Activity Number	Action	Status as of September 30, 2008	2009	2010	Outcome	How progress will be measured and/or monitored	Milestones and anticipated completion dates if applicable
Monitoring							
1	Collect fishery dependent data for special data collections outside standard observer protocols to meet user needs.	Observers instructed to sample for seabird bycatch projects as requested by Alask Fisheries Science Center (AFSC) staff.	Bycatch projects include sampling for salmon genetics, quantifying seabird mortality caused by trawlers during haul back, and quantifying birds around discard chutes aboard vessels.	Projects solicited on annual basis - determination of projects for 2010 will be provided by Jan 1 of that year.	Generation and provision of data related to bycatch of birds, fish, and mammals as requested by AFSC staff.	Agreed upon special data collections will be implemented January 1st of each fishing year.	1) Solicitation of proposals mid-year. 2) Annual implementation of approved proposals on January 1.
2	Evaluate technologies suitable for monitoring groundfish fisheries.	1) Conducted field research under NPRB grant with the International Pacific Halibut Commission (IPHC) in Gulf of Alaska (GOA) and Bering Sea Aleutian Islands (BSAI). Research was a field test of electronic monitoring (EM) (video) in an active halibut fishery. 2) Participating in cooperative research with industry to assess applicability of video in monitoring quality of halibut bycatch in trawl rockfish fishery in GOA. 3) Develop draft manuscript reporting past studies assessing observer sampling and video approaches to monitoring.	1) Continue to conduct field work in cooperation with IPHC to assess the applicability of video monitoring. 2) Work with the Alaska Regional Office (AKR) and fishing industry to complete Pase-2 report. 3) Present report on EM Workshop at the International Fisheries Observer and Monitoring Conference, July 2009.	1) Publication of study results. 2) Continued collaboration as necessary. 3) Continued investigation as required.	Evaluation of effectiveness of EM relative to standard observer coverage in monitoring bycatch.	1) Periodic coordination with IPHC to complete research. 2) Coordination with AKR and industry. 3) General supervision.	1) Final report to be submitted by January 2010. 2) Phase-1 Report presented to the North Pacific Fishery Management Council (Council) in fall of 2008. 3) EM Workshop was held at the AFSC in July 2008, proceedings are available online at http://www.fakr.noaa.gov/npfmc/misc_pub/EMproceedings.pdf.
3	Develop approaches for expanding observer deployments to meet additional agency information needs for catch and bycatch estimation.	1) Submitted request for 2010 National funds to support implementation of annual catch limits. 2) Increased observer coverage requirements on a section of the fleet to meet Regional information needs.	None planned	None planned	Increased observer coverage for BSAI flatfish (Amendment 80) and eastern GOA rockfish (Rockfish Pilot Project) fisheries.	1) To be determined. 2) Monitoring compliance with regulatory requirements.	New requirements for increased observer coverage in two fisheries (Amendment 80 and GOA Rockfish Pilot Program) are met by industry.
4	Revise observer data collection protocols to meet evolving needs and to improve bycatch data quality.	Data collection protocols for 2008 were revised to better meet end user needs. Revised protocols are included in observer training.	Continue revisions based on evolving needs.	Continue revisions based on evolving needs.	Improve data collection to address bycatch estimation needs.	New data collections and protocols implemented.	1 Jan 2008 target was met.

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5	Review, evaluate, and recommend improvements to the methodology used for estimating bycatch in collaboration with the Alaska Regional Office (AKR).	This is a new project started in June 2008. The review process for current estimation methods is currently underway.	1) Review and analysis of NMFS Alaska catch & bycatch estimation procedures. 2) Evaluate available data and current data systems to meet the in-season needs of NMFS Alaska Region and fishery assessment needs of the AFSC.	3) Provide recommendations for practical system design that incorporates statistical uncertainty into estimates of catch and bycatch.	Improved methodology for bycatch estimation.	1 and 2) Written report summarizing findings. 3) Report detailing new methods inclusive of catch and variance estimates.	1) Report to be completed in spring/early summer 2009. 2) Report to be completed by December 2009. 3) Report to be completed by December 2010.
