

# **State of Alaska FY2012 Governor's Operating Budget**

## **Department of Fish and Game Commercial Fisheries Results Delivery Unit Budget Summary**

## Commercial Fisheries Results Delivery Unit

### Contribution to Department's Mission

The mission of the Division of Commercial Fisheries is to manage subsistence, commercial, and personal use fisheries in the interest of the economy and general well being of the citizens of the state, consistent with the sustained yield principle, and subject to allocations through public regulatory processes.

### Core Services

- Stock Assessment and Applied Research: Maintain ongoing programs for the enumeration, assessment, and understanding of salmon, herring, groundfish, and shellfish stocks.
- Harvest Management: Control the harvest of fishery resources for subsistence, commercial, and personal uses according to plans and regulations.
- Aquaculture Permitting: Permit and provide regulatory, technical, and planning services to aquatic farmers and private nonprofit hatchery operators.
- Information Services and Public Participation: Develop, maintain and disseminate data, analyses, and published reports.

### Results at a Glance

(Additional performance information is available on the web at <http://omb.alaska.gov/results>.)

#### **END RESULT A: Stable or increasing economic and social benefits derived from the harvest and use of fish, shellfish, and aquatic plants in Alaska.**

- Smaller salmon and groundfish harvests reduced the 2009 harvest value to \$1.5 billion, down from \$1.9 billion in 2008. For the past several years, the value has been well above the target of \$1 billion annually.
- In 2008, user success in meeting amounts necessary for subsistence was met in 60% of the monitored subsistence fisheries, 10% below the target of 70%. Performance in 2008 was slightly better than the 57% in 2007 and average performance is stable at approximately 60% success over the past eight years.

#### **Status of Strategies to Achieve End Result**

- The goal is to meet escapement goals in 80% of monitored salmon streams. In 2009, 71% of the goals were obtained; in 2008, 74%; and in 2007, 90% of the goals were met.
- The number of salmon stocks identified and sampled for inclusion in DNA databases continues to increase and the original target has been achieved for all three species.
- The Salmon and Groundfish harvested stocks demonstrate a high percentage of meeting the target of establishing reproductive goals or other baseline biological reference points for all harvested stocks. Other goals based on quantitative and qualitative analysis and assessment indicate more work is necessary in order to fully meet the target.
- In this difficult task, meeting 80% of user group allocation objectives established by the Board of Fisheries by region continue to fall below the target. This strategy is functional because it demonstrates the inherent challenge of achieving allocation targets.
- There continues to be a high approval percentage of public requests for new fishery development for which basic harvest guidelines are developed.
- 100% of the active aquatic farm sites have a current aquatic farm operation permit. This meets the target of 100%.

#### **Major Activities to Advance Strategies**

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| <ul style="list-style-type: none"> <li>• Collect age, size, and sex data on harvested finfish and shellfish populations.</li> <li>• Operate aging/tag/otolith, genetics, and pathology laboratories.</li> <li>• Collect and analyze genetic markers from finfish and shellfish populations.</li> </ul> | <ul style="list-style-type: none"> <li>• Provide technical oversight in finfish and shellfish health for hatchery and farm operators.</li> <li>• Prevent or prescribe treatment for disease outbreaks at salmon hatcheries or shellfish farms.</li> <li>• Provide harvest and production data to Commercial Fisheries Entry Commission (CFEC) and North</li> </ul> |
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### Major Activities to Advance Strategies

