



Sections 163 and 164, Title 14, California Code of Regulations (CCR), reflect Department of Fish and Game (Department) recommendations presented to the DHAC and recommendations from the DHAC. The Department prepared a Supplemental Environmental Document, pursuant to the requirements of the California Environmental Quality Act. This Environmental Document will be released for public review in late-May 2011. Certification of the Environmental Document is scheduled to occur at the September 15, 2011, Commission meeting in Redding.

## **BACKGROUND**

Pacific herring gill net fisheries occur in four primary spawning areas; San Francisco Bay, Tomales Bay, Humboldt Bay, and Crescent City Harbor. The Department manages these populations as separate stocks. The commercial herring fisheries on these stocks are closely regulated through a catch quota system to provide for adequate protection and utilization of the herring resource. The Department conducts annual assessments of the herring spawning population size (spawning biomass) in San Francisco Bay. In addition to the assessment of spawning biomass, the Department examines the age structure of the spawning population, growth and general condition, biological aspects of the catch, and environmental conditions. These data serve as the basis for establishing fishing quotas for the next season.

The herring eggs on kelp fishery (HEOK) is only permitted in San Francisco Bay. Holders of gill net permits for San Francisco Bay are allowed to convert their permit into a HEOK permit at the start of each season. This fishery is regulated with the gill net fishery and its proportion of the quota is allocated from the total quota set for San Francisco Bay.

A fresh fish Pacific herring fishery is also permitted in Tomales Bay and San Francisco Bay. Annual quotas for these fisheries are set in conjunction with gill net fisheries for Tomales and San Francisco Bay.

## **FISHING QUOTAS**

Annual fishing quotas are intended to provide for a sustainable fishery and have been limited to a total commercial catch of not to exceed 20 percent (harvest percentage) of the spawning biomass. This harvest percentage is based upon the results of a peer reviewed model that assumes stable environmental and biological conditions. Quotas are the principal regulatory tool to establish adequate protection for the herring resource and provide for the long-term yield of the fishery. Each year, the Department recommends a harvest percentage that is not determined by a fixed mathematical formula; rather, the recommendation is based upon the modeling results and takes into account additional data collected each season, including oceanic conditions, growth rates of herring, strength of individual year-classes, and

predicted size of incoming year-classes (*i.e.*, recruitment). In response to poor recruitment, or indication of population stress, and/or unfavorable oceanographic conditions, harvest percentages in previous years have been set below 15 percent. For example, a near record low spawning biomass was estimated for both the 2006-2007 and 2007-2008 seasons; therefore, a conservative harvest percentage of 10 percent was recommended for those two seasons. The Department recommended a zero ton quota or no fishery option for the 2009-2010 season when the herring spawning biomass in 2008-2009 fell to a new historical low of 4,833 tons. The Commission adopted this recommendation and no commercial fishery was held in San Francisco Bay for the 2009-2010 season. This was done to help safeguard the remaining population and allow for stock rebuilding.

Within the overall quota for San Francisco Bay, separate quotas are established for each of the two gill net fishing groups (odd and even). Slight annual adjustments in the quota assignments for each fishing group are needed to account for attrition of permittees and the use of herring permits in the herring eggs on kelp fishery. HEOK fishing occurs only in San Francisco Bay and the fishery is regulated under Section 164, Title 14, CCR. Individual HEOK quotas depend on the total herring fishery quota for San Francisco Bay established by the Commission under Section 163, Title 14, CCR. In 1994, the Commission provided HEOK permittees with a HEOK quota equal to approximately 0.79 percent of the overall quota.

