Regional Information Report No. 1J11-15

Staff Comments on Regulatory Proposals for Southeast Alaska and Yakutat Dungeness Crab, King Crab, Tanner Crab, Shrimp and Miscellaneous Shellfish for the Board of Fisheries Meeting, January 15–21, 2012

by

Forrest R. Bowers,

Kyle P. Hebert

William Davidson

and

Robert Chadwick

December 2011

Alaska Department of Fish and Game

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, Special Publications and the Division of Commercial Fisheries Regional Reports. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or I captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

REGIONAL INFORMATION REPORT NO. 1J11-15

STAFF COMMENTS ON REGULATORY PROPOSALS FOR SOUTHEAST ALASKA AND YAKUTAT DUNGENESS CRAB, KING CRAB, TANNER CRAB, SHRIMP AND MISCELLANEOUS SHELLFISH FOR THE BOARD OF FISHERIES MEETING, JANUARY 15–21, 2012

By
Forrest R. Bowers and Kyle P. Hebert
Alaska Department of Fish and Game and Division of Commercial Fisheries, Douglas

William Davidson
Alaska Department of Fish and Game and Division of Commercial Fisheries, Sitka
and

Robert Chadwick
Alaska Department of Fish and Game and Division of Sport Fish, Sitka

Alaska Department of Fish and Game
Division of Commercial Fisheries, Publications Section
802 3rd, Douglas, Alaska, 99824-0020

December 2011

The Regional Information Report Series was established in 1987 and was redefined in 2007 to meet the Division of Commercial Fisheries regional need for publishing and archiving information such as project operational plans, area management plans, budgetary information, staff comments and opinions to Board of Fisheries proposals, interim or preliminary data and grant agency reports, special meeting or minor workshop results and other regional information not generally reported elsewhere. Reports in this series may contain raw data and preliminary results. Reports in this series receive varying degrees of regional, biometric and editorial review; information in this series may be subsequently finalized and published in a different department reporting series or in the formal literature. Please contact the author or the Division of Commercial Fisheries if in doubt of the level of review or preliminary nature of the data reported. Regional Information Reports are available through the Alaska State Library and on the Internet at: http://www.sf.adfg.ak.us/statewide/divreprots/htlm/intersearch.cfm.

Forrest R. Bowers and Kyle P. Hebert,
Alaska Department of Fish and Game, Division of Commercial Fisheries,
802 3rd, Douglas, Alaska, 99824-0020, USA

William Davidson,
Alaska Department of Fish and Game, Division of Commercial Fisheries
304 Lake Street, Room 103
Sitka, AK 99835-7563 USA

and

Robert Chadwick
Alaska Department of Fish and Game and Division of Sport Fish
304 Lake Street, Room 103
Sitka, AK 99835-7563 USA

This document should be cited as:
Bowers, F.R., K.P. Hebert, W. Davidson and R. Chadwick. 2011. Staff Comments on regulatory proposals for Southeast Alaska and Yakutat dungeness crab, king crab, Tanner crab, shrimp and miscellaneous shellfish for the Board of Fisheries Meeting, January 15–21, 2012. Alaska Department of Fish and Game, Regional Report 1J11-15, Douglas.

TABLE OF CONTENTS

Page

LIST OF TABLES

Table **Page**

LIST OF FIGURES

Figure **Page**

ABSTRACT

The Staff Comments on Regulatory Proposals for Southeast Alaska and Yakutat Dungeness Crab, King Crab, Tanner Crab, Shrimp and Miscellaneous Shellfish represent the department postions as they relate to proposal to be addressed at the Alaska Board of Fisheries Meeting, January 15–21, 2012.

Key words: Alaska Board of Fisheries Meeting, shellfish, king crab, Dungeness crab, shrimp, miscellaneous shellfish

Table 1.–Alaska Department of Fish and Game positions as they relate to Board of Fish proposals 139–198

Proposal Number	Department Position	Issue
139	-	Clarify where personal use shellfish regulations apply.
140	O	Establish a biannual catch report card system for recording harvest of all shellfish species in the subsistence, personal use, and sport shellfish fisheries and implement a penalty for late reporting.
141	O	Prohibit subsistence, commercial, sport, and personal use bottomfish and shellfish fisheries within 1,500 feet of Cache Island.
142	N	Prohibit nonresident anglers from fishing for bottomfish and shellfish in the contiguous waters of Behm Canal north of the latitude of Indian Point and south of the latitude of Bushy Point.
143	N	Prohibit nonresident anglers from fishing for bottomfish and shellfish in the waters of Naha Bay east of a line from Donnelly Point to Cache Island to Indian Point.
144	N	Prohibit nonresident anglers from fishing for bottomfish and shellfish within 1,500 feet of Cedar Island.
145	N	Reduce the number of pots an angler is allowed to use in the sport shrimp fishery from 10 to 5 and reduce the maximum number of sport shrimp pots fished from a vessel from 20 to 10.
146	N	Close the areas listed in 5 AAC 32.150 to sport fishing for Dungeness crabs.
147	N	Extend the guide registration period for the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery.

-continued-

Table 1.–continued (page 2 of 5)

Proposal Number	Department Position	Issue
148	N	Eliminate provisions for allocating red king crab to the commercial fishery in Section 11-A and change allocations for summer and winter personal use from an 80%–20% split, respectively, to a 90%–10% split.
149	S	Establish consistent limits for the number of ring nets a person is allowed, and a maximum number of ring nets allowed per vessel in the subsistence and personal use crab fisheries, and in the sport shellfish fisheries.
150	S	Implement a size limit for the Yakutat Area personal use king crab and implement a five and one half inch carapace width size limit for the subsistence and personal use Tanner crab fisheries in the Yakutat Area.
151	S	Prohibit the use of live holding facilities in the Dungeness crab, Tanner crab, and king crab personal use fisheries in the Southeastern Alaska and Yakutat Areas, and in the Dungeness crab, Tanner crab, and king crab subsistence fisheries in the Southeast Alaska-Yakutat Area.
152	N	Open the red king crab fishery with a GHL of less than 200,000 lb and divide the GHL equally among permit holders.
153	N	Open the red king crab fishery with a GHL of less than 200,000 lb and divide the GHL equally among permit holders.
154	N	Eliminate square pots as a lawful gear type in the Southeast Alaska golden king crab fishery.
155	N	Reduce the pot limit in the Southeast Alaska golden king crab fishery from 100 pots to 50 pots and reduce the pot limit in the Southeast Alaska Tanner crab fishery from 80 pots to 50 pots. Modify the Tanner crab harvest strategy.
156	S	Clarify when six and one-half inch golden king crab may be taken and possessed in the Lower Chatham Strait and Southern Areas.

-continued-

Table 1.–continued (page 3 of 5)

Proposal Number	Department Position	Issue
157	S	Adopt a fixed start date of February 15 for both Tanner and golden king crab fisheries in Southeast Alaska. This proposal would also clarify that the closing date for the Tanner crab fishery is determined through emergency order.
158	S	Define weather-related criteria by which Tanner and king crab seasons would be delayed.
159	N	Allow 120 pots for vessels with two Tanner crab permits aboard.
160	N	Allow additional pots in the king and Tanner crab fisheries for vessels with two permits aboard.
161	N	Establish a closed area to the taking of Dungeness crab in Taku Harbor.
162	N	Establish a closed area to the taking of Dungeness crab in Swanson Harbor.
163	N	Establish a closed area to the taking of Dungeness crab in Excursion Inlet.
164	N	Establish closed areas to the taking of Dungeness crab in Helm Bay and Traitors Cove.
165	O	Replace the word “identically” with “similarly” in reference to how an individual Dungeness crab fisherman’s gear is to be buoyed and marked.
166	O	Maintain summer (June 15–August 15) and fall (October 1–November 30) Dungeness seasons for District 1, and change the season description for District 2 from a fall/winter season (October 1–February 28) to summer and fall seasons.
167	N	Lower the maximum amount of gear allowed in the Registration Area D (Yakutat) commercial Dungeness fishery from 400 pots to 60 pots.
168	O	Revise management plan for the Southeast pot shrimp fisheries, allowing extra fishing time per subdistrict.
169	O	Establish section subdivisions in all districts of shrimp fishery.

-continued-

Table 1.–continued (page 4 of 5)

Proposal Number	Department Position	Issue
170	O	Revise the commercial Southeast pot shrimp fishery management plan utilizing inseason catch data.
171	O	Establish a spawner index-based management approach for the Registration Area A pot shrimp fishery.
172	N	Close the commercial shrimp fishery in the vicinity of Skagway from September 1–March1 annually.
173	N	Revise the opening dates for the shrimp pot fishery in Registration Area A.
174	O	Establish set times for deploying or retrieving shrimp pots in Registration Area A.
175	O/N	Revise marking requirements for shrimp pots in Registration Area A.
176	S	Prohibit a permit holder or permit holders from registering a vessel for the commercial beam trawl shrimp fishery and the commercial Dungeness crab fishery at the same time. Clarify that more than one permit holder registering a single vessel for the commercial shrimp pot fishery and the commercial beam trawl shrimp fishery at the same time is prohibited.
177	N	Create a Shrimp Beam Trawl Task Force.
178	S	Modify harvest rate in the sea cucumber fishery and establish a minimum biomass threshold.
179	O	Require the department to designate fishery areas as impacted by sea otters, in the past or present, and increase the harvest rate in each of these areas to an unspecified level beyond that which is currently established.
180	S	Amend allowable fishing days during the week of Thanksgiving for the sea cucumber fishery in the Ketchikan area.
181	N	Amend allowable daily dive time for the sea cucumber fishery in areas north of Sumner Strait.
182	S	Prohibit diving of unlicensed CFEC sea cucumber permit holders 48 hours before, during, and 48 hours after commercial sea cucumber fishery openings in Southeast Alaska.

-continued-

Table 1.–continued (page 5 of 5)

Proposal Number	Department Position	Issue
183	N	Establish an equal-share harvest program within the *Southeast Alaska Geoduck Fishery Management Plan*.
184	N	Under an equal-share harvest program, require preseason registration for the Southeast Alaska geoduck fishery.
185	N	Open geoduck fishery year-round to provide consistent monthly harvest.
186	N	Extend geoduck fishery year round from July 1 to June 30.
187	N	Establish a trip limit program for the Southeast Alaska geoduck fishery.
188	N	Amend number of harvest days and times for the Southeast Alaska geoduck fishery to allow for preseason control of harvest for the fishery.
189	N	Establish a weekly rate-of-harvest schedule for the Southeast Alaska geoduck fishery.
190	O	Revise harvest rotation areas for the geoduck fishery in Ketchikan and Craig to provide consistent annual harvest in the fishery.
191	N	Limit length of air and water hoses to 300 ft in the Southeast Alaska geoduck fishery.
192	N	Establish a minimum distance of 200 yards between vessels in the Southeast Alaska geoduck fishery.
193	S	Prohibit divers from using gear in commercial openings following unauthorized use of gear and allow divers to dive on aquatic farm sites.
194	S	Amend the registration requirements for red sea urchins, sea cucumbers and geoducks in Registration Area A.
195	S	Prohibit divers from using gear in commercial openings following unauthorized use of gear and allow divers to dive on aquatic farm sites.
196	S/O	Restrict the subsistence, personal use, and sport abalone fisheries.
197	S	Clarify application of the personal use regulation and close the personal use razor clam fishery in the Sitka Sound Special Use Area.
198	S	Close the subsistence razor clam fishery in the Sitka Sound Special Use Area.

PROPOSAL 139 – 5 AAC 77.60X. Applicability of personal use regulations in the Yakutat Area; 5 AAC 77.65X. Applicability of personal use regulations in Southeast Alaska; and 5 AAC 02.108. Customary and traditional subsistence uses of shellfish stocks.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? When submitted, the intent of this proposal was to clarify where personal use shellfish regulations are in effect in Southeast Alaska. Following further discussion between department staff and the attorney general's office, the department is withdrawing support for language submitted with proposal 139 and will be submitting substitute regulatory language at the shellfish meeting in Petersburg. Southeast Alaska personal use and subsistence shellfish fisheries overlap in area, and recognizing that personal use and subsistence fisheries can occur simultaneously on the same stock, proposed substitute language will clarify that both subsistence and personal use fishing cannot be conducted by an individual on the same day on the same stock, and that possession limits when established for subsistence and personal use are not additive.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 77.001. Intent and application of this chapter. This statewide regulation provides a general review of the board's findings concerning the need for personal use regulations. In summary, personal use fisheries are warranted since a fishery is not commercial, since there is not a customary and traditional (C&T) subsistence use, since gear is different from that associated with sport fishing, or since the fishery is targeting a hatchery stock.

5 AAC 02.108. Customary and traditional subsistence uses of shellfish stocks. When uses of shellfish stocks are identified by the Board of Fisheries (board) as being C&T uses, the board may then adopt regulations that provide reasonable opportunity and a sustainable harvest.

5 AAC 02.005. Subsistence fishing permitted. Shellfish may be taken for subsistence at any time in any area by any method, unless restricted.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If substitute language is adopted, a new regulation would clarify that a person is limited to only one possession limit of shellfish each day, and that subsistence limits and personal use limits are not additive.

BACKGROUND: Overlapping subsistence and personal use regulations for the same waters or the same stocks have created confusion over what opportunities are available for harvesting shellfish resources. Fishery managers taking action, when necessary, by emergency order should have an understanding whether the fishery is subsistence,

personal use, or both, so the appropriate management action is taken. There have been some regulations that apply different possession limits under both personal use and subsistence fisheries on the same stock, so it may not be clear whether a person is fishing under subsistence or personal use regulations.

DEPARTMENT COMMENTS: The department submitted this proposal, and there is a need to further clarify where personal use regulations apply and to avoid duplicative regulations. The department has become aware of complexities in regulations that require additional time and effort to clarify. The department will submit substitute language in committee that would clarify that a person is limited to only one possession limit of shellfish each day, and that subsistence limits and personal use limits are not additive.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 140 – 5 AAC 02.1XX; 5 AAC 77.6XX; and 5 AAC 47.024. Harvest record required; annual limit.

PROPOSED BY: Clay Bezenek.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a biannual catch report card system for recording harvest of all shellfish species in the subsistence, personal use, and sport shellfish fisheries, and implement a penalty for late reporting.

WHAT ARE THE CURRENT REGULATIONS? In Southeast Alaska, only participants in the Section 11-A personal use red and blue king crab, personal use trawl shrimp, and the George Inlet superexclusive guided sport ecotourism Dungeness crab fisheries are required to report fishing activity. Harvest reporting is required as a permit condition by fishermen participating the Section 11-A personal use red and blue king crab fishery and the personal use trawl shrimp fishery. Sport fishing operators and guides participating in the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery are required to report catch and release activity in a logbook.

Shellfish harvest recording form provisions (5 AAC 75.016) provide conditions that apply when a sport-fishing shellfish harvest recording form is required.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Requiring a shellfish catch report for subsistence, personal use, and sport anglers would provide an additional method of tracking, and in some cases, more detailed information

on shellfish harvests than are currently available. This proposal would have a large budgetary impact on the department due to the cost of producing and issuing catch reports, collection of the reports biannually, and entering, analyzing, and summarizing the data.

BACKGROUND: The Statewide Harvest Survey (SWHS) provides estimates of sport and personal use Dungeness crab harvest. Sport harvests for shellfish are not reported in the Saltwater Charter Logbook as asserted in the proposal. Subsistence shellfish harvests and uses, in pounds per capita and in number of shellfish are periodically estimated using household survey methodology.

