Ecological Land Services

December 29, 2022

La Center Community Development
210 East 4th Street
La Center, WA 98629

Re: Lockwood Meadows Buffer Grading Memorandum (NWS-2020-1015) | La Center, Washington

To Whom It May Concern,

Ecological Land Services, Inc. (ELS) has prepared this memorandum regarding the Lockwood Meadows Subdivision project located on NE Lockwood Creek Road. The subject site consists of Clark County Tax Parcel 209113000 in La Center, Washington. The site is located within Section 2, Township 4 North, Range 1 East of the Willamette Meridian (Figure 1). Due to the existing grade and the groundwork required for utility and lot construction, approximately 978 square feet of the outer portion of an onsite wetland's buffer (Wetland B) will be temporarily impacted from grading activities. This memorandum describes the nature of the grading activity and the proposed temporary disturbance.

Temporary Grading Impact

Wetland B's outer buffer will be temporarily impacted from the grading required to achieve finished grades of less than 50% between the back of the sidewalk along the south side of E 4th Street and the north boundary of the wetland's buffer. Approximately 978 square feet of Wetland B's buffer will be graded during construction (Figure 2).

Wetland buffers can reduce adverse impacts to wetland functions and values from adjacent development by moderating the effects of stormwater runoff including stabilizing soil to prevent erosion, filtering runoff, and moderating water level fluctuations. Buffers also provide habitat opportunity for forage, refuge, mobility, and thermal protection. Buffers can also help to screen wetlands from adjacent developments by blocking noise, providing visual separation, and providing protection from other human or pet disturbances (Castelle et al 1992). However, the portion of Wetland B's buffer proposed for grading does not provide these functions and values for the wetland, as it primarily consists of herbaceous vegetation that has been historically mowed or grazed. The proposed grading area also contains non-native, invasive Himalayan blackberry (*Rubus armeniacus*) and thistle species (*Cirsium* sp.), which can be seen in the attached figure.

It is ELS's opinion that the proposed grading within Wetland B's buffer will not permanently impact the wetland for the following reasons:

- Native trees or shrubs will not be removed. The grading will only occur in areas with grasses and weedy forbs, including invasive Himalayan blackberry and thistle.

- The disturbed portion of the wetland buffer will be reseeded with a native seed mix immediately after grading is complete. The graded area will also be planted with Oregon white oaks (*Quercus garryana*) and native shrubs as a part of the Oak Mitigation Plan (ELS 2022). This will result in an improved composition of native species compared to what is currently present.

- The grading activity will not result in a permanent structure in or under the wetland buffer. Rather, the area will consist of pervious organic topsoil. Graded areas will be immediately reseeded in order to quickly revegetate and deter runoff or sedimentation. Additional topsoil placed in the buffer is anticipated to increase infiltration on the soil surface and water holding capacity below the soil surface.

- Placement of soil will not result in a reduction of buffer acreage or function. The existing vegetation consists of grasses, weedy forbs, and invasive blackberry, which currently provide a low level of buffer habitat functions. This vegetation will be temporarily impacted with the placement of soil but will be immediately revegetated through the seeding of all exposed soil areas with a native seed mix. This seed mix will include a mix of species and provide a more diverse mix of native herbaceous vegetation than is currently found onsite. The proposed planting plan in this area will greatly improve habitat functions and will serve to better screen the wetland from the development (see Oak Mitigation Plan).

- Soil placement will not result in negative hydrologic changes in the buffer area or adjacent wetland, as the areas will remain permeable, will not consist of any permanent structures, and will be gently sloped from the finished grade of the sidewalk and street to the wetland buffer. Placement of soil can also improve hydrological flow through the buffer by the addition of organic topsoil, increasing infiltration at the soil surface and increasing water holding capacity within the soils below the soil surface.

- Grading through the placement of soil in the buffer will not result in a reduction of wetland acreage or function. Grading will take place in the wetland buffer only and outside of the wetland boundary. Wetland boundary/limits of grading will be marked in the field with silt fencing prior to any grading work to prevent sedimentation into the wetland. Grading will slope gradually down to existing grade in the wetland buffer. Wetland functions will not be altered as the activity will take place entirely outside of the boundaries of the wetland, and buffer vegetation will be restored to better than pre-project conditions.

