



Kachemak Bay Conservation Society

2022 Newsletter



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Happy 52nd Earth Day!

Message From The President, Roberta Highland

KBCS continues to have a lot to do, because the environmental issues keep coming.

You'll be reading about HB52, HB82, and SB62, and more in this newsletter.

We are going to hold our annual Earth Day celebration and membership meeting at the Bishop's Beach Pavilion this year, starting at 6pm Friday, April 22. We'll have a fire and a grill with salmon, hamburgers, and hot dogs; music, activities for youngsters, and outdoor Fun! Bring your own plate, cup, and drinks. Other potluck foods would be welcome.

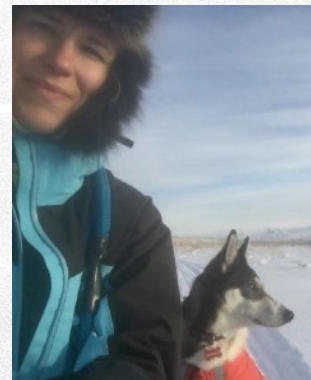
We'll also hold our **board election**. The nominating committee forwarded the following candidates for the 2022 Board election:

- Bjorn Olson
- Penelope Haas
- Roberta Highland
- Maddy Lee

Biographies can be found in this newsletter.



I want to thank Anna Liljedahl for her time on the KBCS Board. She served as our secretary and compiled the newsletter. She also was successful in garnering major grant funding for some important projects, including KPB king



salmon heat stress research and fish habitat protection and education. Anna is in the process of relocating to her off-grid home beyond the end of East End Road, and is working on some environmental issues in that area. She was a wonderful board member, and we miss her.

I want to give a shout-out to the rest of the KBCS Board and thank them whole heartedly for their continued support, work, and enthusiasm. This is a great team.

As I have mentioned, we have been busy! This year, we had generous support from Alaska Community Action on Toxics (\$2,000), Ruud-Mjos Tributaries Alaska Family Fund through the Alaska Community Foundation (\$1,000), and many amazing individual donors. to continue this vital work, any financial donations would be greatly appreciated. We are lucky to have very special, effective contract people.

We are so lucky to live in the magnificent Kachemak Bay Area. As always, we hope you continue to assist us in our ongoing efforts to protect the beautiful environment on and around Kachemak Bay and greater Alaska. Together we can and do make a difference.

Thank you,
Roberta Highland, President

Protecting Our Park & Critical Habitat

By Penelope Haas

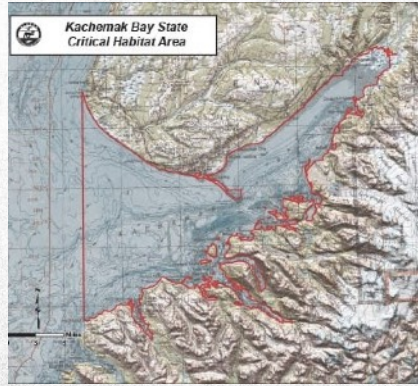
Holding Onto Our Precious State Park Lands & Waters

Introduced by Representative Sarah Vance House Bill 52 (HB 52) would remove Tutka Bay Lagoon and uplands—totaling 123.45 acres—from the heart of Kachemak Bay State Park. This bill would give up these public lands to a narrow special interest group, the Tutka Bay Lagoon Hatchery (TBLH), operated and managed by Cook Inlet Aquaculture Association. This would set a dangerous precedent for all Alaska's State Parks.

KBCS has been working hard all this year to stop HB 52, because our park protections are sacrosanct and should not be overturned by private interests.

HB 52 seeks to overturn the legitimate public process that went into the Draft [Kachemak Bay State Park Management Plan](#) and the extensive 7-year public process that created it. The Park Plan would relocate the hatchery out of the Park by 2031 and convert structures in the lagoon into “group camp facility.”

The amazing outpouring of people who have spoken out to oppose HB 52 is making a difference. Thank you! At the time of writing, the Bill is stuck in the House Rules Committee and there is still no sponsor of a Senate companion bill—a key aspect to making this proposal law. That is because many of you spoke out to convince our legislators that this Bill is a bad idea!



