

# Hood Canal Environmental Council

Fall 2022

Protecting Hood Canal since 1969

## Great Blue Heron Nesting Colonies

(Jan Wold and Bernadette Olson)

On July 13, 2022, the Port Townsend Leader published an article about declining numbers of Great Blue Heron (heron) nesting colony locations in Puget Sound, including Hood Canal: <https://www.ptleader.com/stories/the-mystery-of-the-missing-herons,84426>

Puget Sound Great Blue Heron Colony Update 2020, reviews the nesting of this species (*Ardea herodias*) in Puget Sound. Ann Eissinger is the lead scientist for this all-volunteer project and is currently updating her 2006-2007 Technical Report of the “Great Blue Herons in Puget Sound” available to download here: <https://wdfw.wa.gov/publications/02196>

The 2004-2005 data in that report shows 4 colonies representing 50% of the breeding population in the Salish Sea from Anacortes north into Canada for a total of 1,500 breeding pairs. Hood Canal represented five colonies with 7% of the breeding population. While the trend was toward the expansion of large colonies, the colonies on Hood Canal have remained small to medium size. With the cooperation of the property owners, HCEC volunteers were allowed to update the status of the Seabeck heron colony, located on two private properties near Seabeck Creek, which now has about 50 nests and has been reported to be in good health. Squamish Harbor, near the Hood Canal bridge, has at least two active heron nests observed at this site.

The breeding period starts in January-March with the arrival of herons to stage and breed and ends in July-September when the young fledglings and adults leave for productive foraging grounds. When not breeding, the heron is solitary, and can be seen near marine estuaries and freshwater systems but also on suitable uplands. While the Great Blue Heron was removed from the Species in Great Conservation Need list in 2015 by Washington Department of Fish and Wildlife (WDFW), it is listed as a Valued Ecosystem Component (VEC) and a Priority Habitat Species.

Its health is tied to the health of other fauna and flora. It is also considered a “Sentinel Species” and, as such can provide an early warning for the presence of persistent chemicals found in Puget Sound which may have adverse effects.

While there is no regulatory protection for the Great Blue Heron, WDFW has a Priority Habitat and Species Program to help landowners and developers design projects that conserve habitat and species. See <https://wdfw.wa.gov/publications/01371> to download management recommendations for great blue heron. Unfortunately, WDFW only rarely enforces infringements or imposes full protection of sites proposed for development.

If you know of a Heron nest on or near Hood Canal and not shown in the Technical Report, you can fill out a Heron Colony Report by emailing Ann Eissinger at [ann.eissinger@gmail.com](mailto:ann.eissinger@gmail.com).



(Ben Bryant, 8/6/2022)



## Proposed Harding Creek Estuary Aquaculture

(Bernadette Olson)

Harding Creek estuary, in Kitsap County on Hood Canal northeast of Tekiu Point and west of Nellita between Seabeck and Holly, is a documented Sand Lance spawning area with Chinook, Coho and Chum Salmon, and Winter Steelhead. Adjacent seaward to the estuary and accessible only at very low tides, is a strip of eelgrass-covered tidelands that were donated in 2006 to Great Peninsula Conservancy (GPC) by Bill and Judy Matchett to protect the eelgrass and estuary.

Washington State Seafood LLC (WSS) [a private company] applied to the U.S. Army Corps of Engineers (Corps) to cultivate 6 acres of oysters using flip bags, 2.2 acres of naturally seeded Manila clams and 6.8 acres of geoducks on the Harding Creek estuary. USACE considered the permit application complete on 2/23/2022, and the application as an expansion of an existing aquaculture farm, not new aquaculture of geoducks that would require public notice and allow public comment. On 2/24/2022 the Corps sent a letter to GPC as a neighboring property owner and gave GPC 10 days to comment. GPC expressed concern on the grounds that it was abutting an area that had been entrusted to GPC for preservation. WSS plans to insert 5 to 9 plastic tubes per square meter for baby geoducks which would amount to 138,000 to 248,000 plastic tubes covered with netting to keep predators away that could adversely impact the eelgrass protected by GPC. On 3/23/2022 the Corps issued a Letter of Permission (LOP) to WSS without any conditions.

