

Table 1. Summary of Primary Considerations Raised in Support of or Opposition to the Proposed Actions and Reasons for Rejecting Those Considerations.

Comment #	Name, Organization	Comment Format & Date	Topic(s) Raised	Summary of Comment	Response
1	Chris Miller, Commercial Fisherman	Written recommendation to California Fish and Game Commission (Commission) dated 6/11/2017 (received prior to notice)	General	a. The seasonal restriction provides an opportunity for the fishery to establish a region-based collaborative science effort, incorporating both social and climate change factors, eventually working towards an adjustable season. An adjustable season would allow the fishery to maintain economic viability of its markets and serve as a foundation for further management actions and studies in which marine protected areas (MPAs) can be used as a tool to monitor harvest rates and climate change.	The California Department of Fish and Wildlife (Department) acknowledges the importance and vitality of collaborative research and is committed to evaluating the effectiveness of the seasonal closure and working with fishermen and other constituents to develop additional management measures to ensure a viable and sustainable sea cucumber fishery. The Department is currently performing dive research within MPAs and fishing areas outside MPAs to assess the impacts of both fishing and environmental conditions on sea cucumber populations. This research will also be performed during the restricted season to determine the level of protection the closure offers to spawning populations. In addition, the Department plans to conduct additional fishery dependent and independent research to collect essential fishery information to inform future management of this fishery.
			General	b. Special care should be taken to support the current limited entry program, which is precautionary in its capacity goal.	No action taken; the proposed regulations would have no effect on the current limited entry fishery program for sea cucumber.
			General	c. As part of establishing region-based social framework, an apprenticeship program should be established.	No action taken. This comment addressing development of an apprenticeship program for the fishery is outside the scope of this rulemaking.
			General	d. Future scientific efforts should leverage funding from fisheries, Sea Grant, and funds under the Coastal Management Act.	See response to comment 1a. The Department will explore outside funding opportunities for research projects where feasible.
			General	e. Support for the Department using more surveys going forward.	See response to comment 1a.
			Seasonal Closure	f. Recommend that the Department conduct a survey on how the fishery can fund research to ensure that the new season restriction is effective.	See response to comment 1d.

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2	Nathan Rosser, Commercial Fisherman	Written recommendation to Commission dated 6/12/2017 (received prior to notice)	Seasonal Closure	<p>a. The fishery has concerns that the Department is justifying the need for regulation change based on historically low landings in 2015 and 2016. Some in the fishery feel that these declines in landings were mostly due to abnormally warm water conditions and effort compaction due to MPAs. Divers have reported that the fishery improved in 2017 to levels experienced prior to the warm water events that occurred in 2015 and 2016 with observations of greater abundances of larger sized sea cucumber and an increase in catch per unit effort (CPUE).</p>	<p>Considering fishery trends, the Department has had growing concerns regarding the sustainability of the warty sea cucumber dive fishery prior to landings reaching historical lows in 2015 and 2016. The Initial Statement of Reasons (ISOR) for the proposed sea cucumber regulations dated July 11, 2017, describes the following key findings from fishery analyses and Department research that informed the Department's recommendation:</p> <ul style="list-style-type: none"> <li>• After a record high landing in 2011, sea cucumber landings had consecutively declined to record lows in subsequent years while average price per pound continues to increase.</li> <li>• CPUE from commercial dive log data from 1993 to 2016 indicates that the amount of sea cucumber harvested per dive hour is on a downward trend.</li> <li>• Primary harvest of warty sea cucumber occurs during sensitive reproductive periods, reducing productivity.</li> <li>• A 2014 Department survey of sea cucumber divers indicates a majority of respondents feel that a seasonal closure is the most appropriate measure for addressing sustainability concerns in this fishery.</li> </ul> <p>As it is not currently known how or to what degree sea cucumber populations are influenced by abnormal environmental conditions, the Department's dive research will assess the impacts of both fishing and environmental conditions on sea cucumber populations (see response to comment 1a).</p>
			Seasonal Closure	<p>b. The Department needs to plan for and follow through on data collection that speaks to the validity of the restricted season and future management direction.</p>	<p>See response to comment 1a.</p>