When more specific harvest information has been needed to address a particular shellfish fishery management or conservation concern, the department and Board of Fisheries (board) have implemented permit and reporting requirements; notably, permits issued for personal use harvest of shrimp using trawl gear and for personal use harvest of red and blue king crab in Section 11-A near Juneau.

Permits are issued to report personal use shrimp trawl harvest in Southeast and have been required since 2003. When the permit is obtained, participants are asked to include: family members covered under the permit; designated harvester; type of trawl, length of beam (beam trawl) or foot rope (otter trawl); mesh size; area of intended harvest; and amount of intended harvest. At the end of the season participants are asked to return a harvest report attached to the permit that lists dates fished, species harvested, pounds harvested, description of areas fished, and bottom type. The average participation from 2003 through 2010 is 46 permits issued. Participation peaked in 2004 when 73 permits were issued. In the last full season – 2010 – 44 personal use trawl permits were issued.

Permits are issued to report personal use red king crab harvests in Section 11-A and have been required since 1996. These permits are used, in part, to manage the red king crab guideline harvest levels, and to track allocations and harvests between the commercial and personal use fisheries. In 2010, 1,329 permits were issued for the summer season and 505 permits were issued for the winter season (2010–2011), with a peak of 3,313 permits issued in 2003.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. A new reporting program of this magnitude would be very expensive, and in some cases, would duplicate current data collection programs. When more detailed harvest information than is currently available is needed for sustainable management of fishery resources or to meet the board's allocation goals, the department anticipates submitting specific proposals to meet those objectives.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 141 – 5 AAC 28.150. Closed waters in Eastern Gulf of Alaska Area; 5 AAC 32.150. Closed waters in Registration Area A; 5 AAC 38.XXX. Closed waters; 5 AAC 47.021. Special provisions for seasons, bag, possession, and size limits, and methods and means for the salt waters of Southeast Alaska Area; and 5 AAC 77.6XX. *(This proposal erroneously cited only 5 AAC 28.150.* Closed waters in Eastern Gulf of Alaska Area*; and 5 AAC 32.150.* Closed waters in Registration Area A*; and 5 AAC 38.XXX.)*

PROPOSED BY: Naha Conservation.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a Marine Conservation Zone and prohibit subsistence, commercial, sport, and personal use bottomfish and shellfish fisheries within 1,500 feet of Cache Island (Figure 141-1).

WHAT ARE THE CURRENT REGULATIONS? Under statute (AS 16.05.251), the board may adopt regulations it considers advisable for setting apart fish reserve areas, subject to approval of the legislature.

Subsistence bottomfish and shellfish fisheries are closed in the Ketchikan Nonsubsistence Use Area (5 AAC 99.015), which encompasses the proposed closed area.

Directed commercial fishing for sablefish and Pacific cod is allowed, and groundfish taken incidentally in the salmon troll fishery may be retained and sold as bycatch in the proposed closed area. The area is currently closed to directed fishing for demersal shelf rockfish (5 AAC 28.150 (d)(2)). The commercial shrimp (5 AAC 31.136) and Dungeness crab (5 AAC 32.150) fisheries are closed in this area; however, the area around Cache Island is open to commercial harvest of sea cucumbers (Figure 141-2).

The personal use bottomfish fisheries and shellfish fisheries are managed under regional regulations. However, personal use bag limits for rockfish are reduced in an area that encompasses Cache Island (5 AAC 77.674).

The sport bottomfish and shellfish fisheries are managed primarily under regional regulations (5 AAC 47.020). Lingcod bag and possession limits, and nonresident annual limits for lingcod are established annually by emergency order to meet sport allocations (5 AAC 47.060). The sport shrimp fishery is closed in the same area as the commercial shrimp fishery: east of a line from Indian Point to the northeasternmost tip of Betton Island to Survey Point (5 AAC 47.021) (Figure 141-2).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would close all commercial, personal use, and sport bottomfish and shellfish fisheries within 1,500 feet of Cache Island, likely reducing harvest and harvest opportunity of bottomfish and shellfish by some unknown amount. It would require additional provisions in the commercial, personal use, and sport regulations, thereby adding regulatory complexity.

BACKGROUND: Cache Island is located about 25 miles northeast of Ketchikan in Naha Bay. The remote community of Loring is located along the northeastern shore of Naha Bay. Residential and commercial development in Loring has increased in recent years. There are currently two fishing lodges located in Naha Bay. The Naha Bay area is popular with anglers because of its productive fishing grounds, recreational opportunities, and proximity to Ketchikan. Various anglers and personal use users fishing in Naha Bay target salmon, halibut, lingcod, rockfish, shrimp, and crab. This area is open to commercial halibut, Pacific cod, and sablefish fishing, as well.

Cache Island is located in the SSEI subdistrict and falls within groundfish statistical area 315531. Groundfish fisheries in this area are managed by the State of Alaska. Groundfish harvest reported as bycatch from the commercial halibut fishery in groundfish statistical area 315531 for the most recent 5-year period included: seven species of rockfish (1,602 round lb); Pacific cod (179 lb); and lingcod (15 lb). The total exvessel value of these landings was $470. Groundfish harvest reported in the commercial troll fishery from salmon statistical area 101-90 was limited to rockfish (11 lb) and lingcod (8 lb). It is not possible to determine if any of these harvests occurred within the proposed closure area around Cache Island. Logbook data from the directed sablefish and Pacific cod fisheries indicate that there was not any directed effort from these fisheries in the proposed closure area during the past five years.

The department collects sport and personal use effort and harvest information on lingcod, rockfish, and Dungeness crab via the Statewide Harvest Survey (SWHS). Cache Island lies within a larger sport fishery reporting area, East and West Behm canals, which encompass approximately 345 square miles. The department also collects sport effort and harvest information on lingcod and rockfish via saltwater charter logbooks within a logbook reporting area encompassing approximately 100 square miles. It is not possible to determine what proportion of harvest from these reporting areas occurs within 1,500 feet of Cache Island, which includes 0.43 square miles.

In general, sport fishing effort has remained stable in East and West Behm canals over the last 10 years. SWHS estimates for lingcod indicate that harvest has remained stable over the last 10 years, while the most recent 5-year average (2006–2010) for rockfish harvest (5,651 fish) increased from the 2001–2005 average harvest of 3,621 fish (Table 141-1) due, in part, to mandatory retention regulations established in 2006. Saltwater

charter logbook information shows that harvest of lingcod and rockfish in 101-900 has remained stable over the last ten years (Table 141-2).

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. There are no known conservation or biological concerns for bottomfish or shellfish populations in the area around Cache Island or the larger salmon statistical or groundfish areas. This proposal would also add unnecessary regulatory complexity.

Sablefish and Pacific cod have home ranges and movements that are much greater than the Cache Island proposed reserve; a reserve of this size would do little to protect these species. Although a reserve of this size would likely encompass the home ranges of certain rockfish species and some proportion of lingcod populations, any potential conservation benefits would be highly dependent on the abundance of existing species and the quality of habitat in the proposed marine reserve. Existing data collection programs in both commercial and sport fisheries capture the necessary information that can be used to take inseason management action if a conservation issue did arise.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

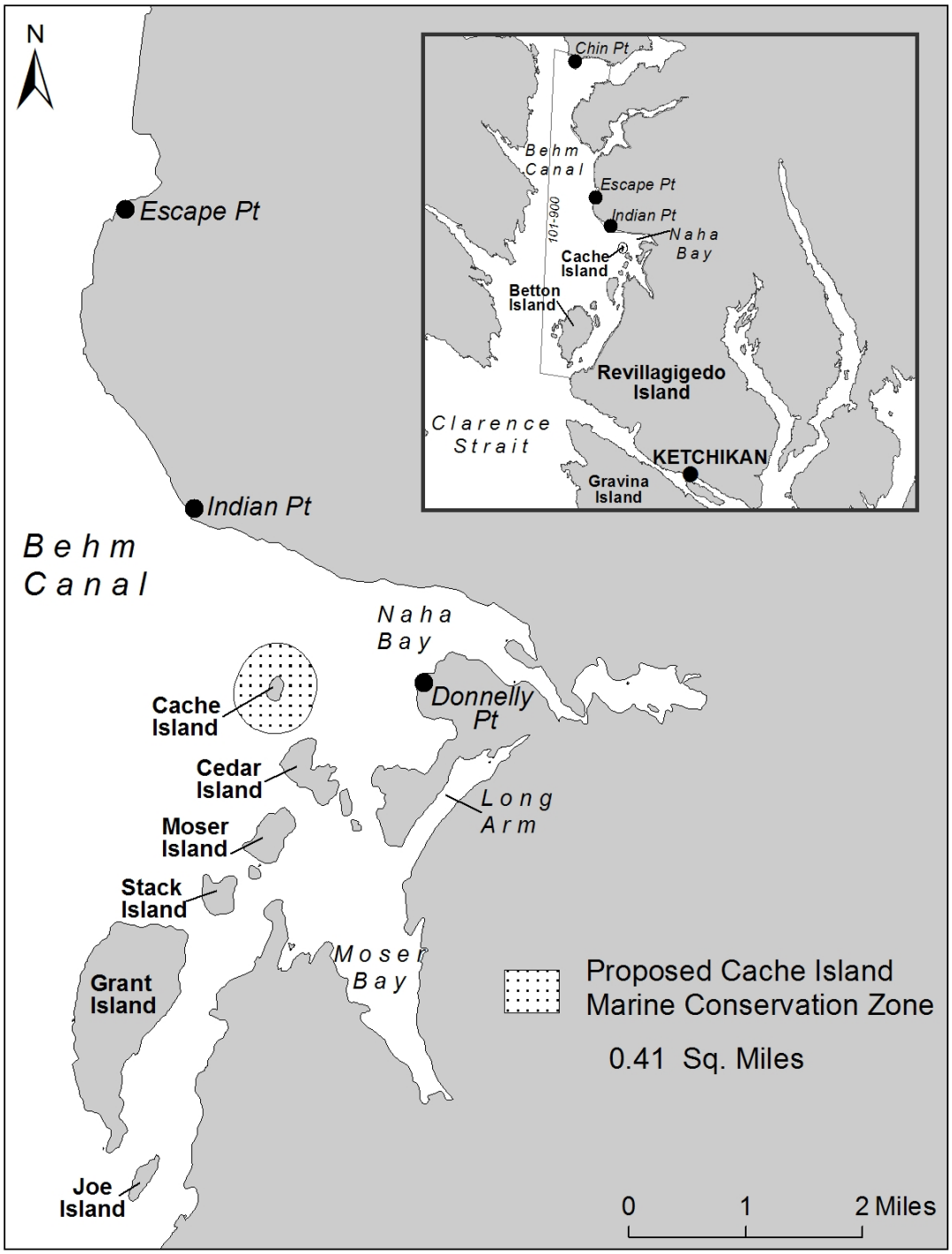

Figure 141-1.–Location of Naha Bay and the proposed Cache Island marine conservation zone.

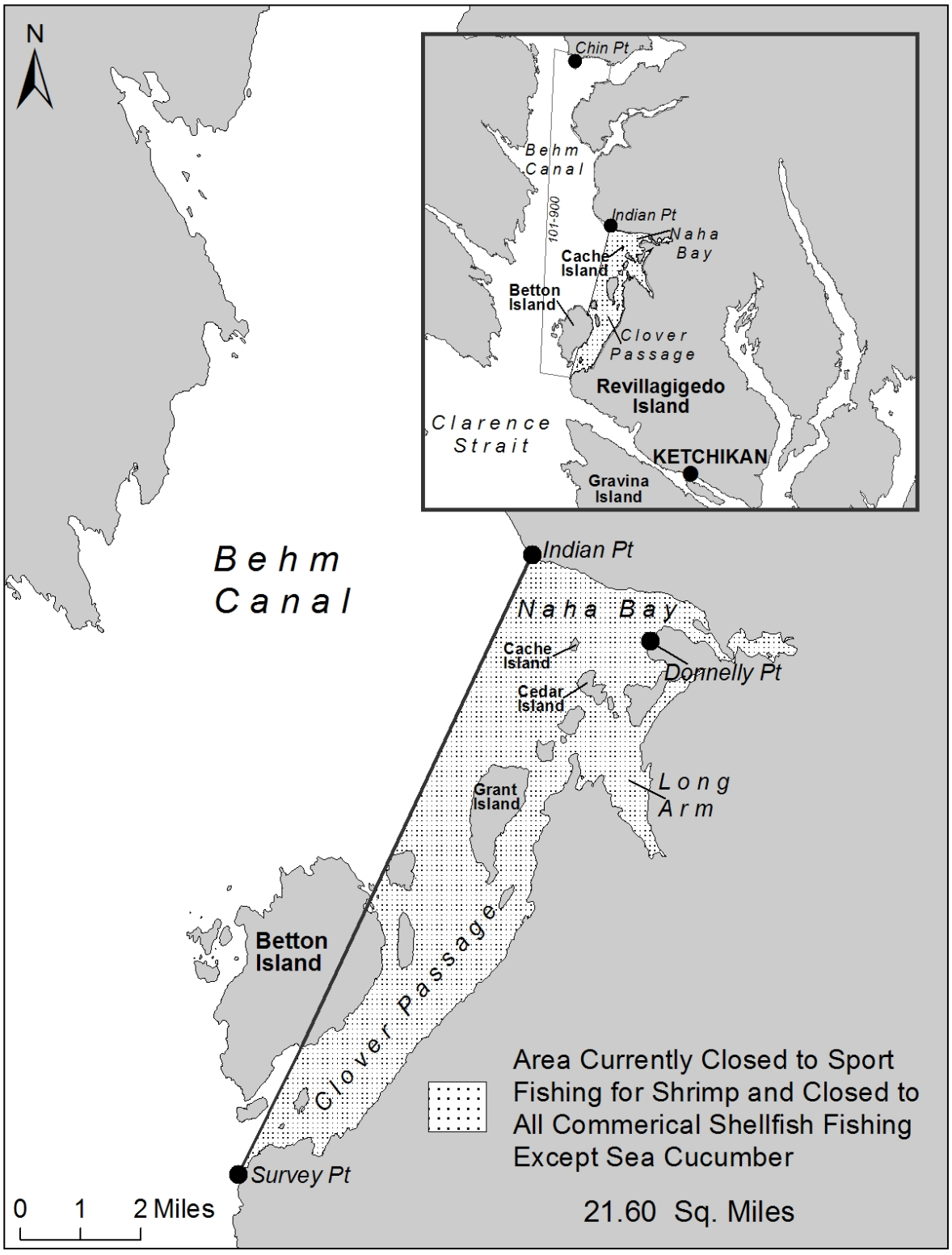

Figure 141-2.–Sport and commercial shellfish closed area.

Table 141-1.–Estimated nonresident sport effort and harvest of lingcod, rockfish and Dungeness crab in East and West Behm Canal, 2001–2010 (from the SWHS).

