

Accomplishments of the Alaska Region's Habitat Conservation Division in Fiscal Year 2012



Prince William Sound; Photo by Matthew Eagleton

This report provides highlights of Habitat Conservation Division (HCD) activities from October 1, 2011 through September 30, 2012. HCD coordinates extensively with other groups to prioritize resources and activities, make decisions in an ecosystem context, and strengthen the science behind our decision-making. To facilitate habitat conservation, HCD works closely with our Science Centers, numerous NOAA line offices, the North Pacific Fishery Management Council, other federal and state agencies, non-governmental organizations, local governments, and a variety of industry and conservation groups. This work supports NOAA's Habitat Blueprint by leveraging partnerships to better execute our authorities, tools, and capabilities. HCD carries out NOAA Fisheries' statutory responsibilities for habitat conservation in Alaska under the Magnuson-Stevens Fishery Conservation and Management Act, Fish and Wildlife Coordination Act, National Environmental Policy Act, Federal Power Act, and other laws. HCD has two principal programs:

- identification and conservation of Essential Fish Habitat (EFH) through fishery management; and
- environmental review of non-fishing activities to avoid, minimize, or offset the adverse effects of human activities on EFH and living marine resources in Alaska.

Essential Fish Habitat and Fishery Management

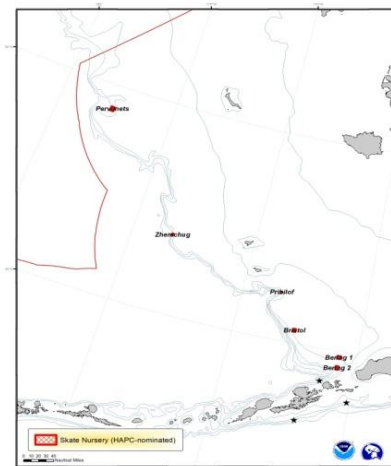
Alaska EFH Five Year Research Plan

The newly prepared Alaska EFH Plan (AFSC Report 2012-06) guides research to meet EFH mandates in Alaska. To meet these mandates, NOAA Fisheries’ research must identify habitats that contribute most to the survival, growth and productivity of managed fish species and determine science-based measures to best manage and conserve these habitats from adverse effects of human activities. An experienced group of habitat scientists and managers coordinated and prepared the document. The first step was to review existing plans including the NOAA Fisheries’ Habitat Assessment Improvement Plan, the Alaska Fisheries Science Center’s science plan, the North Pacific Fishery Management Council and NOAA Fisheries’ Alaska Region EFH 5-year review, the proceedings of the first National Habitat Assessment Workshop, and the 2006 EFH Research Implementation Plan. The new plan revises the earlier EFH research plan and will guide EFH-related research over the next several years. (Matthew Eagleton)



Skate Nursery Area Habitat Areas of Concern (HAPC)

HCD collaborated with Alaska Fisheries Science Center stock experts and the North Pacific Fishery Management Council to identify six skate nursery areas in the Bering Sea as HAPCs. Skates lay their eggs in cases they deposit on the sea floor, and development of embryos within the cases can span over three years, making the nursery areas vulnerable to disturbance by bottom-tending fishing gear. Alaska Fisheries Science Center surveys have consistently documented skate egg-case concentrations in six sites located within the Bering, Bristol, Pervenets, Pribilof, and Zhemchug submarine canyons. Within these areas, NOAA Fisheries will establish a means to monitor each HAPC for changes in egg density and the potential effects of fishing. NOAA Fisheries will coordinate these monitoring efforts with the fishing industry.