Although Kitsap County requires a Conditional Use Permit (CUP) for all new Geoduck aquaculture, WSS claims a CUP exemption on the basis that geoducks have been cultivated there for decades, although there is no evidence of this taking place. The area was farmed for oysters and clams between 1905 and 1936 but not in the recent past.

LOPs recently permitted by the Corps (including this one) are the subject of pending litigation. This is another example that the Corps issues LOPs indiscriminately without public input and why the Coalition to Protect Puget Sound Habitat and Center for Food Safety are actively contesting the Corps in court over this practice. Kitsap County has not yet decided whether to allow geoduck farming here or require a CUP if it does.



*Harding Creek estuary from GPC preserve, showing eelgrass in proposed geoduck farming area*

### Bernadette Olson



Bernadette Olson is HCEC's newest board member. Originally from France, and with a charming French accent, she resides with husband Ron in the Nellita-Holly area and, before Board membership, was a liaison representative from the Holly area to the Board and investigated timber harvesting near Holly. This past year she has followed and evaluated for the HCEC Board the proposed Shoreline Master Plan revisions for Kitsap, Mason, and Jefferson counties; kayaked and reported on a proposed commercial geoduck farm at Harding Creek; and delved into the Seabeck Heron Rookery issues. Bernadette has an Electrical Engineering degree, working in the field for 12 years, and is co-founder of Laser Reflections, a high-resolution holographic studio and Positive Light, a custom laser company. Several times a year, she volunteers on the construction crews for Habitat for Humanity. Her loves are backpacking, gardening, trail building, and kayaking. She recently made a 10-day hike into the Wind River Wilderness in Wyoming. She loves everything "Hood Canal" including the cockles and piddocks!

**HCEC BOARD OF DIRECTORS:** Donna Simmons (President), Karen Best (Vice President), Phil Best (Secretary), Don Seavy (Treasurer), Barbara Moore-Lewis, Janet Wold, Judy Matchett (Honorary), Terry Reeve, Bernadette Olson, Bob Wiltermood, Mike Maddox

To join our monthly online meeting, email Donna Simmons at [nana@hctc.com](mailto:nana@hctc.com) or Phil Best at [pbest@wavecable.com](mailto:pbest@wavecable.com).

### Misery Point Preserve—Dedication

HCEC was pleased to participate in the dedication of GPC's Misery Point Preserve on April 30, 2022 for the presentation of the beautiful stone bench in honor of the environmental work of Gary Cunningham who passed away on August 9, 2020. Gary was an instrumental player in the creation of the Hood Canal Environmental Council 53 years ago, the Kitsap Land Trust in 1994, and the Great Peninsula Conservancy in 2000. On behalf of HCEC, Donna Simmons paid tribute to Gary and to the preservation in perpetuity of the beautiful 20 acres of land and lagoon at the end of Misery Point. It is, indeed, a jewel in the crown of preserves under the jurisdiction of GPC and, to HCEC's delight, located in beautiful Hood Canal.



## Eelgrass; Zostera marina L.

(Mike Beaulieu)



This summer we experienced some of the lowest tides on Hood Canal in over a decade, exposing eelgrass, one of the primary overall health indicators for the greater Salish Sea marine ecosystem. Stroll the tidal flats of Hood Canal at low tide, and one can often see a rich carpet of green covering the intertidal and nearshore zones of the shoreline. Eelgrass or Zostera marina has traditionally thrived in the clear cool waters of Hood Canal and the greater Salish Sea.

At low tide, eelgrass meadows are an ideal forage environment for waterfowl, and other small mammals such as otters, racoons and even the occasional deer.

