STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

September 27, 2024

Admiral's Cove Beach Club c/o Madalyn Walker
Marine Survey & Assessments
2601 Washington Street
Port Townsend, WA 98368

Re: Island County Permit No. 156/23
Admiral's Cove Beach Club c/o Madalyn Walker - Applicant
Shoreline Conditional Use No. 2024-NWRO-8215

Dear Madalyn Walker:

On August 28, 2024, the Department of Ecology (Ecology) received the Island County (County) decision on a shoreline Conditional Use Permit to allow for the installation of new shoreline stabilization, consisting of hard and soft shore stabilization methods to protect and prevent further damage to the Admiral's Cove Beach Club's (ACBC) community pool and associated appurtenances from storm and high tide induced erosion.

As we understand it, the extreme storm that occurred on December 20, 2018, is the catalyst for the requested shoreline stabilization. The project site was not inundated by marine waters during the above-mentioned event, but it was reported that 20 feet of horizontal vegetated backshore eroded as a result of the wave energy. This event concerned ACBC about the integrity of the pool area and pool enclosure wall and patio, as well as the septic drain field for the pool and community building area, located north of the pool.

The portion of hard shoreline stabilization consists of an ecology block wall spanning the length of the pool structure, with two wingwalls on both sides of the structure. The portion of soft shoreline stabilization consists of gravel/cobble berms continuing to the northwest and southeast of the pool structure to aid in dispersing wave energy, reduce end affects to adjoining areas, and protect appurtenances to the pool (i.e. septic drain field).

The subject parcel (Parcel Number: S6010-00-0100A-0) is located at 75 Keystone Ave, Coupeville WA 98239. The project area is within the Rural Conservancy SED environment designation adjacent to the Admiralty Bay of Puget Sound.

Pursuant to Island County's Shoreline Master Program (SMP), structural shoreline stabilization is a conditional use in the Rural Conservancy Shoreline Environment Designation (SED).

Proposed mitigation for the activity includes installation of 2,440 native dune grass plantings (1,775 foreshore, 655 backshore) and removal of 10 creosote logs from the naturally occurring beach berm located waterward of the pool structure.

By law, Ecology must review shoreline Conditional Use Permit for compliance with:

- The Shoreline Management Act (Chapter 90.58 RCW).
- Ecology's Conditional Use Permit (Chapter 173-27-160 WAC).
- Island County Shoreline Master Program.

After reviewing shoreline Conditional Use Permits for compliance, Ecology must decide whether to approve, approve with conditions, or disapprove them.

Our Decision:

In review of the Island County approved submittal package, Ecology finds that ACBC has not demonstrated consistency with all the necessary shoreline Conditional Use Permit criteria under WAC 173-27-160; therefore, we deny the permit.

Our review concludes:

- The proposal is not consistent with RCW 90.58.020 or the Island County SMP (WAC 173-27-160(1)(a)). ACBC has not submitted conclusive evidence that erosion from waves or currents is expected to cause damage to a primary structure or appurtenance within three years based on a trend analysis of prior rates of erosion without the proposed shoreline stabilization, pursuant to Island County's SMP [ICC 17.05A.110.A.3.c.v]. Shoreline stabilization is a matter of state interest. Potential losses of shoreline ecological functions from unnecessary shoreline stabilization does not meet the guidelines for development on shorelines of the state, as listed in RCW 90.58.020.
- The proposal is not compatible with the Island County SMP (WAC 173-27-160(1)(c)). The alternatives analysis prematurely determined the ecology block bulkhead as the only feasible option for protection from shore processes. ACBC has not taken appropriate steps to improve or modify the pool structure before seeking approval to protect it with hard shoreline stabilization.
- The proposal may cause significant adverse effects to the shoreline of Admiralty Bay (WAC 173-27-160(1)(d)). We find lesser impacting measures to achieve ACBC's protection goals may be feasible but were not considered. Potential impacts to

shoreline ecological functions from the proposed shoreline stabilization has not been adequately addressed by the applicant.