6	Compliance monitoring of regulatory standards necessary to support effective observer sampling.	Completed 69 observer sampling station inspections, 25 observer sample pre-inspections, and 14 bin monitoring inspections.	Ongoing	Ongoing	Ensure accurate data collection according to protocols for bycatch estimation.	The annual number of vessel inspections meeting regulatory standards.	Annually
7	Compliance monitoring of regulatory standards necessary to support accurate catch monitoring and weight.	Annually certify at-sea scales based on regulatory standards for accuracy; approve groundfish and crab processor catch monitoring plans.	Ongoing	Ongoing	Accurate total catch weights of groundfish and other species taken in the Alaska groundfish fisheries.	The annual number and percentage of scales and processors meeting regulatory standards for accurate scales and adherence to catch monitoring plans.	Annually
8	Promote the use of electronic logbooks to facilitate identification and correction of bias in estimating bycatch for unobserved vessels. Also, promote interagency efforts to develop electronic reporting of landings data by trip.	Proposed rule published June 29, 2007 (72 FR 35748).	Final rule published December 15, 2008 (73 FR 76136); Effective January 14, 2009	Refinement of regulatory provisions as needed.	More complete, accurate, and timely data will be available to identify and correct for bias in estimating bycatch for unobserved vessels.	Ongoing support for catcher vessel electronic logbook. Completion and implementation of groundfish electronic reporting system.	Implemented January 2009 (73 FR 76136, December 15, 2008)
9	Evaluate methods for improving bycatch estimates of marine mammals in state-managed Marine Mammal Protection Act (MMPA) Category II salmon fisheries.	Observed Yakutat set-gillnet salmon fishery summer 2008. Data analysis ongoing.	Complete analysis of data collected during 2008 field season. No further field activity planned for lack of funding.	Dependant on funding.	Increased accuracy and precision to determine whether Potential Biological Removal (PBR) levels are exceeded, categorizing fisheries in annual List of Fisheries, and determining whether a fishery has approached a zero mortality rate.	Will continue observation of Category II salmon fisheries if funding becomes available.	

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10	Implement non-discretionary measures identified in Biological Opinion issued by U.S. Fish and Wildlife Service (USFWS) on impacts of Pacific halibut longline fishery on Endangered Species Act (ESA)-listed seabird species. Increase information on incidental groundfish catch in halibut fishery.	Project initiated among IPHC, AFSC, and AKR to conduct a feasibility study of halibut fishery monitoring options and a pilot study evaluating electronic monitoring technologies.	Ongoing	Ongoing	Adequate monitoring of Pacific halibut longline fishery for incidental take of ESA-listed and other seabird species, and incidental catch of groundfish species.	Development of monitoring plan for the halibut fishery, including identification of resources; coordination with Council initiative and AFSC Observer Program. Monitor activities of Council, AKR, and AFSC that relate to this item.	
11	Investigate the impact of a real-time bycatch monitoring system on bycatch levels and fishing location choice in the Bering Sea	Conducted analysis of closures impacts and provided input to SSC and Salmon Bycatch Workgroup.	Refine and finalize analysis of the effects of the system and consider potential changes; report findings.	Report findings.	Better understanding of cooperative spatial bycatch management systems.	Production of article for peer-reviewed journal.	N/A
12	Participation by AKR and AFSC in preparation of information and text for the first edition of the National Bycatch Report (NBR)	Staff involved in national NBR initiative.	First NBR completed.	Initiation of work on second edition of NBR. Focus on improved monitoring and estimation of bycatch.	Ongoing effort to improve data quality and estimation methodologies.	NBR will establish priorities for regional and national improvements in bycatch data quality and estimates.	
13	Report on large whale entanglements in Alaska.	Not initiated	Complete draft report in late FY09.	N/A	Develop technical memorandum that applies new serious injury guidelines to cases of entangled whales to assess whether serious injury has occurred.	Report will be completed.	Delayed due to change in staffing; draft report to be developed in FY09 and final report completed in FY10.
