

September 24th, 2019

Evan Maxim
Director of Community Planning & Development
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040

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SEP 24 2019

City of Mercer Island
Community Planning & Development

Re: SEPA Comments for MI Treehouse (5637 East Mercer Way)

Dear Evan:

I have reviewed the SEPA checklist and have found there are a number of responses that are either not adequately addressed so as to accurately reflect the impacts of the proposed project or are not accurate. These enumerated below:

B. Environmental Elements - Earth, 1e: Approximate quantities of filling, grading, and excavation

The checklist response only lists areas but does not include any grading quantities (cubic yards of cut and fill) as would typically be required to adequately address this question. With the installation of retaining wall that will be at least 10' in height and a storm water detention vault, these cut and fill quantities are significant and should be enumerated in the response to the question. Please note the area of disturbance listed in the SEPA checklist is not current with those listed on the current plan.

B. Environmental Elements - Earth, 1f: Could erosion occur as a result of clearing, construction, or use

The response of "No, except to the limited extent associated with construction" is not adequate especially given the proximity of the project area with the two adjacent water courses and the surrounding wetland area. Significant erosion could occur during construction given the steep slopes and the perennial wet soil conditions.

B. Environmental Elements - Water, 3aiii: material removed from surface water or wetlands

The checklist response only lists areas but does not include any grading quantities (cubic yards of cut and fill) as would typically be required to adequately address this question. The response to the question indicates no dredging is anticipated. The response should address the significant soil quantities that will be excavated and removed from the designated wetland areas. As noted above, the installation of retaining wall that will be at least 10' in height will be located within the existing wetland.

B. Environmental Elements - Water, 3aiv: surface water withdrawals or diversions

The checklist response of "no" to the question of will the proposal require surface water withdrawals or diversions is in my opinion not accurate. The installation of the retaining wall and associated

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drainage along with the excavation of the wetland will divert surface water from the existing water courses.

The response from the wetland consultant relative to ESA's comments and my previous e-mail includes the statement that water will be conveyed from the retaining wall drain to a spreader northwest of the building site that would recharge the existing wetlands. However, the elevation of the retaining wall drain will be below the existing surface grades in the wetlands to the northwest. This will not allow for positive drainage from a gravity system. The existing wetland elevation at the northwest corner of the proposed residence is 182. To achieve positive drainage from the wall to the northwest, the spreader trench would need to be very close to the water course to discharge at an elevation around 178. This would create additional temporary and permanent impacts to the existing wetlands beyond what are currently accounted for in the area summaries identified in the current reports and site plans. I appreciate the fact that detailed design documents are typically not part of a SEPA process. But short written responses do not accurately quantify the wetland, watercourse, and associated storm water impacts. Preliminary or design development level drainage plans that account for the site topography, the water table elevation, and required discharge elevations must be provided to accurately identify the wetland and watercourse buffer impacts.

The SEPA response also does not reference what certainly will be a permanent impact to the existing up-gradient wetland areas. As previously noted in earlier correspondence a perforated drain placed well below the surface will almost certainly be a permanent impact on the existing wetland areas south, west, and potentially northwest of the proposed building location. A portion of this area is indicated on the 2018 site plan as temporary wetland disturbance due to grading activities. The wall construction with drainage collection well below the wetland surface will permanently impact the wetland area and could de-water a significant portion of the upland wetlands including those that extend beyond the parcel limits.

The level spreader devices proposed are most effective when used in areas that have fairly uniform downstream slopes. In this application, the spreader would be effectively on a high point between two existing water courses. It would be reasonable to expect that the flow immediately downstream of the spreader would quickly converge or concentrate in a relatively short distance into the watercourses significantly reducing its effectiveness for recharging the wetlands. As these flows would bypass the storm water detention facility, it is also reasonable to expect by intercepting both surface water and ground water with the retaining wall backfill and foundation drain and conveying it quickly to the watercourse that the peak storm water discharge rates from the site would be increased and water would be diverted from the water courses directly into the downstream storm drainage system on East Mercer Way.

