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memorandum

date	January 19, 2023
to	Molly McGuire, City of Mercer Island
from	Rachelle Tews and Maggie Bradshaw, ESA
subject	Luther Burbank Park – Luther Burbank Park Shoreline Project; SHL22-023, SHL22-024, SHL22-025, SEP22-019, CAO22-018

Environmental Science Associates (ESA) has prepared this memorandum on behalf of the City of Mercer Island (City). The purpose of this memo is to provide peer review of City's proposed Luther Burbank Park waterfront improvements project, located on the shoreline of Lake Washington as 2040 84th Avenue SE in Mercer Island. The proposed project includes multiple improvements to the waterfront plaza structures in the central area of the park, shoreline and beach enhancements, and in-water work to repair existing docks and an overwater platform. The project requires critical areas review (Mercer Island City Code [MICC] 19.07 – Environment) and compliance with the Mercer Island Shoreline Master Program (MICC 19.13) standards due to its location within 200 feet of Lake Washington, a shoreline of statewide significance. Additionally, this project is submitting variance permits (subject to Washington Administrative Code [WAC] 173-27-170) and requires compliance with Shoreline Conditional Use Permit Criteria (WAC 173-27-160). Geologically hazardous critical areas addressed in the following documents were not included as part of the review.

At the request of the City, ESA reviewed the following documents:

- *Luther Burbank Waterfront Improvements Project Description* and *Luther Burbank Waterfront Improvements Critical Areas Study* (Prepared by Anchor QEA and dated October 2022, hereinafter referred to as the Project Description and CAS respectively)
- *Shoreline Substantial Development Permit, Shoreline Conditional Use Permit, and Shoreline Variance Request for the Luther Burbank Park Waterfront Improvements Project* letter (Prepared by Anchor QEA and dated October 24, 2022, hereinafter referred to as the Shoreline Variance Letter)
- Luther Burbank Park Waterfront Improvements Project *Luther Burbank Park Comprehensive Waterfront Improvements* 60% project design sheets (Prepared by KPFF and dated October 7, 2022)
- Biological Evaluation for Informal Consultation with the U.S. Army Corps of Engineers document (Dated October 2022, hereinafter referred to as Biological Evaluation)
- Washington State Joint Aquatic Resource Permit Application (JARPA) materials

- State Environmental Policy Act (SEPA) checklist (dated October 24, 2022)

A site visit was conducted on December 7, 2022 by ESA biologists Maggie Bradshaw and Rachelle Tews.

Report Review of *Luther Burbank Waterfront Improvements Project Description* and *Luther Burbank Waterfront Improvements Critical Areas Study* (Prepared by Anchor QEA and dated October 2022)

The CAS was prepared to support the Mercer Island permitting process for the project consistent with the critical areas reporting requirements listed in MICC 19.07.110 and, due to the project's location within shoreline jurisdiction, MICC 19.07.010 through MICC 19.07.190, Ordinance 19C-05. Critical areas regulated by the City in MICC 19.07 and addressed by the CAS include wetlands, watercourses, fish and wildlife habitat conservation areas (FWHCAs), and geologically hazardous areas. An assessment of bald eagle presence and habitat was also conducted, as required by MICC 19.07.010.

According to the CAS, critical areas found within the project area boundaries consist of FWHCAs and geologically hazardous areas. Federally listed fish documented by USFWS to occur in Lake Washington and potentially impacted by the project are addressed separately in the Biological Evaluation. Impacts to critical areas described in the CAS include temporary disturbance and removal of vegetation within FWHCAs and alterations to geologically hazardous areas and their associated buffers. Mitigation measures to offset temporary impacts related to geologically hazardous areas include application of construction best management practices (BMPs), and consultation with geotechnical engineering for design and construction recommendations regarding landslide, seismic, and erosion hazard areas. ESA did not review the geologically hazardous areas discussion for compliance with MICC 19.07.160- Geologically Hazardous Areas.

Specific impacts to FWCAs within the project area include temporary disturbance caused by construction noise, removal of vegetation in construction areas, dewatering of the OHWM, and potential spills of materials that could negatively affect water quality. To mitigate for and avoid these impacts, the construction periods of the project will adhere to agency-approved in-water work windows to avoid impacts to fish species, and best management practices to avoid spills will be implemented.