- The proposal may result in cumulative impacts (WAC 173-27-160(2)). Authorizing this proposal, as designed, may open the door for consideration of other similar premature proposals that do not include adequate assessment all viable alternatives. Increased allowance of hard shoreline stabilization increases the occurrence of known affects to shore processes inconsistent with shoreline management and Puget Sound Recovery polices.

Background:

The ACBC community pool and associated appurtenances is located at 75 Keystone Ave, Coupeville WA 98239 (Parcel No. S6010-00-0100A-0). The subject property includes a community pool, clubhouse, playground, covered picnic area, and restrooms located in shoreline jurisdiction and FEMA flood zone.

ACBC renovated the pool structure in 2018. According to the September 21, 2021, ACBC News Update, renovations included refurbishment of the pool, the water filtering and heating systems, and the new concrete pool deck. The pool structure lacks a sound structural wall to protect the development from coastal erosion and log battering during large storm events. The current wall is a thin wood fence built of wood siding material. The pool deck behind the wood fence consists of a simple unreinforced concrete pad, approximately 8-9 inches thick poured on top of loose gravel.

The beach of the subject property is classified as an accretion shoreform. The Geocoastal Geotechnical Report describes the shoreform as “a barrier beach (a type of accretion shoreform), or a narrow ridge that rises above the water roughly parallel to the shore, from which it is separated by a lagoon”. The subject property is a high-energy site with 18.6 miles of maximum fetch from the south. The backshore consists of small cobbles to pebbles. Many drift logs sit on the beach, waterward of the pool structure.

Conditional Use Permit Consistency Review:

<u>Consistency (WAC 173-27-160(1)(a))</u>

Island County’s performance standards for new shoreline stabilization require conclusive evidence that erosion from waves or currents is expected to cause damage to a primary structure or appurtenance within three years based on a trend analysis of prior rates of erosion without the proposed shoreline stabilization [ICC 17.05A.110.A.3.c.v]. Ecology’s review found the estimated rates of erosion provided do not support the conclusion the pool infrastructure is threatened within three years.

Since the December 2018 storm, prompting development of this proposal in 2021, the shore berm waterward of the pool structure has reestablished, as expected as the beach is an accretion shoreform. The SMP does not permit shoreline stabilization on accretion shoreforms, except when demonstrated shore defense devices are *absolutely* necessary for the protection of existing primary structures and appurtenances [ICC 17.05A.110.A.3.b] [emphasis added]. ACBC has not taken any action to protect the vulnerable pool infrastructure by reinforcement of the structure itself. Ecology repeatedly inquired regarding the feasibility of reinforcement of the pool's foundation at the water most wall. As Ecology sees it, fortifying the pool's foundation with a material capable of withstanding water inundation and log strikes, is potentially a good first step in protecting the structure and one that the applicant has not demonstrated to be infeasible or not effective in satisfying their protection goal. Pursuant to SMP provisions, shoreline stabilization is not intended, or the appropriate measure for mitigating debris impact risk to the pool structure and therefore cannot be justified for this purpose.

ACBC's rationale for the ecology block bulkhead in front of the pool structure reads as though the wall is viewed as a sacrificial structure, more easily repaired if damaged, than the current or hypothetically improved pool foundation [RATIONAL FOR ACBC HARD AMRORING CHOICE 2.17.24.pdf]. Ecology's review found the driving coastal hazard at the subject property is not long-term coastal erosion. Rather it's the structure's vulnerability to accumulated drift logs, debris, and coastal flooding due to the structure's low elevation, sea level rise, and increased frequency of high tide events.

Island County's SMP requires the use of the least impacting alternative type of shoreline stabilization practicable. Pursuant to the order of priority from least to greatest impact alternatives listed, soft shore protection methods are least impactful than hard shoreline methods such as bulkheads and rock revetments [ICC 17.05A.110.A.1.b]. We find such alternatives exist.

Shoreline stabilization is a matter of state interest. Potential losses of shoreline ecological functions from poorly designed or unnecessary shoreline stabilization is inconsistent with the established policy goals for managing shorelines of the state, as listed in RCW 90.58.020.

