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BEFORE THE BOARD OF COUNTY COMMISSIONERS  
IN AND FOR THE COUNTY OF SKAGIT, WASHINGTON

**In the Matter of the Appeal of Special  
Use Permit, PL16-0556, for the  
expansion of a gravel mine.**

**APPEAL NO. PL23-0363  
OPENING BRIEF OF  
APPELLANT EVERGREEN  
ISLANDS**

**I. INTRODUCTION AND RELIEF REQUESTED**

On February 23, 2021, the Skagit County Board of Commissioners (“Board”) reversed a hearing examiner approval of the Lake Erie gravel pit because the applicant’s hydrogeological consultant had not acknowledged or evaluated the risk that the mine would increase groundwater infiltration at the site that would flow toward lower elevation springs in shoreline bluffs in a neighborhood to the northwest. More than two years later, the applicant continues to refuse to investigate that impact, even after briefly entertaining a proposal from an expert to do so. Instead, the applicant hired a geotechnical consultant who also overlooked the hydrogeological discrepancy and recycled the same reports that the Board deemed deficient in 2021 because the consultant had not incorporated the shoreline spring elevations into his analysis. Nonetheless, a newly installed hearing examiner demonstrated a lack of familiarity with the application, with the Board’s remand, with the hydrogeological setting in the area, and with the Code when he approved the Mining Special Use Permit (“SUP”) on remand.

Because the hydrogeological impacts of the proposed removal of 36 acres of trees,

1 shrubs, soils, and glacial till have yet to be evaluated, Consequently, Appellant Evergreen  
2 Islands respectfully requests that the Board stand by its 2021 decision, reverse the July 14<sup>th</sup>  
3 Hearing Examiner decision as clearly erroneous, and remand this matter to the Hearing  
4 Examiner so that the applicant can do so. Any other decision at this stage in the process would  
5 conflict with the Skagit County Code's ("Code") purposes and dictates to ensure that significant  
6 new mining activities address their potential impacts, and would expose an entire neighborhood  
7 to a landslide risk of unknown magnitude.  
8

9 Moreover, Evergreen Islands respectfully requests that the County include in its review  
10 the full record that should have been before the Hearing Examiner, including its June 23, 2023  
11 comment letter. A review of the record reveals that this document was omitted from the record,  
12 and thus may not have been available for review by the Hearing Examiner.<sup>1</sup>  
13

## 14 **II. BACKGROUND**

15 The sections below summarize: (1) project details and geographic setting; (2) the  
16 procedural history that led to this appeal; (3) the County-required information on remand; (4)  
17 the incomplete hydrogeological review for project impacts on the neighboring unstable bluffs;  
18 and, because the Hearing Examiner re-adjudicated the merits of the original hydrogeological  
19 studies, two sections summarizing the lack of complete hydrogeological review prior to the  
20 remand. Note that this brief includes citation to the 2021 record on appeal to address several of  
21 the unfounded findings set forth by the Hearing Examiner's re-litigation of the earlier  
22 hydrogeological review.  
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25 <sup>1</sup> After reviewing the record that was compiled from the June 28, 2023 Hearing Examiner hearing on remand, I  
26 have not been able to locate the June 23, 2023 comment letter that I submitted on behalf of Evergreen Islands. This  
comment letter totaled 44 pages, including attachments. Its absence from the record alone warrants remand to the  
Hearing Examiner to review all of the evidence that was available at that time. For the purposes of this appeal  
hearing, that document is attached as an Appendix.

1 **A. Project Details and Geographic Setting.**

2 The reissued SUP authorizes the tripling of a currently dormant gravel mine, expanding  
3 its footprint from 17.78 acres to 53.5 acres. The expansion would remove the trees, shrubs,  
4 soils, glacial till, and gravel across these 36 acres, digging down from an elevation of 375 feet to  
5 250 feet to expose and excavate approximately 2.25 million cubic yards, or approximately 3.6  
6 million tons, of gravel over a projected sixty (60) years.<sup>2</sup> After the property has been fully  
7 cleared and mined, the Application contemplates implementation of a reclamation plan that  
8 would raise the mine floor to 300 feet with 50 feet of topsoil stored onsite and imported fill.<sup>3</sup>  
9 Surface water runoff across the thirty-six acres of excavated land would be directed into the  
10 gravel mining basin, where it is expected to infiltrate into the ground and increase the site’s  
11 groundwater flow.<sup>4</sup>

12  
13 The land directly abutting the mine to the west and northwest has been mapped by the  
14 Washington Department of Ecology as geologically “unstable” in its Coastal Atlas, and recent  
15 slides have occurred within those lands.<sup>5</sup> Numerous residences exist within ¼ mile of the mine  
16 to the west, north, south, and east, including two residences within 200 feet of the western  
17 portion of the proposed and existing mining operation.<sup>6</sup>

18 **B. Procedural History.**

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20 On February 23, 2021, after holding a closed-record appeal on the Hearing Examiner’s  
21 approval of an earlier version of the SUP for the mine, the Board upheld Evergreen Islands’  
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24 <sup>2</sup> 2021 HEX Record, at 66, Ex. 2, Narrative at 12 of 20.

25 <sup>3</sup> 2021 HEX Record, at 66, Narrative at 12 of 20.

26 <sup>4</sup> 2021 HEX Record, at 30, Ex. 1, Skagit County Planning and Development Services Findings of Fact, 4 (July 8, 2019) (hereafter, “Staff Report”).

<sup>5</sup> 2021 HEX Record, at 853, Ex. 27, Stratum Group Letter, at 2 (Figure 1). These maps can also be found at <https://apps.ecology.wa.gov/coastalatlantools/Map.aspx> by zooming into the property, clicking “add map data,” and clicking on the slope stability box in the lower right corner of the pop-up window.

<sup>6</sup> Record at 31, Ex. 1, Staff Report at 5.

1 appeal on the grounds that the applicant had not evaluated the landslide risk to a neighborhood  
2 west/northwest of the mine.<sup>7</sup> The Commissioners found that Evergreen Islands had provided  
3 evidence of springs in the coastal bluffs northwest of the proposed mine at an elevation  
4 downgradient of the inferred groundwater level of the mine site, and that Mr. McShane had  
5 opined that the expanded mine would create an increased risk of landslide.<sup>8</sup> Notwithstanding  
6 that the coastal bluff west and northwest of the site is a geologically hazardous area, County  
7 staff had not required a geologically hazardous site assessment based on an inference from an  
8 applicant report that groundwater flowed to the northeast of the mine site; the applicant report  
9 had not considered springs in the bluffs that discharged downgradient of the groundwater at the  
10 site.<sup>9</sup> The Commissioners therefore remanded the application to the Hearing Examiner to  
11 consider whether the steep area to the west/northwest of the mine required the preparation of a  
12 Geologically Hazardous Area Site Assessment per the Code and, if so, to direct the preparation  
13 of such an assessment consistent with the Code and Hearing Examiner’s discretion.<sup>10</sup> The Board  
14 further directed the Hearing Examiner to conduct additional proceedings as needed to take  
15 relevant evidence and to impose such additional conditions as would be necessary to mitigate  
16 risks identified by the proceedings on remand.<sup>11</sup>

19 **C. The County Required the Applicant to Investigate the Hydrogeological Connection**  
20 **to the Unstable Bluffs on Remand.**

21 In response to the Board’s resolution, the Hearing Examiner referred the matter to Skagit  
22 County Planning & Development Services (“PDS”) to direct the applicant to prepare a  
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25 <sup>7</sup> 2023 HEX Record, at 562-63 (Resolution Pertaining to Closed Record Appeal in PL16-0556).

26 <sup>8</sup> 2023 HEX Record, at 562.

<sup>9</sup> 2023 HEX Record, at 562.

<sup>10</sup> 2023 HEX Record, at 563.

<sup>11</sup> 2023 HEX Record, at 563.

1 Geologically Hazardous Site Assessment.<sup>12</sup> On March 23, 2021, PDS transmitted that letter to  
2 Mr. Wooding to request that he prepare a Geologically Hazardous Area Site Assessment.<sup>13</sup> **In**  
3 **addition**, PDS' Administrative Official exercised his authority under SCC 14.24.420(2)(g) to  
4 request that Mr. Wooding address three specific site assessment elements:

- 5 • Analyze the landslide risk arising from the potential for increased groundwater  
6 migration to the west/northwest of the mine due to the proposed expansion and attendant  
7 removal of soil and vegetation which could alter groundwater behavior in the vicinity of  
8 the mine;
- 9 • Analyze the presence of springs on the coastal bluff to the northwest of the mine that are  
10 at an elevation down gradient of the inferred groundwater level; and
- 11 • Respond to the testimony of the professional geologist who identified that the proposed  
12 mine expansion will create an increased landslide risk.<sup>14</sup>

13 All of this requested information requires an understanding of the groundwater flow at the site  
14 based on evidence by Dan McShane that removal of the layers above the gravel would redirect  
15 groundwater toward the coastal bluffs west and northwest of the mine.<sup>15</sup> The letter afforded the  
16 applicant until July 21, 2021 to submit the requested information and noted that failure to do so  
17 would result in denial of the permit.

18 Mr. Wooding did not appeal the Board's remand, the Hearing Examiner's referral, **or**  
19 PDS' subsequent request for an Assessment and an analysis of the likelihood that the removal of  
20 soil and vegetation for the mine would alter groundwater behavior there by increasing it and  
21 redirecting it toward the neighboring unstable bluffs.

22 Subsequently, Mr. Wooding failed to submit the requested information by the  
23 established deadline and, when he failed to request an extension of the deadline within the  
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<sup>12</sup> 2023 HEX Record, at 565-66 (Referral to Planning and Development Services (March 9, 2021)).

26 <sup>13</sup> 2023 HEX Record, at 570 (Letter from Michael Cerbone to Bill Wooding re: Hearings Examiner Referral of  
PL16-0556 to Skagit County Planning & Development Services (March 23, 2021)).

<sup>14</sup> 2023 HEX Record, at 570.

<sup>15</sup> 2021 HEX Record, at 859-60; 2023 HEX Record, at 801.

1 Code-specified timeframe, PDS denied the permit. The applicant appealed this denial to the  
2 Hearing Examiner, relying heavily on the position that they had solicited and, by the time of the  
3 appeal hearing had obtained, a scope of work for the required review.<sup>16</sup> The Hearing Examiner  
4 noted in reversing PDS that Wooding was under contract with Canyon Environmental Services  
5 (“Canyon”) to explore groundwater flow toward the bluffs to the northwest.<sup>17</sup> Canyon proposed  
6 a scope of work to “help refine the understanding of groundwater and perched groundwater  
7 flow within the subject parcels and help address if changes to groundwater flow will affect the  
8 geohazard conditions in the close vicinity.”<sup>18</sup> As explained in the comment letter that Evergreen  
9 Islands submitted for the June 28, 2023 Hearing Examiner hearing, and that PDS has omitted  
10 from the record, that investigation would have involved field visits to document existing surface  
11 conditions, extensive desktop review of existing geologic mapping and preexisting studies and  
12 documents, topographical analysis, supervision of well installations, grainsize analysis, wet  
13 season groundwater monitoring, precipitation monitoring, wet season borehole and perched  
14 water evaluation, groundwater modeling/analysis, and report compilation.<sup>19</sup> That work could  
15 have determined whether the mine expansion would alter groundwater and increase the risk of a  
16 landslide in the coastal bluffs. It was never conducted.  
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19 **D. The Applicant Has Not Evaluated the Mine’s Potential to Contribute Increased**  
20 **Groundwater to the Landslide Risk Areas to the West/Northwest.**

21 This section discusses the report that the applicant submitted after remand, a subsequent  
22 third-party review of that report, and Dan McShane’s analysis of each of those documents.  
23

24 **1. Wood report.**

25 In November 2022, Evergreen Islands learned that the applicant had abandoned his

26 <sup>16</sup> 2023 HEX Record, at 585-88.

<sup>17</sup> 2023 HEX Record, at 594.

<sup>18</sup> Appendix A, at 18.

<sup>19</sup> Appendix A, at 19.

1 contract with Canyon and had instead hired two geotechnical engineers to draft a Geologic  
2 Hazard Site Assessment.<sup>20</sup> The resulting report by Wood Environmental (“Wood report”) did  
3 not include an independent inquiry into the hydrogeological regime at the mine site and instead  
4 expressly deferred to the earlier hydrogeologic reports that had not recognized the downgradient  
5 seeps to the northwest.<sup>21</sup> The Wood report declared that “[t]he previous hydrogeologic  
6 studies...provide detailed information regarding the groundwater elevation, groundwater flow  
7 direction, and conclude that the mining operation is unlikely to have any impact on the  
8 groundwater.”<sup>22</sup> The Wood report failed to acknowledge that the Board had ruled that the earlier  
9 hydrogeologic studies had overlooked the presence of lower elevation groundwater in the  
10 unstable bluffs and thus had failed to evaluate the likelihood that they were connected to  
11 groundwater at the mine. Rather than studying the geologically hazardous unstable bluffs to the  
12 west and northwest, the Wood report analyzed slope stability within the mine site itself.<sup>23</sup> With  
13 regard to the coastal bluffs, the Wood report referenced the possibility that groundwater seepage  
14 might affect the neighboring coastal bluffs, but then erroneously declared that the deficient  
15 groundwater documents had addressed that issue.<sup>24</sup> As already settled in the previous round of  
16 this case, and as can be observed through simple review of those materials and as summarized  
17 at Sections II.E and II.F below, those documents did not acknowledge or evaluate the  
18 downgradient springs in the coastal bluffs.  
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22 Thus, while the applicant has now provided a document titled geologic hazard  
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24 <sup>20</sup> 2023 HEX Record, at 635-36 (Evergreen Islands letter to Kevin Cricchio (Nov. 18, 2022)).

25 <sup>21</sup> 2023 HEX Record, at 597-634 (Wood, Geologic Hazard Site Assessment, Lake Erie Pit 1 Expansion (Aug. 11, 2022)).

26 <sup>22</sup> 2023 HEX Record, at 603 (Wood, at 3).

<sup>23</sup> 2023 HEX Record, at 603-06.

<sup>24</sup> 2023 HEX Record, at 606 (stating that “[t]he site is too far away from the coastal bluffs to cause any changes in these conditions except for possibly groundwater seepage and the previous hydrogeologic studies for the site (Maul Foster, 2016 and 2017; and NWGC, 2019) addressed this possibility.”).

1 assessment, that document assumes away the sole question before the Board, whether the mine  
2 will impact and redirect groundwater toward the unstable bluffs.

3 **2. Third-party review.**

4 On November 25, 2022, the Watershed Company provided PDS with a review of the  
5 Wood report.<sup>25</sup> That document did not acknowledge the existence of the springs in the coastal  
6 bluffs or provide an evaluation of groundwater elevations in the vicinity of the mine. Instead, it  
7 merely recited statements from the Wood report and proposed several mitigation measures due  
8 to uncertainties created by the use of inferred water levels in earlier hydrogeologic reviews.<sup>26</sup>  
9 These measures do not relate to the coastal bluffs.  
10

11 On January 18, 2023, the Watershed Company provided a terse document that it  
12 characterized as a response to Evergreen Islands' comments on the Wood report's lack of  
13 hydrogeologic study.<sup>27</sup> This document correctly summarized Evergreen Islands' concern as the  
14 adequacy of the groundwater flow assessment and potential impacts to bluff stability west and  
15 northwest of the proposed pit expansion, but then discussed a different geographic location.  
16 Instead of reviewing the bluffs to the northwest, the Watershed document discussed the Dodson  
17 Canyon springs west and southwest of the mine and concluded that the groundwater in the  
18 springs there, at an elevation of 200 feet above mean sea level, originate in an unspecified and  
19 unknown regional aquifer.<sup>28</sup> That document indicates that the author may not have been made  
20 aware of the springs in the coastal bluffs northwest of the mine site, at an elevation of 165-175  
21 feet above mean sea level. Regardless, it does not address those springs.  
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26 <sup>25</sup> 2023 HEX Record, at 793-94.

<sup>26</sup> 2023 HEX Record, at 793-94.

<sup>27</sup> 2023 HEX Record, at 791-92.

<sup>28</sup> 2023 HEX Record, at 792.



1                   **3. Stratum Group response to Wood report and third-party review.**

2                   The licensed engineering geologist who originally discovered that the application had  
3 not evaluated potential downgradient hydrogeological impacts, Dan McShane, reviewed the  
4 Wood report and the third-party review and provided written responses that documented their  
5 inapplicability to the groundwater issue on remand.