When the tide is in, eelgrass provides a multi-dimensional habitat for marine life, providing refuge and sustenance to plankton, forage fish, juvenile salmon, clams, crabs, and thousands of other marine organisms. It also takes up excess nutrients and anchors sediments in place; protecting shorelines from erosion.

Eelgrass thrives best in clear waters with low nutrient levels, but in many areas it has been severely degraded by exposure to marine pollution, including toxic, turbid, or nutrient laden inflows from upland development. Climate change and increased temperatures have contributed to invasive species like the Asian Green Crabs destroying eelgrass and threatening native crab populations not to mention other prey species. Other degradation to eelgrass is due to the use of improper moorage systems that lack inline floats required to prevent anchor lines from scouring the bottom as the boat pivots about its moorage. Even excessive foot traffic in our ever more popular public marine sites can degrade eelgrass beds.

Finally, we can do our part to keep toxic products out of our marine environment, by banishing them from our land environment and ensuring they are properly disposed of when use is necessary.

In 2010 the Puget Sound Partnership created a dashboard of ecosystem indicators intended to better estimate the overall health of Puget Sound, including Hood Canal, by monitoring twenty key species, of which eelgrass was identified as one of the top five. Subsequently, the Washington Departments of Natural Resources and Fish & Wildlife established a goal to increase total Washington eelgrass acreage by 20% (4,000 hectares) by 2020. Unfortunately, we have yet to achieve this important goal, but replanting is one of the strategies receiving renewed attention, especially when it can be done using volunteers, planting in intertidal and shallow sub-tidal areas.

Overall, eelgrass has declined significantly but there are things we can all do to preserve remaining habitat and foster recovery. If you're walking on the beach at low tide avoid the temptation to walk on it. Especially in soft mud it can take months or more for plant life to recover, let alone the often-fragile marine life sheltering within. Consider letting pets enjoy the water at high tide when eelgrass and oysters and other marine life are better protected. If you are a boater and use a mooring buoy, ensure its design is compliant with current Washington Department of Natural Resources guidelines, with a mid-line float installed to hold anchor lines off the bottom in all tidal conditions. ([https://www.dnr.wa.gov/publications/aqr\\_mb\\_jarpa\\_guidelines.pdf](https://www.dnr.wa.gov/publications/aqr_mb_jarpa_guidelines.pdf)). Also be aware of how far shallow river and creek estuaries can extend into the otherwise deep waters of Hood Canal. These inter-and near-tidal estuaries offer ideal habitat for eelgrass, but a propeller will easily run through eelgrass and surrounding mud killing nearly all living organisms in its path; that is until the propeller blades and your motor outdrive are severely damaged. Use extra caution when passing near shallow estuaries and give yourself an extra margin of safety. Finally, consider getting involved with eelgrass replanting initiatives in your area. National, State and Coastal Tribal authorities from time to time undertake efforts to replant degraded habitat, and your efforts as a volunteer can go a long way toward offsetting the high cost of restoring this critical marine habitat. Email HCEC president Donna Simmons at [donnamick@hcc.net](mailto:donnamick@hcc.net) if you would like to learn more about replanting and when it becomes available. Your efforts can go far toward preserving our rich diverse ecosystem, indirectly saving our juvenile salmon, forage fish, and other marine organisms, and ultimately increasing Chinook/King Salmon populations that our Southern Resident Orcas critically need to survive.

## GREEN CRABS IN HOOD CANAL

(Donna Simmons)

The first invasive European green crab (EGC) in Hood Canal was captured near Seabeck May 7, 2022. This was expected, as EGCs have been trapped in other parts of Puget Sound for the last few years. Unfortunately, this is the first time they have been found in Hood Canal.

EGCs pose a real threat to Hood Canal's marine and nearshore habitats. They feed on Dungeness crabs, oysters, clams, marine worms, and small crustaceans. Nearshore habitats are negatively impacted when they burrow into mud and damage eelgrass beds.