- Survey and sample marine finfish and shellfish populations.
- Calculate annual escapement goals for salmon.
- Establish annual harvest objectives for marine species.
- Prevent the introduction and spread of invasive and introduced species.
- Permit aquatic farms for shellfish and aquatic plants.
- Provide biological and technical assistance to existing and prospective aquatic farmers.
- Open and close areas for commercial fishing to harvest surpluses.
- Collect harvest information from commercial, personal use and subsistence fisheries.
- Operate weirs, sonar projects, and counting towers to track salmon escapements.
- Conduct aerial surveys during management of salmon and herring fisheries.
- Place observers on fishing vessels to sample catches and collect data.
- Conduct test fishing operations as part of stock assessment efforts.
- Conduct life history and habitat utilization research.
- Conduct stock assessment and recruitment modeling.
- Investigate new and improved technologies for determining biological productivity and calculating yields.
- Conduct collaborative research with universities, federal agencies, and non-governmental organizations.
- Expand database of genetic markers to stocks not currently covered.
- Develop models for calculating Maximum Sustained Yield for stocks lacking them.
- Provide training and continuing education for staff from all job classes.
- Conduct life history and other biological research on underutilized fish stocks.
- Respond to industry requests for new fisheries on underutilized stocks.
- Work with Board of Fisheries to authorize fisheries on underutilized stocks.
- Permit and oversee private non-profit salmon hatchery program.
- Approve salmon and shellfish stocks with acceptable disease histories for mariculture and salmon aquaculture programs.
- Pacific Fishery Management Council (NPFMC).
- Comment to NPFMC and CFEC on fishery management and biological issues associated with rationalization proposals.
- Provide individual fishing history data to boat owners, captains, and federal and state agencies.
- Open and close areas and species for subsistence and personal use harvest.
- Issue permits for personal use and subsistence fisheries.
- Tabulate subsistence and personal use catches.
- Provide reports to the Board of Fisheries and other entities on subsistence and personal use fisheries.
- Work with the Board of Fisheries and the public to craft management plans and regulations that meet subsistence and personal use needs.
- Provide biological and fishery management information to the Board of Fisheries and state fish and game advisory committees.
- Submit proposals to the Board of Fisheries.
- Comment on both staff and public proposals before the Board of Fisheries.
- Provide oral and written biological and fishery management advice to the Board of Fisheries.
- Draft regulations and management plans based on proposals approved by the Board of Fisheries.
- Provide staff support to the Alaska Board of Fisheries.
- Design and maintain electronic databases for catch and production data.
- License fish processors.
- Design, print, issue, collect, edit, and data enter fish tickets recording harvests.
- Collect, edit and data enter annual buying and production data from seafood processors.
- Provide summary information on harvests and production in electronic and print media.
- Maintain confidentiality of protected data.
- Publish catch and production information on web site.
- Provide internet access to searchable database of division publications.
- Publish news releases on department research and management activities.
- Publish articles on fisheries management and research in magazines and trade journals.
- Provide photos and video footage on the web site and to the media.

### Key RDU Challenges

#### Yukon River Salmon Fisheries

Yukon River salmon fisheries are continuing in a period of low productivity for Chinook, summer chum, and fall chum salmon. This is one of the poorest regions of the state and people are highly dependent on these salmon for both subsistence and commercial fisheries. This creates a challenge for management and research to accurately assess

run size and make correct management decisions inseason that provide allowable harvests (priority program 1) while still protecting the sustainability of stocks. Because of the size of the drainage, the mixed stock/mixed species nature of the fisheries, and the lag time between when the fish enter the river and when they reach the spawning grounds, this is one of the most difficult salmon management challenges in the state. The department needs improved capability to 1) assess the run size early so that management decisions accurately reflect run size with a higher degree of precision than previously available, 2) provide information to and solicit input from users along the river (priority programs 3 and 4), and 3) develop information and analyses that will allow us to prevent intrusion of the federal subsistence program into management of state fisheries.

### **Bering Sea Crab Research**

The multi-year federal grant that had been supporting Bering Sea crab research and fishery data collection and distribution for several years was discontinued in the federal FY08 budget. The state provided one-time funding in state FY09 and federal funds were received again in state FY10 to support this program. The department continues to rely on federal funds again in state FY12 to continue this important research work and essential data collection and distribution. Secure, long-term funding is needed for this program to maintain the research and data collection and distribution program necessary for sustainable management of the highly-valuable Bering Sea and Aleutian Islands crab fisheries. The division is working to assess reproductive potential and to estimate other important productivity parameters of the Bering Sea snow crab stock, a stock that provides the largest crab harvest in Alaska, although harvests are presently much lower than historical levels. The department also performs triennial surveys to improve stock assessment of king crab stocks that are not surveyed, or not adequately surveyed, by the National Marine Fisheries Service trawl survey. Improved stock assessments will allow the department to maximize harvests and avoid overfishing, which is especially important to industry during periods of low stock productivity. The division maintains and distributes the data collected by at-sea observers and dockside samplers, as is essential for fishery management.