14	Evaluate whether measures of effort other than total catch can be used to extrapolate from observed to total marine mammal bycatch.	Not initiated	Initiate in late FY09.	Ongoing	Administrative report	Report will be completed.	Delayed due to change in staffing; report to be developed in FY10.
15	Improved seabird bycatch reporting.	Statistical methods reviewed internally and approved, analysis completed and estimates produced. Purchase order implemented to assist with production of NOAA Technical Memo tables and figures.	Using approved analytical methods, estimate seabird bycatch in Alaskan waters by time/area cells and fishery sectors for period 1993-2006. Provide results in a NOAA Technical Memo.	Based on analysis, produce peer-reviewed paper's describing seabird bycatch in Alaska groundfish fisheries.	Improved accuracy and precision in estimates of seabird interactions and bycatch. Availability of seabird bycatch summaries for the 1993-2006 period to a wide suite of end-users.	(1) Analysis techniques reviewed and approved by peers, (2) bycatch numbers produced, (3) tables and figures drafted, (4) NOAA Technical Memo Produced, and (5) peer-reviewed articles submitted.	Project delayed due to other high-priority activities. Have made progress, with milestones 1 and 2 completed and NOAA Technical Memo in preparation. Deadlines are (a) NOAA Technical Memo on techniques and broad summary of bycatch by 9/1/2009, and (b) peer-reviewed papers on bycatch by 9/1/2010.

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16	Seabird interactions with longline gear.	Funding received from the National Seabird Program and purchase order awarded for analysis and draft report of vessel-specific seabird bycatch.	Prepare a draft report on demersal longline vessel-specific seabird bycatch rates and have methods and report reviewed. Produce AFSC Processed Report. Use results for outreach to industry and develop long-term project proposal. Apply for funds to support projected work that would lower overall bycatch of the fleet.	If funding is available, implement an outreach and gear-program to assist vessels in reducing their seabird bycatch through better performance of mitigation gear or changes to vessel operations.	Documentation of vessel seabird bycatch rates published in processed report (with appropriate privacy and confidentiality protections). Implementation of gear and outreach program would ultimately lead to reduced bycatch levels.	List of vessel-by-vessel seabird bycatch rates available to NOAA Fisheries managers. Processed report produced and available to interested parties. Outreach to industry groups initiated. Long-term plan created and funds applied for.	(1) December 2008, analysis completed and draft report submitted to AFSC. (2) Processed Report completed by June 2009. (3) Outreach to industry during June-Sept. 2009. (4) Long-term plan created and funds applied for by Sept. 2009.
17	Trawl vessel interactions with seabirds.	Trawl Characterization paper produced by Washington Sea Grant Program (WSGP) (Dec. 2007). Observer sampling data and special project information used to note seabird bycatch by fishery sectors. Technology assessment partially addressed in WSGP report but needs more comprehensive review. Report drafted by WSGP on collaborative mitigation field studies that were done in 2005.	Report on mitigation measures will be finalized. Briefing paper summarizing issues, past work, and goals to be prepared for management decisions. Based on managers' input, a long-term research plan to be developed.	To be determined after 2009 briefing paper and manager input. Funding source for any additional studies must be identified.	Characterize, minimize, mitigate trawl vessel interactions with seabirds, particularly the short-tailed albatross; this work will address non-discretionary measures required of NMFS in a USFWS Biological Opinion (Sept 2003).	Produce trawl mitigation report and white paper describing issues and potential actions.	As of 1/2009: Report on 1st generation mitigation measures collaborative study in prep, to be finished in 2009. Trawl fleet characterization (effort and 3rd wire use) report finished in Dec. 2007 (WSGP). Briefing paper to be produced in 2009 will indicate where further research may need to be focused (including offal management or mitigation measures) and associated funding levels needed.
18	Evaluate the need for additional compliance resources to maintain the integrity of observer data.	NMFS Alaska Enforcement Division (AED) is evaluating certain technologies to assist in observer related enforcement activities and continues to work closely with the observer program to address bycatch related compliance issues.	Ongoing	Ongoing	Decreased occurrences of interference with observer sampling or reporting by crew and stricter adherence to performance requirements by observers.	AED will continue to work with observer program staff to provide support for observer interference activities on a case by case basis. AED will continue to work with NMFS Sustainable Fisheries and observer program staff on alternative monitoring technologies.	AED will participate in technical working groups as needed.