6                   With regard to the Wood report, Mr. McShane stated that it did not assess groundwater  
7 flow and appears to have been based on a lack of awareness of the groundwater springs in the  
8 coastal bluffs, as follows:

9  
10                  The Wood Geology Hazard Site Assessment (2022) did not identify the springs  
11 and made no attempt to assess the groundwater flow to the springs even though  
12 this was a specific item requested by Skagit County Planning and Development  
13 Services. Wood appears to have been unaware of the groundwater springs. The  
14 Wood report used the same groundwater contour map as the Maul Foster Alongi  
15 (2017) report. The Wood assessment provided no assessment of the steep bluff  
16 areas to the northwest of the mine. The rationale for not assessing the slope was  
17 based on the assumption that groundwater does not flow to the bluff. The role of  
18 groundwater flow to the bluff remains unevaluated.

19                  I submitted my original comments (October 12, 2020) because I have been on the  
20 slopes to the northwest and recognized that groundwater levels from a mid slope  
21 area of springs have been and are a major driver of slope instability along the  
22 slope area to the northwest of the mine (pictures attached). Groundwater impacts  
23 to the stability of the slope to the northwest of the mine is why the headwall of the  
24 landslide scarp along the bluff northwest of the mine has recessed approximately  
25 300 feet into the upland area (attached lidar image). The potential change to  
26 groundwater flow towards these springs by the removal of the glacial till cover  
within the proposed mine expansion has still not been evaluated. These springs  
were not identified in the groundwater assessment, the geology hazard site  
assessment or the response document.

                  If recharge to groundwater that feeds these springs is increased, the frequency and  
magnitude of groundwater driven landslides will increase on these slopes.<sup>29</sup>

                  With regard to the Watershed Company’s statement that they had not found discrepancies in the  
data used in the earlier hydrogeology reports, Mr. McShane stated that,

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<sup>29</sup> 2023 HEX Record, at 648.

1 While the letter by The Watershed Company stated that they found “no significant  
2 discrepancies or inaccuracies in the data”, the letter did not discuss the very large  
3 groundwater elevation discrepancy reported between the Maul Foster Alongi  
4 (2016 and 2017) reports and the water directly measured at two wells by  
5 Northwest Groundwater Consultants (2019). The water levels measured directly  
6 by Northwest Groundwater Consultants were 50 feet and 35 feet lower than the  
7 groundwater contour map produced in 2016 and 2017. This large discrepancy  
8 strongly suggests that the groundwater elevations of the all of the other wells that  
9 were not directly measured are inaccurate and therefore the groundwater contour  
10 map is not an accurate portrayal of the groundwater elevations.

11 The significant difference in groundwater elevations between the 2016/2017  
12 report and the measured elevations in the 2019 report, as well as the lack of  
13 recognition of the groundwater discharge locations on the slopes to the northwest,  
14 should have been noted in The Watershed Company review, particularly given  
15 that the County may be considering the review as a third party review.<sup>30</sup>

16 Importantly, Mr. McShane concluded that,

17 There are no data regarding the groundwater elevations between the proposed  
18 mine expansion and the bluffs to the northwest of the mine.

19 The areas of springs on the slopes to the northwest of the mine have still not been  
20 analyzed despite the specific request by Skagit County Planning and Development  
21 Services. The proposed scope of work prepared by Canyon Environmental Group  
22 and submitted to the County as part of the application process by the applicant has  
23 not been completed.<sup>31</sup>

24 A simple read of the Wood report and Mr. McShane’s analysis reached the same  
25 conclusion – it did not conduct an evaluation of the likelihood that the mine expansion  
26 would alter the path for stormwater at the site by infiltrating it into the groundwater and  
discharging it through the coastal bluffs to the northwest of the site. The third-party  
review likewise omitted any reference or understanding of the springs in the coastal  
bluffs and thus overlooked the potential impact.

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<sup>30</sup> 2023 HEX Record, at 648-49.

<sup>31</sup> 2023 HEX Record, at 649.

1 **E. Mr. McShane’s Unrebutted Evidence Continues to Demonstrate that the Mine**  
2 **Proposal Likely Would Impact the Groundwater Springs in the Unstable Coastal**  
3 **Bluffs to the Northwest.**

4 Because the application has not provided new information about the groundwater  
5 context at the site or its likely hydrogeological connection with the downgradient springs in the  
6 coastal bluffs, we offer the information below as a refresher on the best available information  
7 about that issue. Mr. McShane, who has conducted detailed hazard assessments of the geology  
8 of the bluffs west of the mine, including field inspection of the bluff slopes and shoreline at the  
9 base of the bluff, opined that the mine likely will impact groundwater in the bluffs.<sup>32</sup> As Mr.  
10 McShane has noted, he typically consults with mine operators, rather than community groups.  
11 But the lack of geological review of the mine’s impacts on the neighboring bluff stability caused  
12 him severe concern and he agreed to draft a report to highlight the unexplored, but very real,  
13 risk of injury and damage from the mine.<sup>33</sup>

14  
15 Figures from the licensed geological report that Mr. McShane submitted into the record  
16 show that the Permit re-approves a substantial extraction operation adjacent to a landslide  
17 area.<sup>34</sup> As can be seen from Figure 1, copied below, the Washington Department of Ecology’s  
18 Coastal Atlas labels the mine with a purple overlay to show it as “modified” land and shows an  
19 “unstable” slope in orange abutting that modified area.<sup>35</sup> Within the area shown as unstable  
20 slope, the Coastal Atlas maps in red an area that has suffered recent slides, just over two  
21 hundred feet from the purple zone showing the mine.<sup>36</sup>

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<sup>32</sup> 2021 HEX Record, at 852, Stratum Group Letter at 1.

26 <sup>33</sup> 2021 HEX Record, at 852, Stratum Group Letter.

<sup>34</sup> 2021 HEX Record, at 853, Ex. 27, Stratum Group Letter at 2 (Figures 1 and 2).

<sup>35</sup> 2021 HEX Record, at 853, Ex. 27, Stratum Group Letter at 2 (Figure 1).

<sup>36</sup> 2021 HEX Record, at 853, Ex. 27, Stratum Group Letter at 2 (Figure 1).

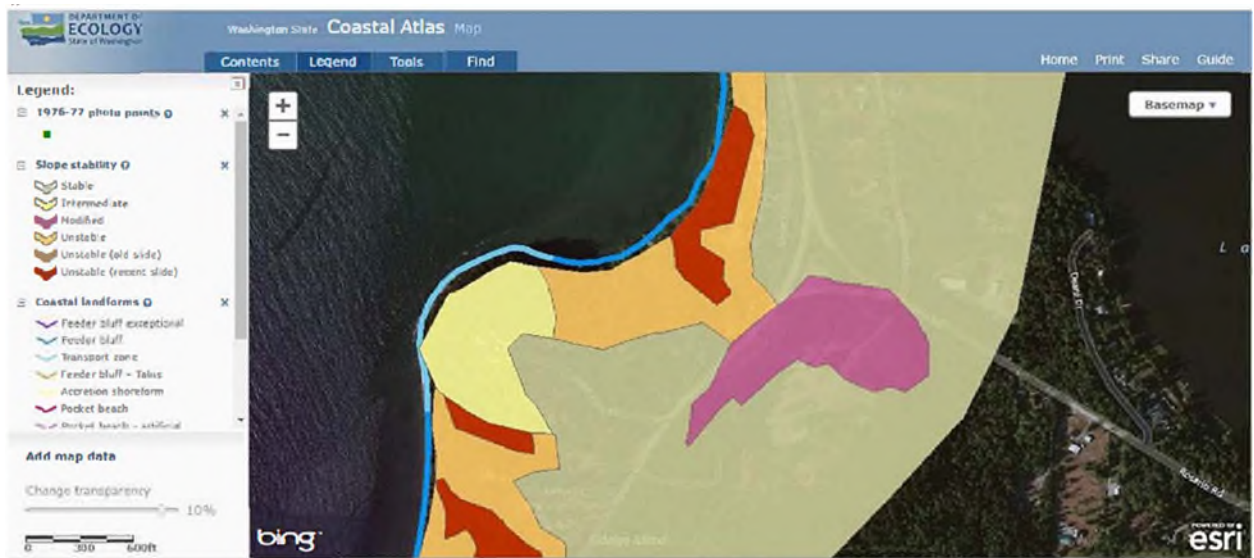


Figure 1. Washington State Department of Ecology Coastal Atlas slope stability map. Note that the slope immediately adjacent to the gravel pit (modified land in purple) is mapped as Unstable and within that unstable area is an area mapped as Unstable (recent slide). This map alone indicates that a mine site is adjacent to a landslide hazard area per the Skagit County critical areas regulations and the hazard should be evaluated.

The map in Figure 2 below provides a clearer image of the topographic features at and adjacent to the site. As shown in the figure, the edge of the current mine is just 275 feet, less than the length of a football field, from the edge of one of the recent slope failures to the northwest.

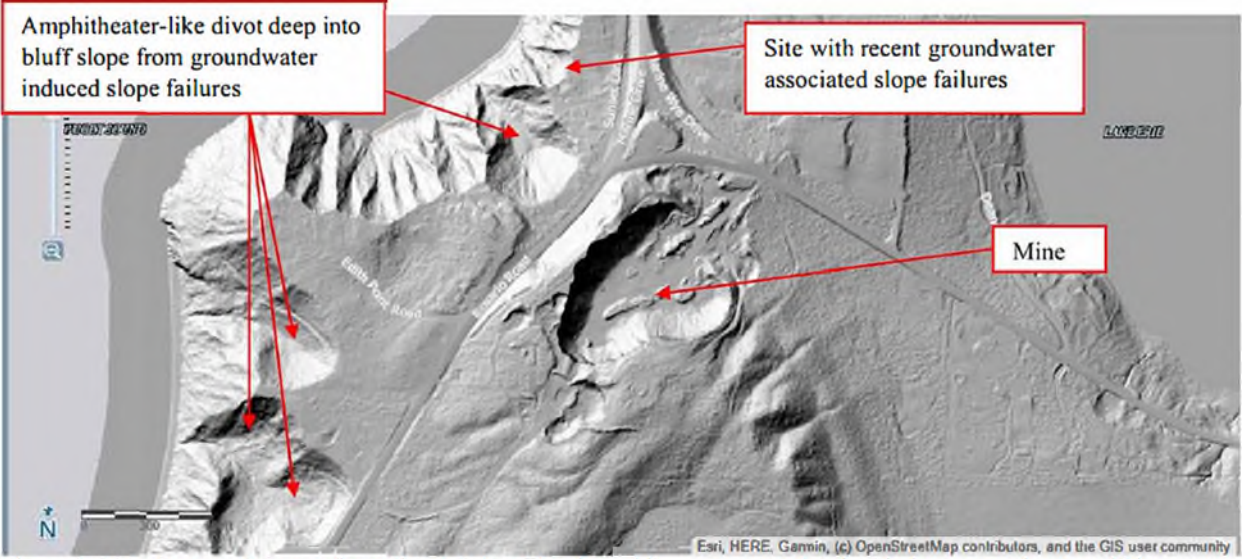


Figure 2. Lidar bare earth image from Skagit iMap. The slope failures are associated with deep groundwater within a dense sand formation perched on an impermeable silt/clay formation. These deep divots are all associated with groundwater. When groundwater levels rise the increase pore pressures in the sand formation cause the bluff slopes to collapse. Controlling water inputs to groundwater is a critical factor for bluff stability.

1  
2 Mr. McShane also submitted photos of the landslides that have occurred in the vicinity  
3 of the area shown on Figure 1 as recent slide.<sup>37</sup> These photos show two areas northwest of the  
4 mine where the layer of sand that lies above a more impermeable clay/silt later sand became so  
5 saturated with groundwater that they blew out, taking a large portion of the bluff with them.<sup>38</sup>  
6 Three of the photos have been inserted below. As with the figures above, the captions come  
7 from the original letter.  
8



21 Figure 6. View of smaller amphitheater landform with hard silt/clay on lower bluff and steep sand and gravel bluff  
22 above.  
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<sup>37</sup> 2021 HEX Record, at 856-57, Ex. 27, Stratum Group Report, at Figures 6-8.

<sup>38</sup> *Id.*



Figure 7. Site of recent sand blowout from perched groundwater just above the silt clay layer.



Another site where the sand unit collapse and flowed down over the hard silt/clay to the beach area below.

Notwithstanding these indications of landsliding, the applicant has not investigated groundwater levels northwest of the mine site. Mr. McShane explained in his October 12, 2020 memorandum that the applicant had not provided “elevation control” between the proposed mine expansion and the springs in the coastal bluffs to the northwest, as shown in this figure from the applicant’s consultant that omits well elevations there:



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 11 The Application materials still do not evaluate impacts to the geologically unstable  
 12 slopes abutting the mine based on an unproven assumption from earlier incomplete consultant  
 13 reviews that groundwater at the site flows to the northeast. The Wood study concludes that  
 14 “[t]he studies concluded that the proposed site development will not impact the groundwater  
 15 table or the stability of the coastal bluffs because groundwater flows from the site towards the  
 16 northeast, away from the bluffs...”<sup>39</sup> As noted in our brief 2 1/2 years ago, the hydrogeological  
 17 report asserts that groundwater flow beneath the proposed mine expansion should have no effect  
 18 on nearby slope stability based on an erroneous assumption that “the Mine will not be  
 19 generating any additional water and that all stormwater will be contained within the Mine  
 20 boundary.”<sup>40</sup> That report did not explain how the mine would avoid generating additional water  
 21 while at the same time removing more than 35 acres of trees, shrubs, and soils that current  
 22 absorb water.<sup>41</sup> Nor did it explain that the increased stormwater on the site will be directed into  
 23 the mine floor, where it will increase the amount of aquifer recharge and then flow as  
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<sup>39</sup> 2023 HEX Record, at 606.

<sup>40</sup> 2021 HEX Record, at 254, Ex. 9, Hydro Report, at 3.

<sup>41</sup> *Id.*

1 groundwater.<sup>42</sup> In reviewing those materials, Mr. McShane concluded that the consequences of  
2 increased infiltration of groundwater had not been considered and that “[r]emoval of vegetation  
3 and soil, including removal of low permeable glacial till underlying much of the yet to be mined  
4 area will increase groundwater recharge,” and that such activity increases the risks of slides  
5 because the mine site likely contributes groundwater to the slide areas.<sup>43</sup>

6 **F. Documents in the Historical Record Demonstrate that the Mine Would Increase**  
7 **the Amount of Groundwater Discharging to Unstable Bluffs to the Northwest.**

8 As with the section above, this section restates information from the first appeal to the  
9 Board. Readers who feel sufficiently familiar with the background in this case may want to skip  
10 ahead to the argument below.

11 The subsections below identify the acknowledged incomplete data underlying the  
12 applicant’s claim that groundwater at the site is inferred to flow north/northeast and the  
13 information in the record that demonstrates that the mine discharges groundwater to and  
14 through the unstable bluffs to the northwest.

15 **1. Application materials did not assess whether groundwater from the site flows**  
16 **west.**

17 Although the Application materials include three documents that relate to groundwater  
18 at the site, the consultant acknowledges that they did not explore the potential for groundwater  
19 to flow from the mine west or northwest to the landslide areas discussed above.<sup>44</sup> A 2019 letter  
20 from Northwest Groundwater Consultants (“NGC”) states that they did not evaluate whether  
21 groundwater flows to the west, believing that “with the lack of identifiable wells to the west, it  
22 was not possible to construct reasonable groundwater contours and confirm that groundwater  
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26 <sup>42</sup> *Id.*

<sup>43</sup> 2021 HEX Record, at 858, Ex. 27, Stratum Group Report at 7.

<sup>44</sup> 2021 HEX Record, at 332-33, Ex. 12, NGC Letter at 1-2.



1 flowed in that direction.”<sup>45</sup> NGC also stated that they did not take well readings “due to private  
2 property and trespassing concerns.”<sup>46</sup> NGC does not explain why they did not contact concerned  
3 neighbors to the west to seek permission to access their property to assess the mine’s potential  
4 impacts on them.<sup>47</sup> As noted by Mr. McShane, application materials also “do[] not mention or  
5 discuss the springs that drain groundwater on the bluffs to the northwest” and “[t]here is a lack  
6 of any elevation control on the west side of the groundwater contour map...groundwater is  
7 flowing towards the spring area not lateral to the springs as indicated.”<sup>48</sup>

9         Instead of evaluating whether groundwater flows west from the site, the applicant  
10 “inferred” from Department of Ecology well-drilling records for wells to the east and north of  
11 the site and from surface topography that groundwater beneath the mine flows to the north and  
12 northeast.<sup>49</sup> Application documents note that “[s]tatic water levels reported on water well  
13 records at the time of drilling were the only means to assess groundwater direction and flow.”<sup>50</sup>  
14 The well water levels in those records varied significantly, from 60 feet above mean sea level to  
15 239 feet above mean sea level.<sup>51</sup> The underlying geology also varied from permeable to  
16 impermeable, with some wells drilled into glacial sediment and others in bedrock.<sup>52</sup> The  
17 consultants used this information to “approximate” groundwater elevations and direction.<sup>53</sup>  
18 Application materials do not indicate an effort to attribute well-water heights to factors like the  
19 time of year the well was drilled or the climatic conditions in the year in which they were  
20  
21

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22 <sup>45</sup> 2021 HEX Record, at 333, Ex. 12, NGC Letter at 2.