### **Marine Stewardship Council Transition to Industry Client**

In the fall of 2008, Commissioner Lloyd informed the Marine Stewardship Council (MSC) that the Alaska Department of Fish and Game (ADF&G) would no longer continue as the client for certification of the Alaska salmon management program. The client role was taken over by the Alaska Fisheries Development Foundation. ADF&G continues to provide information and assist the client during the annual surveillance audits and the re-certification process, activities that comprise a significant contribution of agency resources to the process. This transition has gone smoothly so far. At the same time, the Alaska Seafood Marketing Institute is working with Global Trust to develop a sustainability certification program for all Alaskan fisheries. This process is just getting underway and appears to be far less onerous than the MSC certification.

### **Employee Recruitment and Retention Difficulties**

The division continues to work with the department to overcome recruitment and retention difficulties. As part of this effort the "Fish and Wildlife Careers for Alaskans" (FWCA Program) that helps to identify and recruit young Alaskans interested in working for ADF&G was transferred to Division of Administrative Services to work with a Program Coordinator II, who will lead the department's workforce development efforts. As part of these efforts, the division is collaborating on a department-wide level and is partnering with other state agencies and outside entities such as the Association of Fish and Wildlife Agencies, Management Assistance Team, other state fish and wildlife agencies, and the National Conservation Leadership Institute.

The division continues to suffer from insufficient applicant pools for many positions, especially higher level positions such as Fishery Biologist III and IV, Regional Supervisor, and Assistant Director. Insufficient applicants from within the state are requiring supervisors to recruit from out of state for almost all positions and even then, many of our vacancies attract an insufficient applicant pool. The division is addressing this problem through broader recruitment efforts, workforce development for new and existing employees, and development of a program to interest young Alaskans, especially from rural areas, in careers with ADF&G. This problem impacts the division's ability to carry out all priority programs

### **Rebuilding Salmon Fisheries Research Program**

The division's statewide salmon research program had eroded badly due to retirements of key personnel and difficulty in replacing key positions. As management of Alaska's salmon fisheries becomes more complex, it is essential to rebuild this program in the future by requesting general fund for the Biometrician IV enabling work to be done on

statewide issues and to obtaining funding to add three post graduate interns. These positions will strengthen the division's capabilities in stock assessment, setting escapement goals, and conducting applied research in stock identification, genetics, and pathology. The post graduate intern positions would attract talented professionals to the division to help address the recruitment and retention difficulties described above.

### **Susitna and Cook Inlet Sockeye Salmon Stocks**

Research projects, begun during the 2006 field season, continue on sockeye salmon stocks in Susitna River. Besides continuing to estimate run sizes, this research is attempting to solve the species apportionment problem so that the transition to dual frequency identification sonar (DIDSON) can continue and this sonar can be a useful tool in the Yentna River (a tributary of the Susitna River) drainage. This research is intended to answer a number of questions about the abundance, productivity, and harvests of sockeye salmon in Upper Cook Inlet and assist in setting escapement goals. Low numbers of sockeye salmon have been returning to the Susitna River and other Northern Cook Inlet systems in recent years. These research projects will help determine the cause of the poor returns to Northern Cook Inlet, to set appropriate sockeye salmon escapement goals in the Susitna River drainage, and to determine if effective management measures can be deployed in the Central District commercial fisheries of Upper Cook Inlet to achieve those goals while still allowing the harvest of more abundant Kenai River and Kasilof River sockeye salmon stocks, and meeting other established management goals, such as reducing king salmon catch.

### **Karluk Lake Sockeye Salmon Reduced Runs**

Sockeye salmon returning to Karluk Lake during the past three years have been substantially lower than the recent past resulting in poor escapements and restrictions to the commercial fishery. Karluk Lake sockeye salmon typically represent the largest runs in the Kodiak Management Area and dictate most of commercial fisheries management decisions throughout the west side of Kodiak Island. User groups have expressed significant concern regarding the recent run sizes and the department has put considerable effort into exploring the causes for the reduced runs, likely scenarios of recovery, and ways to prevent the low runs in the future. The department has initiated pilot projects, such as the feasibility of a DIDSON sonar at the Karluk Lagoon and an early-season test fishery to explore methods to improve management of the stock. Increased funding will be necessary to continue these projects, maintain the existing monitoring program (weir operation and adult sampling), and expand research efforts to investigate freshwater and other possible "bottle necks" that limit production.