Critical Habitat Areas Are Not For Drilling

The legislature has protected some of our richest and most productive public lands and waters for a reason, and it was not to allow lateral drilling and fracking. Drilling is permitted in most places all over the State, it should not be allowed in (or under) the protected lands and waters of the Kachemak Bay Critical Habitat Area.

Thanks to all who have helped oppose HB 82 and SB 62, companion bills which would allow lateral drilling and hydraulic fracturing—or fracking—under protected Kachemak Bay Critical Habitat Area (CHA). Lateral drilling technology combined with fracking, which allow companies to drill six km or more into closed areas from outside platforms, could open up vast portions of Kachemak Bay.

It would be in direct conflict with the statute defining the purpose of the Kachemak Bay CHA is to: “protect and preserve habitat areas especially crucial to the perpetuation of fish and wildlife, and to restrict all other uses not compatible with that primary purpose.” In all likelihood, it is also in direct conflict with the statutory purpose of every other State Park, Game Refuge or Sanctuary, and Critical Habitat Area where it would be applied.

Our efforts have stalled the bill in the Senate and House! We hope the bills die there.

Homer Drawdown

By Bjorn Olson

Homer Drawdown Catalyzes Community Solutions

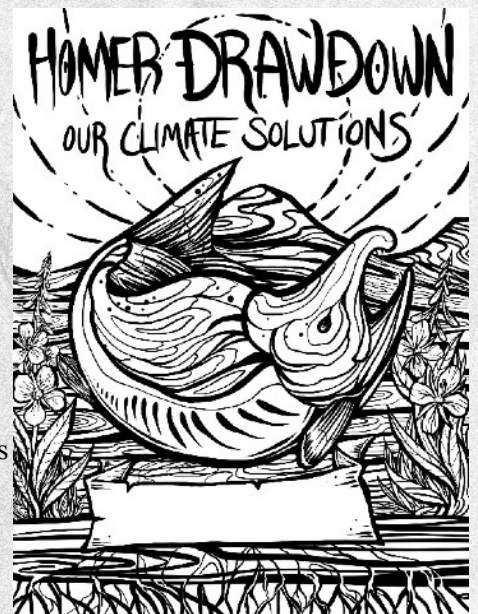
Which climate solution are the most impactful? Is it transportation, energy, food production? As an individual, is it more meaningful to switch light bulbs or to drive less, compost or grow a garden?

Important questions like these have finally been asked, studied and quantified in the book and online resource titled, *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*. The authors rank the 100 most meaningful climate solutions. Switching from our current ways and means, it turns out, is possible. What *Drawdown* does not make clear, however, is how these solutions will be implemented.

Two years ago, a group of concerned Homer citizens decided to use this book as a guiding document to select and implement a project to address the climate crisis on a local level without the slow and politicized assistance of the government. As a society, we have been conditioned to address the climate crisis in two ways: personal lifestyle choices and petitioning the government. Homer Drawdown's aim is to find a middle path.

This group met once a month over Zoom and read through each chapter/sector of the book to discuss it and then to nominate potential solutions to implement. After we read through and discussed all seven chapters/sectors, we narrowed our choices down to ten potential projects. For each of the ten projects, a champion further researched and refined the vision and scope, prepared a presentation and made their case for the group to consider. A meaningful climate solution, we reasoned, should meet several criteria:

- Is the solution **politically feasible** to implement and doable within one year?
- Will the solution help start **conversations** in the wider community about enacting local solutions? Will it help foster climate literacy?
- Is the solution **self-sustaining**, durable, long-lasting, and immune to political shifts?
- Are there **ample roles** for many people to **engage** in the project?
- Is the solution visible, and will it raise **awareness** in the community about climate action?
- Are the solution's impacts **measurable** in terms of reducing emissions as related to Drawdown's ranking?
- Will implementing this project **promote justice** and help to address inequities in our community?