23 <sup>46</sup> 2021 HEX Record, at 332, Ex. 12, NGC Letter, at 1.

24 <sup>47</sup> *Id.* This point is particularly notable in light of recent homeowner testimony at the June 28, 2023 hearing of a  
willingness to allow well readings.

25 <sup>48</sup> 2021 HEX Record, at 858-59, Ex. 27, Stratum Group Report, at 7-8.

26 <sup>49</sup> 2021 HEX Record, at 252, Ex. 9, Hydro Report at 3.

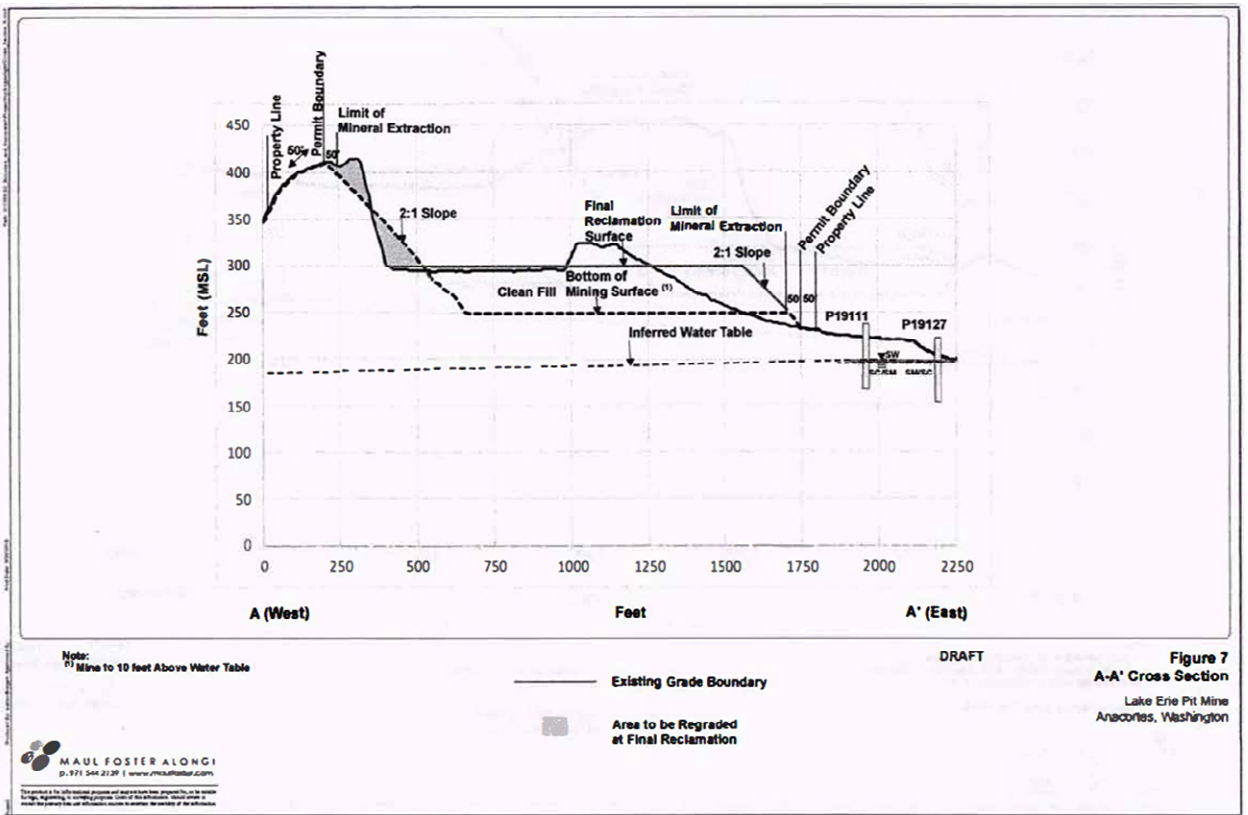
<sup>50</sup> 2021 HEX Record, at 332, Ex. 12, NGC Letter, at 1.

<sup>51</sup> 2021 HEX Record, at 252, 260, 273-74, Ex. 9, Hydro Report at 3, Table 1, Attachment A Table (Water well  
report summary).

<sup>52</sup> 2021 HEX Record, at 252, Ex. 9, Hydro Report at 3.

<sup>53</sup> 2021 HEX Record, at 333, Ex. 12, NGC Letter, at 2.

1 drilled. Ultimately, the applicant's consultant drilled an observation well at the mine site and  
 2 determined that the groundwater there lies at a depth of approximately 190 feet above mean sea  
 3 level.<sup>54</sup> The consultants continued to infer that groundwater flowed to the northeast but did not  
 4 state the base for that assumption.<sup>55</sup> A discussion of elevations at and in the vicinity of the site  
 5 indicates that assumption arose on the grounds that wells to the north and east showed surface  
 6 water levels below 190 feet. However, figures attached to the hydrogeologic reports show an  
 7 inferred groundwater table sloping down from south to north, and also from east to west, as  
 8 below.<sup>56</sup>



54 2021 HEX Record, at 310, Ex. 10, Maul Foster Alongi Letter to Stephen Taylor re: Observation Well Installation, Lake Erie Pit Expansion, Skagit County, Washington, 3 (Sept. 28, 2017) (hereafter “2017 Letter”).  
 55 2021 HEX Record, at 310, Ex. 10, 2017 Letter.  
 56 2021 HEX Record, at 268, Ex. 9, Hydro Report.

1                   **2. Materials in the record demonstrate that groundwater flows northwest from**  
2                   **the site.**

3                   In contrast with the application’s lack of investigation into groundwater levels to the  
4 west, Mr. McShane conducted such a review and determined that groundwater from the site  
5 discharges to the northwest at springs in the unstable bluffs.<sup>57</sup> Mr. McShane stated that “the  
6 presence of these springs suggests the inferred groundwater flow direction to the northeast in  
7 the report is not correct” and concludes that

8                   [t]he expansion of the mine will increase groundwater recharge and groundwater  
9 flow from the mine area will increase. At least some of that increase will be  
10 towards the unstable bluffs where the sand formations are located over very low  
11 permeability silt/clay. An increase in groundwater flow will increase the  
frequency and magnitude of landslides.<sup>58</sup>

12 Mr. McShane reached this conclusion based on his observations that groundwater discharges  
13 from springs in the bluffs at an elevation between 165 and 175 feet.<sup>59</sup> This conclusion is  
14 consistent with the Application’s conclusion that groundwater flows from higher elevations to  
15 lower elevations. The applicant’s hydrogeological studies state that groundwater flows from the  
16 southern part of the mine site at a height of 190 feet above mean sea level to the Wooding well  
17 at 176 feet and well P19106 at 176 feet.<sup>60</sup> The hydrogeologic report’s Figure 7 also shows in the  
18 inferred water table in its east-west Cross Section that the gradient slopes downward from east  
19 to west, as noted above.<sup>61</sup>

21                   Due to the hydrogeological report’s “fundamental problem” of failing to gauge  
22 groundwater depths to the west of the site, Mr. McShane provides his professional opinion that  
23 the mine has unevaluated “potential to impact the deep-seated landslide areas to the west” and  
24

25 \_\_\_\_\_  
<sup>57</sup> 2021 HEX Record, at 859, Ex. 27, Stratum Group Report, at 8.

26 <sup>58</sup> 2021 HEX Record, at 858-59, Ex. 27, Stratum Group Report, at 7-8.

<sup>59</sup> 2021 HEX Record, at 859, Ex. 27, Stratum Group Report, at 8.

<sup>60</sup> 2021 HEX Record, at 267, Ex. 9, Hydro Report, at DRAFT Figure 6.

<sup>61</sup> 2021 HEX Record, at 268, Ex. 9, Hydro Report.

1 that “the potential groundwater flow increase towards the unstable bluffs should be fully  
2 quantified.”<sup>62</sup>

### 3 **III. ISSUE PRESENTED**

4 Should the Board determine that the Hearing Examiner erred by relying on incomplete  
5 information and relitigating the Board’s earlier decision and order that the SUP be reversed and  
6 remanded so that the applicant can review the mine’s hydrogeological impacts on the unstable  
7 shoreline slopes?  
8

### 9 **IV. ARGUMENT**

10 The Hearing Examiner erred by approving the Mining Special Use Permit without  
11 statutorily-required information for the SUP and without the information that PDS requested on  
12 remand. The application continues to omit hydrogeological information necessary to satisfy the  
13 mining special use permit criteria, as well as a study of the impacts on the unstable bluffs in the  
14 shoreline bluffs and conditions to ensure that groundwater infiltration at the site does not  
15 exacerbate the neighboring landslide risk. SCC 14.16.440(8), (9). The absence of that  
16 information also prevents a conclusion that the mine will not cause potential adverse effects on  
17 the general public health, safety, and welfare as required for a special use permit. SCC  
18 14.16.900. Finally, the geohazard assessment does not provide the information required for  
19 approval of such a review, including the assessment elements requested by PDS on remand.  
20 SCC 14.24.420. Without a study of the mine’s hydrogeological impacts to the adjacent landslide  
21 risk area, it cannot be approved through the SUP. Mr. McShane’s geological hazard assessments  
22 in the vicinity of the mine show that groundwater flowing out of springs and seeps in the  
23 hillside has a significant impact on slope stability directly west and northwest of the mine and  
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26

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<sup>62</sup> 2021 HEX Record, at 858-860, Ex. 27, Stratum Group Report, at 7-9.

1 any change in groundwater at the mine will alter that groundwater flow and impact the stability  
2 of the bluffs.<sup>63</sup> An increase in bluff failure frequency and scale would significantly impact  
3 homes near the bluff and shoreline processes along the beach below it.<sup>64</sup>

4 **A. Standard of Review.**

5 In a closed record review of a Hearing Examiner decision, the Board “shall examine the  
6 record, the decision or recommendation and the arguments presented in the closed record  
7 hearing” and decide whether to remand the matter to the Hearing Examiner for further  
8 consideration or to affirm or reverse the decision. SCC 14.06.170(10). If the Board believes that  
9 the Hearing Examiner’s decision is clearly erroneous, it may adopt its own findings,  
10 conclusions, and decision based upon the record made before the Hearing Examiner. SCC  
11 14.06.170(10)(b). A decision is clearly erroneous if it leaves a reviewing body with “a definite  
12 and firm conviction that a mistake has been committed.” *City of Federal Way v. Town &*  
13 *Country Real Estate, LLC*, 161 Wn. App. 17, 42, 252 P.3d 382 (2011). Here, the Hearing  
14 Examiner clearly erred by approving the SUP because the record demonstrates that neither the  
15 applicant nor the County investigated the mine’s hydrogeological impacts on the geologically  
16 unstable bluffs.  
17  
18

19 **B. Standing.**

20 Evergreen Islands has standing pursuant to SCC 14.06.170(2) and 14.04.020 as a party  
21 of record. Evergreen participated in the proceeding before the Skagit County Hearing Examiner  
22 in PL15-0556 by submitting written and oral comments. Further, Evergreen Islands and its  
23 members are aggrieved by the Permit’s unexamined slope stability impacts and by the  
24 environmental impacts associated with the substantially expanded mine.  
25  
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<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

1 **C. General Mining Special Use Permit Approval Criteria.**

2 While the Board limited the scope of its remand order to consistency with the County’s  
3 critical areas regulations for geologically hazardous areas, SCC 14.24.400-.420, it is useful to  
4 keep in mind the overarching criteria that must be satisfied to approve a Mining Special Use  
5 Permit. An applicant for a mine permit bears the burden of proving that the impacts of the mine  
6 comply with Skagit County’s Mineral Resource Overlay regulations and incorporated Special  
7 Use Permit criteria, and that conditions will mitigate detrimental impacts to the environment  
8 and will protect the general welfare, health and safety. SCC 14.16.440(9)(a). If the impacts are  
9 mitigable, then the permit shall be granted. *Id.* Mitigating conditions must be performance-  
10 based, objective standards. *Id.* In addition, the County’s mining rules are “minimum standards  
11 based on unique site-specific factors or conditions as appropriate to protect public health, safety,  
12 and the environment.” SCC 14.16.440(9)(b). Ultimately, appropriate conditions “shall be  
13 required to mitigate existing and potential incompatibilities between the mineral extraction  
14 operation and adjacent parcels.” SCC 14.16.440(9)(c). In addition, site-specific conditions are  
15 required to mitigate a mine’s stormwater runoff and erosion impact. SCC 14.16.440(9)(d).

18 To address groundwater specifically, a qualified geologist, hydrogeologist, or licensed  
19 engineer must prepare a report that characterizes the area’s groundwater, including:

- 20  
21 (i) a description of the geology and hydro-geology of the area, such as the  
22 delineation of aquifer, aquitards, or aquicludes, hydrogeologic cross-sections,  
23 porosity and horizontal and vertical permeability estimates; (ii) a determination of  
24 the direction and velocity of ground water movement, water table contour and  
25 potentiometric surface maps, if applicable; and (iii) a map containing the limits of  
26 the mine, buffer zones, location of all ground water wells within 1 mile distance  
down gradient from the property boundaries, location of all perennial streams and  
springs, and definition or specification of locations of aquifer recharge and  
discharge areas.

SCC 14.16.440(8)(b).

1 In addition, an applicant bears the burden of demonstrating that the proposed activity  
2 will not adversely affect or prevent those uses normally allowed within the respective district  
3 and of proving compliance with the Special Use Permit criteria. SCC 14.16.900(1)(a), (1)(b)(v).  
4 These criteria mandate that a proposal avoid causing potential adverse effects on the general  
5 public health, safety, and welfare and that it not conflict with the health and safety of the  
6 community. SCC 14.16.900(1)(b)(v)(E), (v)(G).

7  
8 The applicant continues to fall short of his burden because the Wood report failed to  
9 revisit the hydrogeological information necessary to determine whether the mine would  
10 aggravate the landslide risk on the adjacent properties and thus failed to adequately identify,  
11 assess, and mitigate its impacts on public health, safety, and the environment.

12 **D. The Hearing Examiner erred when he concluded that the Geologically Hazardous**  
13 **Area Site Assessment drafted by Wood is consistent with SCC 14.24.400-.420 and**  
14 **the Board’s order on remand. (Conclusion of Law No. 2)**

15 As an initial matter, the Hearing Examiner decision must be reversed on the ground that  
16 he failed to evaluate whether the applicant addressed the “additional site assessment elements”  
17 required by the Administrative Official pursuant to SCC 14.24.420(2)(g) in his March 23, 2021  
18 letter.<sup>65</sup> Those elements directed the applicant to:

- 19
- 20 • Analyze the landslide risk arising from the potential for increased groundwater  
21 migration to the west/northwest of the mine due to the proposed expansion and attendant  
22 removal of soil and vegetation which could alter groundwater behavior in the vicinity of  
23 the mine.
  - 24 • Analyze the presence of springs on the coastal bluff to the northwest of the mine that are  
25 at an elevation down gradient of the inferred groundwater level.
  - 26 • Respond to the testimony of the professional geologist who identified that the proposed  
mine expansion will create an increased landslide risk.

It cannot reasonably be disputed that the Wood report did not address these elements. It did not

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<sup>65</sup> 2023 HEX Record, at 570.

1 evaluate the potential for increased groundwater migration to the west/northwest due to the  
2 removal of soil and vegetation that could alter the behavior of groundwater at the mine. It did  
3 not analyze the presence of the springs in the coastal bluffs northwest of the mine, and it did not  
4 respond to Dan McShane's professional opinion that the proposed mine expansion would create  
5 an increased landslide risk. Instead, as stated above, the Wood report deferred to the deficient  
6 hydrogeology reports that failed to learn of the presence of the downgradient springs in the  
7 coastal bluffs in the first instance. Consequently, the SUP must be reversed and remanded for  
8 these elements to be addressed to satisfy SCC 14.24.420(2)(g).  
9

10 Second, while the applicant has now provided a document titled geologically hazardous  
11 area assessment, it does not provide the requisite information or fully evaluate the geological  
12 hazards as required by the critical areas ordinance. A site assessment must be prepared by a  
13 qualified professional for the type of critical area involved and must contain information  
14 specified for that critical area. SCC 14.24.080(4)(a). The site assessment must use scientifically  
15 valid methods and studies in the analysis of critical areas data and field reconnaissance. SCC  
16 14.24.080(4)(b). Critical areas site assessments generally must include: (1) an identification and  
17 characterization of all critical areas and buffers adjacent to the proposed project area; (2) an  
18 assessment of the probable cumulative impacts to critical areas resulting from development of  
19 the site and the proposed development; (3) a description of the proposed stormwater  
20 management plan for the development and consideration of impacts to drainage alterations; (4)  
21 a description of the efforts made to apply mitigation sequencing; and (5) a proposed mitigation  
22 plan. SCC 14.24.080(4)(c). Geologically hazardous site assessments must also include: (1) an  
23 assessment of the geologic characteristics and engineering properties of the soils, sediments,  
24 and/or rock of the subject property *and potentially affected adjacent properties*; (2) a  
25  
26



1 description of load intensity, and surface and groundwater conditions; (3) an estimate of bluff  
2 retreat rate for potential coastal bluff geologic hazards; (4) an estimate of slope stability for  
3 potential landslide hazards; and (5) as discussed above, additional site assessment elements as  
4 required by the Administrative Official. SCC 14.24.420(2).

