



Formerly DCG/Watershed

September 12, 2025

Grace Manahan
Code Compliance Planner
City of Mercer Island – Community Planning and Development
9611 SE 36th Street
Mercer Island, WA 98040

2262 78th Ave SE Critical Area Study Peer Review

Facet Project No: 2410.0634.04

Dear Grace,

This letter represents our peer review of the critical area study prepared for the property located at 2262 78th Avenue SE in Mercer Island (parcel #5315101697). The findings of the study are presented in the June 27, 2024, report prepared by Peterman Consulting, titled: *2262 78th Ave SE King County Parcel No. 5315101697 Critical Areas Study (CAS)*. I conducted a site inspection on September 4, 2025, to verify the reported conditions. I also reviewed Mercer Island GIS mapping and source documents; LIDAR-based topographic maps; historic aerial photographs; and conducted visual assessments of adjacent private properties from the subject property and publicly accessible areas.

CAS Summary

Peterman Consulting conducted a site inspection on May 30, 2024, to assess the subject property and surrounding vicinity for the presence of regulated wetlands and watercourses. The CAS documented that no wetlands are present on the subject property, and none were visually observed within 300 feet of the property; two wetland determination data forms were provided to document the conclusion. The CAS identified one off-site watercourse approximately 50 north of the subject property and classified the feature as a Type Ns watercourse, requiring a 60-foot standard buffer and a 10-foot building setback. The CAS noted the presence of an open channel stormwater ditch along the eastern boundary of the subject property, which has a direct hydrologic connection to the off-site watercourse. The CAS concluded that ditch is a non-regulated stormwater conveyance feature. This conclusion is based on a review of the City stormwater maps, which show that all hydrologic inputs into the ditch are from a series of public and private catch basins and piped drainages.

Peer Review Findings

Facet confirms that no wetlands are present on the subject property. Hydric soil and hydrology indicators are notably lacking on-site. No obvious wetland areas were visually observed in the surrounding vicinity.

City GIS-based mapping inventories are somewhat ambiguous as to whether the on-site ditch is a watercourse or a stormwater conveyance feature. The available mapping shows the transition from a piped storm main to an open watercourse near the subject parcel's southern property boundary (Figure 1). However, based on field observations, there is no discernable distinction between the characteristics of the feature at this location (Figure 3). The ditched feature is situated on a relatively flat terrace flowing north before entering a vertical concrete box culvert at the northern property boundary (Figure 4). The culvert's mapped discharge location is near the top of a natural ravine, the point at which the CAS identified the start of the regulated watercourse.

The City's GIS watercourse inventory mapping is based, in large part, on the 2019 report prepared by Herrera Consultants, titled: *City of Mercer Island Watercourse Inventory & Typing & GIS Wetland Modeling*. The report updated prior inventory studies prepared for the City and was intended to verify watercourse typing and distinguish natural watercourse features from stormwater drainage conveyances. The study's field verification component was limited to publicly accessible areas and the extent to which features on private property could be visually observed from accessible areas.

To determine if the on-site portions of the open channel are part of a modified, natural stream channel or an entirely artificial stormwater conveyance system, I reviewed historic aerial imagery, all available public inventories, and LIDAR-based topographic imagery and mapping. A review of historic aerial photographs, particularly from 1936 (when vegetative cover was absent), suggests that there was no stream channel present in this location at that time (Figure 5). Mercer Island GIS mapping (Figure 1), visual observations (Figures 2 and 3), and LIDAR-based topographic images (Figure 6) suggest that the on-site channel is an excavated feature (steep, vertical sides and linear orientation). The landscape position of the subject property, situated atop a relatively flat terrace unassociated with known wetlands or seeps, is not a typical landscape position in which the headwaters of a small stream would be located. Rather, the steep ravine just north of the subject property is more indicative of a topographic feature that would channelize surface flows or groundwater seeps into a defined stream channel. A pronounced change in gradient and channel incision is visible beginning at the location where the concrete box culvert discharges into the ravine (Figure 5). Bed, bank, sorted sediments, and erosion indicators are not present in the short section of the ravine above the discharge. Such characteristics were observed through binoculars beginning at the discharge point. Therefore, based on the preponderance of available data, it is my conclusion that the on-site channel segment is an artificially created stormwater conveyance feature and not a historic watercourse channel that is regulated as a critical area under MICC 19.07.

