September 11, 2015

Scott Greenberg
Director, City of Mercer Island Development Services Group
9611 SE 36th Street
Mercer Island, WA 98040

RE: **Mercer Island Center for the Arts – Supplemental Regulatory Evaluation**
TWC project number: 150320

Dear Scott:

This letter is intended to supplement our May 21, 2015 *Mercer Island Center for the Arts Wetland Delineation Study* by providing further regulatory evaluation as it relates to the potential filling of a small, degraded portion of an existing wetland within Mercerdale Park (parcel #1224049068). Additional documentation regarding the origin of the City's existing wetland regulations was prepared in a separate document (*Mercer Island Center for the Arts – Wetland Interpretation*, September 4, 2015), a copy of which is attached to this letter.

Background

The Mercer Island Center for the Arts has conducted extensive site planning activities for the development of a cultural arts center on the park property. Due to a number of site constraints, the center is currently planned to be located partially within a small area of wetland.

The Category III wetland is located along a large section of forested slope within the park. The wetland's total size is estimated at over 2 acres. Most of the wetland was filled long ago during the development of the park; however, a narrow 'finger' of the wetland remains. This finger extends into the area proposed for the cultural arts center (Figure 1). Much of the wetland is situated on a slope, where it is supported by seeps emerging along the face of the hillside. Wetland areas located upslope of the project area remain in good condition, and are dominated by a relatively young Oregon ash forest. The narrow 'finger' consists of Oregon ash, red alder, and black cottonwood trees in the canopy with red-twig dogwood, invasive Himalayan blackberry, and non-native creeping buttercup in the understory.

Figure 1. Approximate location and extent of the subject wetland.

Regulatory Evaluation

As mentioned, proposed development activities within the park include filling of the lower 'finger' portion of the wetland. As designed, total wetland impacts from the project are estimated at 1,500 square feet (0.03 acre) and are limited to the relatively degraded 'finger' section. Two specific provisions in the MICC allow for impacts to Category III wetlands, both of which are provided below and referred to hereafter as Provision 1 and Provision 2.

Provision 1. *MICC 19.07.030.A.13* is an allowed alteration that does not require compliance with other provisions of the environment chapter. This includes any mitigation requirements. Therefore, wetland alterations could occur without the need to provide compensatory mitigation. The entire code provision reads as follows:

> *Alterations to Category III and IV wetlands of low value under 2,500 square feet.*

Provision 2. *MICC 19.070.080.D* allows for alterations to Category III and IV wetlands provided specific criteria are met, including providing adequate mitigation. The entire code provision reads as follows:

> *Category III and IV wetlands of less than one acre in size may be altered if the applicant can demonstrate that the wetland will be restored, enhanced, and/or replaced with a wetland area of equivalent or greater function. In cases where the applicant demonstrates that a suitable on-site solution does not exist to enhance, restore, replace or maintain a wetland in its existing condition, the city may permit the applicant to provide off-site replacement by a wetland with equal or better functions. The off-site location must be in the same drainage sub-basin as the original wetland.*

As seen above, both provisions allow alterations to Category III wetlands. Both provisions are dependent upon specific size thresholds. The wording of Provision 1 is somewhat ambiguous and could mean that the 2,500-square-foot size limit applies either to the wetland size or to just the size of the proposed alteration. Provision 2 includes a size threshold of one acre that is more clearly worded such that the 1-acre limit relates to wetland size; however, it is unclear whether this provision could apply to functionally distinct portions of a single wetland. Under a strict reading of Provision 2, an existing wetland that is 0.99 acre in size could be completely altered, provided mitigation was offered. However, under the same strict reading of Provision 2, one square foot of a 1.00 acre wetland could not be altered. Therefore, the size of the wetland is the determining factor in this case, rather than the proposed impact size or quality of impacted area.

While larger wetlands tend to rate higher, there is no specific portion of the wetland rating system that correlates to wetland size. That is, size is not a factor in determining the category or quality of a wetland. This theme is borne out in the best available science literature, which documents that wetland function/quality is not related to size of the wetland. Rather, function/quality is based on specific attributes of the wetland or sub-areas of the wetland, surrounding land use, water quality inputs and other factors.[1] Thus, it is more appropriate to correlate alteration provisions to the size of the impact or quality of the impacted area, rather than the overall size of a given wetland. This more specifically correlates to mitigation sequencing, as avoidance and minimization measures would be tied to the size of the alteration.

As this logic relates to the proposed 1,500 square feet of alteration to a 2.0+ acre Category III wetland at Mercerdale Park and contrary to the initial code summary in the delineation report (May 2015), it is appropriate to interpret Provision 1 as relating to the size of the alteration rather than the overall size of the wetland. The entire wetland could be considered *low value* simply due to its low hydrologic functions (slope-type

[1] From Ecology's Volume 1 (*Sheldon, D., T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. March 2005. Wetlands in Washington State - Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.*): The historical rationale for the use of size as a regulatory criterion was the perception that "bigger is better," and the belief that small wetlands were less important and did not provide significant functions. The scientific literature of the last 10 years has made it clear that size does matter but not in the way previously believed. In multiple studies, small wetlands have been shown to contain a significant diversity of plant and animal species.

wetlands tend to have low hydrologic function, generally) and moderate water quality and habitat functions. However, the condition of the narrow 'finger,' in which impacts are proposed, is further reduced due to past ground-disruption and on-going disturbance in this area, past land use disturbance, and presence of invasive and non-native vegetation. The wetland 'finger' shows signs of regular disturbance in the form of an informal footpath that bisects the 'finger' and increased presence of Himalayan blackberry and creeping buttercup. As a result, habitat value of this area is lower compared to the rest of the wetland unit. This further supports the fact that impacts will occur to an area of low value wetland. Therefore, the proposed 1,500 square feet of impact to a low value Category III wetland meets the intent of Provision 1.