5           The Wood report did not meet these standards for evaluating the proposed mine's  
6 impacts to the adjacent, off-site unstable bluffs. It was not prepared by a qualified professional  
7 on hydrogeological matters. It did not identify and characterize the unstable coastal bluffs or  
8 their soils, sediments, and rock. It did not assess the probable cumulative impacts of generating  
9 and then sending a significant amount of infiltrated stormwater toward the seeps and springs in  
10 the coastal bluffs notwithstanding that those bluffs already experience documented slides. It did  
11 not consider the impacts to drainage alterations of infiltrating a full thirty-six acres of  
12 stormwater by removing trees, shrubs, soils, and low-permeability till. It also did not provide an  
13 updated description of groundwater conditions in light of the downgradient seeps and springs in  
14 the coastal bluffs to the west/northwest to determine whether the mine would destabilize the  
15 neighborhood there. Nor did it estimate the slope stability or bluff retreat rate for those hazards  
16 along the shoreline. Ultimately, the Report does not evaluate the potential for the mining  
17 operations to increase the volume of groundwater that exits the ground through springs  
18 downgradient of the mine site's inferred groundwater level and to cause landslides in the  
19 unstable bluffs west and northwest of the site. By ignoring the project's slope stability impacts,  
20 the report was able to avoid the need to describe efforts to apply mitigation sequencing or  
21 propose a mitigation plan. The Hearing Examiner erred by failing to evaluate the Wood report  
22 against the required criteria above, referring to only the slope stability and bluff retreat rates.  
23  
24  
25  
26 Consequently, the SUP must be reversed and remanded.

1 **E. The Hearing Examiner erred when he concluded that the proposed mine expansion**  
2 **is not being built within 200 feet of a known or suspected risk, as contemplated in**  
3 **SCC 14.24.420(1) and that a geologically hazardous site assessment would not**  
4 **normally be triggered in the first place and was ordered out of an abundance of**  
5 **caution. (Conclusion of Law No. 2)**

6 The mine would be constructed within 200 feet of a known geologically hazardous risk  
7 and thus requires a geologic hazard assessment. As can be seen from the map at Section II.E  
8 above, the coastal bluffs immediately to the west and northwest of the mine property have been  
9 documented as Unstable, some with recent slides, according to the Washington Department of  
10 Ecology’s Coastal Zone Atlas. Such unstable slopes qualify as landslide hazard areas pursuant  
11 to SCC 14.24.410(2)(a). Further, those areas lie within 200 feet of the mine; the same map  
12 shows the unstable bluffs directly abutting the mine area, marked as “modified.” Since the mine  
13 lies within 200 feet of an area of known or suspected risk for geologically unstable condition  
14 and the geologic condition may pose a risk to life and property, or other critical areas on and off  
15 the project area, it requires the preparation of a geological assessment by a qualified  
16 professional. SCC 14.24.420(1).

17 Consequently, although it would have been appropriate for the County to exercise an  
18 abundance of caution to direct the applicant to evaluate whether the mine would cause fatal  
19 landslides, the Code also requires such an evaluation, and the Hearing Examiner erred by  
20 concluding otherwise based on the mistaken belief that the location of the bluffs, rather than the  
21 unstable slope complex, would be the threshold factor for triggering review.

22 **F. The Hearing Examiner erred when he concluded that the applicant’s geologically**  
23 **hazardous site assessment is adequate to the task required on remand to assess the**  
24 **possibility that groundwater flow altered by the proposed mine expansion could**  
25 **affect the coastal bluffs northwest of the site. (Conclusion of Law No. 2)**

26 The Hearing Examiner concluded that the Wood report was adequate for the task on  
remand – to assess the possibility that groundwater flow altered by the proposed mine

1 expansion could affect the coastal bluffs. Yet the Wood report did not conduct such an  
2 assessment. Instead, it deferred to the faulty groundwater documents by Maul Foster Alongi and  
3 NWGC, suggesting that they had provided detailed information, and concluded that the mining  
4 operation was unlikely to have any impact on groundwater.<sup>66</sup> Indeed, the Wood report's  
5 discussion of groundwater conditions does not even acknowledge the concern on remand with  
6 the bluffs to the northwest, focusing instead on whether groundwater conditions could affect  
7 Devil's Elbow Lake to the east.<sup>67</sup> The Wood report later refers to the coastal bluffs in its slope  
8 stability discussion, but summarily dismisses any concern again based on the earlier  
9 hydrogeology report assumptions that groundwater flows to the northwest.<sup>68</sup>

11 None of the groundwater documents discussed the possibility of the mine altering  
12 groundwater flow. Furthermore, none of the earlier reports contemplated downgradient springs  
13 in the coastal bluffs or evaluated whether removal of the trees, soils, and glacial till would allow  
14 stormwater to travel in a different direction than the surface runoff by infiltrating down to the  
15 groundwater layer at 190 feet and then discharge from the coastal springs at 165-175 feet. Those  
16 consultants admittedly did not examine potential groundwater flow and discharge to the west  
17 and northwest.<sup>69</sup> They did not identify or examine the elevation of springs in the area of the  
18 recent landslides to determine whether the difference between that 165-175 foot elevation and  
19 the higher 190-foot elevation measured for the source of aquifer recharge at the mine would  
20 cause water to flow toward the springs. They did not review any well elevations west of the  
21 mine site. The Hearing Examiner erred in upholding a subsequent report that relied on those  
22 documents.  
23  
24

25 \_\_\_\_\_  
26 <sup>66</sup> 2023 HEX Record, at 603.

<sup>67</sup> 2023 HEX Record, at 603.

<sup>68</sup> 2023 HEX Record, at 605-06.

<sup>69</sup> 2021 HEX Record, at 332-33, Ex. 12, NGC Letter at 1-2.

1 **G. The Hearing Examiner erred when he concluded that the preponderance of the**  
2 **evidence supports the conclusions of the Wood Report that the proposed mine**  
3 **would not jeopardize the stability of the coastal bluffs to the northwest of the**  
4 **proposed mine expansion. (Conclusion of Law No. 3)**

5 The Hearing Examiner concluded that the preponderance of the evidence supported the  
6 conclusion that the proposed mine would not jeopardize the stability of the coastal bluffs. A  
7 preponderance is an amount of evidence “sufficient to incline a fair and impartial mind to one  
8 side of the issue rather than the other.” Preponderance of the Evidence, Black’s Law Dictionary,  
9 3<sup>rd</sup> pocket ed. As discussed at Sections II.D, II.E, and II.F above, the only evidence in the record  
10 relating to a potential groundwater connection between the mine site and the unstable coastal  
11 bluffs is Dan McShane’s expert opinion that groundwater flows from the upgradient site at 190  
12 feet to the downgradient bluff springs at 165-175 feet. The applicant’s hydrogeology consultant  
13 has conceded that he did not investigate groundwater elevations to the west of the mine site, and  
14 did not evaluate whether mining would alter the flow of the increased groundwater across the  
15 thirty-six new acres of mining, either prior to the Board’s remand or subsequent to it.  
16 Consequently, the Hearing Examiner erred in concluding that a preponderance of the evidence  
17 supported the restated inference that groundwater flows to the northeast.  
18

19 Moreover, the following findings of fact are unsupported by the record, as well as  
20 uncited by the Hearing Examiner.

- 21 **1. the author of the Wood Report was aware of the seeps or springs that emerge**  
22 **from the coastal bluffs northwest of the mine site; the author concluded that the**  
23 **proposed mine expansion will not affect the groundwater seeping from the**  
24 **coastal bluffs; and the author concluded that groundwater beneath the mine**  
25 **flows north and northeast.**

26 Nothing in the Wood report indicates that the author was aware of Dan McShane’s  
previously supplied expert opinions about the springs in the coastal bluffs. The Wood report  
offers one isolated reference to the possibility of groundwater seepage in the bluffs, without

1 acknowledging the existence, location, or condition of the bluff springs.<sup>70</sup> Rather than evaluate  
2 the potential hydrogeological connection between the mine site and Wood’s theorized  
3 groundwater seepage in the bluffs, the report merely defers to the earlier, deficient  
4 hydrogeology reports for their assumption that groundwater at the mine site flows to the  
5 northeast and thus wouldn’t affect the coastal bluffs.<sup>71</sup> Thus, the author did not reach an  
6 independent conclusion about impacts to the coastal bluffs or the direction of groundwater flow  
7 from the mine, but instead assumed away the pertinent question on remand by reiterating the  
8 faulty assertion that groundwater does not flow to the bluffs.  
9

10 **2. Thomas Mullen drilled three test wells in and around the mine pit.**

11 The evidence in the record shows that Thomas Mullen did not drill any test wells in and  
12 around the mine pit but that he wrote a short report about the one observation well that was  
13 drilled as part of the application process.<sup>72</sup> Notably, this well was drilled to address the concern  
14 that expansion of the mine could lower water levels in Devil’s Elbow Lake to the east of the  
15 mine.<sup>73</sup> The well was not drilled to determine whether groundwater flows toward the unstable  
16 coastal bluffs to the northwest. Even more notably, the water level in the new well, which was  
17 drilled to the west and north of existing wells on the site, was lower than the three other wells  
18 reviewed.<sup>74</sup> Thus, the only new well drilled as part of the application was slightly downgradient  
19 of wells to the south and east.  
20  
21

22 **3. that the applicant made a *prima facie* showing that groundwater flows from the**  
23 **mine site will not increase the jeopardy of the northwestern bluffs.**

24 The Hearing Examiner erred in concluding on remand that the applicant had made a

25 <sup>70</sup> 2023 HEX Record, at 606.

26 <sup>71</sup> 2023 HEX Record, at 606.

<sup>72</sup> 2023 HEX Record, at 265 (Maul Foster Alongi letter to Stephen Taylor re: Observation Well Installation (Sept. 28, 2017)).

<sup>73</sup> 2023 HEX Record, at 264.

<sup>74</sup> 2023 HEX Record, at 269.

1 *prima facie* showing that groundwater flows from the mine site. First, the Hearing Examiner  
2 erred because the Board already reached a decision on this issue and it may not be relitigated  
3 because it is barred by principles of collateral estoppel -- the Board has already rejected that  
4 *prima facie* showing of “an inference derived from reports furnished by a professional  
5 hydrogeologist on the applicant’s behalf”<sup>75</sup> due to evidence from Dan McShane of the springs in  
6 the coastal bluff downgradient of the inferred groundwater level at the mine. *See Christensen v.*  
7 *Grant County Hosp. Dist.*, 152 Wn.2d 299, 96 P.3d 957 (2004). The applicant cannot now  
8 relitigate that issue without providing new evidence about the groundwater connection between  
9 the mine site and the coastal bluffs. *Id.*

11 Even if the Hearing Examiner had the authority to readjudicate without new information  
12 an issue that has been decided, as explained at Sections II.D, II.E, and II.F above, the original  
13 applicant assumption that groundwater flows to the northeast is based on tenuous inferences that  
14 did not incorporate all of the available groundwater data in the vicinity and therefore must be  
15 rejected.  
16

17 **4. that the applicant’s reviews and the County’s third-party reviewer did not**  
18 **overlook the northwestern bluffs or that Mr. Wentworth and Mr. Mullen**  
19 **provided specific discussion of those bluffs; and that the County’s third-party**  
20 **reviewer was not confused about which bluffs were supposed to be the subject**  
21 **of a geologically hazardous area site assessment.**

22 There is simply no evidence to support this finding. First, as discussed above, Mr.  
23 Wentworth’s reference to possible groundwater seepage in the coastal bluffs in the Wood report  
24 does not indicate a substantive understanding of the actual springs.<sup>76</sup> Likewise, Mr. Mullen’s  
25  
26

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<sup>75</sup> 2023 HEX Record, at 562.

<sup>76</sup> 2023 HEX Record, at 606.

1 reports for Maul Foster Alongi fail to acknowledge even the possibility of those springs.<sup>77</sup>

2 Second, although the third-party reviewer referenced the ongoing concern that the  
3 applicant did not adequately assess groundwater flow and potential impacts to the coastal bluff  
4 stability,<sup>78</sup> his report referred to “bluffs areas to the west and southwest of the proposed project,  
5 including the Dodson Canyon Springs,” rather than the coastal bluffs and community at issue  
6 here to the north of that area.<sup>79</sup> By referring to the Dodson Canyon springs at an elevation of 200  
7 feet above mean sea level, the Watershed Company overlooked the significantly-lower  
8 elevation springs in the bluffs by Sunset Lane, at elevations of 165-175 feet. The Hearing  
9 Examiner appears to have experienced confusion about the distinction between the Dodson  
10 Canyon springs and those in the bluffs to the northwest, and he erred when he ruled that a  
11 reference to the former demonstrated that the Watershed Company was familiar with the latter.  
12

13 **5. that Dan McShane believes that groundwater at the site currently flows to the**  
14 **east.**

15 There is no evidence to support this finding. Mr. McShane has consistently stated that  
16 groundwater from the mine site flows downgradient to the northwest.<sup>80</sup>  
17

18 **6. that Dan McShane supplied no groundwater flow analysis of his own, that his**  
19 **concern about northwestern groundwater flow is speculative, and that his**  
20 **concerns have been considered by the Wood Report and third-party review.**

21 The Hearing Examiner erred when his lack of familiarity with this matter led him to  
22 issue the findings referenced in the heading above. In his October 13, 2020 memorandum on the  
23 application and its hydrogeological documents, as summarized at Section II.E above, Mr.  
24 McShane provided an analysis of the application’s review of groundwater at the site and also

25 <sup>77</sup> *E.g.*, 2023 HEX Record, at 206-211 (Maul Foster Alongi letter to S. Taylor re: Hydrogeologic Assessment  
Report (Sept. 28, 2016)).

26 <sup>78</sup> 2023 HEX Record, at 651.

<sup>79</sup> 2023 HEX Record, at 652.

<sup>80</sup> *E.g.*, 2023 HEX Record, at 801 (Stratum Group Response to: the Watershed Company Response to Evergreen  
Islands communication of 11/18/2022 (March 2, 2023)).

1 analyzed their findings and applied his knowledge of the springs at 165-175 feet in the coastal  
2 bluffs to conclude that, “groundwater will be flowing towards these springs and hence the  
3 contours and corresponding groundwater flow paths will be towards the bluff in that area.”<sup>81</sup> Mr.  
4 McShane applied the same logic as Mr. Mullen, that groundwater flows downgradient, but then  
5 added his own expert knowledge about lower-gradient groundwater than identified by Mullen to  
6 conclude that it will flow from the mine to the bluffs. Mr. McShane concluded based on this  
7 analysis that:

8  
9 The expansion of the mine will increase groundwater recharge and groundwater  
10 flow from the mine area will increase. At least some of that increase will be  
11 towards the unstable bluffs where the sand formations are located over very low  
12 permeability silt/clay. An increase in groundwater flow will increase the  
13 frequency and magnitude of landslides.<sup>82</sup>

14 As discussed above, these concerns were not considered by the Wood report or third-  
15 party review.

16 **7. that Mr. McShane commented that the applicant should drill wells on**  
17 **properties not owned or controlled by the applicant.**

18 To the extent that Mr. McShane commented that the applicant should study elevations in  
19 neighboring groundwater wells, he recommended reviewing existing wells that neighbors had  
20 offered for study. The Hearing Examiner erred in mischaracterizing Mr. McShane’s testimony  
21 to imply that he suggested drilling entirely new wells on others’ property.

22 **8. that there is no evidence showing a substantial likelihood that northwestern**  
23 **flow will occur.**

24 As set forth above and as already determined by the Board, Mr. McShane has provided  
25 his expert opinion based on groundwater elevations at the mine site and the surrounding vicinity  
26 that groundwater flows to the northwest from the mine site and that removing the glacial till

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<sup>81</sup> 2021 HEX Record, 859.

<sup>82</sup> 2021 HEX Record, 859 (Stratum Group Letter at 8 (emphasis added)).