Vegetation removal within the project area will occur over 4,300 square feet of riparian and upland habitat and includes the removal of 10 trees. To mitigate for these impacts, 20 trees will be installed once construction is complete, and 2,020 square feet of native shrub and groundcover vegetation will be installed per planting plan included with CAS documents. A portion of the area where vegetation will be removed has low habitat value due to invasive vegetation and will be replaced with native plants.

The CAS states that with the implementation of mitigation sequencing and construction BMPs, as well as installation of the planting plan and overall nearshore habitat restoration and aquatic habitat improvements, the project will result in no net loss of fish and wildlife habitat functions within the project area.

ESA conducted a site visit to confirm the conditions described in the CAS and agrees that the only non-geotechnically hazardous critical areas include FWHCAs related to fish and nearshore habitat. During the site visit, ESA did not observe bald eagle activity or nesting sites and did not identify any wetlands or watercourses onsite. ESA also observed that some of the area planned for vegetation removal had a high cover of invasives such as Himalayan blackberry and reed canarygrass, offering low habitat value for terrestrial and aquatic species.

Conclusion and Recommendations

Based on the review of permitting documents MICC 19.13- Shoreline Master Program, MICC 19.07- Environment, and observations from the December 7, 2022 site visit, ESA confirms that the CAS adequately addresses the requirements of MICC 19.07.100- Mitigation Sequencing, 19.07.110- Critical Areas Study, and 19.07.170- Fish and Wildlife Habitat Conservation Areas. ESA also confirms that in general, the project impacts and subsequent mitigation actions including construction BMPs, installation of the planting plan, nearshore habitat restoration, and aquatic habitat improvements will result in no net loss of fish and wildlife habitat functions within the project area.

To clarify compliance with MICC 19.13.040 – Shoreline Master Program, ESA recommends the following be addressed in an updated Project Description:

- Per MICC 19.13.040 – Table B, breakwaters, jetties, and groins are not permitted unless for restoration of ecological function. The central dock is a wave attenuator and in the Project Description, the applicant describes its function as a breakwater. Additionally, per MICC 19.13.050(G) *Breakwaters… are prohibited, except for those structures installed to protect or restore ecological functions, such as woody debris installed in streams. Breakwaters, jetties, groins, and weirs shall be designed to protect critical areas and shall provide for mitigation according to the sequence defined in WAC 173-26-201(2)(e).* The applicant should demonstrate how the wave attenuator is designed to restore ecological areas protect shoreline critical areas.

To clarify the mitigation approach and refine restoration details overall, ESA recommends the following additions or modifications to the CAS report:

- The CAS states that vegetation removal will occur within the northern beach improvement area but does not detail the overall ecological lift that will occur in the area as a result of mitigation actions. Though there is no prescriptive mitigation ratio given in MICC 19.07 for vegetation removal within a FWHCA, the CAS could address that vegetation will be replaced at a ratio of less than 1:1 due to the placement of habitat gravels within the north beach expansion area, and that this action meets the overall standards of no net loss of shoreline or habitat function by reducing overall vegetation but increasing nearshore aquatic habitat and public access opportunities with the placement of these gravels.

- The project plans include removal of 10 trees throughout the project area. Mitigation actions described in the CAS include the replacement of 20 trees but does not detail compliance with MICC 19.10- Trees. Tree replacement standards described in 19.10.070 could be discussed in the CAS to detail if the trees scheduled for removal are less than 10 inches, and if the 1:1 replacement ratio would be appropriate for their replacement.

- The planting plan includes a nonnative oak (*Quercus palustris*). Consider replacing with a native tree species such as big-leaf maple (*Acer macrophyllum*) or red alder (*Alnus rubra*).

Report Review of *Variance Request for the Luther Burbank Park Waterfront Improvements Project* letter (Prepared by Anchor QEA and dated October 24, 2022, hereinafter referred to as the Shoreline Variance Letter) and included permit documents