Skate Nursery HAPCs

NOAA Fisheries has taken recent action to highlight the importance of skate nurseries before the Council including the following: identify six skate nursery HAPCs, hosting special meetings with fishermen to better inform them about the uniqueness of skate biology, developing new strategies with NOAA Office of Enforcement for fishing activities, adding skate nurseries to the Council’s Research Priorities list, and working with industry to collect data. The meetings have been highly successful and fishermen have thanked skate scientists for educating them about the HAPCs. The Council has recommended making research and monitoring of skate egg concentrations a high priority on the Council’s research list. (Matthew Eagleton and John Olson)

EFH Omnibus Amendments to Fishery Management Plans

The 2010 EFH 5-Year Review amended five fishery management plans (FMPs). These included the Gulf of Alaska and Bering Sea / Aleutian Islands groundfish, weathervane scallops, and Bering Sea / Aleutian Islands crab. HCD coordinated with the Sustainable Fisheries Division, the North Pacific Fishery Management Council, and the Alaska Fisheries Science Center. Specifically, EFH components of FMPs were updated including fishing activities that may adversely affect EFH, non-fishing activities that may adversely affect EFH, habitat areas of particular concern (HAPC), research and information needs, and EFH descriptions of individual species. The amendments will result in relatively minor changes to the EFH provisions, and none of the changes will require regulatory action. On August 8, 2012, NMFS published the notice of availability for the amendments, with a comment period that ended on October 9, 2012 (77 FR 47356). There were no comments received during the public comment period for the FMP amendments. (Matthew Eagleton)

Environmental Review to Minimize Habitat Loss

Point Thomson Project

HCD staff completed consultation for the Point Thomson Project. Point Thomson is the largest discovered undeveloped natural gas field in Alaska. The proposed project is located on Alaska's Arctic Coastal Plain adjacent to the Beaufort Sea, approximately 60 miles east of Prudhoe Bay and 60 miles west of Katktovik, Alaska. Activities and infrastructure needed to bring the field into production includes three drill pads (one includes a facility for hydrocarbon processing), approximately ten miles of infield roads, a gravel mine, airstrip, barge docking facility, navigational structures, dredging, an emergency boat ramp, infield gathering pipelines, and an export pipeline to the Badami facility 23 miles to the west. As a result of pre-application discussions and coordination, our resource concerns were addressed by the applicant in the project design and included in the permit recently issued by the U.S. Army Corps of Engineers. (Jeanne Hanson)

Bristol Bay Watershed Assessment

HCD provided support to help the Environmental Protection Agency conduct a comprehensive assessment of how future large-scale mining development may affect the Bristol Bay watershed, including water quality, salmon fisheries, and indigenous peoples. HCD's primary contribution to that effort has been to address the oceanic range and distribution of Bristol Bay salmon; the contribution of those salmon to marine trophic levels (fish as well as marine mammals); and the ecological links between the watershed, estuary, nearshore, and offshore ecosystems. HCD also provided a synthesis of relevant literature regarding the ecological and hydro-geomorphic processes that support spawning, overwintering, and rearing habitat for salmon, and supported development of a predictive risk assessment. The Environmental Protection Agency expects to release its final watershed assessment in the winter of 2012 to inform its regulatory process. (Doug Limpinsel)

Red King Crab and Norton Sound Mining Operations

HCD partnered with the Alaska Fisheries Science Center, Kodiak Lab, to sponsor an interagency meeting on the potential impacts to red king crab habitat in Norton Sound from offshore mining operations. In September of 2011, the Alaska Department of Natural Resources conducted a lease sale on a total of 23,000 acres of marine waters in Norton Sound. Very little is known about the red king crab populations in Norton Sound and the potential for adverse impacts from mining operations on that population; underscoring the need for studies. NOAA Fisheries personnel were joined by representatives from the U.S. Army Corps of Engineers, the Environmental Protection Agency, the Alaska Department of Environmental Conservation, the Alaska Department of Fish and Game, Alaska Department of Natural Resources, and the University of Alaska Fairbanks. The meeting resulted in identifying the issues, data gaps, and study needs, opening the door for further discussions with permitting agencies. (Brian Lance)

Triennial Review of Alaska Water Quality Standards

HCD provided relevant comments to the Alaska Department of Environmental Conservation's review of state water quality standards for two priority issues: (a) Aquatic Life Criteria for Copper, (b) Outstanding National Resource Waters. HCD provided information on current studies being done at the Northwest Fisheries Science Center on the impacts that dissolved copper can have on various forms of aquatic life and the factors that influence the severity and level of those impacts. Additionally, HCD's comments and references provided stakeholder support in refining the nomination process where by state waters can be nominated to and for protections under Alaska's antidegradation policy. (Doug Limpinsel)