Year	# Responses	Days Fished	# of Lingcod	# of Rockfish	# of Dungeness
2001	231	12,032	302	1,295	947
2002	394	16,188	305	2,030	819
2003	354	14,762	277	1,391	1877
2004	417	22,843	692	3,739	6433
2005	302	20,954	524	2,752	1659
2006	334	18,866	443	4,420	3940
2007	351	19,897	312	4,653	732
2008	307	17,147	228	3,339	1711
2009	411	17,001	365	3,205	454
2010	286	15,487	171	2,894	810
2001–2010 Mean	339	17,518	362	2,972	1938
2006–2010 Mean	338	17,680	304	3,702	1529

Table 141-2–Reported harvest of lingcod and rockfish for area 101-900 from charter logbooks, 2001–2010.

	Active Vessels	Trips[a]	# of Lingcod	# of Pelagic Rockfish	# of Other Rockfish[b]
2001	41	n/a	10	98	135
2002	31	n/a	9	66	65
2003	32	n/a	7	86	182
2004	33	n/a	10	76	92
2005	32	119	15	106	132
2006	44	271	12	85	202
2007	43	277	12	163	199
2008	39	198	6	57	149
2009	36	223	1	38	150
2010	45	217	7	54	211
2001–2010 Mean	38	n/a	9	83	152
2006–2010 Mean	41	237	8	79	182

[a]From 2001–2004 the number of trips is not available.

[b]Includes yelloweye rockfish.

PROPOSAL 142, 143, AND 144 – 5 AAC 47.021. Special provisions for seasons, bag, possession, and size limits, and methods and means for the salt waters of Southeast Alaska Area. *(This proposal erroneously cited under 5 AAC 28.150*. Closed waters in Eastern Gulf of Alaska Area; *and* 5 AAC 32.150. Closed waters in Registration Area A; *and* 5 AAC 38.XXX.)

PROPOSED BY: Naha Conservation.

WHAT WOULD THE PROPOSAL DO? Proposals 142–144 would establish three Marine Conservation Zones and prohibit nonresident anglers from fishing for bottomfish and shellfish in the following areas:

Proposal 142 – the contiguous waters of Behm Canal north of the latitude of Indian Point and south of the latitude of Bushy Point (Figure 142-1);

Proposal 143 – the waters of Naha Bay east of a line from Donnelly Point to Cache Island to Indian Point (Figure 143-1); and

Proposal 144 – within 1,500 feet of Cedar Island (Figure 144-1).

WHAT ARE THE CURRENT REGULATIONS? Under statute (AS 16.05.251), the board may adopt regulations it considers advisable for setting apart fish reserve areas, subject to approval of the legislature.

The sport bottomfish and shellfish fisheries are managed primarily under regional regulations (5 AAC 47.020). Lingcod bag and possession limits, and nonresident annual limits are established annually by emergency order to meet sport allocations (5 AAC 47.060). The sport shrimp fishery is closed in the same area as the commercial shrimp fishery (5 AAC 31.136): east of a line from Indian Point to the northeastern most tip of Betton Island to Survey Point (5 AAC 47.021).

For proposal 142: the commercial shrimp (5 AAC 31.136), Dungeness crab (5 AAC 32.150), and sea cucumber (5 AAC 38.140) fisheries are open in the proposed closure area.

For proposals 143 and 144: the commercial shrimp and Dungeness crab fisheries are closed in the proposed closure areas; however, both are open to the commercial harvest of sea cucumbers.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Proposals 142–144 will eliminate nonresident catch and harvest opportunity for bottomfish and shellfish within the proposed Marine Conservation Zones. These proposals would create new exceptions to the regionwide regulations and thereby, add regulatory complexity.

BACKGROUND: The three proposed closure areas as described above are all located about 25 miles northeast of Ketchikan in Naha Bay. The remote community of Loring is located along the northeastern shore of Naha Bay. Residential and commercial development in Loring has increased in recent years. There are currently two fishing lodges located in Naha Bay. The Naha Bay area is popular with anglers because of its productive fishing grounds, recreational opportunities, and proximity to Ketchikan. Various anglers and personal use harvesters fishing in Naha Bay target salmon, halibut, lingcod, rockfish, shrimp, and crab. These areas are open to commercial halibut, Pacific cod, sablefish and sea cucumber fishing as well.

The department collects sport and personal use effort and harvest information on lingcod, rockfish and Dungeness crab via the Statewide Harvest Survey (SWHS). The proposed area lies within a larger sport fishery reporting area, East and West Behm canals, which

encompass approximately 345 square miles. The department also collects sport effort and harvest information on lingcod and rockfish via saltwater charter logbooks within a logbook reporting area encompassing approximately 100 square miles. It is not possible to determine what proportion of harvest from these reporting areas occurs within the three proposed closure areas: the contiguous waters of Behm Canal north of the latitude of Indian Point and south of the latitude of Bushy Point, which includes 47 square miles; the waters of Naha Bay east of a line from Donnelly Point to Cache Island to Indian Point, which includes 2.68 square miles; or within 1,500 feet of Cedar Island, which includes 0.74 square miles.

In general, sport fishing effort has remained stable in East and West Behm canals over the last ten years. Statewide Harvest Survey estimates for lingcod also indicate that harvest has also remained stable over the last ten years, while the most recent 5-year average (2006–2010) for rockfish harvest (5,651 fish) increased from the 2001–2005 average harvest of 3,621 fish (Table 142-1) due, in part, to mandatory retention regulations established in 2006. Saltwater charter logbook information also shows that harvest of lingcod and rockfish in 101-900 has also remained stable over the last ten years (Table 142-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals. There are no known conservation or biological concerns for bottomfish or shellfish in the three proposed Marine Conservation Zones.

COST ANALYSIS: Approval of these proposals are not expected to result in an additional direct cost for a private person to participate in this fishery.

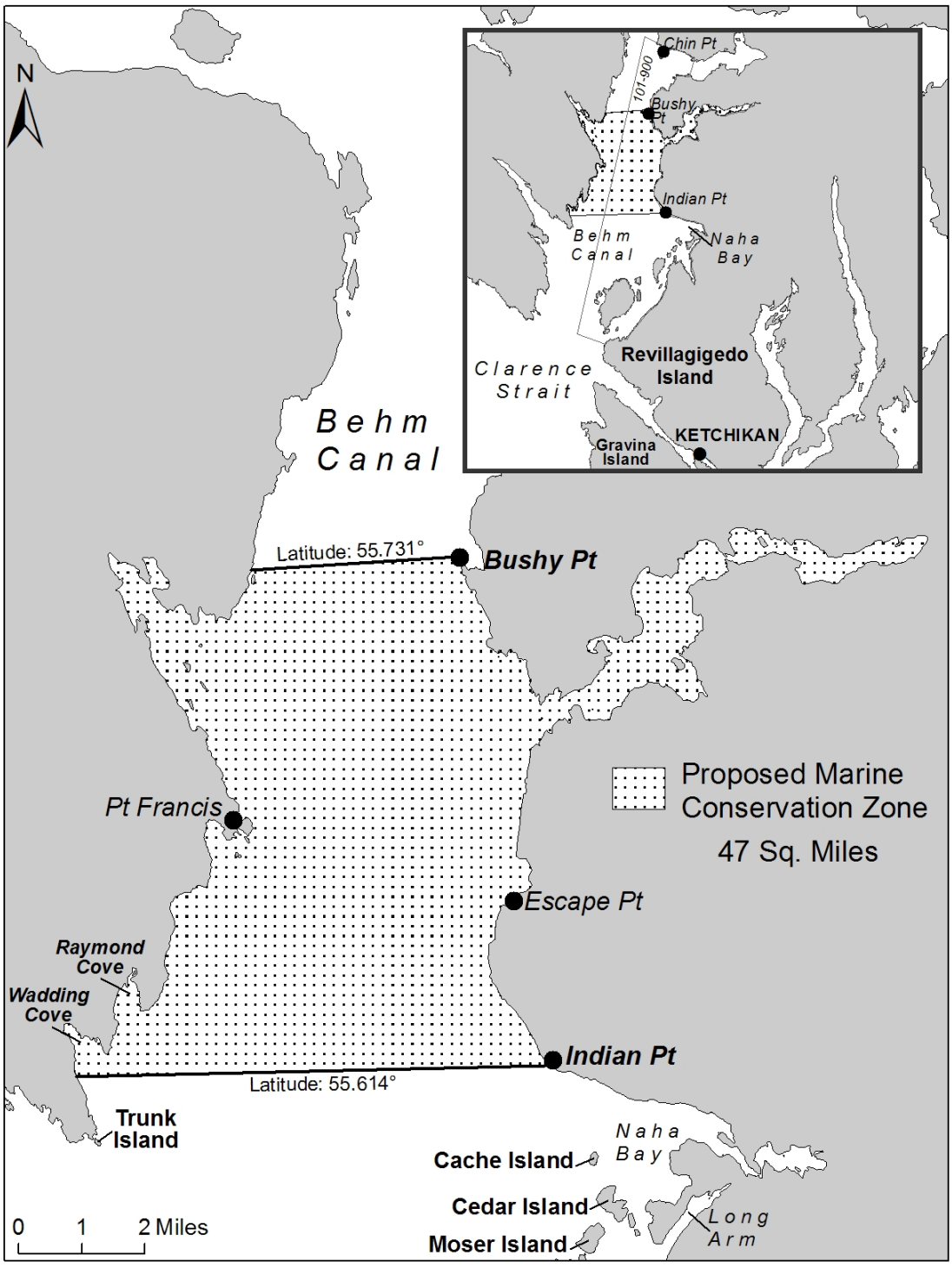

Figure 142-1.–Location of proposed marine conservation zone in Behm Canal.

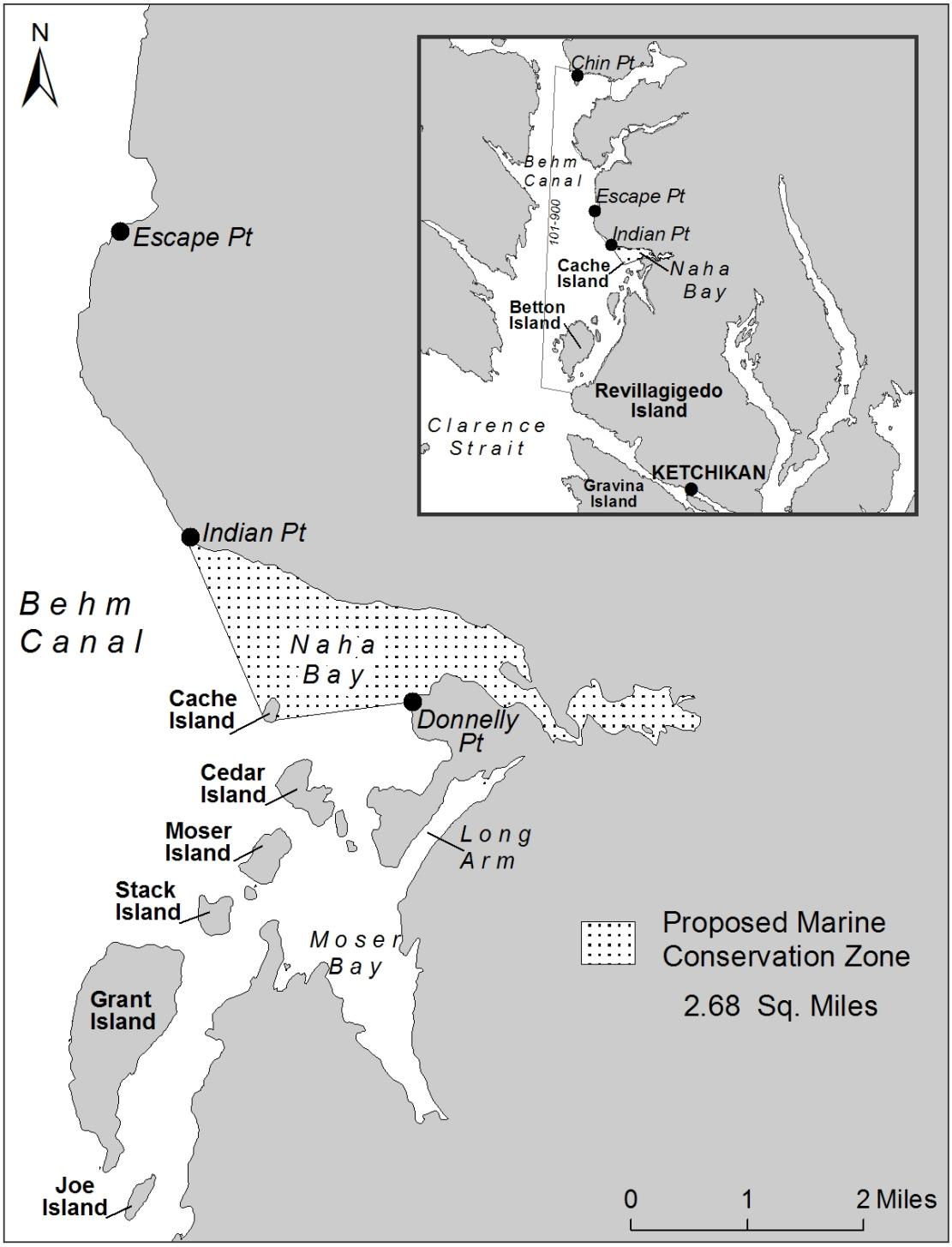

Figure 143-1.–Location of Naha Bay and the proposed marine conservation zone.

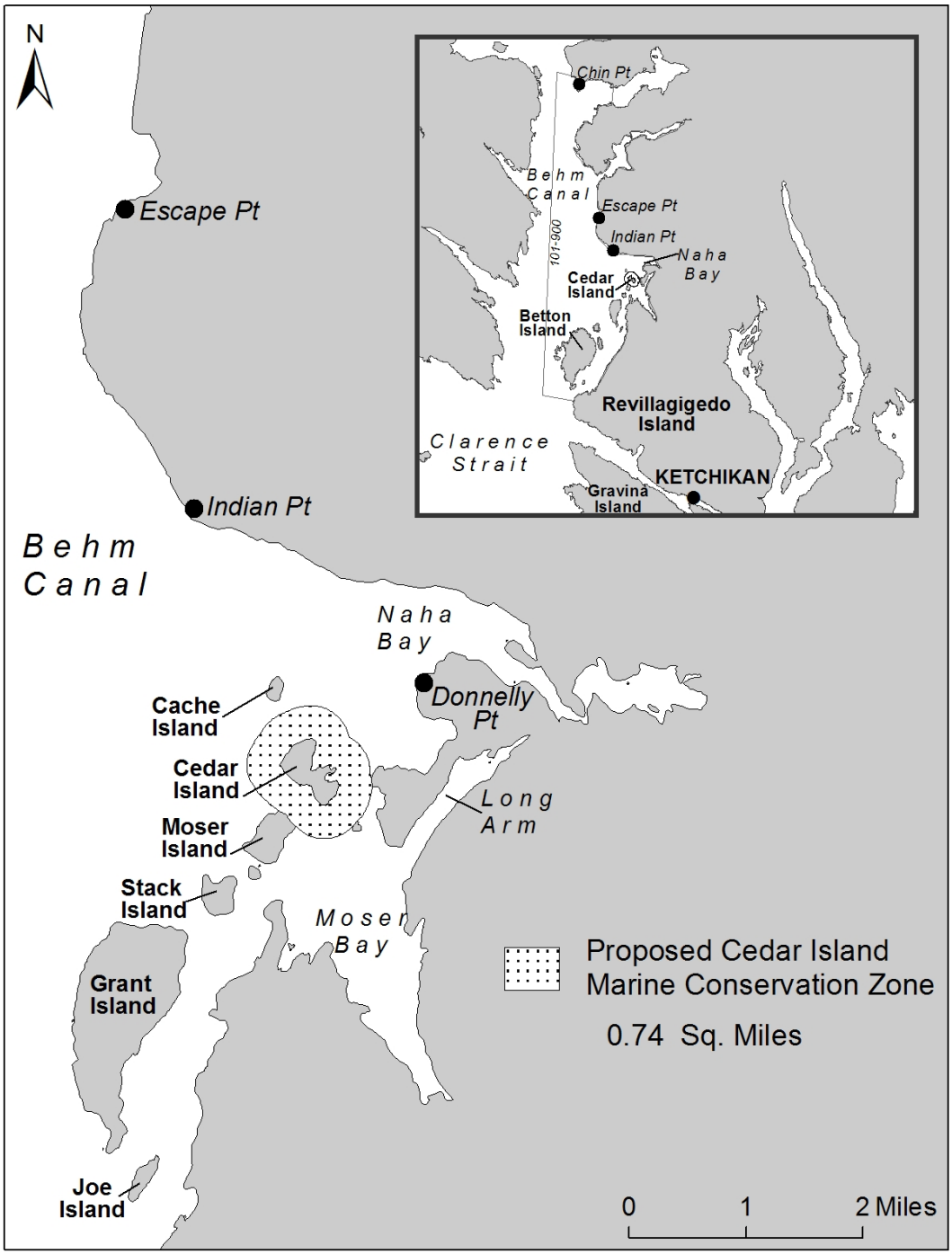

Figure 144-1.–Location of proposed Cedar Island marine conservation zone.

