



PACIFIC STATES MARINE FISHERIES COMMISSION

2021 ANNUAL REPORT

PUBLISHED FOR THE CONGRESS OF THE UNITED STATES AND THE GOVERNORS AND LEGISLATURES OF
ALASKA • CALIFORNIA • IDAHO • OREGON • WASHINGTON



74TH ANNUAL REPORT OF THE PACIFIC STATES MARINE FISHERIES COMMISSION

— Alaska, California, Idaho, Oregon, and Washington —

2021

Presented by the Commissioners of the Pacific States Marine Fisheries Commission
in compliance with the State enabling acts creating the Commission and Public Laws
232; 766; and 315 of the 80th; 87th; and 91st Congresses of the United States.

Respectfully submitted,
PACIFIC STATES MARINE FISHERIES COMMISSION
Barry A. Thom, Executive Director

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Portland, Oregon 97202

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AK PHOTO CREDITS



FRONT COVER: LARA ERIKSON, DUTCH HARBOR | BACK COVER: NANCY LEONARD, ANAN CREEK

PG. 2: NANCY LEONARD, TRACY ARM FJORD | PG. 6: BARRY THOM, SELDOVIA

PG. 13: LARA ERIKSON, DUTCH HARBOR

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PG. 5: ERIN DLABOLA | N SANTIAM RIVER, OR

COMMISSIONERS, ADVISORS, AND COORDINATORS 2021

STATE	COMMISSIONERS	ADVISORS	COORDINATOR
Alaska	Douglas Vincent-Lang Sen. Peter Micciche Casey Campbell	Matt Alward Shannon Carroll Don Lane Matthew Moir	Kendall Henry (ADFG)
California	Charlton Bonham Sen. Mike McGuire Barbara Emley	Jim Caito Ken Franke Donald Hansen Mike McCorkle	Sonke Mastrup (CDFW)
Idaho	Ed Schriever Sen. Lee Heider Ron Davies	Jim Fredericks Pete Hassemer Sharon Kiefer Paul Kline Joe Stegner	Lance Hebdon (IDFG)
Oregon	Ed Bowles Rep. Caddy McKeown Jeff Feldner	Walter Chuck Steve Fick Liz Hamilton Richard Heap Dorothy Lowman Brad Pettinger Lori Steele	Caren Braby (ODFW)
Washington	Nate Pamplin Brian Blake Phil Anderson	Robert Alverson Robert Jones Rich Lincoln Dale Myer Al (Butch) Smith	Heather Hall (WDFW)



PSMFC LEADERSHIP 2021

Randy Fisher, Executive Director | July 2021-March 2022

Barry Thom, Executive Director | April 2022 - June 2022

Pam Kahut, Finance Officer | July 2021-October 2021

David Briggs, Finance Officer | November 2021-June 2022

Shannon McKewon, Human Resources Director

— SENIOR PROGRAM MANAGERS —

Stan Allen

Fisheries/Habitat Assistance Programs

Dave Colpo

Commercial Fisheries Data Programs

Stephen Phillips

Aquatic Nuisance Species Programs

Chris Wheaton

Northern Pikeminnow Sport-Reward Program

Recreational Fisheries Information Network



MESSAGE FROM THE EXECUTIVE DIRECTOR

Barry Thom, Executive Director

Since joining the Pacific States Marine Fisheries Commission as your Executive Director in March of 2022, I have become immersed in the numerous and varied programs that PSMFC sustains. This annual report reflects the Commission's breadth of accomplishments, from policy development and legislative achievements in Washington, D.C., to our successful program administration. Our funding administration is unsurpassed, with over \$125M in fisheries relief disbursed in 2021. We continually benefit from collaboration with many partnerships. PSMFC takes pride in providing professional, efficient, and high-quality service to our Member States, tribal nations, and a variety of Federal agencies.

More than 300 employees implement these programs. PSMFC supports our tremendous staff who carry out these programs with a respectful, inclusive, equitable, and flexible work environment. PSMFC is increasing its focus on staff training and development to ensure that current and future leaders are equipped for any challenges and opportunities we may face.

The Commission continues to undergo transition to meet evolving needs, is always receptive to innovative approaches, and is committed to open and thoughtful communication. Please connect with us if there are ever any questions or new ideas you'd like to discuss.

This last year has been a pleasure, and I anticipate the next will be even better.

All the best,

PACIFIC STATES MARINE FISHERIES COMMISSION

ANNUAL FEDERAL ACTIVITIES REPORT

July 1, 2021 to June 30, 2022

The Pacific States Marine Fisheries Commission (the Commission) monitors and supports major issues and developments related to federal oceans and fisheries policies. The following summarizes these policies and provides a progress update on federal legislative and regulatory actions, including topics identified by the Commission in either or both of its 2020 and 2021 annual resolutions.

FY 2022 APPROPRIATIONS

In the first quarter of 2022, Congress enacted omnibus appropriations legislation (Consolidated Appropriations Act, 2022) for FY 2022. These marine fisheries program line items supported by the Commission were either level funded or increased.

- Regional Councils/Commissions: \$42,902,000 (\$1,402,000 increase)
- Interjurisdictional Fishery Grants: \$3,372,000 (\$7000 increase)
- Fisheries Data Collection, Surveys, & Assessments: \$187,500,000 (\$11,573,000 increase)
- Salmon Management: \$63,050,000 (\$1,000,000 increase, identified for the Mitchell Act hatcheries)
- Pacific Coastal Salmon Recovery Fund (PCSRF) \$65,000,000 (level funded)

Other specific items:

- \$400,000 for West Coast Groundfish video review;
- \$2,000,000 to the Commission to expand electronic monitoring (EM) in Alaska, stemming from a Congressionally Directed Spending (CDS) request from Senator Murkowski (R-AK);
- \$100,000 to the Oregon Department of Fish and Wildlife for whale entanglement risk reduction research;

- \$945,000 to the Ocean Foundation for an Oregon kelp survey;
- \$892,000 to the Washington Department of Fish and Wildlife for pinniped removal;
- \$5,600,000 to the Scripps Institution of Oceanography for a Southern California Dichlorodiphenyltrichloroethane (DDT) research pilot project;
- \$3,000,000 to the Northwest Straits Commission for a marine conservation initiative;
- Within the Salmon Management line item, \$39,500,000 was specified for Pacific Salmon Treaty implementation, with funding contingent on the National Oceanic and Atmospheric Administration's (NOAA) submission of a detailed spend plan.
- Within the Data Collection, Surveys, & Assessments line item, \$24,000,000 was specified for the Fishery Information Networks (FIN).
- National Marine Fisheries Service (NMFS) was directed to contract for not less than four vessels for West Coast Groundfish Surveys.
- \$2,000,000 in recovery funding was specified for Southern Resident Killer Whales.
- Level funding for the Endangered Species Act (ESA)/Marine Mammal Protection Act (MMPA)/Essential Fish Habitat Consultations and Permitting, plus an additional \$4 million in funding for 2022 from the Bipartisan Infrastructure Law (BIL).
- \$6,000,000 for Offshore Wind development.
- \$21,500,000 for Harmful Algal Blooms (HAB) research.
- Little Port Walter Research Station: Level funding to continue Chinook salmon rearing at rates consistent with the years 2016 to 2020.

FY 2023 APPROPRIATIONS

The President's FY 2023 Budget Request was released March 28. The following are the proposed budget amounts for Commission-supported line items. The amounts in parentheses reflect the difference as compared with the FY 2022 enacted amounts.

- Regional Councils/Commissions: \$44,297,000 (\$1,395,000 increase)
- Interjurisdictional Fishery Grants: \$3,377,000 (\$5000 increase)
- Fisheries Data Collection, Surveys, & Assessments: \$183,153,000 (\$4,347,000 decrease)
- Salmon Management: \$62,762,000 (\$288,000 decrease)
- PCSRF: \$65,000,000 (level funded)

Representative Jared Huffman (D-CA) and Senator Ron Wyden (D-OR) again submitted the NMFS programs funding request letters to the Appropriations Committees for the FY 2023 funding cycle. A total of 38 Representatives signed the House letter, while the Senate counterpart received the support of five Senators.

On June 28, the House Appropriations Committee approved its version of the FY 2023 Commerce-Justice-Science Appropriations Bill. The NMFS line items supported by the Commission have either been level funded or increased. The Councils and Commissions will receive a \$1.6 million increase over base. The Data, Collections, Surveys, and Assessment line item will receive a \$26 million increase. PCSRF is to be level funded at \$65 million, plus an additional \$34.6 million has been allocated from prior appropriated funding contained in BIL. Other items include:

- \$25 million for the Mitchell Act hatcheries;
- \$39.5 million for Pacific Salmon Treaty Implementation;
- \$24 million for FIN;
- \$600,000 for video review of West Coast EM data;
- \$40 million to continue the Administration's efforts in promoting wind energy;

- \$7 million to support climate-ready fisheries initiatives;
- \$1 million increase in research above FY 2022 levels for the Southern Resident Killer Whale population;
- \$6.5 million to implement Hatchery and Genetic Management Plans for Pacific Salmon. Report language recommends examining opportunities to leverage the existing civilian conservation corps model to develop a dedicated workforce for salmon habitat restoration projects;
- \$6.2 million for the Seafood Import Monitoring Program, an increase of \$1 million over FY 2022 levels. Report language also encourages NOAA to identify and bar fish products produced with convict, child, forced, or indentured labor;
- Report language directs NOAA, in collaboration with the U.S. Army Corps of Engineers (USACE), to resolve delays in the permitting of Pacific Northwest in-water construction;
- \$4.9 million for John H. Prescott Marine Animal Rescue Assistance Grants to provide rehabilitation for stranded marine mammals.

ANNUAL RESOLUTIONS UPDATES

The following summarizes federal legislative and regulatory activity in 2020 and 2021 that the Commissioners sought to monitor or support.

HAB. Based on staff discussions in late 2021, Representative Bonamici (D-OR) remains interested in introducing coastal States HAB legislation, inclusive of a funding stream to combat HAB in their waters; legislation has yet to be introduced.

The General Accounting Office (GAO) has issued a report on HAB and hypoxia stemming from a request from eleven Members of Congress in 2020 (including Rep. Suzanne Bonamici). GAO has recommended that NOAA and the Environmental Protection Agency (EPA) (1) define what a national HAB and hypoxia program would entail; (2) develop performance measures to assess the existing Inter-Agency Working Group's efforts; (3) establish an inter-agency framework to expand monitoring and forecasting of freshwater HAB and hypoxia; (4) develop a

national goal to guide the efforts of the Inter-Agency Working Group for HAB and hypoxia prevention; and (5) develop a comprehensive body of information on the costs and benefits of mitigation, control, and prevention actions for use by state, local, and tribal governments. The FY 2023 House Appropriations Bills contain funding for HAB work in a number of agency/program areas: \$4.5 million for the NOAA Integrated Ocean Observing System; \$15 million for NOAA Research (nitrogen and phosphorous); \$1 million for NOAA Domoic Acid Assistance To States; \$13.5 million for EPA Toxic Health Effects; \$2 million for EPA Research; \$8 million for USACE Research & Control; and \$5 million for the USACE HAB Demonstration Program.

Dungeness Crab Gear/Whale Entanglement.

On October 12, 2021, a tri-state conference call with representatives from California, Oregon, and Washington, discussed options to pursue FY2023 funding for costs associated with the National Environmental Policy Act (NEPA) process. A NOAA programmatic NEPA funding request of \$2 million was added to the FY 2023 PSMFC House and Senate appropriations request letters. In addition, the states of Oregon and Washington submitted letters of support to their respective congressional delegations to include this request. The House Appropriations Committee chose not to fund it.

Sea Otters. On November 1, the Commission submitted a comment letter to the United States Fish and Wildlife Service (USFWS) indicating its support of a comprehensive study on West Coast sea otter reintroduction, consistent with the Commission's 2021 resolution. The USFWS final report is forthcoming.

Columbia River Basin Hatcheries. The House-passed Build Back Better Bill (view following section) includes \$400 million for national, NOAA hatchery infrastructure upgrades. A significant amount of this funding would benefit Columbia River hatcheries.

Offshore Wind Energy. At the Commission's 2021 annual meeting, the Bureau of Ocean Energy Management (BOEM) presented a video on its plans for West Coast offshore wind study and lease sales. Using vessel monitoring system data, BOEM has been assessing the location of fishing grounds and areas most frequented by fishing vessels to better inform the impact of wind turbine placement off of the West Coast. In April 2022, the Department of the Interior invited

public comment for two, Oregon coast leasing areas, Coos Bay and Brookings, comprising roughly 1,158,400 acres. The notice period closed on June 28, 2022. BOEM will analyze potential use conflicts before designating specific wind energy areas (WEA). BOEM has stated it will conduct environmental reviews of WEAs in consultation with other Federal agencies, State and Local Governments, the Tribes, and stakeholders.

In May 2022, BOEM completed its Humboldt, CA wind energy leasing environmental review, concluding a "Finding of No Significant Impact." BOEM will be required to conduct an Environmental Impact Statement (EIS), once a specific lease sale occurs, to examine project-specific environmental and socioeconomic consequences. The agency will need to consult with other Federal agencies, the States, Tribes, and Local Governments.

Members of Congress have begun to articulate their concerns with BOEM's West Coast process.

- Senator Ron Wyden (D-OR) and Congressman Peter DeFazio (D-OR) submitted a letter to BOEM regarding the Oregon call area projects (Coos Bay and Brookings), requesting that BOEM conduct a full programmatic EIS for wind energy off of the entire West Coast. It was recommended that call areas be moved beyond the 1300 meters depth to protect the local fishing industry and urged BOEM to improve its engagement with stakeholders, the Marine and Fisheries Advisory Committee, NOAA, the Pacific Fishery Management Council, and the Coast Guard.
- A separate letter, signed by Representatives Jaime Herrera Beutler (R-WA), Kurt Schrader (D-OR), Derek Kilmer (D-WA), and Peter DeFazio (D-OR), concerning BOEM's engagement practices with the fishing industry and coastal communities for California and Oregon projects, expressed their displeasure with an unsolicited bid for a coastal wind energy project in Grays Harbor County, WA. On June 23, 2022 BOEM announced the availability of a wind energy draft guidance document to mitigate potential impacts of offshore wind development on commercial and recreational fishing.

Cormorants on Astoria-Megler Bridge. This remains a pending item from the 2021 resolution with further State-level information to be gathered.

Automated Identification System (AIS)

Use in Tracking Fishing Gear. In November 2021, Commission Executive Director Randy Fisher wrote to the Federal Communications Commission (FCC) supporting the use of AIS for tracking fishing gear. The FCC has not communicated a timeline for its decision.

Electronic Monitoring (EM) for West Coast

Groundfish. On November 4, Commission staff submitted a comment letter in support of NOAA's proposed rule to delay EM implementation in the West Coast groundfish fishery until January 1, 2024, consistent with the Commission's 2020 resolution. As noted in the FY 2022 Appropriations Section of this report, \$2 million was funded through CDS for EM in Alaska fisheries, with the Commission as the funding recipient; \$400,000 was provided for West Coast groundfish EM video review. The FY 2023 House Commerce-Justice-Science Appropriation Bill includes \$600,000 for video reviews.

West Coast and North Pacific Fisheries

Surveys. These Federal fisheries surveys and assessments are funded under the Fisheries Data, Collection, Surveys, and Assessment line item of the NMFS budget. For FY 2022, Congress provided an \$11.4 million increase in funding for this line item over the FY 2021 base. The FY 2023 House Commerce-Justice-Science Appropriations Bill further increased this amount by \$25.7 million for a total of \$213.7 million.

Fishery Disaster Assistance. \$200 million in fishery disaster assistance was provided by Congress in December 2021 as part of the second Continuing Resolution. As of second quarter 2022, NOAA has allocated over \$131 million for recently declared Alaska fishery disasters.

- \$9,414,087 for Upper Cook Inlet East Side Set Net (2018) and Upper Cook Inlet salmon fisheries (2020)
- \$34,360,624 for Copper River and Prince William Sound salmon fisheries (2018 and 2020)
- \$12,948,148 for Eastern Bering Sea Tanner crab (2019/2020)
- \$17,790,330 for Pacific cod in the Gulf of Alaska (2020)
- \$55,984,834 for Alaska Norton Sound, Yukon River, Chignik, Kuskokwim River, and Southeast Alaska salmon fisheries (2020 and 2021)

Legislation to reform the Federal fisheries disaster process, [S.2923](#), the Fishery Resource Disasters Improvement Act, passed the Senate in September 2021. The House Natural Resources Committee approved an amended version of the bill in November 2021. There has been no further legislative action on the bills in the first half of 2022.

Marine Mammals. The proposed MMPA amendment that was included on the House version of the FY 2022 National Defense Authorization Act was eliminated in House-Senate conference on the final bill. Sponsored by Rep. Rick Larsen (D-WA), the amendment would have required the Department of Commerce to issue regulations limiting vessel speeds in areas where whales are present in the U.S. Exclusive Economic Zone (EEZ).

BIPARTISAN INFRASTRUCTURE LAW – FISHERIES AND OCEAN FUNDING

Congress came to an agreement on comprehensive infrastructure legislation in November 2021. The enacted bill included substantial amounts of funding for fisheries and oceans-related infrastructure as follows:

- \$2.6 billion appropriated to NOAA over a five-year period.
- \$172 million to PCSRF which, when combined with annual appropriations, provides the program with \$100 million per year for five years.
- \$492 million to NOAA and the National Fish and Wildlife Foundation to support the National Coastal Resilience Fund's ecosystem restoration projects for flood protection and coastal erosion protection.
- \$491 million to NOAA for community-based shoreline protection projects.
- \$200 million over five years for NOAA's marine debris program.
- For fish passage culverts, in-stream barrier and dam removal:
 - o \$800 million over five years for USFWS grants to state and local governments;
 - o \$115 million to USACE;

- o \$400 million over five years to NOAA;
- o \$200 million over five years to USFWS;
- o \$75 million to the Federal Emergency Management Agency.
- \$20 million for NOAA permitting.
- \$79 million in EPA funds for Columbia River Basin infrastructure.
- \$62 million in USFWS funds for Klamath Basin infrastructure.
- \$17 million in USFWS funds for Lake Tahoe restoration (including AIS watercraft inspections).

BUILD BACK BETTER (BBB) RECONCILIATION BILL

The House-passed version of the BBB bill includes funding for a number of fisheries and fisheries-related programs. As of the end of June 2022, the Senate had yet to finalize its version of the Bill, reflecting disagreements between the two parties and within the Democratic Caucus. The House funding spans multiple years (FY 2022 to FY 2026).

- \$400 million for NOAA grants to States and Tribes for hatchery investments.
- \$19.6 million for Bureau of Indian Affairs hatchery investments.
- \$1 billion to NOAA for Pacific salmon recovery and restoration (not PCSRF).
- \$500 million to NOAA for fishery and marine mammal stock assessments, research, and surveys.
- \$300 million for NOAA facilities construction.
- \$100 million for National Marine Sanctuary facilities construction.
- \$2 million for the Seafood Import Monitoring Program.
- \$20 million for NOAA permitting improvements.
- \$6 billion to NOAA for coastal resiliency, habitat and coastal community protection (including fisheries). No cost-share required.
- \$180 million to USFWS for ESA recovery plans.

OTHER FEDERAL FISHERIES AND OCEANS ACTIVITY

Magnuson-Stevens Act (MSA) Reauthorization

Hearing. On November 16, the House Waters, Oceans and Wildlife (WOW) Subcommittee held a hearing on [H.R. 4690](#), the Sustaining America's Fisheries for the Future Act of 2021, introduced by Chairman Jared Huffman (CA-D-2nd), and Representative Don Young's (R-AK) MSA bill, [H.R. 59](#), Strengthening Fishing Communities and Increasing Flexibility in Fisheries Management Act. In the hearing, both Chairman Huffman and Representative Young pledged to produce a compromise bill to address the significant differences between the two proposed bills: additional bycatch limits, new ecosystem-based management requirements for forage fish; and greater consideration of climate change in fishery management decision-making. After Representative Young's death in early 2022, Chairman Huffman suspended further legislative action until Alaska's special election determines his replacement. The Senate has not yet developed a MSA counterpart bill.

Aquaculture. In October, Senator Roger Wicker (R-MS) introduced [S.3100](#), Advancing the Quality and Understanding of American Aquaculture Act, that establishes a regulatory system for sustainable offshore aquaculture in the U.S. EEZ. The bill defines "aquaculture stakeholder" as including States, Tribes, and Interstate Marine Fisheries Commissions.

Invasive Species. In October 2021, Representatives John Garamendi (D-CA) and Mark Amodei (R-NV) introduced [H.R. 5692](#), Stop the Spread of Invasive Mussels Act of 2021, that would authorize federal land management agencies to prevent the spread of invasive mussels in the nation's waterways, lakes, reservoirs, and aqueducts through additional measures. Among other actions, the legislation would provide funding for a matching grant program to combat invasive species through the Bureau of Reclamation. The following invasive species activities funding was included in the House Appropriation Committee versions of the FY 2023 Interior and Energy and Water Appropriations Bills.

- **Interior:** The bill provides \$17,925,000 to USFWS for Invasive Species Strike Teams to control high priority invasive species problems and authorizes an additional \$44,720,000 to the Interior: \$4,400,000 for National Invasive

Species Act (NISA) activities; \$2,834,000 for State and Interstate plans; \$1,566,000 for NISA coordination; and \$5,588,000 to implement subsection 5(d)(2) of the Lake Tahoe Restoration Act.

- **Energy & Water.** The House version of the Energy and Water bill allocates \$16 million to USACE for watercraft inspection stations, and \$3 million for additional sites in the Upper Columbia River Basin, the Upper Missouri River Basin, the Upper Colorado River Basin, and the South Platte and Arizona River Basins.

Forage Fish. On November 2, 2021, Representatives Debbie Dingell (D-MI) and Brian Mast (R-FL) introduced [H.R. 5770](#), the Forage Fish Conservation Act of 2021, that requires federal fisheries managers to address the management and conservation of forage fish and instructs the Department of Commerce to issue a definition for the term forage fish. The bill was included in the November 16, 2021 House legislative hearing and has a Senate companion, [S.1484](#), the Forage Fish Conservation Act of 2021. H.R. 5770 text has also been incorporated into WOW Subcommittee Chairman Huffman's new MSA reauthorization legislation, H.R. 4690, discussed above.