Last year, we selected the Peatland Project. Now, we are in the process of revisiting and refining the most promising and exciting solutions proposed last year in order to select a new project for 2022-2023. We hope that you will join us! Homer Drawdown will convene on [April 27 at 6 pm](#) to select a new project

Homer Drawdown: Peatland Project

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By Penelope Haas

This Homer Drawdown effort is a community-led, democratically selected, climate action project whose goal is to 'put peatlands on the map.' The earth's peatlands hold twice as much as all the forests combined.

With over 250 participants, more than 1,000 volunteer hours and collaboration from 12 organizations, we got a lot done in 2021-2022, and, we're not done yet! Our community science effort is continuing to measure depths of peat on the Lower Kenai Peninsula.

We are focusing on collaborations with UAA, UAF, the City of Homer and KBNERR to make sure that data is used. We are continuing our surveys this spring—check out the Homer Drawdown Website to sign up.

Volunteers, school groups, and teen trips hosted by the Center for Alaskan Coastal Studies, collected over 300 datapoints on peatland depths, and we had a blast doing it.



In the realm of conservation, we focused on the Beluga Wetlands and on raising money to donate to the Kachemak Heritage Land Trust for peatland conservation near Stariski Creek.

Looking forward, we are focused on working with the City and Homer Soil and Water to host events around the City's amazing [Green Infrastructure Project](#)—which is seeking to conserve peat in the Beluga Wetlands, amongst other things, to manage our local water.

In addition to enormous carbon sequestration, other ecological services provided by peatlands are important to all of us who live here. These include mitigation storm-water runoff and associated flooding and erosion along Kachemak Drive. Additionally, peatlands do water treatment: they remove contaminants from freshwater as it flows into the Kachemak Bay Critical Habitat Area, something every silver fisherman and duck hunter appreciates. The Beluga peatlands are essential winter moose habitat and critical migratory bird habitat and they store significant amounts of carbon—this [carbon is released into the atmosphere](#) when the peatlands are dried out, through road building, ditch digging, etc.



Youth, volunteers, and trip leaders in the Teen Summer Peatland Expedition celebrate after exploring, sketching, and collecting data in a fen near McNeil Canyon Elementary School.

