



memorandum

date June 10, 2019

to Evan Maxim, Interim Development Service Director

from Scott Olmsted, ESA

subject Review of 5637 Mercer Way – January 24, 2019 MI Treehouse Reasonable Use Exception Application (CAO 15-001 and SEPA15-001) Responses

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 ESA’s previous review memo and to confirm whether the proposed project complies with Mercer Island City Code (MICC) Chapter 19.07 – *Environment*. The site is located at 5637 Mercer Way (Parcel 1924050312).

ESA previously reviewed submittals of the Revised Critical Areas Report (CAR) for the property dated March 5, 2015, December 11, 2015, and March 8, 2018. These versions of the report were prepared by Sewall Wetland Consulting, Inc. (Sewall) on behalf of the applicant. In addition, ESA conducted a site visit on June 8, 2015 with senior wetland ecologist, Ed Sewall. Besides the CAR, a Reasonable Use Exception (RUE) application, State Environmental Policy Act (SEPA) Checklist, and geotechnical engineering study were also submitted to the City; however, ESA’s previous reviews focused on the CAR. ESA also responded to public comments in a memo dated December 6, 2018 that dealt with wetland hydrology, groundwater conveyance, and stormwater detention.

The applicant has since provided a variety of response materials in a Reasonable Use Exception Application package dated January 24, 2019, including updated plans and a letter from Sewall responding to ESA’s most recent CAR review memo, dated October 27, 2018. Sewall response materials are the focus of this memo; however, several other submittal documents were considered during our review.

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

- *Exhibit B: Response to: Item 1,b, i* – MI Treehouse Reasonable Use Exception Application CAO 15-001 and SEPA15-001 (McCullough Hill Leary, PS, undated);
- *Exhibit C: Response to: Item 1,b, ii* – MI Treehouse Reasonable Use Exception Application CAO 15-001 and SEPA15-001 (Sewall Wetland Consulting, January 24, 2019);
- *Exhibit F: Response to: Item 2,c* – MI Treehouse Reasonable Use Exception Application CAO 15-001 and SEPA15-001 (William Summers, January 24, 2019);
- *Exhibit G: Response to: Item 2,d* – MI Treehouse Reasonable Use Exception Application CAO 15-001 and SEPA15-001 (William Summers, January 24, 2019; Sewall Wetland Consulting, December 1, 2017);



- *Planting Plan, Notes, Details, & Monitoring Plan – MI Treehouse, LLC, 5637 East Mercer Way, Mercer Island, Washington – Critical Areas Enhancement Plan* (Sewall Wetland Consulting, January 24, 2019);
- *Wetland and Wetland Buffer Impact Site Plan Site Plan – MI Treehouse, LLC, 5637 East Mercer Way, Mercer Island, Washington – Critical Areas Enhancement Plan* (Sewall Wetland Consulting, December 17, 2018); and
- *MI Treehouse CAO15-001 and SEP15-001 Reasonable Use Exception ESA memorandum (12-06-2018)* (CORE Design, February 21, 2019).

Plan Summary

The footprint of the proposed single-family residential project has not changed since materials were last submitted (these materials included a 15-foot shift of the building footprint out of the wetland) by the applicant; however, Sewall has agreed to ESA recommendations listed in our October 17, 2018 review memo. Overall, recommended changes resulted in: 1) the recalculation of impacts or a change in impact classification (i.e., temporary to permanent impacts), 2) a refined mitigation plan, and 3) acknowledgement that additional project details will be provided as design progresses past the Reasonable Use Exception and SEPA phase.

Review and Recommendations

Mr. Sewall's response letter dated January 24, 2019 addresses recommendations made in ESA's October 17, 2018 review memo. Mr. Sewall did not provide an updated CAR, but he did provide an updated impacts figure and planting plan figure. Below is a list of ESA's October 17, 2018 recommendations with brief notes on Sewall's responses. For the most part, responses bring the project into consistency with MICC Chapter 19.07 – *Environment*.

1. The March 8th CAR should indicate why the northeast corner of the building footprint is considered temporary and not permanent wetland impact.
 - *Impacts were re-calculated as permanent.*
2. Provide rationale to support the determination that decks will result in temporary, rather than permanent, wetland impacts.
 - *Impacts were re-calculated as permanent.*
3. The entire square footage of the northern deck should be considered as impact.
 - *Impacts were re-calculated as permanent.*
4. For comparison reasons, the applicant should ensure that 2015 impact calculations were based on the entire square footage of the northern deck.
 - *Between the 2015 and 2018 design submittals, total wetland impacts decreased from 5,026 SF to 3,811 SF.*
5. The applicant should provide detailed discussion and associated impact calculations, if applicable, of the proposed excavation and grading activities. Grading should be designated as permanent wetland impact and mitigated appropriately.
 - *Impacts were re-calculated as permanent.*