Alaska Salmon Research Task Force. The House passed [H.R. 6651](#), the Alaska Salmon Task Force Act, in April 2022. The companion measure, [S.3429](#), the Alaska Salmon Research Task Force Act, was reported by the Senate Commerce Committee in May. The bills prioritize research needs for Pacific salmon in Alaska, create a coordinated salmon research strategy, and promote collaboration of Pacific salmon conservation efforts. The Task Force will be comprised of representatives from NOAA, the North Pacific Fishery Management Council, the U.S. Section of the Pacific Salmon Commission, the State of Alaska, subsistence users, harvesters, processors, charter and recreational users, prohibited species salmon bycatch users, hatcheries, and scientists with specific expertise in Pacific salmon. The bill requires the Task Force to issue a report to Congress within one year of the enactment date.



74TH ANNUAL BUSINESS MEETING SUMMARY

Pacific States Marine Fisheries Commission

Video Conference | Portland, Oregon | August 25, 2021

Due to the COVID-19 pandemic, the meeting was virtual. The agenda was shortened to one day.

Chair Jeff Feldner called the meeting to order at 10:05 a.m. In attendance:

ALASKA COMMISSIONERS

Doug Vincent-Lang
Senator Peter Micciche
Casey Campbell

CALIFORNIA COMMISSIONERS

Sonke Mastrup, California Coordinator,
representing Commissioner Charlton Bonham
Barbara Emley
Noah Oppenheim, representing Commissioner
Senator Mike McGuire

IDAHO COMMISSIONERS

Ed Schriever
Ronald Davies

OREGON COMMISSIONERS

Jeff Feldner
Caren Braby, Oregon Coordinator,
representing Commissioner Curt Melcher

WASHINGTON COMMISSIONERS

Phil Anderson
Brian Blake
Nate Pamplin, representing
Commissioner Kelly Susewind

Chair Feldner requested a roll call of each state. All PSMFC Member States were present.

Chair Feldner requested an introduction of new commission members to PSMFC.

- Alaska – Sen. Peter Micciche and Casey Campbell
- California – Noah Oppenheim representing Sen. Mike McGuire
- Idaho – Ronald Davies
- Oregon – No new members
- Washington – Nate Pamplin representing Kelly Susewind for WDFW

Chair Feldner: Called for a motion to approve the PSMFC Budget Fiscal Year 2022. The Executive Sub-Committee of the Commission approved earlier in the Executive Sub-Committee Meeting.

Vote: Passes unanimously.

Chair Feldner: Called for a motion to approve the 2020 PSMFC Meeting Summary.

Vote: Passes unanimously.

Chair Feldner: Called to move onto voting on PSMFC resolutions that were submitted by the States.

WASHINGTON ISSUE 1 - CRAB/WHALE ENTANGLEMENT (UPDATING 2016 AND 2019 RESOLUTIONS)

PSMFC strongly supports sufficient federal funding necessary to meet National Environmental Policy Act (NEPA) requirements and for the development, implementation, and ongoing management of the West Coast Dungeness crab fishery under implemented Conservation Plans and Endangered Species Act (ESA) Section 10 incidental take permits. As an alternative to federal management, the states of Washington, Oregon, and California were delegated the authority and responsibility under the Magnuson Stevens Conservation and Management Act to manage Dungeness crab fisheries in state and federal waters along the West Coast. The management needs for the Dungeness crab fishery have become increasingly complex as the States transition management to meet the requirements of the Marine Mammal Protection Act (MMPA) and

the ESA. Additional funding is necessary to complete the required NEPA process and support future management which will require robust monitoring and adaptive management plans for the foreseeable future.

Vote: Passes unanimously.

OREGON ISSUE 2 - SEA OTTERS (NEW RESOLUTION)

PSMFC is aware the U.S. Fish and Wildlife Service (USFWS) is required to report to Congress by January 2022 on the cost and feasibility of reestablishing sea otters on the Pacific Coast of the contiguous West Coast of the U.S. PSMFC supports a fair, transparent, and comprehensive USFWS study that considers: the social and economic impacts on commercial, charter, sport, tribal subsistence fisheries, and nearshore shellfish aquaculture operations; the impacts on the region's vessel, port, and maritime operations and maintenance; comments from regional ocean-based stakeholders; the long-term cascade ecosystem effects generated by a newly introduced keystone predator; and the potential legal and regulatory ramifications for the residents, coastal communities, and individual States precipitated by the reestablishment of a MMPA/ESA-protected species on the West Coast of the U.S.

Adopted Language. PSMFC is aware the U.S. Fish and Wildlife Service (USFWS) is required to report to Congress by January 2022 on the cost and feasibility of reestablishing sea otters on the Pacific Coast of the contiguous West Coast of the U.S. PSMFC supports a fair, transparent, and comprehensive USFWS study that considers: the social and economic impacts on commercial, charter, sport, tribal subsistence fisheries, and nearshore shellfish aquaculture operations; the impacts on the region's vessel, port, and maritime operations and maintenance; comments from regional ocean-based stakeholders; the long-term cascade ecosystem effects generated by a newly introduced keystone predator; and the potential legal and regulatory ramifications for the residents, coastal communities, and individual States precipitated by the reestablishment of a MMPA/ESA-protected species on the West Coast of the U.S. USFWS should explicitly report whether there is policy support from the States for the reintroductions.

Vote: Passes unanimously.

OREGON ISSUE 3 - MITCHELL ACT (UPDATE OR REPLACE RESOLUTION #13)

Mitchell Act Hatcheries are the mainstay of commercial, recreational, and treaty-Tribal and non-treaty fisheries in the Columbia River Basin and contribute to distant ocean fisheries from California to Alaska. Many Mitchell Act facilities are several decades old, and maintenance and upgrade needs are significant. Mitchell Act operations and infrastructure require a significant infusion of funding to maintain the cultural and economic benefits of these mitigation programs. PSMFC shall assist the States and Columbia River Treaty Tribes in seeking funds to fully meet annual needs for implementation as well as near-term investments to address deferred maintenance and infrastructure upgrades.

Adopted Language - Columbia River Basin Hatcheries (update or replace resolution #13). Columbia River Basin hatcheries play a critical role in maintaining fisheries into the future. Many facilities are several decades old, and maintenance and upgrade needs are significant. There is a need for significant infusion of one-time infrastructure funding and restoration of full, annual operational funding to maintain the cultural and economic benefits of these mitigation programs. PSMFC shall assist the States and Columbia River Treaty Tribes in seeking funds to fully meet annual needs for implementation (Mitchell Act and other) as well as near-term, significant investments to address deferred maintenance and infrastructure upgrades.

Vote: Passes unanimously.

OREGON ISSUE 4 - OFFSHORE WIND ENERGY (UPDATE "ENERGY PROJECTS" RESOLUTION #23)

(Modified language) Regulators and stakeholders should work in coordination on all aspects of review and approval processes, along with mitigation measures and potential compensation plans, so there is consistency for the commercial and recreational fishing industries related to the development of offshore wind and energy projects. The Bureau of Ocean Energy Management and all other federal agencies should work with the commercial and recreational fishing industries to help and determine the impact on the fishery and fishing operations and

identify measures to mitigate those impacts, and consult with fishing representatives throughout the siting process. Offshore energy projects must include long-term funding for mitigation, monitoring, and compensation to commercial and recreational/sport fishermen, seafood processors, and fishing communities for any short or long-term harm to their operations and loss of fishing grounds.

Adopted Language. Regulators and stakeholders should work in coordination on all aspects of review and approval processes so there is consistency for the commercial and recreational fishing industries related to the development of offshore wind and energy projects. PSMFC will work to ensure that the Bureau of Ocean Energy Management and other federal agencies will work with affected states, the commercial and recreational fishing industries, and tribes to help assess the impact on the fishery and fishing operations and identify measures to avoid, minimize, and mitigate those impacts, and consult with fishing representatives throughout the siting process. If offshore energy projects are approved, they must include long-term funding for mitigation, monitoring, and compensation to commercial and recreational/sport fishermen, seafood processors, and fishing communities for any short or long-term harm to their operations and loss of fishing grounds.

Vote: Passes unanimously.

Chair Feldner: Oregon number five has been withdrawn in favor of a similar overlapping resolution from Alaska.

OREGON ISSUE 6 - CORMORANTS ON ASTORIA-MEGLER BRIDGE

The population of cormorants nesting and roosting on the Astoria-Megler Bridge has reached epic proportions. In addition to being a local health hazard (flies, feces, etc.), an annoyance, and a driving hazard, the cormorants continue to be a significant threat for salmon recovery impacts for Columbia River stocks. This federal bridge has just received a \$50 million paint job for maintenance, which is being destroyed by bird impacts. This is a federal and local issue that needs significant resources to mitigate.

Adopted Language. The population of cormorants nesting and roosting on the Astoria-Megler Bridge has reached epic proportions. In addition to being a local health hazard (flies, feces, etc.), an annoyance, and a driving hazard, the cormorants continue to be a significant threat for salmon recovery impacts for Columbia River stocks. This federal bridge has just received a \$50 million paint job for maintenance, which is being destroyed by bird impacts. This is a federal and local issue that needs significant resources to mitigate.

Oregon and Washington will collaborate on a white paper on impacts, to be used by PSMFC to raise awareness of this issue.

Vote: Resolution passes. Alaska, California, and Idaho voted no opinion.

WASHINGTON ISSUE 7 - FUNDING FOR WEST COAST WHALE STOCK ASSESSMENTS AND LISTING STATUS UPDATES

PSMFC strongly encourages the National Marine Fisheries Service (NMFS) to secure sufficient federal resources to evaluate the ESA listing status of distinct population segments (DPS) of humpback whales and other large whales along the West Coast of the United States. Of particular management concern is the distribution of listed humpback DPS and refined West Coast stock composition. Where it is determined that a DPS is fully recovered or can be downlisted under the ESA consistent with the recovery plan, NMFS should allocate resources to pursue those administrative actions in a timely manner and update the marine mammal stock assessment reports to align continued efforts to minimize entanglements per the requirements of MMPA in balance with conservation success.

Vote: Passes unanimously.

WASHINGTON ISSUE 8 - AIS USE IN TRACKING FISHING GEAR (NEW)

PSMFC supports the North Pacific and Pacific Fishery Management Councils requests that the Federal Communications Commission reconsider the use of Automatic Identification Systems for fishing practices and explore its functionality as a gear marking tool. This action is in line with the

Magnuson-Stevens Fishery Conservation and Management Act and is consistent with National Standards 1, 2, 9, and 10 by, allowing optimal catch, improving fishery information, minimizing and avoiding bycatch, and promoting safety at sea.

Adopted language. PSMFC supports the North Pacific and Pacific Fishery Management Councils requests that the Federal Communications Commission allow the voluntary use of Automatic Identification Systems for fishing practices to explore its functionality as a gear marking tool. This action is in line with the Magnuson-Stevens Fishery Conservation and Management Act and is consistent with National Standards 1, 2, 9, and 10 by, allowing optimal catch, improving fishery information, minimizing and avoiding bycatch, and promoting safety at sea.

Vote: Resolution passes. Idaho voted no opinion.

WASHINGTON ISSUE 9 - ELECTRONIC MONITORING FOR WEST COAST GROUND FISH

PSMFC strongly supports continued efforts to develop and implement an electronic monitoring (EM) program for the West Coast Trawl Catch Sharing Fishery in a manner that meets the Pacific Fishery Management Council's EM program goals and objectives. Delayed implementation of the EM Program regulations should be considered to provide additional time for the industry to work with NMFS and PSMFC to examine ways to develop a mechanism for the industry to fund video review and storage by PSMFC and achieve the goal of building a cost-effective program for the groundfish industry.

Vote: Passes unanimously.

ALASKA ISSUE 10 - MARINE PROTECTED AREAS | 30X30 INITIATIVE

The Commission supports the effort to make fisheries and protected resources more resilient to climate change (30x30 Initiative) under Executive Order 14008 and notes that input from state and tribal governments, stakeholder groups, and the public is essential to this initiative. Efforts to set aside lands and waters under the 30x30 Initiative need to recognize that conservation includes the management of human use of

natural resources for public benefit and sustainable social and economic utilization. This is a key point to establish at the beginning of the process; conservation is not preservation. Also, our changing climate is certainly one of the largest and headline-grabbing challenges facing our fish and wildlife management systems. However, it cannot and should not become the single driving force in our management. Other biological, social, and economic factors that directly impact fish and wildlife and their habitats may be more immediate than climate change impacts and should be addressed by resource managers as needed. Simply put, we cannot become myopic in our focus on climate change. A focus on climate change should not blind us to other issues, especially when other issues may be more pressing. The Commission requests that current efforts, which are based in science, such as harvest limits, ecosystem policies, monitoring, and current conservation areas be considered when implementing policies on conserving marine resources.

There was discussion and proposed edits by Member States. Alaska did not agree with the language that was proposed.

Alaska: Withdraws Issue Number 10.

ALASKA ISSUE 11 - SURVEYS

The Commission reiterates its 2016 support for funding fishery independent monitoring surveys and further notes the importance of current surveys, shipboard operations, and collecting fisheries-independent data that allows the best available science to be used in managing fisheries. In addition, PSMFC strongly supports continued full funding of fisheries-dependent sampling and data management programs (e.g. AKFIN, RecFIN, PacFIN) which are vital to keeping our fisheries sustainable and productive.

Vote: Passes unanimously.

ALASKA ISSUE 12 - FISHERY DISASTERS

The Commission supports congressional funding for fishery disasters that have been recommended by Governors, and declared by the Secretary of Commerce, and implementing

administrative and/or congressional actions that can reduce the time it takes to administer disaster funds.

Vote: Resolution passes. Idaho voted no opinion.

ALASKA ISSUE 13 - ADMINISTRATIVE FEES | THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

The Commission requests NOAA review its overhead costs for administering grants to states.

The other States requested more clarification and additional specifics on what Alaska was asking the PSMFC Staff to do.

There was discussion among Member States. Alaska did not agree on change in language or the intent.

Alaska: Withdraws Issue Number 13.

ALASKA ISSUE 14 - MARINE MAMMALS

Marine mammals are having a potentially large, but undocumented, impact on existing and developing fisheries in Alaska and on the West Coast. Data is needed to quantify the types and extent of these impacts. Research is also needed to assess potential deterrents to reduce identified impacts. PSMFC is directed to seek Federal funding for States to address these needs and to examine potential remedies through amendments to MMPA.

Adopted language. Marine mammals are having a potentially large, but undocumented, impact on existing and developing fisheries in Alaska and on the West Coast. Data is needed to quantify the types and extent of these impacts. Research is also needed to assess potential deterrents to reduce identified impacts. PSMFC is directed to seek Federal funding for States to address these needs and to examine potential remedies through amendments to MMPA.

Vote: Passes unanimously.

Chair Feldner: Thank you to PSMFC Staff and hope to see everyone next year in Alaska. The meeting is adjourned.

Alaska Fisheries Information Network

Dave Colpo, Senior Program Manager
Robert Ryznar, Program Manager

The Alaska Fisheries Information Network (AKFIN) is one of five, regional, cooperative, state and federal programs that provides a framework to consolidate and sustain the collection, analysis, and reporting of varied and essential information for management of U.S. fisheries. AKFIN is funded by an annual grant from the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) to the Pacific States Marine Fisheries Commission (PSMFC) for the AKFIN Support Center and a subcontract with the Alaska Department of Fish and Game (ADF&G).

AKFIN supports the data needs of fisheries analysts, managers, and economists by integrating commercial fisheries data and distributing those data, upon request, using custom programming services and online tools. Information is aggregated from multiple sources including the ADF&G Division of Commercial Fisheries, the Commercial Fisheries Entry Commission, NMFS Alaska Region, NMFS Alaska Fisheries Science Center (AFSC), the North Pacific Fishery Management Council (NPFMC), and PSMFC. AKFIN reports catch, harvest, and value data from commercial fisheries in Alaska utilizing the best available data from source agencies. Once these data are loaded into the database, AKFIN staff appends value-added fields and reports information that identifies and quantifies impacts related to changes in fisheries management and environmental variables: species, area, gear, vessel, processor, community, fleet, fishery participants, and remotely or directly observed environmental factors such as sea surface temperature.

PRODUCTS SUPPORTED BY AKFIN

- The [AKFIN website](#) contains program information and current announcements, news, and metadata, as well as links to applications and related websites.

- AKFIN Answers is an online reporting tool that provides authorized stock assessors, social scientists, and economists with direct access to the program's analytical database and metadata resources. This application allows users to access prepared reports and to formulate ad hoc queries that can be saved and shared with other analysts. Participants performed over 17,000 Answers queries in 2021.
- The [AKFIN APEX reports application](#) was developed to generate data for public and authorized users. This technology permits simple navigation of various report categories and allows individuals to quickly filter and download data in standardized formats. Multiple confidential and public reports were completed in 2021 for the groundfish and crab Stock Assessment and Fisheries Evaluation (SAFE) documents, the U.S. Census Bureau, Fisheries Economic Data Reports (EDR), and NPFMC-related reports.
- AKFIN supplies data services for the EDR program: data hosting, data management, and validation applications. (The EDR project description is contained within its summary on Page 30.)
- In collaboration with NPFMC staff, AKFIN maintains two, web-based applications:
 - [NPFMC Research Priorities](#) tracks research status for NPFMC staff, committee members, and stakeholders. AKFIN continues to enhance the application;
 - [NPFMC Meeting Minutes and Records](#) enables management of NPFMC agendas and public comments with a search and view feature designed to access historical NPFMC documents.
- Annual data contributions from AKFIN to national reports:
 - [Fisheries of the U.S.](#), an annual compilation of recreational and commercial fisheries statistics;
 - U.S. Coast Guard, to support vessel safety inspections;

- o [Fisheries One-Stop Shop](#), a single data report summarizing data by species for a NMFS Science and Technology online reporting system;
- o [National Bycatch Report](#) provides bycatch estimates at the fishery and species level;
- o Catch Share and Non-Catch Share Performance Indicators measures fishery landings, revenue, effort, distribution of revenue, and the basic economic performance of non-catch share fisheries.

2021

- Launched three new applications to support comprehensive data management and data analysis services (content, key statistics, and detailed data) for the [Groundfish SAFE Economic Status Report](#), NMFS AFSC's [Bering Sea/Aleutian Islands \(BSAI\) Crab Economic Status Report](#), and its [Economic and Social Science Research Program](#).
- Supplied data management and analytical support for the Coronavirus Aid, Relief, and Economic Security Act fisheries assistance funding process.
- Provided ongoing and extensive data management and analysis assistance to NPFMC staff, including development of an application to support the annual submission of Ecosystem and Socio-economic Profile data that generates a set of standardized products for a focused, succinct, and meaningful communication of potential drivers on a given stock.

STAFF

AKFIN is comprised of seven full-time employees positioned at NPFMC in Anchorage, AK; at Ted Stevens Marine Research Institute in Juneau, AK; at NMFS AFSC in Seattle, WA; and at PSMFC headquarters in Portland, OR. Five employees are subsidized by the AKFIN grant, while the remaining two are funded through NMFS-sponsored projects.

Alaska Fisheries Science Center, Fisheries Monitoring and Analysis

Dave Colpo, Senior Program Manager

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) **Alaska Fisheries Science Center (AFSC) Fisheries Monitoring and Analysis (FMA)** Division oversees the North Pacific Observer Program (Observer Program) that monitors commercial groundfish fishing activities in the U.S. Exclusive Economic Zone off of the coast of Alaska. The Observer Program is one of the largest in the U.S. and annually places over 300 observers on Alaskan fishing vessels. The Program also positions electronic monitoring (EM) systems on a portion of the Alaskan fishing fleet. The information collected by the Observer Program is critical for informing in-season quota monitoring and sustainable groundfish fisheries management. These data are also an integral component of ecosystem investigations, scientific projects, compliance monitoring, and documentation of incidental injury and mortality of marine mammals and birds.

2021

Pacific States Marine Fisheries Commission (PSMFC) personnel assisted Observer Program training staff as they prepared 378 observers for deployment with training classes, briefing sessions, and safety-emphasized water exercises. Ten, three-week training classes were conducted for new observers, along with seven lead-level observer classes, thirty one-day briefings, one one-day focused training, twenty fish identification classes, and five safety and cold water survival trainings. Twenty-one annual briefings were held for returning observers.

PSMFC and Observer Program staff provided oversight to observers during their assignments, both at sea on fishing vessels and while stationed at shoreside processing facilities. Once observers return from their deployments, they participate in a debriefing process to ensure that methods employed are consistent with training, and the data collected are sound. PSMFC employees are an active part of the debriefing team. Throughout

2021, PSMFC, in coordination with the Observer Program, effectively resolved safety or sampling gear issues, tracked gear check-in, monitored gear maintenance, and facilitated procurement of replacement gear.

Due to the ongoing COVID pandemic, most Observer Program activities involving training, observer supervision (in-season advising, mid-cruise briefings) and debriefing interviews continued to be conducted remotely through web conferencing, email, fax, and phone. Training exercises, presentations, post-deployment debriefings, and other vital observer support activities also occurred through these modes. Cold water survival trainings were administered in person. PSMFC staff, attentive to all COVID protocols, aided post-deployment observers on-site with data submittal, collected specimens, and gear return to AFSC. PSMFC's involvement is pivotal to the Observer Program's success.

Providing high quality data in near-real time is an important function of the Observer Program. The large amounts of data collected by observers are transmitted to AFSC either daily (larger vessels) or at the end of each fishing trip and are stored in the AFSC North Pacific (NORPAC) database. Depending on operational needs, these data are accessible for either immediate use or may be subject to additional quality assurance/quality control measures upon the observer's return. NORPAC's functionality requires a suite of IT and database tools maintained by PSMFC and AFSC IT who provide support of existing database and web applications; conduct maintenance and updates; increase data transmission capabilities; and develop new database and web applications as required.

PSMFC analytic support has contributed to the development and evaluation of sampling methods, analysis of sampling results, analytic and statistical consulting, and observer training. Other participatory efforts included the [North Pacific Observer Program Annual Report](#) and the [Annual Deployment Plan for Observers and Electronic Monitoring in the Groundfish and Halibut Fisheries off Alaska](#). PSMFC staff also collaborated with the FMA Division, through NOAA Fisheries outreach efforts, and presented research to the North Pacific Fisheries Management Council.