Table 142-1.–Estimated non-resident sport effort and harvest of lingcod, rockfish and Dungeness crab in East and West Behm Canal, 2001–2010 (from the SWHS).

Year	# Responses	Days Fished	# of Lingcod	# of Rockfish	# of Dungeness
2001	231	12,032	302	1,295	947
2002	394	16,188	305	2,030	819
2003	354	14,762	277	1,391	1877
2004	417	22,843	692	3,739	6433
2005	302	20,954	524	2,752	1659
2006	334	18,866	443	4,420	3940
2007	351	19,897	312	4,653	732
2008	307	17,147	228	3,339	1711
2009	411	17,001	365	3,205	454
2010	286	15,487	171	2,894	810
2001–2010 Mean	339	17,518	362	2,972	1938
2006–2010 Mean	338	17,680	304	3,702	1529

Table 142-2.–Reported harvest of lingcod and rockfish for area 101-900 from charter logbooks, 2001–2010**.**

	Active Vessels	Trips[a]	# of Lingcod	# of Pelagic Rockfish	# of Other Rockfish[b]
2001	41	n/a	10	98	135
2002	31	n/a	9	66	65
2003	32	n/a	7	86	182
2004	33	n/a	10	76	92
2005	32	119	15	106	132
2006	44	271	12	85	202
2007	43	277	12	163	199
2008	39	198	6	57	149
2009	36	223	1	38	150
2010	45	217	7	54	211
2001–2010 Mean	38	n/a	9	83	152
2006–2010 Mean	41	237	8	79	182

[a]From 2001–2004 the number of trips is not available.

[b]Includes yelloweye rockfish.

PROPOSAL 145 – 5 AAC 47.035. Methods, means, and general provisions – Shellfish. *(This proposal was erroneously cited as 5 AAC 77.010.* Methods, means and general restrictions*; and 5 AAC 47.020.* General provisions for seasons and bag, possession, annual, and size limits for the salt waters of the Southeast Alaska Area.*)*

PROPOSED BY: Wrangell Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the number of pots an angler is allowed to use in the sport shrimp fishery from 10 to five, and reduce the maximum number of sport shrimp pots fished from a vessel from 20 to 10.

WHAT ARE THE CURRENT REGULATIONS? The number of pots that may be used in the sport shrimp fishery is 10 pots per person, with a maximum of 20 per vessel (5 AAC 47.035). The sport shrimp bag and possession limit is three lb or quarts, with no annual limit (5 AAC 47.020).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effect this proposal would have on the number of pots used cannot be quantified because the department does not collect information on the number of sport shrimp pots fished in Southeast Alaska by anglers or per vessel. This proposal may result in reduced opportunity and harvest in areas of low shrimp abundance, where individuals use more than five pots to achieve their bag limits (three lb or quarts), but will not likely affect opportunity or harvests in other areas. By requiring different pot limits in the sport versus the personal use and subsistence fisheries, this proposal would add regulatory complexity.

BACKGROUND: Shrimp pot limits were first established statewide in 1989 at four per person with a maximum of 10 per vessel. In 1994, a statewide maximum of 10 pots per person and 20 pots per vessel was established. In 2000, in order to limit commercial shrimp gear from entering the sport fishery, pot size restrictions were adopted in Southeast Alaska that limited sport shrimp pots to a bottom perimeter of no more than 153 inches and a volume of no more than 25 cubic feet. In 2009, the Southeast Alaska shrimp bag and possession limit was decreased from 10 lb or quarts to three lb or quarts in order to decrease shrimp harvest by nonresident anglers.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 146 – 5 AAC 47.021. Special provisions for seasons, bag, possession, and size limits, and methods and means for the salt water of Southeast Alaska Area. (*This proposal was erroneously cited as 5 AAC 32.150.* Closed waters in Registration Area A.)

PROPOSED BY: Brennon Eagle.

WHAT WOULD THIS PROPOSAL DO? This proposal would close the sport Dungeness crab fishery in 14 areas currently closed to commercial Dungeness crab fishing.

WHAT ARE THE CURRENT REGULATIONS? The sport fishery for Dungeness crab is open year-round throughout Southeast Alaska; there are no closed areas. The sport bag and possession limit for Dungeness and Tanner crabs, in combination, is three with no annual limit (5 AAC 47.020).

Fourteen areas are closed year-round by regulation to commercial Dungeness crab fishing (5 AAC 32.150.) (Figure 146-1).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Since Alaska residents may harvest Dungeness crab under personal use or subsistence regulations, closing the sport fishery for Dungeness crab in these areas would primarily affect nonresidents by eliminating opportunity for nonresidents in these areas. Sport harvests of Dungeness crab would be reduced, but this reduction would be very small with respect to all fisheries that harvest Dungeness crab. Resulting effects to abundance in local areas may vary, but changes to regionwide abundance levels would be inconsequential. This action would create a greater disparity between sport and personal use regulations.

BACKGROUND: A Dungeness crab pot survey program was conducted from April 2000 through June 2004, but commercial harvest trends currently provide the best long-term indicator of sustainable harvest levels. The 2002/2003 commercial harvest of 3,512,242 Dungeness crab was the largest in the history of the fishery, likely a function of both increased effort and high abundance. Since the 2002/03 season, harvests have ranged from 1,770,701 to 2,657,986 Dungeness crab (Table 146-1).

From 2006 to 2010, in the combined sport and personal use fisheries, nonresident harvest of Dungeness crab in Southeast Alaska averaged 24,000 crab and resident harvest averaged 49,000 crab (Table 146-1). The combined sport and personal use harvests of Dungeness crab in Southeast Alaska averaged 73,000 crab and the commercial fishery has averaged 2,300,000 crab. The average number of Dungeness crab harvested by

nonresidents is roughly 1% of the total commercial, personal use, and sport harvests, combined.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 146-1.–Estimated number of Dungeness crab harvested in the sport, personal use, and commercial Dungeness crab fisheries of Southeast Alaska, 2001–2010.

Year[a]	Sport and personal use harvest combined			Commercial harvest[b]
	Nonresident	Resident	Total	(# of crab)
2001	18,770	35,435	54,205	2,099,643
2002	12,103	21,717	33,820	3,512,242
2003	19,484	38,191	57,675	2,184,724
2004	48,426	40,199	88,625	2,239,558
2005	27,561	45,757	73,318	2,039,101
2006	31,571	48,135	79,706	2,228,852
2007	26,545	65,030	91,575	2,657,986
2008	25,578	54,192	79,770	2,351,764
2009	17,589	42,178	59,767	1,770,701
2010	18,311	37,952	56,263	1,588,622
10-yr. average (2001-2010)	24,594	42,879	67,472	2,267,319
Percent of recreational harvest	36%	64%	100%	
5-yr. average (2006-2010)	23,919	49,497	73,416	2,119,585
Percent of recreational harvest	33%	67%	100%	

Source: Sport and personal use data are derived from Statewide Harvest Survey estimates. Number of crab harvested in the commercial fishery is derived from fish tickets and average weight of crab sampled in the department's port-sampling program.

[a] Commercial fishery runs from March-February. Sport and personal use fishery data are based on the calendar year.

[b] The Southeast Alaska (Registration Area A) Dungeness crab fishery does not include the Yakutat area (Registration Area D). The Area D Dungeness crab fishery was closed by the board following the 1999 season.

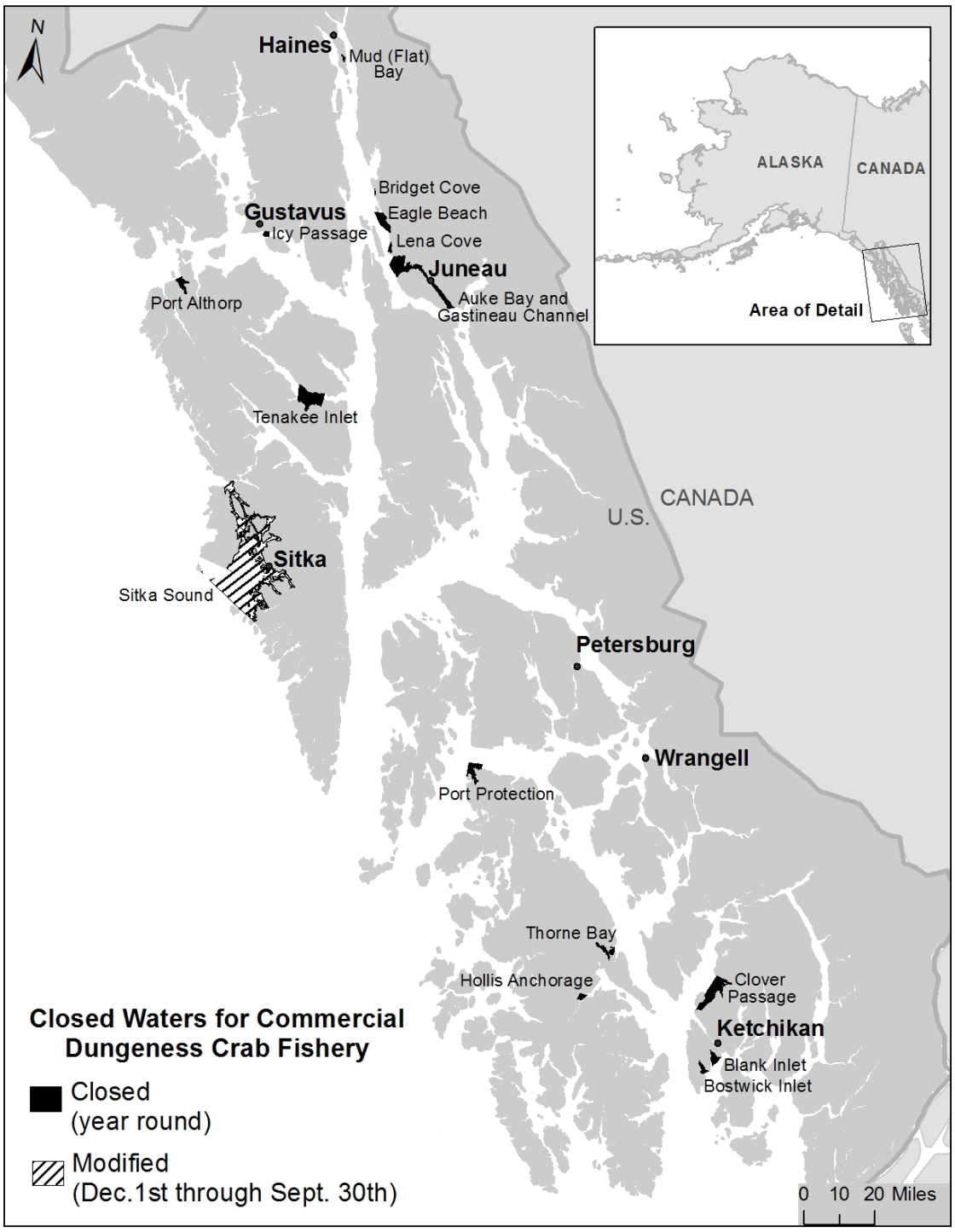

Figure 146-1.–Areas of Southeast Alaska closed to commercial fishing for Dungeness crab.

PROPOSAL 147 – 5 AAC 47.090. George Inlet superexclusive guided sport ecotourism Dungeness crab fishery.

PROPOSED BY: Experience Alaska Tours.

WHAT WOULD THE PROPOSAL DO? This proposal would allow a guide to register for the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery at any time before participating in the fishery.

WHAT ARE THE CURRENT REGULATIONS? A sport fish operator, sport fishing guide, or vessel owner may register for the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery after December 1 of the year before the year in which fishing will occur and before January 3 of the calendar year in which fishing will occur (5AAC 47.090(c)). During the calendar year of registration, a sport fishing operator, sport fishing guide, or vessel registered for the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery may not participate in any other Dungeness crab fishery, or any other guided sport fishery (5AAC 47.090(b)). This fishery is open April 15 through September 30.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? This proposal could increase the number of guides eligible to participate in the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery. Since guides cannot register for this fishery if they participated in any Dungeness crab fishery or any other guided sport fishery, any increase in the number of guides registering for this fishery would likely be small.

BACKGROUND: Since implementation of the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery in 2008, one business has registered three vessels and two to six guides annually. Since 2008, two guides and two vessels have participated in this fishery annually.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 148 – 5 AAC 34.111. Section 11-A Red and Blue King Crab Management and Allocation Plan.

PROPOSED BY: Territorial Sportsmen, Inc.

WHAT WOULD THE PROPOSAL DO? The proposal would allocate all red king crab harvest in Section 11-A (Juneau area Figure 148-1) to the personal use fishery, and allocate the summer and winter personal use fisheries 90% and 10%, respectively.

WHAT ARE THE CURRENT REGULATIONS? Harvest of the red and blue king crab resource in section 11-A is allocated as follows:

(1) personal use fishery from July 1 through September 30 (summer season) – 50 percent of the red king crab guideline harvest level;

(2) personal use fishery from October 1 through March 31 (winter season) – 10 percent of the red king crab guideline harvest level;

(3) commercial fishery – 40 percent of the red king crab guideline harvest level when the general season is open.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Participants in the commercial fishery would lose harvest opportunity in Section 11-A. The personal use allocation would be seasonally split, with 90% available during the summer season and 10% available during the winter season, providing additional harvest opportunity during the summer season. Removal of the Section 11-A commercial allocation from the department's regional estimate of available commercial harvest may reduce the frequency of years where the regional commercial guideline harvest level (GHL) meets or exceeds the 200,000-lb threshold necessary for a commercial fishery.

BACKGROUND: The Board of Fisheries (board) adopted a management and allocation plan for red king crab in Section 11-A beginning with the 1996/1997 season. This management plan allocated 45% of the available harvest in Section 11-A only to the commercial fishery, with a season from November 1 until closed by emergency order; 46% to the summer personal use fishery from July 1 to September 30; and 9% to the winter personal use fishery from October 1 to March 31. One of the reasons the board separated the personal use allocation into summer and winter seasons was to provide harvest opportunity for dive fishermen who traditionally harvest during the winter, when crab migrate into shallow waters.