### **San Francisco Bay**

The spawning biomass estimate for the 2010-11 season was 57,082 tons, well above the historical average (1978-79 season to present) of 49,327 tons. Based on 2009-10 season age estimates, the increase in spawning biomass was likely due to strong recruitment of 3-year old herring to the spawning population. Even with the increased biomass, the Department continues to be concerned about the age structure of the San Francisco Bay herring population. Following the 1997-1998 El Niño, the estimated number of age four and older herring that historically supported the gill net fishery, declined to very low levels. Recent age data indicated that these older age classes have not recovered to historical levels and it will take several seasons to reach this management objective. The higher than expected recruitment of 3-year old fish (2007-2008 year class) into the spawning population does demonstrate the potential for stock recovery; however, because this year class represents a relatively high percentage of the spawning population, it will be subjected to greater levels of fishing mortality. As a result, the Department will continue to recommend precautionary management principles for safeguarding the spawning population. These principles will help protect this year class as the foundation for stock recovery and the commercial fishery for the 2011-2012 and 2012-2013 seasons.

## San Francisco Bay Quota Options and Recommendation

The Department is providing the Commission a quota option range between zero to 10 percent of the 2010-2011 spawning biomass estimate of 57,082 tons. However, the Department recommends a quota for the 2011-2012 season of 2,854 tons, which is five percent of the 2010-2011 spawning biomass. The Department considers that a five percent harvest rate for 2011-2012 will help reduce fishing mortality on the strong 2007-2008 year class, which will be critical for continued stock recovery.

The 2010-2011 season spawning biomass of 57,082 tons is significantly higher than the 2009-2010 season biomass of 38,409 tons, and above the historical average of 49,327 tons. Given the concerns mentioned above, the Department and the Director's Herring Advisory Committee (DHAC) both support setting the harvest rate for the 2011-2012 season at five percent, well below the 10 to 20 percent harvest rates often used for a fully recovered or healthy herring population. The San Francisco Bay herring stock is currently in the rebuilding phase following the historic population low of 4,833 tons estimated for the 2008-2009 spawning season. Although the population has rebounded during the last two seasons, the fishery appears to be primarily supported by the strong 2007-2008 year class. According to preliminary data, the 2007-2008 year class dominated this season's research catch and made up a large portion of the commercial catch. Barring unfavorable ocean conditions, this group is expected to return to the bay in large numbers next season as 4-year olds. Both the Department and DHAC consider that a limited quota will provide a sustainable fishing opportunity while safeguarding sufficient numbers of herring for continued stock rebuilding. Additionally, fishing effort in the San Francisco herring fishery has decreased significantly during the past several years. During the 1990s the number of herring permits peaked at over 450 with over 120 vessels participating. In contrast, during the 2010-2011 season permit renewals fell to 185 and only 27 vessels elected to participate. Given the decline in the number of participants, a 2,854 ton quota will provide for a fishery while preventing overexploitation.

The Department continues to be concerned about the status of the herring population. However, the low harvest rate recommendation provides for a sustainable fishery while supporting continued stock rebuilding, helping secure herring's important role in both ocean and bay ecosystems.

### **Tomales Bay**

The Department is not recommending any change to the regulations for the Tomales Bay fishery quota. Proposed changes to the season dates are outlined under "Season Dates and Fishing Times" below.

### **Humboldt Bay and Crescent City Harbor**

The Department is not recommending any change to the regulations for the Humboldt Bay or Crescent City Harbor herring fisheries including quotas and season dates.

### **Daily Fresh Fish Market Order Limit (San Francisco and Tomales Bays)**

The Department is recommending that no permittee may take or possess herring except in the amount specified on a current daily market order, not to exceed 1,000 pounds, from a licensed fish dealer. Current regulations state that daily market orders are not to exceed 500 pounds; however, the fresh fish fishery in San Francisco Bay has requested that the Commission raise this limit to 1,000 pounds to meet the demands of an emerging local fresh fish market. The Department considers a daily market increase to 1,000 pounds to not be detrimental to the herring population if existing regulations pertaining to this fishery are followed and the 20 ton fresh fish quota for San Francisco Bay and 10 ton fresh fish quota for Tomales Bay are not exceeded.