In response to the crisis, an emergency order was issued in January 2022 by Governor Jay Inslee, and the state legislature followed up by approving \$8.6 million in short term funding to begin efforts to control the spread of EGCs in Puget Sound, including Hood Canal. The Hood Canal Environmental Council (HCEC) supports the establishment of long-term funding for the purpose of identifying, trapping, and monitoring.

After EGCs were detected in Hood Canal, a team of volunteers from Washington Sea Grant (WSG) and the Washington State Department of Fish and Wildlife (WDFW) implemented rapid response measures to determine the extent of the infestation and remove the crabs. Kitsap County, Great Peninsula Conservancy, and local tribes are coordinating with shellfish growers and other partners to halt the spread of EGCs. HCEC has joined in the efforts by helping to alert its members and the public.

EGCs can be distinguished from other crab species by the five spines on either side of their eyes. Anyone who finds an EGC or its shell is encouraged to report to the WDFW on the location where it was found. Include photos if possible. The WDFW can be reached by phone at 1-888-WDFW-AIS or email at [ais@dfw.wa.gov](mailto:ais@dfw.wa.gov). Remember, it is illegal to remove or possess an EGC. Those wishing to volunteer with the WSG Crab Team can sign up on its website and learn how to identify EGCs. Formal training sessions for volunteer trappers may be scheduled for the coming winter

### Gifts to HCEC Appreciated

HCEC received \$650 recently from relatives of a couple who requested that money be sent to HCEC in lieu of wedding gifts. Such generosity and selflessness is deeply appreciated.

## BLACK POINT / PLEASANT HARBOR

(Barbara Moore-Lewis, The Brinnon Group)

Developers have been trying to build a massive resort on Black Point, on the estuary of the Duckabush River for more than 20 years. Local residents so far have thwarted them.

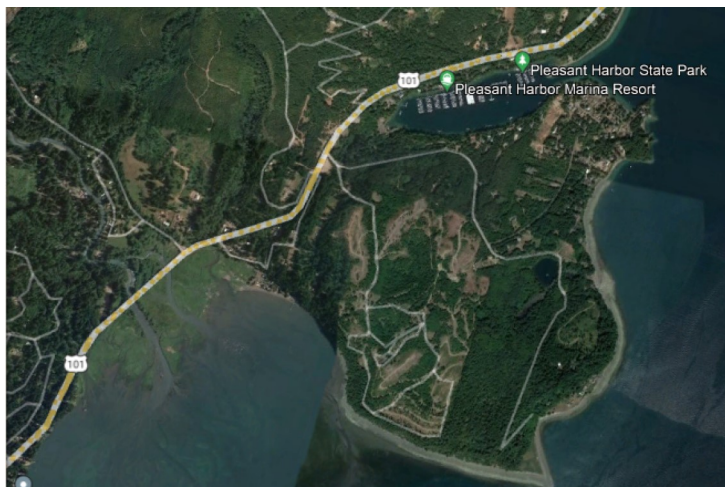
It is illegal to build a residential development on Black Point. There is an exception where a master planned resort (MPR) can be built, that includes infrastructure and amenities such as a conference center. An MPR would have several times the housing density of Port Townsend, a golf course, and commercial buildings.

In 2018 Jefferson County signed a development agreement for an MPR with Canadian developer Garth Man. The local Brinnon Group sued and won a decision in Superior Court that the MPR could not be built piecemeal over 45 years as proposed, but that the essential elements needed to be built before residential housing could be added. This meant that the developer had to invest significant funds in the project before he could begin to make a profit. Other developments he has done suggested he did not have the funds.

The developer is trying to find ways around the legal decision. He advertised in a flyer mailed to Washington residents that implied the development was finished (fishing for investments in building lots). The Brinnon Group's attorney has brought this advertisement to the attention of the Attorney General and of the US Consumer Protection Bureau. The developer has made an agreement with Jefferson PUD to take over the sewage treatment system that contradicts the development agreement. A letter from our attorney to the PUD went unanswered.