STAFF

In 2021, four PSMFC positions augmented NMFS Observer Program training, debriefing, and operational staffing. In addition, the Observer Program funds a statistician, a database application developer, a data analyst, and two programmers, all of whom work primarily on Alaska fisheries and observer-related projects. These nine staff members are available to supplement EM, research, or administrative projects when necessary. Two PSMFC employees received 2021 AFSC Team Member of the Year Awards for their service.

Aquatic Nuisance Species Program

Stephen Phillips, Senior Program Manager

Aquatic nuisance (ANS) or aquatic invasive species (AIS) are non-indigenous species that threaten the diversity or abundance of native species; the ecological stability of infested waters; or commercial, agricultural, aquacultural, or recreational activities dependent on a region's waters. These species may occur in inland, estuarine, and marine waters and can endanger ecological processes and natural resources. In addition to adversely affecting U.S. aquatic activities, invasive species can harm individuals and their health. One important criterion that the Pacific States Marine Fisheries Commission (PSMFC) uses to designate a species as a nuisance is whether it is able to damage commercial and recreationally-important fisheries.

2021

RAPID RESPONSE PLANNING

With funding from the Bonneville Power Administration (BPA) and the U.S. Fish and Wildlife Service (USFWS), PSMFC continued to lead efforts for zebra and quagga (dreissenid) [mussel rapid response planning](#) in the Columbia River Basin (CRB). PSMFC's ongoing collaboration with USFWS produced background information for a manual to inform Section 7 consultation with USFWS and the National Marine Fisheries Service (NMFS). This manual delineates the most feasible, rapid response eradication actions for a conceivable dreissenid introduction in the CRB and associated states, assessing the potential impacts on Endangered Species Act (ESA)-listed species and critical habitat (e.g., biocide potash on the threatened bull trout and its imperiled habitat). In addition, PSMFC, in cooperation with NMFS, developed the [CRB Dreissenid Incident Response Toolkit](#).

On September 8-9, 2021, PSMFC, together with 100th Meridian Initiative of the Missouri River Basin AIS Team, conducted a dreissenid-based rapid response exercise at Fort Peck Reservoir, MT in partnership with Montana Fish, Wildlife &

Parks (MFWP). The exercise explored the roles and responsibilities of MFWP, the U.S. Army Corps of Engineers (USACE), USFWS, local Conservation Districts, the Fort Peck Tribes, and all other Montana State or regionally responsible entities.

VULNERABILITY ASSESSMENTS

After the regional Preventing an Invasion meeting in 2013, a Vulnerability Assessment Team was formed by PSMFC. The Team's [annual vulnerability assessments](#) itemize and map all inspected hydropower facility structures and components in contact with raw water, determining the degree to which dreissenid mussels could impair their performance. Understanding these factors in advance of an introduction can best prepare the facility to both prevent and deal with one.

WATERCRAFT INSPECTION AND DECONTAMINATION TRAINING

Resource managers have been broadening the capacity of state law enforcement and marine safety personnel to detect and intercept contaminated watercraft at mandatory inspection stations, the most effective means to prevent the spread of dreissenid mussels. PSMFC continues to update and refine the [regional watercraft inspection station viewer](#) that displays these stations and detections. The PSMFC [Watercraft Inspection Training \(WIT\)](#) program ensures the effectiveness of these inspections, providing vital oversight during station expansion. WIT began in 2006, with USFWS and BPA funding, to train boating law enforcement personnel in the western U.S. on the background, biology, and impact of zebra mussels; methods to identify high risk watercraft and conduct inspection of all watercraft types; the process for performing a vessel decontamination; and the legal authority to stop, detain, and require decontamination of watercraft suspected of harboring zebra mussels. WIT consists of Level 1 (basic training), Level 2 (inspectors and state trainers training), and Level 3 (trainers training). In 2021, trainings were successfully moved to an online format. WIT has conducted 140 WIT training courses in nineteen Western States and Canada for over 5,000 individuals representing 100 different

state, federal, local, and tribal agencies and organizations.

MONITORING

The Water Resources Development Act (WRDA) Watercraft Inspection and Monitoring Program. In 2017, USACE-sponsored WRDA funds were appropriated to support expansion and establishment of watercraft inspection stations to increase monitoring in the CRB, the same year that PSMFC entered into a cooperative agreement with USACE Walla Walla. PSMFC was designated as the non-federal sponsor to represent the four, CRB states of Idaho, Montana, Oregon, and Washington, manage the watercraft inspection stations, and monitor funding. In 2021, PSMFC administered additional appropriations of \$5.632 million for the watercraft inspection station program and \$1.02 million for the monitoring program. Integrated and Sustainable Development for Aquaculture/ Capture, MFWP, the Oregon Department of Fish and Wildlife, Portland State University (PSU), the Washington Department of Fish and Wildlife, and Washington State University share monitoring responsibilities. WRDA augments monitoring conducted by the States.

Zebra Mussels. For the past fifteen years, PSMFC has partnered with PSU in a zebra mussel monitoring program. In 2010, with funding from BPA and PSMFC, PSU expanded its monitoring to include USACE projects in the CRB. Since 2016, the public has benefited from access to these monitoring data through a PSMFC-created [monitoring website](#) that was originally developed in cooperation with the U.S. Geological Survey specifically for the CRB. It contains specifics from Idaho, Montana, Oregon, Washington, Wyoming, Utah, and British Columbia.

Flowering Rush (*Butomus umbellatus*). In 2021, PSMFC commenced a cost-share agreement with USACE, as flowering rush is invasive and displaces native aquatic plants in a variety of habitats. It converts diverse native plant communities into monocultures that provide excellent habitat for non-native, warm water fish. Flowering rush has invaded irrigation canals,

where it blocks flow and requires expensive herbicide and mechanical treatments to maintain the water conveyance system. Extensive studies in Montana have confirmed that flowering rush-dominated littoral zones are the preferred habitat for northern pike, an aggressive, non-native juvenile salmonids predator.

European Green Crab (EGC). For the last seventeen years, PSMFC has supported coastwide, EGC monitoring. The Metlakatla Indian Community in Alaska and Oregon State University's Hatfield Marine Science Center were PSMFC-sponsored monitoring partners in 2021. Data collected by PSMFC-funded researchers have yielded important insight into the abundance and population structure of the green crab in three states. This information is pivotal as resource managers and the commercial shellfish industry develop management options to address the threat posed by this species. PSMFC and its GIS services staff are developing an [EGC database](#) for the West Coast.

COORDINATION

The PSMFC ANS program provides administrative support and staffing to numerous [interjurisdictional efforts](#), including the Columbia and Missouri River Basin 100th Meridian Initiative Teams, the Pacific Ballast Water Group, the Western Regional Panel on Aquatic Nuisance Species, the Western Governors' Association Invasive Mussel Leadership Forum, the Department of Interior Safeguarding the West from Invasive Species initiative, the Quagga-Zebra Mussel Action Plan Committee, and the West Coast Green Crab Technical Group.

OUTREACH AND EDUCATION

As AIS can be carried in bilge water, live wells, and bait buckets, as well as on boat and motor exteriors and trailers, zebra-quagga mussel transfer increases when recreational watercraft are transported overland after use in an infested waterway. PSMFC and cooperating agencies have ANS information and education campaigns that target recreational anglers, boaters, marinas, enforcement personnel, and others. PSMFC's electronic newsletter, [AIS in the News](#), now in its

14th year, continues to inform AIS specialists. With the exception of 2021, PSMFC has attended sport and commercial fishing shows throughout the region (e.g., Boise, Portland, Sacramento, Seattle), exhibiting its booth and distributing information to those in contact with nuisance species for the previous seventeen years.

In 2021, PSMFC launched a new program, [Call Before You Haul](#) that offers a toll-free number for individuals planning to transport watercraft from outside of the Pacific Northwest to the CRB. This program was created to prevent costly and timely delays to boat owners and boat transportation companies. The Program provides accessibility to all Pacific Northwest states regulations: the illegal transportation of AIS (dead or alive) within their respective states; and the potential penalties incurred if violated, inclusive of a no bond felony. In collaboration with Departments of Transportation, the Program is currently being piloted in ten states, with national expansion anticipated in 2022.

WEBSITE

PSMFC completed updating its [Western Aquatic Invasive Species Resource Center website](#) in 2021. The site contains the Pacific Ballast Water Group webpages, as well as information on WIT, Rapid Response, economic impacts of invasive species, particularly zebra and quagga mussels, and an archive of state and federal AIS regulations.

Columbia Basin PIT Tag Information System

John Tenney, Program Manager

The Columbia Basin PIT Tag Information System (PTAGIS) is a coordination and data management project of Pacific States Marine Fisheries Commission (PSMFC). PTAGIS develops software to collect Passive Integrated Transponder (PIT) tag data; manages and provides those data for download and for reporting through the PTAGIS website; and operates and maintains large scale PIT tag detection sites throughout the Columbia Basin. This project is an important prerequisite component of all PIT tag research conducted for the Bonneville Power Administration (BPA) [Columbia Basin Fish & Wildlife Program](#).

In 2021, researchers from twenty-eight organizations submitted data for 1.95 million fish marked with a PIT tag, contributing to an accumulated total of nearly 53 million fish PIT-tagged since 1987. Observation data collection occurs when PIT-tagged fish pass through automated detection systems, called interrogation sites, installed in facilities or streams. In 2021, the 283 interrogation sites delivering data to PTAGIS detected 842,171 unique fish, yielding a cumulative, detected fish total exceeding 19 million. One fish can generate many observation records as it passes through multiple PIT tag antennas at an interrogation site; 10.8 million observations were reported to PTAGIS in 2021, increasing the total number of observations recorded since 1987 to 267 million.

PTAGIS Operations and Maintenance (O&M) staff, headquartered in Kennewick, WA, are responsible for management and maintenance of thirty, large-scale interrogation sites throughout the Columbia Basin, primarily at mainstem dam locations. This involves daily monitoring and regular onsite visits to maintain the detection equipment that provides the majority of the 267 million observation events available in the database. PTAGIS also supports the Separation by Code (SbyC) systems at nine locations, enabling researchers to selectively segregate individual PIT-tagged fish from other tagged and non-tagged fish. O&M personnel also participate in the design, planning, and installation of new interrogation sites and detection technology.

2021

Data Management. PTAGIS processed 820,000 data files with 26 million records inserted into or updated in the database. All data are publicly accessible through the PTAGIS website; this year, 566 users executed 694,000 queries resulting in 13.3 billion rows of returned data.

New Website. A multi-year effort culminated in the launch of a new [PTAGIS website](#) (Figure 1). The website was developed in-house, incorporating leading edge technology for a responsive and platform agnostic design. In addition to new features and numerous enhancements, existing user accounts and personalized reports were successfully migrated to the new website in a seamless transition. Since the June 2021 launch, the site has averaged 1700 unique visitors viewing 17,000 pages per month. A user survey conducted at the end of the year confirmed high levels of satisfaction and provided constructive feedback for further refinement.

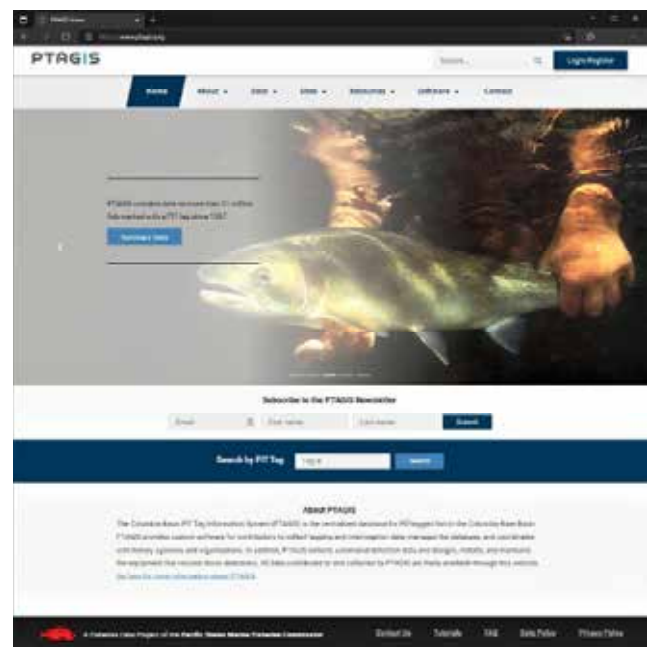


Figure 1. Homepage of the new PTAGIS website.

System-Wide Data Collection Platform Upgrade. The automated data collection systems at 25 remote interrogation sites were upgraded by PTAGIS with new hardware and software. Obsolete computers and networking equipment were replaced with industrial-grade counterparts to ensure the Program's goals for security, availability, and performance. Staff developed new M5 interrogation software that is operating at

these sites, uploading 35,000 files of continuous observation data to the database. Personnel have also replaced poorly performing DSL internet service with less expensive and more reliable microwave and cellular data services.

Staff have completed platform upgrades for the first SbyC interrogation site at the [Lower Monumental Dam Juvenile Fish Passage Facility](#), whose PTAGIS site code is LMJ. Sites utilizing SbyC to divert fish require additional upgrades to the facility control systems. These upgrades allow site personnel to control sample and diversion gates via touch-screen control panels (HMI). The experimental electronic slide diversion gates installed last year at LMJ not only improved overall effectiveness in diverting fish, but also reduced maintenance efforts in comparison to the pneumatically-controlled systems they replaced.

U.S. Army Corps of Engineers site biologists have requested that PTAGIS upgrade slide diversion gates at other sites as soon as possible. During the 2022 juvenile out-migration, LMJ will be the first site in operation, evaluating the complex SbyC features of the new M5 interrogation software.

The upgraded data collection platform and other related systems were integrated into the supervisory control and data acquisition (SCADA) system in support of the real-time monitoring of interrogation sites managed by PTAGIS. The SCADA system has significantly enhanced O&M efforts and reduced travel to sites.

Installation of Interrogation Systems.

Obsolete and unrepairable solid body antennas in the serpentine weirs of the [Washington Shore ladder at Bonneville Dam \(BO4\)](#) were replaced with newly designed, lower cost slot antennas (*Figure 2*) fitted with underwater cable technology recently developed by NOAA. The slot antennas functioned flawlessly this year with detection efficiencies above 99.5%. Staff completed the installation of four antennas at the [Bonneville Dam Cascade Island fish ladder \(BO2\)](#). A relocated electronics room near the counting window is undergoing renovation, and the enhanced BO2 site will be fully operational for the 2022 season. With additional funding from BPA, new detection systems were installed at Lower Granite, Little Goose, and Lower Monumental Dam juvenile fish passage facilities to monitor PIT-tagged fish as they are loaded onto transportation barges.



Figure 2. Installation of a slot antenna in Bonneville Dam Washington Shore serpentine weir (BO4). Image courtesy of Scott Livingston, PSMFC

PTAGIS Software and Systems. Researchers uploaded 19,000 data files this year using [P4 tagging software](#) that was developed and released by PTAGIS over five years ago. As of June 2021, all uploads were submitted through the new [Web Application Programming Interface](#) component of the recently released PTAGIS website. Staff created a series of online video tutorials to assist new users configure and customize this software. An end of year user survey confirmed the necessity to continue support of this interface.

For remote interrogation sites that lack power or internet access for a dedicated data collection computer, PTAGIS released new [I5 interrogation software](#). This allows stewards to directly connect to one or more PIT tag readers at the site (in-person or over satellite/cell communication),

download stored observation data, review and edit the data, and then effortlessly submit it to PTAGIS. The software provides convenient profiles to store each site's configuration and tracks previously submitted data to prevent duplication.

A planned, 2022 community release of [M5 interrogation software](#) will support interrogation sites administered by agencies other than PTAGIS. At the request of researchers, the software can be built to optionally run on Linux-based computers such as the Raspberry Pi to leverage low-power requirements and reduce costs.

In support of program objectives, additional internal software systems were developed and further refined this year:

- **SbyC Configuration Manager** supports SbyC project implementation to push updated configuration to M5 software located at remote interrogation sites.
- **Tag Inventory Manager** tracks inventory and annual distribution exceeding a million PIT tags to various research projects.

- **Patch Manager** patches gaps in observation data typically due to power failures at remote interrogation sites.

- **Transceiver Emulator** emulates fish detection traffic at a large-scale interrogation site in support of M5 regression testing at the Kennewick lab.

Major database updates and extensive data migration were necessary in support of the new website. The database system was enhanced to process the new interrogation file format generated by M5 and I5 interrogation software. The reporting server that provides data to the research community was upgraded to the latest release and installed on a new virtual server.

Impacts from Spill Program. The [2019-2021 Flexible Spill Operation Agreement](#) has produced record-high spills in the last two years resulting in fewer fish passing through juvenile fish bypass facilities and reducing the number of PIT-tag detections at hydro facilities (*Figure 3*, shown in light green). The new spillway detection system that began operating two years ago at Lower Granite Dam has significantly boosted detections (*Figure 3*, shown in orange) as the amount of water spilled has decreased. Researchers have

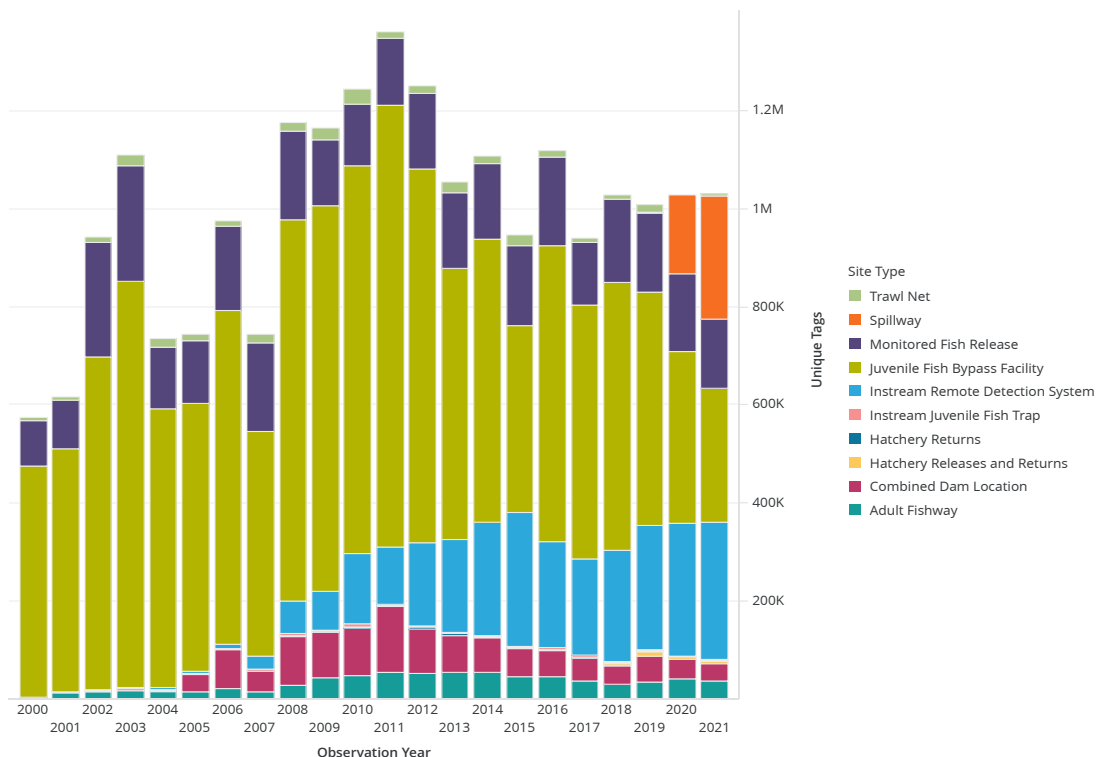


Figure 3. Annual trend of unique tags detected at various types of interrogation sites.

noted that the declining number of detections in juvenile bypass systems is lowering the precision to estimate fish passage elsewhere.¹ PTAGIS staff are working with NOAA and other research agencies to develop additional systems to increase juvenile detections, including the installation of a detection system in the ice and trash sluiceway at the first Bonneville Dam powerhouse as well as other, potential systems at McNary Dam.

Ongoing data management, coordination, and O&M activities:

- Meeting coordination for the [PIT Tag Steering Committee](#) and Instream [PIT Tag Data System \(IPTDS\) Subcommittee](#).
- Maintenance of validation codes used in data entry and reporting systems; metadata and contact information for [interrogation sites](#).
- Technical support of PTAGIS users.
- Publication of [newsletters](#).
- Provide computer-aided design and other expertise in support of new interrogation site projects.
- Year-round, daily monitoring of interrogation systems at large-scale, mainstem dam fish passage facilities.
- Repair of detection system components.
- PIT tag distribution and quality assurance.

This year, the Program's staff continued to work remotely, utilizing online collaboration tools for video conferencing, information exchange, and progress tracking. Multi-year objectives were completed and all contract work elements were delivered on schedule and underbudget. The PTAGIS program continues to be a vital research tool for both the region and the BPA Columbia Basin Fish and Wildlife Program.

¹ Columbia Basin Bulletin, April 15, 2022. [Without New Spillway Detectors Hard to Know if Higher Spill at Columbia/Snake Dams as Benefitting Salmon](#)

Cooperative Ageing Project

Dave Colpo, Senior Program Manager

The **Cooperative Ageing Project** (Ageing Lab/Lab) is a collaborative effort between the National Marine Fisheries Service (NMFS) and the Pacific States Marine Fisheries Commission (PSMFC). It was established to determine the age of groundfish species by processing age structures. The Lab processes age structures collected from NMFS surveys, observer programs, and commercial catch. An age structure is typically a hard part of the fish and can include otoliths (ear stones), fin rays, spines, interopercles, scales, and vertebra. While the Ageing Lab is primarily a production age reading lab of otoliths, rays, and spines, there are annual opportunities to conduct age-related research and to assist in NMFS' at-sea surveys. The age data produced by the Lab directly supports West Coast stock assessments, which require age-specific estimates of biomass, mortality, and population trends to rigorously evaluate the status of a fish stock.

2021

- Production-aged 27,740 (double reading 5,551 of these) age structures from nine different groundfish species.
- Released 27,802 ages from seven species.
- Added 20,823 specimen records from 60 different species collected from Northwest Fisheries Science Center (NWFSC) programs. This archive now contains 637,643 records of age structures collected from 87 species between 1983 and 2021. The structures sources: At-Sea Hake Observer Program, West Coast Groundfish Bottom Trawl Survey, Pot Survey, Acoustic Survey, and Hook and Line Survey.
- Received 17,196 age structures from U.S. West Coast state agencies.
- Otolith weight data collection resumed after being placed on hold in 2020 due to COVID restrictions. The weights of 20,659 otoliths were collected. NWFSC scientists are developing algorithms that use otolith weight as a proxy for age.