Homer Drawdown: Peatland Project Cont'd

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By Penelope Haas

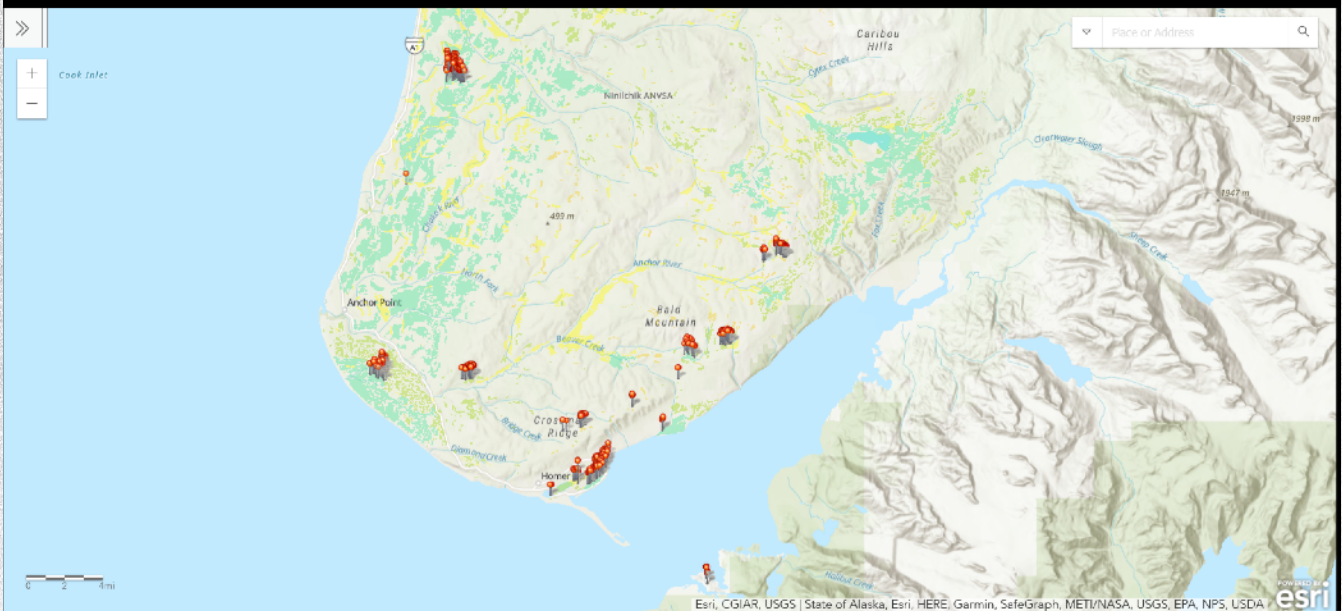


Peat is beautiful, and the Homer Drawdown group focused on creating art to celebrate and promote it. Bunnell Street Art Center hosted two artists in residence focused on peat and climate and the Pratt Museum hosted an end-of-season celebration event that included a show of more than 12 local artists depicting peatlands. Lastly, we recently got approval from the Homer Parks, Art, Recreation and Culture Advisory Commission for a Peatland Mural by artist [Kim McNett](#) on the Homer Airport. Next stop is the Homer City Council. We are so excited about this project, and are looking for private donations to help fund the art.

Many, many thanks to the Homer Foundation for a total of \$24,000 in support of this Peatland Project from the Daisy Lee Bitter Marine & Coastal Education, KLEPS, Cottonwood, and Willow Funds.

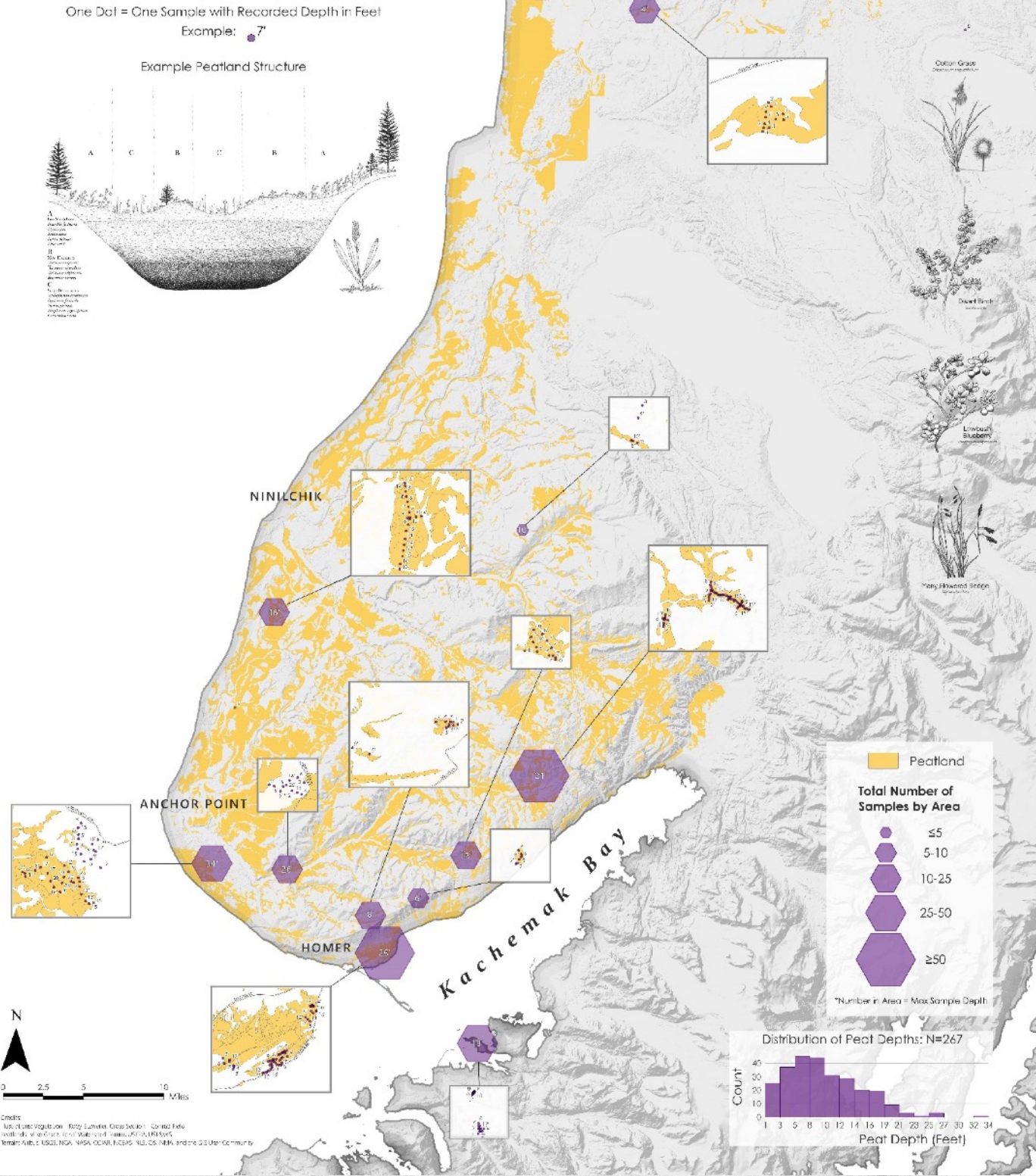
Check out all the cool media and maps, and stay up-to-date on our [updated Drawdown website](#).