Conclusion

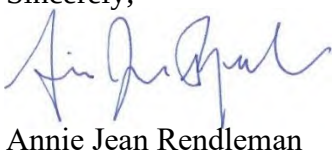
The proposed grading will temporarily impact the wetland buffer, which will be mitigated by immediately reseeding the disturbed area with a native seed mix. The addition of soil will improve the infiltration capacity upslope of the wetland. No trees or other woody native vegetation is anticipated to be removed or damaged.

References

Castelle, A.J., C. Conolkly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Mauermann, T. Erickson, and S.S. Cooke. 1992. *Wetland Buffers: Use and Effectiveness*. Publ. 92-10. Adolfson Assoc., for Shorelands and Coastal Zone Manage. Program, Washington Department of Ecology, Olympia, WA.

Ecological Land Services, Inc. (ELS). 2022. *Oak Mitigation Plan for Lockwood Meadows Subdivision*. La Center, Washington. December 29, 2022.

Sincerely,



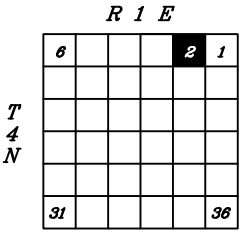
Annie Jean Rendleman
Environmental Biologist

Attachments:

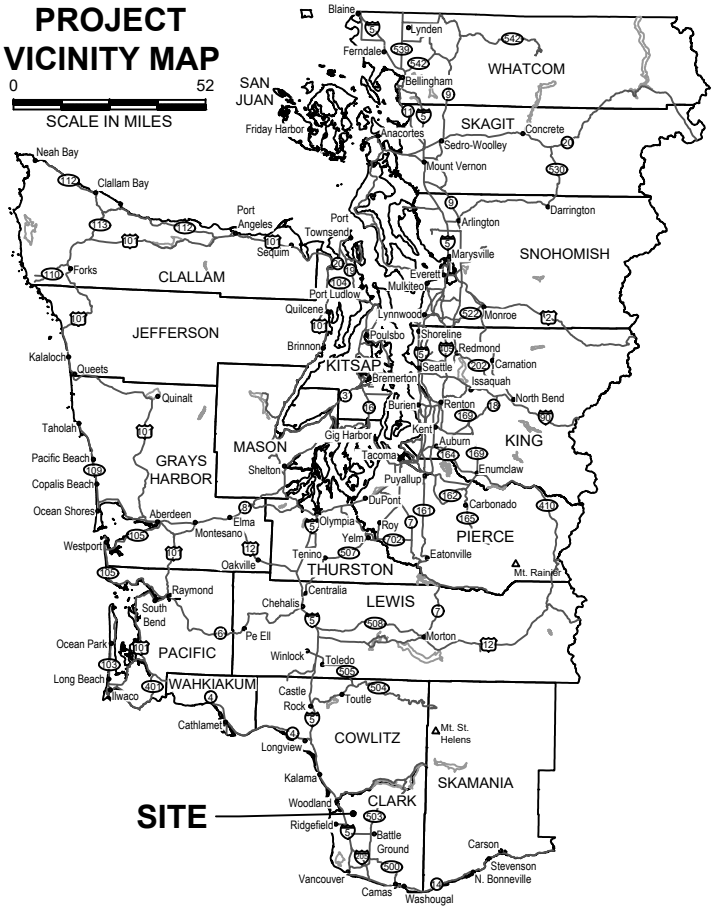
Figure 1 Vicinity Map
Figure 2 Wetland B Detail
Photo of Grading Area Buffer Vegetation (September 2020)

Latitude: 45.8620°
Longitude: -122.6487°

LOCATION MAP



PROJECT VICINITY MAP



NOTE:
Quadrangle topographic map from USGS.

