



## FINDINGS

### A. Procedural background

1. The project is subject to State Environmental Policy Act (SEPA) review as provided in Washington Administrative Code (WAC 197-11-310). Utilizing the optional DNS process provided in WAC 197-11-355, the City of Bainbridge Island published a combined Notice of Application / SEPA comment period on May 18, 2012. The 30-day comment period ended on June 18, 2012; no public comments were received. The City, acting as lead agency, issued a Mitigated Determination of Non-significance (MDNS) threshold determination for this proposal on August 17, 2012.

2. At the applicants' option and request, the Strauss Shoreline Substantial Development / Shoreline Conditional Use Permits for landslide repairs were reviewed under the consolidated project review process provided in BIMC 2.16.170. The work necessary to restore the Strauss and Kahle properties from damage incurred during the March 2011 landslide is a single project proposal for a single landfill/revetment straddling the common Kahle / Strauss property line.

3. The City's permitting history for the Kahle property extends back to 1999, when Ms. Kahle revised an application for a dock extension (originally submitted by the former property owner) involving replacement of a bulkhead. The City eventually approved a soft bank protection in lieu of a bulkhead.

4. In February 2006, a storm caused erosion damage to the toe of the slope, and a landslide occurred at the top of the slope. At the time of a January 2007 pre-application conference to discuss construction of a bulkhead, the City also became aware of a retaining wall that was constructed on the property without permits. That wall was constructed in 2002, subsequent to the 2001 landslide. The City suggested that the application for the bulkhead also encompass the wall, which required shoreline substantial development and conditional use permits. But construction of the bulkhead by itself was exempt from shoreline permitting requirements, and ultimately only an application for the bulkhead was received.

5. The City issued an exemption from shoreline substantial development permit requirements for installation of the bulkhead in September 2007. In that same month, a code enforcement action was opened by the City to address construction of the wall in 2002 without the proper permitting. Subsequently, the City decided to fold the code enforcement action into the permitting process for a second wall on the property constructed in 2008.

6. In February 2008, the City received a request to issue an emergency permit for foundation repairs to the Kahle residence. The project engineer had noted a slow-moving failure of the hillside and downward slope creep at the northwest corner of the house. The engineer observed that the foundation movement was causing harm to the foundation walls, interior walls and damage due to settling. The City "yellow-tagged" the bedroom and bath on the west side of the home and issued emergency repair permits.

7. In July 2008, the City received a building permit application for a new 54 foot soldier pile and lagging retaining wall that the geotechnical engineer had recommended to address the foundation movement discovered earlier that year. The City notified the applicant that construction of the proposed wall would require a shoreline substantial development permit and possibly a shoreline conditional use permit, and further that the

building permit would not be issued until a shoreline permit was approved. Ms. Kahle appealed the decision, citing conditions that threatened the public health, safety and welfare in regard to the existing single family residence. In September 2008, the City and Ms. Kahle reached a legal agreement: The City issued a shoreline exemption and building permit to construct the wall, and Ms. Kahle agreed to submit an after-the-fact shoreline conditional use permit application, encompassing the 2002 wall and the new retaining wall.

8. On March 14, 2011 a landslide impacted both the Kahle and Strauss properties. The slide occurred below the soldier pile wall constructed on the Kahle property in 2008, with slide debris coming to rest on the boathouse located at the base of the slope on the Strauss property. The City issued an emergency shoreline exemption to install temporary stabilization measures to address the March 2011 slide. An application for a grade/fill permit for permanent repairs was submitted August 8, 2011. In December 2011, another landslide occurred on the Kahle property. The City issued another emergency exemption for temporary stabilization measures and to remove a tree that was threatening the Kahle boathouse.

9. The Strauss application for shoreline substantial development (SSDP) and shoreline conditional use (SCUP) permits to authorize the landfill/revetment repair of the March 2011 landslide was received April 11, 2012. The Kahle revised application for a SSDP and SCUP, incorporating collectively the wall constructed in 2002, the retaining wall constructed in 2008 and the landfill/revetments constructed in 2012 to repair the damage from the March 2011 and December 2011 landslides, was submitted April 23, 2012. The applications were deemed complete May 10, 2012. A combined notice of application and SEPA comment period for both applications was published May 18, 2012. No public comments were received. The Washington State Department of Fish and Wildlife (WDFW) issued Hydraulic Project Approval for the barge landings for the two 2012 landfill/revetment installations.

