Drill Date: 3/19/2025**	**Logged by: EMU and DMS**

Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	SPT. blow/ft ○ Moisture % (0 20 40 60)	Notes
0							6 inches of Sandy Silt TOPSOIL (TP) 10YR(3/2), soft to medium stiff, moist, some roots and plant debris, few gravel (TOPSOIL).		0
						CL	Sandy CLAY Fill (CL), 7.5YR(3/2) Dark brown, 7.5YR(N4) dark gray, 7.5YR (5/6) strong brown, 7.5Y(5/3) light olive brown, medium stiff, moist, medium plasticity, some fine sand, mixed inclusions of light and dark sandy clay, trace mica (COMPACTED BERM FILL		
2		GWT not encountered	1						2
4			2						4
6			3				Boring completed at depth of 7 feet.		6
8									8
10									10
12									12
14									14

Remarks:

Plate 2

File: T:\ENW\Projects\1906 (All-Ways Excavating)\24001 (21595 Butteville Road-Aurora)\02 (Geotech invest)\Logs\Hand Auger Logs\1906-24001-02.ButteVille.HALogs.log Date: 6/16/2025

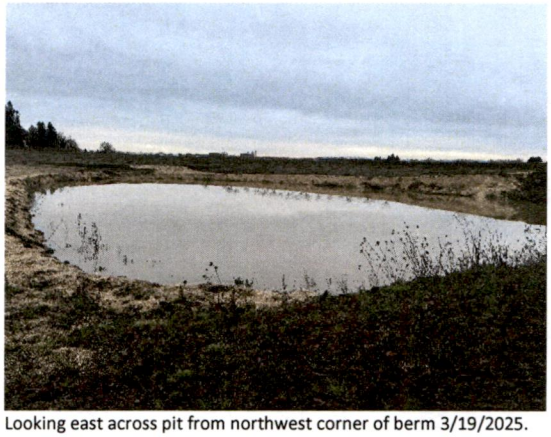
Appendix B

Photo Logs

Looking west at berm 3/19/2025.

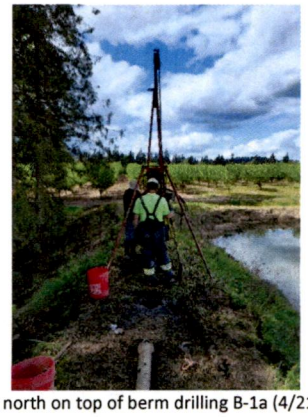
Looking east at middle of berm 3/19/2025.

Looking south from northwest corner of berm 3/19/2025.



Looking east across pit from northwest corner of berm 3/19/2025.

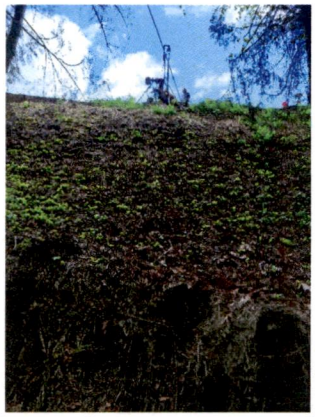
EVREN NORTHWEST, INC. environmental natural resource consultants	All-Ways Excavating 21595 Butteville Road NE Aurora, Oregon	**Photo Log**	Project No. 1906-24001-02 Appendix **B**



Looking north on top of berm drilling B-1a (4/21/2025).

Looking from northside of downstream side of berm (3/19/2025).

Looking south along top of berm (3/19/2025).



Looking from toe of berm up to Boring B-1A. (4/21/2025)

EVREN NORTHWEST, INC. environmental natural resource consultants	All-Ways Excavating 21595 Butteville Road NE Aurora, Oregon	**Photo Log**	Project No. 1906-24001-02 Appendix **B**

Looking at toe of berm from the ravine up the berm (5/6/2025).

Split Spoon Sample, B-1-5, Depth = 6 feet NEW BERM FILL (4/21/2025)

Split Spoon Sample, B-1-16, Depth = 22 feet, OLD FIELD FILL (4/21/2025)

Split Spoon Sample, B-1-19, Depth = 26.5 feet, OLD FIELD FILL

EVREN NORTHWEST INC environmental natural resource consultants	All-Ways Excavating 21595 Butteville Road NE Aurora, Oregon	**Photo Log**	Project No. 1906-24001-02 Appendix **B**

Split Spoon Sample, B-1-22, Depth = 31 feet, Missoula Flood Deposit (4/21/2025)

EVREN NORTHWEST INC. environmental natural resource consultants	All-Ways Excavating 21595 Butteville Road NE Aurora, Oregon	**Photo Log**	Project No. 1906-24001-02 Appendix **B**

Appendix C

Laboratory Testing

503.443.3799

Atterberg Limits 1 Pt.

