MEMORANDUM

Date: January 18, 2023
To: Kevin Cricchio, Skagit County Planning
From: Alan Wald, LHG. The Watershed Company
Project Name: Skagit County Lake Erie Pit Review
Project Number: 210231.9

THE WATERSHED COMPANY

Subject: **Response to Evergreen Islands communication of 11/18/2022 re: Lake Erie Pit**

As per your request of 12/20/22, I have reviewed the comment letters from Loring Advising and the Stratum Group concerning potential groundwater issues and proposed expansion of the Lake Erie Pit. I have included (attached) the 11/22/2022 third-party review report we provided Skagit County regarding the proposed project.

The main concerns raised in the Evergreen Island communication appear to be the adequacy of the groundwater flow assessment and potential impacts to bluff stability west and northwest of the proposed pit expansion.

The methods and results of the groundwater flow assessment are presented in several reports:

Maul, Foster, Alongi (MFA). Hydrogeologic Site Assessment Report. Lake Erie Pit Expansion. Bellingham, WA. December 2, 2016.

Maul, Foster, Alongi (MFA). Observation Well Installation. Lake Erie Pit Expansion. Bellingham, WA. September 28, 2017.

Northwest Groundwater Consultants (NGC). Lake Erie Pit Well Recommendations. Coeur d'Alene, Idaho. March 11, 2019. And

WA Dept of Ecology (WDOE). Water Well Report. Resource Protection Well BJF103. https://ecoloogy.wa.gov/wellconstruction. September 25, 2017.

The Wood Environment & Infrastructure Solutions, Inc (Wood). Geologic Hazard Site Assessment. Lake Erie Pit 1 Expansion. Kirkland, WA. August 11, 2022, uses the aquifer properties and groundwater flow characterization from these reports.

I revisited the methods and results of the aquifer characterization and groundwater flow analysis in the groundwater flow assessment and found no significant discrepancies or

inaccuracies in the data collection, hydrogeologic analysis, or discussion that would question the study results. The lithology is reasonably consistent with the well logs, the groundwater levels were developed from a comprehensive mass well measurement, and the flow paths were plotted perpendicular to the groundwater surface contours. The aquifer is well characterized at recorded depths and static water levels. The prevailing groundwater flow path is to the north and northeast of the proposed project.

Bluff areas to the west and southwest of the proposed project, including the Dodoson Canyon Springs, are 800 to 1,000 feet from the project with base elevations (below the scarps) of about 200 ft. msl. Based on documented groundwater surface elevations and local stratigraphy, it is likely that groundwater seepage is from the regional aquifer. I found no apparent reason to conclude the proposed project would change the rate or volume of groundwater discharge from seepage on the bluffs.

Attachment.