COMMUNITY PEATLAND SURVEY MAP



This map shows areas where peatland depths were measured by our community science initiative, [Homer DrawDown, Peatland Project](#), in the summer of 2020. We measured an average peat depth of 9 feet around the Homer Airport. This equates to significant water storage capacity (stormwater mitigation and water purification) as well as carbon storage.

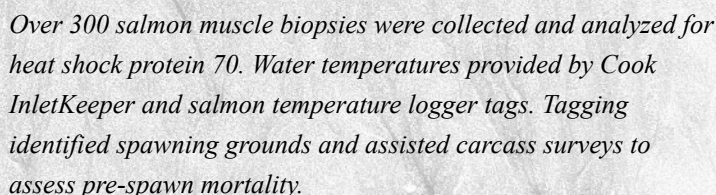
Map By Kachemak Geospatial



Water temperature, heat stress, and the performance of a Subarctic population of Chinook salmon (*Oncorhynchus tshawytscha*) in an era of rapid warming

Local Initiatives:

The science portion of the project is led by Madeline Lee, a M.S. Fisheries student at UAF, advised by Peter Westley. The overarching goal of her research is to better understand how salmon may be responding to increasing temperatures and changes to performance in a warming world. To address this question, she will use a known biomarker to quantify physiological thermal stress in Chinook salmon (*Oncorhynchus tshawytscha*) on the Ninilchik River and Crooked Creek on the Kenai Peninsula, two streams that are only 40 km apart but have contrasting temperatures. This work builds on insights gleaned from Chinook salmon in the Yukon River that revealed substantial evidence of heat stress.



Salmon in a Changing Climate Cont'd

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By Madeline Lee

It is widely accepted that prolonged thermal stress in salmon can be fatal, yet it is unknown how sub-lethal levels of stress may influence salmon reproductive performance. Thus, a second objective in this research is to associate variation in salmon traits to heat stress and quantify the impact of heat stress on aspects of reproductive performance. Lee will measure reproductive performance (a proxy for reproductive success) by tracking egg survival to the eyed-egg stage in the hatchery. She will also quantify the experienced water temperature by salmon with temperature logger tags to better understand the potential role of behavior to mediate temperature exposure.



McKenzie Buhr, a youth intern through the Ninilchik Traditional Council, was hired as our high school intern to perform float-based carcass surveys to check for pre-spawn mortality and collect heat stress muscle biopsies at the hatchery egg takes on the Ninilchik River with Science Lead, Madeline Lee.



Koby Etzweiler, a Homer local, was hired as our undergraduate intern to assist with radio telemetry and temperature logger tagging initiatives on Ninilchik River Chinook salmon. His local knowledge was invaluable to the project and he was spectacular at finding telemetry tags in the muddy river bottom. He gained valuable research experience that will support his goals as a park ranger in the future.