<u>Compatibility (WAC 173-27-160(1)(c))</u>

Ecology finds the alternatives analysis prematurely determined the ecology block bulkhead as the only feasible option for protection for the pool structure from shore processes. ACBC has not taken appropriate steps to improve or modify the pool structure before seeking approval to protect it with hard shoreline stabilization.

Further, Ecology found fault with the finding that soft shore stabilization is not appropriate protection of the pool structure because of the limited space and the elevation of the pool. However, the elevation of the septic drain field is lower than the pool's elevation, yet the Geocoastal Geotechnical Report finds the soft shore berm a viable alternative for protection of

this appurtenance. Based on the cross-section drawings and the overlay of the proposed soft shore design waterward of the pool, it appears there is enough room for soft shore stabilization in front of the pool. These inconsistencies illustrate a lack of consideration by ACBC of other potentially feasible alternatives to their preferred hard ecology block bulkhead in front of the pool.

Significant Adverse Effects (WAC 173-27-160(1)(d))

Our review finds ACBC has not demonstrated consistency with the avoidance and minimization sequencing, as required by the Island County SMP [ICC 17.05A.090.C.7]. Retrofitting or modifying the structure within the existing footprint, or soft shore protection methods would be less impactful than the proposed ecology block bulkhead, placed in front of the pool.

ACBC has not demonstrated how the proposed mitigation addresses all known impacts from hard shoreline stabilization. ACBC proposes dunegrass planting in the foreshore and backshore areas to enhance and restore the nearshore buffer following construction of the hard and soft shore stabilization. In addition, ACBC proposes removal of creosote drift logs, naturally accumulated waterward of the pool structure. The log removal is to achieve no net loss of shoreline ecological function and value. However, ACBC does not demonstrate how these actions address the well understood and documented adverse impacts of hard armoring (SMP Guidelines stabilization principles found in WAC 173-26-231(3)(a)(ii)). Hard shoreline stabilization, especially vertical or near vertical treatments like those proposed, can lead to exacerbation of erosion caused by reflection of wave energy back onto the beach. This can lead to scouring and lowering of the beach and coarsening of substrates leading to habitat loss or causing failure to the bulkhead structure itself. Hard stabilization measures also lead to a loss of vegetation, large wood and debris. It remains unclear how the proposed mitigation addresses these anticipated impacts.

Cumulative Impacts (WAC 173-27-160(2))

We acknowledge the County's point that a similar pool project at this location is unlikely. However, we see potential for cumulative impacts by authorizing hard shoreline stabilization when lesser impacting alternatives remain feasible. Authorizing this proposal, as proposed, opens the door for accepting premature proposals without appropriately assessing all viable alternatives.

As mentioned under our concerns for significant adverse effects, hard shoreline stabilization is known to increase scouring and coarsening of substrates, potentially leading to habitat, vegetation, and large woody debris loss or causing failure to the bulkhead structure itself. Approving this proposal could result in additional requests for like actions, amplifying the detrimental effects of shoreline armoring.

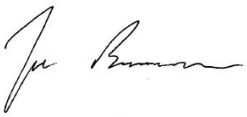
What Happens Next?

The law provides a 21-day appeal period from the date of this letter. This appeal period allows anyone (including you) who disagrees with any aspect of this permit to appeal the decision to the state Shorelines Hearings Board (SHB). You may reach them at 360-664-9160, eluho@eluho.wa.gov, or Shorelines Hearings Board.

If you want to appeal this decision, you can find appeal instructions at How to File a Petition for Review or on the website of the Washington State Legislature at Chapter 461-08 WAC.

If you have any questions about this letter, please contact Stephanie Barney at 360-296-2103 or stephanie.barney@ecy.wa.gov.

Sincerely,



Joe Burcar, Section Manager
Shorelands and Environmental Assistance Program

Sent via email: whshed@live.com

E-cc: Madalyn Walker, Marine Survey & Assessments
Austin Hoofnagle, Island County
Stephanie Barney, Department of Ecology