This allocation plan was revised in March 1999 so that 40%, 50%, and 10% of the available harvest is allocated to the commercial, summer personal use, and winter personal use fisheries, respectively. The allocation plan was also revised such that in years when the commercial fishery did not open, the commercial allocation for Section 11-A was reallocated to the personal use fishery. When this occurred, 80% of the personal use harvest was allocated to the summer fishery, and 20% to the winter fishery. This reallocation has occurred three times since the 1996/1997 season (Table 148-1). This provision of the management plan was rescinded during the 2009 board meeting, and since that time, when the commercial fishery did not open in 2009 and 2010, the reallocation has not taken place.

The department estimates the legal male red king crab biomass annually in Section 11-A, as well as in the rest of Southeast Alaska, and determines stock status for each survey area to determine an appropriate harvest rate and guideline harvest level (GHL). A tiered harvest strategy is used, with harvest rates set at 0%, 5%, 10%, 15%, or 20% of the mature male biomass, or a maximum of 50% of legal male biomass, respectively, for "poor," "below average", "moderate", "above average", or "good" stock status. The maximum of 20% of mature male biomass used in this fishery is greater than the 15% of mature male biomass employed in the Bristol Bay red king crab fishery, although both areas use the alternate maximum of 50% of legal male abundance. There are no other red king crab fisheries currently open in Alaska.

The department combines estimates of available harvest for all survey areas and then expands the value to include areas in the region that are not surveyed. By regulation, a commercial fishery may be permitted if the department's estimate of available harvest for the entire region meets or exceeds a 200,000 lb threshold. There is no established threshold that must be met to conduct a personal use fishery.

Since the 1994/1995 season, red king crab biomass in Section 11-A has contributed, on average, 15% to the regional commercial GHL in years when there was a fishery (Table 148-2). This proportion has increased recently and averaged 23% for 2003/2004 and 2005/2006 seasons. During the 2010/2011 season, less than 5% of the regionwide red king crab commercial GHL was apportioned to Section 11-A.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it is entirely allocative. Elimination of the Section 11-A biomass contribution to calculation of the regionwide red king crab GHL would have resulted in four additional closures of the regionwide red king crab commercial fishery since 1994/1995: 1997/1998, 2001/2002, 2003/2004, and 2005/2006 seasons (Table 148-2).

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 148- 1.–Total allowable harvest, allocations, and estimated harvest of red and blue king crab, in numbers of crab, for the personal use and commercial fisheries of Section 11-A, Southeast Alaska, Registration Area A.

	Commercial fishery		Summer personal use fishery		Winter personal use fishery		Total allowable harvest	
Season	Allocation	Estimated harvest	Allocation	Estimated harvest	Allocation	Estimated harvest	Goal	Estimated harvest
1996/1997[a]	3,825	2,842	3,900	5,693	765	1,296	8,490	9,831
1997/1998[a]	3,750	2,830	3,800	5,567	750	823	8,300	9,220
1998/99[a]	6,533	0	6,678	5,392	1,307	1,575	14,518	6,967
1999/2000	4,964	11,173	6,200	6,813	1,241	2,181	12,405	20,167
2000/01	4,140	0	5,176	*	1,035	*	*	0
2000/01	0	0	8,626	6,724	1,725	2,731	10,351	9,455
Reallocation[b]								
2001/02	7,189	8,525	8,986	7,199	1,797	2,412	17,972	18,136
2002/03	4,503	5,165	5,600	7,322	1,100	1,754	11,203	14,241
2003/04	6,462	6,987	8,078	10,624	1,616	1,339	16,156	18,950
2004/05	3,868	0	4,836	*	967	*	*	0
2004/05	0	0	7,737	8,682	1,934	1,496	9,671	10,178
Reallocation[b]								
2005/06	7,161	7,079	8,952	9,179	1,790	1,227	17,903	17,485
2006/07	1,720	0	2,149	*	430	*	*	0
2006/07	0	0	3,439	6,961	860	557	4,299	7,518
Reallocation[b]								
2007/08[c]	0	0	0	2,541	0	0	0	2,541
2008/09	0	0	0	0	0	0	0	0
2009/10	0	0	0	0	0	0	0	0
2010/11	1,094	0	1,494	1,104	298	373	1,792	1,477

[a] Allocation guidelines established by Board of Fisheries in October 1995 as 45% commercial, 46% summer personal use, and 9% winter personal use.

[b] Allocation guidelines revised by Board of Fisheries in March 1999 as 40% commercial, 50% summer personal use, and 10% winter personal use. If there is no commercial fishery, total allowable harvest is reallocated to personal use fisheries as 80% summer and 20% winter personal use.

[c] The fishery was opened during the 2007/08 season prior to the stock health rating being assessed and was closed when it was determined that 11-A was "poor", thus a 0% harvest rate.

* Personal use allocation and harvest is reflective of reallocation from commercial fishery.

Table 148- 2.–Commercial harvestable surplus in Section 11-A since implementation of the Section 11-A Red King Crab Management Plan, 1996/1997–2011/2012 commercial seasons.

			Regionwide (lb)				Section 11-A (lb)	
Season	Regional mature biomass estimate (lb)	Threshold (lb)	Harvestable surplus	Harvestable surplus w/out Section 11-A	GHL	Harvest	Harvestable surplus	Proportion of harvest
1996/97	2,245,783	300,000	397,000	375,000	397,000	428,549	22,000	6%
1997/98	1,808,003	300,000	322,000	295,400	300,000	308,322	26,600	8%
1998/99	1,716,094	300,000	265,000	265,000	0	0	0	0%
1999/00	1,858,292	300,000	342,000	306,000	342,000	289,548	36,000	11%
2000/01	1,781,331	300,000	183,000	183,000	0	0	0	0%
2001/02	1,945,853	300,000	302,000	249,353	302,000	296,967	52,647	17%
2002/03	1,902,141	200,000	250,000	217,036	250,000	233,630	32,964	13%
2003/04	1,722,920	200,000	225,000	177,764	225,000	193,759	47,236	21%
2004/05	1,424,582	200,000	80,505	80,505	0	0	0	0%
2005/06	1,398,546	200,000	200,000	152,744	200,000	209,799	47,256	24%
2006/07	1,266,107	200,000	81,552	81,552	0	0	0	0%
2007/08	1,076,892	200,000	22,323	22,323	0	0	0	0%
2008/09	1,136,343	200,000	0	0	0	0	0	0%
2009/10	952,789	200,000	13,075	13,075	0	0	0	0%
2010/11	811,676	200,000	25,597	20,671	0	0	0	0%
2011/12	1,761,161[a]	200,000	200,194	191,368	201,000	176,402	8,826	4%

Note: 2011/12 data should be considered preliminary.

[a] Adjusted mature biomass based on mark/recapture estimates.

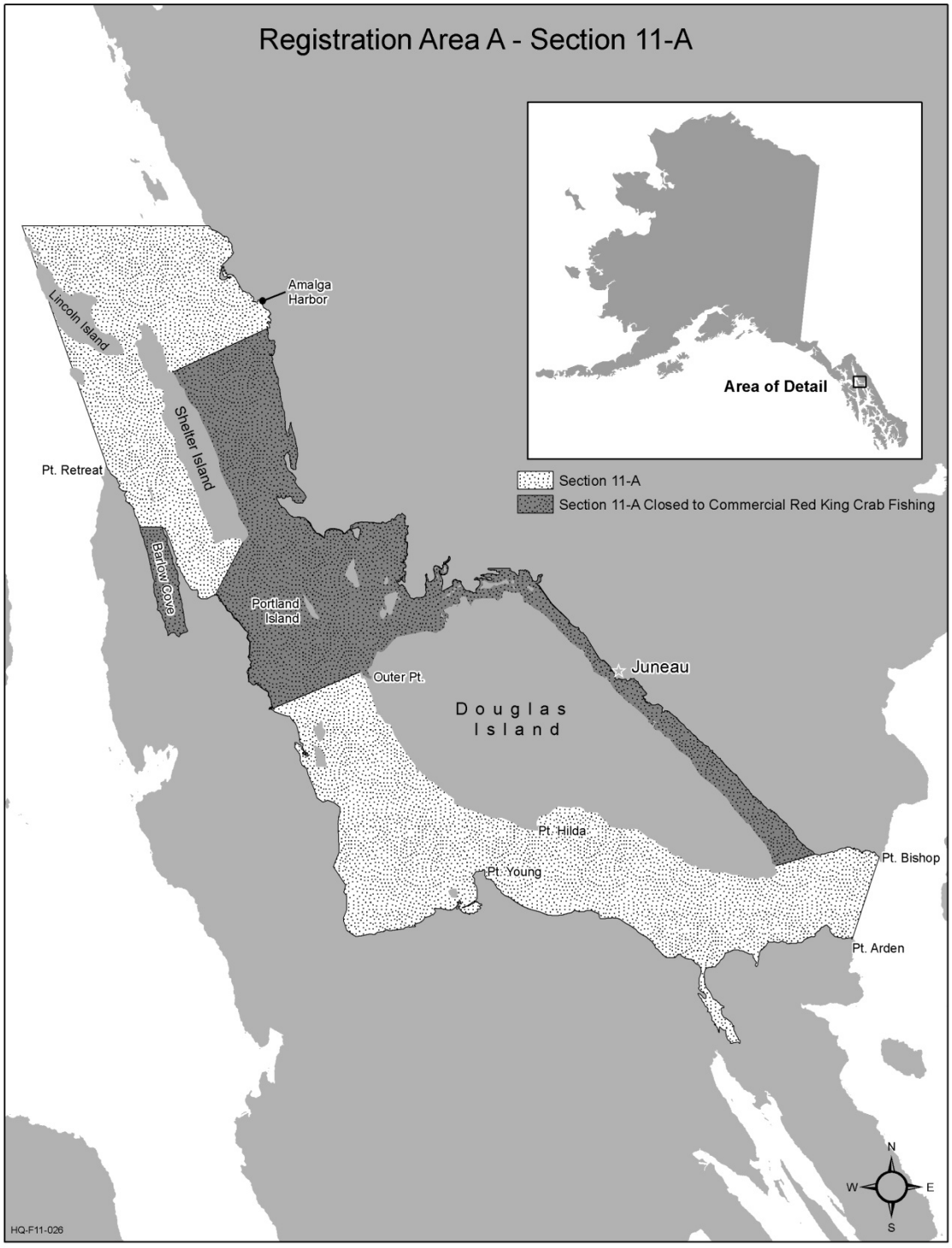

Figure 148-1.–Waters of Section 11-A, including waters closed to red king crab commercial fishing.

PROPOSAL 149 – 5 AAC 02.115. Subsistence Dungeness crab fishery; 5 AAC 02.120. Subsistence king crab fishery; 5 AAC 02.125. Subsistence Tanner crab fishery; 5 AAC 47.035. Methods, means, and general provisions – Shellfish; 5 AAC 77.612; Personal use Dungeness crab fishery; 5 AAC 77.614. Personal use king crab fishery; 5 AAC 77.616. Personal use Tanner crab fishery; 5 AAC 77.662. Personal use Dungeness crab fishery; 5 AAC 77.664. Personal use king crab fishery; and 5 AAC 77.666. Personal use Tanner crab fishery.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a limit for the number of ring nets a person is allowed, and a maximum number of ring nets allowed per vessel in the subsistence and personal use crab fisheries, and in the sport shellfish fisheries.

WHAT ARE THE CURRENT REGULATIONS? Ring nets are a legal gear type in Southeast Alaska subsistence, sport, and personal use shellfish and crab fisheries. There is no limit on the amount of ring net gear that an individual may deploy in these fisheries.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Ring net limits will be established in Southeast Alaska subsistence, sport, and personal use shellfish and crab fisheries. In fisheries where the department modifies pot limits to achieve fishery management objectives, ring net limits would also be modified. The proposed ring net limits are not expected to be a constraint on fishermen currently using ring net gear.

BACKGROUND: Ring nets are listed as legal gear under methods and means in the subsistence, personal use, and sport fisheries. No ring net limits for individuals or vessels are provided in regulation. The Statewide Harvest Survey does not differentiate gear type, but 11-A personal use permit data show consistent ring net red and blue king crab harvest annually. The proportion of red and blue king crab harvest attributed to ring net gear in the winter fishery has increased from less than 5% in the mid 1990s to around 20% in the mid 2000s. In Southeast Alaska outside of Section 11-A, ring nets are likely deployed to harvest king crab in a similar proportion to that observed within Section 11-A.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The board has adopted pot limits for the personal use and sport crab and shellfish fisheries in Southeast Alaska. Allowing unlimited use of ring nets is contradictory to the intent of regulations implementing pot limits. In fisheries where the department reduces pot limits to achieve a fishery management objective, allowing

unlimited use of ring net gear creates a regulatory loophole, inhibiting the department's ability to achieve those objectives. Unlimited use of ring net gear provides an opportunity to use more ring net gear than is reasonably needed to harvest a person's daily bag and possession limit, resulting in discards and potential mortality of crab and shellfish which in turn could exceed the daily bag and possession limit.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? There are several nonsubsistence use areas in Southeast Alaska including waters around Juneau and Ketchikan. For a description of nonsubsistence use areas see 5 AAC 99.015.
2. Is this stock customarily and traditionally taken or used for subsistence? There are positive customary and traditional use findings for shellfish in Yakutat Bay; shellfish (except king and tanner) in Section 15A; shellfish (except shrimp, king, and tanner) in portions of District 14, District 12, Section 13C, Section 9B, District 10, District 5, Section 1F, Section 1E, District 2, Section 3A, Section 3B, District 5, Section 6A, and Section 6B; Dungeness, shrimp, abalone, sea cucumber, gum boots, cockles, clams (except geoducks) in District 13; and shellfish (except king and tanner) in District 7 and District 8 (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified ANS findings for shellfish in Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

PROPOSAL 150 – 5 AAC 77.614. Personal use king crab fishery; 5 AAC 02.125. Subsistence Tanner crab fishery; and 5 AAC 77.616. Personal use Tanner crab fishery.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would establish size limits for red, golden, and blue king crab in the Yakutat Area personal use king crab fishery, and establish a single size limit for the subsistence and personal use Tanner crab fisheries in the Yakutat Area.

WHAT ARE THE CURRENT REGULATIONS? Subsistence regulations recognize a customary and traditional use finding for shellfish in the waters of Yakutat Bay, including the islands within Yakutat Bay, west of the Situk River drainage, and south of and including Russell Fjord, within a line from the westernmost point of Point Manby to the southernmost point of Ocean Cape. Subsistence regulations specify that only male red and golden king crab seven inches or larger, and male blue king crab six and one-half inches or larger, in width of shell may be taken or possessed; however, there are no personal use size limits for king or Tanner crab or subsistence size limits for Tanner crabs in the Yakutat Area.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Personal use and subsistence fishermen, department staff, and Alaska Wildlife Troopers will benefit by having uniform, consistent language on legal size limits in the subsistence and personal use Tanner and king crab fisheries in Yakutat. The proposed addition of a legal size limit in personal use regulations would mirror the language on the legal size limit already found in 5 AAC 02.120(3)(B). There would be a legal size limit instituted for Tanner crab personal use and subsistence fisheries in Yakutat that would be consistent with personal use legal size limits in place in Southeast Alaska, and that would provide male Tanner crabs the opportunity to mate once or twice before recruiting into the personal use and subsistence fisheries in Yakutat.