1 layer across the thirty-six acres of expanded mine would direct a substantial amount of new  
2 stormwater into the groundwater and then to the unstable coastal bluffs to the northwest.<sup>83</sup>

3 **9. that the Wood Report and third-party review made any conclusion related to**  
4 **northwestern groundwater flow based on on-site wells and topographical**  
5 **review; that further assessment of the dangers to the northwestern bluffs has**  
6 **occurred; that the existing evidence shows groundwater flow from the mine site**  
7 **that does not jeopardize the northwestern cliffs, and none of the evidence put**  
8 **forward in rebuttal shows otherwise; and that the evidence in the record is**  
9 **sufficient to satisfy the order on remand.**

10 The Hearing Examiner erred in reaching each of these conclusions because, as discussed  
11 throughout the brief above, the applicant has made no effort since the Board's remand to  
12 evaluate whether groundwater flows from the mine site to the coastal bluffs to the northwest.  
13 The original hydrogeological studies overlooked this possibility based on the assumption that  
14 the mine would not increase stormwater infiltration and an inference that groundwater flows  
15 generally north/northeast from the site. None of those studies indicated an awareness of  
16 downgradient springs in the coastal bluffs and so did not incorporate those data into their reviews.  
17 The Wood report prepared after remand merely recycled the conclusions from those earlier,  
18 deficient reports, without attempting any new analysis of groundwater flows. And the third-  
19 party report mistook the Dodson Canyon springs to the west of the site for the springs in the  
20 coastal bluffs northwest of the site that are the subject of the current dispute. Consequently, the  
21 Hearing Examiner erred and this matter must be remanded yet again to determine the risk that  
22 the mine will be pose to the residential community built on the bluffs to the northwest.

## 23 V. CONCLUSION

24 In 2021, the Board remanded the SUP on the ground that Evergreen Islands' expert  
25 witness had provided cogent evidence that some portion of groundwater from the mine site  
26

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<sup>83</sup> *E.g.*, 2023 HEX Record, at 800-02.

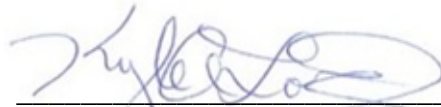
1 discharges downgradient at springs in unstable coastal bluffs. Accordingly, the Board directed  
2 an examination for the need for a geological hazard site assessment, which PDS later requested,  
3 along with an evaluation of the hydrogeological impact of the mine. The applicant allegedly  
4 even hired a consultant to conduct that study. And yet, two years later, an evaluation of the  
5 landslide risk to a residential neighborhood has not occurred. Instead, the applicant offered a  
6 new report that relies on the same faulty hydrogeology reports that concede that they did not  
7 contemplate possible groundwater flows toward the unstable bluffs. The new report thus  
8 provides no new hydrogeological information about the landslide risk and the Hearing  
9 Examiner erred in ruling otherwise. His decision must be reversed and this matter remanded to  
10 answer that question.  
11

12  
13 Dated this 14th day of September, 2023.  
14

15 Respectfully submitted,

16 LORING ADVISING PLLC

17  
18 By



19 Kyle A. Loring, WSBA No. 34603  
20 Attorney for Evergreen Islands  
21  
22  
23  
24  
25  
26

**DECLARATION OF SERVICE**

I declare under penalty of perjury under the laws of the State of Washington, that on the date and in the manner indicated below, I caused the following:

- **Appellant Evergreen Islands’ Opening Brief**
- **Declaration of Service**

to be served on:

Bill Wooding [ ] By United States Mail  
 Applicant [x] By Electronic mail  
 Bwooding31@comcast.net

Linda Dobbs [ ] By United States Mail  
 Appellant Sunset Lane Association [x] By Electronic mail  
 Iraedobbs@outlook.com

Jason D’Avignon [ ] By United States Mail  
 Skagit County Civil Deputy [x] By Electronic mail  
 Prosecuting Attorney  
 jasond@co.skagit.wa.us

Will Honea [ ] By United States Mail  
 Skagit County Senior Civil Deputy [x] By Electronic mail  
 Prosecuting Attorney  
 willh@co.skagit.wa.us

and filed with:

Amber Erps, CMC  
 Skagit County Commissioners Office, Clerk of the Board  
 ambere@co.skagit.wa.us

DATED this 14th day of September, 2023, at Friday Harbor, Washington.

  
 \_\_\_\_\_  
 Kyle A. Loring

# APPENDIX



By Email

June 23, 2023

Skagit County Hearing Examiner  
Skagit County Planning and Development Services  
1800 Continental Place  
Mount Vernon, WA 98273  
corir@co.skagit.wa.us

**Re: File No. PL16-0056 – Remand Requests Unaddressed**

Dear Skagit County Hearing Examiner,

Evergreen Islands (“Evergreen”) respectfully submits these comments to point out that the applicant in PL16-0556 has not conducted the evaluations that Skagit County required upon remand and to request that the Hearing Examiner continue to require the applicant to investigate whether his proposed mine would destabilize the shoreline bluffs on which the neighborhoods to the west and northwest of the site rely. Although Evergreen raised this issue in response to the applicant’s August 2022 letter by Wood Environment & Infrastructure Solutions (“Wood”) and The Watershed Company’s January 18, 2023 letter, it has been ignored to date.<sup>1</sup> The glaring flaw in all of the applicant and County activity that has occurred since the matter was remanded for more study is the lack of any new information about groundwater flows downgradient toward the west and northwest of the proposed mine. This information was central to the remand. In addition to directly disregarding the County’s request for information, the lack of inquiry into the groundwater question callously ignores the very real danger that the project poses to neighboring residents. The June 28 hearing is premature, and this omission must be corrected.

The following sections summarize the procedural history in this matter, the information that the County requested on remand, and the ongoing absence of that information from the record.

**A. Board of Commissioners Remand.**

While this matter has a somewhat lengthy history, the issue presently before the Hearing Examiner is whether the applicant has provided information to address a landslide risk as required by the Board of County Commissioners in resolving a successful appeal by

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<sup>1</sup> Evergreen Islands’ earlier response letters are attached as Exhibits F and G to this letter.

Evergreen in 2021.<sup>2</sup> In their February 23, 2021 decision, the Commissioners found that Evergreen had provided evidence of springs in the coastal bluffs northwest of the proposed mine at an elevation downgradient of the inferred groundwater level of the mine site, and that Mr. McShane had opined that the expanded mine would create an increased risk of landslide. Notwithstanding that the coastal bluff west and northwest of the site is a geologically hazardous area, County staff had not required a geologically hazardous site assessment based on an inference from an applicant report that groundwater flowed to the northeast of the mine site; the applicant report had not realized that the bluffs contained springs downgradient of the groundwater at the site. The Commissioners therefore remanded the application to the Skagit County Hearing Examiner to consider whether the steep area to the west/northwest warranted a geohazard assessment and to take additional evidence and impose additional conditions as needed to mitigate risks revealed by the geohazard assessment.

**B. Evaluation Required by Skagit Planning & Development Services.**

On March 23, 2021, in response to the Commissioners' decision, Skagit County Planning & Development Services ("PDS") directed Mr. Wooding to address three specific issues:

- Analyze the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion and attendant removal of soil and vegetation which could alter groundwater behavior in the vicinity of the mine;
- Analyze the presence of springs on the coastal bluff to the northwest of the mine that are at an elevation down gradient of the inferred groundwater level; and
- Respond to the testimony of the professional geologist who identified that the proposed mine expansion will create an increased landslide risk.<sup>3</sup>

It is particularly notable that all of this required information relates to the mine's potential to alter groundwater flow to the coastal bluffs west and northwest of the mine yet, as explained below, the applicant's new report fails to do so. On May 27, 2021, PDS transmitted a letter to Mr. Wooding to notify him that he needed to submit the additional information by July 21, 2021 to avoid having his application denied. Mr. Wooding failed to meet that deadline, but appealed PDS' subsequent denial due to inaction and convinced the Hearing Examiner to grant an extension to supply that information. The Hearing Examiner noted in reversing PDS that

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<sup>2</sup> Skagit County Resolution # R20210038 (attached hereto as Exhibit A).

<sup>3</sup> Letter from Michael Cerbone to Bill Wooding re: Hearings Examiner Referral of PL16-0556 to Skagit County Planning & Development Services (March 23, 2021) (attached hereto as Exhibit B).

Wooding was under contract with Canyon Environmental Services (“Canyon”) to explore groundwater flow toward the bluffs to the northwest.

**C. Applicant’s Failure to Conduct Required Evaluation.**

Between October 2021, when the Hearing Examiner reversed the denial, and August 2022, when Wooding submitted a report, he inexplicably switched consulting companies, abandoning Canyon. This resulted in a report that failed to address the remand issues related to potential changes in groundwater flow. Canyon had proposed to conduct a hydrogeological and groundwater characterization meant to help refine the understanding of groundwater and perched groundwater flow.<sup>4</sup> This investigation would have involved field visits to document existing surface conditions, extensive desktop review of existing geologic mapping and pre-existing studies and documents, topographical analysis, supervision of well installations, grainsize analysis, wet season groundwater monitoring, precipitation monitoring, wet season borehole and perched water evaluation, groundwater modeling/analysis, and report compilation. However, Canyon never conducted that study or prepared a report.

Instead, the applicant subsequently hired Wood, which did not address the issues remanded to the applicant and failed to provide any new information about groundwater. The Wood document expressly deferred to earlier reports that had not recognized the downgradient seeps to the northwest, and which had thus been deemed deficient by the Commissioners, stating that “[t]he previous hydrogeologic studies...provide detailed information regarding the groundwater elevation, groundwater flow direction, and concludes that the mining operation is unlikely to have any impact on the groundwater.”<sup>5</sup> Then, rather than studying the geologically hazardous unstable bluffs to the west and northwest, that document analyzed slope stability within the mine site itself, though that issue had not been raised by any party. With regard to the coastal bluffs, the Wood document acknowledged that groundwater seepage might affect the neighboring coastal bluffs, but then erroneously declared that the deficient groundwater documents had addressed that issue. The Wood document did not indicate any understanding of the previous appeal and remand request by PDS.

**D. Third-party Consultant Continues to Ignore Spring Elevation West/Northwest of Site.**

While PDS appears to have hired The Watershed Company to review the Wood

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<sup>4</sup> Canyon Environmental Group LLC, proposal for Skagit County Hearing Examiner Request for Additional Information (PL16-0556): Proposed Hydrogeology and Groundwater Characterization Timeline (Sept. 7, 2021) (attached hereto as Exhibit C).

<sup>5</sup> Wood, Geologic Hazard Site Assessment, Lake Erie Pit 1 Expansion, at 3.

document, they committed the same error by deferring to the groundwater reports that had already been deemed to be flawed. The Watershed document referred to bluffs with springs at an elevation of 200 feet, without recognizing that the seeps and springs investigated and mapped by McShane occur at an elevation between 165 and 175 feet, well below the 190 feet that the applicant's own studies had found for the groundwater level at the site. The Watershed document does not explain why it did not acknowledge the lower groundwater elevations to the west and northwest of the site, or why it assumed that groundwater flows to the north/northeast of the site without a study of the hydrogeological connectivity between the higher groundwater at the site and the lower groundwater discharge west and northwest of the site.

**E. McShane's Expert Opinion That Landslide Risk Still Has Not Been Evaluated.**

After reviewing the Wood document, Dan McShane, the licensed engineering geologist and the expert who diagnosed the flaws in the initial groundwater review for the proposed Lake Erie gravel pit, concluded that it did not assess the stability of the shoreline bluff.<sup>6</sup> Nor did the report address the potential for altering groundwater, or study the effects of that alteration on the stability of the shoreline bluff.

Mr. McShane also reviewed the third-party report that ignored the lack of analysis of impacts to the bluffs to the west/northwest, concluding that: "I remain very concerned about the potential impacts to groundwater levels and the stability of the bluffs to the northwest of the mine in the absence of an assessment of the mine's impacts on those areas."<sup>7</sup>

Mr. McShane reached this conclusion after identifying the following flaws in the Wood document and earlier groundwater reviews:

- The Wood document does not identify or discuss the springs on the bluffs to the northwest of the proposed mine in its review of the earlier reports. These springs, which have never been evaluated notwithstanding that they lie downgradient of the mine, were the primary reason that the Skagit Board of Commissioners reversed Hearing Examiner approval of the mine. Mr. McShane notes that if recharge to groundwater that feeds these springs is increased, the frequency and magnitude of groundwater-driven landslides will increase. Nonetheless, the Response makes no reference to them, instead

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<sup>6</sup> Stratum Group Memorandum re: Proposed Lake Erie Pit Expansion: Comments Regarding Geologic Hazard Site Assessment (November 15, 2022) (attached hereto as Exhibit D).

<sup>7</sup> Stratum Group Memorandum re: Response to: The Watershed Company Response to Evergreen Islands communication of 11/18/2022, 3 (March 2, 2023) (attached hereto as Exhibit E).



discussing unstable slopes to the west and southwest of the proposed mine.

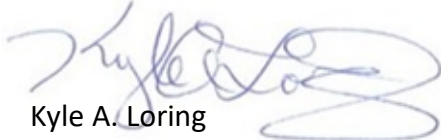
- There are significant discrepancies in the groundwater elevations identified by different applicant reports. While the Response asserts that no significant discrepancies or inaccuracies were found in the data, the water levels measured directly by Northwest Groundwater Consultants were 50 feet and 35 feet lower than those identified on the groundwater contour map produced by Maul Foster Alongi in 2016 and 2017. This large discrepancy casts doubt on the accuracy of the elevations the application presumed for the other wells that were not directly measured.
- The groundwater flow and potential changes to the groundwater flow toward the unstable bluffs has not been evaluated. Ultimately, there are no data regarding groundwater elevations between the proposed mine and the unstable bluffs to the northwest of the mine.

**F. Conclusion.**

The applicant continues to avoid investigating groundwater flows from the mine site to the downgradient seeps and springs in the coastal bluffs west and northwest. Neither The Watershed Group nor the County staff report acknowledge this omission, ignoring the issue altogether by failing to compare the information PDS has received with the information that they requested. Consequently, the project must be denied until Mr. Wooding provides this information.

If you have any questions, please do not hesitate to contact me at 360-622-8060 or [kyle@loringadvising.com](mailto:kyle@loringadvising.com).

Sincerely,



Kyle A. Loring

Cc: Tom Glade, Evergreen Islands  
Kevin Cricchio, Skagit PDS

# EXHIBIT A

**RESOLUTION # \_\_\_\_\_**

**A Resolution Pertaining to the Closed Record Appeal Before the Skagit County Board of Commissioners Of Special Use Permit PL16-0556**

**WHEREAS**, Evergreen Islands (“**Appellant**”) timely filed this closed record appeal to the Board of Skagit County Commissioners (hereinafter, the “**Board**”), pursuant to Skagit County Code (“**SCC**”) 14.06, challenging the Skagit County Hearing Examiner’s Decision approving Special Use Permit PL16-0556 (the “**Permit**”); and

**WHEREAS**, the Permit authorizes the expansion of an existing 17.78 acre gravel mine located on the west side of Fidalgo Island to an ultimate size of 53.5 acres (hereinafter, the “**Mine**”); and

**WHEREAS**, County Planning staff did not require a Geologically Hazardous Site Assessment associated with the steep coastal area located to the west/northwest of the Mine, based principally on an inference derived from reports furnished by a professional hydrogeologist on the Applicant’s behalf to the effect that groundwater at the Mine flows to the northeast, toward Lake Erie; and

**WHEREAS**, the Appellant timely raised concerns before the Hearing Examiner regarding potential landslide risk arising from the potential for increased groundwater migration to the west/northwest, due to the Mine’s expansion and attendant removal of soil and vegetation, which, the Appellant contends, will alter groundwater behavior in the vicinity of the Mine; and

**WHEREAS**, the Appellant furnished evidence to the Hearing Examiner regarding the presence of springs on the coastal bluff to the northwest of the Mine at an elevation downgradient of the inferred groundwater level, and the testimony of a geologist who opined that the expanded Mine will create an increased landslide risk; and

**WHEREAS**, the Appellant contends that the coastal bluff area to the west/northwest of the Mine is a geologically hazardous area pursuant to SCC 14.24.410; and

**WHEREAS**, in light of the foregoing, the Appellant contends on this appeal that the Hearing Examiner erred, in part, by failing to require a Geologically Hazardous Site Assessment pursuant to SCC 14.24.420; and

**WHEREAS**, pursuant to SCC 14.06.170(10), the Board may take one of the following actions:

- (1) Deny the appeal and affirm the decision of the Hearing Examiner;
- (2) Find the Hearing Examiner’s decision clearly erroneous, adopting its own findings, conclusions and decision based on the record before it; or
- (3) Remand the matter for further consideration by the Hearing Examiner.


**NOW, THEREFORE, BE IT RESOLVED:**


1. Pursuant to SCC 14.60.170(10)(3), this matter is hereby REMANDED to the Skagit County Hearing Examiner for further consideration of the following matters:
  - Whether the steep area to the west/northwest of the Mine requires the preparation of a Geologically Hazardous Area Site Assessment, consistent with SCC 14.24.400-.420.
  - If so required, directing the Applicant to prepare a Geologically Hazardous Area Site Assessment, all consistent with SCC 14.24.400-.420 and the Hearing Examiner's discretion; and
  - Any additional proceedings as may be necessary to take additional evidence related to the Geologically Hazardous Area Site Assessment, to be managed at the Hearing Examiner's discretion; and
  - The imposition of such additional conditions as may be necessary to mitigate risks identified by the supplemental proceedings hereby ordered, to the extent such risks can be reasonably mitigated.
  