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2, cont.			Seasonal Closure	c. The proposed seasonal closure(s) show a great deal of compromise and commitment on our part to working collaboratively to make the fishery sustainable. The season restriction as it stands is economically significant for sea cucumber divers, and the Department must follow through on improving management and critically look at the effectiveness of the season.	See response to comment 1a.
3	Chris Miller, Commercial Fisherman	Verbal testimony at meeting on 8/16/17	General	a. Supportive of Department following through on lobster efforts like taking the survey and scaling it down to another fishery and using surveys.	See response to comment 1a.
			Seasonal Closure	b. Fishermen endorse the seasonal changes but they also believe that with more research, they could tune-up the season to optimize the fishery and build an FMP later.	Support for seasonal closure noted. See response to comment 1a.
			General	c. Reserves should be used as reference research stations to look inside and outside the reserves and to use other data collection programs.	See response to comment 1a.
			General	d. Recommend that the Department survey fishermen for proposals to fund research.	See responses to comment 1.d
4	Jerome Betts, Commercial Fisherman	Verbal testimony at Commission meeting on 8/16/2017	Seasonal Closure	a. Supportive of Option 2. Commercial divers prefer a closure in late spring/early summer because the thickness of cucumber body wall is at its thinnest during those months.	Support for a late spring/early summer closure noted. On October 12, 2017, the Commission selected seasonal closure Option 2 that prohibits take of warty sea cucumber from March 1 – June 14.

5	Paul Weakland, Commercial Fisherman	Verbal testimony at Commission meeting on 8/16/2017 and 10/12/2017	Seasonal Closure	a. The need to create a season suggests that both the MPAs and limited entry system are failures. The reason why there is a problem is because the best places to harvest sea cucumber have been outlawed.	The proposed regulatory action is to protect the sea cucumber resource and assure a sustainable sea cucumber fishery. While limited-entry management measures control the number of fishery participants, it does not address sustainability concerns regarding harvesting a species during its spawning season. MPAs will provide an invaluable tool to assess the degree to which a seasonal closure or other management measures are promoting population growth in fished areas. MPAs allow comparison between fished and non-fished areas to tease out the differences between potential effects of fishing and/or changes in environmental conditions.
			Permit Fee	b. Imposition of a season should be accompanied by a reduction in the permit fee for sea cucumber.	The fee for a commercial sea cucumber permit is established in subsection 8405.1(b)) of the Fish and Game Code (FGC) and is outside the scope of this rulemaking. FGC Section 713 requires the Department to adjust the fee using the Implicit Price Deflator for State and Local Government Purchases of Goods and Services. While the amount of annual fishing days would decrease under the seasonal closure, the costs for management of the fishery has not diminished.
			Permit transfers	c. Permit holders should not need 4 years of landings to transfer permits.	No action taken. This comment concerns permit transfer requirements and is outside the scope of this rulemaking.
			Seasonal Closure	d. Only 5 individuals who do not always fish in California voted in the Channel Island Harbor meeting in favor of the limited season. These few individuals fish for sea cucumber part-time and their motivation for the seasonal closure is to keep other fishermen from fishing for sea cucumber in the months prior to when they are prepared to go fishing.	No action taken. The Department developed three seasonal closure options for consideration by the Commission after an evaluation of fishery trends, reproductive patterns of the species, and meetings with commercial sea cucumber divers in March and April of 2017. The commenter is referring to the April 2017 Department held scoping meeting with sea cucumber permittees in Oxnard, California. At that meeting, 16 sea cucumber permittees decided to gauge the level of fishery support by voting on different seasonal closure scenarios. Subsequently, a Department survey was distributed to commercial sea cucumber divers in May 2017 to determine preference for the three seasonal closure options; results of the survey are available in Attachment 2 of the ISOR.

5, cont.			General	e. It is not well known when sea cucumbers actually spawn; with more grant money and study, the Department's research results regarding sea cucumber spawning season would be proven false.	See response to comment 1a.
6	Greg Helms, Ocean Conservancy	Verbal testimony at Commission meeting on 10/12/2017	Seasonal Closure/ General	a. Support the proposed management actions and seasonal closure Option 2. Note that, on a larger scope, the draft Marine Life Management Act (MLMA) Master Plan provides a platform for discussion on how to move from these targeted-response type management actions toward adaptive responsive management.	Support noted. The Commission adopted seasonal closure Option 2.
7	Robert Van de hoek, Marine Scientist at Ballona Institute	Verbal testimony at Commission meeting on 10/12/2017	General	a. Provided a brief history of the sardine fishery collapse. Similar to sardine, if the sea cucumber population is reduced to a low number and the fishery ended, sea cucumber will rebound too.	No action taken. This comment does not direct any specific changes or concerns pertaining to the proposed regulations.