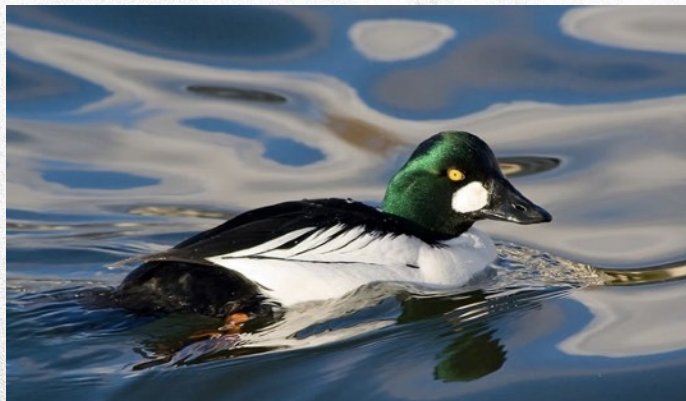
The education and outreach portion of the project was led by our KBCS board members with their own niche specialties. Katie Gavenus worked with our high school intern McKenzie Buhr to teach youth at the Center for Alaskan Coastal Studies about her experiences sampling carcasses for heat stress in 2021 (as shown in photo above). KBCS board member Bjorn Olson interviewed scientists working on the project and created educational content for the public in this area of research. As part of an outreach initiative, KBCS board member Madeline Lee created an ESRI story map to build transparency and easy science communication around the project.

You can view updates to our project online:
<https://storymaps.arcgis.com/stories/7d3ccf06a4c1453d863c5f75cce14080>

Sustaining Sea Ducks & Baby Salmon

By Penelope Haas

We ♥ Sea Ducks



We were so happy to work with the Kachemak Bay Birders to put together the Second Annual Sea Duck survey. On March 19, 2022, we went out there with 8 boats (each with a skipper, a birder, and a photographer) to see what we could see. What amazing and beautiful birds these are! Diving deep for their food, some living way offshore, others in rocky protected bays, many head up to the boreal forest near the Yukon to nest.

As we accumulate data, we hope that survey results will be used to help guide ADF&G's management of sea duck harvest. We have been working with citizens to develop four proposals for the ADF&G Board of Game to improve local ADF&G sea duck management. The Homer Fish and Game Advisory Board recently voted unanimously to sponsor all four of our proposals for mandatory reporting of all sea duck harvest and reduced bag limits on some the species that are easiest to access and shoot—Goldeneye, Bufflehead, Harlequin are all found in protected bays and coves.

The Kachemak Bay Critical Habitat Area is a very important winter habitat for sea ducks, we'd like to keep it that way. We want managers and residents to remember there are many fewer sea ducks in K-Bay than in the 80s; we would like to try to recover those populations..

Depressed populations of sea ducks do not recover quickly. They are known to have a high degree of site fidelity, which means that if an area's population is depressed, birds from other areas are unlikely to boost the population. Also, according to the Sea Duck Joint Venture, they have significantly lower reproductive rates than other ducks.

Baby Salmon Live Here!

We love baby salmon too! KBCS continues to work with the Kenai Peninsula Borough River Center to communicate with landowners about taking care of salmon habitat. We produced a set of images promoting salmon habitat stewardship that went out to 1,700 property owners who own land along fish habitat, and we are working with them, Kachemak Heritage Land Trust, and a slew of other groups to install more signs around our peninsula to remind folks that Baby Salmon Live Here.

We hope you will join us in May for our Baby Salmon Month to help us put up Baby Salmon Signs on the Southern Kenai Peninsula.



Kachemak Bay Jetski-Free Zone

By Penelope Haas

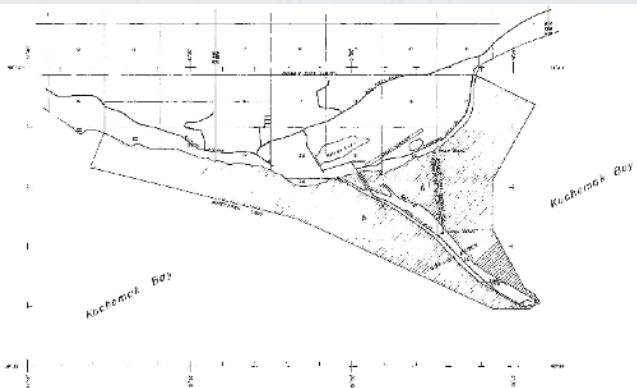
Kachemak Bay Jetski-Free Zone

In 2021, Bay Conservation Society joined the Friends of Kachemak Bay State Park, Cook InletKeeper, and the Alaska Quiet Rights Coalition in litigation to challenge the State of Alaska's decision to allow jetskis in the Kachemak Bay Critical Habitat Area.



