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memorandum

date September 30, 2019

to Nicole Gaudette, Senior Planner

from Jessica Redman, Ecologist

subject 7216 93rd Avenue SE (Tax Parcel 2581900210) Critical Areas Review

Environmental Science Associates (ESA) has prepared this memorandum on the behalf of the City of Mercer Island (City). The purpose of this memo is to verify the accuracy of the critical areas determination submitted to the City regarding the property at 7216 93rd Avenue SE (King County Tax Parcel 2581900210).

At the request of the City, ESA reviewed the *Critical Areas Determination Report for King County Parcel* 2581900210, prepared by Wetland Resources, Inc. and dated June 21, 2019. ESA also reviewed a Watercourse Designation technical memorandum for the property that was prepared by City engineer Joe Willis and dated November 15, 1996. A site visit was also conducted on September 27, 2019 by an ESA biologist, meeting onsite with City senior planner Nicole Gaudette.

Report Summary

According to the *Critical Areas Determination Report for King County Parcel 2581900210* (hereinafter referred to as the Report) the City's GIS mapping depicts one watercourse on the property, located near the southwest portion of the site. The watercourse originates near the upper portion of a ravine and flows to the east, then flows offsite and into the adjoining property to the east. The watercourse is mapped as a Type 2 watercourse (perennial, non-fish bearing).

According to the Report this feature does not meet the requirements of a watercourse per Mercer Island City Code (MICC). Per MICC 19.16.010 a watercourse is defined as:

"A course or route, formed by nature and generally consisting of a channel with bed, banks, or sides throughout substantially all its length, along which surface waters, with some regularity (annually in the rainy season), naturally and normally flow on draining higher to lower lands. This definition does not include irrigation and drainage ditches, grass-lined swales, canals, stormwater runoff devices, or other courses unless they are used by fish or to convey waters that are naturally occurring prior to construction."

The Report states that the onsite feature does not meet this definition because the low point of the ravine does not have a defined bed, bank, sides, or evidence of seasonal flow. Additionally, surface soils were a sandy loam and did not indicate the regular occurrence of water; leaf litter was evenly distributed throughout the ravine, no erosion was observed, and upland plants were present in the ravine. No other critical areas were observed onsite.

Furthermore, according to the Watercourse Designation technical memorandum (hereinafter referred to as the Memo), the City also determined that the ravine did not meet the definition of a watercourse because it did not exhibit any evidence of surface runoff flow. The Memo also states that subsurface flow surfaces through a spring on the neighboring parcel to the east, and is the headwater to the mapped watercourse.

Review and Site Findings

During the September 27, 2019 site visit, ESA located the ravine in the southeastern portion of the parcel. Distinct bed and banks were observed at the upslope portion of the ravine; however, the banks were less distinct downslope and nonexistent at the lowest extent of the ravine near the property boundary. The ravine was largely unvegetated though several upland plants were established within it, including cherry laurel, Oregon grape, and sword fern. These species were also present outside of the ravine. Soils within the ravine were sandy and dry. No signs of water conveyance were observed, such as sediment sorting, gravels, or bank erosion. Additionally, no wracking or debris was observed along the fence at the bottom of the ravine, which is typically a sign of flow. No other critical areas were observed onsite.

Conclusion

Based on observations made during the September 27, 2019 site visit, the ravine shows no sign of water flow on a regular basis and does not have a distinct bed, bank, and sides throughout a substantial portion of its length; therefore, it does not meet the City's definition of a watercourse. ESA agrees with the determination in the Report and Memo that the onsite ravine does not meet the City's definition of a watercourse and therefore, is not regulated by MICC 19.07 – *Environment*.