Susitna-Watana Hydropower Project

HCD staff continues to play a lead role in the licensing process for the Susitna-Watana Hydropower project. The proposed project would be located on the Susitna River in Southcentral Alaska, about 100 miles east of Denali National Park and 200 miles upriver from Cook Inlet and Anchorage. The project would involve the construction of a dam approximately 750 feet high. On May 31, 2012, NOAA Fisheries, Alaska Region, provided the Federal Energy Regulatory Commission (FERC) with Study Requests for the proposed project; including comments on the Pre-Application Document, and Scoping Document 1. HCD also worked closely with the U.S. Fish and Wildlife Service and the State of Alaska to develop a Memorandum of Agreement for the Alaska Energy Authority to provide contractual support to facilitate resource agency involvement through the use of subject matter experts.

HCD is coordinating our review with experts from other NOAA line offices including NOAA Fisheries, Northwest Region (fish passage engineering); NOAA Fisheries, Southwest Region (General Counsel); and NOAA's National Climate Predictions and Projections, (development of a study request on changing climate conditions). HCD's continued involvement in this project ensures developing sound recommendations towards protection, mitigation and enhancement of fish and wildlife resources affected by construction and operation of the proposed project. (Susan Walker and Eric Rothwell)

Allison River Hydropower Project

Consultation for the Allison Creek Hydropower Project followed FERC's Alternative Licensing Process which allows for an expedited licensing timeline and protection of anadromous fish and their habitat. NMFS was part of an Aquatic Task Force focused on

resolving instream environmental issues. Originally, the project design included a dam and diverting waters from Allison Creek at about the 1300 foot elevation through a penstock to a powerhouse located at 100 foot elevation. This design would have created a fish passage barrier and greatly altered aquatic habitat below the dam.

Through the collaborative efforts of the Aquatic Task Force and HCD's leadership role in facilitating resolution of contentious issues during meetings, the project was modified to eliminate the dam and water storage aspects of the project and instead operate a run-of-river project. Maintenance of the natural flow regime in the salmon bearing reach should ensure the project has little to no instream effects on chum, coho, and pink salmon. This project is exemplary because it protects anadromous fish and their habitat while also producing clean energy, resulting in a non-controversial power source and a cost savings to consumers. FERC will likely grant a license within the next 18 to 24 months, allowing Copper Valley Electric Association to begin construction and start producing power by 2015. (Susan Walker and Eric Rothwell)



Allison River (Photo courtesy of CVEA)

Programmatic EFH Consultations

A programmatic consultation is a mechanism for implementing the EFH consultation requirements (50 CFR 600.920) effectively by including in one consultation many individual actions that may adversely affect EFH. Programmatic consultation allows for the comprehensive review of these actions, their potential adverse effects on EFH, and the development of programmatic EFH Conservation Recommendations to address as many adverse effects as possible. In Fiscal Year 2012 HCD completed one EFH Programmatic Consultation with NOAA's Restoration Center and initiated another with the Bureau of Ocean Energy Management.

Programmatic EFH Consultation for Restoration Center Program Activities in Alaska

As the result of a cooperative effort between HCD and NOAA Restoration Center staff in Alaska, a programmatic consultation that assesses the potential adverse effects of the Community-Based Restoration Program, the Damage Assessment, Remediation and Restoration Program, and other similar restoration activities on managed species was developed. In order to address foreseeable adverse impacts to EFH, HCD and NOAA Restoration staff developed a description of the activities, an analysis of the effects of those activities, and conservation measures to be incorporated into each project in order to avoid and minimize adverse impacts to EFH. If the project plans cannot fully incorporate all the conservation measures, or if additional information becomes available that changes the basis for conservation measures, then supplemental consultation will occur prior to project implementation. (Erika Ammann and Matthew Eagleton)