Facet agrees with the origination point, classification, and buffer width for the off-site watercourse, as depicted in CAS Figure 3. The northwest corner of the subject parcel is encumbered by the stream buffer and setback. We have no further comments regarding this project.

Please contact me with any questions or requests for additional information.

Sincerely,



Ryan Kahlo, PWS
Senior Ecologist

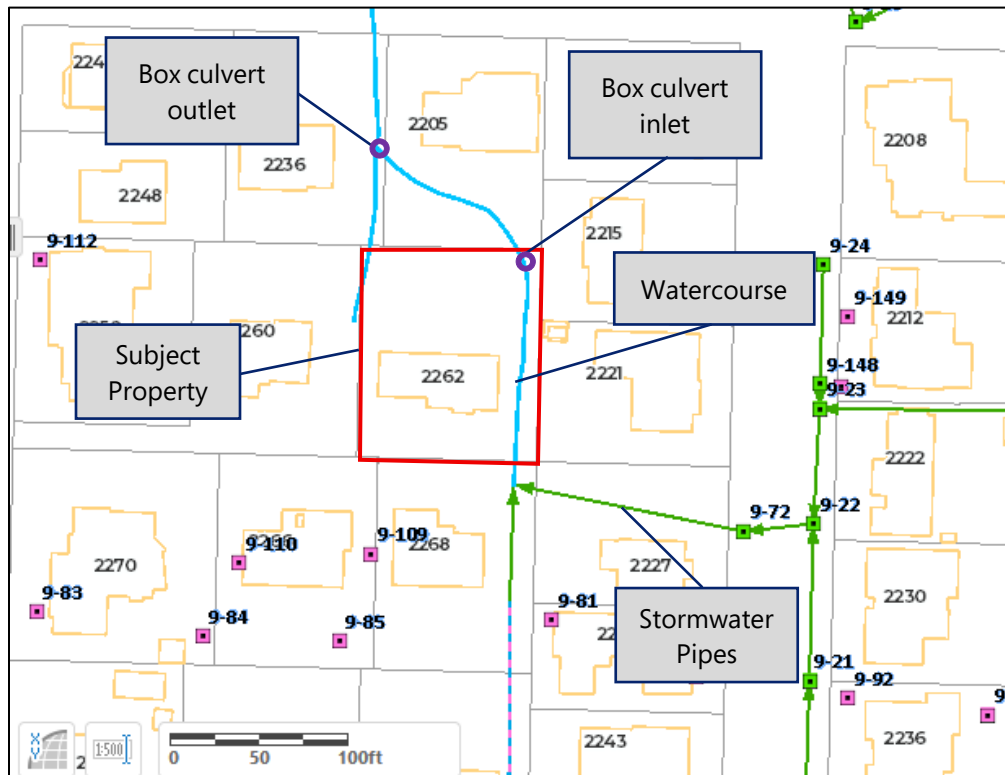


Figure 1. Mapped stormwater conveyance and open watercourse (source: Mercer Island GIS Portal)



Figure 2. Location of the mapped transition point from stormwater ditch to open watercourse, viewed from southeast corner of subject property, facing south.