STAFF

The Ageing Lab is located in Newport, OR at the NMFS NWFSC Newport Research Station and is comprised of six PSMFC staff: one supervisor and five, full-time age reading specialists.

In 2021, staff attended the virtual Fourier Transform Near Infrared Spectroscopy Workshop.

Economic Fisheries Information Network (EFIN)

Dave Colpo, Senior Program Manager

The **Economic Fisheries Information Network (EFIN)** is a collaborative, West Coast and Alaska data collection effort that addresses the needs of fisheries managers and industry for economic data and information. The Program provides reliable and timely data to assist with monitoring and measuring the economic performance of the harvesting and processing components of West Coast and Alaska fisheries. EFIN is conducted by the Pacific States Marine Fisheries Commission (PSMFC) as part of a cooperative agreement with the National Marine Fisheries Service (NMFS) and with the support of the Pacific and North Pacific Fishery Management Councils (PFMC and NPFMC).

2021

- [2020 Fuel Report](#) An annual summary of collected fuel price data from 2018 to 2020 was prepared and distributed to survey participants and other interested parties.
- [Fuel Price Collection](#) EFIN staff continued collection and maintenance of the West Coast and Alaska monthly fuel price survey through monthly phone and email contact.
- [Tri-State Crab Website Maintenance](#) EFIN archived data from the former website and created a new site for the 2021-2022 season with updated reports from California, Oregon, and Washington.

Fisheries Economics Data Reports (EDRs) Program

Dave Colpo, Senior Program Manager

NMFS designated PSMFC to function as the Independent Third-Party Data Collection Agent for four EDRs: the Alaska Crab EDR, the Gulf of Alaska Trawl EDR, the Amendment 80 Catcher Processor EDR, and the American Fisheries Act Pollock EDR. The data for these four EDRs

are managed in a standardized database that is hosted on PSMFC's Alaska Fisheries Information Network (AKFIN). This database supports metric analysis, and reports and forms are in development to permit researchers access to these data.

ALASKA CRAB RATIONALIZATION EDR COLLECTION PROGRAM

The collected economic data from [Bering Sea/Aleutian Islands \(BSAI\) Crab Rationalization Program](#) (Crab Program) aids NPFMC and NMFS in assessing program success and informs development of amendments to mitigate unintended consequences of management decisions. Specifically, these data are used to examine two aspects of the Crab Program: the distribution of benefits between harvesters and processors within the harvest share/processor share allocations and arbitration system; and the distribution of landings of different harvest share types.

This EDR Collection Program was initiated as past data collection programs lacked adequate information to interpret the economic performance of crab fishermen, to determine how performance altered after rationalization, or to specify the aspects of these changes that are attributable to crab rationalization. NPFMC, in particular, required data that would adequately assess the impact of the Crab Program on affected parties, including harvesters, processors, and communities. The Program not only provides access to the necessary data, but also substantially reduces the types of analytical difficulties that were encountered in the past in attempting to evaluate the effects of the halibut/sablefish Individual Fishing Quota program and the American Fisheries Act (AFA).

When this EDR Collection Program began in 2005, historical economic data had been collected for the years 1998, 2001, and 2004. This archival information allowed for economic comparison of harvesting and processing before and after the BSAI Crab Rationalization Program implementation. In each subsequent year, EDR staff collects data using an annual EDR form to be completed by the catcher vessel, the shoreside processor, and the catcher processor to capture economic data at the conclusion of each calendar year's crab fisheries.

All owners and leaseholders of a vessel or processor that harvested, processed, or had crab harvested and processed for them in any of the BSAI crab fisheries during 2020 were required to submit these mandatory EDR forms. The 2019 EDR forms were collected in June and July 2020 through the project's web portal. All submitted EDRs were collected, tracked, and reported to the Restricted Access Management Program (RAM) for permit and quota issuance. These forms were also reviewed for completeness. The EDR data from the forms were entered into the AKFIN database, archived, and submitted to NMFS for analysis.

AMENDMENT 80 EDR

The final rule implementing [Amendment 80](#) was published in the Federal Register on September 14, 2007. This action allocates several BSAI non-pollock trawl groundfish species among trawl fishery sectors and facilitates the formation of harvesting cooperatives in the non-American Fisheries Act (non-AFA) trawl catcher/processor sector.

Amendment 80's objectives:

- Improvement of retention and utilization of fishery resources by the non-AFA trawl catcher/processor fleet by extending the groundfish retention standard to non-AFA trawl catcher/processor vessels of all lengths.
- Division of fishery resources among BSAI trawl harvesters in consideration of historical and present harvest patterns and future harvest needs.
- Authorization of an allocation of groundfish species to harvesting cooperatives, and establishment of a limited access privilege program for the non-AFA trawl catcher/processors to reduce potential Groundfish Retention Standard compliance costs, to encourage fishing practices with lower discard rates, and to improve the opportunity for increasing the value of harvested species.
- Limitation of the ability of non-AFA trawl catcher/processors to expand their harvesting capacity into other fisheries not managed under a limited access program.

In 2021, the 2020 annual EDRs were mailed to catcher/processors, catcher vessels, and processors. These were collected, tracked, and reported to RAM for permit and quota issuance. After a review for completeness, these data were entered in the AKFIN database, archived, and submitted to NMFS for further analysis.

GULF OF ALASKA (GOA) TRAWL EDR

NMFS' final, December 2014 ruling authorized the [GOA Trawl EDR Program](#) to assess the economic effects of current (and future) fishery management measures for the GOA trawl fisheries. This EDR Collection Program provides NPFMC and NMFS with baseline economic information on harvesters, crew, processors, and communities active in the GOA trawl fisheries, evaluating the impacts of anticipated, future GOA trawl groundfish management measures on stakeholders. In January 2016, a new 50 Code of Federal Regulations 679.110 reporting requirement updated the Amendment 80 Catcher Processor EDR form, incorporating GOA's groundfish trawl fisheries into the EDR Program.

AMENDMENT 91 CHINOOK EDR AFA POLLOCK FISHERY EDR

Following the recommendation of [Amendment 91](#) in April 2009, the Alaska Fisheries Science Center developed "a data collection program for the pollock fleet that would provide the information necessary to evaluate the salmon bycatch program to ensure that it is meeting the Council's (NPFMC) intent." The program's goal is the collection of financial outlay information for vessel operator acquisition of salmon bycatch quota and to assess any fishing modification resulting from the salmon bycatch restrictions.

An additional objective is the evaluation of salmon bycatch avoidance. Large, financial expenditures may impact some vessel operators for purchase of salmon bycatch quota to harvest their pollock allocation, as well as potential travel expenses to fish in areas where salmon are less concentrated.

This data collection effort also examines measures undertaken by vessel captains to avoid salmon bycatch during the fishing seasons.

Beginning in 2011, Amendment 91 established a hard cap of 60,000 Chinook salmon caught per year for Bering Sea pollock, with the additional requirement that annual Chinook bycatch must not exceed 47,591 more than twice in any 7-year period. The bycatch quota is assigned to sectors of the fleet proportional to both the pollock allocation and historic bycatch. The bycatch quota can be allocated by cooperatives to individual vessels and is transferable across the fleet to improve economic efficiency.

The first annual Amendment 91 EDRs were collected in June 2013 for the 2012 calendar year. In 2021, the 2020 data were collected, tracked, and reviewed for completeness. This data collection has a June 1 deadline and is repeated every year for the prior year's fishery.

Electronic Monitoring and Reporting

Dave Colpo, Senior Program Manager

WEST COAST CAMERAS

Pacific States Marine Fisheries Commission (PSMFC) launched the **Electronic Monitoring (EM)** program in 2012 with the objective of proving the efficacy of EM as a data source to document individual accountability of catch and bycatch in the Trawl Rationalization Program (also known as the Trawl Catch Share Program). PSMFC initiated the EM Program in anticipation of the Pacific Fishery Management Council's (PFMC/the Council) plan to use EM as a compliance and monitoring tool in the newly implemented Pacific Coast Groundfish Fishery Management Plan's Trawl Rationalization Program.

Once EM's effectiveness was documented, PFMC approved four Exempted Fishing Permit (EFP) applications for the 2015-2020 fishing years, thereby permitting EM to meet observer requirements on vessels participating in the whiting, fixed gear, non-whiting mid-water trawl, and bottom trawl fisheries. These EFPs allowed recipients to fish, substituting EM for an onboard, human observer to meet compliance and monitoring requirements, with human observer coverage still required on a percentage of fixed gear and bottom trawl fishing trips for scientific sampling. PSMFC personnel reviewed 100% of fishing activities to report Individual Fishing Quota discards. Results from these reviews are compared to fisher-reported logbooks. Should the comparison result in a 10% or higher difference between EM and the logbook, or one source reports discards and the other source does not, the higher of the two numbers is reported to the Vessel Account System and ultimately debited from the vessel's quota.

Results from the 2015 through 2018 whiting and fixed gear EM EFPs led to a regulation recommendation by the Council in 2019, with full regulatory enactment currently delayed until 2024. In the meantime, the Council extended the bottom trawl and non-whiting midwater trawl EM EFPs through 2023, continuing the collection of these data to more effectively inform future regulatory needs. This implementation delay also allows the fishing industry additional time to

develop a funding source for the required video review and storage by PSMFC. The Council and industry members have requested that PSMFC remain the National Marine Fisheries Service (NMFS)-certified, sole-source service provider under the EM regulatory program, asserting that PSMFC's video review costs are notably lower than the proposed, third-party approach used by private sector companies.

NORTH PACIFIC CAMERAS

Fisheries Monitoring. The North Pacific Fishery Management Council (NPFMC) and NMFS have integrated EM into the North Pacific Observer Program (Observer Program). While EM systems typically monitor vessel compliance with fisheries regulations, the goal of the North Pacific fixed gear EM program is to collect data for the estimation of catch and bycatch and subsequent in-season management of fisheries. Under the regulated EM programs, EM data supplements observer data for fisheries management use, primarily for at-sea discard estimates. As a member of the North Pacific EM program, PSMFC advises, reviews video, subcontracts for installation and field support of EM systems on participating vessels, analyzes the data, produces reports detailing monitoring results (i.e. system performance), and develops recommendations for program improvement. PSMFC staff works closely with NMFS partners, the Alaska Fisheries Science Center (AFSC) and Fisheries Monitoring and Analysis, to develop and document data collection protocols, data transfer methods, and database structures. PSMFC also provides support for this program by developing analytical methods and documentation for the estimation of catch and discards from these new data collections.

The Observer Program's Annual Deployment Plan (ADP) for Observers and Electronic Monitoring in the Groundfish and Halibut Fisheries off of Alaska describes deployment strata and rates for the upcoming year, while the North Pacific Observer Program Annual Report evaluates the previous year's deployments relative to that year's ADP. Both reports include information on the distribution of EM systems within the groundfish fisheries along with observer deployments. PSMFC provides a summary of the EM video review results in Chapter 3 of the [North Pacific Observer Program 2021 Annual Report](#). With the integration of EM

into the Observer Program, the NPFMC Fixed Gear Electronic Monitoring Workgroup was reconfigured with a focus to incorporate EM into trawl fisheries and renamed the Trawl Electronic Monitoring Committee. The Committee consists of agency staff, commercial fishing industry representatives, EM service providers, and PSMFC staff.

The efficacy of using EM at sea and observers shoreside for the collection of data from pollock catcher vessels (CVs) in the Eastern Bering Sea and in the Gulf of Alaska is currently under an EFP (2018 - 2023) review. The EFP exempts participating vessels from observer requirements and regulations that prevent maximized retention of catch. Under this review, EM systems record at-sea fishing events for compliance with fishery management objectives for maximized retention and report catch and discard data. Observers working in land-based, fish processing plants monitor salmon bycatch and collect key biological data. Federal regulations that allow the use of EM on trawl CVs fishing pollock are expected to be in place for the 2024 fishing season. Partners involved in this EFP review include: NMFS AFSC, NMFS Alaska Region, EFP permit holders (Alaska Groundfish Data Bank, Inc., Aleutians East Borough, United Catcher Boats), EM providers (Archipelago Marine Research Ltd., Saltwater Inc.), video reviewers (PSMFC, Saltwater Inc.), and an observer provider (Saltwater Inc.).

Research and Development. The PSMFC EM Innovation Project (EMIP) (2021 North Pacific Observer Program Annual Report, Appendix A) develops computer vision algorithms to analyze EM data and researches methods for advancing cost-effective EM capable of automating the capture of species identification, species enumeration, and length and weight measurement data metrics. These data elements are required to estimate both the total amount discarded and the length (size) distribution of the catch, necessary components for fisheries management and stock assessments. This project is a collaborative effort among PSMFC, the Observer Program, the University of Washington Electronic and Computer Engineering Department, and FishNext Research.

In 2021, the EMIP advanced the automated analysis algorithms and hardware systems across three, specific applications: (1) systems for automated analysis of video data to identify, count, and measure fish coming on board the vessel (over the rail) in multispecies hook-and-line fisheries; (2) systems for species identification of discards from trawl fisheries; and (3) systems for automated monitoring to validate compliance of shoreside processing plants with salmon bycatch reporting requirements. As this technology is transferable, and the machine learning algorithms can be retrained for new image data streams, these EM advances have the potential to benefit other EM programs in addition to the operational program in Alaska. The EMIP team responds to queries from other regions on collection and analysis methods.

WEST COAST LOGBOOKS

A system for remote data entry of paper logbooks is used by PSMFC groundfish port samplers to electronically capture groundfish trawl logbooks for California vessels. This system is also used by the EM group at PSMFC headquarters in Portland, OR for vessels using EM in California, Oregon, and Washington; data entry typically occurs within a week of receipt. Both data repositories are linked to ensure no record duplication. EM logbook data are compared to EM video review-generated data as detailed in West Coast Cameras above.

WEST COAST ELECTRONIC FISH TICKETS (E-TIX)

Fish tickets are used to document landings by commercial vessels. Previously, California, Oregon, and Washington collected paper fish tickets from fish buyers receiving these landings. Starting in 2008, PSMFC developed and currently maintains an electronic fish ticket system (E-Tix) that replaced paper tickets for all twenty-seven West Coast fish ticket types. Regulations for mandatory reporting of all landings in the PSMFC E-Tix system have been in effect since July 1, 2019.

Fish Habitat Program

Fran Recht, Program Manager

The **Pacific States Marine Fisheries Commission (PSMFC) Fish Habitat Program** protects and restores fresh, estuarine, and marine habitats that sustain salmon and other numerous fish species of commercial, recreational, and ecosystem importance.

The Habitat Program supports the efforts of multi-stakeholder organizations involved in cooperative, non-regulatory programs and projects to further habitat conservation and restoration actions, science, and policies. In 2021, the Habitat Program received funding from the Wallop-Breaux Sport Fish Restoration program managed by the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA) inter-jurisdictional funds, and the Ocean Protection Council for Whale Entanglement work.

2021

PACIFIC MARINE ESTUARINE FISH HABITAT PARTNERSHIP (PMEP)

PSMFC supports [PMEP](#), one of twenty National Fish Habitat Partnerships that advances scientific information about estuaries, tidal marshes and swamps, eelgrass, and fish, informing both restoration and conservation projects.

PSMFC Fish Habitat Program staff actively serve on PMEP'S steering, communication, and governance committees. Fish Habitat Program staff participated in PMEP's project review process that funded five, West Coast estuary and nearshore restoration projects: designed fish passage to reconnect a tidal system cut-off by a railroad; restored Puget Sound nearshore habitat by removing thousands of feet of shoreline; armored and replanted shoreline riparian areas; and restored 45 acres of sea grass meadow. PSMFC also drafted a practitioner guide to tidal swamp restoration (*Figure 3*), with the guide's completion anticipated in fall 2022. Other PSMFC staff contribute Geographic Information System expertise and fiscal services to PMEP.

WATERSHED RESTORATION PROJECTS

The Fish Habitat Program staff assisted the following restoration partnerships.

- **Oregon Central Coast Estuaries Collaborative** planned work for estuary-focused restoration and prepared a proposal that will award \$6 million over six years.
- **MidCoast Watersheds Council and the Salmon Drift Creek Watershed Council** coordinated the implementation and completion of four, high priority instream restoration projects: vital planting in sixteen riparian zone acres; design of a large tidal restoration project; installation of a large culvert to allow salmon and lamprey access to previously blocked critical habitat; eight miles of erosion control above an essential salmon creek, a city's drinking water source; and increasing fish habitat complexity by placing over 500 pieces of large wood in stream and tidal wetland areas for fish cover.
- **Alsea Stewardship Group**, a multi-party alliance that functions in conjunction with the U.S. Forest Service (USFS), reviewed and recommended priority restoration projects on USFS land that included road decommissioning for erosion control and large wood placement projects. The Group also completed priority habitat restoration projects, including eight private land projects to restore tidal marsh, replant riparian areas, reduce sediment, and control invasive plants. The Stewardship Group also participated in a new endeavor, the Oregon Central Coast Forest Collaborative, that works proactively to set "zones of agreement" on treating and decommissioning roads.



Figure 3. Pacific Northwest tidal swamp habitat. Only 20% of these vital salmon rearing areas remain. Image courtesy of Fran Recht, PSMFC

- The important contributions of beavers continues to be promoted through policy work and education in support of the NMFS Coho Recovery Plan that identified the lack of calm winter rearing areas as a limiting factor for Coho juvenile fish. In addition to creating overwintering habitat, beaver ponds can hold and store an abundance of water in the landscape to help mitigate stream drought conditions. PSMFC commissioned two short videos regarding the benefits of "[Living with Beaver](#)."

Vandenberg wind project; limiting effects on fish habitat with the re-opening of the Cow Cod Conservation Area and Rockfish Conservation Area; aquaculture opportunity areas in Southern California; and NOAA's antidegradation policy.

WHALE ENTANGLEMENT

In 2021, the Fish Habitat Program staff managed three, multi-year grants funded by the California Ocean Protection Council (OPC) to improve the science and models for risk reduction of whale and sea turtle entanglement in California fishing gear. These projects inform the [California's Department of Fish & Wildlife's \(CDFW\) Risk Assessment and Mitigation Program](#).

- **Cascadia Research Collective.** Proposal to Conduct Entanglement Science Research and to Inform Risk Assessments for Large Whale Entanglements off of California.
- **Farallon Institute.** Near-Real Time Ecosystem Data for Risk Assessment and Mitigation of Whale Entanglements in California's Dungeness Crab Fishery.
- **Upwell Turtle.** Monitoring Leatherback Turtle Distribution and Migration to Reduce Entanglement Risk in the California Current.

Fish Habitat Program staff also serve as technical advisers for the California Dungeness Crab Fishing Gear Working Group and the California Gear Innovations Project Team, a collaboration between OPC, the National Marine Sanctuary Foundation, and CDFW.

PACIFIC FISHERY MANAGEMENT COUNCIL (PFMC)

Program staff advise PFMC's Habitat Committee on policies and actions affecting the fish habitat of managed species: Coastal Pelagic Species Essential Fish Habitat; Klamath dam removal progress; oil rig decommissioning; offshore wind energy proposals in Grays Harbor, WA, Oregon call areas, Morro Bay, Humboldt Bay, and the

Fisheries Support Projects in California, Idaho, and Washington

Stan Allen, Senior Program Manager
Lara Erikson, Program Manager
Nancy Leonard, Program Manager
Braden Butters, Program Manager

CALIFORNIA PROJECTS

The **California Ocean Salmon Program** benefits from Pacific States Marine Fisheries Commission's (PSMFC) ongoing placement of fisheries technicians at various coastal ports who obtain samples from commercial salmon fisheries, collect biological data and coded wire tag (CWT) information, and perform lab work. Collected data are incorporated into management decisions, including setting season dates for salmon fisheries coastwide.

PSMFC, together with the California Department of Fish and Wildlife (CDFW), determines the **Age Composition of Central Valley Chinook Salmon Populations** by participating in the field collection of scales in Chinook escapement surveys, conducting scale analysis, and using the aging data, along with CWT recovery data, to reconstruct the abundance of each returning brood year.

The **California Passage Assessment Database** documents anadromous fish passage at sites in all California watersheds. This multi-agency, cooperative effort has improved information on known and suspected fish passage issues and ultimately, the correction of those identified issues through prioritized restoration projects and funding.

The **California Cooperative Fish and Aquatic Habitat Data Program** ([CalFish](#)) is a multi-agency, cooperative fisheries information site designed to gather, maintain, and disseminate fish and aquatic habitat data. It offers access to a growing number of fish and aquatic habitat data sets through both geographical and tabular queries. Many of the following projects contribute data and information to the CalFish site.

With funding provided by the California Department of Water Resources, PSMFC staff advanced the **Feather River Monitoring** project by completing salmon and steelhead data collection and analysis for the Feather River and Central Valley, assisting also with sturgeon monitoring.

PSMFC fisheries staff on the **Upper Sacramento Technical Assistance** project continue to manage video monitoring stations and fish traps, conduct salmon carcass surveys, perform habitat assessment, and collect biological data for CDFW and the Bureau of Reclamation.

PSMFC supplied technical guidance and field staff for the **Coastal Restoration Monitoring and Evaluation** project. Personnel monitored pending and completed coastal watershed restoration projects in California, collected habitat information, and compiled data. Managers use this information to assess the success of restoration activities.

PSMFC retained fisheries technicians in Mendocino County for a project designed to develop, test, and implement the sampling scheme and field surveys described in the **California Coastal Salmonid Monitoring Plan**.

In the **San Joaquin River Basin**, PSMFC staff collected and managed data on water temperature, Chinook salmon carcass surveys, spawning activity of Merced River Hatchery fall-run Chinook salmon, and CWT releases and recoveries.

PSMFC concluded another year of the **Central Valley Constant Fractional Marking Program**. The Program is responsible for annually marking and tagging a minimum of 25% of the fall Chinook salmon production and fin clipping 100% of the steelhead production in the Central Valley hatcheries.

At the **Coleman National Fish Hatchery**, PSMFC provided the U.S. Fish and Wildlife Service (USFWS) with seasonal personnel and services to mark and CWT juvenile winter-run and late-fall Chinook salmon and steelhead.

PSMFC supported the **Constant Fractional Marking at Iron Gate and Trinity River Hatcheries** with staff and equipment to clip and tag 25% of all Chinook salmon released from these facilities.