ASTM: D-4318 AASHTO: T-89, T-90

5/17/2025

Client Evren Northwest
Address Evren Northwest
PO Box 14488
Portland Oregon, 97293

Client Reference No 19062400102
Project No 25-5265
Project Berm and Pit 25-5265
Project Location 21595 Butteville Road, Aurora, Oregon 97002
Sample Location
Material Source B-1-8 @ 10.5' - 12'
Material Description Gray/Brown CL
Comment of Deviations

Date Tested 5/14/2025
Sample Rec. Date 4/29/2025
Date Sampled 4/29/2025
Sampled By Client
Sample Id 79H

LL = 37 **PL =** 16 **PI =** 21

Comments

Tested By Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

Lab Equipment Scale2 - Oven1 - Atterberg Cup1 - Atterberg Plate1

Test results relate only to the sample tested. This test report shall not reproduced, except in full, without the prior written approval of ACS Testing, Inc.

Lab Address
System Link http://acstesting.vahalo.com/assignments/ACBE469D-B38D-4B30-6B56-9F759525685D
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 LLPlasticLimit1pt DH250516-1

503.443.3799

IAS ACCREDITED Testing Laboratory

Moisture Content and Minus #200

ASTM: D2216, D1140 AASHTO: T-255, T-265, T11

Client Evren Northwest
Address Evren Northwest
PO Box 14488

Portland Oregon, 97293

Sample No 79H
Pit/Plant B-1-8 @ 10.5' - 12'
Material Description Gray/Brown CL
Project Berm and Pit 25-5265
Pay Item
Location

Report Date 5/17/2025
Date Tested 5/15/2025
Project No 25-5265
Client Reference No 19062400102
Date Sampled 4/29/2025
Sampled By
Supplier B-1-8 @ 10.5' - 12'

Moisture Content (%)	20.6%
Minus #200 (%)	91.6%

Comments

Inspector Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

System Link http://acstesting.vahalo.com/assignments/DBA1FAFA-01C6-48AF-ED91-35C7D28422E3
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 MoistAndFines DH250516-7

503.443.3799 IAS ACCREDITED

Atterberg Limits 1 Pt.

ASTM: D-4318 AASHTO: T-89, T-90

6/23/2025

Client Evren Northwest
Address Evren Northwest
PO Box 14488
Portland Oregon, 97293

Client Reference No 19062400102
Project No 25-5265
Project Berm and Pit 25-5265
Project Location 21595 Butteville Road, Aurora, Oregon 97002
Sample Location
Material Source B-1-16 @ 22' - 23.5'
Material Description Brown ML
Comment of Deviations

Date Tested 5/14/2025
Sample Rec. Date 4/29/2025
Date Sampled 4/29/2025
Sampled By Client
Sample Id 79J

LL = 32 **PL =** 22 **PI =** 10

Comments

Tested By Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

Lab Equipment Scale2 - Oven1 - Atterberg Cup1 - Atterberg Plate1

Test results relate only to the sample tested. This test report shall not reproduced, except in full, without the prior written approval of ACS Testing, Inc.

Lab Address
System Link http://acstesting.vahalo.com/assignments/F0E45B42-70C3-413F-FBFA-FDD8F790FB50
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 LLPlasticLimit1pt DH250516-2

503.443.3799

IAS ACCREDITED Testing Laboratory

Moisture Content and Minus #200

ASTM: D2216, D1140 AASHTO: T-255, T-265, T11

Client Evren Northwest
Address Evren Northwest
PO Box 14488

Portland Oregon, 97293

Sample No 79J
Pit/Plant B-1-16 @ 22' - 23.5'
Material Description Brown CL - ML
Project Berm and Pit 25-5265
Pay Item
Location

Report Date 5/17/2025
Date Tested 5/15/2025
Project No 25-5265
Client Reference No 19062400102
Date Sampled 4/29/2025
Sampled By
Supplier B-1-16 @ 22' - 23.5'

Moisture Content (%)	24.3%
Minus #200 (%)	91.6%

Comments

Inspector Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

System Link http://acstesting.vahalo.com/assignments/1ECF887D-B048-4231-05DC-83C15CFEB61E
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 MoistAndFines DH250516-6

503.443.3799 IAS ACCREDITED

6/23/2025

Atterberg Limits 1 Pt.