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19	Review compliance issues associated with current bycatch reduction programs.	AED continues to play an active role in recommending monitoring and enforcement activities for Council actions. Enforcement actions for bycatch related violations are handled on a case by case basis.	Ongoing	Ongoing	Bycatch reduction programs that greatly reduce or eliminate incentives for interfering with monitoring.	AED will continue to work with NMFS and Council staff to provide support for bycatch reduction actions.	AED will participate as needed.

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Bycatch Reduction Engineering and Other Research							
1	Cooperative research to develop trawl methods to reduce salmon bycatch during pollock trawling.	Presentations on 2007 field work. Field testing of design improvements . Fall 2008 tests limited by salmon scarcity. Decided further testing is required. New EFP acquired.	Work with electronics vendors on real-time monitoring of excluder position (needed for effective use), additional field tests in Winter and Fall.	Analysis of 2009 results and presentation to industry and Council.	Reduced incidental catch of salmon in directed pollock fisheries.	Documentation of reduced bycatch rates with excluders, excluder use in fisheries.	(a) Presentation to industry (11/08), (b) 14-20 days field evaluations and observations (3/09), and (c) 14-20 days field evaluations and observations (11/09).
2	Develop halibut excluders for groundfish fisheries.	Initial results were analyzed and reported to potential users. Increasing excluder use and reduced halibut bycatch in Bering Sea and GOA fisheries.	Analyze 2007-08 results and present to potential users. Develop methods for more precise testing on small vessels. Facilitate improvements by fleet.	Tests of alternative configurations to improve selectivity.	Reduced incidental halibut catch in directed groundfish fisheries.	Documentation of reduced bycatch rates with excluders, excluder use in fisheries.	Design and pilot testing of devices to monitor escaping animals.
3	Investigate methods for reducing crab bycatch in trawl and pot fisheries.	New project	Develop study methods and conduct pilot investigations (depends on funding).	Conduct field tests of bycatch reduction devices (depends on funding).	Reduced crab bycatch in directed groundfish fisheries.	Documentation of reduced bycatch rates with excluders, excluder use in fisheries.	Field tests of bycatch modifications (8/09).
4	Measure injury/mortality rates of crabs encountering trawls.	Pilot study complete. Funding secured from NPRB. Principal field work completed.	Analysis of data from field experiments. Manuscripts to be prepared for peer-review journals.	New experiments on crab discard mortality as possible with external funding.	Reduced mortality of Alaskan crabs from trawl gear. Reduced discard mortality.	Peer-reviewed papers by collaborators on mortality predictors and mortality estimates for trawl gear .	Field work for primary project completed in August 2008. First manuscript on use of reflex actions in Tanner crab and snow crab to predict mortality from trawl injuries published in 2008.
5	Modify bottom trawls to reduce effects on seafloor habitats.	Field studies completed and reported to Council, which endorsed use for Bering Sea habitat conservation, pending practicality testing and adjustments.	Full analysis of field results. Manuscript on catch effects. Practicality testing and report to Council.	Analyze 2007 results and present to potential users. Further design improvements and testing.	Reduced effects to structure forming sessile animals.	Documentation of reduced effects to structure forming sessile animals with minimal reduction in target catch rates.	June - Practicality report to Council. August - Catch effects analysis.

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6	Stock assessment research for non-target groundfish species.	Stock assessments were prepared for skates, squid, sculpin, and octopus. In 2008, observer special projects were continued for five sculpin species in the BSAI . An age structured stock assessment was developed for BSAI Alaskan skate.	Assessments will be updated, conditional on funding and priorities. Observer special projects to collect sculpin species identification will be continued. Observer special projects to collect skate sex and length will be continued.	Assessments will be updated, conditional on funding and priorities. Observer special projects to collect sculpin species identification will be continued.	Improve the quality of catch, life history, abundance, and assessment information on species where stock status is poorly defined or unknown.	Stock assessments will provide information on the bycatch of species, their size, and sex.	December 2009 Stock Assessment and Fishery Evaluation (SAFE) Report chapters will be completed .