PSMFC conducted **Yuba River Monitoring** in cooperation with the Yuba County Water Agency, CDFW, and other partners to implement field studies, monitoring, and other projects on the Lower Yuba River including rotary screw traps, escapement surveys, and the operation of the Vaki Riverwatcher installation. PSMFC also collaborated with the U.S. Army Corps of Engineers to survey, monitor, and map Yuba River redds to evaluate the success of their gravel augmentation program.

PSMFC staff assisted the **USFWS Comprehensive Assessment and Monitoring Program** with statistical analysis and database development to support California Central Valley monitoring efforts.

Monitoring studies for **South Fork Eel River Coho** were administered by PSMFC personnel who also managed and maintained the Eel River Dual Frequency Identification Sonar (DIDSON) Monitoring Stations.

PSMFC facilitated the installation of DIDSON Monitoring Stations on Southern California streams and contributed to field implementation of the **South Coast Steelhead Monitoring Plan**.

PSMFC aided USFWS and CDFW by collecting data, monitoring, and reporting on **Salmon Redd Dewatering** on the upper mainstem of the Sacramento River.

PSMFC employees conducted monitoring for the **Lower Eel and Van Duzen Rivers Salmonid Spatial Structure Project for Coho Salmon**.

PSMFC personnel assessed the abundance and production of juvenile Chinook salmon and steelhead on the American and Stanislaus Rivers for the **USFWS Rotary Screw Trap Assistance and Monitoring Program**.

PSMFC provided staff and technical expertise for **Salmonid Habitat Enhancement and Monitoring** that supports Trout Unlimited, The Nature Conservancy, and CDFW in the Pudding and Caspar Creeks.

PSMFC is collaborating with USFWS, the National Marine Fisheries Service (NMFS), and Basin partners to develop an **Integrated Fisheries Restoration and Monitoring Plan for the Klamath Basin**. This plan involves identification of habitat restoration actions necessary for the recovery of eight focal species in the Klamath that includes salmon, steelhead, sturgeon, trout, and lamprey. Through the administration of a grant program funded by the National Fish and Wildlife Foundation, PSMFC encouraged participation by local watershed council personnel in the Klamath planning process.

PSMFC, in partnership with USFWS, is developing and populating the California Central Valley Adult Salmon Escapement Database for watersheds that include the American River, Clear Creek, the Sacramento River mainstem, and the Stanislaus River. In addition to several analytical tools that help automate data analyses and reporting, PSMFC also provides software tools to ensure that stored data are complete and accurate.

PSMFC provided staff and technical expertise for the **Central Valley Steelhead Monitoring Program** that supports CDFW efforts in both Sacramento and Redding.

IDAHO PROJECTS

PSMFC personnel assisted the Idaho Department of Fish and Game (IDFG) Nampa Research Lab with fisheries research, field activities, and data management needs.

All objectives of the **Idaho Marking and Tagging** plan developed by the IDFG Research Division were successfully met by PSMFC employees. Over 18 million salmon and steelhead were marked and/or tagged.

PSMFC administers and maintains all technical aspects of hatchery production and research data through the PSMFC-developed **Fish Inventory System (FINS)**. All collected data, from adult trapping to juvenile release, are submitted by federal, tribal, and state agencies. The majority pertains to hatchery programs in the Snake River Basin, supporting both USFWS assessments of the Lower Snake River Fish and Wildlife Compensation Plan mitigation obligations and

Idaho Power Company's implementation of the 1980 Hells Canyon Settlement Agreement. FINS also sustains fisheries management, reporting requirements, and overall hatchery operations while providing operational recovery and a centralized, uniform database for necessary, structured data storage.

PSMFC personnel assisted IDFG with fisheries management and research activities in the IDFG Natural Production Section, the Fisheries Management Section, and the Eagle Fish Genetics Lab.

WASHINGTON PROJECTS

PSMFC provided personnel as well as technical and administrative support for the following projects:

- **Lower Columbia River CWT Recovery and Population Monitoring and Analysis.** This project involves sampling recreational, commercial, and tribal fisheries for salmon and steelhead. Recovered tags are read, decoded, and the information is added to the Regional Mark Information System database for use by fish management agencies and organizations for science-based decisions regarding populations of salmon and steelhead in the region.
- **Evaluate Spawning of Fall Chinook and Chum Salmon Just Below the Four Lowermost Mainstem Dams**
 - Washington Department of Fish and Wildlife's **Chum Salmon Restoration in the Tributaries Below Bonneville Dam**
 - Collection of **Lower Columbia River Genetic Stock Identification** samples for the Columbia River Inter-Tribal Fish Commission
 - USFWS management of hatchery data used for monitoring and evaluating hatchery efforts and meeting program goals

ADDITIONAL PSMFC PROJECTS

PSMFC contributed expert technical assistance to develop monitoring and evaluation strategies to support implementation of the **NMFS Salmon Recovery Plan**.

PSMFC supplied data stewardship and technical services for the NMFS Habitat Restoration Project Tracking Database and the Salmon Population Summary Database.

Funded by the Bonneville Power Administration, PSMFC manages the **Fish Data Product** project that supports development and updates of the Northwest Power and Conservation Council (NPCC) Columbia River Basin Fish and Wildlife Program Tracker tool. The Tracker is housed on NPCC's website and depicts the status of fish populations and progress toward Program objectives and indicators.

PSMFC provided administrative assistance to NMFS and project partners for San Francisco Bay Habitat Improvement, the Southeast Alaska Fish Habitat Partnership, Washington Veterans Corps Assistance, Hosting Shorezone, Bar-Built Estuaries Guidance, the Pacific Marine and Estuarine Fish Habitat Partnership (PMEP) Spatial Data Project, Assessing Eel Grass in Morro Bay, and Monitoring Small Dam Removal in Southern California.

PSMFC staff, in cooperation with NMFS, are implementing **Hatchery and Genetic Management Plans** for fish propagation programs in Washington's Puget Sound and in California's Mokelumne River. Subcontracts with the Northwest Indian Fisheries Commission and a private consultant are advancing Plan development for continuing operation of these propagation facilities.

PSMFC assigned administrative, coordination, and technical support to PMEP, the California Fish Passage Forum Fish Habitat Partnership, and the Pacific Lamprey Fish Habitat Partnership. Additionally, PSMFC assists with the National Fish Habitat Partnership and the twenty Fish Habitat Partnerships.

Fishery Disaster Program

Brian Bissell, Project Manager

The [Fishery Disaster Program](#) is responsible for administering and allocating federal disaster relief to fishing communities and businesses affected by fishery failures originating from natural, undetermined, or, in certain circumstances, man-made causes. Pacific States Marine Fisheries Commission (PSMFC) collaborates with affected parties and the National Marine Fisheries Service to financially support the fisheries in addition to implementing preventative measures to avoid similar failures in the future. Activities include habitat restoration, research, buybacks, job retraining, fishery-related infrastructure improvements as well as direct payments to fishers and businesses. In 2021, PSMFC distributed \$8.2M in relief for fisheries disasters.

The Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted by the U.S. Congress in March 2020 in response to the COVID-19 pandemic. Provisions of the CARES Act supplied fisheries assistance to states, territories, and tribes that had been severely impacted by the pandemic. A subsequent bill, the Consolidated Appropriations Act, 2021, provided additional financial assistance. Direct payments for lost revenues and funding for projects that mitigated cultural, ceremonial, and subsistence impacts due to the pandemic were disbursed to coastal member states, Hawaii, the Pacific Island territories of Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (CNMI), and numerous West Coast and Alaskan tribes. In 2021, PSMFC distributed \$117M in CARES act funding.

2021 Federal awards issued to PSMFC:

- Alaska Chignik Sockeye Salmon Fishery Disaster
 - o 2018 Alaska Sockeye Salmon Fishery
- Gulf of Alaska Pacific Cod Fishery Disaster

- o 2018 Gulf of Alaska Pacific Cod
- Fishery Disaster Relief for West Coast and Tribal Fisheries
 - o 2016-17 California Red Sea Urchin
 - o 2017-19 California Pacific Sardine
 - o 2018 Klamath River Fall Chinook
- Consolidated Appropriations Act, 2021 (the “Act”) CARES Act (Round 2)

Seven previously issued federal awards continued to be administered throughout 2021.

- Fishery Disaster Relief Programs for Tribal Fisheries
 - o 2014 Fraser River Sockeye Salmon
 - o 2015 South Puget Sound Salmon
 - o 2015 Washington Coastal Salmon
 - o 2015 Washington Crab
 - o 2016 Klamath River Fall Chinook
- Fishery Disaster Relief Program for Washington Salmon (Non-Tribal) and California Crab
 - o 2015 Washington Coastal Salmon
 - o 2015-16 California Crab
 - o 2016 Washington Ocean Salmon Troll
- 2016 Gulf of Alaska Pink Salmon Disaster
- 2016 Gulf of Alaska Pink Salmon Disaster – Municipalities and Boroughs
- Fishery Disaster Relief Program for West Coast and Tribal Fisheries
 - o 2013 Fraser River Sockeye
 - o 2015 Washington Coastal Coho and Pink Salmon Tribal
 - o 2015-16 California Pacific Sardine
 - o 2016 Coastal Tribal Coho Salmon

- o 2016 Ocean Troll Tribal Coho and Chinook
 - o 2016-17 Klamath River Fall Chinook
- CARES Act for States and Territories (Round 1)
- CARES Act for West Coast Tribal Fishery Participants

Individual Fishing Quota Trawl Rationalization Catch Monitor Program

Dave Colpo, Senior Program Manager

The **Individual Fishing Quota (IFQ) Catch Monitor Program (CMP)** provides accurate, timely, and independent third-party verification of catch landed in the IFQ fishery. Catch Monitors (CMs) conduct dockside monitoring at first receiver locations. First receivers are companies or individuals who receive IFQ catch onshore directly from a vessel. CMs are present during offloads to ensure that the catch is accurately sorted, weighed, and recorded by first receivers. CMP was launched in 2008 to monitor the Pacific whiting fishery and later expanded to include all IFQ landings with the implementation of the IFQ program in January 2011.

CMP data are used by the National Marine Fisheries Service (NMFS) to verify that IFQ groundfish species, particularly overfished species, as well as additional species such as Chinook salmon and Pacific halibut, are adequately monitored and accounted for in IFQ landings. This catch verification system maintains the integrity of vessel quotas used to manage groundfish species and trip limits.

2021

Throughout the calendar year, CMP staff conducted annual briefings for eight returning CMs and preseason Pacific whiting fishery briefings for the 51 CMs likely to work in ports where Pacific whiting is received. Each briefing included a review session and a discussion of any applicable changes to federal regulations and CMP protocols.

Four training sessions were administered by CMP staff, certifying 25 new CMs who were also trained as at sea observers as well as one additional CM that was trained at the request of CM providers. CMs that are not certified as at sea observers work solely on shore and monitor deliveries primarily from vessels with Electronic

Monitoring Systems. There was a total of 80 certified CMs in 2021.

CMP staff completed 48 debriefings for active CMs and for those leaving the program. Debriefings for the remaining CMs, active in 2021, were completed outside of the calendar year. Debriefings confirm that CMP protocols are followed and facilitate the resolution of any residual data quality concerns, regulatory compliance issues, or challenges at first receiver locations that may not have been previously addressed in-season.

CMP staff reviewed catch monitoring (CM) plans for 43 IFQ first receivers situated between Bellingham, WA and Morro Bay, CA. Site visits were conducted in person for 15 first receivers, and virtual site visits were completed with two new applicants. During these site visits, CMP staff worked collaboratively with fish buyers to ensure compliance with federal regulations, emphasizing the need for offload and safety procedures to be clearly outlined in their CM plans. Once all requirements are fulfilled, CM plans are approved by NMFS personnel who then issue annual IFQ First Receiver Site Licenses.

CMP staff reviews CM and first receiver data as it enters the data system, searching for any anomalies between the data sets. Staff coordinates with the CMs, first receivers, and NMFS to resolve data issues as immediately and efficiently as possible.

STAFF

IFQ CMP staff is comprised of two, full-time Pacific States Marine Fisheries Commission employees who work solely on this program.

Northern Pikeminnow Sport-Reward Program

Chris Wheaton, Senior Program Manager

The **Northern Pikeminnow Sport-Reward Program** is a joint effort among the state fishery agencies of Oregon and Washington, the Bonneville Power Administration (BPA), and the Pacific States Marine Fisheries Commission (PSMFC). The 2021 season marked the 31st consecutive year of this program.

The Oregon Department of Fish & Wildlife (ODFW) provides fish tagging services, population studies, food, habit, and reproductive studies, as well as exploitation rate estimates. The Washington Department of Fish & Wildlife (WDFW) operates the sport-reward registration/check-in stations throughout portions of the Columbia and Snake Rivers and handles all fish (*Figure 4*) submitted by anglers. BPA contributes funding, with PSMFC administering fiscal and contractual oversight. PSMFC also processes angler vouchers and manages the [Northern Pikeminnow Sport-Reward Program](#) website featuring weekly updates of top-20-angler catch and payment numbers.

2021

The 2021 season could be characterized as a below average harvest year. It commenced early on April 19 to compensate for fishing days lost in 2020. In an effort to boost exploitation rates and angler participation adversely affected by the ongoing pandemic, the season was extended through October 17.

- 89,542 fish were harvested. PSMFC received vouchers for 88,719 fish and disbursed \$699,867 to anglers. Rewards were paid at \$5 for each of the first 25 fish caught; \$6 for each fish caught in the 26-200 number range; and \$8 for each fish caught above 200 fish.
- 75 tagged fish were caught, with 74 submitted for a \$500 payment. Following verification by ODFW, PSMFC processed a total of \$37,000 in reward payments. In addition, anglers received a \$100 bonus reward for each of 96 tagged fish that had shed its external tag prior to capture for a bonus total of \$9,600.

- 645 registered anglers were issued pay vouchers for successfully catching one or more fish. The top Pikeminnow angler landed 7,185 fish and was compensated \$61,409.

Systemwide exploitation of Northern Pikeminnow during the season was 12.9% (± 5.2 ; 95% confidence interval). This marks the 24th consecutive year that the target of 10- 20% exploitation rate was achieved. Using a model based on Friesen and Ward (1999), it is estimated that 2022 predation levels will be 31% (range: 10–44%) lower than pre-program levels.

The ODFW and WDFW Public Information staff continued their Northern Pikeminnow educational outreach efforts. In addition to news releases and brochures, ads were featured on NBC Sports Northwest's program, Outdoor GPS LIVE, and on Northwestern Outdoors Radio. ODFW and WDFW also staffed an exhibitor's booth at the annual Outdoor GPS Day at the Park.



Figure 4. Image courtesy of PSMFC

Expanded use of print advertising media and ongoing participation in numerous outdoor trade shows throughout the Northwest contributed to angler involvement in the reward program this season. As in previous years, the Northern Pikeminnow Sport-Reward Program purchased promotional space in the annual ODFW and WDFW sport fishing regulations pamphlets to further encourage angler involvement.

Pacific Fisheries Information Network

*Dave Colpo, Senior Program Manager
Robert Ryznar, Program Manager*

The **Pacific Fisheries Information Network (PacFIN)** issues timely and accurate data essential for effective fisheries management. The nation's first regional fisheries data network, PacFIN is a joint federal and state data collection and information management project. It is funded by a grant from the National Marine Fisheries Service (NMFS). Cooperative agency and industry partners provide data from commercial fisheries off the coasts of California, Oregon, Washington, and British Columbia. These statistics are repositied in the PacFIN central database that includes fish ticket (FT) and vessel registration data from the three state fisheries agencies, and species composition and catch-by-area proportions from sampling efforts and trawl logbook data systems. NMFS supplies the central database with limited entry permit data from its West Coast Region (WCR) sustainable fisheries office and daily summaries for the West Coast at sea fishery acquired from tow-by-tow observations collected by the West Coast Groundfish Observer Program. PacFIN combines the amassed information to dispense precise estimates of commercial catch and value for the West Coast. This regional data source allows state and federal fisheries agencies to manage regional fisheries and fishery resources more efficiently, while also facilitating research by industry, non-governmental organizations, and universities.

2021

PacFIN updated the central database with state and federal source data and responded to various requests for information. PacFIN reports were maintained on the Pacific States Marine Fisheries Commission (PSMFC) and PacFIN websites.

PacFIN User Support. PacFIN staff worked with clients to establish new accounts, granted table access, and assisted with data retrievals from

the PacFIN server. These personalized accounts allow authorized users access to web-based query tools.

Database Development. A reorganization of the Groundfish Trawl Logbook data subsystem was implemented, with plans to automate data source acquisition in the new database environment and to create a new comprehensive trawl logbook table for confidential data users in 2022.

Highly Migratory Species (HMS) Data Collection and Reporting. In collaboration with NMFS WCR and the Southwest Fisheries Science Center (SWFSC), PacFIN continued various efforts to modernize data structures and improve data collections and reporting systems for the HMS observer, the HMS logbook, and the HMS sampling databases. These databases contain data from multiple HMS fisheries: albacore troll, large-mesh drift gillnet, deep-set buoy, recreational, harpoon, and hook and line.

Apex Reporting System (Apex). Apex has expanded both public and confidential password-protected website reports for multiple applications: federal Office of Law Enforcement vessel and port summary landings; regional fishery management organizations' active vessel and permit monitoring reports; HMS landings, permits, and logbook compliance reports; Coastal Pelagic Species landings data; economic and social sciences reports derived from the U.S. Census Bureau's American Communities Survey; Individual Fishing Quota Subsector Reports; and PacFIN public summary reports.

PacFIN Querybuilder Application. PacFIN's web-based QueryBuilder application, developed in Apex, allows users with confidential access to create customized queries from three comprehensive datasets: state FT landings data, federal at sea whiting fishery landings data, and state biological sample data. The results are readily downloaded, saved, and edited. Enhancements are ongoing.

PacFIN Answers Tool. Oracle business intelligence software, Oracle Answers, enables query development in the PacFIN database. Diverse, user-specific queries and customized user dashboards were built to generate specialized reports and datasets on demand.

Groundfish Management Team (GMT)

Scorecards. The use of Apex software has continuously advanced the Pacific Fishery Management Council (PFMC) Fisheries Management Plan (FMP) Groundfish Species Inseason Management Scorecard report. The Scorecard was developed to provide the "best estimate" of total mortality of groundfish species and stock complexes for all West Coast (marine) commercial, tribal, and recreational fisheries within the management jurisdiction of PFMC. The estimates contain the most recent data available to PacFIN and the Recreational Fisheries Information Network (RecFIN) for in-season tracking. Currently, there are two versions of the scorecard: a confidential version for the GMT, and a non-confidential version for public use.

Pacific Coast Groundfish Harvest Specifications and Management Measures Database (SPEX). SPEX was developed by PacFIN for PFMC GMT and is instrumental as the data source for future planning. GMT members enter data into the system to generate a suite of alternatives, producing final groundfish harvest specifications and management measures. Public reports of updated SPEX data are accessible through the PacFIN Reporting Portal.

PACFIN WORKGROUPS

- HMS
 - o To support Apex report development
 - o Logbook and observer database redevelopment
 - o Other varied and cooperative efforts
- GMT
 - o Planning and implementation of in-season reporting protocols
 - o Scorecard applications
 - o SPEX application development.
- PacFIN Data Management Coordination: data collection, delivery, and operational validation between PacFIN and all data sources

REPORT FROM GROUNDFISH CATCH MONITORING AND DATA SYSTEMS IN CALIFORNIA

This program monitors California commercial groundfish data. Fisheries technicians sample commercial groundfish landings to determine species compositions of landings and collect biological data on size, sex, and reproductive condition of landed species. These data are entered into a statewide, groundfish sampling program database. Technicians also input groundfish trawl log information into the PSMFC eLogbook system. Data analysts and managers generate monthly and annual estimates of species, age, length, and sex composition from the statewide groundfish sampling program and submit these data to PacFIN. Considerable effort is expended to satisfy and ensure in season and between-season Groundfish FMP measures.

MEETING AND SEMINARS

The PacFIN Annual Meeting, hosted by PSMFC, was conducted online for the second consecutive year. The two-day format, held October 27-28, welcomed an expanded participation group that selectively attended specific sessions.

Internal PacFIN meetings continued weekly. Web conferencing workgroups with PacFIN partners were held as required. Various conferences, trainings, and collaborative meetings across agencies were attended by PacFIN personnel.

Recreational Fisheries Information Network

Chris Wheaton, Senior Program Manager

The **Recreational Fisheries Information Network/Program (RecFIN)** program supports the collection, integration, management, and reporting of marine recreational fisheries data and information for the West Coast. Pacific States Marine Fisheries Commission (PSMFC) [RecFIN](#) staff work collaboratively with the California Department of Fish and Wildlife (CDFW), the Oregon Department of Fish and Wildlife (ODFW), the Washington Department of Fish and Wildlife (WDFW), the National Marine Fisheries Service (NMFS), and the Pacific Fishery Management Council to provide important recreational catch/effort estimates and biological sample data for effective fisheries statistics and analysis and state and federal management. The RecFIN program is funded by NMFS. Funds are used for internal database management at PSMFC and distributed through PSMFC to its member states for data collection and processing.

RecFIN performs a critical role in recreational fisheries data management and functions as an intermediary network for regional fisheries management. Disparate data sets from California, Oregon, and Washington recreational sampling programs are consolidated and integrated into a single, comprehensive data management system that serves as the repository for Pacific Coast marine recreational fishery data. RecFIN contains collected program data from 1967 through the present: the California Recreational Fisheries Survey, the Oregon At-Sea Recreational Groundfish Sampling Program, the Oregon Ocean Recreational Boat Survey, the Oregon Shore and Estuary Boat Survey (currently inactive due to insufficient funding), the Washington Ocean Sampling Program (OSP), and the Washington Puget Sound Sampling Program (PSSP). Additionally, RecFIN produces value-added analyses and interpretation and provides accessible, online reporting tools for fishery managers, analysts, stock assessors, economists, researchers, and the public.

2021

In 2021, California, Oregon, and Washington sampling program personnel intercepted more than 317,000 anglers and examined over 848,000 individual specimens. Approximately 103,000 biological samples were collected coastwide. Estimates of total catch revealed that over 6.9 million individual fish and invertebrates from 181 different species were retained by anglers.

PSMFC staff continue to improve and develop the RecFIN database and the online reporting system. With the cooperation of state and federal partners, several new reports, tools, and metadata products were added to the RecFIN APEX reporting system, and a number of new data sources were integrated into the existing database structure.