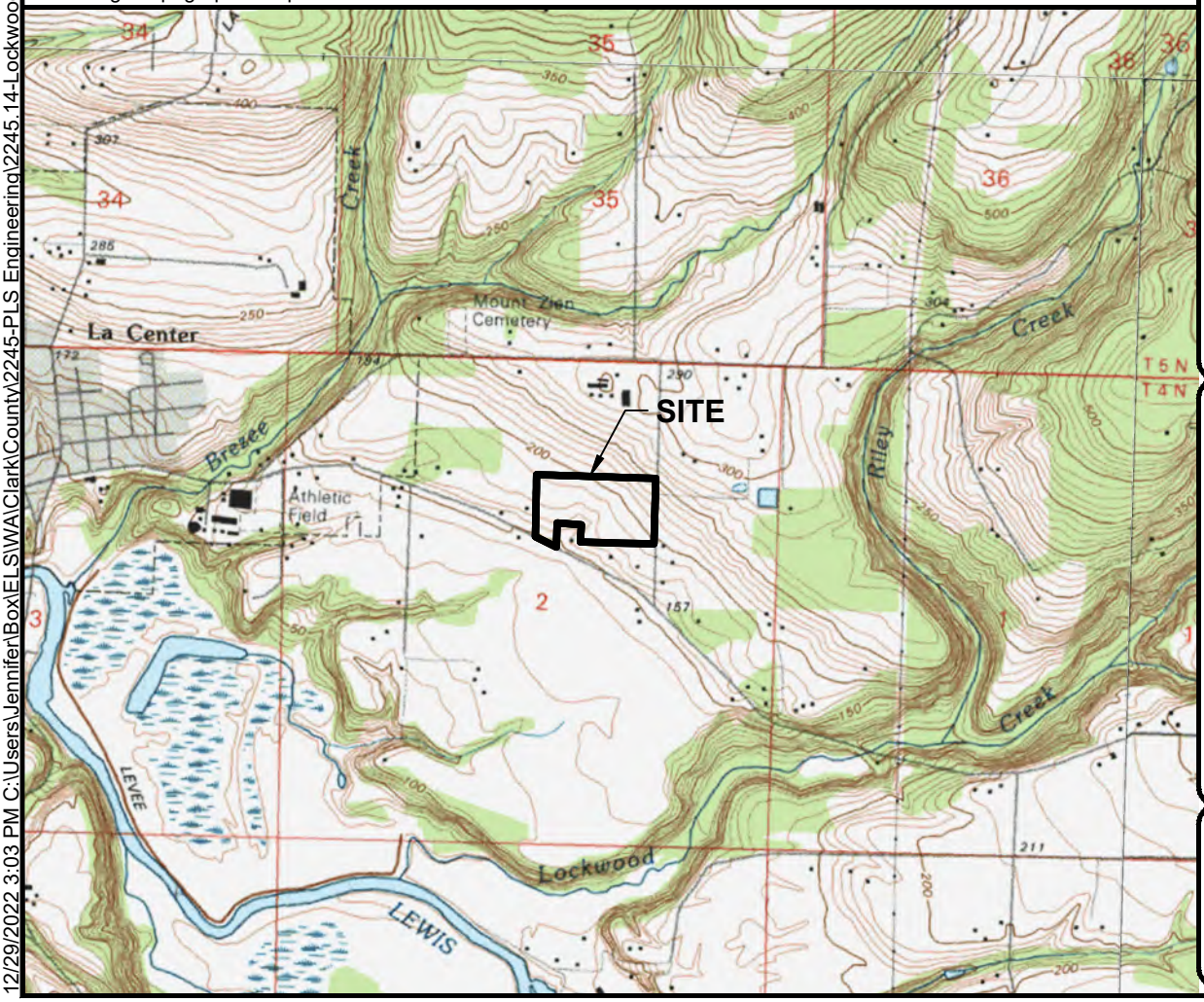


Figure 1
VICINITY MAP
Lockwood Meadows Buffer Grading Memo
Cedar Ridge Homes
Clark County, Washington
Section 2, Township 4N, Range 1E, W.M.