BACKGROUND: Legal size limits have long been used by the department to allow male crabs to reach sexual maturity and mate before recruiting into commercial, sport, personal use, and subsistence fisheries. The commercial red king crab fishery has had legal size limits since 1961. The commercial Tanner crab fishery has had a legal size limit since 1976. In 1979, a seven-inch legal size limit was in effect for all species in the king crab subsistence regulations (5 AAC 02.120(3)(B) for the Southeastern Alaska - Yakutat Area. Concurrent Tanner crab subsistence regulations (5AAC 02.125) do not include a legal size limit.

On July 1, 1986, personal use regulations for Dungeness crab, Tanner crab, king crab, and shrimp were implemented. By the early 1990s, personal use regulations for king (5 AAC 77.614) and Tanner (5 AAC 77.616) in the Yakutat Area did not include legal size limits. Subsistence regulations for king crab (5 AAC 02.120(3)(B)) were modified to allow a seven-inch limit for red and golden king crab and a six and one-half inch limit for blue king crab, but did not provide a Tanner crab size limit. Concurrently, personal use regulations for king crab (5 AAC 77.664(2)(B)) in Southeastern Alaska provided a legal size limit of seven inches for red and brown (golden) king crab and a six and one-half inch limit for blue king crab, but Tanner crab personal use regulations (5 AAC 77.666) for Southeastern Alaska did not implement a legal size limit.

A size limit of five and one-half inches for Tanner crab in the personal use fishery in Southeastern Alaska was implemented in 1999; however, the sex of harvested Tanner crab was not specified.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. A five and one-half inch carapace width size limit for Tanner crab in the Yakutat Area personal use and subsistence Tanner crab fisheries will provide consistency across regulations and promote conservation of the Tanner crab stock by prohibiting harvest of male Tanner crab that have not reached sexual maturity. Adopting a consistent king crab minimum size limit for personal use and subsistence fisheries in the Yakutat Area will facilitate improved regulatory interpretation and promote stock conservation of king crabs in the Yakutat Area.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for shellfish in Yakutat Bay (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for shellfish for the Yakutat area.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

PROPOSAL 151 – 5 AAC 77.664. Personal use king crab fishery; 5AAC 77.666. Personal use Tanner crab fishery; 5 AAC 77.614. Personal use king crab fishery; 5 AAC 77.616. Personal use Tanner crab fishery; 5 AAC 02.120. Subsistence king crab fishery; and 5 AAC 02.125 Subsistence Tanner crab fishery.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would provide consistent language on the use of live holding facilities for the Dungeness crab, Tanner crab, and king crab personal use fisheries in the Southeast Alaska and Yakutat areas, and for the Dungeness crab, Tanner crab, and king crab subsistence fisheries in the Southeast Alaska – Yakutat Area.

WHAT ARE THE CURRENT REGULATIONS? In the personal use Dungeness crab fishery, live holding facilities utilized to accumulate or pool multiple bag limits by an individual or individuals are not permitted. In the personal use king crab and Tanner crab fisheries, a person may not utilize a live holding facility to accumulate or pool multiple bag limits.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Personal use and subsistence fishermen, department staff, and Alaska Wildlife Troopers will benefit by having uniform, consistent language on the use of live holding facilities.

BACKGROUND: In 1979, language currently found in 5 AAC 77.662(4)—"live holding facilities utilized to accumulate or pool multiple bag limits by an individual or individuals are not allowed"—existed in the Dungeness subsistence regulations (5 AAC 02.115(5)) in Southeast Alaska, but not in the corresponding king crab and Tanner crab subsistence regulations. Personal use regulations for Dungeness crab, Tanner crab, king crab, and shrimp had been in place since July 1986.

In 1991 new personal use regulations for Dungeness crab in Southeast Alaska (5 AAC 77.662(4)) used the same language found in 5 AAC 02.115(5); however, corresponding king crab and Tanner crab personal use regulations (5 AAC 77.664 and 5 AAC 77.666) had no language to address live holding facilities. In 1999 live holding facilities were addressed in king crab and Tanner crab personal use regulations (5 AAC 77.664(e) and 5 AAC 77.666(6))], but with language less clear on the use of live facilities by more than one individual.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The proposed language clarifies that use of a live holding device by more than one individual is prohibited, and prohibits more than one individual from storing more than that individual's bag and possession limit in a live holding device.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? There are several nonsubsistence use areas in southeast Alaska including waters around Juneau and Ketchikan. For a description of nonsubsistence use areas see 5 AAC 99.015.
2. Is this stock customarily and traditionally taken or used for subsistence? There are positive customary and traditional use findings for shellfish in Yakutat Bay; shellfish (except king and tanner) in Section 15A; shellfish (except shrimp, king, and tanner) in portions of District 14, District 12, Section 13C, Section 9B, District 10, District 5, Section 1F, Section 1E, District 2, Section 3A, Section 3B, District 5, Section 6A, and Section 6B; Dungeness, shrimp, abalone, sea cucumber, gum boots, cockles, clams (except geoducks) in District 3; and shellfish (except king and tanner) in District 7 and District 8 (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

PROPOSALS 152 AND 153 – 5 AAC 34.113. Southeast Alaska Red King Crab Management Plan.

PROPOSED BY: Andrew Kittams (Proposal 152) and Ladd Norheim (Proposal 153).

WHAT WOULD THE PROPOSAL DO? These proposals would modify the *Southeast Alaska Red King Crab Management Plan* (management plan) so that if the guideline harvest level (GHL) is less than 200,000 pounds, the department would open the commercial red king crab fishery and divide the GHL equally among registered permit holders.

WHAT ARE THE CURRENT REGULATIONS? The management plan (5 AAC 34.113) does not allow for a commercial fishery if the GHL is less than 200,000 lb of legal male red king crab.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? The department would continue to conduct annual stock assessment surveys, evaluate other sources of data, such as fishery performance, and, using the best available information, would determine what amount of commercial red king crab harvest, if any, is sustainable.

BACKGROUND: The current 200,000-lb minimum GHL for the Southeast Alaska commercial red king crab fishery was adopted in 2002 and is a reduction from the previous 300,000-lb minimum adopted in 1988. These minimum GHLs were developed based on industry-driven market considerations and the department's inseason management capabilities.

The red king crab fishery in Southeast Alaska was closed between the 2006/2007 and 2010/2011 seasons due to poor stock health. The fishery was reopened in 2011/2012; however, stock health remains below average.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of these proposals.

If the 200,000-lb minimum GHL is not met and the commercial fishery does not open, the department may open the personal use king crab fishery with reduced red and blue king crab bag and possession limits, provided that the personal use red king crab fishery was not closed because of conservation concerns (5 AAC 77.664). The trigger for the department to consider reducing the personal use bag and possession limit is dropping below the 200,000 lb threshold, not the opening of the commercial fishery, and if adopted, these proposals could create a situation where the commercial red king crab fishery was open, but the personal use red king crab bag and possession limit could be reduced because the regionwide red king crab GHL was less than 200,000 lb. This would represent a potential change from the current management approach where, in the waters outside of Section 11-A, bag and possession limits are not reduced by emergency order when the commercial fishery is open.

After the commercial red king crab GHL has been set, the department apportions that GHL to specific bays or sections based on estimated biomass in those locales. If the commercial red king crab fishery were opened with a regionwide GHL of less than 200,000 lb, it is possible that some of the bay or section GHLs would be too small for the department to effectively manage and would remain closed.

The current 200,000-lb minimum GHL not only achieves market-driven and inseason management-related objectives previously established by the board, but is also likely to play an important stock conservation role by keeping the fishery closed during periods of low stock status.

The board has eliminated minimum GHLs for some king and Tanner crab fisheries where inseason management concerns have been alleviated through other regulatory action; however, management plans for those fisheries contain biomass or abundance-based thresholds that serve as backstops in protecting stock reproductive potential. Similar backstops are not incorporated into the management plan for red king crab in Southeast Alaska.

Without abundance- or biomass-based thresholds, including a minimum GHL, explicitly defined in regulation, the department would use professional judgment in evaluating the best available information to establish a sustainable GHL. Before opening the Southeast Alaska red king crab fishery with a GHL of less than 200,000 lb, a red king crab harvest strategy with an abundance- or biomass-based fishery threshold should be developed and adopted by the board.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 154 – 5 AAC 34.125. Lawful gear for Registration Area A.

PROPOSED BY: Steven M. Thynes.

WHAT WOULD THE PROPOSAL DO? The proposal would eliminate square pots as a lawful gear type in the Southeast Alaska golden king crab fishery.

WHAT ARE THE CURRENT REGULATIONS? Current regulations specify maximize dimensions and tunnel eye specifications for king crab pots and provide for use of square and conical or pyramid shaped pots.

WHAT WOULD BE THE EFFECTS IF THE PROPOSAL IS ADOPTED? It would no longer be legal to use square pots, and possibly any other type of pot with an opening on the vertical plane, in the Registration Area A golden king crab fishery. Only top entry pots with an opening on the horizontal plane, such as cone or pyramid pots, could be used in the Registration Area A golden king crab fishery.

BACKGROUND: The three types of pots used in the golden king crab fishery are cone, square, and pyramid. During the 2010/2011 Southeast Alaska golden king crab season, approximately 11% of gear deployed consisted of square pots (Table 154-1). Between 2007 and 2011, observers in the Southeast Alaska golden king crab fishery sampled 1,185 pots and observed 11 halibut in those pots. Forty one of the pots sampled between 2007 and 2011 were square pots and did not contain halibut.

Halibut may not be legally retained if caught in crab pots.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. Observer data collected between 2007 and 2011 indicate that very few halibut are incidentally caught during the Southeast Alaska golden king crab fishery, and the department does not have any information on mortality rate of halibut incidentally caught in the fishery. It is unlikely that adoption of this proposal would result in a measurable reduction in halibut bycatch mortality in the Southeast Alaska golden king crab fishery, but it would create an economic burden on fishery participants who currently use square pots. If this proposal were adopted, regulations should be modified to include a definition of a square pot. Current regulations do not specify pot shapes, but rather state maximum pot dimensions and define tunnel eye dimensions in pots that have an opening on the vertical plane.

COST ANALYSIS: Golden king crab permit holders that currently use square pots would incur the cost of purchasing new pots. Based on information from permit holders, the cost of one large cone pot (700 lb X 9 ft) delivered to Petersburg would be approximately $1,185 and the cost of one large pyramid pot would be approximately $920 (500 lb X 6.5 ft). If this proposal were adopted, there might also be costs associated with modifying pot launchers on affected vessels.

Table 154-1.–Number and percentage of pot types in the 2010/2011 golden king crab season in Southeast Alaska.

Pot type	Number in fishery	Percentage in fishery
Cone*	3,570	84%
Pyramid	200	5%
Square	460	11%

*Counts for cone pot types include dome pots.

PROPOSAL 155 – 5 AAC 34.125. Lawful gear for Registration Area A and 5 AAC 35.125. Lawful gear for Registration Area A.

PROPOSED BY: Stan Savland.

WHAT WOULD THE PROPOSAL DO? The proposal would reduce the pot limit in the Southeast Alaska golden king crab fishery from 100 pots to 50 pots and reduce the pot limit in the Southeast Alaska Tanner crab fishery from 80 pots to 50 pots. The proposal also seeks to change the Tanner crab harvest strategy (5 AAC 35.113) to provide more fishing time in consideration of reduced Tanner crab pot limits

WHAT ARE THE CURRENT REGULATIONS? In Southeast Alaska, the following crab pot limits are in effect:

Tanner crab: up to 80 pots or 20 ring nets per vessel
golden king crab: up to 100 pots per vessel

When the commercial golden king crab and Tanner crab seasons are open at the same time, an aggregate of no more than 80 king and Tanner crab pots may be operated from a vessel registered to fish for both golden king crab and Tanner crab.

In the Southeast Alaska commercial Tanner crab fishery the initial period in the core areas and noncore areas will be at least five days in length, and may be increased with additional fishing days allowed based on the estimated biomass of mature male crab and the number of registered pots at the start of the fishery, as follows:

	Additional fishing days	
Pots registered	**If the mature biomass is at least 2,300,000 lbs, but less than 5,500,000 lbs**	**If the mature biomass is 5,500,000 pounds or greater**
1,600–2,399	4 additional days	5 additional days
2,400–3,199	3 additional days	4 additional days
3,200–3,999	2 additional days	3 additional days
4,000–4,799	1 additional day	2 additional days
4,800–5,599	1 additional day	2 additional days
5,600–6,399	0 additional days	1 additional day
6,400– 7,000	0 additional days	1 additional day

At the end of the initial period, the core areas will close to fishing, and the non-core areas will remain open for an additional five days.

WHAT WOULD BE THE EFFECTS IF THE PROPOSAL IS ADOPTED? Pot limits for the golden king and Tanner crab fisheries would each be reduced to 50 pots and the Tanner crab harvest strategy adopted in 2009 would be modified to adjust for the decrease in the amount of total pots registered for the Tanner crab fishery.

BACKGROUND: From 1961 through 1967, there were no restrictions on the amount or type of gear that could be fished by a vessel participating in the king crab fishery. In 1968, a limit of 40 pots per vessel was established for Southeast Alaska waters. The maximum number of pots per vessel was increased to 60 in 1974 and to the current 100 for golden king crab in 1978.

Gear restrictions, first imposed in 1954, permitted use of pots or trawl gear to harvest Tanner crab. Ring nets were added as legal gear in 1960. The next major change occurred in 1973 when a pot limit of 60 was implemented for all inside waters. In 1977, a 100-pot limit was put into effect in Southeast Alaska. Trawl gear was dropped as legal gear in 1977, leaving only pots and ring nets as options. In 1996, the board adopted an 80-pot limit; this was implemented starting in the 1997 season.

In 2009, the Board of Fisheries adopted an amended proposal from industry describing a Tanner crab harvest strategy for Southeast Alaska (5 AAC 35.113). Under this harvest strategy, a regional GHL is no longer targeted. The harvest strategy includes a mature male abundance threshold that is one-half of the long-term average. Under the new Tanner crab harvest strategy, the commercial Tanner crab season length is, in part, determined by the mature male abundance estimate and the number of registered pots at the start of the fishery.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The current limit of 100 pots in the golden king crab fishery makes it difficult to set closures to target GHLs, and allows adequate time for gear to be moved or stored in consideration of tides and weather. Currently, a five- to eight-day advance notice is given prior to area closures. A reduction to 50 pots would allow managers to manage more closely to fishery area GHLs before making closure announcements since less advance notice would need to be given prior to closures due to less time required for fishermen to work deployed pots. Overall, management accuracy in targeting fishery area GHLs would improve with a lower pot limit. Table 155-1 shows management accuracy in the golden king crab fishery for the past six seasons. The department supports adoption of pot limits that will improve management precision and ability to conduct an orderly fishery.

In the 2007/2008 and 2008/2009 seasons, the department used an abundance-based management strategy for the commercial Tanner fishery targeting GHLs of 987,000 and 931,000 lb, respectively. The current limit of 80 pots made it impractical to target this regionwide GHL inseason with daily call-ins. The department's preferred management tool to target a GHL of this size was to set the season length preseason in the core and noncore areas.