- **Data Input/Output.** New data submittals from CDFW, ODFW, WDFW, and the Sportfishing Association of California. These data feeds have been updated in the RecFIN database tables and in the APEX reporting system.
- **User Support.** RecFIN support personnel established user accounts, granted table access, and assisted with data retrievals from the RecFIN database. Personalized accounts allow authorized users access to confidential data using web-based query tools.
- **QueryBuilder v2 Application.** Advancement of this dynamic, web-based, Oracle APEX built version 2 QueryBuilder application enables users to generate and save customized queries of the comprehensive database tables within RecFIN. Development has been guided by data user requests to create more advanced features, improving functionality and usability. Data users have access to marine recreational catch and effort estimates, interview-level sampling data, biological data (e.g., length, weight), and associated ageing data.
- **WDFW - OSP and PSSP Web Application Programming Interface (API) Data Transfer Upgrades.** Development of an automated web API by RecFIN and WDFW staff has modernized marine recreational fisheries data transfer

procedures from the OSP and PSSP databases. API data upload protocols automate data transfer procedures from these data streams to RecFIN, eliminating manual data processing steps and decreasing staff workload. This has improved reporting timelines and provides RecFIN data users with additional information for data analyses, stock assessments, and resultant management decisions. RecFIN receives WDFW OSP catch and effort estimates and interview-level sample data from 1990 to the present, while WDFW PSSP generates catch and effort estimates, trip/interview and biological records. Integration of these data sources completes the transition from manual uploads to API load procedures for all applicable WDFW data sources.

- **Catch-weighted Length Composition**

Report. In coordination with NMFS Southwest Fisheries Science Center (SWFSC) personnel, RecFIN staff are relating length frequency data from biological samples to applicable recreational catch estimates for weighted estimates of length composition. These estimates were originally requested by stock assessors, but are also used by fishery survey personnel to assess sampling gaps and representativeness. State-specific reports have been developed for Oregon and Washington. RecFIN staff plans to coordinate with CDFW California Recreational Fisheries Survey representatives to develop similar strategies for California data.

- **Fish Identification Mobile Application.**

RecFIN and WDFW continue to collaborate on a fish identification mobile application for West Coast groundfish species. This application will display high quality reference images from the RecFIN marine rockfish species image library along with a dichotomous key to assist anglers with species identification.

- **Model-Based Estimation of Average**

Weights. NMFS SWFSC, WDFW, and PSMFC personnel published a paper in the journal of Fisheries Research, [Model-Based Estimation of Average Fish Weights from Recreational Fisheries](#). The study developed a modeling approach to estimate average weights that outperformed the current borrowing algorithm methodology. RecFIN and WDFW are presently coordinating the future implementation of this method to generate average weights for Washington, Oregon, and California data.

- **Outreach and Education.** RecFIN staff, state and federal managers, and private fishing organizations developed and distributed educational and outreach materials to increase the use of barotrauma reduction devices and improve rockfish species identification by Pacific Coast and Alaskan marine recreational anglers. Through National Oceanic and Atmospheric Administration grant funding, 1,700 laminated rockfish species identification sheets and over 1,800 descending devices were provided.

Regional Mark Processing Center

Stan Allen, Senior Program Manager
Nancy Leonard, Program Manager

The **Regional Mark Processing Center (RMPC)** administered by the Pacific States Marine Fisheries Commission (PSMFC) since 1977, provides regional coordination of tagging programs for international, federal, provincial, state, tribal, and private entities that, in total, annually release more than 60 million salmonids with a coded wire tag (CWT). [RMPC](#) has supported analysis performed by the Pacific Salmon Commission (PSC) technical committees since 1988, when the U.S. Section of the Pacific Salmon Commission appointed RMPC as the sole U.S. entity to store and maintain the CWT database and designated the Regional Mark Information System (RMIS) as the specific site for sharing data with Canada. RMIS also informs recovery assessments of the Endangered Species Act-listed populations and mitigation of hydrosystem impacts under the Northwest Power Act that directs the Northwest Power and Conservation Council to adopt its Power Plan and its Columbia River Basin Fish and Wildlife Program. Funding for RMPC is provided by the U.S. Fish and Wildlife Service (USFWS), the Bonneville Power Administration, and the Interjurisdictional Fisheries Act.

REGIONAL COMMITTEE ON MARKING AND TAGGING (RCMT)

RCMT coordinates regional tagging efforts and reviews the status of CWT datasets submitted during the previous year. Owing to the COVID pandemic, the [2021 Mark Committee Meeting](#) was held May 4-5 as a web conference. The meeting was attended by twenty-five participants representing ten of its eleven members, the Colville Tribes, Northwest Marine Technology, and PSMFC. Tagging levels and marking places for 2021 were updated by all members, the Colville Tribes, the Nez Perce Tribe, and the Yakima Nation.

RCMT's function is to ensure the integrity of the stock identification information, generated by marking, sampling, and data exchange programs, utilized in stock assessment, harvest management, and enhancement evaluation. It includes eleven member organizations: Fisheries and Oceans Canada, who, since 2011, also holds the British Columbia Ministry of Environment member vote, Alaska Department of Fish and Game, California Department of Fish and Wildlife, Columbia Inter-Tribal Fish Commission, Idaho Department of Fish and Game, Metlakatla Indian Community, National Marine Fisheries S, Northwest Indian Fisheries Commission, Oregon Department of Fish and Wildlife, Washington Department of Fish and Wildlife, and USFWS.

REGIONAL MARK INFORMATION SYSTEM (RMIS)

During 2021, RMPC staff refined RMIS data fields by adding new gear codes for improved data submissions, assuring conformity to the [PSC Specifications and Definitions for the Exchange of Coded Wire Tag Data for the North American Pacific Coast](#) established by the PSC Technical Committee on Data Sharing and its Data Standards Work Group. RMPC also maintains the functionality of the [RMIS mapping tool](#), for viewing specific CWT codes as points on a map, that displays hatchery, release details, and subsequent recovery locations.

CWT data sets submitted to RMIS continued to be validated by RMPC staff using CWT data load programs that perform rigorous cross-table checks of tag releases from newly submitted tag recovery datasets (*Table 1*). The few, identified data anomalies are provided to the reporting agencies for correction.

Table 1: Data added to RMIS during calendar year 2021

DATA CATEGORY	NEW ROWS ADDED	TOTAL NUMBER OF ROWS
<i>Releases</i>	3,913	174,834
<i>Recoveries</i>	165,757	9,837,654
<i>Catch/Sample</i>	21,243	421,356
<i>Locations</i>	595	36,818

Use of the RMIS database remains strong in the fisheries community, with a total of 4,815 log-in events, representing 631 unique email accounts, recorded in 2021. Many individuals logged-in multiple times: 417 users logged-in more than once; 100 users logged-in ten or more times (Figure 5).

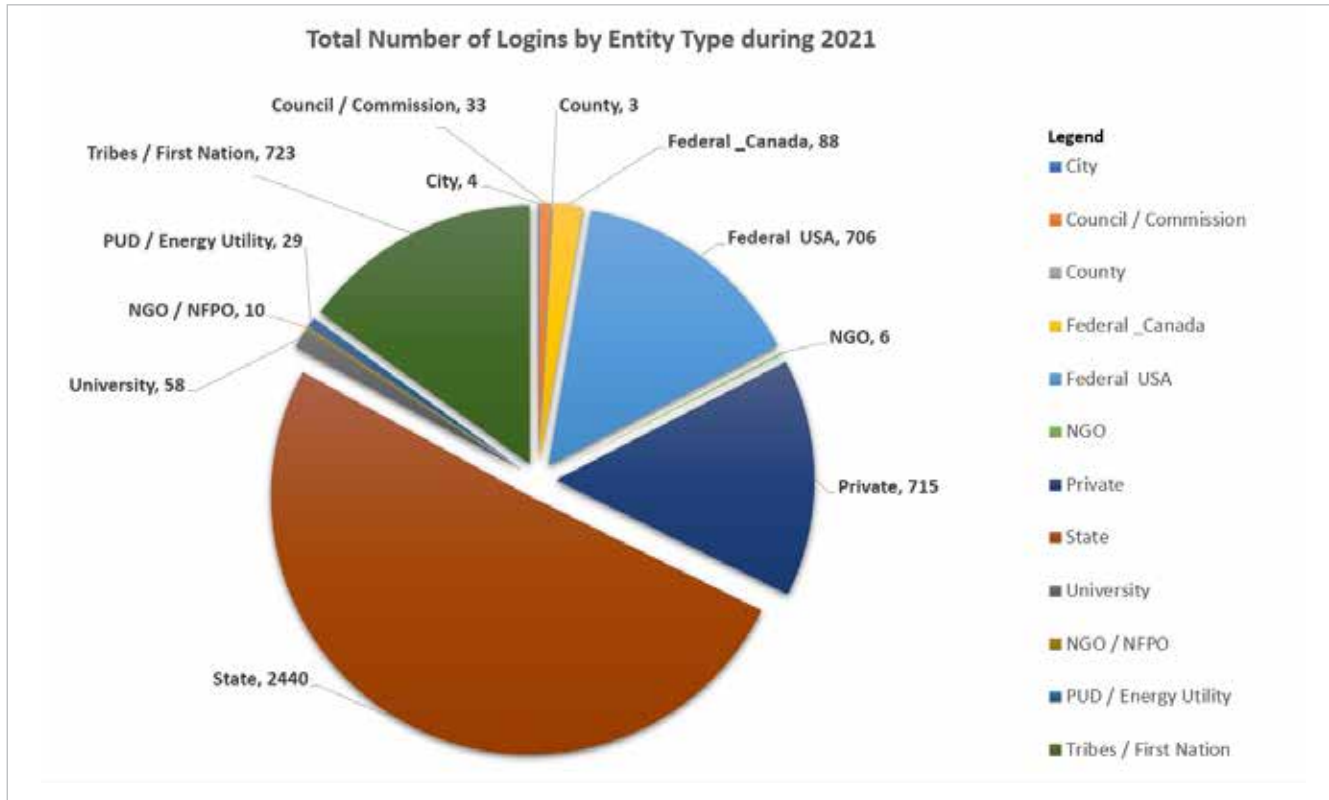


Figure 5. Number of log-in events by entity type. The majority were initiated by state agency employees.

StreamNet

*Stan Allen, Senior Program Manager
Nancy Leonard, Program Manager*

StreamNet is a collaborative program that provides access to regionally coordinated, fish-related data from tribal, state, and federal agencies and organizations. These data inform stock assessments and meet reporting requirements of the Bonneville Power Administration (BPA), the National Marine Fisheries Service (NMFS) and the Northwest Power and Conservation Council (NPCC). StreamNet also serves as a repository for non-standardized information for BPA, NPCC, the Hatchery Reform Project-Hatchery Scientific Review Group, and other entities. To advance the quality, management, and exchange of monitoring data, [StreamNet](#) supports data providers and co-leads with a number of regional initiatives.

2021

The StreamNet PSMFC staff and the StreamNet-supported technical staff expanded the Coordinated Assessments Partnership (CAP) Fish Hatchery Coordinated Assessments Exchange (HCAX) Fish High Level Indicators (HLI) data categories, investigated new connections with other regional data systems, improved data accessibility, and increased awareness of the StreamNet Program.

CAP HCAX

CAP HCAX completed Phase 1 and initiated Phase 2 of tasks funded by a 2020 EPA Exchange Network grant. In HCAX Phase 1, CAP identified participants and organized biologists and data managers work groups. The Biologists Work Group successfully completed Phase 1, identifying Hatchery HLIs to exchange through HCAX and agreed on definitions for a controlled vocabulary. CAP then initiated Phase 2, which focuses on the Data Managers Work Group and development of a data exchange standard to ensure standardized data flow between partners and [HCAX](#).

Funds from IJFA were allocated to StreamNet for several tasks to improve StreamNet data

accessibility, enabling CAP co-leads to organize specific task groups, a survey, and interviews with data consumers and providers, under the [Fish Monitoring Work Group](#). CAP also explored options for StreamNet data systems to automatically leverage metadata content in MonitoringResources.org to minimize dependency on data providers. Additional technical support expanded the Shoshone-Bannock Tribes' data management and sharing capacity for StreamNet submissions.

The StreamNet Executive Committee approved improvements to the [CAP Fish HLI data query](#), expediting access to HLI estimates through a tabular version of the map query and filter options for viewing estimates of populations and groups of populations.

STREAMNET-SUPPORTED TECHNICAL STAFF

Technical personnel increased access and efficiencies of data management and exchange within their organizations and applied StreamNet's data standards for improved data exchange between their systems and StreamNet.

Approximately 73% of StreamNet's 2021 BPA budget was allocated for subcontracts to finance twenty, data-related technical employees within StreamNet member organizations: Confederated Tribes of the Colville Reservation, Idaho Department of Fish and Game (IDFG), Montana Fish, Wildlife & Parks (MFWP), Oregon Department of Fish and Wildlife (ODFW), and Washington Department of Fish and Wildlife (WDFW). Financial support of the ten plus FTE technical staff is critical for effective data flow to StreamNet.

- The **Colville Tribes** updated the Okanogan Basin Monitoring and Evaluation Program database and refined juvenile population estimates.
- **IDFG** validated and uploaded standardized data directly to StreamNet in two-steps, saving significant time from the previous process.
- **MFWP** converted and uploaded data files residing with individual biologists, replacing previous manual entry procedures of historic data.

- **ODFW** finalized the new web application for Coordinated Assessments Fish HLI data entry into the ODFW SQL server database that includes automated processes for validating and submitting data to StreamNet.
- **WDFW**'s Biological Data Systems Program continued development of the Juvenile Migrant Exchange and the Adult Fish Exchange systems for delivering data directly to StreamNet. WDFW also secured an Environmental Protection Agency (EPA) Exchange Network grant to facilitate sharing of hatchery and harvest data for HCAX data advancement.

EMERGING TECHNOLOGY INFORMATION SESSIONS (ETIS)

StreamNet coordinated with Pacific Northwest Aquatic Monitoring Partnership for a virtual series of data management presentations in February 2021. ([ETIS 2020-2021](#))

REGIONAL PARTNERS' ASSESSMENTS AND REPORTING

StreamNet's two standardized data systems, CAP Fish HLI and Fish Monitoring Data, contribute to BPA, NPCC, and NMFS regional assessments and reporting.

- **NMFS** utilizes data from CAP Fish HLI for its 5-Year Status Review and accesses approximately 95% of Columbia River Basin data and metadata. Efforts to expand the data in CAP Fish HLI are ongoing.
- **BPA** obtains data from CAP Fish HLI to produce its Federal Columbia River Power System Biological Opinion reports and to update its One Fish Two Fish tool. StreamNet also supports BPA's secure data repository initiative.
- **NPCC's Program Tracker** consumes data from the Fish Monitoring Data, connecting in real time to CAP Fish HLI. StreamNet also maintains access to NPCC's Wildlife Habitat Evaluation Procedures, Subbasin Plans and Data, and Protected Areas documentation and database that identifies stream reaches to be protected from hydroelectric development.
- StreamNet, with its GIS data and Data Store, serves regional partners, universities, city governments, and others who benefit from StreamNet data and maps.

STAFF

StreamNet's PSMFC support staff comprises three full-time employees (FTEs) at PSMFC headquarters in Portland, OR: a Program Manager, a Fishery Biologist/Database Administrator and a Programmer who are assisted by PSMFC Geographic Information System (GIS) personnel. The majority of staff funding is provided by BPA, with additional subsidization from the Interjurisdictional Fisheries Act (IJFA), NMFS, and the EPA Exchange Network grants for specific tasks.

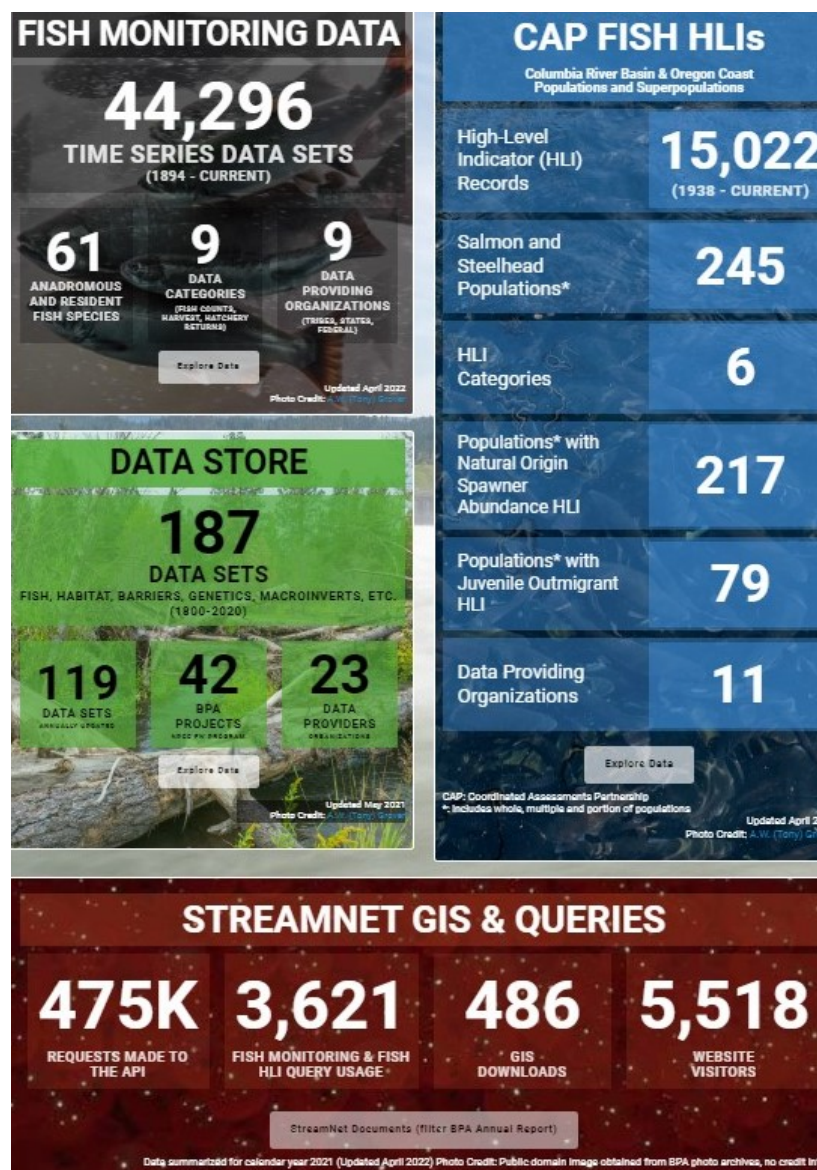


Figure 6. High-level summary of data accessible through CAP Fish HLI, Fish Monitoring Data, and Data Store queries, GIS and query usage.

West Coast Groundfish Observer Program

Dave Colpo, Senior Program Manager

The **West Coast Groundfish Observer Program (WCGOP)** collects data for West Coast groundfish fisheries management in collaboration with the National Marine Fisheries Service (NMFS) and remains adaptable in anticipation of revised data and scientific requirements for West Coast groundfish and other protected species. The Program is in its 20th year of deploying observers for various West Coast groundfish fisheries. Observers compile scientific, management, and other data through measurements of selected portions of the catch and the deployed fishing gear; onboard interviews with vessel captains and crew; observations of fishing operations; and collection of biological samples. Additional data pertaining to protected species and species of concern (seabirds, marine mammals, sea turtles) are also documented.

The Pacific States Marine Fisheries Commission (PSMFC) partners with NMFS to train and instruct observers on approved field data collection protocols for the catch share fisheries (excluding the at-sea hake fisheries) and for the Non-Catch Share (NCS) fisheries. The majority of catch share observers are also trained to serve as catch monitors through PSMFC's Catch Monitor Program (CMP) that provides dockside monitoring of applicable offloads. Observer-collected discard data for the catch share fisheries are combined with CMP's landing data in NMFS vessel account system.

2021

- PSMFC and NMFS conducted four, three-week trainings to instruct or certify a total of 31 new observers: 17 for catch share and 14 for NCS fisheries. Fifty-four experienced observers were briefed for reassignment: 34 for the catch share fisheries and 20 for NCS fisheries.
- The At-Sea Hake Observer Program (ASHOP) catcher/processors and motherships component conducted five trainings that prepared 52 observers for deployment.

- WCGOP observers spent 3,365 days at sea: 2,053 in the catch share fisheries (excluding hake and Exempted Fishing Permit [EFP] trips); 59 days on at sea hake vessels; 80 in the shoreside hake fishery; 122 on various EFP trips; 377 on Limited Entry trips; and 813 on open access vessels.

- ASHOP's observers spent 1,440 sea days (two employees per vessel) on catcher/processors and motherships.

- NCS fisheries observer efforts were organized by a PSMFC field coordinator who managed observer resources and coverage goals established for each fishery.

- PSMFC debriefers assured data quality through review of observer records and periodic in-person meetings with observers.

- In conjunction with NMFS, PSMFC continued the development of an electronic data collection system through software updates. This software enables on-deck tablet use for fishing activities (gear deployment and retrieval, tow and set durations, etc.) and catch data collection, improving the program with enhanced data quality, more efficient data compilation and finalization, and reduction of transcription errors during data entry.

- PSMFC procured the gear, computers, and software used by the observers to complete sampling and reporting activities and data compilation within the National Oceanic and Atmospheric Administration observer database.

STAFF

PSMFC employed eleven, full-time staff (ten at WCGOP; one at ASHOP): debriefers, coordinators, a gear technician, and a program manager.

PACIFIC STATES MARINE FISHERIES COMMISSION

FINANCIAL STATEMENTS AND
SUPPLEMENTARY INFORMATION

YEAR ENDED JUNE 30, 2021

PACIFIC STATES MARINE FISHERIES COMMISSION
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INDEPENDENT AUDITORS' REPORT

Board of Commissioners
Pacific States Marine Fisheries Commission
Portland, Oregon

Report on the Financial Statements

We have audited the accompanying financial statements of the commission-wide governmental activities, each major fund, and the aggregate remaining fund information of Pacific States Marine Fisheries Commission, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the entity's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.



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Board of Commissioners
Pacific States Marine Fisheries Commission

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the commission-wide governmental activities, each major governmental fund, and the aggregate remaining fund information of Pacific States Marine Fisheries Commission as of June 30, 2021, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 5 through 9 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Pacific States Marine Fisheries Commission's basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and is not a required part of the basic financial statements.