DATE: 12/29/22
DWN: EF
REQ. BY: AJR
PRJ. MGR: AJR
CHK: AJR
PROJECT NO: 2245.14

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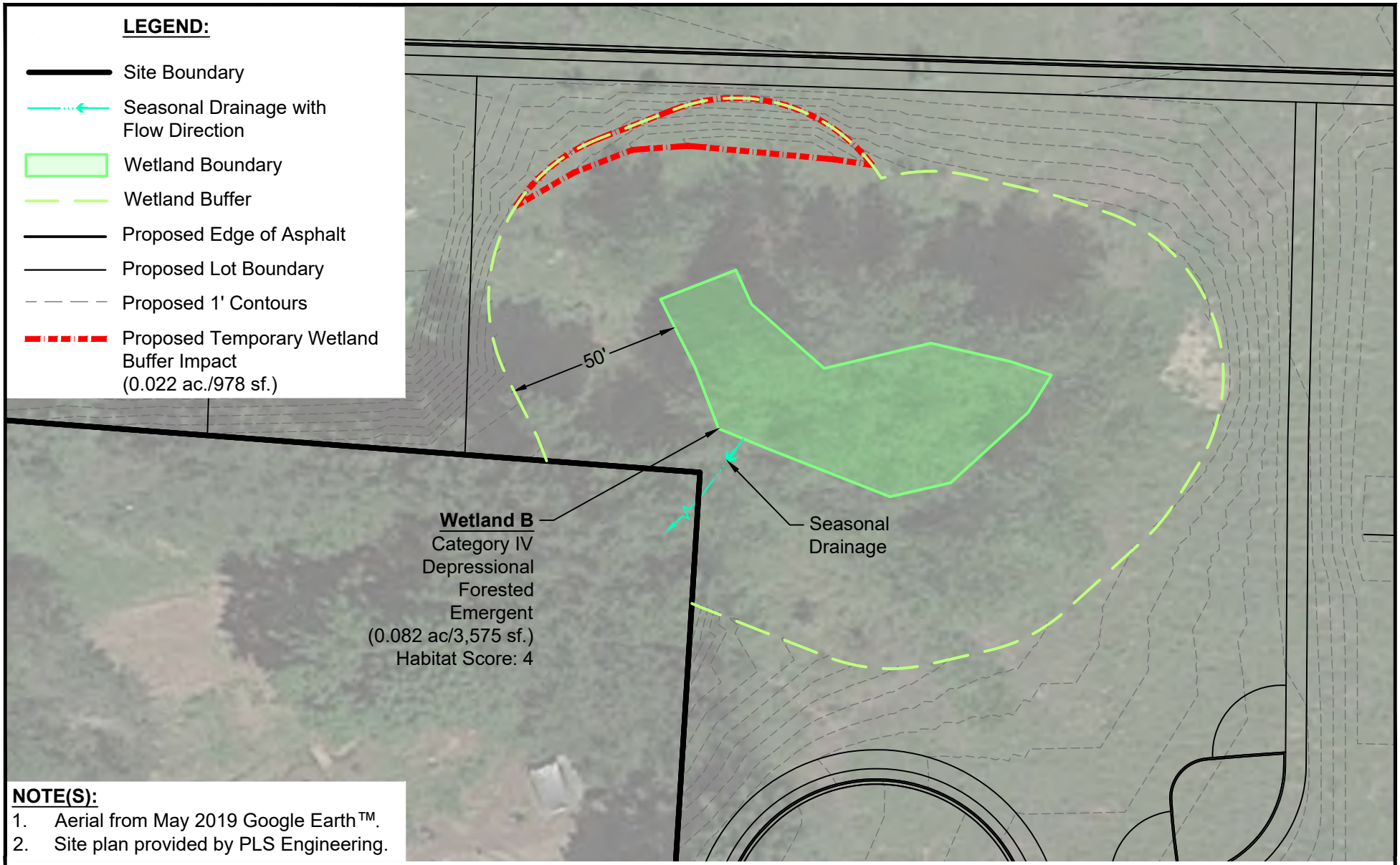

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Figure 2
WETLAND B DETAIL
Lockwood Meadows Buffer Grading Memo
Cedar Ridge Homes
Clark County, Washington
Section 2, Township 4N, Range 1E, W.M.

View facing south of northern portion of Wetland B's buffer. Vegetation is herbaceous with weeds and invasive Himalayan blackberry.

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Site Photo
Lockwood Meadows Subdivision
Buffer Grading Memo
La Center, Washington