7	Stock assessment research to reduce prohibited species bycatch.	James Ianelli contributed to the salmon bycatch environmental impact statement (EIS).	Analytical support on salmon bycatch mitigation measures will continue.	Analytical support on salmon bycatch mitigation measures will continue.	Evaluate the extent to which alternative bycatch management strategies affect bycatch rates and fishing strategies.	By assisting in responses to comments on the EIS.	Final rule for Chinook salmon bycatch regulations.
8	Economic and social science data collection and research.	Paper with Kurt Schnier and Rob Hicks completed and under internal AFSC review. Work presented at professional conferences by co-authors and submitted to scientific journal.	Work on real-time salmon bycatch modeling for pollock fishery.	Submit publications on salmon bycatch in the pollock fishery.	Improved ability to determine the social and economic impacts of bycatch and bycatch management measures and to model fishing behavior.	By our ability to measure decreases in bycatch and fishery closures associated with pollock fishing.	N/A
9	Estimate the population/stock compositions for Chinook and chum salmon caught as bycatch in the BSAI groundfish/pollock fishery	1. NMFS Auke Bay Lab (ABL) recently obtained access to two comprehensive Chinook genetic baselines (microsatellite and SNP) and we are evaluating their use. 2. ABL is collaborating with the University of Alaska School of Fisheries and Ocean Sciences to develop a comprehensive chum salmon genetic baseline (microsatellite and SNP) for performing stock composition estimates. (3) ABL is working with the observer program to implement an improved sampling plan for obtaining genetic samples.	Identify funding sources for future genetic analyses for bycatch. In the interim, evaluate the use of existing genetic baselines, compare the utility of historical and current sample collection protocols for estimating bycatch stock compositions, and develop alternative cost-efficient assays for genotyping.	Subsample from the 2009 observer collected salmon samples from the BSAI Groundfish Fishery to limit sample bias. Genotype 1,500 Chinook and 1,500 chum samples and provide genetic stock composition estimates for identified strata.	Identify stock proportions for both Chinook and chum bycatch for large geographical regions including western Alaska. Develop and implement effective management measures to reduce bycatch. Results will enable fisheries managers to make better decisions regarding management actions and policies. Work with modelers to understand how bycatch can affect local subsistence, commercial, and sport fisheries.	Progress is dependant on funding levels. In the interim, genetic tools will be obtained for completing the studies, and sample collection protocols will be reviewed to obtain unbiased stock estimates in the future.	This will be an ongoing project that will be completed annually, and stock composition estimates will be made available to the public within 6-9 months (before the start of the next season).

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10	Seabird use of fishery discards and offal.	National Research Council (NRC) post doc finished work on issue. Total discards estimated and stable isotope sampling completed. A Univ. of Washington graduate student also worked on the discard availability issue. Special data collections through observer program completed (1st phase). Processed report completed on discard availability. Three papers in prep by former NRC post doc reporting on seabird use of offal in pollock fishery and stable isotope signal of fishery for albatross. Data collected provided baseline information for an NPRB project proposal by former post doc, through the Univ. of Washington.	Writing of results from post doc work will be completed. Three papers are expected, including a description of seabird interactions with the pollock fishery, stable isotope signals of feeding on offal by albatross, and effects of fishery signals on breeding. Results will assist in predicting effects of climate change for albatross.	Assess results of work and determine if changes to offal and discard management are needed.	(1) Define linkage between seabird bycatch and offal/discard production. (2) Provide basis for continuing this work as a post doc with the Univ. of Washington, in collaboration with the AFSC, if funding provided by the North Pacific Ressearch Board.	Completion of peer-reviewed papers.	Project was extended due to taking on extra work on using stable isotopes and colony work. Current projected end date for 3 peer-reviewed papers is 5/2009. Preliminary results were presented at the 12/2007 CLIOTOP conference and the 8/2008 International Albatross and Petrel Conference. A processed report describing discard use by seabirds was produced in 2008, and that project was re-implemented for 2009.
