



memorandum

date December 17, 2019

to Evan Maxim, Community Planning & Development Director

from Scott Olmsted, ESA

subject Review of 5637 East Mercer Way – Reasonable Use Exception Application (CAO 15-001 and SEPA15-001)

Environmental Science Associates (ESA) has prepared this memorandum on behalf of the City of Mercer Island (City). The purpose of this memo is to review applicant-submitted materials and responses to confirm whether the proposed project complies with Mercer Island City Code (MICC) Chapter 19.07 – *Environment*. This project is not vested under the November 2017 version of MICC 19.07; the project must now comply with the newly adopted 2019 critical areas regulations. The project is a single-family residence proposed for an undeveloped lot located at 5637 Mercer Way (Parcel 1924050312).

ESA previously reviewed multiple project submittals including several Revised Critical Areas Reports (CARs) for the property, a Reasonable Use Exception (RUE) application, State Environmental Policy Act (SEPA) Checklist, and geotechnical engineering study; however, ESA's previous reviews focused on the CARs and RUE.

The applicant has since provided a variety of response materials as part of the Reasonable Use Exception Application package dated January 24, 2019, including updated plans and two letters from Sewall Wetland Consulting, Inc. (Sewall) responding to a letter sent by the City to the applicant on November 16, 2018. Sewall's response materials are the focus of this memo; however, ESA also provides comment on a geotechnical letter submitted by the applicant.

Documents reviewed by ESA for the current submittal include the following:

- 5637 East Mercer Way – Parcel #1924059312 City of Mercer Island, Washington (Sewall, December 1, 2017);
- MI Treehouse, LLC Site Plan – 5637 East Mercer Way, Mercer Island, WA (The Healey Alliance AZ, October 23, 2019);
- 5637 East Mercer Way – Parcel #1924059312 City of Mercer Island, Washington; SWC Job #14-206 (Sewall, October 30, 2019); and
- Response to Shannon & Wilson Third Party Review RE: Proposed Residence – 5637 East Mercer Way, Mercer Island, WA (GEO Group Northwest, Inc., October 23, 2019).



Plan Summary

The details of the proposed single-family residential project have not changed from the last submittal. New materials provide clarification to previous ESA inquiries or offer additional rationale for design decisions with the intent of completing the Reasonable Use Exception review phase.

Review and Recommendations

Sewall's response letter dated October 30, 2019 addresses comments provided by ESA on December 6, 2018 and June 10, 2019.

ESA comments in the December 2018 and June 2019 letters are focused on impacts to site hydrology resulting from project construction. Sewall maintains that the structure's foundation and associated drainage system, including a stormwater tank proposed under the driveway, will not drain up-gradient soils and that water will continue to flow to the same downstream discharge point. The rationale for the maintenance of hydrologic conditions is that soil type is not overly permeable and surface and groundwater flows, in the vicinity of the proposed stormwater tank, will not interact with the tank, but will continue down-gradient.

Based upon the conceptual plans available to date, it appears that the extent and degree of impact to wetland hydrology is unknown at this time. ESA recommends the applicant provide additional details on the stormwater drainage system as design progresses and the City should consult a professional hydrologist or geotechnical engineer to determine likely impacts to wetland and stream hydrology. Alternatively, the applicant could propose a conservative offset to estimate wetland impacts extending up-gradient from the drainage system and provide supporting rationale for the distance of the offset. The offset would account for wetland impacts associated with the drainage system acting as a hydrology sink, drawing groundwater and surface waters away from wetlands adjacent to the structure. As stated in ESA June 2019 letter, for the purposes of the RUE and SEPA determination, critical area impacts should be generally documented and mitigation associated with conveyance and detention can be refined at a later time.

Related to site hydrology and the stormwater system, the geotechnical memo prepared by GEO Group Northwest (October 2019), Inc. assessed slope stability and geologic hazards and noted that installation of the "...building pad will help drain excess water with the filter fabric protected crushed rock pad..." This design feature should be further assessed to determine the potential hydrology impacts to the wetland resulting from drained surface and groundwater.

The June 2019 ESA letter asked the applicant to confirm that buffer mitigation will be carried out at a 1:1 mitigation ratio. Sewall responded that the October 30, 2019 revised mitigation plan provides for 1:1 enhancement; however, impact numbers are not consistent between Sewall's October 2019 figures and those provided by The Healey Alliance AZ, dated October 23, 2019. Impact areas for both design sheets should be validated and be consistent.

ESA's June 2019 letter also requested that the applicant investigate on-island mitigation opportunities consistent with code section MICC 19.07.080D. Mr. Sewall's letter from December 1, 2017 discusses the lack of on-site mitigation opportunities due to existing wetland area (i.e., wetland creation is not viable because much of the site is already occupied by wetland). His letter states that the applicant does not own any property within the subbasin, there are no properties with appropriate site conditions that are available for purchase, and the City did not have any mitigation sites that would benefit from financial resources provided by the applicant. We believe



the applicant has done their due diligence to search for mitigation opportunities on-island, and can proceed to off-island mitigation in an approved in-lieu fee program.

Recommendation

Preliminary impacts have been generally documented and calculated for the project, but should be refined as design progresses and additional project details become available. The following recommendations should be considered by the applicant and reviewed by the City:

- Condition approvals to require additional evaluation of impacts and mitigation for critical areas associated with the drainage, conveyance, and detention system.
- Ensure the project complies with the newly adopted environmental code regulations, including updated mitigation ratios and standard buffer widths.
- Refine project impacts as design progresses and construction details are available.
- Submit consist design and mitigation plans.

Based on revised impact calculations, it is reasonable to determine that project impacts associated with this RUE development are less than significant, considering mitigation measures including off-site mitigation in an approved in-lieu fee program.

If you have any questions, please call me at (206) 789-9658 or via email at solmsted@esassoc.com.