ASTM: D-4318 AASHTO: T-89, T-90

Client Evren Northwest
Address Evren Northwest
PO Box 14488
Portland Oregon, 97293

Client Reference No 19062400102
Project No 25-5265
Project Berm and Pit 25-5265
Project Location 21595 Butteville Road, Aurora, Oregon 97002
Sample Location
Material Source B-1-24 @ 40' - 41.5'
Material Description Brown ML
Comment of Deviations

Date Tested 5/14/2025
Sample Rec. Date 4/29/2025
Date Sampled 4/29/2025
Sampled By Client
Sample Id 79K

LL = 30 **PL =** 25 **PI =** 5

Comments

Tested By Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

Lab Equipment Scale2 - Oven1 - Atterberg Cup1 - Atterberg Plate1

Test results relate only to the sample tested. This test report shall not reproduced, except in full, without the prior written approval of ACS Testing, Inc.

Lab Address
System Link http://acstesting.vahalo.com/assignments/BA414ED8-69EA-46D2-8114-565033CDD6AD
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 LLPlasticLimit1pt DH250516-3

503.443.3799

IAS ACCREDITED Testing Laboratory

Moisture Content and Minus #200

ASTM: D2216, D1140 AASHTO: T-255, T-265, T11

Client Evren Northwest
Address Evren Northwest
PO Box 14488

Portland Oregon, 97293

Sample No 79K
Pit/Plant B-1-24 @ 40' - 41.5'
Material Description Brown CL - ML
Project Berm and Pit 25-5265
Pay Item
Location

Report Date 5/17/2025
Date Tested 5/15/2025
Project No 25-5265
Client Reference No 19062400102
Date Sampled 4/29/2025
Sampled By
Supplier B-1-24 @ 40' - 41.5'

Moisture Content (%)	34.3%
Minus #200 (%)	97.5%

Comments

Inspector Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

System Link http://acstesting.vahalo.com/assignments/AE917EA0-7A44-4555-694B-BE581CC43AC0
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 MoistAndFines DH250516-5

503.443.3799

IAS ACCREDITED Testing Laboratory

5/17/2025

Atterberg Limits 1 Pt.

ASTM: D-4318 AASHTO: T-89, T-90

Client Evren Northwest
Address Evren Northwest
PO Box 14488
Portland Oregon, 97293

Client Reference No 19062400102
Project No 25-5265
Project Berm and Pit 25-5265
Project Location 21595 Butteville Road, Aurora, Oregon 97002
Sample Location
Material Source B-2-6 @ 7.5'-9'
Material Description Brown ML
Comment of Deviations

Date Tested 5/14/2025
Sample Rec. Date 4/29/2025
Date Sampled 4/29/2025
Sampled By Client
Sample Id 79L

LL = 34 **PL =** 23 **PI =** 11

Comments

Tested By Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

Lab Equipment Scale2 - Oven1 - Atterberg Cup1 - Atterberg Plate1

Test results relate only to the sample tested. This test report shall not reproduced, except in full, without the prior written approval of ACS Testing, Inc.

Lab Address
System Link http://acstesting.vahalo.com/assignments/D3955F7F-8F47-44EA-F1D1-25841CA6C907
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 LLPlasticLimit1pt DH250516-4

503.443.3799

IAS ACCREDITED Testing Laboratory

Moisture Content and Minus #200

ASTM: D2216, D1140 AASHTO: T-255, T-265, T11

Client Evren Northwest
Address Evren Northwest
PO Box 14488

Portland Oregon, 97293

Sample No 79L
Pit/Plant B-2-6 @ 7.5'-9'
Material Description Brown ML
Project Berm and Pit 25-5265
Pay Item
Location

Report Date 5/17/2025
Date Tested 5/15/2025
Project No 25-5265
Client Reference No 19062400102
Date Sampled 4/29/2025
Sampled By
Supplier B-2-6 @ 7.5'-9'

Moisture Content (%)	25.0%
Minus #200 (%)	91.6%

Comments

Inspector Dan Hamilton
Digital Signature By User Login

Manager Dan Hamilton
Digital Signature By User Login

System Link http://acstesting.vahalo.com/assignments/2BBBB21D-1298-4891-50D4-0243DB7684CE
System Path Berm and Pit 25-5265 / SOILS / AGGREGATE LAB / 25-5265 MoistAndFines DH250516-4