### **Genetic Stock Identification**

As Alaska's salmon fisheries become more complex, the department and the public have identified the need for greater genetic stock identification capability. Genetic stock identification helps in dealing with fishery allocation issues, meeting treaty obligations in Southeast Alaska and on the Yukon River, assessing stock composition changes in fisheries due to management actions, and allocating catches to the correct stock to better determine stock productivity and set escapement goals that provide for maximum sustained yield. Our lab has begun the analysis of approximately 140,000 tissues collected from Western Alaska salmon stocks to determine stock specific contributions of chum and sockeye salmon in Chignik, Alaska Peninsula, Bristol Bay, and Arctic-Yukon-Kuskokwim Region fisheries. Analyzing all the samples and preparing reports for the Alaska Board of Fisheries is a huge task that presents a tremendous challenge for the division. As the demand for genetic stock identification has increased, the department faces a challenge staffing the genetics lab adequately to run the required number of samples, analyze the data, and report the results. Current lab capacity is 15 to 30 times that of most other fisheries genetics labs and is still inadequate to meet the demand. Difficulty hiring trained geneticists and biometricians has slowed analysis and reporting of results. Potential Endangered Species Act listings also point out the need to expand lab capabilities to better deal with such diverse species as beluga whales and herring. The division is seeking to expand its genetics capabilities into marine species to answer a variety of questions related to endangered species listings, federal fisheries management, and mariculture.

### **Federal/State Subsistence**

In order to minimize disruption to state residents; to protect state fish resources; and minimize federal intrusion into state management, significant staff time is spent interacting with the federal system of Regional Advisory Councils, which represent federal subsistence users, the federal Office of Subsistence Management, and the Federal Subsistence Board. The division and the department must find ways to ensure that federal decisions do not adversely impact conservation of fishery resources or unnecessarily restrict non-federally qualified users. This task has been made more difficult by the inability over the last two years to recruit and retain an Assistant Director to act as the Subsistence Liaison Team Leader.

### **Federal Fishery Rationalization**

The North Pacific Fishery Management Council (NPFMC) has a number of initiatives underway that affect state-managed fisheries and distribution of benefits from the harvest of federally-managed fishery resources off Alaska. These include bycatch reduction measures for crab and salmon in groundfish fisheries off Alaska; rebuild overfished crab stocks; implement annual catch limits to guard against overfishing; restructure the federal groundfish observer program to improve quality and utility of observer data; modify fishery management to protect endangered species; and apply lessons learned from over a decade of experience with fishery rationalization programs off Alaska to better meet state policy objectives. Review of the federal salmon Fishery Management Plan and development of an approach to Annual Catch Limits for salmon present a particular challenge over the coming year. State managers and researchers must work through the NPFMC process to minimize negative impacts of federal management programs on non-target species, habitat, state fisheries, and coastal communities as rationalization programs evolve.

### **State-Federal Co-Management of Bering Sea – Aleutian Islands Crab Fisheries**

The federal Fishery Management Plan (FMP) for the Bering Sea and Aleutian Islands king and Tanner Crabs establishes a state-federal cooperative management regime that defers crab management to the State of Alaska with federal oversight. Changes to the Magnuson-Stevens Fishery Conservation Act (MSA) in recent years, and the resulting federal regulations stipulating management measures that must be applied to federal FMP fisheries (e.g., federal overfishing definitions, federal stock status determinations, federal annual catch limits), have increased demands on Westward and Headquarters staff for analysis and reporting. Those demands to satisfy federal requirements have become increasingly burdensome to staff, and detract from staff time available to address existing and more productive fishery management and research activities. Moreover, the new federal regulations increasingly impinge upon the management authority that is deferred to the State of Alaska in the FMP and marginalizes the role of the Alaska Board of Fisheries in establishing management measures for the Bering Sea and Aleutian Islands king and Tanner crab fisheries.