It is clear we are going to have to take more legal action to prevent this environmental damage. We rely on donations to pay our attorney.

Learn more about this issue on [Brinnongroup.org](http://Brinnongroup.org) or by emailing [brinongroup@gmail.com](mailto:brinongroup@gmail.com).



## COMMERCIAL SHELLFISH FARMING

(Jan Wold)

### Permitting and Litigation.

By 2017 19% of Hood Canal tidelands were approved for commercial shellfish permits. In 2019 the U.S. District Court invalidated the US Army Corps (Corps) Nationwide Permit 48 (NWP48) for commercial shellfish operations in Washington State because of failure to properly analyze the cumulative effects of shellfish operations in violation of the federal Clean Water Act (CWA) and National Environmental Policy Act (NEPA). In 2020 the same court vacated shellfish farm permits in Washington and required new Corps permits for all commercial shellfish farms in the entire state but allowed commercial shellfish farmers to continue operating under their original permits if they applied for a new permit by December 2020, and allowed limited shellfish farming activities through December 2022 on existing farms during processing of new permit applications. It appears that most shellfish farms received new Corps permits to operate.

Most shellfish farm permits approved recently used a shortened Corps process called a Letter of Permission (LOP), with no public notice or opportunity for public comment. Some shellfish farming permits were processed by the Corps using an Individual Permit process that allowed for a limited public comment period, and fewer were issued under a new Corps 2021 NWP48.

The Corps' own 2017 Draft Cumulative Impacts Analysis, for shellfish farms it expected to approve under the 2017 NWP48, concluded that: 41% of the continuing active acreage of commercial shellfish farms in Hood Canal are potentially co-located with eelgrass; about 538 active and 337 fallow acres of Hood Canal tidelands (about 10% of the total acreage in Hood Canal) may be covered by shellfish nets; 510 acres (54% of the total) of Hood Canal active commercial shellfish farms are co-located with forage fish spawning areas (herring, surf smelt and sand lance); and the proposed permitting action will likely adversely affect designated critical habitat for species listed under the Endangered Species Act, including Puget Sound Chinook salmon, Hood Canal summer run chum salmon and Puget Sound steelhead. More commercial shellfish farms are now permitted by the Corps than were considered in the Corps' 2017 Draft Cumulative Impact Analysis, with an even greater environmental impact than anticipated in 2017.

A new U.S. District Court case alleges that: Washington's coastal ecosystems are threatened by excessive expansion of permitted shellfish aquaculture under permits approved by the Corps; the Corps again failed to comply with NEPA and the CWA, and with the Endangered Species Act, the Rivers and Harbors Act and/or the Administrative Procedure Act; and

nearly 15,000 acres of commercial shellfish operations already exist in Puget Sound and Hood Canal. The Corps may be relying on outdated Biological Opinions from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service completed in 2014 and 2016, before threats to many species worsened, and before the Corps permitted significant increases in the number of farms and acreage.

### Shellfish Farming in Squamish Harbor.

Three existing or proposed commercial shellfish farms are in Squamish Harbor, about two miles southwest of the Hood Canal Floating Bridge:

- (1) The existing Rock Point Case Shoal active shellfish farm includes commercial cultivation of 44 acres, (7.35 acres is planned for geoducks) and use of a harrow along the surface of one to two acres of tidelands per year. The Corps approved a new individual permit for this shellfish farm without a requested public hearing.
- (2) An existing 3.58-acre geoduck farm was approved by the Corps with an individual permit issued on August 29, 2022, with no public hearing.
- (3) A proposed new 5.15-acre commercial geoduck farm shares a border with Jefferson County's Hicks Park and Boat Launch. It will need both a Corps shellfish farm permit (now on hold) and a Jefferson County Shoreline Development Permit (now being processed), and could add over 220,000 PVC tubes into the Squamish Harbor tidelands.