We are arguing that the State's course on Jetskis was not based on any

We don't relish this litigation. It's time consuming and expensive. But Kachemak Bay is a special place, and Alaskans deserve decisions affecting our magnificent natural resources which are grounded in facts and science.



On the local level, we helped push through two city ordinances to protect our city tidelands (in the Critical Habitat Area) from jetski use. With new State of Alaska regulations allowing personal watercraft in the Kachemak Bay Critical Habitat Area, these ordinances set boundaries that prioritize and protect habitat and nonmotorized uses of City-owned tidelands.

Ordinance 21-23 prohibits the launching of jet skis from City beaches, and Ordinance 21-26 created a no-wake zone in all the city-owned tidelands and that prohibits the use of motorized vessels in the slough behind Mariner Park, close to shore in Mud Bay, the Nick Dudiak fishing lagoon, the entrance to Beluga Slough and from all waters within Louie's Lagoon unless on official business or as authorized by the Harbormaster.

Our sensitive tidelands are the habitat of migratory waterfowl, marine mammals, and salmon. The high-speed maneuvering and jumping characteristic of jet skis is not compatible with sport fishing, set netting, stand up paddle boarding, surfing, kayaking, and birding. Additionally, the shallow draft and high power of the vessels threatens the rich ecology of the mudflats. Since the city and state have little to no enforcement capability on the tidelands, this is the best approach to management.



Pebble Mine & Bristol Bay

By Jim Stearns

A Plan To Conserve Bristol Bay Lands Forever



The [Bristol Bay Heritage Land Trust](#) is partnering with The Conservation Fund and Pedro Bay Native Corporation on an exciting, innovative plan to preserve Lake Iliamna's most productive yet most threatened salmon habitat. The shareholders of Pedro Bay Corporation voted by a majority of 90% to approve the conveyance of three legally binding conservation easements for more than 44 thousand acres of corporation land. Once complete, these conservation easements will forever protect three river systems that are critical for the spawning and rearing of the Sockeye salmon that return to Lake Iliamna every year.

Critically, the conservation easements cover a portion of the proposed transportation route to the proposed Pebble Mine. The restrictions on development in the easements prohibit execution of any right-of-way agreements for the mine project. The Project blocks the only access road to the proposed Pebble Mine that the U.S. Army Corps of Engineers was willing to approve under its Clean Water Act authority to permit the project.

The challenge now is to raise the \$20 million necessary to purchase the conservation easements and provide for stewardship of the easements. We'll be reaching out to our members with more information on how you can support this effort once it is ready!

Salmonfest Update

Salmonfest hopes to return once again in full form on August 5-7, 2022. Headlining this year will be the widely renowned jam band and perennial festival headliner, Umphrey's McGee. Other headliners include Shakey Graves and Rising Appalachia.

Salmonfest, while no longer under the stewardship of KBCS, remains committed to supporting the myriad important challenges and efforts that are integral to the KBCS mission. In addition, the festival continues to support the on-going efforts to permanently protect the headwaters of Bristol Bay and stop the development of Pebble Mine.

KBCS Board Members



Roberta Highland, President, and long time Board Member is now serving on the Issues and Comment Committee with Penelope Haas. Roberta was presented with the prestigious Celia Hunter Award for Outstanding Volunteer Contributions in 2013. She has been a resident of Homer since 1984 and has been involved in conservation since 1986. Roberta has served on many boards since then — the longest being The Kachemak Bay Conservation Society. Roberta has worked on significant issues that have required statewide coordination for success. She believes we can all be a force for the change we want to see in the world. Her indomitable spirit is nourished by the belief that everything is connected and that protecting the earth and the life it sustains is the worthiest of causes.