Figure 3. Open channel watercourse/ditch on subject property, facing north



Figure 4. Vertical box culvert at end of open ditch in northeast corner of subject property



Figure 5. 1936 aerial photograph. Note absence of an open channel on the subject property (source: King County iMap)

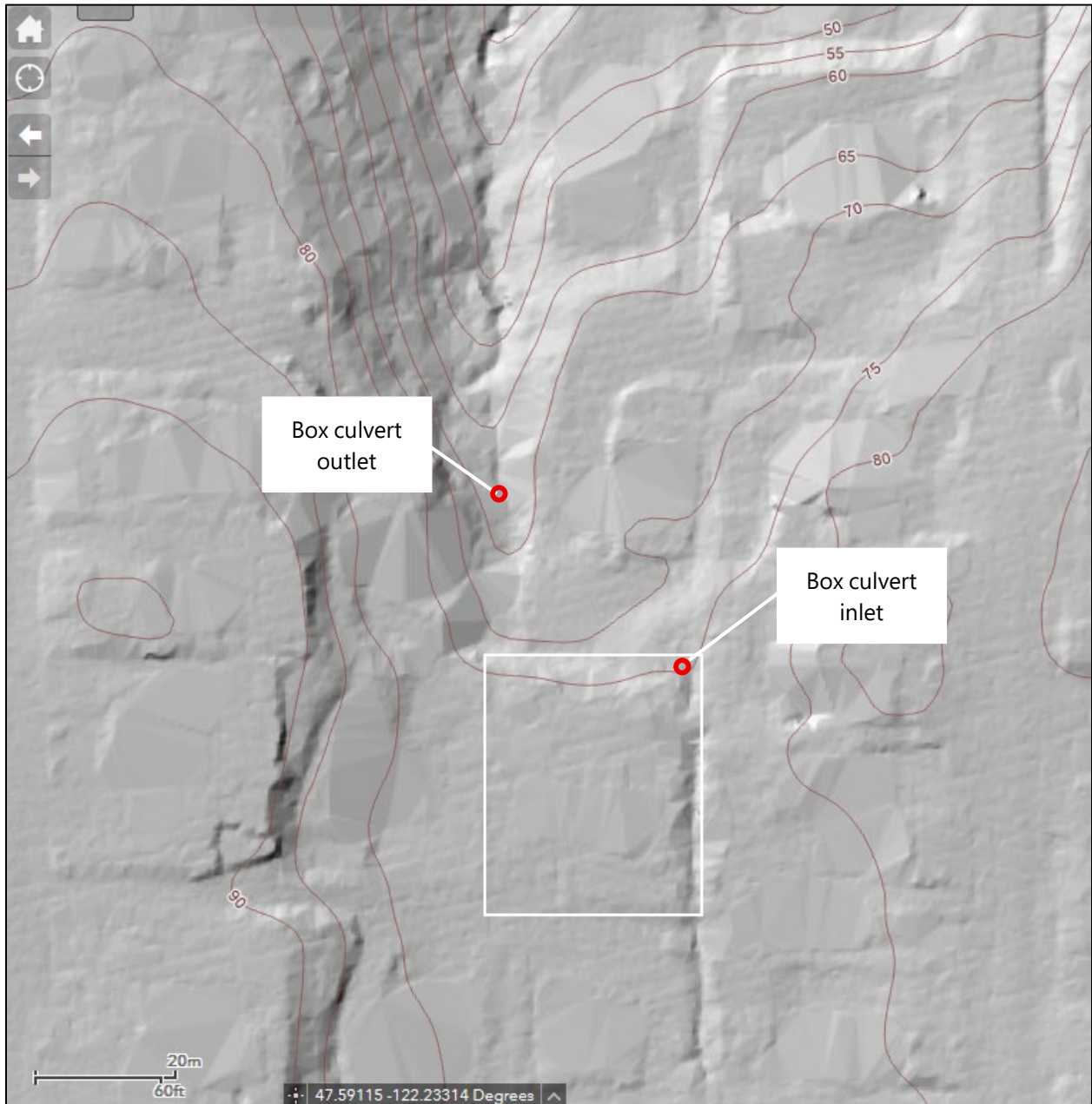


Figure 6. LIDAR-based topographic image, subject property in white (source: King County iMap)