## **B. Site conditions**

10. The properties are sited along the eastern shore of Port Madison Bay, bordered by residential parcels to the northeast and south, Hidden Cove Road to the southeast, and tidelands to the west. Each of the properties contains a single family residence, boathouse and dock. The residences are located atop a steep, northwest-facing 40 foot bluff. The homes are located approximately 15 – 25 feet from the top of the slope.

11. The subject properties are located within reach 3200 of the Port Madison Bay Management Area; herring spawning habitat includes the nearshore environment. The properties are accessed via Hidden Cove Road by land and from Port Madison Bay over water. The properties are zoned R-2, the Comprehensive Plan designation is OSR-2, and they are located within the upland *Semi-rural* shoreline environment and include a portion of the adjacent *Aquatic* environment. Except for upland properties to the southeast zoned R-0.4 and designated OSR-0.4 in the Comprehensive Plan, all other surrounding properties are also zoned R-2, designated OSR-2 and located in the *Semi-rural* and *Aquatic* shoreline environments.

12. Beginning in 1999 geotechnical reports submitted to the City describe the evolution of site conditions over more than a decade. A steep slope separates the upland areas to the east, where the Kahle residence is located, from the bay to the west. In 1999 the bluff was

approximately 30 feet in height with 30 degree slopes near the top and steeper 60 degree slopes near the base. The northern half of the slope had been extensively landscaped and graded for a pathway to the water. The bluff slope was approximately 60 degrees, with the southern portion of the property, the common boundary with the Strauss property, consisting of a concave beach and slope at an overall 45 degree angle.

13. In 1999 the project geologist did not observe evidence of recent landslides, but stated that the concave southern slope area had the remnant head-scarp indicative of past landslide activity. It was noted at the time of his field visit that the area was heavily vegetated, which precluded accurate estimates as to when earlier slides may have occurred. Ultimately, soft bank protection in lieu of a bulkhead was authorized by the City and the Washington State Department of Fish and Wildlife to protect from toe erosion of the slope. Authorization and construction of the soft shore protection was still awaiting Army Corps of Engineers approval in December 2001 when a landslide occurred on the Kahle property.

14. The project geologist evaluated the 2001 slide and observed an active slide area, noting that a tree was threatening the dock and boathouse on the Kahle property. The slide caused damage to a foot path and extended the length of the slope from the path (head scarp) to the slope toe at the beach. The geologist observed head scarp cracks and recommended monitoring the site for additional movement through the winter. The City authorized removal of the tree.

15. In January 2007, Ms. Kahle and City staff met for a pre-application conference to discuss construction of a protective rock bulkhead. The geotechnical report submitted for the conference documented that the slope area northwest of the residence contained a scallop-shaped slump, suggesting past landslide activity. Wood debris and soft soils accumulated along the toe of the waterfront bank and on the beach surface also provided evidence of prior landslides. Conditions were summarized in the report as follows:

*“A portion of the lower slope between the house and the dock experienced soil movement in 2001, causing damage to the footpath and endangering the boathouse and dock. Subsequently, a soldier pile and timber lagged retaining wall was constructed to stabilize the slope and walkway. Below the short retaining wall, the downslope area was observed to be moving downward toward the beach. We observed signs of past landslide activity on the slope northwest of the deck and house, and the homeowner confirmed some movement of the slope during the winter of 2005-2006.”*

The report concluded:

*“If the owner desires to stop all erosion/movement at the top of the slope, it will require a combination of shoreline protection system (sic) to stop erosion at the toe, and an upper-slope protection system such as a mechanically-reinforced slope or a structural retaining wall. These slope retention systems are generally quite expensive but will halt further erosion and slope instability.”*

With application for the bulkhead, the engineers provided the following further comment within an addendum to the geotechnical report:

*“A landscape retaining wall has currently held the upper slope face from moving with this lower slope, but it will not keep the upper slope face from failing by itself and since the wall was not engineered, its longevity is suspect. Failure of that wall*

*due to continued slope surface movement below could initiate slope face failure upward, toward the structures. The slope will be monitored after the bulkhead installation to determine what additional improvements will be needed on the upper slope face. In this manner, the use of the slope can be continued in the existing normal manner."*

16. The dimensions measured for the larger March 2011 landslide below the Kahle soldier pile wall were 55 feet in length (east/west) and 35 feet wide (north/south). Along the upper portion of the slide on the Kahle property the project engineer observed a downward displacement at the slide's head scarp of about ten feet with a slope gradient at about 120 percent. In addition, he noted a tension crack along the top portion of the steep slope south of the Strauss boathouse, with a slope height of 20 feet and a 120 percent slope, propagating south for a distance of 30 feet.