Under the current Tanner crab harvest strategy, the commercial Tanner crab season length is, in part, determined by the mature male abundance estimate and the number of registered pots at the start of the fishery. A reduction to 50 pots per vessel in the Tanner crab fishery could make it feasible for the department to manage to an abundance-based GHL, potentially dividing the region into fishery areas and managing to specific harvest objectives inseason, much like is currently done in golden king crab and red king crab fisheries.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 155-1.–GHLs, harvest (lb), and management accuracy by fishery area in the golden king crab fishery from the 2005/2006 through 2010/2011 seasons.

Fishery Area	Season	GHL	Harvest	% of GHL
Mid-Chatham	2005/06	80,000	81,463	102
	2006/07	80,000	78,416	98
	2007/08	80,000	89,873	112
	2008/09	100,000	123,626	124
	2009/10	110,000	141,558	129
	2010/11	110,000	114,966	105
East Central	2005/06	225,000	249,330	111
	2006/07	225,000	243,675	108
	2007/08	225,000	251,004	112
	2008/09	225,000	303,811	135
	2009/10	260,000	308,013	118
	2010/11	260,000	305,659	118
North Stephens Passage	2005/06	20,000	16,366	82
	2006/07	20,000	19,450	97
	2007/08	20,000	27,441	137
	2008/09	20,000	22,770	114
	2009/10	20,000	20,568	103
	2010/11	20,000	20,714	104
Northern	2005/06	120,000	142,455	119
	2006/07	120,000	152,145	127
	2007/08	120,000	184,227	154
	2008/09	145,000	156,261	108
	2009/10	145,000	176,782	122
	2010/11	145,000	161,522	111
Icy Strait	2005/06	55,000	61,290	111
	2006/07	55,000	71,058	129
	2007/08	55,000	58,453	106
	2008/09	55,000	51,026	93
	2009/10	45,000	42,136	94
	2010/11	45,000	44,882	100
Lower Chatham	2005/06	15,000	*	*
	2006/07	15,000	7,736	52
	2007/08	15,000	*	*
	2008/09	25,000	20,004	80
	2009/10	25,000	22,328	89
	2010/11	25,000	17,786	71
Southern	2005/06	10,000	*	*
	2006/07	10,000	*	*
	2007/08	10,000	*	*
	2008/09	20,000	*	*
	2009/10	20,000	20,742	104
	2010/11	20,000	21,976	110

* Fewer than 3 permits were fished; information is confidential.

PROPOSAL 156 – 5 AAC 34.120. Size limits for Registration Area A.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would clarify when six and one-half inch golden king crab may be taken and possessed in the Lower Chatham Strait and Southern areas.

WHAT ARE THE CURRENT REGULATIONS? In Southeast Alaska, only male king crab seven inches or greater in width of shell may be taken or possessed, however male golden king crab six and one-half inches or greater in width of shell may be taken or possessed in the Lower Chatham Strait and Southern Areas during a specific fishing period opened by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial fishermen and department staff will benefit by having clearer regulatory language regarding when male golden king crab six and one-half inches in size may be retained in the Lower Chatham Strait and Southern areas.

BACKGROUND: The golden king crab fishery in Southeast Alaska is restricted to harvesting only male crabs in order to protect the reproductively-important females. From 1961 through 1968, a minimum legal size of six and one-half inches in carapace width (CW) was in place. The minimum legal size was established to protect sexually-mature male king crabs from harvest during the early years of sexual maturity. The minimum legal size was increased to seven inches, or 178 mm, CW in 1969. This size limit was based on growth and size-at-maturity information collected from Gulf of Alaska red king crab stocks. The larger minimum size limit was implemented to increase reproductive potential by providing additional protection to mature male crab. In 1993, the Board of Fisheries (board) adopted a regulation allowing the department to open a fishery on male golden king crabs six and one-half inches or greater in CW by emergency order (EO) only in the Cape Ommaney and Clarence Strait areas, now referred to in regulation as the Lower Chatham Area and Southern Area, respectively.

Commercial golden king crab and Tanner crab fisheries have opened concurrently in Southeast Alaska since the 1985/1986 season. From the 1989/1990 season through the 2004/2005 season, both fisheries opened concurrently on February 15. Because the start date was fixed in regulation, no EO was required to open the fishery. In 2005, the board adopted a proposal allowing a flexible start date for both fisheries of sometime between February 10 and February 17. Tanner and golden king crab fisheries open by EO on the same day, subject to the smallest Juneau tidal range occurring between February 10 and 17. When the regulation was adopted allowing a flexible opening date established by EO the

regulation allowing for six and one-half inch male golden king crab to be retained "during any period opened by emergency order", was not specifically considered and a regulatory loophole was created allowing the harvest of smaller crab.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The size limit for golden king crab is seven inches CW in all seven fishery areas in Southeast Alaska. The six and one-half inch size limit in the Lower Chatham and Southern areas has never been used since its inception in 1993. The proposed language clarifies that male golden king crab six and one-half inches CW may only be retained in the Lower Chatham and Southern areas during specified periods opened by EO, not simply by any EO announcing a golden king crab opening. Unless additional data on golden king crab size at maturity for Southeast Alaska are available, the department does not anticipate opening a season for golden king crab with a six and one-half inch size limit.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 157 – 5 AAC 34.110. Fishing seasons for Registration Area A and 5 AAC 35.110. Fishing Seasons for Registration Area A.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would adopt a fixed start date of February 15 in both the Tanner and golden king crab fisheries in Southeast Alaska. This proposal would also clarify that the closing date for the Tanner crab fishery is determined through emergency order (EO), a change that was not made when the new Tanner crab harvest strategy was adopted in 2009. With adoption of a new Tanner crab harvest strategy in 5 AAC 35.113, the closing dates for core and noncore areas are subject to the total number of pots registered at the start of the fishery; closures are set by EO.

WHAT ARE THE CURRENT REGULATIONS? The commercial fishing seasons for Tanner crabs and golden king crabs in Southeast Alaska begins on the date with the smallest Juneau tidal range between February 10 and February 17, as announced by EO.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial fishermen and department staff will benefit by having start dates for Tanner and golden king crab fisheries that are clearly defined in regulation and not subject to annual negotiation.

BACKGROUND: Commercial golden king crab and Tanner crab fisheries open concurrently by regulation in Southeast Alaska. Participants may hold a permit for golden king crab only, Tanner crab only, or a combination of both golden king crab and Tanner crab. Regulations allow (5 AAC 35.125(b)(3) and 5 AAC 34.125(b)(3)) simultaneous registration for both fisheries, but these simultaneous registrants are limited to 80 pots. Often, those with combination or dual permits registered for both fisheries begin the season targeting Tanner crab and then switch to golden king crab. In order to utilize the full complement of 100 golden king crab pots, they must first unregister for Tanner crab.

Prior to the 1985/1986 season, the golden king crab fishery opened in October concurrently with the red king crab fishery. The red king crab fishery did not open in October 1985 for the 1985/1986 season, creating uncertainty over when the golden king crab season should open within the available fishing season. The opening of the 1985/1986 golden king crab season was postponed until the start of the Tanner crab fishery on February 10, 1986. This season start change was based on industry and fleet preferences and discussions with the department. The golden king crab and Tanner fisheries have opened concurrently since the 1985/1986 seasons. In the 1985/1986

through 1988/1989 seasons, opening dates for both fisheries have varied from as early as January 15 to as late as February 15. From the 1989/1990 season through the 2004/2005 season, both fisheries opened concurrently on February 15.

In 2005, the Board of Fisheries adopted a proposal allowing a flexible start date for both fisheries of the day subject to the smallest Juneau tidal range occurring between February 10 and 17. A flexible start date was designed to benefit participants in both fisheries. Golden king crab permit holders would be able to set gear on smaller tides, improving their efficiency and minimizing gear loss. Tanner crab permit holders would benefit by having opportunity for holders of dual Tanner and golden king crab permits to begin fishing for golden king crab prior to Tanner crab, thereby decreasing effort in the Tanner crab fishery.

The first season the new regulation went into effect—2005/2006—the department assessed the smallest Juneau tidal range to occur on February 10, 2006. Because tides were building after February 10, industry requested that the department modify the season opening date, and in response the department selected February 15 as the season opening. Since 2005/2006, in an effort to fulfill the intent of the regulation to start both fisheries on favorable tides to minimize gear loss and reduce Tanner crab effort, the department has worked with the Southeast King and Tanner Task Force (KTTF) to establish a season start date. Since this approach was adopted, the season start date has never corresponded with the smallest Juneau tidal range (Table 157-1). Because not all members of the industry participate in the KTTF process, there is not universal agreement among industry on using the KTTF to advise the department on season start date. For the 2010/2011 season, KTTF and the department agreed upon February 15 for the season start date, which corresponded to a start on relatively large and building tides.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. By utilizing a fixed start date, fishermen will know well in advance when the fishery will open and department staff will not be placed in a position of negotiating the season start date with industry. Potential allocative impacts of a variable start date are eliminated by moving to a fixed date.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 157-1.–Dates for the smallest Juneau tidal range and Tanner/golden king crab season start dates for the 2005/2006 through 2010/2011 seasons.

Season	Date of Smallest Juneau tidal range	Start date selected by industry
2005/06	February 10, 2006	February 15, 2006
2006/07	February 11, 2007	February 10, 2007
2007/08	February 15, 2008	February 12, 2008*
2008/09	February 16, 2009	February 15, 2009
2009/10	February 10, 2010	February 15, 2010
2010/11	February 12, 2011	February 15, 2011**

*Actual season start delayed until February 14 due to weather.
**Actual season start delayed until February 18 due to weather.

PROPOSAL 158 – 5 AAC 34.110. Fishing seasons for registration Area A; and 5 AAC 35.110. Fishing seasons for Registration Area A.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would add criteria to the regulation defining weather conditions by which Tanner and king crab seasons would be delayed.

WHAT ARE THE CURRENT REGULATIONS? In Southeast Alaska, regulations do not address weather-related delays of the Tanner and king crab seasons; however, weather-related delay regulations for crab fisheries do exist in other parts of Alaska.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There would be clear and concise criteria in regulation for managers to use in delaying opening of the Tanner and king crab fisheries for weather-related reasons. Season openings would be delayed if the National Weather Service forecast for the major fishing areas in Southeast Alaska (Southern Lynn Canal, Northern Chatham Strait, Stephens Passage, and Frederick Sound) contains gale-force wind warnings (35 knots and higher) on the 4:00 a.m. forecast for the day preceding the season start date and the following day, in which case the season opening in all sections of Southeast Alaska eligible for a season opening will be delayed 24 hours. Announcement of this delay will be issued 24 hours prior to the start of the fishery. If, after the initial delay, gale warnings continue regionwide, the season opening in all eligible sections may be delayed an additional 24 hours; season opening delays may continue on a rolling 24-hour basis.

BACKGROUND: The 2007/2008 golden king crab fishery opened concurrently with the commercial Tanner crab fishery on February 14, 2008. The start date had originally been set for February 12, 2008, but the season was delayed for 48 hours due to adverse weather conditions. The department and the Southeast King and Tanner Task Force (KTTF) had previously jointly established criteria by which the Tanner and golden king crab fisheries could be delayed or extended due to bad weather. The criteria stipulated winds 40 knots or higher throughout the region in the 3–4 days preceding the start of the fishery. The department determined that these criteria had been met and that a delay to the start of the fishery was warranted. The department also consulted with National Oceanic and Atmospheric Administration (NOAA) meteorologists, Alaska Wildlife Troopers (AWT), the U.S. Coast Guard (USCG), the KTTF, and crab permit holders and processors on the decision to delay the start date of both fisheries.

The 2010/2011 golden king crab fishery opened concurrently with the commercial Tanner crab fishery on February 18, 2011. The start date had originally been set for

February 15, 2011, but the season was delayed for 48 hours, and then another 24 hours due to adverse weather conditions. In considering the delay, the department referred to the weather criteria established by the KTTF. The department did not believe that the KTTF criteria had been met, but determined that a delay to the start of the fishery was warranted due to concerns from a majority of fishermen and processors, NOAA, AWT, and the USCG.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Criteria for a weather delay, jointly established by the department and the KTTF, were used successfully in delaying the start of the 2007/2008 season. These criteria were not met for the 2010/2011 season; however, the department adopted a more precautionary approach based on input from a majority of fishermen, processors, and associated governmental agencies.

The weather-related delay criteria proposed by the department is similar to regulatory criteria for delaying the start of the South Peninsula District Tanner crab fishery where vessels used are similar in size to those used in Southeast Alaska. In addition, the criteria are similar to those developed by the department and KTTF prior to the 2007/2008 fishing season.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 159 – 5AAC 35.125. Lawful gear for Registration Area A.

PROPOSED BY: Southeast King and Tanner Task Force.

WHAT WOULD THE PROPOSAL DO? This proposal would allow up to 120 pots to be operated from a vessel registered for the commercial Tanner crab fishery when two permit holders are registered for the vessel.

WHAT ARE THE CURRENT REGULATIONS? No more than 80 pots may be operated from a vessel registered for the Southeast Alaska commercial Tanner crab fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? It is unknown how many permit holders would opt to combine two permits onto one vessel and use 120 pots. If currently-inactive permit holders reenter the fishery in order to combine two permits onto a single vessel and operate 120 pots, season length would be adjusted to account for the increase in gear.

BACKGROUND: Between 1977 and 1996, the Southeast Alaska Tanner crab fishery was prosecuted with a pot limit of 100 pots per vessel. In 1996, the Board of Fisheries adopted the current 80-pot limit. In 2009, the board adopted a new Southeast Alaska Tanner crab harvest strategy (5 AAC 35.113) that establishes a season length of five days. Additional days are added to season length based on the number of pots registered and Tanner crab mature biomass. A maximum five additional days may be added to season length. After the core areas close, the noncore areas remain open for an additional five days. Currently, there are 82 permits available for the Tanner crab pot fisheries (Table 159-1), although only 48 permits were used in 2010/11 (Table 159-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. Allowing two permit holders to register for the Tanner crab fishery on the same vessel and deploy 50% more pots than vessels with a single permit holder onboard could provide a competitive advantage to persons with larger vessels or those willing to register with two permit holders onboard a single vessel. Because Tanner crab season length is determined by estimated mature male biomass and the number of pots registered prior to the start of the fishery, adoption of this proposal would not impact the department's ability to manage the fishery.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 159-1.–Permit type and potential permit numbers for Southeast Tanner crab fisheries.

Permit Type	Species	Permits Available
T10A	Tanner Ring	Open entry
K49A	Red king/Tanner	14
K59A	golden king/Tanner	6
K69A	red and golden king/Tanner	29
T19A	Tanner	25
IEPs**	—	8
Total Pots	—	**82**

* Current information on numbers of permits as of November 10, 2011.
**Number of interim entry permits (IEPs) of various permutations with the use privilege for that species still under adjudication.

Table 159-2.–Number of ring permits fished, pot permits fished, and total harvest (lb) for the 2001/2002 through 2010/2011 seasons.

Season	Ring Permits Fished	Pot Permits Fished	Total Harvest*
2001/02	57	83	964,836
2002/03	44	67	804,234
2003/04	30	68	832,158
2004/05	21	60	804,035
2005/06	19	53	886,521
2006/07	19	57	927,900
2007/08	18	49	605,062
2008/09	10	31	599,745
2009/10	11	33	961,681
2010/11	16	48	891,344

* Allowable ring net harvest capped at 4% of the total harvest.