11	A project to study the behavioral response of rock sole to disturbance by bottom trawl gear in order to determine how natural behaviors may be utilized to assist in bycatch reduction efforts in the rock sole fishery.	Completed field and laboratory experiments on effects of elevated sweeps upon flatfish herding.	Will submit manuscript to Fisheries Research.	None	Improved understanding of behavioral basis of herding in flatfish as well as evaluation of improved trawl sweeps to minimize seafloor damage.	Submission of manuscript to peer-reviewed journal.	Annually

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12	Improve spatio-temporal characterization of seabird bycatch estimates.	Short-tailed albatross threshold analysis and fishery overlap papers were published in 2008. Presentations were made at seabird conferences.	Coordination with the USFWS to occur regarding the short-tailed albatross threshold analysis and fishery overlap with trawl fleet. Spatio-temporal improvements to seabird bycatch reporting will be available in 2009 from a NOAA Technical Memo. Coordination with the USFWS and AKR on short-tailed albatross recovery issues will continue.	To be determined after discussion in 2009.	Improved characterization of when and where seabirds, especially albatross, are being incidentally taken can assist in efforts to reduce this incidental take.	Peer-reviewed papers by collaborators relevant to risk assessment and threshold analysis.	Short-tailed albatross threshold analysis and fishery overlap papers were published. Other spatio-temporal characterizations will occur in results of reporting seabird bycatch for 1993-2006.
Management (Including International Efforts)							
1	Accounting interval change for certain Maximum Retainable Amounts (MRA).	Development of proposed rule for legal review.	Publish proposed and final rules.	No further action.	Decrease regulatory discards and increase retention for non-American Fisheries Act (AFA) catcher/processors in the BSAI.	Report to Council on increased pollock retention.	Implementation early 2010.
2	Minimum Groundfish Retention Standard (GRS).	Completed	No further action.	No further action.	Create a standard for retention of groundfish for the BSAI groundfish fishery to reduce groundfish discards while continuing to allow for a multi-species trawl fishery to continue to be a viable fishery.	Monitor rates of discard by the non-AFA trawl catcher/processor fleet relative to standards established under the GRS program.	Effective January 20, 2008 (71 FR 17362, April 6, 2006).
3	Harvesting Cooperatives for the BSAI head and gut catcher/processors and quota allocations to all sectors: Amendment 80.	Completed	Refinement of regulatory provisions as needed.	Refinement of regulatory provisions as needed.	Facilitate rationalization of some sectors in the BSAI. Rationalization would eliminate the race for fish and allow cooperative behavior to decrease discards.	Ongoing monitoring and enforcement of Amendment 80 program.	Effective January 20, 2008 (72 FR 52668).
4	Extend North Pacific Groundfish Observer Program beyond December 31, 2007.	Completed	Refinement of regulatory provisions as needed.	Tefinement of regulatory provisions as needed.	Continued collection of catch and bycatch data, and management monitoring programs.	Ongoing assessment of observer program sampling protocols and use of data for catch accounting.	Final rule published July 6, 2007 (72 FR 44795). Effective August 6, 2007.
5	Non-target species management.	Continued development of problem statement and Alternatives.	Development of EA/RIR/IFRA, and Council action.	Publish proposed and final rule.	Optimization of sustainable yield of non-target species, where possible, while also protecting them from potential overfishing.	Publish proposed and final rule.	Publish proposed and final rule in 2010.

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6	GOA groundfish fishery rationalization.	The Council has tabled this project to focus instead on fishery-specific management measures that could achieve some benefits of rationalization, but at a more focused scale.	No further action.	No further action.	Provide opportunities to address conservation goals by providing opportunities to utilize fishing methods that reduce bycatch and gear conflicts.	No further action.	Council action dates are unknown.