### **SEASON DATES AND FISHING TIMES**

#### **San Francisco Bay**

The Department is recommending that the Commission adopt the DHAC recommended changes to season dates and fishing times for San Francisco Bay. The consensus of the DHAC, which met on April 6, 2011, was to recommend that the dates of the roe herring fisheries for the Odd and Even platoons in San Francisco Bay be set to open from noon on Monday, January 2, 2012, until noon on Friday, March 9, 2012.

#### **Tomales Bay**

The Department is recommending that the Commission adopt the DHAC recommended changes to season dates and fishing times for Tomales Bay. The consensus of the Tomales Bay DHAC representatives for setting season dates was to recommend opening at noon on Monday, December 26, 2011, until noon on Friday, February 24, 2012.

## **Fresh Fish Market Permits (San Francisco and Tomales Bay)**

The Department is recommending that San Francisco Bay and Tomales Bay fresh fish market permittees be allowed to fish from November 2 until March 31, excluding days during that period when the San Francisco Bay and Tomales Bay limited entry Pacific herring gill net permit fisheries are open. The changes to the fishing period for San Francisco Bay and Tomales Bay fresh fish market permits will allow fresh fish market permittees access to Pacific herring when they are typically present in these bays. It will also prohibit fishing in the months of the year when adult herring are absent, reducing the chance for unwanted by-catch.

### **CHANGES FOR CLARITY AND CONSISTENCY**

The Department is recommending minor editorial changes to regulations to reflect the implementation of the Department's Automated License Data System (ALDS). ALDS streamlines the license process, so that permittees will no longer be required to submit copies of a current license or registration when renewing permits. This information will be available electronically which eliminates the need for paper documentation. Application form numbers and fee amounts will be removed and replaced with reference to Section 705 of Title 14, CCR. This section contains application numbers and fee amounts for commercial fishing permits.

- (b) Authority and Reference Sections from the Fish and Game Code for Regulation:

Authority: Sections 1050, 5510, 8389, 8550, 8552.1, 8553 and 8555, Fish and Game Code.

References: Sections 713, 1050, 7850, 7850.5, 7852.2, 8043, 8053, 8389, 8550-8557, and 8559, Fish and Game Code.

- (c) Specific Technology or Equipment Required by Regulatory Change:

None.

- (d) Identification of Reports or Documents Supporting Regulation Change:

(1) Informational Summary Packet for San Francisco Bay herring fishery

(2) Meeting Notes, Director's Herring Advisory Committee Meeting, April 6, 2011, Sausalito, California.

- (e) Public Discussions of Proposed Regulations Prior to Notice

Publication:

- (1) Director's Herring Advisory Committee Meeting, April 6, 2011, Sausalito, California.

IV. Description of Reasonable Alternatives to Regulatory Action:

- (a) Alternatives to Regulation Change: No alternatives were identified.
- (b) No Change Alternative:

A no change alternative would provide a quota for the 2011-2012 fishing season of 1,920 tons.

- (c) Consideration of Alternatives:

No alternate proposals were presented to the Department.

V. Mitigation Measures Required by Regulatory Action:

See Draft Supplemental Environmental Document – Pacific Herring Commercial Fishing Regulations.

VI. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

- (a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

The Department is providing the Commission a quota option range between zero to 10 percent of the 2010-2011 spawning biomass estimate of 57,082 tons. The potential changes to State total economic output, if the Commission were to choose a 10 percent, five percent, or zero percent option, are \$4,262,000, \$1,113,000, and \$(2,053,000), respectively, relative to last season. Both the 10 and five percent options result in positive incremental contributions to economic output for the State, whereas the zero percent option would result in an adverse impact to economic output for the State, and loss of \$2,053,000 (2010 dollars). This is based on an economic output

multiplier of 1.774 for calculating total direct, indirect, and induced impacts to California's economy from the herring fishery.