The Shoreline Variance Letter was prepared to provide information about the project and request a Shoreline Substantial Development Permit, Shoreline Conditional Use Permit, and Shoreline Variance from the City under MICC Chapter 19.13 – Shoreline Master Program. Included with the letter is JARPA permit documents, the CAS (reviewed in section above), a SEPA checklist, Cultural Resources Report, and Biological Evaluation. ESA reviewed the Shoreline Variance Letter, JARPA permit documents, SEPA checklist, and Biological Evaluation. The Shoreline Variance Letter states that the project is located within the City's Shoreline Master Program (SMP) jurisdiction, within the Urban Park shoreline environment on Lake Washington, and that per the SMP, the Urban Park shoreline environment consists of shoreland areas designated for public access and active and passive public recreation. The letter describes that the purpose of the project is to optimize public access, recreational uses, and public safety. Project activities related to this purpose include reconfiguring the waterfront park to better accommodate small boats and nonmotorized watercraft, improving ADA access to the docks, viewing deck, and beach, and avoiding and minimizing potential impacts to sensitive environments to result in no net loss of ecological function. Construction of new hard structural shoreline stabilization near the north beach expansion requires a Shoreline Conditional Use Permit (SCUP) per MICC 19.13.040. The Shoreline Variance Letter states that per MICC 19.13.040-Table B, other project elements related to in-water work regarding the floating platforms, mooring piles, and restoration of shoreline habitats are allowed, but the City is requesting a Shoreline Variance to provide for design allowances. The Shoreline Variance Letter details shoreline master program compliance with each project element and concludes that the project will result in a no net loss of shoreline ecological function, as demonstrated in the CAS (reviewed in the section above). It also states that upland improvements at the shoreline and plaza are consistent with existing shoreline uses per Table A in MICC 19.13.040. The Shoreline Variance letter also provides an analysis of each project element's consistency with WAC 173-27-160 review criteria for conditional use permits and WAC 173-27-170 review criteria for Variance permits.

Conclusion and Recommendations

Requested variances from the criteria listed in MICC 9.13.050(H) includes dimensional standards for dock width, light transmittance conditions, fixed pier height conditions, and dimensional and performance standards. ESA evaluated each of the requested variances and determined that demonstration of the strict application of these standards limiting reasonable use of the project area provided in the documents was sufficient. However, ESA recommends that the following be addressed in an updated Shoreline Variance Letter:

- Per MICC 19.13.050(B)(4), new structural stabilization measures in support of water-dependent development shall only be allowed when all of the conditions below apply:
  - *i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.*
  - *ii. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.*
  - *iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report, in compliance with [MICC 19.13.050(B)(7)] and building and construction codes.*
  - *iv. The erosion control structure will not result in a net loss of shoreline functions.*

  - Additionally, MICC 19.13.050(B)(6) states that no filling may be allowed waterward of the ordinary high water mark, unless there has been severe and unusual erosion within two years immediately preceding the application for the bulkhead. In this event the city may allow the placement of the bulkhead to recover the dry land area lost by erosion.

  Project elements such as water-dependent development of the rock revetment at the north beach expansion area and rock terraces along the south on-grade trail would be subject to these conditions. While the CAS and Shoreline Variance Letter detail that these improvements will not cause significant effects to the shoreline, there is no specific detail regarding the demonstration of the need to protect principal uses or structures from erosion, or that severe or unusual erosion has occurred within the area.

- Per MICC 19.13.050(H)(7), the first in-water set of pilings shall be steel, ten inches in diameter or less, and at least 18 feet from the OHWM. Piling sets beyond the first shall also be spaced at least 18 feet apart and shall not be greater than 12 inches in diameter.
  - The first proposed in-water set of pilings (shown on plan sheets S-012 and S-050) has a diameter of 16 inches.
  - The proposed pilings beyond the first in-water set are 16 and 24 inches in diameter.

  If there is a reason for the increased diameter, the justification should be included in the Shoreline Variance Letter.

- Per WAC 173-27-170(2)(b), the hardship is the result of unique conditions such as natural features, and is not from the applicant's own actions. The applicant should confirm that the justification to reduce light transmittance in the grated surface of the central wave attenuator is due to the nature of the site, rather than as a result of the request for a larger than typical dock width.

Based on the review of permitting documents, MICC 19.13- Shoreline Master Program, WAC 173-27-170 Variance Criteria, WAC 173-27-160 Shoreline Conditional Use Permit Criteria, ESA generally agrees that the Shoreline Variance Letter adequately details consistency with the standards of the Shoreline Master Program and WAC Shoreline Variance and Conditional Use permit criteria. The project overall will result in a no net loss of shoreline ecological function, and the shoreline stabilization element of the project is compliant with SCUP criteria in that it will increase waterfront recreation opportunities for the public, will preserve the natural character of the shoreline and not cause significant adverse effects. ESA agrees that once the project meets the conditions outlined above, the project will comply with MICC 19.13.040 for allowed activities, including public parks and open space, and restoration of ecological functions including shoreline habitat and natural systems enhancement.

If you have any questions, please call Maggie Bradshaw at (310) 938-8658

Sincerely,
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