2. All other issues raised by the Appellant on this appeal are hereby DENIED, and the Hearing Examiner in all other respects is AFFIRMED.

**WITNESS OUR HANDS AND THE OFFICIAL SEAL OF OUR OFFICE this  
23<sup>rd</sup> day of February 2021.**

**BOARD OF COUNTY COMMISSIONERS  
SKAGIT COUNTY, WASHINGTON**

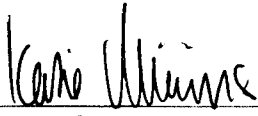


  
\_\_\_\_\_  
Lisa Janicki, Chair

  
\_\_\_\_\_  
Peter Browning, Commissioner

  
\_\_\_\_\_  
Ron Wesen, Commissioner

**ATTEST:**



\_\_\_\_\_  
Clerk of the Board

**APPROVED AS TO FORM:**



\_\_\_\_\_  
Will Honea, Senior Civil Deputy  
Skagit County Prosecutor's Office

# EXHIBIT B



# SKAGIT COUNTY PLANNING & DEVELOPMENT SERVICES

Bill Wooding  
Lake Erie Pit, LLC

March 23, 2021

RE: Hearings Examiner Referral of PL16-0556 to Skagit County Planning & Development Services

Mr. Wooding,

Please find attached a copy of the remand from the Board of County Commissioners as well as a copy of the Order that the Hearings Examiner sent deferring the next steps to Skagit County Planning and Development Services (PDS). Per the direction of the Hearings Examiner the applicant shall prepare a Geologically Hazardous Area Site Assessment associated with the steep coastal area located to the west/northwest of the mine pursuant to Skagit County Code (SCC) 14.24.420 and prepare a Geologically Hazardous Mitigation Area Plan pursuant to Skagit County Code 14.24.430.

SCC 14.24.420(2)(g) allows the Administrative Official to require additional site assessment elements as may be required. In addition to the elements required by SCC 14.24.420, PDS is requesting the assessment specifically address the concerns raised by the Board of County Commissioners' in their remand. Those specific site assessment elements to be addressed within the assessment are as follows:

- Analyze the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion and attendant removal of soil and vegetation which could alter groundwater behavior in the vicinity of the mine.
- Analyze the presence of springs on the coastal bluff to the northwest of the mine that are at an elevation down gradient of the inferred groundwater level.
- Respond to the testimony of the professional geologist who identified that the proposed mine expansion will create an increased landslide risk.

Please let me know if you have any questions.

Respectfully,

Michael Cerbone  
Assistant Director  
Skagit County Planning and Development Services

Cc: Parties of record, Skagit County Hearings Examiner, Skagit County Board of County Commissioners

**BEFORE THE SKAGIT COUNTY HEARING EXAMINER**

In the Matter of a Special Use Permit ) PL16-0556  
To Expand an Existing Gravel Mine )  
)  
**BILL WOODING** ) **REFERRAL TO PLANNING**  
**LAKE ERIE PIT, LLC** ) **AND DEVELOPMENT SERVICES**  
Applicant. )  
\_\_\_\_\_)

On the appeal of Evergreen Islands, the Skagit County Commissioners remanded this matter to the Skagit County Hearing Examiner for further consideration of the following:

- Whether the steep area to the west northwest of the Mine requires the preparation of a Geologically Hazardous Area Site Assessment, consistent with SCC 14.24.400-.420.
- If so required, directing the Applicant to prepare a Geologically Hazardous Area Site Assessment, all consistent with SCC 14.24.200-.420 and the Hearing Examiner’s discretion; and
- Any additional proceedings as may be necessary to take additional evidence related to the Geologically Hazardous Area Site Assessment, to be managed at the Hearing Examiner’s discretion; and
- The imposition of such additional conditions as may be necessary to mitigate risks identified by the supplemental proceedings hereby ordered, to the extent such risks can be reasonably mitigated.

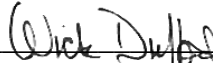
After consideration of the above directions, the Examiner has determined that the appropriate course now is to refer this matter to Planning and Development Services (PDS) with instructions to direct the Applicant to cause a Geologically Hazardous Site Assessment to be prepared and submitted to PDS.

On receipt of such assessment, PDS shall review it and provide an Amended Staff Report to the Hearing Examiner containing the department’s analysis and recommendations in light of the report.



Thereafter, the Examiner shall schedule and hold a supplementary public hearing in this matter, limited to comment on the Geologically Hazardous Site Assessment. Following this hearing, based on the record made, the Examiner shall issue a decision imposing such additional conditions, if any, as may be necessary to mitigate risks that have been identified.

**SO ORDERED**, this 9<sup>th</sup> day of March, 2021.

  
\_\_\_\_\_  
Wick Dufford, Hearing Examiner

Transmitted to: County Commissioners, Applicant, Planning and Development Services,  
Evergreen Islands on March 9, 2021.

**RESOLUTION # \_\_\_\_\_**

**A Resolution Pertaining to the Closed Record Appeal Before the Skagit County Board of Commissioners Of Special Use Permit PL16-0556**

**WHEREAS**, Evergreen Islands (“**Appellant**”) timely filed this closed record appeal to the Board of Skagit County Commissioners (hereinafter, the “**Board**”), pursuant to Skagit County Code (“**SCC**”) 14.06, challenging the Skagit County Hearing Examiner’s Decision approving Special Use Permit PL16-0556 (the “**Permit**”); and

**WHEREAS**, the Permit authorizes the expansion of an existing 17.78 acre gravel mine located on the west side of Fidalgo Island to an ultimate size of 53.5 acres (hereinafter, the “**Mine**”); and

**WHEREAS**, County Planning staff did not require a Geologically Hazardous Site Assessment associated with the steep coastal area located to the west/northwest of the Mine, based principally on an inference derived from reports furnished by a professional hydrogeologist on the Applicant’s behalf to the effect that groundwater at the Mine flows to the northeast, toward Lake Erie; and

**WHEREAS**, the Appellant timely raised concerns before the Hearing Examiner regarding potential landslide risk arising from the potential for increased groundwater migration to the west/northwest, due to the Mine’s expansion and attendant removal of soil and vegetation, which, the Appellant contends, will alter groundwater behavior in the vicinity of the Mine; and

**WHEREAS**, the Appellant furnished evidence to the Hearing Examiner regarding the presence of springs on the coastal bluff to the northwest of the Mine at an elevation downgradient of the inferred groundwater level, and the testimony of a geologist who opined that the expanded Mine will create an increased landslide risk; and

**WHEREAS**, the Appellant contends that the coastal bluff area to the west/northwest of the Mine is a geologically hazardous area pursuant to SCC 14.24.410; and

**WHEREAS**, in light of the foregoing, the Appellant contends on this appeal that the Hearing Examiner erred, in part, by failing to require a Geologically Hazardous Site Assessment pursuant to SCC 14.24.420; and

**WHEREAS**, pursuant to SCC 14.06.170(10), the Board may take one of the following actions:

- (1) Deny the appeal and affirm the decision of the Hearing Examiner;
- (2) Find the Hearing Examiner’s decision clearly erroneous, adopting its own findings, conclusions and decision based on the record before it; or
- (3) Remand the matter for further consideration by the Hearing Examiner.


**NOW, THEREFORE, BE IT RESOLVED:**

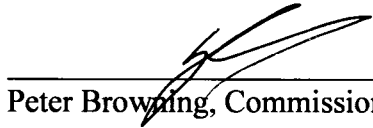
1. Pursuant to SCC 14.60.170(10)(3), this matter is hereby REMANDED to the Skagit County Hearing Examiner for further consideration of the following matters:
  - Whether the steep area to the west/northwest of the Mine requires the preparation of a Geologically Hazardous Area Site Assessment, consistent with SCC 14.24.400-.420.
  - If so required, directing the Applicant to prepare a Geologically Hazardous Area Site Assessment, all consistent with SCC 14.24.400-.420 and the Hearing Examiner's discretion; and
  - Any additional proceedings as may be necessary to take additional evidence related to the Geologically Hazardous Area Site Assessment, to be managed at the Hearing Examiner's discretion; and
  - The imposition of such additional conditions as may be necessary to mitigate risks identified by the supplemental proceedings hereby ordered, to the extent such risks can be reasonably mitigated.
  
2. All other issues raised by the Appellant on this appeal are hereby DENIED, and the Hearing Examiner in all other respects is AFFIRMED.

**WITNESS OUR HANDS AND THE OFFICIAL SEAL OF OUR OFFICE this  
23<sup>rd</sup> day of February 2021.**

**BOARD OF COUNTY COMMISSIONERS  
SKAGIT COUNTY, WASHINGTON**

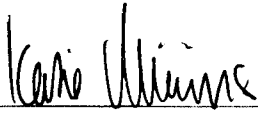


  
\_\_\_\_\_  
Lisa Janicki, Chair

  
\_\_\_\_\_  
Peter Browning, Commissioner

  
\_\_\_\_\_  
Ron Wesen, Commissioner

**ATTEST:**



\_\_\_\_\_  
Clerk of the Board

**APPROVED AS TO FORM:**



\_\_\_\_\_  
Will Honea, Senior Civil Deputy  
Skagit County Prosecutor's Office

# EXHIBIT C

Canyon Environmental Group LLC  
112 Ohio Street, Suite 115  
Bellingham, WA 98225

September 7, 2021

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Prepared For: McLucas & Associates Inc.  
c/o Steve Taylor  
P.O. Box 5352  
Lacey, Wash509  
[s.l.taylor7117@gmail.com](mailto:s.l.taylor7117@gmail.com)

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Subject: Skagit County Hearing Examiner Request for Additional Information (PL16-0556):  
Proposed Hydrogeology and Groundwater Characterization Timeline

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Project Locations: Skagit County Tax Parcels P19108, P19162, P19161, P19155, P90028, P19158,  
P19165, and P19164.

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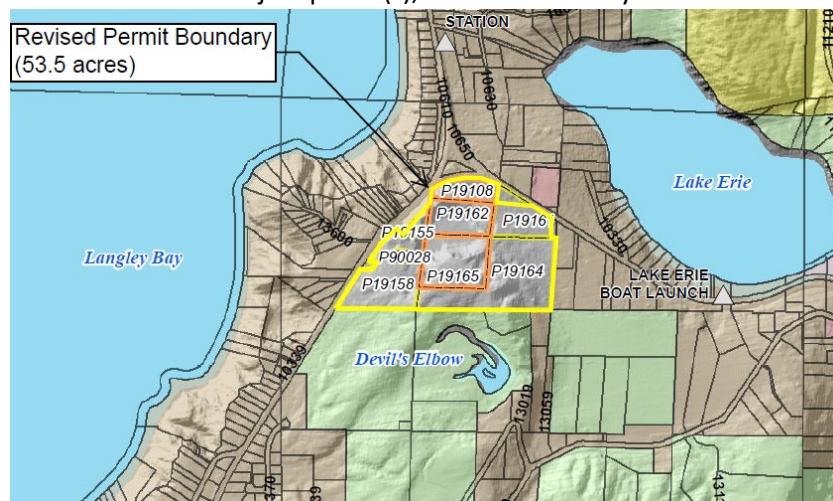
Dear Steve Taylor,

This scope of work and time estimate have been prepared by Canyon Environmental Group LLC (Canyon) at the request of Steve Taylor and McLucas & Associates Inc. This document covers the proposed hydrogeological and groundwater characterization services the Lake Erie Gravel Mine and is meant to help inform the permit and regulatory review associated with the proposed mine expansion. Specifically, this scope is meant to help refine the understanding of groundwater and perched groundwater flow within the subject parcels and help address if changes to groundwater flow will affect the geohazard conditions in the close vicinity. This scope does not include a geohazard study, but the report generated by this scope of work will help inform the geologist that works on the geohazard study.

## Study Area

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The “Study Area” is defined as the subject parcel(s), shown below in yellow.



## Outline of Scope of Work

### Overview

The scope of services for this task are to perform hydrogeological services per the best available science and Skagit County Code to help characterize groundwater and groundwater flow directions related to existing conditions and the proposed mine expansion.

This study will include but not be limited to field visits to document existing surface conditions, extensive desktop review of existing geologic mapping and pre-existing studies and documents, topographical analysis, supervision of well installations, grainsize analysis, wet season groundwater monitoring, precipitation monitoring, wet season borehole and perched water evaluation, groundwater modeling/analysis, and report compilation. A report meeting professional standards will be provided with the study's findings and recommendations.

### TASK 1: Desktop and Existing Study Evaluation

The currently available public information and previous studies conducted on and near the study area related to geologic conditions, mining operations and planning documents, groundwater movement and/well installations will be reviewed for relevant information. Information gleaned from the databases and studies will be written up in a summary memo.

#### Estimated:

- Desktop Review (2-3 weeks)

### TASK 2: Field Investigations, Well Installations, Limited Soil Characterization, and Grain Size Analysis

This scope of work will be performed by qualified Canyon personnel, who will conduct site visits to document, describe, and characterize the conditions on-site with the intent to gather information that can be used to inform this hydrogeology study, groundwater well placement locations, and eventual geohazard study. During this task, three to four permanent groundwater monitoring wells will be installed. Canyon employees will evaluate the well boring for subsurface geology and groundwater conditions to determine groundwater and subsurface hydrological properties, including grain-size and redoximorphic features, evaluate depth to groundwater, and identify any potentially restrictive layers. Well installation should occur at the earliest possible time to gather as much of the rainy season as possible, preferably before the end of October.

Soil infiltration characteristics and site uniformity will be assessed using the Grain Size Analysis method (D422/D1140 sieve analysis to determine grain size distribution of the sample and C136/C117 method sieve analysis to correlate soil types).

Information gained from Task 2 will be used in the final Hydrogeological Report.

#### Estimated:

- Field investigation (3-days)

- Well installation
  - Possibly access clearing for wells (2-3 weeks)
  - Coordination with well drillers (8-weeks)
    - Clients will have to hire well drillers independently of Canyon
  - Supervision of well installation (3-4 days)
  - Survey of well location (1 day)
    - Client will have to hire professional surveyors independently of Canyon
- Grainsize Analysis (7-10 days)

### **TASK 3: Wet Season Water Table Monitoring**

Once the monitoring wells have been installed, the depth to groundwater will be monitored both digitally and manually throughout the wet season (October to May/June). The digital monitoring will be conducted using direct read Solisnt™ pressure transducers which will collect measurements every 1-3 hours. Additionally onsite rain gauges will be installed and monitored to aid in the groundwater characterization and modeling. The digital DTW and precipitation data will be collected monthly along with manual depth to water (DTW) measurements.

#### **Estimated:**

- Wet season DTW measurements (8-9 months)

### **TASK 4: Wet Season Field Observation and Borehole Evaluation**

During the height of the wet season (March or April), two additional temporary bore holes will be drilled along the western boundary of the Study Area. In addition to manual observation of the drilling operation, downhole geophysics well profiling probes will be used to analyze for the presence and quantity of groundwater. This data collection will be used to evaluate if perched water tables are potentially present onsite and if they are potentially a source for the seeps known to exist west of the Study Area.

Wet season field assessments and characterization will be conducted within the Study Area. Additionally field assessment will be conducted on the slopes west of the Study Area but will be limited to areas where access is granted to Canyon field staff.

#### **Estimated:**

- Borehole drilling
  - Coordination with well drillers (8-weeks)
    - Will occur in March or April
    - Clients will have to hire well drillers independent of Canyon
  - Supervision of well installation (1-2 days)
- Survey of well location (1 day)
  - Client will have to hire professional surveyors independently of Canyon
- Borehole Geophysics Well Profiling (1-2 days)
  - Client will have to hire the well profiling company independently of Canyon



**TASK 5: Groundwater Modeling and Report**

Once the field data has been gathered, groundwater modeling of the Study Area will be conducted to evaluate the groundwater flow direction and potential groundwater impacts and implications of the proposed gravel mine expansion. The results of the field data and groundwater evaluation will be written in a Hydrogeologic Assessment Report which will discuss our findings, results, and recommendations. This report and field data will be given to the geologist conducting the geohazard assessment to inform their study.

**Estimated:**

- Groundwater Modeling (2-3 months)
- Hydrogeologic Assessment Report (2 months)

**Summary of Estimated Schedule and Timeline**

In summary if the above proposed scope of work were started on October 1<sup>st</sup> it is estimated that the whole project would take approximately 1 year. The table below shows the timeline and schedule for each of the tasks and subtasks discussed above.