17. The proposed engineering solution for the 2011 events is based on a geotechnical observation that slide activity appears to occur in the top 10 to 12 foot layer of soils, which over-steepens and fails in repetitive occurrences. The rip-rap revetment approach involves slide debris removal, benching the slope to hold the crushed rock and using rip-rap of sufficient dimension to facilitate effective drainage. The proposal was designed to provide a safety factor of 1.5 under saturated conditions.

### **C. Regulatory review**

18. The following provisions of BIMC 16.12.380(C) govern approval of shoreline conditional use permits:

*Conditional Uses. The purpose of a shoreline conditional use permit is to allow greater flexibility in applying the use regulations of the master program in a manner consistent with the policies of RCW 90.58.020, or its successor; provided, that shoreline conditional use permits should also be granted in a circumstance where denial of the permit would result in a thwarting of state policy enumerated in RCW 90.58.020 or its successor. In authorizing a conditional use, special conditions may be attached to the permit by the city or the State Department of Ecology to prevent undesirable effects of the proposed use. Uses which are specifically prohibited by the master program may not be authorized with approval of a shoreline conditional use permit.*

*1. Uses classified as conditional uses may be authorized; provided, that the applicant can demonstrate all of the following:*

- a. The proposed use will be consistent with the policies of RCW 90.58.020 or its successor and the policies of the master program.*
- b. The proposed use will not interfere with the normal public use of the public shorelines.*
- c. The proposed use of the site and design of the project will be compatible with other permitted uses within the area.*
- d. The proposed use will cause no unreasonably adverse effects to the shoreline environment designation in which it is located.*

*e. The public interest suffers no substantial detrimental effect. (WAC 173-14-140(1) or its successor.)*

*f. The proposed use is consistent with the provisions of the zoning ordinance (BIMC Title 18) and the comprehensive plan (Ordinance No. 94-21).*

*2. Other uses which are not listed in the master program as permitted or conditional uses and are also not prohibited may be authorized as conditional uses provided the applicant can demonstrate, in addition to the criteria set forth in subsection C.1 of this section, that extraordinary circumstances preclude reasonable economic use of the property in a manner consistent with the policies of RCW 90.58.020, or its successor, that the proposed use would not produce significant adverse effects on the shoreline environment.*

19. The Planning Department staff report (exhibit 16) contains a thorough discussion of how the Kahle/Strauss proposal complies with the City's Comprehensive Plan policies and zoning regulations, which discussion is adopted herein by reference.

20. With respect to the Shoreline Master Program regulations contained in BIMC Chapter 16.12, the proposal is a shoreline modification activity in support of an allowable shoreline use conforming to the provisions of the Master Program, as required by BIMC 16.12.040. In 2002 a landscape wall was built to support installation of a foot path leading from the residence to the water; a path to the shoreline is permitted by the Master Program. The retaining wall built in 2008 and the landfill/revetment constructed in 2012 are designed for the protection of existing single-family residential development, a use permitted by the Master Program.

21. As provided in BIMC 16.12.060, clearing and grading is permitted landward of the native vegetation zone when associated with a permitted shoreline use and mitigated by replanting. The walls and a portion of the March 2011 slide area are landward of the native vegetation zone. Clearing / grading on the properties occurred to install protective structures for the residences. The project is conditioned to vegetate the disturbed areas (Conditions 2, 3).

22. BIMC 16.12.070 requires shoreline activities to conform to the environmental impact provisions of the Shoreline Master Program. The site project elements were primarily designed in response to landslides which occurred on the property. The goal was to avoid hazards to public health and safety, with the project undergoing extensive geotechnical engineering review. The wall constructed in 2002 was intended by the owner to provide a foot path. Subsequent geotechnical review evaluated all existing development, as well as the wall constructed in 2008 and landfill/revetments in 2012. The approvals issued to accommodate emergency repairs were conditioned to follow best management practices, and the landfill/revetments received Hydraulic Project Approval from the Washington State Department of Fish and Wildlife prior to construction (Condition 1).

23. Pursuant to BIMC 16.12.080 environmentally sensitive areas are primarily regulated through BIMC 16.20, Critical Areas, as supplemented by the Master Program. The landward portion of the property is encumbered by environmentally sensitive areas,

including a native vegetation zone and geologic hazard area. The landslides disturbed these areas, which are subject to restoration pursuant to Critical Areas requirements.

