

# TECHNICAL MEMORANDUM

---



Date: September 20, 2019  
To: Richard Fisher, Fisher Architects  
From: Ryan Kahlo, PWS  
Project Name: Mercer Island Yang  
Project Number: 180605

## Subject: Response to September 2019 City Comments

The City of Mercer Island provided a list of comments specific to the critical areas report and watercourse buffer mitigation plans prepared by The Watershed Company (Watershed) for the Yang property located at 6660 E Mercer Way, Mercer Island, Washington (*Critical Areas Study Yang Residence: Watercourse Buffer Modification*) (CAR). The City comments are summarized in the *Review Comments for File No. CAO19-006 – Yang Critical Areas Determination 5660 [sic] E Mercer Way, Mercer Island, WA 98040; King County Tax Parcel #192405-9007* (Nicole Gaudette, Senior Planner, City of Mercer Island Community Planning & Development. 9/17/2019) (City Comment Letter). The individual comments are addressed below.

1. *There is a note indicating that the piped watercourse (identified as a storm drain line) mapping is “approximate per records”. Please provide additional information about the records obtained to map the piped watercourse. It is important to know the exact location of the piped watercourse to ensure the proposed new development does not cover or severely encroach on the watercourse.*

The location of the watercourse was provided to Watershed as part of the base survey prepared by Terrane Land Surveying. The survey was completed based, in part, on the location of manhole covers that access the piped watercourse. The location depicted on the survey is approximately the same location depicted on the City of Mercer Island Watercourse Inventory (Mercer Island GIS Portal), both of which show the piped watercourse located beneath the southern end of the existing residence.

2. *The Critical Area Study proposes a 10.75-foot watercourse buffer, the RFA Architects Site Plans proposes a 10-foot watercourse buffer, and the mitigation plan proposes an 11-foot buffer. Any of these stated buffers could be in compliance with code, however a single minimum buffer distance should be stated.*

The precise location of the proposed residence from the piped watercourse varies slightly in different locations due to the angle of the new residence. The proposed buffer width along the south side of the new residence (at the closest points) ranges from 10.89 feet to 11.43 feet.

The variable width is depicted on the revised mitigation plan accompanying this memo. The setbacks depicted on the architectural site plan are not related to the watercourse buffer.

- 3. The Critical Area Study states "The entire averaged buffer will be planted with native vegetation". However, the Buffer Averaging plan set shows a 5-foot unplanted setback area around the residence leaving a 5 to 6-foot piped watercourse buffer enhancement area. Please clarify the proposed minimum piped watercourse buffer and update the Buffer Reduction plan set based on the proposed buffer.*

The entire averaged buffer will be enhanced with native vegetation. The hatching depicting the enhancement area shows where the plantings will be planted. Since the plantings are to be installed on four- to six-foot on-center spacing, cover from the installed shrubs will extend beyond the hatching towards the residence. It is not appropriate to install shrubs right up the edge of the new residence. The "5-foot unplanted setback area" is part of the regulated buffer; it will have at least partial woody cover; no structures or impervious surfaces are allowed or proposed in that area. The relocation of the house farther from the watercourse and the extensive enhancement across the site ensures the averaged buffer will function at a substantially higher level than the existing buffer.

- 4. Although the proposal currently ensures the total buffer area of the average buffer is equivalent to the total buffer area as required by MICC 19.07.070(B)(3)(c), this should be recalculated based upon the design drawings and the actual proposed buffer distance. If the averaged buffer is less than the buffer area that would be provided by the standard buffer, the applicant should identify the additional buffer enhancement areas.*

The total buffer area of the average buffer is equivalent to the total buffer area of the existing buffer. The buffer distance shown on the original mitigation plan (11 feet) was rounded for simplicity. The total buffer area specified (reduced [374 square feet] and added [375 square feet]) are based on precise measurements of the relative polygons in AutoCAD.

- 5. Please provide an updated Mitigation Plan once the proposed watercourse buffer distance is selected. Also, the existing rockery hardscape areas should not be included in the watercourse buffer enhancement area calculation.*

A revised mitigation plan has been provided. The "rockery hardscape areas" are not rockeries. They are individual stones that function as landscape borders in the existing configuration. These features will not be present in the buffer enhancement areas and have been removed from the revised mitigation plan.

- 6. The use of a slow release, granular phosphorous-free fertilizer in Years 2-5 is proposed within the planting area. Fertilizers should not be used in proximity to the shoreline because excess nutrients*

*can enter groundwater or runoff into Lake Washington. Increased nitrates from fertilizers in waterways can lead to algal blooms which deplete oxygen in the water; ultimately killing aquatic species. As proposed in the Mitigation Plan, soil amendment with compost during planting will add nutrients to the soil. Your consultant should describe how use of the fertilizer will not affect water quality if used.*

The recommended fertilizer application has been removed from the revised mitigation plan.

- 7. It appears as though the proposed native vegetation plantings along the shoreline meet or exceed 75 percent cover in the area within 20 feet of the Lake Washington Ordinary High Water Mark, consistent with the Shoreline regulations. Please provide calculations of planting areas to demonstrate the 75 percent cover requirement is met.*

The total shoreline setback area on the property is 1,627 square feet. The shoreline setback enhancement area is 1,350 square feet. The enhancement area is equivalent to 83 percent of the total shoreline setback area.