### **Vessels and Aircraft Maintenance and Replacement**

The division has several research and support vessels and four small aircraft, which require regular maintenance and periodic overhaul. They are integral to a variety of stock assessment programs and provide platforms for inseason management. Maintenance must be provided to protect this capital investment, assure efficient operations, and meet safety requirements. Additionally, three of the division's vessels have reached replacement age and the division must find funds to replace them in the near future. Maintaining a high quality aircraft program for salmon stream surveys depends on the ability to recruit and retain excellent pilots experienced in rural Alaska and flying low altitude and float equipped planes. The Aircraft Pilot Job class series specifications and pay grades are inadequate to meet the department's need for pilots.

### **Support for Aquaculture**

Both private non-profit salmon hatchery operators and aquatic shellfish farmers depend on the division for planning, permitting, disease prevention, and other technical services. The division is now better able to provide the level of support desired, because of improved funding and staffing; however, technical service requests from hatchery operators and aquatic farmers have increased substantially in recent years, which in turn have increased challenges for staff. We have started a review of hatchery operations and permitting in the Kodiak area and will move from there to Cook Inlet, and then on to other regions. This review is to assure hatchery management plans are up to date and that programs are adhering to policies. We are also reviewing the status and condition of state owned facilities that are leased to Private Non-profit (PNP) hatchery associations. The division is following and has permitted private efforts to develop techniques for enhancing depressed shellfish populations like red and blue king crab and to reestablish lake enrichment programs to restore and enhance sockeye salmon production in the Kodiak Island area. The division faces the challenge of supporting and helping these various aquaculture and hatchery programs develop while protecting wild stocks.

### **Test Fish Revenue Concerns**

In recent years, members of the legislature and representatives from the commercial fishing industry have raised concerns over the division's test fish fund program, which uses the sale of harvested fish to pay for critical research and management programs. This practice is highly controversial and disliked by many fishermen. The division faces the challenge of finding alternative ways to support these programs. In the absence of these programs, many fisheries would have to be managed much more conservatively, which would result in reduced economic value of the fisheries.

## Significant Changes in Results to be Delivered in FY2012

No changes in results delivered.

## Major RDU Accomplishments in 2010

- The 2010 salmon harvest of 168.6 million fish generated a value to commercial fishermen of \$533 million. This is the first time since 1992, and only the fifth time since 1975, that the value of Alaska's commercial salmon fishery has topped a half a billion dollars. This is over twice the annual value of the salmon harvests from 2000 to 2004, which constitute the low point for salmon prices during the last 25 years.
- The division has maintained the percentage of active aquatic farms operating with current permits at 100 percent. This demonstrates the division's performance is in line with its internal performance goal of 100 percent. Six years ago, only 47 percent of the active aquatic farms in the state were operating under the terms of a current permit.
- The division is addressing funding challenges posed by withdrawal of federal funds for crab observer training. In collaboration with the University of Alaska Observer Training Center, division staff are identifying program and funding needs to ensure an effective observer training program, as well as developing plans to replace federal observer training funds with crab rationalization and test-fish funds.
- The division achieved a significant management milestone in developing an allowable catch limit for the 2009/10 season for Bering Sea snow crab, which was determined this fall to have failed to rebuild to the target level for sustainability. Staff identified a conservative harvest objective that met the stringent requirements of federal law (Magnuson Stevens Fishery Conservation and Management Act) for rebuilding the fishery, while still providing for an economically viable harvest. The department established total allowable catches (TACs) for the 2010/11 Bering Sea crab season for the Bristol Bay red king crab fishery (14.8-million pounds), the Bering Sea snow crab fishery (54.3-million pounds), and the St. Matthew blue king crab fishery (1.6-million pounds) that met the conservation and economic benefit objectives and requirements of state and federal regulations; three Bering Sea crab fisheries (the Pribilof red and blue king crab and Bering Sea Tanner crab fisheries) were closed to commercial fishing in the 2010/11 season for stock conservation. The department worked within the federal process to assure that the expertise within the department is directly utilized in setting the annual catch limits (ACLs) that federal regulations require to be established for the Bering Sea and Aleutian Islands king and Tanner crab fisheries in order to minimize risk of overfishing.