Programmatic EFH Consultation for the Chukchi Sea Outer Continental Shelf Planning Area

HCD is working with the Bureau of Ocean Energy Management to develop a programmatic EFH consultation to cover seismic surveys, exploratory drilling activities and on-lease ancillary activities on the Outer Continental Shelf (OCS) in the Chukchi Sea Planning Area. The programmatic consultation is being developed in accordance with the Alaska Regional Operating Procedures adopted on February 6, 2012, which guide coordination on environmental analyses and consultations for OCS oil and gas activities in Alaska. When completed, the Chukchi OCS programmatic consultation will have an outlook of five years (2013-2018) and will be subject to re-consultation and supplemental analyses if industry proposes activities outside the scope of the assessment. (Doug Limpinsel and Linda Shaw)

Mitigation Banks and In-Lieu Fee Arrangements

HCD staff continue to play an influential role on the interagency review teams of six mitigation banks and three in-lieu fee organizations. Mitigation banks provide a mechanism for habitats to be restored or protected and then set aside in perpetuity, with the credits to be used in the future to offset losses of similar habitat from development activities. Similarly, in-lieu fee arrangements allow a sponsor to pool fees from Clean Water Act permit applicants to purchase valuable habitats that are then preserved in perpetuity. The arrangements are called “in-lieu fee” because the applicants pay fees in lieu of providing compensatory mitigation (like restoring wetlands) to offset impacts caused by a development project. Of note this year is our work with the Great Land Trust to mitigate for impacts from the Port of Anchorage expansion project, and the Southeast Alaska Land Trust to mitigate for impacts from the Juneau International Airport expansion project.

Great Land Trust In-Lieu Fee Sponsor

HCD worked closely with the Great Land Trust and other interagency review team members, to secure mitigation funds from the Port of Anchorage expansion project to complete the Eklutna Conservation Easement project. The easement protects over 1,400 acres, including eight miles of coastline and five miles of riverfront just north of Anchorage. The lands conserved by the easement; including estuaries along Fire Creek and the mouth of the Eklutna River, contain habitat for all five species of Pacific salmon, beluga whales, and migratory birds. This project builds on the previous use of mitigation funds, (a 60 acre coastal parcel at the mouth of Campbell Creek in 2010, and 4,800 acres at the mouth of the Knik and Matanuska Rivers in 2011) to compensate for impacts from the Port of Anchorage expansion project. (Brian Lance)

Southeast Alaska Land Trust In-Lieu Fee Sponsor

HCD staff, together with other members of an interagency review team, reviewed candidate land parcels and performed functional analyses on those parcels. The purpose of this effort was to determine their suitability to compensate for impacts to the Mendenhall River wetlands as a result of the Juneau International Airport expansion project. The airport is situated in a large marine estuary at the mouth of a glacial watershed that supports all five species of Pacific salmon as well as steelhead and cutthroat trout, and Dolly Varden char. Following consultation with HCD and other members of the interagency review team, an additional six acres of accreted lands in the estuary were added to the 29 acres already secured, with the acquisition of another six acres pending. The newly acquired accreted lands include 2,950 feet of Mendenhall Wetlands State Refuge boundary. (Chiska Derr)

Habitat Protection and Restoration

National Fish Habitat Plan

HCD continues to support the National Fish Habitat Plan in Alaska. In Fiscal Year 2012, HCD staff assisted the Southeast Alaska Fish Habitat Partnership in obtaining a grant from the Alaska Sustainable Salmon Fund to support a coordinator, symposium, and outreach. Also of note is HCD's work with the Kenai Peninsula Fish Habitat Partnership to develop a Conservation Action Plan that addresses both fresh and marine water habitats within the partnerships boundaries. In addition, HCD continued to support the other fish habitat partnerships in Alaska; the Matanuska-Susitna Basin Salmon Habitat Partnership and the Southwest Alaska Salmon Habitat Partnership, through participation on their steering committees, looking for funding opportunities to promote habitat protection and restoration, and recognizing noteworthy outcomes by nominating partners for national awards. NOAA's Restoration Center is also assisting HCD in supporting the National Fish Habitat Partnership in Alaska by working with the U.S. Fish and Wildlife Service to create a statewide umbrella group to coordinate the administrative and data needs of all the Alaska fish habitat partnerships. (Erika Ammann)