The schedule of expenditures of federal awards is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

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Board of Commissioners
Pacific States Marine Fisheries Commission

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 12, 2021, on our consideration of Pacific States Marine Fisheries Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Pacific States Marine Fisheries Commission's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Pacific States Marine Fisheries Commission's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Bellevue, Washington
October 12, 2021

**PACIFIC STATES MARINE FISHERIES COMMISSION
MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED JUNE 30, 2021**

This discussion and analysis of the Pacific States Marine Fisheries Commission's (the Commission) financial performance provides an overview of the Commission's financial activities for the year ended June 30, 2021. Please read it in conjunction with the accompanying basic financial statements and notes to the financial statements.

Overview of the Financial Statements

This discussion and analysis is an introduction to the Commission's basic financial statements, which comprise three components: 1) Commission-wide financial statements, 2) governmental fund financial statements, and 3) notes to the basic financial statements. This report also contains other supplementary information in addition to the basic financial statements.

Commission-Wide Financial Statements (Reporting the Commission as a Whole)

The Commission-wide financial statements are designed to be similar to private sector businesses in that all Commission activities are consolidated. These statements combine fund financial resources with capital assets and long-term obligations.

The statement of net position presents information on all the Commission's assets and liabilities, with the difference between the two reported as net position. Over time, changes in net position may serve as a useful indicator of whether the financial position of the Commission is improving or deteriorating. Assets and liabilities are generally measured using current values. One notable exception is capital assets, which are stated at historical cost less an allowance for depreciation.

The statement of activities and change in net position presents information showing how the Commission's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying events giving rise to the change occur, regardless of when cash is received or paid.

This report also includes two schedules that reconcile the amounts reported in the governmental fund financial statements (modified accrual accounting) with activities on the Commission-wide statements (accrual accounting).

The following summarizes the impact of transitioning from modified accrual-to-accrual accounting:

- Capital assets used in Commission activities are not reported on governmental fund statements.
- Unless due and payable, long-term liabilities such as capital lease obligations, notes payable, and others, only appear as liabilities in the Commission-wide statements.
- Capital outlay spending results in capital assets on the Commission-wide statements and are depreciated over their estimated useful lives, but are reported as expenditures on the governmental fund statements.
- Repayment of debt principal decreases liabilities on the Commission-wide statements, but is reported as an expenditure on the governmental fund statements.
- Gains and losses from disposal of capital assets are reported on the Commission-wide statements, but the total proceeds from such disposals are reported as other financing sources on the governmental fund statements.

**PACIFIC STATES MARINE FISHERIES COMMISSION
MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED JUNE 30, 2021**

Overview of the Financial Statements (Continued)

Fund Financial Statements (Reporting the Commission's Major Funds)

The fund financial statements provide information about the major individual funds. A fund is a fiscal and accounting entity with a self-balancing set of accounts that the Commission uses to keep track of specific sources of funding and spending for a particular purpose.

The Commission's basic services are reported in the funds, which focus on how money flows into and out of those funds and the balances left at year-end that are available for future spending. The fund financial statements provide a short-term view of the Commission's general operations and the basic services it provides. Fund information helps determine whether there are more or fewer financial resources that can be spent in the near future to finance the Commission's programs.

The Commission's funds include the General, Grants and Contracts, and Proprietary funds. The General and Grants and Contracts funds are reported using modified accrual accounting, which measures cash and all other financial assets that can readily be converted to cash.

Notes to the Basic Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the Commission-wide and fund financial statements. The notes to the financial statements are a required part of the basic financial statements.

Commission-Wide Condensed Financial Information

The following table reflects the condensed statement of net position at June 30:

	2021	2020
ASSETS		
Other Assets	\$ 22,961,976	\$ 18,089,115
Capital Assets	1,192,605	1,712,245
Total Assets	<u>\$ 24,154,581</u>	<u>\$ 19,801,360</u>
LIABILITIES		
Current Liabilities	\$ 10,659,928	\$ 6,241,103
Long-Term Liabilities	2,775,495	2,508,001
Total Liabilities	<u>13,435,423</u>	<u>8,749,104</u>
NET POSITION		
Invested in Capital Assets, Net of Related Debt	1,109,906	1,577,273
Unrestricted	9,609,252	9,474,983
Total Net Position	<u>10,719,158</u>	<u>11,052,256</u>
Total Liabilities and Net Position	<u>\$ 24,154,581</u>	<u>\$ 19,801,360</u>

The Commission's net position, referred to as unrestricted, may be used to meet the ongoing obligations of the Commission. The remaining net position reflects investment in capital assets used to provide services to programs; consequently, these assets are not available for future spending.

**PACIFIC STATES MARINE FISHERIES COMMISSION
MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED JUNE 30, 2021**

Commission-Wide Condensed Financial Information (Continued)

The increase in other assets is primarily due to increased grant receivables. An increase in grants and contracts awarded to the Commission has contributed to an increase in subrecipient awards. It is common for subrecipient invoices for services performed prior to the Commission's fiscal year-end to be received and paid after the end of the fiscal year. At June 30, 2021, there was a significant receivable related to accrued subrecipient invoices for fishery disasters and CARES Act relief as well as several other programs. These receivable accruals also created a similar increase in current liabilities due to their payment after June 30, 2021.

The following condensed financial information was derived from the Commission-wide statement of activities and change in net position and reflects how the Commission's net position changed during the fiscal year.

	2021	2020
REVENUE		
Grants and Contracts	\$ 133,361,760	\$ 119,600,609
General Revenue	243,693	166,392
Total Revenue	<u>133,605,453</u>	<u>119,767,001</u>
EXPENSES		
Fisheries Related Programs	133,931,444	119,898,957
Other Expenses	7,107	4,996
Total Expenses	<u>133,938,551</u>	<u>119,903,953</u>
CHANGE IN NET POSITION	(333,098)	(136,952)
Net Position - Beginning of Year	<u>11,052,256</u>	<u>11,189,208</u>
NET POSITION - END OF YEAR	<u>\$ 10,719,158</u>	<u>\$ 11,052,256</u>

The net position decreased by \$333,098 during the current fiscal year in comparison with a decrease in the prior year of \$136,952.

The difference in net position is primarily due to additional costs related to capital outlays. Capital outlays for 2021 and 2020 were \$202,400 and \$470,427, respectively. While these are treated as program expenditures on the governmental funds statements, the Commission-wide statements require depreciation over their estimated useful lives. Accordingly, capital outlays are being depreciated over a period of 5 years and depreciation will increase expenditures in subsequent accounting periods on the Commission-wide statements. The net effect of depreciation vs capitalized costs created approximately \$300,000 more expense in 2021 than in 2020.

A significant factor in the increase of revenues and related expenditures was a continuation of growth in the number of programs administered by the Commission. These include ongoing relief programs for assistance to the fishing community for fishery disasters, as well as new CARES Act funding to mitigate the impact of COVID-19 on the fishing industry. Associated revenues and expenditures are expected to continue during the subsequent fiscal year.

**PACIFIC STATES MARINE FISHERIES COMMISSION
MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED JUNE 30, 2021**

Financial Analysis of the Commission's Funds

General Fund and Grants and Contracts Fund

The focus of the Commission's funds is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the Commission's financing requirements. In particular, the unrestricted fund balance may serve as a useful measure of the Commission's net resources available for spending at the end of the fiscal year.

As the Commission completed the year, its general fund reported an unrestricted fund balance of \$9,609,252 as of June 30, 2021. This amount constitutes the unreserved fund balance, which is available for appropriation for the general purposes of the fund. The excess revenues of the special revenue fund (grants and contracts) are transferred to the general fund at the end of the year resulting in a zero fund balance at the end of the year. The Commission has no legal requirement for a budget, though budget estimates are prepared for the general fund. Certain contracts and grants have budget requirements, which must be monitored; however, these budgets are not program wide. Accordingly, budgetary information has not been included in the basic financial statements.

Proprietary Fund

The proprietary fund reported a cash balance at June 30, 2021, of \$3,013,305 for future payouts of vacation and sick leave liabilities to employees upon termination or retirement. During the fiscal year ended June 30, 2021, the cash balance increased by \$311,612; \$213,920 from increased accrued vacation leave in addition to \$97,692 from increased accrued sick leave.

Capital Assets and Long-Term Debt

Capital Assets

The Commission's investment in capital assets, net of accumulated depreciation, amounted to \$1,192,605 and includes a broad range of assets (see the table below). Depreciation charges for this fiscal year totaled \$720,882.

	2021	2020
Computers	\$ 327,503	\$ 454,860
Furniture and Office Equipment	11,201	16,165
Leasehold Improvements	4,957	5,657
Field and Scientific Equipment	695,454	1,007,423
Truck/Boat	153,490	228,140
Total	<u>\$ 1,192,605</u>	<u>\$ 1,712,245</u>

The additions to capital assets totaled \$202,400 for the year ended June 30, 2021. There are no planned future acquisitions of any significance.

Long-Term Debt

The Commission has encountered no problems in obtaining financing as needed. During the fiscal year 2021, the Commission entered into no new capital leases.

**PACIFIC STATES MARINE FISHERIES COMMISSION
MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED JUNE 30, 2021**

Economic Expectations

The Commission receives the majority of its revenue from the administration of federal and state contracts and grants related to fisheries resources management. Funding for on-going programs has been stable and the Commission has not been notified of any significant decreases to future funding levels.

The Commission continues to administer multiple awards from the National Oceanic and Atmospheric Administration (NOAA) for fishery disasters that affect West Coast fishing and Native American tribes. Approximately \$38,000,000 of funds awarded in this and prior fiscal years remain for dispersal in subsequent fiscal years. New disaster funding of approximately \$42,000,000 has been awarded subsequent to the end date of these financial statements.

In addition, CARES Act funding originating during this reporting period is continuing to be administered with an outstanding award balance of approximately \$99,000,000. A new round of CARES Act funding in the amount of approximately \$115,000,000 has been awarded to the Commission subsequent to the end date of these financial statements.

During the prior fiscal year, the World Health Organization declared the spread of Coronavirus Disease (COVID-19) a worldwide pandemic. The COVID-19 pandemic continues to have significant effects on global markets, supply chains, businesses, and communities. Management believes the Commission is taking appropriate actions to mitigate the negative impact. However, the full impact of COVID-19 is unknown and cannot be reasonably estimated as these events are still developing.

Requests for Information

This financial report is designed to provide a general overview of the Pacific States Marine Fisheries Commission's finances for all those with an interest in the Commission's finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to the Department of Finance, Accounting Division, 205 SE Spokane Street, Suite 100, Portland, Oregon 97202-6413.

PACIFIC STATES MARINE FISHERIES COMMISSION
STATEMENT OF NET POSITION
JUNE 30, 2021

ASSETS	<u>Governmental Activities</u>
CURRENT ASSETS	
Cash and Cash Equivalents	\$ 3,621,874
Receivables:	
Grants and Contracts	14,992,133
Other	4,196,754
Prepaid Expenses	151,215
Total Current Assets	<u>22,961,976</u>
NONCURRENT ASSETS	
Capital Assets, Net of Accumulated Depreciation	1,192,605
Total Noncurrent Assets	<u>1,192,605</u>
 Total Assets	 <u><u>\$ 24,154,581</u></u>
LIABILITIES AND NET POSITION	
CURRENT LIABILITIES	
Accounts Payable	\$ 9,363,491
Checks Written in Excess	28,624
Payroll Liabilities	474,046
Compensated Absences, Current Portion	264,638
Capital Lease Obligation, Current Portion	55,871
Unearned Rent	210,872
Unearned Revenues	262,386
Total Current Liabilities	<u>10,659,928</u>
LONG-TERM LIABILITIES (Due in More than One Year)	<u>2,775,495</u>
 Total Liabilities	 13,435,423
NET POSITION	
Investment in Capital Assets, Net of Related Debt	1,109,906
Unrestricted	<u>9,609,252</u>
 Total Net Position	 <u><u>\$ 10,719,158</u></u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
STATEMENT OF ACTIVITIES AND CHANGE IN NET POSITION
YEAR ENDED JUNE 30, 2021**

	Governmental Activities
PROGRAM REVENUES	
Grants and Contracts	\$133,361,760
PROGRAM EXPENSES	
Fisheries Management:	
Personal Services	26,480,640
Fishery Disaster/Cares Act Relief	63,884,080
Materials and Services	41,955,571
Sport Rewards	785,024
Capital Outlay Not Capitalized	105,247
Interest Expense	7,107
Depreciation	720,882
Total Program Expenses	<u>133,938,551</u>
NET PROGRAM REVENUES	(576,791)
GENERAL REVENUES	
State Dues	106,000
Interest and Other Income	138,851
Loss on Disposal of Assets	(1,158)
Total General Revenues	<u>243,693</u>
CHANGE IN NET POSITION	(333,098)
Net Position - Beginning of Year	<u>11,052,256</u>
NET POSITION - END OF YEAR	<u>\$ 10,719,158</u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
BALANCE SHEET- GOVERNMENTAL FUNDS
JUNE 30, 2021**

	General	Grants and Contracts	Total
ASSETS			
Cash and Cash Equivalents	\$ 608,569	\$	\$ 608,569
Due from Other Funds	14,992,133	262,386	15,254,519
Receivables:			
Grants and Contracts		14,992,133	14,992,133
Other	4,196,754		4,196,754
Prepaid Expenses	151,215		151,215
Total Assets	<u>\$ 19,948,671</u>	<u>\$ 15,254,519</u>	<u>\$ 35,203,190</u>
LIABILITIES AND FUND BALANCES			
LIABILITIES			
Due to Other Funds	\$ 262,386	\$ 14,992,133	\$ 15,254,519
Accounts Payable	9,363,491		9,363,491
Checks Written in Excess	28,624		28,624
Payroll Liabilities	474,046		474,046
Unearned Rent	210,872		210,872
Unearned Revenues		262,386	262,386
Total Liabilities	<u>10,339,419</u>	<u>15,254,519</u>	<u>25,593,938</u>
FUND BALANCES			
Nonspendable Fund Balances	151,215		151,215
Fund Balances - Unassigned	9,458,037		9,458,037
Total Fund Balances	<u>9,609,252</u>		<u>9,609,252</u>
Total Liabilities and Fund Balances	<u>\$ 19,948,671</u>	<u>\$ 15,254,519</u>	<u>\$ 35,203,190</u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
RECONCILIATION OF THE GOVERNMENTAL FUNDS BALANCE SHEET
TO THE STATEMENT OF NET POSITION
JUNE 30, 2021**

Fund Balances - Governmental Funds	\$ 9,609,252
Amounts reported for governmental activities in the statement of net position are different because:	
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in governmental funds:	
Capital Assets	7,226,289
Less: Accumulated Depreciation	<u>(6,033,684)</u>
Total	<u>1,192,605</u>
Long-term debt obligations are not due and payable in the current period and, therefore, are not reported in the governmental funds	<u>(82,699)</u>
Net Position	<u>\$ 10,719,158</u>

See accompanying Notes to Financial Statements.

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PACIFIC STATES MARINE FISHERIES COMMISSION
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGE IN
FUND BALANCES - GOVERNMENTAL FUNDS
YEAR ENDED JUNE 30, 2021

	General	Grants and Contracts	Total
REVENUES			
Grants and Contracts	\$	\$133,361,760	\$133,361,760
State Dues	106,000		106,000
Interest and Other Income	138,851		138,851
Total Revenues	<u>244,851</u>	<u>133,361,760</u>	<u>133,606,611</u>
EXPENDITURES			
Current:			
Personal Services	2,872,556	23,608,084	26,480,640
Fishery Disaster/Cares Act Relief		63,884,080	63,884,080
Materials and Services	1,225,001	40,730,570	41,955,571
Sport Rewards		785,024	785,024
Capital Outlay	29,970	277,677	307,647
Cost Share	45,758	(45,758)	
Debt Service:			
Principal		52,273	52,273
Interest		7,107	7,107
Total Expenditures	<u>4,173,285</u>	<u>129,299,057</u>	<u>133,472,342</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(3,928,434)	4,062,703	134,269
OTHER FINANCING SOURCES (USES)			
Indirect Cost/Administration Transfers In	4,062,703		4,062,703
Indirect Cost/Administration Transfers Out		(4,062,703)	(4,062,703)
Total Other Financing Sources (Uses)	<u>4,062,703</u>	<u>(4,062,703)</u>	
EXCESS OF REVENUES AND OTHER SOURCES OVER EXPENDITURES AND OTHER SOURCES	134,269		134,269
Fund Balance - Beginning of Year	<u>9,474,983</u>		<u>9,474,983</u>
FUND BALANCE - END OF YEAR	<u>\$ 9,609,252</u>	<u>\$</u>	<u>\$ 9,609,252</u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
RECONCILIATION OF THE GOVERNMENTAL FUNDS STATEMENT OF REVENUES,
EXPENDITURES, AND CHANGE IN FUND BALANCES TO THE STATEMENT OF
ACTIVITIES AND CHANGE IN NET POSITION
YEAR ENDED JUNE 30, 2021**

Net Change in Fund Balances - Total Governmental Funds	\$	134,269
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Amounts reported for governmental activities in the statement of revenues, expenditures, and change in fund balances are different because:

Governmental funds report capital outlays as expenditures. However, in the statement of revenues, expenditures, and change in fund balances, the cost of those assets is capitalized and depreciated over their estimated useful lives.

Capital Outlay		202,400
Less: Current Year Depreciation		(720,882)
Total		<u>(518,482)</u>

Repayment of capital lease principal is an expenditure in the governmental funds, but the repayment of principal reduces long-term liabilities in the statement of net position and the amount representing interest is included as an expense in the statement of revenues, expenditures, and change in fund balances:

Capital Lease Payments		52,273
Total		<u>52,273</u>

Some expenses report in the Statement of Activities do not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds

Loss on disposal of assets		<u>(1,158)</u>
Change in Net Position		<u>\$ (333,098)</u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
STATEMENT OF NET POSITION- PROPRIETARY FUNDS
JUNE 30, 2021**

	Governmental Activities- Internal Service Fund Type <u>Compensated Absences</u>
ASSETS	
Cash and Cash Equivalents	<u>\$ 3,013,305</u>
LIABILITIES	
Accrued Compensated Absences	<u>3,013,305</u>
NET POSITION	
Unrestricted	<u><u>\$</u></u>

See accompanying Notes to Financial Statements.

**PACIFIC STATES MARINE FISHERIES COMMISSION
STATEMENT OF REVENUES, EXPENSES, AND CHANGE IN NET POSITION -
PROPRIETARY FUNDS
YEAR ENDED JUNE 30, 2021**

	Governmental Activities- Internal Service Fund Type Compensated Absences
OPERATING REVENUES	
Charges for Services	\$ 520,768
OPERATING EXPENSES	
Compensated Absences Expense	<u>520,768</u>
OPERATING INCOME	
Net Position - Beginning of Year	<u> </u>
NET POSITION - END OF YEAR	<u><u>\$ </u></u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
STATEMENT OF CASH FLOWS - PROPRIETARY FUNDS
YEAR ENDED JUNE 30, 2021**

	Governmental Activities- Internal Service Fund Type Compensated Absences
CASH FLOWS FROM OPERATING ACTIVITIES	
Charges for Services	\$ 520,768
Cash Paid to Employees for Services	(209,156)
Net Cash Provided by Operating Activities	<u>311,612</u>
NET CHANGE IN CASH AND CASH EQUIVALENTS	311,612
Cash and Cash Equivalents - Beginning of Year	<u>2,701,693</u>
CASH AND CASH EQUIVALENTS - END OF YEAR	<u><u>\$ 3,013,305</u></u>
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES	
Operating Income	\$
Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities:	
Changes in Assets and Liabilities:	
Increase in Compensated Absences	<u>311,612</u>
Net Cash Provided by Operating Activities	<u><u>\$ 311,612</u></u>

See accompanying Notes to Financial Statements.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

The Pacific States Marine Fisheries Commission (the Commission) was authorized in 1947 by an act of the Congress of the United States of America granting consent and approval to an interstate compact. The Commission is composed of five member states: Alaska, California, Idaho, Oregon, and Washington. While the Commission has no regulatory or management authority, it was created to provide collective participation by states to work on mutual problems of fisheries resource management. The Commission's principal offices are located in Portland, Oregon.

Financial Reporting Entity

The Commission is a quasi-governmental corporation governed by a 15-member board. As required by accounting principles generally accepted in the United States of America, these basic financial statements present the Commission (the primary government) and any component units. Component units, as established by Governmental Accounting Standards Board (GASB) Statement No. 14, are separate organizations that are included in the Commission's reporting entity because of the significance of their operational or financial relationships with the Commission. The Commission has no reportable component units.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Basis of Accounting and Measurement Focus

The accounts of the Commission are organized on the basis of funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures or expenses, as appropriate. Governmental resources are allocated to and accounted for in individual funds based upon the purpose for which they are to be spent and the means by which spending activities are controlled.

Commission-Wide Financial Statements

The Commission-wide financial statements include the statement of net position and statement of activities and change in net position. These statements present summaries of governmental activities for the Commission.

These statements are presented on an "economic resources" measurement focus and the accrual basis of accounting. Accordingly, all of the Commission's assets and liabilities, including capital assets and long-term liabilities are included in the accompanying statement of net position. The statement of activities and change in net position presents changes in net position. Under the accrual basis of accounting, revenues are recognized in the period in which they are earned, while expenses are recognized in the period in which the liability is incurred.

**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Commission-Wide Financial Statements (Continued)

Grants and contracts revenue are considered program revenues by the Commission.

Certain eliminations have been made as prescribed by GASB Statement No. 34 in regard to interfund activities, payables, and receivables. All interfund balances in the statement of net position have been eliminated.

Governmental Fund Financial Statements

Governmental fund financial statements include a balance sheet and a statement of revenues, expenditures, and change in fund balances for the following governmental funds:

General Fund - This fund accounts for all financial resources and uses which are not included in the special revenue fund. Resources of the general fund are typically not restricted for use within specific projects. The fund's principal revenue sources are indirect costs charged to the special revenue fund and state contributions.

Special Revenue Fund (Grants and Contracts) - This fund accounts for revenue and expenditures restricted for specific projects or programs. The fund's principal revenue sources are grants and contracts from various federal and member state agencies.

All governmental funds are accounted for on a spending or current financial resources measurement focus and the modified accrual basis of accounting. Accordingly, only current assets and current liabilities are included on the fund balance sheet. The statements of revenues, expenditures, and change in fund balances presents increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current position.