6. Provide detailed information about the fence or wall that surrounds the development.
 - *Mr. Sewall indicated there is no wall or fence, other than silt fencing, which will be temporarily installed during construction.*
7. If the area encompassed by the perimeter fence or wall will be permanently disturbed, then appropriate mitigation should be implemented based on the impact area.
 - *Impacts re-calculated and the perimeter fence or wall is now considered permanent impacts.*
8. A house maintenance area should be calculated and mitigated.
 - *The applicant used a 5-foot setback to calculate impacts associated with house maintenance.*
9. An additional offset or paper buffer of 5 feet from the maintenance area is appropriate; impacts should be calculated and mitigation implemented.
 - *Impacts for the buffer of the maintenance area were considered permanent impact areas.*
10. Recalculate buffer impacts applying the 50-foot wetland buffer.
 - *Impact calculations were revised with consideration for the wetland buffer.*
11. Include the northern retaining wall in the impact area calculation.
 - *Impacts calculated as permanent.*
12. Consider installing conveyance from the proposed grading area located at the southwestern portion of the development to route water around the house and discharge and spread flow north and northwest of the house to provide continued hydrology to the down-gradient wetland and stream. Provide discussion as to how the proposed stormwater facility affects the delivery of groundwater and surface waters to the down-gradient wetland and stream.
 - *Mr. Sewall proposes footing drains conveyed to a spreader located in the northwest portion of the wetland to maintain hydrologic patterns and hydrology to the wetland and stream located north of the proposed building; design plans for this project element were not submitted.*
13. Apply Core Design BMPs to the proposed project.
 - *BMPs will be implemented.*
14. Mitigation discussion within the CAR should clarify the type of onsite mitigation.
 - *Mr. Sewall proposed buffer enhancement through removal of invasive plant species and planting native vegetation. In addition, areas that are graded during construction and remain undeveloped, as well as areas located underneath the elevated deck, will be replanted with native species. The applicant also proposes purchase of wetland credits from King County's Mitigation Reserves Program; onsite buffer enhancement is consistent with MICC Chapter 19.07; however, out-of-subbasin mitigation is not allowed under code as noted in previous review memos.*
15. Mitigate onsite to compensate for permanent buffer impacts.
 - *Sewall provided an updated planting plan, dated January 24, 2019, that depicts planting locations, schedule, and quantities.*

Below are a few additional discussions related to project elements and critical areas review for the purposes of RUE and SEPA determination.

Groundwater and Stormwater

Groundwater conveyance and stormwater detention and conveyance have briefly been discussed in previously submitted materials and are again covered in Core Design's February 21, 2019 response memo. Limited design information has been available to determine potential impacts to wetland and stream hydrology and Core Design's memo indicates more detailed design will become available in later phases of the project (e.g., final design) and that any impact to hydrology would be mitigated. For the purposes of the RUE and SEPA determination, *critical area impacts and mitigation associated with conveyance and detention project elements can be determined at a later design stage.*

Mitigation Extent

Permanent wetland impacts have decreased since the original 2015 design submittal. In addition, all temporary wetlands impacts are now categorized as permanent. Wetland impacts will be addressed when the applicant identifies an offsite mitigation opportunity, whether that is permittee-responsible or use of the King County Mitigation Reserves Program. Relocation of the building has increased the extent of wetland and stream buffer impacts, while reducing direct wetland impacts. The onsite buffer enhancement plan was expanded compared to previous submittals; however, it is unclear if the applicant has mitigated at a 1:1 mitigation ratio, as typically required by local regulations. *The applicant should confirm that their buffer mitigation plan achieves the 1:1 buffer mitigation standard.*

On-site vs Off-site Compensatory Mitigation

The applicant proposes the purchase of wetland credits from King County's Mitigation Reserve Program resulting in mitigation that would be installed off-island. The applicant has previously indicated that on-island mitigation options are not available within the subbasin; however, *the City recommends exploration of mitigation opportunities elsewhere on the island* as noted in the SEPA Determination of Significance, dated July 27, 2017. Potential mitigation opportunities within the City include in-kind mitigation such as restoration or enhancement of wetlands on public or private properties. Opportunities for out-of-kind mitigation such as culvert removal where blocking to fish passage or stream restoration, may also be considered. If the applicant is not able to fully provide mitigation on-island to comply with MICC 19.07.080D, the City may allow the remainder of the compensatory mitigation requirements to be satisfied through the King County mitigation reserve program.

Recommendation

Not all impacts and mitigation opportunities are currently known, but will be assessed as design progresses past the conceptual phase. The following recommendations should be considered by the applicant and reviewed by the City:

- Condition approvals to require evaluation and mitigation for critical areas impacts associated with the conveyance and detention system.
- Confirm buffer impacts are mitigated at a 1:1 mitigation ratio.
- Explore on-island mitigation opportunities prior to purchase of wetland mitigation credits.



Based on revised impact calculations and mitigation approach, it is reasonable to consider functional impacts associated with the development less than significant.

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