### Geoduck Farms Impact.

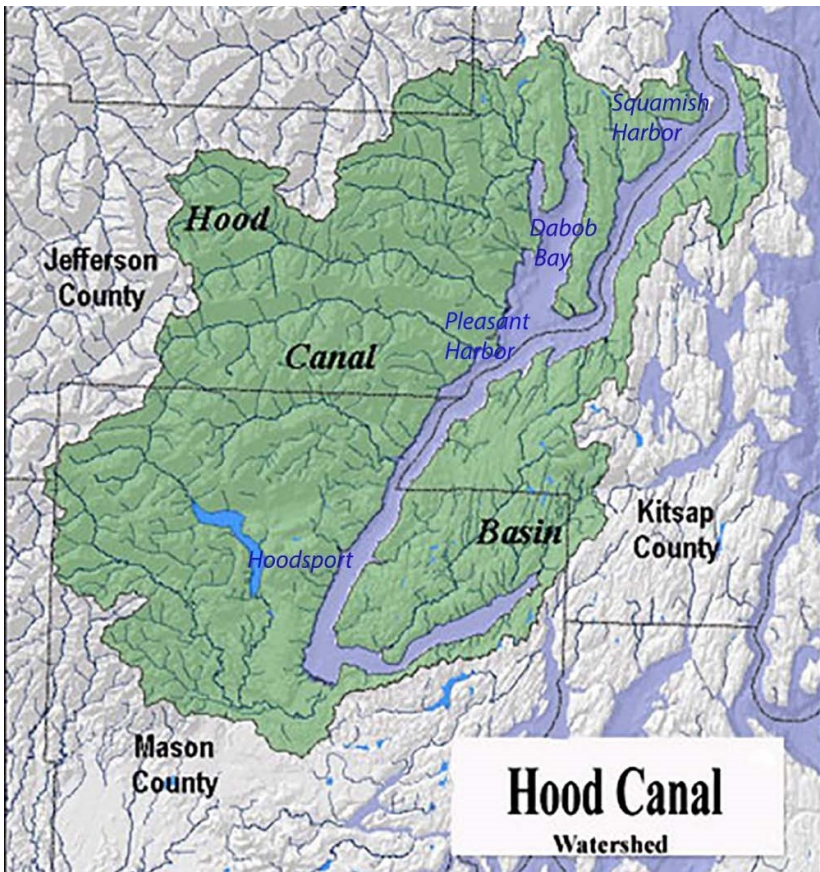
Geoduck farms may install up to 43,500 plastic PVC tubes per acre (one each square foot) into the substrate. Each tube is four inches in diameter by about ten inches long, tiny geoducks are placed in each of these PVC tubes, and then each tube is covered with small nets held in place by rubber bands near the top of the tubes. Hundreds of the tubes become dislodged and wash around Hood Canal, and many sink into deeper water. Wave action and sand erode the plastic tubes and netting, releasing micro-plastics into the water. These micro-plastics are then ingested by marine organisms and birds. Many marine species are known to have micro-plastic in their bodies, which could be ingested by humans. When the geoducks are 6-7 years old, hydraulic high-pressure hoses are used to liquify the tidelands to three feet deep to harvest them, and the replanting cycle begins anew. Liquefaction and the resulting sediment drifting around Hood Canal can lead to reduction in the quantities and types of marine life.

Geoduck farms are in the same aquatic zone as eelgrass, which provides feeding and rearing habitat and cover from predators for many aquatic species, including several salmon species such as the threatened Puget Sound chinook salmon and Dungeness crabs. Eelgrass provides spawning habitat for herring, sand lance and surf smelt, forage fish that are a food source for salmon, birds and many other species that are at risk. A thorough analysis of the cumulative impacts of the present level of commercial shellfish farming on the tidelands and aquatic dependent life needs to be undertaken.



**Hood Canal Environmental Council**

PO Box 87  
Seabeck, WA 98380



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YEARLY MEMBERSHIP REGISTRATION**

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