The location of the stormwater detention storage tank could also impact the existing wetland area beyond what is shown in the revised 2018 plan. The tank identified in the preliminary calculations included a 17.45' by 17.45' footprint with a 5' depth. The tank would typically need at least 2' of cover from the lowest surface elevation to allow for installation of the driveway and to provide cover for the associated storm drainage conveyance piping that connects the development area to the detention storage. The tank installation would typically include granular bedding and backfill materials. As the excavation would boarder a wetland, the area would need to be de-watered to install the tank. The

granular bedding and backfill would typically include a perforated drain to provide the required dewatering and to eliminate potential buoyancy of the tank. This drain could be in the range of 8' below the driveway elevation further impacting the down-gradient wetland area and flow into the adjacent water course on a permanent basis.

Given very low runoff rates from this type of wooded area, matching or reducing the peak stormwater discharge rates can be very difficult if there are significant areas of impervious surface that bypass the detention and flow control system. The stormwater detention facility location has been removed from the current plan but has previously been shown just east of the building location at the top of the driveway. With this location, nearly all of the stormwater runoff generated by the driveway would effectively bypass the collection and detention system effectively flowing down to the existing driveway pavement and into the existing collection system on the west side of East Mercer Way without being detained or treated. This was not accounted for in the preliminary runoff calculations which showed no areas as bypassing the detention system.

The bypass flows for the sloped sections of driveway and perimeter that do not have detention storage and flow control could exceed those of the existing site conditions resulting in increased peak discharge rates from the site. The previous runoff calculations that were submitted did not account for any bypass and included area quantities that differed from those indicated on the current plans. Previous statements have been made by the developer's consultants that the development would not adversely impact previously documented downstream storm water issues and that in some cases they may even be improved. As part of the SEPA process is appropriate and reasonable to have these statements backed up with an accurate analysis.

Supplemental Sheet for Non-project Actions – 1. How would the proposal be likely to increase-decrease discharge to water...

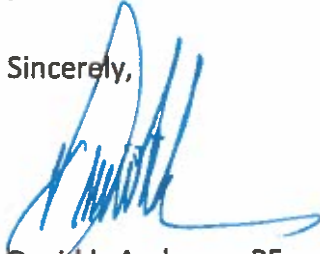
The checklist response of "all water will be collected and the release after metering through a detention vault" is inconsistent with the commitment to direct water to the existing wetland areas that subsequently drain into the existing water courses. As noted above, the retaining wall drain that will have significant flow would typically bypass the detention system. The elevation of this drain based on the current site plan and associated garage floor elevation will be well below much of the wetland area proposed for this discharge location. Further, if all of the driveway runoff is to be detained without any bypass flow as alluded to in the SEPA and in the supporting initial detention calculations, then water would have to be conveyed directly into the storm drainage system on East Mercer Way unless it is pumped to allow for a discharge at a higher elevation. If "all water" is to be collected then the SEPA will need to address the significant water diversions from the remaining wetland areas and adjacent water courses.

In conclusion, if it is "reasonable" to expect to realize a dramatic increase in property value from what was described by MI Treehouse to the State of Washington Board of Tax Appeals in 2017 as an "arm's-length transaction" of \$32,094 to a value "approaching \$1,000,000" by excavating a wetland next to two watercourses, it should be reasonable to expect that the plans and environmental documents accurately account for all of the impacts. Detailed representations have been made quantifying the precise areas of wetland and watercourse buffer impacts. Presumably, these influence the City's

consideration and evaluation of "Reasonable Use". Incorporation of what will certainly be additional impacts with these representations is appropriate and should not be differed until building permit submittal and review.

I also incorporate by reference all of the arguments previously made by Peter Anderson, other neighbors, and myself in opposition to the application by Treehouse.

Sincerely,



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