SEAKHHP Strategic Planning Meeting participants Fall 2012. L to R Neil Stichert (USFWS), Roger Harding (ADF&G), Jeff Nichols (ADF&G), Christine Woll (TNC), Cindy Hartmann Moore (NMFS), Sheila Jacobson (USDA FS), Kate Jensen (CCTHITA), Jessica Kayser (AWC), Deborah Hart (Partnership Coordinator)

Marine Invasive Species

HCD continues to play an active role in addressing invasive species issues in Alaska. HCD's efforts include outreach and awareness, sampling and monitoring, and providing input on regulations and permitting activities. Additionally, HCD staff serves as lead facilitator of the Marine Subcommittee of the Alaska Invasive Species Working Group. This group partners with other organizations in the State to address issues of mutual concern regarding marine invasive species. The potential for infested marine debris from coastal Japan reaching Alaska as a result of the Japanese Tsunami event of March 2012 is of particular concern. HCD staff attended a workshop with representatives from other west coast state and federal agencies, non-governmental agencies, and others to develop coordinated communications and response protocol. Subsequently HCD coordinated with other agencies to develop a reporting form specific for Alaska. HCD staff also created a rapid response sampling kit, so that in the event of possible infested debris, samples can be obtained and identified using standardized protocols. (Linda Shaw)



Tsunami debris with pelagic gooseneck barnacles

Exxon Valdez Oil Spill Marine Habitat, Harbor Water Quality Improvement Program funding

On behalf of the Exxon Valdez Oil Spill Trustee Council, NOAA's Restoration Center is soliciting proposals for marine habitat restoration, protection, planning and improvement projects in Exxon Valdez Oil Spill affected communities and environments (<http://alaskafisheries.noaa.gov/habitat/restoration/evos/>). In Fiscal Year 2012 HCD worked together with NOAA's Restoration Center to identify community partners and run public scoping meetings. It is anticipated that up to \$900,000 will be available for selected projects in Fiscal Year 2013. Selected projects must provide ecosystem benefits, have scientific merit, be technically feasible, and be cost-effective. Priority projects will address water quality through improvements to stormwater or wastewater runoff, harbor improvements, and related actions. (Erika Ammann and Eric Rothwell)

Klawock Lagoon Restoration Monitoring

HCD assisted the NOAA Restoration Center in sampling nearshore fish and eelgrass beds as part of the final monitoring portion for the Klawock Lagoon habitat restoration project. The project involved breaching a large causeway on an outlet of Klawock Lagoon to provide fish passage, improve tidal flushing, and enhance eelgrass beds. Monitoring results reveal that juvenile and adult fish passage has been improved by breaching the causeway, which at high tide, allows water and fish through the causeway via a new three-sided cast concrete culvert. A report on the monitoring results is due out this year. (Erika Amman and Cindy Hartmann Moore)



Seining for juvenile fish in Klawock Lagoon



Juvenile Dungeness crab in eelgrass

Other Noteworthy Activities

EFH Research Project in Upper Cook Inlet

HCD staff accompanied Alaska Fisheries Science Center, Auke Bay Lab scientists to conduct nearshore bottom trawl and intertidal beach seine sampling efforts in two areas of Upper Cook Inlet: Fire Island and Point Mackenzie. This year's sampling incorporated bottom trawls adding a benthic component to previous sampling efforts (2009-10). In 2012, three separate sampling efforts (June, July, September) focused on the neap tide cycles to update previous efforts, add information to



NMFS's newly developed Fish Atlas, document fish distributions, classify intertidal habitat, and identify potential prey resources for Cook Inlet beluga whales. Fire Island is an alternative site for an ocean-based tidal energy project. Site specific information will help scientists and regional habitat managers assess any changes in fish distributions. (Matthew Eagleton and John Olson)