TASK	2021			2022										
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Task 1: Desktop Evaluation	■													
Task 2: Field Studies														
Site Visit	■													
Well Drilling		■	■											
Surveying		■												
Grainsize Analysis		■												
Task 3: Water Table Monitoring	■	■	■	■	■	■	■	■	■	■				
Task 4: Wet Season Evaluation														
Site Visits						■								
Borehole Evaluation						■								
Task 5: Modeling and Reports														
Groundwater Modeling										■	■	■	■	
Report Compliation											■	■	■	■

For questions, scheduling arrangements, or inquiries about additional services we may be able to provide for your or your project, please contact us at (360) 389-1693. Thank you in advance for the opportunity to work with you.

Sincerely,



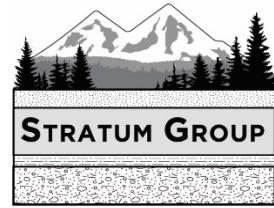
Jeff Ninnemann, LHG, PWS.

Hydrogeologist/Wetland Ecologist/Environmental Geologist - Principal

[jeff@canyonenv.org](mailto:jeff@canyonenv.org)

[www.canyonenv.org](http://www.canyonenv.org)

# EXHIBIT D



PO Box 2546, Bellingham, Washington 98227

November 15, 2022

Re: **Proposed Lake Erie Pit Expansion**  
Comments Regarding Geologic Hazard Site Assessment

I reviewed the Wood Geologic Hazard Site Assessment for the proposed Lake Erie Pit expansion (dated August 11, 2022). The assessment does not address any of the areas outlined in the Skagit County Planning and Development Services (PDS) letter to Lake Erie LLC (dated March 21, 2021).

PDS requested that the assessment include three specific items:

1) “Analyze the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion and attendant removal of soil and vegetation which could alter groundwater behavior in the vicinity of the mine.”

The potential groundwater flow direction was not analyzed in the report. The report only references the previous reports that also did not analyze the groundwater flow direction towards the shoreline bluff.

2) “Analyze the presence of springs on the coastal bluff to the northwest of the mine that are at an elevation down gradient of the inferred groundwater level.”

The springs on the shoreline bluffs to the west and northwest of the pit were not analyzed. There is no discussion that the elevation of the springs are estimated to be at elevations that are lower than the groundwater measured near the pit and thus are likely down gradient to the pit such that groundwater from the pit area will flow towards the springs.

3) “Respond to the testimony of the professional geologist who identified that the proposed mine expansion will create an increased landslide risk.”

My testimony was never referenced and the report is not responsive to the issue of increased groundwater flow towards the shoreline bluff.

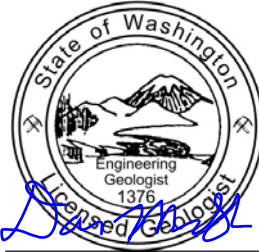
No where in the report is the stability of the shoreline bluff assessed and no bluff observations were made. The potential for altering groundwater, and the stability of the shoreline bluff from that alteration, have not been addressed.

Stratum Group appreciates the opportunity to comment on the adequacy of the geology hazard assessment. Regrettably, the geology hazard assessment does not address the groundwater flow and slope stability of the nearby shoreline bluff as requested by Skagit County.

Sincerely yours,  
**Stratum Group**

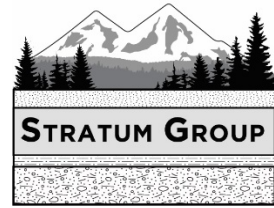


Dan McShane, L.E.G., M.Sc.  
Licensed Engineering Geologist



DANIEL McSHANE

# EXHIBIT E



PO Box 2546, Bellingham, Washington 98227

March 2, 2023

Re: **Response to:**

The Watershed Company Response to Evergreen Islands communication of 11/18/2022

As a licensed engineering geologist who has been part of the Lake Erie gravel pit review for three years, I am offering feedback on The Watershed Company's review of the original groundwater flow assessment that the Board of Commissioners deemed inadequate. Regrettably, The Watershed Company response letter listed as a 'Geologic-Hazard Site Assessment Third Party Review' on the County website does not support moving forward with project review. The Watershed Company did not identify or discuss the springs on the bluffs to the northwest of the proposed mine in the review of the reports. Furthermore, in the review of the groundwater elevations, The Watershed Company did not identify a very large discrepancy in the groundwater elevations between the groundwater reports prepared by Maul Foster Alongi (2016 and 2017) and Northwest Groundwater Consultants (2019). The review also failed to discuss that the Wood (2022) geology hazard site assessment was not responsive to the County's specific requests to "Analyze the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion." These notable omissions prevent the response from being relevant to the necessary review.

### ***Springs northwest of mine***

The Commissioners determined that the groundwater flow to the springs located to the northwest of the mine was essential for evaluating project impacts, but it has not been addressed. Maul Foster Alongi provided a Hydrogeologic Site Assessment Report (September 28, 2016). The purpose of that report was to meet the requirements of Skagit County Code 14.16.440(8)(b):

- (b) A report by a qualified geologist, hydrogeologist or licensed engineer characterizing the area's ground water including, but not limited to, the following information:*
  - (i) A description of the geology and hydro-geology of the area including the delineation of aquifer, aquitards, or aquicludes (confining layers), hydrogeologic cross-sections, porosity and horizontal and vertical permeability estimates;*
  - (ii) Determination of the direction and velocity of ground water movement, water table contour and potentiometric surface maps (for confined aquifers), if applicable; and*
  - (iii) A map containing the limits of the mine, buffer zones, location of all ground water wells within 1 mile distance down gradient from the property boundaries,*

***location of all perennial streams and springs, and definition or specification of locations of aquifer recharge and discharge areas.***

But the Maul Foster Alongi report (2016) did not identify the springs or streams located to the northwest of the property. Subsequent reports by Maul Foster Alongi (2017) and Northwest Groundwater Consultants (2019) also did not identify these springs.

In my comments on the project dated October 12, 2020, I pointed out that groundwater fed springs are located on the slopes to the northwest that were not identified in the Maul Foster Alongi (2016 and 2017) and Northwest Groundwater Consultants (2019) reports. Based on previous work I had done on these slopes, I noted that elevated groundwater levels were a factor in the landslides on these slopes.

***Role of groundwater on the stability of the slopes to the northwest***

The Wood Geology Hazard Site Assessment (2022) did not identify the springs and made no attempt to assess the groundwater flow to the springs even though this was a specific item requested by Skagit County Planning and Development Services. Wood appears to have been unaware of the groundwater springs. The Wood report used the same groundwater contour map as the Maul Foster Alongi (2017) report. The Wood assessment provided no assessment of the steep bluff areas to the northwest of the mine. The rationale for not assessing the slope was based on the assumption that groundwater does not flow to the bluff. The role of groundwater flow to the bluff remains unevaluated.

I submitted my original comments (October 12, 2020) because I have been on the slopes to the northwest and recognized that groundwater levels from a mid slope area of springs have been and are a major driver of slope instability along the slope area to the northwest of the mine (pictures attached). Groundwater impacts to the stability of the slope to the northwest of the mine is why the headwall of the landslide scarp along the bluff northwest of the mine has recessed approximately 300 feet into the upland area (attached lidar image). The potential change to groundwater flow towards these springs by the removal of the glacial till cover within the proposed mine expansion has still not been evaluated. These springs were not identified in the groundwater assessment, the geology hazard site assessment or the response document.

If recharge to groundwater that feeds these springs is increased, the frequency and magnitude of groundwater driven landslides will increase on these slopes.

***Discrepancy in water elevations***

While the letter by The Watershed Company stated that they found “no significant discrepancies or inaccuracies in the data”, the letter did not discuss the very large groundwater elevation discrepancy reported between the Maul Foster Alongi (2016 and 2017) reports and the water directly measured at two wells by Northwest Groundwater Consultants (2019). The water levels

measured directly by Northwest Groundwater Consultants were 50 feet and 35 feet lower than the groundwater contour map produced in 2016 and 2017. This large discrepancy strongly suggests that the groundwater elevations of the all of the other wells that were not directly measured are inaccurate and therefore the groundwater contour map is not an accurate portrayal of the groundwater elevations.

The significant difference in groundwater elevations between the 2016/2017 report and the measured elevations in the 2019 report, as well as the lack of recognition of the groundwater discharge locations on the slopes to the northwest, should have been noted in The Watershed Company review, particularly given that the County may be considering the review as a third party review.

***Groundwater flow and potential changes of groundwater flow towards the bluffs has not been evaluated***

There are no data regarding the groundwater elevations between the proposed mine expansion and the bluffs to the northwest of the mine.

The areas of springs on the slopes to the northwest of the mine have still not been analyzed despite the specific request by Skagit County Planning and Development Services. The proposed scope of work prepared by Canyon Environmental Group and submitted to the County as part of the application process by the applicant has not been completed.

I remained very concerned about the potential impacts to groundwater levels and the stability of the bluffs to the northwest of the mine in the absence of an assessment of the mine's impacts on those areas.

Sincerely yours,  
**Stratum Group**



Dan McShane, L.E.G., M.Sc.  
Licensed Engineering Geologist

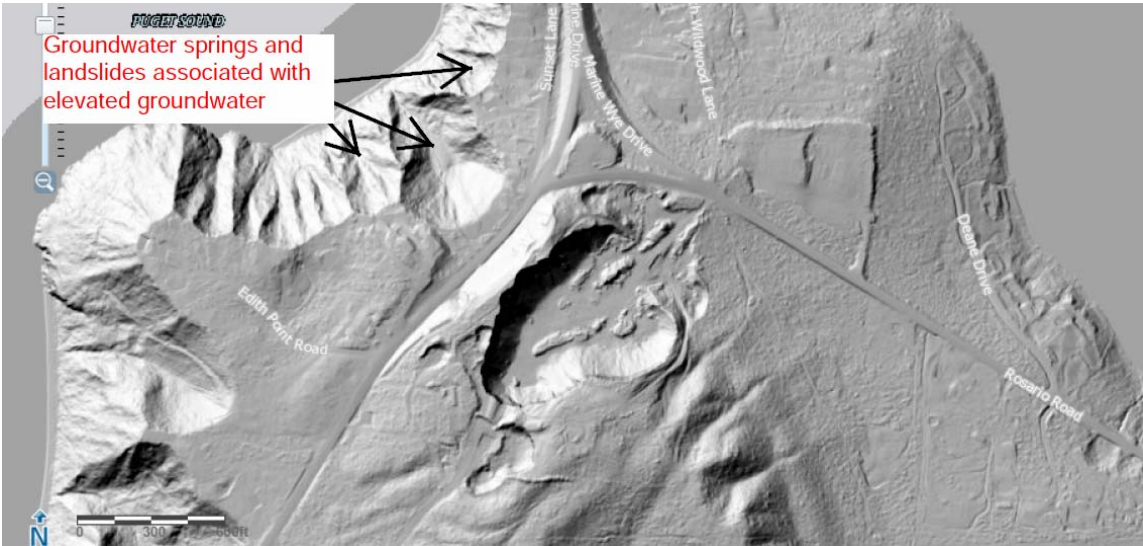


DANIEL McSHANE





Site of recent sand blowout from perched groundwater just above the silt clay layer at bluff northwest of the mine.



Lidar image of groundwater induced slide areas and mine area

# EXHIBIT F



By Email

November 18, 2022

Kevin Cricchio, Senior Planner  
Skagit County Planning and Development Services  
1800 Continental Place  
Mount Vernon, WA 98273  
kcricchio@co.skagit.wa.us

**Re: File No. PL16-0056 -- Lake Erie Pit LLC Gravel Mine Expansion Special Use Permit**

Dear Mr. Cricchio,

I'm writing on behalf of Evergreen Islands ("Evergreen") to address the inapposite Geologic Hazard Site Assessment ("Assessment") that Wood Environment & Infrastructure Solutions, Inc. submitted on behalf of the Lake Erie Pit 1 Expansion in August 2022. As explained in the attached letter from Dan McShane, a licensed engineering geologist, the Assessment did not provide the analyses requested by Skagit County Planning and Development Services ("PDS") in its March 21, 2021 letter to Lake Erie LLC. It is frustrating that a year after the Hearing Examiner granted an extension on the permit application, these analyses have not yet been conducted. But given the lack of new, applicable information, Evergreen requests that PDS set aside the Assessment and reiterate its requests to Lake Erie.

As you will see in the comments from Mr. McShane, he determined that the Assessment did not address the central question posed to Lake Erie after the Board of Commissioners remanded the application decision – would it impact groundwater that decreased bluff stability for the residential neighborhoods to the west and northwest of the mine site? Mr. McShane's review found that "[t]he potential groundwater flow direction was not analyzed in the report" and that "[t]he springs on the shoreline bluffs to the west and northwest of the pit were not analyzed." He concludes that, "[r]egrettably, the geology hazard assessment does not address the groundwater flow and slope stability of the nearby shoreline bluff as requested by Skagit County."

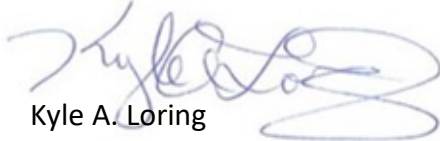
It is possible that Lake Erie would have been able to supply PDS with the requested analysis if it had continued to engage Canyon Environmental Group ("Canyon") for the work they proposed in September 2021. At that time, Lake Erie supplied the Hearing Examiner with a Proposed Hydrogeology and Groundwater Characterization Timeline from Canyon that expressly stated that the scope of the services was to "help characterize the groundwater and groundwater flow directions related to existing conditions and the proposed mine expansion."

That proposal was signed by a hydrogeologist/wetland ecologist/environmental geologist. Yet the Assessment was authored by a different consultant--geotechnical engineers who conducted a more generic geologic hazard site assessment that did not acknowledge the documented shortcomings of the prior reports, and instead relied on them for the same unsupported assertion that groundwater at the site does not flow toward the nearby marine bluffs.

Because the Assessment does not offer information responsive to PDS' requests, it thus does not provide information necessary to determine the mine's risks on the residential neighborhood to the west and northwest of the proposed mine. Consequently, Evergreen is forced to request that PDS reiterate its request to Lake Erie to investigate groundwater flow at the site and its potential impact on the bluffs' slope stability.

If you have any questions, please do not hesitate to contact me at 360-622-8060 or [kyle@loringadvising.com](mailto:kyle@loringadvising.com).

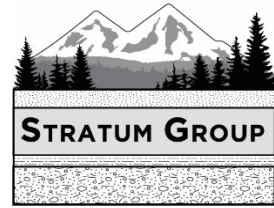
Sincerely,

A handwritten signature in blue ink, appearing to read "Kyle A. Loring", with a large, stylized flourish at the end.

Kyle A. Loring

Cc: Marlene Finley

Attachment: Stratum Group Comments Regarding Geologic Hazard Site Assessment



PO Box 2546, Bellingham, Washington 98227

November 15, 2022

Re: **Proposed Lake Erie Pit Expansion**  
Comments Regarding Geologic Hazard Site Assessment

I reviewed the Wood Geologic Hazard Site Assessment for the proposed Lake Erie Pit expansion (dated August 11, 2022). The assessment does not address any of the areas outlined in the Skagit County Planning and Development Services (PDS) letter to Lake Erie LLC (dated March 21, 2021).

PDS requested that the assessment include three specific items:

1) “Analyze the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion and attendant removal of soil and vegetation which could alter groundwater behavior in the vicinity of the mine.”

The potential groundwater flow direction was not analyzed in the report. The report only references the previous reports that also did not analyze the groundwater flow direction towards the shoreline bluff.

2) “Analyze the presence of springs on the coastal bluff to the northwest of the mine that are at an elevation down gradient of the inferred groundwater level.”

The springs on the shoreline bluffs to the west and northwest of the pit were not analyzed. There is no discussion that the elevation of the springs are estimated to be at elevations that are lower than the groundwater measured near the pit and thus are likely down gradient to the pit such that groundwater from the pit area will flow towards the springs.

3) “Respond to the testimony of the professional geologist who identified that the proposed mine expansion will create an increased landslide risk.”

My testimony was never referenced and the report is not responsive to the issue of increased groundwater flow towards the shoreline bluff.

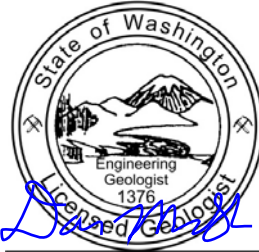
No where in the report is the stability of the shoreline bluff assessed and no bluff observations were made. The potential for altering groundwater, and the stability of the shoreline bluff from that alteration, have not been addressed.

Stratum Group appreciates the opportunity to comment on the adequacy of the geology hazard assessment. Regrettably, the geology hazard assessment does not address the groundwater flow and slope stability of the nearby shoreline bluff as requested by Skagit County.