7	Non-pelagic trawl gear modification.	Experimental design under review and modification.	Continue to explore non-pelagic trawl gear modifications that would minimize impact on the bottom habitat and associated living marine resources.	Pursue rulemaking to implement non-pelagic trawl gear modifications.	Minimizing the impact of non-pelagic trawl gear fisheries on Bering Sea bottom habitat.	Publish proposed and final rule.	Implementation of new non-pelagic trawl gear standards in 2010.
8	Bering Sea bottom habitat protection from non-pelagic trawl gear.	Completed	Refinement of regulatory provisions as needed.	Refinement of regulatory provisions as needed.	Minimizing the impact of non-pelagic trawl gear fisheries on Bering Sea bottom habitat.	Monitor fishing activity for compliance with regulatory provisions.	Final rule published July 25, 2008 (73 FR 43362).
9	BSAI Salmon bycatch (Amendment 84a).	Completed	No further action.	No further action.	Amendment 84a: reduce salmon bycatch rates by exempting participants in a voluntary rolling hotspot system from established salmon savings area trawl closures.	Monitor salmon bycatch rates and associated salmon bycatch numbers.	Implementation by final rule effective November 28, 2007 (72 FR 31070, October 29, 2007).
10	Bering Sea Chinook salmon bycatch.	Council initiated analysis of alternatives and formed salmon bycatch workgroup.	Draft environmental impact statement distributed for public review December 5, 2008.	Proposed and final rulemaking.	New and more effective Chinook salmon bycatch reduction program implemented for the Bering Sea pollock fishery by 2011.	Council action to adopt new bycatch measures; rulemaking.	Council adopts new Chinook salmon bycatch measures in 2009 and subsequent implementation of a final rule by January
11	Bering sea non-Chinook salmon bycatch.	Delay analysis of alternatives to reduce non-Chinook salmon bycatch until mid-2009.	Publish notice of intent to prepare an analysis of alternatives.	Ongoing development of proposed new program.	New and more effective non-Chinook salmon bycatch reduction program implemented for the Bering Sea pollock fishery by 2012.	Council action to adopt new bycatch measures; rulemaking.	Council adopts new non-Chinook salmon bycatch measures in 2010 and subsequent implementation of a final rule in 2011 or
12	CGOA Rockfish Pilot Project.	Completed	Refinement of regulatory provisions as needed.	Refinement of regulatory provisions as needed.	Provide opportunities to address conservation goals by providing opportunities to utilize fishing methods that reduce bycatch and gear conflicts.	Periodic program reviews and associated reports presented to the Council .	Final rule published November 20, 2006 (71 FR 67210). Effective December 20, 2006
13	Seabird bycatch reduction in longline fishery in Area 4E of the Bering Sea.	Develop proposed rule.	Published proposed and final rules.	None required.	Increase effectiveness of seabird avoidance measures and reduce burden on the fishery by tailoring avoidance measures to fisheries and in areas where short-tailed albatross occur.	Monitor incidental takes of seabirds and associated distribution of short-tailed albatross.	Publication of final rule is anticipated by spring 2009.

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14	Seabird bycatch reduction in longline fishery.	Completed	No further action.	No further action.	Reduce levels of incidental take of seabirds, and remove unneeded regulations. Also, free streamer lines are provided to the Alaska longline fleet through the Pacific States Marine Fisheries Commission.	Monitor levels of incidental take of seabirds. Monitor status of proposed and final rulemakings.	Final rule published December 18, 2007 (72 FR 71601).
15	Revisions to MRAs for GOA arrowtooth flounder.	Ongoing development of a proposed rule.	Proposed rule published November 25, 2008 (73 FR 62241); final rule published by April 2009.	No further action required.	Decrease regulatory discards and increase retention of arrowtooth flounder in the GOA.	Publication of a final rule and follow up reports on discard amounts in the arrowtooth flounder fishery.	Publication of final rule is anticipated in April 2009.