ShoreZone Mapping

ShoreZone is a coastal habitat mapping and classification system in which georeferenced aerial imagery is collected specifically for the interpretation and integration of geological and biological features of the intertidal zone and nearshore environment. The imagery and mapping data are accessible via an interactive website to provide coastal habitat information to scientists, managers, and the public (<http://alaskafisheries.noaa.gov/shorezone/>). The web site allows users to virtually “fly” the coast from any computer with internet access, download high resolution photos, and access an extensive database with mapped biological and geological features. To date 59,853 km or approximately 79% of Alaska's shoreline has been imaged, which is an increase of 10% from last fiscal year. Approximately 74% of Alaska's shoreline has been mapped or has mapping in progress.

ShoreZone data collection and web posting is made possible in collaboration with a number of funding partner organizations in which NOAA Fisheries, Alaska Region plays a lead role. The partnership's goal is to image and map the entire coastline of Alaska and to make this data web accessible to all users. During Fiscal Year 2012, HCD staff coordinated the ShoreZone partnership which included organizing the annual meeting and teleconferences; giving presentations at state and national conferences to inform and attract additional users and partners; submitting ShoreZone proposals for work in western Alaska; partnering with the U.S. Fish and Wildlife Service's to secure \$134,888 from the Western Alaska Landscape Conservation Cooperative; partnering in the Kotzebue Sound survey which added 3,095 km of shoreline imagery from Wales to Point Hope in the Chukchi Sea and Kotzebue Sound; assisting the National Park Service and Bureau of Ocean Energy Management with their contracting for ShoreZone work; and contracting for ShoreZone mapping and a Coastal Hazards Assessment in Kotzebue Sound and Bristol Bay. HCD continues to work with other agencies and organizations to promote use of ShoreZone data and to fund additional data collection. (Cindy Hartmann Moore)



Wetland Ecosystem Services Protocol for Alaska, Southeast (WESPAK-SE)

HCD worked closely with the Southeast Alaska Land Trust and other interagency review team members to further refine the science-based field method developed to rapidly assess tidal and non-tidal wetlands of Southeast. Assessments of wetland functions and values are used by the interagency review team and others to help determine the “value” of wetlands that are proposed for development, as well as the value of those that may be used for mitigation. WESPAK-SE will be useful to HCD in to rapidly estimate relative functions and values of wetlands, including some tidal wetlands, throughout Southeast Alaska. (Chiska Derr)

Outreach and Education

HCD staff participated as judges in several school science fairs and made presentations in classrooms on fish habitat issues, helping to teach the next generation of stewards for healthy aquatic habitats.

Personnel News

HCD wished “fair winds” to our NOAA Corps officer, LT Amy Cox, who is now Flag Aide to NOAA’s Administrator, Dr. Jane Lubchenco. We miss her expertise and her smile, and wish her well in her new assignment.

ENS Larry Thomas has joined our HCD staff in Anchorage. Larry came to us from the NOAA Ship OREGON II. Larry has a degree in marine biology from Jacksonville State University (Alabama). Larry’s three year assignment will allow him to get his land legs back and give him exposure to habitat and protected resources management issues.

Allen Butner is on detail to HCD for six months. Allen comes to us from the Region’s Restricted Access Management Division. Allen is assisting HCD staff with project reviews and is working on white paper summarizing aquaculture in Alaska, which HCD will use in our EFH consultation with the U.S. Army Corps of Engineers on the Regional General Permit for Aquaculture activities in Alaska. We are enjoying having Allen aboard.

HCD wishes farewell to Jon Kurland. Jon has taken a position as the Assistant Regional Administrator for the Protected Resources Division. We wish him well in his new position.

HCD welcomes Jeanne Hanson as the Assistant Regional Administrator for HCD. Jeanne was formerly the Field Office Supervisor for HCD in Anchorage. Welcome aboard.

Please visit our website: www.alaskafisheries.noaa.gov/habitat