Martie Krohn, Treasurer, is a resident of Homer since 1984. Martie has been involved in many civic and environmental endeavors through teaching and 4-H. She taught at The Learning Place, a parent's cooperative educational venture prior to starting Smoky Bay School which operated from 1986 to 2006. Martie brings an extensive background in accounting to the position of treasurer through self-employment, working as a bookkeeper for Kachemak Port Services and serving as treasurer for the Kenai Peninsula Fair Board between stints as president. Martie is also a founding member and treasurer of Arts, Recreation, Conservation, Humanities, Education and Science Alaska (ARCHES Alaska), the nonprofit behind Salmonfest Alaska



Penelope Haas, Vice President, has worked in Alaska's commercial salmon fisheries as a deckhand in the Prince William Sound and Bristol Bay and as a technician for ADF&G in Prince William Sound, Haines, and on the Alaska Peninsula. She has also participated in research with ADF&G and the Prince William Sound Science Center, collecting data on straying of hatchery salmon and genetic impacts of hatchery pink salmon to wild stocks. Her work with KBCS is focused on local conservation issues, including local climate change education and promotion of alternative energy solutions; good planning and management of Kenai Peninsula, Kachemak Bay and Cook Inlet to ensure protection of fish, wildlife and their habitat.

Jim Stearns, Board Member, is president of the Kenai Peninsula Fair Board, a member of the Homer Little League Board and is the producer of Salmonfest. Prior to moving to Alaska, Jim was involved in producing many fundraisers and brought his restaurant and catering experience to Hurricane Katrina and, with a revolving team, served 75,000 meals to evacuees over 2 months. He was also a founding member and leader of Friends of the River in California, founding member and board president of the Central Sierra Watershed Coalition, and past board president of the Mother Lode Women's Center. Jim also serves as a founding member and president of ARCHES Alaska.



KBCS Board Members



Bjørn Olson, Board Member, is a life-long Alaskan, adventurer, photographer, videographer and storyteller. Bjørn attempts to educate and advocate for leaving Alaska better than when he came into it — a task more formidable than climbing Denali, kayaking to Kodiak or cycling a 1,100-mile snow trail above the Arctic Circle.

Madeline Lee, Secretary, is currently pursuing environmental advocacy with her role at Kachemak Geospatial, a Homer-based firm using cartographic storytelling and geospatial support for environmental monitoring and research. As a KBCS board member, Maddy will educate her community on the urgency of climate change and empower people to take action now.



Katie Aspen Gavenus, Board Member, grew up in Homer, Alaska. She is an environmental educator and program director for the Center for Alaskan Coastal Studies. Other work over the years has included leading wilderness trips and deckhanding on a salmon tender in Cook Inlet. She recently completed a master's program in science education through IslandWood and the University of Washington and is committed to transforming science education - and education more broadly - to be locally relevant, culturally sustaining, meaningful, and inspiring. She believes education, science, and conservation should all be collaborative efforts.



KBCS is taking on some big issues.

We hope you will tell your friends about the work we are doing and invite them to become members.



Membership & Donations

Please renew your annual membership! Do it online at www.kbayconservation.org or send in the form below.

We are a little organization with a big heart, and we need your support to continue to work on local issues.

Yes! I'll support the
Kachemak Bay Conservation Society!

1. Membership

- ☐ New Member
☐ Renewal
☐ Gift Contribution

2. Support Level:

- ☐ \$20 Individual
☐ \$35 Couple/Family
☐ \$50 Supporting
☐ \$100 Business
☐ Other

3. Tell Us About Yourself

Name _____
 Address _____
 City/State/Zip _____
 Phone _____
 Email _____

(check which items you would like to receive)

- ☐ Email newsletter
☐ Snail mail newsletter
☐ Email Announcements and Action Alerts

Enclose check or money order. Mail your payment and form to:



Kachemak Bay
Conservation Society
3734 Ben Walters Ln
Homer, AK 99603

If you have any questions or for more information email kbayconservation@gmail.com or call 907. 235.8214.