16	Propose, develop, and analyze different market-based salmon bycatch management systems.	Wrote and presented discussion paper to the Council, AP, and SSC.	Provide on-going input and analysis to the Council.	Report findings.	More effective economically efficient salmon bycatch management in the pollock fishery.	Production of article for peer-reviewed journal.	N/A
Education and Outreach							
1	Improve bycatch information available to industry.	Working with private fisheries management firms to provide accurate, precise, and timely bycatch information for transmittal to fleet.	Ongoing	Ongoing	Industry will be better informed about gear technology, the effects of bycatch, and in-season bycatch data and can make better decisions to avoid bycatch.	Progress will be measured by ability of individual sectors to avoid bycatch and manage allocations and total allowable catches (TACs).	Remaining below TACs, allocations, and PSC levels.
2	Improve bycatch information available to fishery managers and other stakeholders, including the public at large.	Annually present bycatch information to the Council on the effects of regulatory discards.	Ongoing	Ongoing	Fisheries managers and the public will be able to make better decisions regarding management actions and policies.	Presentation of bycatch information to the Council on the effects of regulatory discards.	Annually
3	Coordinate with fishing industry and the AFSC on the development, review, and issuance of exempted fishing permits (EFPs) intended to reduce bycatch mortality in the groundfish fisheries.	Ongoing coordination on EFPs assessing salmon and halibut excluder devices.	Coordinate new EFPs assessing better ways to assess and reduce halibut discard mortality.	Ongoing	Development of potential regulatory provisions that would result in reduced bycatch mortality in the North Pacific groundfish fisheries.	EFP activities and results will be presented in reports to NMFS and the Council.	Present a report to the Council on the conclusion of experimental activity authorized under each EFP.
4	Participation in international efforts to address bycatch problems, including at regional fishery management organizations and U.S. government bilateral fishery meetings.	The NMFS National Seabird Program is coordinated out of the AKR and engages in numerous activities to promote international action to effectively address seabird/fishery issues.	Ongoing	Ongoing	Support information needs for decision makers outside the United States to decrease bycatch and obtain information to provide efficiencies in domestic efforts to reduce bycatch.	Maintain record of NMFS involvement with international seabird activities and events.	Any products (reports, papers) from joint U.S./international seabird bycatch reduction efforts.

Activity Number	Action	Status as of September 30, 2008	2009	2010	Outcome	How progress will be measured and/or monitored	Milestones and anticipated completion dates if applicable
5	Seabird interactions with groundfish trawl paravane gear.	Project was delayed into 2009 due to lack of funds. Funding applied for. Industry partners identified.	Depending on funding: conduct 2-3 week cruise on commercial trawl vessel, examining baseline seabird interaction rates with paravane gear and developing potential mitigation gear.	Analyze results of study and produce report. Based on results, make recommendations for further work.	Gain an understanding of seabird interactions with paravane gear (used by about 10-12 catcher/processors) and develop potential mitigation methods for testing in field studies with appropriate sample sizes.	Funding available; fieldwork planned, implemented, and completed; analyst on contract; report produced.	(1) Funding is provided by April 2009. (2) If funding provided, then field work implemented and completed by Sept 2009. (3) Analysis and report completed by June 2010.
6	Create standardized process for annual report of seabird bycatch in Alaskan groundfish fisheries.	Decision made to develop improved annual process with more standardization and less dependency on staff, making use of existing processes available through the AKR catch accounting system.	Statistical methods being used to produce annual seabird estimates are evaluated for use in the Catch Accounting System. Specs are developed and a request for changes submitted, allowing about 6 months for work to be completed.	No developmental work required. Annual production of estimates ongoing.	Annual reports of seabird bycatch will be available in a more timely manner and depend less on intense staff work for estimation processes.	Availability of annual estimates by July of each year.	(1) Initial request made to AKR, (2) informal workshop held to determine appropriate procedures, (3) specs developed and submitted by April 2009, and (4) changes to AKR Catch Accounting System implemented by Dec. 2009.
NOTE: This is a working document that will be revised in the future as additional, practicable bycatch reduction opportunities occur. Red items are primarily associated with the North Pacific Groundfish Observer Program, yellow with stock assessment and research functions of the Alaska Fisheries Science Center, green with Alaska Enforcement Division (AED), and blue with the Alaska Regional Office.							