Sincerely yours,  
**Stratum Group**



Dan McShane, L.E.G., M.Sc.  
Licensed Engineering Geologist



DANIEL McSHANE

# EXHIBIT G

By Email

March 3, 2023

Kevin Cricchio, Senior Planner  
Skagit County Planning and Development Services  
1800 Continental Place  
Mount Vernon, WA 98273  
kcricchio@co.skagit.wa.us

**Re: File No. PL16-0056 – The Watershed Company Response to Evergreen Islands communication of 11/18/2022 re: Lake Erie Pit**

Dear Mr. Cricchio,

I'm submitting this letter and attached analysis from Dan McShane on behalf of Evergreen Islands ("Evergreen") to respond to a memorandum that you received from The Watershed Company ("Response") in response to Evergreen's November 2022 missive. Before addressing the Response, I should mention that Evergreen was disappointed to have to learn about it through the Skagit County Planning & Development Services ("PDS") website. As the party that successfully appealed the inadequate original groundwater reports for the site, Evergreen has a reasonable expectation that it would be informed when the applicant and the County prepare or receive new reports regarding the site's groundwater characteristics. This is particularly true of documents expressly titled "Response to Evergreen Island [sic] communication." We ask that PDS ensure that it communicates such materials to Evergreen in the future.

With regard to the substance of the Response, we have attached a letter from Dan McShane, a licensed engineering geologist and the expert who diagnosed the flaws in the initial groundwater review for the proposed Lake Erie gravel pit, that explains that the Response also ignores the potential for the mine to increase the risk of landslides for the neighborhood to the northwest. Mr. McShane concludes that "I remain very concerned about the potential impacts to groundwater levels and the stability of the bluffs to the northwest of the mine in the absence of an assessment of the mine's impacts on those areas."

Mr. McShane reached this conclusion after identifying the following flaws in the Response and earlier groundwater reviews:

- The Response does not identify or discuss the springs on the bluffs to the northwest of the proposed mine in its review of the earlier reports. These springs, which have never



been evaluated notwithstanding that they lie downgradient of the mine, were the primary reason that the Skagit Board of Commissioners reversed Hearing Examiner approval of the mine. Mr. McShane notes that if recharge to groundwater that feeds these springs is increased, the frequency and magnitude of groundwater-driven landslides will increase. Nonetheless, the Response makes no reference to them, instead discussing unstable slopes to the west and southwest of the proposed mine.

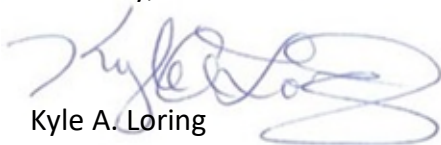
- There are significant discrepancies in the groundwater elevations identified by different applicant reports. While the Response asserts that no significant discrepancies or inaccuracies were found in the data, the water levels measured directly by Northwest Groundwater Consultants were 50 feet and 35 feet lower than those identified on the groundwater contour map produced by Maul Foster Alongi in 2016 and 2017. This large discrepancy casts doubt on the accuracy of the elevations the application presumed for the other wells that were not directly measured.
- The groundwater flow and potential changes to the groundwater flow toward the unstable bluffs has not been evaluated. Ultimately, there are no data regarding groundwater elevations between the proposed mine and the unstable bluffs to the northwest of the mine. The County requested this information nearly two years ago in its March 23, 2021 letter to Bill Wooding, which required an assessment of the following specific site elements:
  - Analysis of the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion and attendant removal of soil and vegetation which could alter groundwater behavior in the vicinity of the mine.
  - Analysis of the presence of springs on the coastal bluff to the northwest of the mine that are at an elevation down gradient of the inferred groundwater level.
  - Respond to the testimony of the professional geologist [Dan McShane] who identified that the proposed mine expansion will create an increased landslide risk.

The Canyon Environmental Group (“Canyon”) proposal that the applicant had obtained to answer these questions could have done so. The applicant inexplicably chose a different consultant who did not carry out the scope Canyon had proposed, and who declined to conduct the analyses that PDS had requested. The Response likewise omits any analysis of groundwater impacts on the bluffs to the northwest.

Absent this requested information, which is essential for answering whether the mine will increase the likelihood that residents to the northwest will suffer from increased landslides, the project cannot move forward. Evergreen therefore requests that PDS reiterate its request to Lake Erie to investigate groundwater flow between the site and the downgradient springs in the bluffs to the northwest, and, if studies conclude that the mine will increase the groundwater flow to those bluffs, whether the increased flow will increase the instability of those bluffs.

If you have any questions, please do not hesitate to contact me at 360-622-8060 or [kyle@loringadvising.com](mailto:kyle@loringadvising.com).

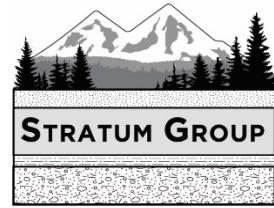
Sincerely,

A handwritten signature in blue ink, appearing to read "Kyle A. Loring". The signature is fluid and cursive, with a large loop at the end.

Kyle A. Loring

Cc: Marlene Finley, Evergreen Islands

Attachment: Stratum Group Response to The Watershed Company Response



PO Box 2546, Bellingham, Washington 98227

March 2, 2023

Re: **Response to:**

The Watershed Company Response to Evergreen Islands communication of 11/18/2022

As a licensed engineering geologist who has been part of the Lake Erie gravel pit review for three years, I am offering feedback on The Watershed Company's review of the original groundwater flow assessment that the Board of Commissioners deemed inadequate. Regrettably, The Watershed Company response letter listed as a 'Geologic-Hazard Site Assessment Third Party Review' on the County website does not support moving forward with project review. The Watershed Company did not identify or discuss the springs on the bluffs to the northwest of the proposed mine in the review of the reports. Furthermore, in the review of the groundwater elevations, The Watershed Company did not identify a very large discrepancy in the groundwater elevations between the groundwater reports prepared by Maul Foster Alongi (2016 and 2017) and Northwest Groundwater Consultants (2019). The review also failed to discuss that the Wood (2022) geology hazard site assessment was not responsive to the County's specific requests to "Analyze the landslide risk arising from the potential for increased groundwater migration to the west/northwest of the mine due to the proposed expansion." These notable omissions prevent the response from being relevant to the necessary review.

### ***Springs northwest of mine***

The Commissioners determined that the groundwater flow to the springs located to the northwest of the mine was essential for evaluating project impacts, but it has not been addressed. Maul Foster Alongi provided a Hydrogeologic Site Assessment Report (September 28, 2016). The purpose of that report was to meet the requirements of Skagit County Code 14.16.440(8)(b):

- (b) A report by a qualified geologist, hydrogeologist or licensed engineer characterizing the area's ground water including, but not limited to, the following information:*
  - (i) A description of the geology and hydro-geology of the area including the delineation of aquifer, aquitards, or aquicludes (confining layers), hydrogeologic cross-sections, porosity and horizontal and vertical permeability estimates;*
  - (ii) Determination of the direction and velocity of ground water movement, water table contour and potentiometric surface maps (for confined aquifers), if applicable; and*
  - (iii) A map containing the limits of the mine, buffer zones, location of all ground water wells within 1 mile distance down gradient from the property boundaries,*

***location of all perennial streams and springs, and definition or specification of locations of aquifer recharge and discharge areas.***

But the Maul Foster Alongi report (2016) did not identify the springs or streams located to the northwest of the property. Subsequent reports by Maul Foster Alongi (2017) and Northwest Groundwater Consultants (2019) also did not identify these springs.

In my comments on the project dated October 12, 2020, I pointed out that groundwater fed springs are located on the slopes to the northwest that were not identified in the Maul Foster Alongi (2016 and 2017) and Northwest Groundwater Consultants (2019) reports. Based on previous work I had done on these slopes, I noted that elevated groundwater levels were a factor in the landslides on these slopes.

***Role of groundwater on the stability of the slopes to the northwest***

The Wood Geology Hazard Site Assessment (2022) did not identify the springs and made no attempt to assess the groundwater flow to the springs even though this was a specific item requested by Skagit County Planning and Development Services. Wood appears to have been unaware of the groundwater springs. The Wood report used the same groundwater contour map as the Maul Foster Alongi (2017) report. The Wood assessment provided no assessment of the steep bluff areas to the northwest of the mine. The rationale for not assessing the slope was based on the assumption that groundwater does not flow to the bluff. The role of groundwater flow to the bluff remains unevaluated.

I submitted my original comments (October 12, 2020) because I have been on the slopes to the northwest and recognized that groundwater levels from a mid slope area of springs have been and are a major driver of slope instability along the slope area to the northwest of the mine (pictures attached). Groundwater impacts to the stability of the slope to the northwest of the mine is why the headwall of the landslide scarp along the bluff northwest of the mine has recessed approximately 300 feet into the upland area (attached lidar image). The potential change to groundwater flow towards these springs by the removal of the glacial till cover within the proposed mine expansion has still not been evaluated. These springs were not identified in the groundwater assessment, the geology hazard site assessment or the response document.

If recharge to groundwater that feeds these springs is increased, the frequency and magnitude of groundwater driven landslides will increase on these slopes.

***Discrepancy in water elevations***

While the letter by The Watershed Company stated that they found “no significant discrepancies or inaccuracies in the data”, the letter did not discuss the very large groundwater elevation discrepancy reported between the Maul Foster Alongi (2016 and 2017) reports and the water directly measured at two wells by Northwest Groundwater Consultants (2019). The water levels

measured directly by Northwest Groundwater Consultants were 50 feet and 35 feet lower than the groundwater contour map produced in 2016 and 2017. This large discrepancy strongly suggests that the groundwater elevations of the all of the other wells that were not directly measured are inaccurate and therefore the groundwater contour map is not an accurate portrayal of the groundwater elevations.

The significant difference in groundwater elevations between the 2016/2017 report and the measured elevations in the 2019 report, as well as the lack of recognition of the groundwater discharge locations on the slopes to the northwest, should have been noted in The Watershed Company review, particularly given that the County may be considering the review as a third party review.

***Groundwater flow and potential changes of groundwater flow towards the bluffs has not been evaluated***

There are no data regarding the groundwater elevations between the proposed mine expansion and the bluffs to the northwest of the mine.

The areas of springs on the slopes to the northwest of the mine have still not been analyzed despite the specific request by Skagit County Planning and Development Services. The proposed scope of work prepared by Canyon Environmental Group and submitted to the County as part of the application process by the applicant has not been completed.

I remained very concerned about the potential impacts to groundwater levels and the stability of the bluffs to the northwest of the mine in the absence of an assessment of the mine's impacts on those areas.

Sincerely yours,  
**Stratum Group**



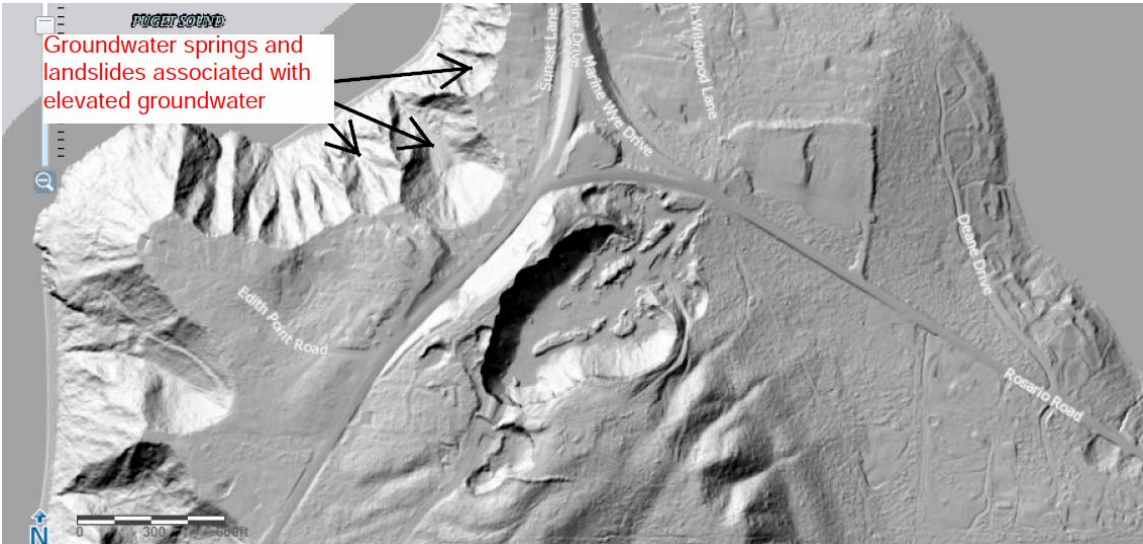
Dan McShane, L.E.G., M.Sc.  
Licensed Engineering Geologist



DANIEL McSHANE



Site of recent sand blowout from perched groundwater just above the silt clay layer at bluff northwest of the mine.



Lidar image of groundwater induced slide areas and mine area

# NOTICE OF PUBLIC HEARING:

Hearings are now being held hybrid, meaning in-person and virtual (via Zoom). To participate in the public hearing virtually you can call +1(253)215-8782, US (Tacoma), or +1(719)359-4580 US, **Meeting ID: 812 7077 5954# US (Passcode: 728120)**, or to join via video please visit:

<https://us06web.zoom.us/j/81270775954?pwd=YzdWSmxLeXp6cDdCbmlFbXk0ZSVWNRdz09>

Log in information is also available on the Hearing Examiner website located at [www.skagitcounty.net](http://www.skagitcounty.net) under the "Department Directory," "Hearing Examiner."

If you are having issues connecting to the hearing, please call the numbers listed below.

Notice is hereby given that the Skagit County Hearing Examiner will hold a public hearing on **Wednesday June 28, 2023, in the Board of County Commissioners Hearing Room, 1800 Continental Place, Mount Vernon, Washington, at 1:00 PM or soon thereafter**, for the purpose of determining the following:

- a. **Current Use Open Space #1-2023:** Paul Blake. Located N of Rawlins Road and S of Skagit River. Portion of P15556 containing 17.00 acres. Legal Description is Portion of S1/2 Section 9, Township 33 North, Range 3 East, W.M. **Staff Contact;** Kiffin Saben
- b. **Hearing to review the remanded items required by the Hearing Examiner on March 9, 2021 for Special Use Permit Application PL16-0556 submitted by** Lake Erie Pit 1, LLC requesting the expansion of an existing gravel/sand mining operation from 17.78 acres to approximately 53.5 acres. Per the direction of the Hearing Examiner, the applicant was required to prepare a Geologically Hazardous Area Site Assessment associated with the steep coastal area located to the west/northwest of the mine and prepare a Geologically Hazardous Mitigation Area Plan. The requested items were submitted on August 12, 2022 and determined complete on January 18, 2023 following a third-party review by The Watershed Company. The subject site is located within the Rural Resource-Natural Resource Lands (RRc-NRL) Zoning/Comprehensive Plan Designated Area and designated within the Mineral Resource Overlay. The proposed mining expansion is located south of the intersection of Rosario Road and Marine Drive, Fidalgo Island, within a portion of Section 11, Township 34 North, Range 01 East, Willamette Meridian situated within unincorporated Skagit County, Washington. Subject Parcels: Existing Mine: P19108, P19162, & P19165; Expansion to Mine: P19158, P90028, P19164, P19165, P19155, P19161; Contiguous Parcels (Same Ownership): P19168, & P19163. **Staff Contact:** Kevin Cricchio, Senior Planner
- c. **Special Use Permit application #PL22-0603 submitted by** Skagit County Public Works, c/o Devin Willard, for the Young's Park Access and Material Stockpiling Project. The project proposal includes three (3) primary components: First, the project intends to recognize the site as a "Public use" and clearly define a public overflow parking area with the capacity for approximately 7 vehicles to allow for improved access to the Skagit County owned (Parks) property for recreational use by the public. Second, the site will be used by the public as a trailhead access (primary and secondary Trailhead) to the public property along the Padilla Bay shoreline. And third, the proposal involves setting aside a portion of the graded parking lot area to allow for the stockpiling of material intended to be used for road improvement and maintenance projects, such as re-surfacing/chip sealing, to prevent excessive ferry trips and to

reduce traffic disruptions during the scheduled project activities. Located within the Rural Reserve (RRv) zoning/comprehensive plan designated area at 4243 Guemes Island Rd, Anacortes, within a portion of Section 26, Township 36N, Range 1E W.M., situated within Skagit County, Washington. (P46558). **Staff Contact:** Brandon Black, Current Planning Manager.

Your views for or against the requests are invited either by attendance, representation, or letter. Comments and/or facsimiles must be received by Planning and Development Services no later than 4:30 P.M. June 27, 2023, or be presented at the public hearing. Email comments may be submitted with the PDS website under the current legal notices tab or to the Office of the Hearing Examiner.

If you would like to speak at the hearing, please contact either Maria Reyna at (360) 416-1150, email [mariar@co.skagit.wa.us](mailto:mariar@co.skagit.wa.us); Keith Luna at (360) 416-1152, email [kluna@co.skagit.wa.us](mailto:kluna@co.skagit.wa.us); or Russell Walker at (360) 416-1154, email [russow@co.skagit.wa.us](mailto:russow@co.skagit.wa.us) to sign up.

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