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**Commercial Fisheries  
RDU Financial Summary by Component**

*All dollars shown in thousands*

	FY2010 Actuals				FY2011 Management Plan				FY2012 Governor			
	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds
<b>Formula Expenditures</b> None.												
<b>Non-Formula Expenditures</b>												
SE Region Fisheries Mgmt.	6,854.1	0.0	176.8	7,030.9	7,799.5	0.0	162.0	7,961.5	8,131.0	0.0	169.6	8,300.6
Central Region Fisheries Mgmt.	8,343.7	0.0	0.0	8,343.7	8,374.6	0.0	0.0	8,374.6	8,693.9	0.0	0.0	8,693.9
AYK Region Fisheries Mgmt.	6,030.1	0.0	0.0	6,030.1	6,563.7	0.0	0.0	6,563.7	6,961.6	0.0	0.0	6,961.6
Westward Region Fisheries Mgmt.	7,587.8	0.0	0.0	7,587.8	7,705.3	0.0	0.0	7,705.3	8,121.9	0.0	0.0	8,121.9
Headquarters Fisheries Mgmt.	9,411.9	0.0	0.0	9,411.9	10,530.9	0.2	0.0	10,531.1	10,819.6	0.0	0.0	10,819.6
Comm Fish Special Projects	2,862.3	7,141.2	8,079.2	18,082.7	3,505.5	8,343.8	10,724.2	22,573.5	3,863.8	8,724.1	10,674.2	23,262.1
<b>Totals</b>	<b>41,089.9</b>	<b>7,141.2</b>	<b>8,256.0</b>	<b>56,487.1</b>	<b>44,479.5</b>	<b>8,344.0</b>	<b>10,886.2</b>	<b>63,709.7</b>	<b>46,591.8</b>	<b>8,724.1</b>	<b>10,843.8</b>	<b>66,159.7</b>

**Commercial Fisheries**  
**Summary of RDU Budget Changes by Component**  
**From FY2011 Management Plan to FY2012 Governor**

*All dollars shown in thousands*

	<u>Unrestricted</u> <u>Gen (UGF)</u>	<u>Designated</u> <u>Gen (DGF)</u>	<u>Other Funds</u>	<u>Federal</u> <u>Funds</u>	<u>Total Funds</u>
<b>FY2011 Management Plan</b>	<b>40,770.0</b>	<b>3,709.5</b>	<b>8,344.0</b>	<b>10,886.2</b>	<b>63,709.7</b>
<b>Adjustments which will continue current level of service:</b>					
-SE Region Fisheries Mgmt.	214.7	7.0	0.0	7.6	229.3
-Central Region Fisheries Mgmt.	315.0	4.3	0.0	0.0	319.3
-AYK Region Fisheries Mgmt.	227.5	0.7	0.0	0.0	228.2
-Westward Region Fisheries Mgmt.	359.9	56.7	0.0	0.0	416.6
-Headquarters Fisheries Mgmt.	288.7	0.0	0.0	0.0	288.7
-Comm Fish Special Projects	667.6	-199.5	200.0	0.0	668.1
<b>Proposed budget decreases:</b>					
-Central Region Fisheries Mgmt.	0.0	-160.0	0.0	0.0	-160.0
-Headquarters Fisheries Mgmt.	0.0	0.0	-0.2	0.0	-0.2
-Comm Fish Special Projects	0.0	-109.8	-119.7	-50.0	-279.5
<b>Proposed budget increases:</b>					
-SE Region Fisheries Mgmt.	109.8	0.0	0.0	0.0	109.8
-Central Region Fisheries Mgmt.	160.0	0.0	0.0	0.0	160.0
-AYK Region Fisheries Mgmt.	169.7	0.0	0.0	0.0	169.7
-Comm Fish Special Projects	0.0	0.0	300.0	0.0	300.0
<b>FY2012 Governor</b>	<b>43,282.9</b>	<b>3,308.9</b>	<b>8,724.1</b>	<b>10,843.8</b>	<b>66,159.7</b>