Furthermore, the 'finger' portion of the wetland is approximately 2,900 square feet (0.07 acre) in size. It differs functionally from the main portion of the wetland in several ways. In terms of water quality and hydrology functions, this portion of the wetland functions more like a ditched, depressional wetland with an intermittently flowing outlet whereas the majority of the wetland is a slope wetland that experiences soil saturation only. Habitat function of the wetland 'finger' also differs from the majority of the wetland unit with respect to vegetation structure, richness of plant species, and presence of invasive plants, generally reflective of increased disturbance in this area. Therefore, while both portions of the wetland were rated as a single unit for the purposes of the wetland rating, the differences are drastic enough to warrant a separation of the two for the purposes of a functional impact assessment. As impacts will occur only to the lower value 'finger' of the wetland, with the remainder of the higher functioning portion intact, one could make the assertion that a discreet area of less than one acre, which is distinct in character from the rest of the wetland area, was being impacted. Therefore, the proposed project also meets the intent of Provision 2.

As demonstrated in this letter, the proposed project meets the intent of both MICC 19.07.030.A.13 and 19.07.080.D. In addition, while Provision 1 would not strictly require mitigation, the project will be consistent with appropriate mitigation sequencing measures by minimizing impacts to the greatest extent feasible, while also providing on-site mitigation in the form of wetland creation and buffer enhancement. Mitigation will be required by state and federal agencies, regardless of local code requirements.

Summary

Based upon the information presented above, we believe that the provisions established in MICC 19.07.030.A.13 and 19.07.080.D allow for the ability to fill approximately 1,500 square feet of the 2,900 square foot 'finger' of an existing 2.0+ acre Category III wetland at Mercerdale Park. To summarize, the findings presented above include:

- The area of impact is approximately 1,500 square feet;
- The size limits of Provision 1 should pertain to the area impacted, not the overall wetland size;

- The area of proposed alteration is of low functional value and is separated functionally from the remainder of the wetland, and should therefore be allowed under Provision 2;
- Appropriate on-site mitigation will be provided.

For these reasons, it is our belief that proposed filling activities associated with the proposed Mercer Island Center for the Arts meet the purpose and intent of both MICC 19.07.030.A.13 and 19.07.080.D.

We appreciate the City's consideration on this matter.

Sincerely,

Kenny Booth, AICP
Senior Planner

Hugh Mortensen, PWS
Senior Ecologist

Enclosure

MEMORANDUM

THE WATERSHED COMPANY

Date: September 4, 2015
To: Scott Greenberg, City of Mercer Island
From: Kenny Booth, AICP, The Watershed Company
Hugh Mortensen, PWS, The Watershed Company

Subject: Mercer Island Center for the Arts – Wetland Interpretation

In order to provide additional background related to the interpretation of several Mercer Island City Code (MICC) sections pertaining to allowed alterations to wetlands, we have conducted background research aimed at interpreting the intent of the code sections. Specifically, MICC 19.07.080.D allows for alterations to Category III and IV wetlands of less than one acre. We have investigated the origin of the one acre size threshold referenced in this code section. The findings of our investigation are presented below.

Findings

We can find no direct, specific guidance as to the origins of the size-based thresholds pertaining to wetland alterations in the MICC. The specific portion of MICC 19.07.080.D relating to one acre was also found in the City's prior critical areas regulations. However, the prior version pertained to an allowed alteration for all types of wetlands less than one acre in size. The City's 2005 update further restricted the allowed alteration to only apply to Category III and IV wetlands. Therefore, the one-acre threshold pre-dates the City's current regulations (approved in 2005).

In assessing earlier wetland guidance, in both the first edition (1991) and second edition (1993) of Ecology's wetland rating system, the overall size of the wetland was a significant factor in determining the quality and classification/ rating of wetlands. In fact, the best available science report prepared for the City (The Watershed Company, 2004) as part of the City's 2005 critical areas regulations update references the 1993 edition in discussions pertaining to the rating of several large wetlands within the City. However, by 2004 Ecology's wetland rating system had been revised to remove all consideration of overall wetland size to determine quality or classification. This move away from size-based regulatory consideration is also reflected in a literature review conducted in a 2005 document entitled Wetlands in Washington State – Volume I: A Synthesis of the Science[1].

Therefore, it is our conclusion that earlier versions of the rating system, combined with the legacy of a "bigger is better" mindset, likely influenced the development of the original provision that allowed alterations of wetlands up to one acre in size. Despite

750 Sixth Street South | Kirkland, WA 98033
p 425.822.5242 | f 425.827.8136 | watershedco.com

the 2004 shift away from size-based ratings, the provision was not completely removed from the MICC, rather further restricted to only apply to lower rated wetlands. Current best available science continues to place an emphasis on diversity and functionality over size, as it is now recognized that even small wetlands can provide valuable water quality and habitat functions. Therefore, it appears the intent of the original (pre-2005) regulation had been to allow alterations to smaller sized wetlands over larger ones independent of quality, with the 2005 update partially moving away from size-based criteria. However, current science does not support this approach. Rather, the quality of the wetland to be impacted should be considered and specifically the quality of the impacted area, particularly if it is functionally distinct from other portions of the wetland.

[1] From Ecology's Volume 1 (*Sheldon, D., T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. March 2005. Wetlands in Washington State - Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.*): The historical rationale for the use of size as a regulatory criterion was the perception that "bigger is better," and the belief that small wetlands were less important and did not provide significant functions. The scientific literature of the last 10 years has made it clear that size does matter but not in the way previously believed. In multiple studies, small wetlands have been shown to contain a significant diversity of plant and animal species.