24. The subject property is located in the *Semi-rural* shoreline environment, which under the provisions of BIMC 16.12.090 requires maintenance of a native vegetation area 50 feet in width measured from the Ordinary High Water Mark. Existing development within the native vegetation zone (NVZ) includes docks, bulkheads and boathouses on both properties. The wall constructed in 2002 was intended as a landscape wall to support a foot path leading from the Kahle residence to the water. BIMC 16.12.090 provides that a path to the shoreline may be installed in the NVZ. Although paths are not permitted outright under the Master Program, it is reasonable to conclude that this path may extend through the NVZ to connect shoreline recreational amenities to the residence. And given the narrow and constrained area lying between the top of slope and the residence, it is reasonable to expect that a wall may be required to support the path. Both the wall constructed in 2008 and the December 2011 slide repair area lie within shoreline jurisdiction and partially within the NVZ. The March 2011 slide repair area is completely within the NVZ. The landslide and subsequent repairs resulted in vegetation clearing within the NVZ; the project is conditioned to replant the area of disturbance (Conditions 2, 3).

25. Under the Environment Designation / Master Program Summary Matrices of BIMC 16.12.140/150, the proposed development should be evaluated as a landfill use. The subject properties are located in the *Semi-rural* upland shoreline environment and the *Aquatic* water environment. The landslide repair actions, upland excavation and placement of 585 cubic yards of fill material to create a sloped face do not comprise an activity specifically called out in the Shoreline Master Program. The project geotechnical engineer used various terms to describe the landslide repairs, including “rip-rap revetment”; for regulatory purposes, however, the repair may be best categorized as upland landfill/revetment. “Landfill” includes “placement of ...material...on...upland areas in order to raise the elevation”. Landfill is a conditional use in the *Semi-rural* upland environment. A common definition of “revetment” is a facing used to protect an embankment. Therefore, the term landfill/revetment is used in this report to describe the repair structures in their regulatory context.

26. The placement of soil, sand, rock, gravel or other materials on upland areas in order to raise the elevation is classified as landfill under BIMC 16.12.330 and is permitted as a conditional use in the *Semi-rural* environment if impacts are minimized. The landslides that occurred in 2011 are defined as “slump” slides. A slump occurs when a portion of hillside moves downslope under the influence of gravity. A slump has a characteristic shape, with a scarp or cliff at the top of the slump, and a bulge of material, called the toe of the slump, at the base. The landfill/revetments installed in 2012 essentially restored the “slumped” surface of the properties. While the structures are larger than the original slide areas, the projects were designed to prevent further future slides. The landfill/revetments were installed to protect existing single family residential construction, a use permitted by the Master Program.

27. With respect to the requirements stated at BIMC 16.12.360, all construction proposed under these applications requires a shoreline substantial development permit. Portions of the project were completed as emergency construction as provided in WAC

173-27-040 (2)(d) to protect property from damage by the elements. The soldier pile retaining wall, along with the landfill/revetments installed this past summer, were deemed by the City to be the appropriate means to address these emergency situations. This permit incorporates all work performed previously, either without permits or through emergency permits. The effects on the shoreline environment essentially comprise aesthetic impacts to views on the water side resulting from temporary loss of vegetation. Mitigation includes revegetation to avoid any long-term cumulative adverse impacts.

28. As indicated above, BIMC 16.12.380 allows other uses which are not listed in the Master Program as either specifically permitted or prohibited to be authorized as conditional uses if the applicant can demonstrate that extraordinary circumstances preclude reasonable economic use of the property and the proposed use would not produce significant adverse effects on the shoreline environment. The landscape and retaining walls are not prohibited in the Shoreline Master Program and thus may be conditionally permitted. Landfill is specified as a conditional use in the Master Program. The applicants have made the requisite demonstration that extraordinary circumstances exist at the site. The older residences on the properties are located very close to the top of the slope, and moving them would not be economically feasible. Installation of the retaining wall and landfill/revetments were necessary to protect the residences. Access to the shoreline via the foot path is a reasonable amenity, as is a wall to facilitate such access. The wall was installed in 2002 without the proper permitting, but the wall's location has been studied intensely in the multiple geotechnical reports submitted since 2002.

## **CONCLUSIONS**

1. The Hearing Examiner has jurisdiction over this shorelines permit application proceeding. Applicable notice and SEPA requirements have been met.
2. The proposed use is consistent with the policies of RCW 90.58.020 and the City's Shoreline Master Program. As conditioned, the proposal meets the requirements of the City's Shoreline Master Program and WAC Chapter 173-27 for issuance of shoreline substantial development and conditional use permits.
3. The proposed use will not interfere with the normal public use of the shorelines and will be compatible with other permitted residential uses in the area. It will cause no long-term or significant adverse effects to the shoreline environment nor impose a detrimental effect on the public interest.
4. The proposed use is consistent with the City's zoning ordinance and Comprehensive Plan. Extraordinary circumstances would preclude continued reasonable residential use of the applicant properties if the proposed use were not to be authorized.