Depending on which harvest option the Fish and Game Commission chooses for 2011-2012, the harvestable quota will be between zero and 5,708 tons. There would be no adverse incremental economic impact to businesses in California under the Department's recommended five percent quota of 2,854 tons. Given current market conditions for herring roe, none of the quota options are expected to adversely affect the ability of California businesses to compete with businesses in other states.

- (b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

Depending on which harvest option the Fish and Game Commission chooses for 2011-2012, the harvestable quota will be between zero and 5,708 tons. Both the 10 percent and five percent harvest options, result in positive incremental contributions to employment for the State, 524 and 137 jobs, respectively, whereas a zero percent harvest could result in 253 potential job losses. This is based on an employment multiplier of 218.3 jobs per million dollars produced in direct fishing revenue from the California herring fishery.

Assuming a quota is set at the Department's recommended five percent; equal to 2,854 tons, there would be a potential incremental increase in direct fishing revenue of \$627,000, and increase of 137 jobs related to California's herring fishery.

- (c) Cost Impacts on a Representative Private Person or Business:

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action. There are no new fees or reporting requirements stipulated under the proposed regulations.

- (d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

None.

- (e) Nondiscretionary Costs/Savings to Local Agencies:

None.

- (f) Programs Mandated on Local Agencies or School Districts:

None.

- (g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4:

None.

- (h) Effect on Housing Costs:

None.

## INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

Under existing law, herring may be taken for commercial purposes only under a revocable permit, subject to such regulations as the Commission shall prescribe. Current regulations specify: permittee qualifications; permit application procedures and requirements; permit limitations; permit areas; vessel identification requirements; fishing quotas; seasons; gear restrictions; quotas; and landing and monitoring requirements.

The proposed regulations would establish the fishing quota, season dates and times for fishing operations for the 2011-2012 season in San Francisco Bay based on the most recent biomass assessments of spawning populations of herring as well as season dates and times for fishing operations for the 2011-2012 season in Tomales Bay. There are no quota changes proposed for Crescent City Harbor, Humboldt or Tomales bays for the 2011-2012 herring season.

The following is a summary of the proposed changes in Sections 163, and 164, Title 14, CCR:

- Set the San Francisco Bay quota between zero (0) and 10 percent (0 and 5,708 tons) of the 2010-2011 spawning biomass. The Department is recommending that the San Francisco Bay quota be set at 2,854 tons, which is five percent of the 2010-2011 spawning biomass. If the Commission were to adopt this option, a 2,854 ton quota would result in a 5.0 ton individual quota for a "CH" gill net permittee and a 3.3 ton individual quota for a non-"CH" gill net permittee participating in the HEOK fishery.
- Increase the daily market order from a licensed fish dealer for herring fresh fish market permittees from 500 to 1,000 pounds.
- Set the dates of the roe herring fisheries in San Francisco Bay for Odd and Even platoons in San Francisco Bay from noon on Monday, January 2, 2012, until noon on Friday, March 9, 2012.
- Set the dates of the roe herring fishery in Tomales Bay from noon on Monday, December 26, 2011, until noon on Friday, February 24, 2012.
- Allow San Francisco Bay and Tomales Bay fresh fish market permits to be fished from November 2 until March 31, excluding days during that period when the San Francisco Bay and Tomales Bay limited entry Pacific herring gill net permit fisheries are open.

The following are minor editorial changes proposed to improve clarity and consistency of the regulations:

- The proposed regulations would simplify requirements for herring permit applications due to the implementation of the Department's Automated License Data System (ALDS). ALDS streamlines the license process, so that permittees will no longer be required to submit copies of a current license or registration when renewing permits. This information will be available electronically which eliminates the need for paper documentation. Application form numbers and fee amounts will be removed and replaced with reference to Section 705 of Title 14, CCR, pending approval of amendments to Section 705 in a separate rulemaking. This section contains application numbers and fee amounts for commercial fishing permits.