Under the modified accrual basis of accounting, revenues are recognized in the accounting period in which they become both measurable and available to finance expenditures of the current period. Accordingly, revenues are recorded when received in cash, except that revenues subject to accrual (generally 60 days after year-end) are recognized when due. Most revenue sources have been treated as susceptible to accrual by the Commission as the amounts due are known at year-end. Interest revenue and some other miscellaneous revenues are not susceptible to accrual because they are usually not measurable until received in cash. Expenditures are recorded in the accounting period in which the related fund liability is incurred.

Unavailable revenues arise when potential revenues do not meet both the "measurable" and "available" criteria for recognition in the current period. Unearned revenues also arise when the Commission receives resources before it has a legal claim to them, as when grant monies are received prior to incurring qualifying expenditures. In subsequent periods, when both revenue recognition criteria are met or when the government has a legal claim to the resources, the unearned revenue is removed from the balance sheet and revenue is recognized.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Governmental Fund Financial Statements (Continued)

Reconciliation of the governmental fund financial statements to the Commission-wide financial statements is provided to explain the differences created by the integrated approach of GASB Statement No. 34.

Proprietary Funds

Proprietary funds account for the operations that are financed and operated in a manner similar to private business, where the determination of operating income, change in net position, financial position, and cash flows is necessary. These funds utilize the accrual basis of accounting.

Internal Service Fund

Internal service funds are used to account for goods and services provided by one department or agency to other departments or agencies of the Commission on a cost reimbursement basis. The internal service fund includes the compensated absences balance of the Commission.

Fund Equity

GASB issued Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions* (GASB No. 54), effective for reporting periods after June 15, 2011. The reporting standard establishes a hierarchy for fund balance classifications and the constraints imposed on the uses of those resources.

GASB No. 54 provides for two major types of fund balances, which are nonspendable and spendable. Nonspendable fund balances are balances that cannot be spent because they are not expected to be converted to cash or they are legally or contractually required to remain intact. Examples of this classification are prepaid items, inventories, and principal (corpus) of an endowment fund.

In addition to the nonspendable fund balance, GASB No. 54 has provided a hierarchy of spendable fund balances, based on a hierarchy of spending constraints.

- Restricted - fund balances that are constrained by external parties, constitutional provisions enabling legislation.
- Committed - fund balances that contain self-imposed constraints of the Commission from its highest level of decision-making authority.
- Assigned - fund balances that contain self-imposed restraints of the Commission to be used for a particular purpose.
- Unassigned - fund balances of the Commission that are not constrained for any particular purpose.

**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Fund Equity (Continued)

When an expenditure is incurred for purposes for which both restricted and unrestricted fund balances are available, it is the Commission's policy to use restricted first, then unrestricted fund balances. When an expenditure is incurred for purposes for which committed, assigned, and unassigned amounts are available, it is the Commission's policy to use committed first, then assigned, and finally unassigned amounts.

Budgets

The Commission has no legal requirement for a budget, though budget estimates are prepared for the general fund. Certain contracts and grants have budget requirements which must be monitored; however, these budgets are not program-wide. Accordingly, budgetary information has not been included in the basic financial statements.

Grants

Unreimbursed grant expenditures due from grantor agencies are recorded in the Commission-wide financial statements as receivables and revenues. Cash received from grantor agencies in excess of related grant expenditures is recorded as a liability, Unearned Revenues, in the statement of net position.

Capital Assets, Including Equipment Leased Under Capital Leases

Capital assets are recorded at original cost or estimated original cost in the statement of net position. Acquisitions of general capital assets are recorded as expenditures at the major program levels in governmental fund types at the time of purchase. Maintenance, repairs, and equipment replacements of a routine nature are charged to expenditures as incurred and are not capitalized. Upon disposal of capital assets, the related cost or estimated cost and any proceeds from such disposal are accounted for as other financing sources. At their inception, capitalized leases are recorded as capital assets at the net present value of future minimum lease payments to be made.

The portion of the payment applicable to principal, determined by using interest rates implicit in the lease, is reported as a reduction of the capitalized lease obligation.

Depreciation is recorded in the statement of activities and change in net position. The statement of net position reflects the cost of capital assets net of depreciation and is computed on the straight-line basis over the following estimated useful lives. Assets acquired by capital lease are amortized over their estimated useful lives using the straight-line basis. Amortization is included in depreciation expense in these financial statements.

Buildings and Improvements	30 Years
Computers, Furniture, Office, and Field Equipment	5 to 10 Years

Capital assets include assets which were purchased with funds from various federal and state agencies. Those funding agencies retain residual interests in certain assets, which are exercised upon disposal.

**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Cash and Investments

The Commission maintains its cash either in bank deposit accounts that are insured by the Federal Deposit Insurance Corporation (FDIC) up to a limit of \$250,000 per depositor or in certain noninterest bearing accounts that are fully insured by the FDIC. The Commission had \$7,009,342 in cash that was exposed to uninsured deposit risk at June 30, 2021. To reduce its overall exposure, the Commission holds its funds in banks that participate in the Oregon Public Funds Collateralization Program. This program provides additional protection for public funds in Oregon, but does not guarantee the funds fully. The Commission has not experienced any losses in such accounts, and believes it is not exposed to any significant credit risk on cash.

Grants and Contracts Receivable

The majority of receivables are comprised of claims for reimbursement of costs under various federal and state grant programs. The Commission considers all receivables to be substantially collectible. Accordingly, no allowance for doubtful accounts has been established.

Accrued Compensated Absences

Vacation pay is vested when earned. Employees earn annual leave based on length of service to the Commission. Unpaid vested vacation and 50% of vested sick pay that is expected to be paid with current resources is shown as accrued compensated absences payable on the statement of net position and recorded as expenditures when earned.

Unearned Rent

The Commission recognized escalating rent provisions on straight-line basis over the lease term.

Retirement Plans

Commission employees meeting eligibility requirements are participants in a defined contribution pension plan. Contributions to this plan are made on a current basis as required by the plan and are charged to expenditures as the related liabilities are incurred.

Employees of the Commission are also allowed to participate in a Northwest Plan Services, Inc. IRC 457 Plan. The plan permits employees to voluntarily defer a portion of their compensation. The Commission makes no contributions to this plan. Northwest Plan Services, Inc., as the plan administrator, retains custody and fiduciary responsibility for all funds deposited into the plan.

Interfund Transactions

Activity between funds represent short-term receivables or payables in the normal course of the Commission's operations or are reimbursements for administrative expenses that are outstanding at the end of the fiscal year. All outstanding balances are reported as either due to or due from other funds in the fund financial statements.

PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021

NOTE 2 CASH AND INVESTMENTS

The Commission maintains a cash pool that is available for use by all funds. Each fund type's portion of this pool is reported on the statement of net position as cash and investments.

Cash and investments (recorded at cost) consisted of the following at June 30, 2021:

Deposits with Financial Institutions:	
Demand Deposits	\$ 91,658
Money Market	480,687
Savings	3,049,529
Total Cash and Cash Equivalents	<u>\$ 3,621,874</u>

Custodial Credit Risk - Deposits. Custodial credit risk is the risk that in the event of a bank failure, the Commission's deposits may not be returned to it. The Commission does not have a deposit policy for custodial credit risk. To reduce its overall exposure, the Commission holds its funds in banks that participate in the Oregon Public Funds Collateralization Program. This program provides additional protection for public funds in Oregon, but does not guarantee the funds fully. The Commission has not experienced any losses in such accounts, and believes it is not exposed to any significant credit risk on cash.

The Commission's bank balance was exposed to custodial credit risk as follows at June 30, 2021:

Uninsured and Uncollateralized	<u>\$ 7,009,342</u>
--------------------------------	---------------------

NOTE3 CAPITAL ASSETS

Capital asset activity was as follows at June 30, 2021:

	Balance June 30, 2020	Additions	Deletions	Transfers	Balance June 30, 2021
Capital Assets:					
Computers	\$ 1,986,893	\$ 100,058	\$ 187,779	\$	\$ 1,899,172
Furniture and Office Equipment	132,312		5,575		126,737
Leasehold Improvements	407,971				407,971
Field and Scientific Equipment	3,726,103	102,342	77,694		3,750,751
Truck/Boat	1,041,658				1,041,658
Total Capital Assets	<u>7,294,937</u>	<u>202,400</u>	<u>271,048</u>		<u>7,226,289</u>
Accumulated Depreciation:					
Computers	1,532,033	227,415	187,779		1,571,669
Furniture and Office Equipment	116,147	4,964	5,575		115,536
Leasehold Improvements	402,314	700			403,014
Field and Scientific Equipment	2,718,680	413,153	76,536		3,055,297
Truck/Boat	813,518	74,650			888,168
Total Accumulated Depreciation	<u>5,582,692</u>	<u>720,882</u>	<u>269,890</u>		<u>6,033,684</u>
Total Assets	<u>\$ 1,712,245</u>	<u>\$ (518,482)</u>	<u>\$ 1,158</u>	<u>\$</u>	<u>\$ 1,192,605</u>

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PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021

NOTE 4 LONG-TERM LIABILITIES**Compensated Absences**

The following is a schedule of the compensated absences as of June 30, 2021:

Balance - Beginning	\$ 2,701,693
Incurred	520,768
Retired	<u>(209,156)</u>
Balance - Ending	<u>\$ 3,013,305</u>
Due Within One Year	<u>\$ 264,638</u>
Long-Term Portion	<u>\$ 2,748,667</u>

Capital Lease Obligations

The following is a schedule of the capital lease obligations as of June 30, 2021:

Balance - Beginning	\$ 134,972
Additions	
Payments	<u>(52,273)</u>
Balance - Ending	<u>\$ 82,699</u>

The total interest incurred for the year ended June 30, 2021 was \$7,107.

Minimum future lease payments are as follows:

<u>Year Ending June 30,</u>	<u>Amount</u>
2022	<u>\$ 59,378</u>
2023	<u>27,409</u>
Total Minimum Lease Payments	86,787
Less: Amounts Representing Interest	<u>(4,088)</u>
Present Value of Minimum Lease Payments	82,699
Less: Current Portion	<u>(55,871)</u>
Total Long-Term Portion	<u>\$ 26,828</u>

**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021**

NOTE 5 PENSION PLAN

The Commission sponsors the Pacific States Marine Fisheries Commission Employees Pension Plan (the Plan), which is a defined contribution pension plan.

A defined contribution pension plan provides pension benefits in return for services rendered, provides an individual account for each participant, and specifies how contributions to the individual's account are to be determined instead of specifying the amount of benefits the individual is to receive. Under a defined contribution pension plan, the benefits a participant will receive depend solely on the amount contributed to the participant's account, the returns earned on investments on those contributions, and forfeitures of other participant's benefits that may be allocated to such participant's account.

Employees must meet eligibility requirements based upon hours and length of service to participate in the Plan. The Commission is required to contribute an amount equal to 14% of the eligible employee's gross earnings. Vesting is based on a schedule that provides 100% vesting at the end of five years of qualified employment. An employee who leaves the employment of the Commission is entitled to his or her vested interest in the Plan.

Forfeitures are used to reduce future contributions. For the year ended June 30, 2021, the Commission contributed \$2,054,161 to the Plan, net of forfeitures. There were 422 participants in the Plan at June 30, 2021.

NOTE 6 POSTEMPLOYMENT HEALTH PLAN

The Commission sponsors a Postemployment Health Plan (PEHP), which helps participants pay for certain qualified medical expenses after their retirement or termination. Once an employee has qualified to be in the pension plan they can participate in the PEHP. The PEHP has two individual accounts: 1) Universal Reimbursement Account, in which the Commission contributes a fixed amount (\$10) each month for each eligible participant; and 2) Insurance Premium Reimbursement Account, which is funded at termination or retirement with a portion of accrued sick leave. To be eligible for the second account, the employee must be 100% vested in the Commission Pension Plan and have accrued sick leave at termination. Employees are responsible for directing their PEHP contributions among the various funds selected by the plan administrator. The participant's account is passed on to a spouse and/or dependents if the participant were to die. As of June 30, 2021, there were 445 participants in the plan, and the Commission contributed \$46,834 into the plan. The liability increased \$97,692 to an ending balance of \$1,101,254 as of June 30, 2021. This is included in the compensated absences liability (see Note 4).

NOTE 7 RISK MANAGEMENT

The Commission is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees, and natural disasters. The Commission purchases commercial insurance to minimize its exposure to these risks. Settled claims have not exceeded this commercial coverage for any of the past three years.

PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2021

NOTE 8 COMMITMENTS AND CONTINGENCIES

As discussed in Note 1, the Commission holds capital assets for which granting agencies, principally federal agencies, have residual interests. The granting agencies, at their discretion upon disposition of these assets, are entitled to possession of the assets or the proceeds from their sale.

Substantially all amounts received or receivable from granter agencies are subject to audit and adjustment by granter agencies, principally the federal government. Any disallowed claims, including amounts already collected, may constitute a liability of the applicable funds. The amount, if any, of expenditures which may be disallowed by the granter cannot be determined at this time, although the Commission's management expects such amounts, if any, to be immaterial.

NOTE 9 OPERATING LEASES

The Commission, as lessee, leases office space, vehicles, and equipment under various operating leases. The total amount expended under such leases was \$721,994 for the year ended June 30, 2021.

Future minimum lease payments for the noncancellable leases with initial or remaining lease terms of one year or more are as follows:

<u>Year Ending June 30,</u>	<u>Amount</u>
2022	\$ 661,476
2023	550,357
2024	455,183
2025	149,101
2026	10,932
Total	<u>\$ 1,827,049</u>

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL
REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN
AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

Board of Commissioners
Pacific States Marine Fisheries Commission
Portland, Oregon

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the commission wide governmental activities, each major fund, and the aggregate remaining fund information of Pacific States Marine Fisheries Commission (the Commission), as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise Pacific States Marine Fisheries Commission's basic financial statements, and have issued our report thereon dated October 12, 2021.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Commission's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control. Accordingly, we do not express an opinion on the effectiveness of the Commission's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified.

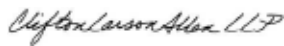
Board of Commissioners
Pacific States Marine Fisheries Commission

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Commission's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



CliftonLarsonAllen LLP

Bellevue, Washington
October 12, 2021

**INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR EACH MAJOR
FEDERAL PROGRAM AND REPORT ON INTERNAL CONTROL OVER
COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE**

Board of Commissioners
Pacific States Marine Fisheries Commission
Portland, Oregon

Report on Compliance for Each Major Federal Program

We have audited Pacific States Marine Fisheries Commission's (the Commission's) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the Commission's major federal programs for the year ended June 30, 2021. Pacific States Marine Fisheries Commission's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the Commission's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Commission's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Commission's compliance.

Opinion on Each Major Federal Program

In our opinion, Pacific States Marine Fisheries Commission complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2021.

Board of Commissioners
Pacific States Marine Fisheries Commission

Report on Internal Control Over Compliance

Management of the Commission is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Commission's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Commission's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Bellevue, Washington
October 12, 2021

**PACIFIC STATES MARINE FISHERIES COMMISSION
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED JUNE 30, 2021**

Federal Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Organization (From)	Pass-Through Identifying Number	Total Federal Expenditures	Passed Through (to) Subrecipient
U.S. Department of Commerce (NOAA)					
Bipartisan Budget Act of 2021	11.022	Direct		\$ 6,265,471	\$ 3,614,999
	11.022 Total			6,265,471	3,614,999
Interjurisdictional Fisheries Act of 1986	11.407	Direct		1,341,641	517,224
	11.407 Total			1,341,641	517,224
Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	11.427	Direct		100,913	
	11.427 Total			100,913	
Columbia River Fisheries Development Program	11.436	Direct		1,296,853	1,254,042
	11.436 Total			1,296,853	1,254,042
Pacific Fisheries Data Program	11.437	Direct		18,563,850	7,896,124
	11.437 Total			18,563,850	7,896,124
Pacific Coast Salmon Recovery Pacific Salmon Treaty Program	11.438	California Department of Fish and Wildlife	P1810502	160,213	
	11.438	California Department of Fish and Wildlife	P1850904	243,853	
	11.438	California Department of Fish and Wildlife	Q1910503	170,745	
	11.438	California Department of Fish and Wildlife	Q2050908	5	
	11.438 Total			574,816	
Marine Mammal Data Program	11.439	Direct		268,733	247,042
	11.439 Total			268,733	247,042
Regional Fishery Management Councils	11.441	PAC Fishery Management Council	2020-PSMFC	21,267	
	11.441	PAC Fishery Management Council	2021-PSMFC	27,612	
	11.441	PAC Fishery Management Council	PSMFC02-TECHNOLOGY	22,068	
	11.441	N PAC Fish Management Council	2019-4	15,754	
	11.441 Total			86,701	
COVID 19- Unallied Management Projects	11.454	Direct		46,029,609	6,465,462
	11.454 Total			46,029,609	6,465,462

See accompanying Notes to Schedule of Expenditures of Federal Awards.

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PACIFIC STATES MARINE FISHERIES COMMISSION
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2021

Federal Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Organization (From)	Pass-Through Identifying Number	Total Federal Expenditures	Passed Through (to) Subrecipient
U.S. Department of Commerce (NOAA) (Continued)					
Unaffiliated Science Program	11.472	Direct		\$ 1,638,666	\$ 1,191,628
	11.472 Total			1,638,666	1,191,628
Atlantic Coastal Fisheries Cooperative Management Act	11.474	Atlantic States Marine Fish Commission	ASMFC 17-1002	84,530	75,874
	11.474 Total			84,530	75,874
Fisheries Disaster Relief	11.477	Direct		11,737,426	2,978,499
	11.477 Total			11,737,426	2,978,499
Total U.S. Department of Commerce				87,989,209	24,240,894
U.S. Department of the Interior					
Central Valley Project Improvement Act, Title XXXIV	15.512	Direct		2,926,329	808,865
	15.512 Total			2,926,329	808,865
Fish and Wildlife Cluster	15.605	Direct		112,131	
Sport Fish Restoration	15.605	US Fish and Wildlife Service	ODFW-321-19	53,449	
	15.605 Total			165,580	
Fish and Wildlife Management Assistance	15.608	Direct		1,347,934	298,127
	15.608 Total			1,347,934	298,127
Multistate Conservation Grant	15.628	Direct		20,041	
	15.628 Total			20,041	
Central Valley Project Improvement Act (CVPIA)	15.648	Direct		181,011	
	15.648 Total			181,011	

See accompanying Notes to Schedule of Expenditures of Federal Awards.

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PACIFIC STATES MARINE FISHERIES COMMISSION
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2021

Federal Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Organization (From)	Pass-Through Identifying Number	Total Federal Expenditures	Passed Through (to) Subrecipient
U.S. Department of the Interior (Continued)					
Lower Snake River Compensation Plan	15.661	Direct		\$ 613,166	\$
	15.661 Total			613,166	
NFWF-USFWS Conservation Partnership	15.663	National Fish Wildlife Foundation	0208.18.060476	39,827	
	15.663 Total			39,827	
Total U.S. Department of the Interior				5,293,888	1,106,992
Environmental Protection Agency - Office of Environmental Information					
Puget Sound Action Agenda: Technical Investigations and Implementation Assistance Program	66.608	WA State Recreation and Conservation Office	20-21650	8,912	
	66.608 Total			8,912	
Total Environmental Protection Agency-Office of Environmental Information				8,912	
Department of Energy					
Bonneville Power Administration - Environment, Fish and Wildlife	81.999	Direct		14,880,511	5,748,844
	81.999	CRITFC	V20-11	61,921	
	81.999 Total			14,942,432	5,748,844
Total Department of Energy				14,942,432	5,748,844
Total Federal Assistance - All Awards				\$ 108,234,441	\$ 31,096,730

See accompanying Notes to Schedule of Expenditures of Federal Awards.

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**PACIFIC STATES MARINE FISHERIES COMMISSION
NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED JUNE 30, 2021**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Expenditures

Expenditures reported on the schedule of expenditures of federal awards (the Schedule) are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Pacific States Marine Fisheries Commission has elected not to use the 10-percent de minimis indirect cost rate as allowed under the Uniform Guidance.

Pass-Through Entities

Pass-through entity identifying numbers are presented where available.

NOTE 2 BASIS OF PRESENTATION

The accompanying Schedule includes the federal award activity of Pacific States Marine Fisheries Commission under programs of the federal government for the year ended June 30, 2021. The information in this Schedule is presented in accordance with the requirements of 2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance)*. Because the Schedule presents only a selected portion of the operations of Pacific States Marine Fisheries Commission, it is not intended to and does not present the financial position, changes in net assets, or cash flows of Pacific States Marine Fisheries Commission.

**PACIFIC STATES MARINE FISHERIES COMMISSION
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
YEAR ENDED JUNE 30 2021**

Section I - Summary of Auditors' Results

Financial Statements

Type of auditors' report issued: Unmodified

Internal control over financial reporting:

- Material weakness(es) identified? _____yes X no
- Significant deficiency(ies) identified? _____yes X none reported

Noncompliance material to financial statements noted? _____yes X no

Federal Awards

Internal control over major federal programs:

- Material weakness(es) identified? _____yes X no
- Significant deficiency(ies) identified? _____yes X none reported

Type of auditors' report issued on compliance for major federal programs: Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)? _____yes X no

Identification of Major Federal Programs

CFDA Number(s)	Name of Federal Program or Cluster
11.437	Pacific Fisheries Data Program
11.454	COVID-19 Unallied Management Projects
11.477	Fisheries Disaster Relief

Dollar threshold used to distinguish between Type A and Type B programs: \$ 3,000,000 / 750,000

Auditee qualified as low-risk auditee? _____yes X no

PACIFIC STATES MARINE FISHERIES COMMISSION
SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)
YEAR ENDED JUNE 30 2021

Section II - Financial Statement Findings

Our audit did not disclose any matters required to be reported in accordance with *Government Auditing Standards*.

Section III - Findings and Questioned Costs - Major Federal Programs

Our audit did not disclose any matters required to be reported in accordance with 2 CFR 200.516(a).



Pacific States Marine Fisheries Commission

CELEBRATING 74 YEARS OF SERVICE

Established in 1947 by consent of Congress, the Pacific States Marine Fisheries Commission (PSMFC) is an interstate compact agency that helps resource agencies and the fishing industry sustainably manage our valuable Pacific Ocean resources in a five-state region. Member states include Alaska, California, Idaho, Oregon, and Washington, each represented by three Commissioners.