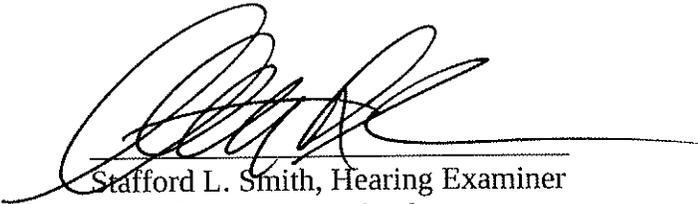
## DECISION

The Kahle/Strauss application for Shoreline Substantial Development and Conditional Use Permits for siting a landfill/revetment within shorelines jurisdiction is GRANTED, subject to the following conditions:

### SEPA Conditions

1. All conditions of the Washington State Department of Fish & Wildlife Hydraulic Project Approval shall become conditions of approval for this project.
2. To mitigate vegetation and aesthetic impacts, areas of disturbance shall be replanted with native or other approved species, and, except to conform to these conditions of approval, shall generally comply with the revegetation plan submitted to address plantings in the March 2011 slide area.
3. To mitigate vegetation and aesthetic impacts, the property owners shall provide a detailed landscape vegetation plan for the slope stabilization structure(s) within 30 days of approval of this underlying land use permit. The plantings shall be selected and designed to visually obscure at least 25 percent of the rock structure(s) within three years of initial planting.
  - A. The landscape plan shall include a planting schedule and three year maintenance program, along with type, quantity and plant species. Plants within the Native Vegetation Zone (NVZ) should be native to the Puget Sound basin and drought resistant.
  - B. The landscape plan shall include recommendations from a professional geotechnical engineer licensed in the State of Washington and a certified arborist or nursery professional. The geotechnical recommendations shall assess the feasibility of providing areas with top soil layer of sufficient depth to support vegetation, and utilization of techniques such as geotextile mats to stabilize top soil and support vegetation growth.
  - C. Landscaping shall be installed in the year of construction, and prior to final inspection / approval of the repair work. A landscape maintenance assurity in conformance with municipal code shall be provided.
  - D. The property owners shall submit an annual assessment of the planting plan, and shall maintain live plants through the first three years, replanting as necessary.

ORDERED September 24<sup>th</sup>, 2012.



Stafford L. Smith, Hearing Examiner  
City of Bainbridge Island

## EXHIBIT LIST

### Kahle SCUP 10066 & Strauss SCUP 10066B After-the-Fact Permit(s)

**Location: Kahle: 8130 Hidden Cove Rd Strauss: 8100 Hidden Cove Rd**

Staff Contact:  
Kelly Tayara, Planner

Public Hearing: September 20, 2012, at 9:00 am  
Location: City of Bainbridge Island  
City Hall – Council Conference Room

Hearing Examiner:  
Stafford L. Smith

<b>EX. NO.</b>	<b>DOCUMENT DESCRIPTION</b>	<b>DATE RECEIVED</b>	<b>NO. OF PAGES</b>
1	Application (Strauss)	04/11/2012	9
2	Owner/Agent Agreement (Strauss)	05/04/2012	1
3	Application (Revised – Kahle)	04/23/2012	8
4	Owner/Agent Agreement (Kahle)	04/13/2012	1
5	Site Plans/Landfill Revetment Design	04/23/2012	8
6	Soldier Pile Wall Design	09/04/2008	5
7	Geotechnical Engineering Report (N.L. Olson & Assoc. – March 2011 slide)	04/23/2012	68
8	Third Party Geotechnical Review of March 2011 Slide Repair	11/10/2012	3
9	Geotechnical Engineering Report (N.L. Olson & Assoc. – December 2011 slide)	06/01/2012	35
10	Third Party Geotechnical Review of December 2011 Slide Repair	06/11/2012	3
11	Environmental (SEPA) Checklist (Revised – with Staff Comments)	05/15/2012 (reviewed)	15
12	Notice of Application/SEPA Comment Period (with distribution and posting documentation)	05/17/2012	8
13	Email to Department of Fish & Wildlife transmitting the "Vegetation Plan"	06/22/2012	3
14	Notice of SEPA Mitigated Determination of Nonsignificance (MDNS)	08/17/2012	6
15	Notice of Public Hearing (with distribution and posting documentation)	08/31/2012 (published)	6
16	Staff Report (with 10 photos)	09/17/2012	25
17	Staff PowerPoint Presentation	09/20/2012	10