PROPOSAL 160 – 5AAC 35.125. Lawful Gear for Registration Area A.

PROPOSED BY: Southeast King and Tanner Crab Task Force.

WHAT WOULD THE PROPOSAL DO? This proposal would allow up to 40 red king crab pots to be operated from a single vessel registered for the Southeast Alaska commercial red king crab fishery if two permit holders are registered for that vessel. When the commercial red king crab and Tanner crab fisheries are closed and the commercial golden king crab fishery is open, up to 150 golden king crab pots could be operated from a single vessel when two permit holders are registered for that vessel. In addition, the proposal would allow up to 120 pots to be operated from a Tanner crab vessel when the commercial red and golden king crab fisheries are closed and two Tanner crab permit holders are registered for the same vessel.

WHAT ARE THE CURRENT REGULATIONS? In Southeast Alaska the following crab pot limits are in effect:

Tanner crab:	up to 80 pots or 20 ring nets per vessel
golden king crab:	up to 100 pots per vessel
red king crab:	20 to 50 pots per vessel depending on GHL

When the commercial golden king crab and Tanner crab seasons are open at the same time an aggregate of no more than 80 king and Tanner crab pots may be operated from a vessel registered to fish for both golden king crab and Tanner crab.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? It is unknown how many permit holders would opt to combine two permits onto one vessel and use additional pots. If currently-inactive permit holders reenter the fishery in order to combine two permits onto a single vessel and operate additional pots, thus increasing the total number of pots registered for a given fishery, gear conflicts could increase, inseason management could be complicated by necessitating additional advanced notice of a fishery closure, and seasons could become shorter.

BACKGROUND: In 1973, a pot limit of 60 was implemented for the Tanner crab fishery in all Southeast Alaska inside waters. In 1977, a 100-pot limit was adopted for Southeast Alaska. Trawl gear was dropped as legal gear in 1977, leaving only pots and ring nets as legal gear options. In 1990, the number of ring nets was limited to 20 per vessel, ring net marking requirements were defined, and allowable ring net harvest was capped at 4% of the total harvest. In 1996, the Board of Fisheries (board) adopted the current 80-pot limit for the Southeast Alaska Tanner crab fishery.

There were no restrictions on the amount or type of gear that could be fished by a vessel participating in the Southeast Alaska king crab fishery from 1961 through 1967. A limit of 40 pots per vessel was established for Southeast Alaska waters in 1968. The maximum

number of pots per vessel was increased to 60 in 1974 and 100 in 1978. This limit continued through the 1987/1988 season. In 1988, the board required a 40-pot limit per vessel specifically for red king crab GHLs between 300,000 and 400,000 lb, and a 100-pot limit specifically for red king crab GHLs above 400,000 lb. The board reduced the 40-pot limit in the red king crab fishery to 20 pots in 1993. Current regulations in the red king crab fishery provide for 20 to 50 pots per vessel based on a "sliding scale" system, which depends upon the allowable surplus harvest or GHL. For the golden king crab fishery, the 100-pot limit instituted in 1978 remains in effect.

There are currently 82 Tanner, 64 red and blue king, and 58 golden king crab permits issued for Southeast Alaska (Table 160-1); however, during recent fishing seasons, less than 50 Tanner crab and golden king crab pot permits (Tables 160-2 and 160-3) have been fished per season. An average of 71 red and blue king crab permits per season was used during the last five red and blue king crab fisheries (Table 160-4).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. Allowing two permit holders to register for the red or golden king crab fisheries on the same vessel and deploy more pots than vessels with a single permit holder onboard could provide a competitive advantage to persons with larger vessels or those willing to register with two permit holders onboard a single vessel. Because Tanner crab season length is determined by estimated mature male biomass and the number of pots registered prior to the start of the fishery, adoption of this proposal would not impact the department's ability to manage the Tanner crab fishery.

The department is opposed to any action that would increase the golden king crab pot limit or number of pots that may be operated by a golden king crab vessel. The current limit of 100 pots in the Southeast Alaska golden king crab fishery makes it difficult to establish a season closure date and to target GHLs, while allowing adequate time for gear to be moved or stored in consideration of tides and weather. Currently, five to eight days advance notice is provided prior to area closures. Allowing some vessels to fish 150 pots would make it extremely difficult to balance tides, weather, and catch rates to target fishery area GHLs, while at the same time providing enough advance notice to the golden king crab fleet on area closures. In areas with smaller GHLs, closure dates would have to be announced preseason. Allowing some vessels to fish 150 pots would result in a less orderly fishery and would likely result in exceeding targeted GHLs in all seven fishery areas.

The Southeast Alaska red king crab fishery is managed inseason to target fishery area GHLs through daily call-ins. While the current pot limit is 20 to 50 pots per vessel on a sliding scale system, based upon the allowable surplus harvest or GHL, harvest levels have not been adequate to allow more than 20 pots per vessel. Permitting some vessels to use 40 pots would likely increase the total number of pots deployed in the fishery and would likely shorten season length in some areas or require that the season closure date be announced prior to the start of the fishery.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 160-1.–Permit numbers for Southeast Tanner and king crab limited entry fisheries, by species and permit type.

Permit Type*	Species	Tanner	Red/Blue King	Golden King
K19A	red king crab	0	6	0
K29A	red/golden king crab	0	7	7
K39A	golden king crab	0	0	10
K49A	red king and Tanner crab	14	14	0
K59A	golden king and Tanner	6	0	6
K69A	red/golden king and Tanner crab	29	29	29
T19A	Tanner crab	25	0	0
IEPs**	—	8	8	6
Total	—	**82**	**64**	**58**

* Information on numbers of permits current as of November 17, 2011.

**Number of interim entry permits (IEPs) of various permutations with the use privilege for that species still under adjudication.

Table 160-2.–Number of ring permits fished, pot permits fished, and total harvest (lb) in the Southeast Tanner crab fishery for the 1998/1999 through 2010/2011seasons.

Season	Ring Permits Fished	Pot Permits Fished	Total Harvest*
1998/99	87	93	2,164,131
1999/00	110	92	1,706,156
2000/01	80	81	1,295,680
2001/02	57	83	964,836
2002/03	44	67	804,234
2003/04	30	68	832,158
2004/05	21	60	804,035
2005/06	19	53	886,521
2006/07	19	57	927,900
2007/08	18	49	605,062
2008/09	10	31	612,550
2009/10	11	33	961,681
2010/11	16	48	891,344
Average	**40**	**63**	**1,035,099**

*Allowable ring net harvest capped at 4% of the total harvest.

Table 160-3.–Number of permits fished and total harvest (lb) in the Southeast golden king crab fishery for the 1998/1999 through 2010/2011 seasons.

Season	Permits Fished	Total Harvest
1998/99	30	367,782
1999/00	46	560,427
2000/01	45	530,765
2001/02	45	609,510
2002/03	48	562,384
2003/04	45	557,251
2004/05	42	557,725
2005/06	37	563,615
2006/07	34	581,101
2007/08	34	638,582
2008/09	36	698,637
2009/10	38	732,127
2010/11	42	687,505
Average	**40**	**565,186**

Table 160-4.–Number of permits fished and total harvest (lb) in the Southeast red/blue king crab fishery for the 1998/1999 through 2010/2011 seasons.

Season	Permits Fished	Total Harvest
1998/99	No Fishery	-
1999/00	77	289,548
2000/01	No Fishery	-
2001/02	77	296,967
2002/03	75	233,630
2003/04	67	193,759
2004/05	No Fishery	-
2005/06	58	209,799
2006/07	No Fishery	-
2007/08	No Fishery	-
2008/09	No Fishery	-
2009/10	No Fishery	-
2010/11	No Fishery	-
Average	**71**	**244,741**

PROPOSAL 161 – 5AAC 32.150. Closed Waters in Registration Area A.

PROPOSED BY: Juneau Yacht Club and Territorial Sportsmen, Inc.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a closed area to the taking of Dungeness crab in Taku Harbor near the community of Juneau in Southeast Alaska (Figure 161-1).

WHAT ARE THE CURRENT REGULATIONS? Various areas in Southeast Alaska, described in 5 AAC 32.150, are closed to commercial fishing for Dungeness crabs. The waters mentioned in this proposal and those immediately adjacent to them are open to commercial fishing for Dungeness crabs.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial fishing for Dungeness crabs would not be permitted in Taku Harbor.

BACKGROUND: Current regulations specify 14 areas closed to commercial harvest of Dungeness crab in Southeast Alaska. The proposed area is part of statistical area 111-31, Stephens Passage from Point Arden to Midway Islands. Average commercial Dungeness crab harvests over the past ten seasons in statistical area 111-31 is 27,183 lb by four permit holders (Table 161-1). There is no information available on the magnitude of the noncommercial harvest in Taku Harbor. There is not a customary and traditional use finding for Dungeness crab in Taku Harbor.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The department does not have any conservation concerns for the Dungeness crab resource in Taku Harbor.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 161-1.–Commercial harvest (lb) and effort for Dungeness crab in Statistical Area 111-31, 2001/2002–2010/2011 seasons.

Season	Harvest	Permits	Landings
2001/02	2,139	5	17
2002/03	53,740	8	31
2003/04	27,945	5	15
2004/05	*	*	*
2005/06	23,906	3	11
2006/07	*	*	*
2007/08	53,027	4	27
2008/09	62,944	6	31
2009/10	19,731	5	26
2010/11	14,133	5	19
Averages	**27,183**	**4**	**18**

* Fewer than 3 permits fished; information confidential.

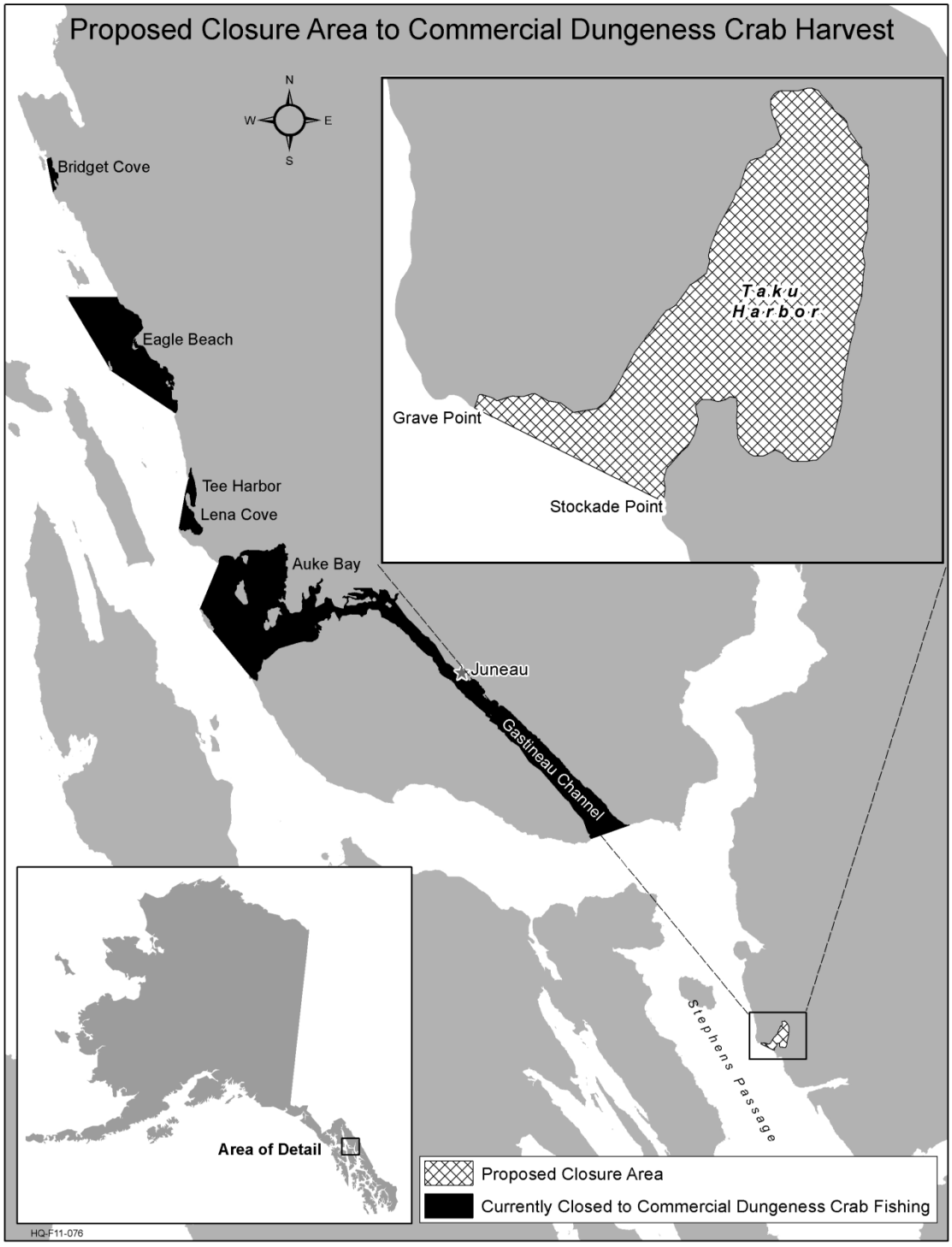

Figure 161-1.–Areas around Juneau currently closed or proposed for closure to commercial fishing for Dungeness crab.

PROPOSAL 162 – 5AAC 32.150. Closed Waters in Registration Area A.

PROPOSED BY: Juneau Yacht Club and Territorial Sportsmen Inc.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a closed area to the taking of Dungeness crab in Swanson Harbor between the communities of Juneau, Hoonah, and Gustavus in Southeast Alaska (Figure 162-1).

WHAT ARE THE CURRENT REGULATIONS? Various areas in Southeast Alaska, described in 5 AAC 32.150, are closed to commercial fishing for Dungeness crabs. The waters mentioned in this proposal and those immediately adjacent to them are open to commercial fishing for Dungeness crabs.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial Dungeness crab permit holders would be prohibited from fishing in Swanson Harbor.

BACKGROUND: Current regulations specify 14 areas closed to commercial harvest of Dungeness crab in Southeast Alaska. The proposed area is part of statistical area 114-25, near Couverden Island. Average commercial Dungeness crab harvest in statistical area 114-25 over the past 10 full seasons is 21,630 lb by four permit holders (Table 162-1). There is no information available on the magnitude of the noncommercial harvest in Swanson Harbor. There is not a customary and traditional use finding for Dungeness crab in Swanson Harbor which is in District 14 and just outside the Juneau nonsubsistence area.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The department does not have any conservation concerns for the Dungeness crab resource in Swanson Harbor.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.

2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for shellfish (except shrimp, king, and tanner) in District 14 (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

Table 162-1.–Commercial Dungeness crab harvest (lb) and effort in Statistical Area 114-25, 2001/2002–2010/2011 seasons.

Season	Harvest	Permits	Landings
2001/02	20,436	4	26
2002/03	16,287	3	23
2003/04	27,241	4	27
2004/05	41,454	8	49
2005/06	22,308	6	34
2006/07	*	*	*
2007/08	33,811	3	42
2008/09	21,932	5	34
2009/10	*	*	*
2010/11	*	*	*
Averages	**21,630**	**4**	**32**

* Fewer than 3 permits fished; information confidential.

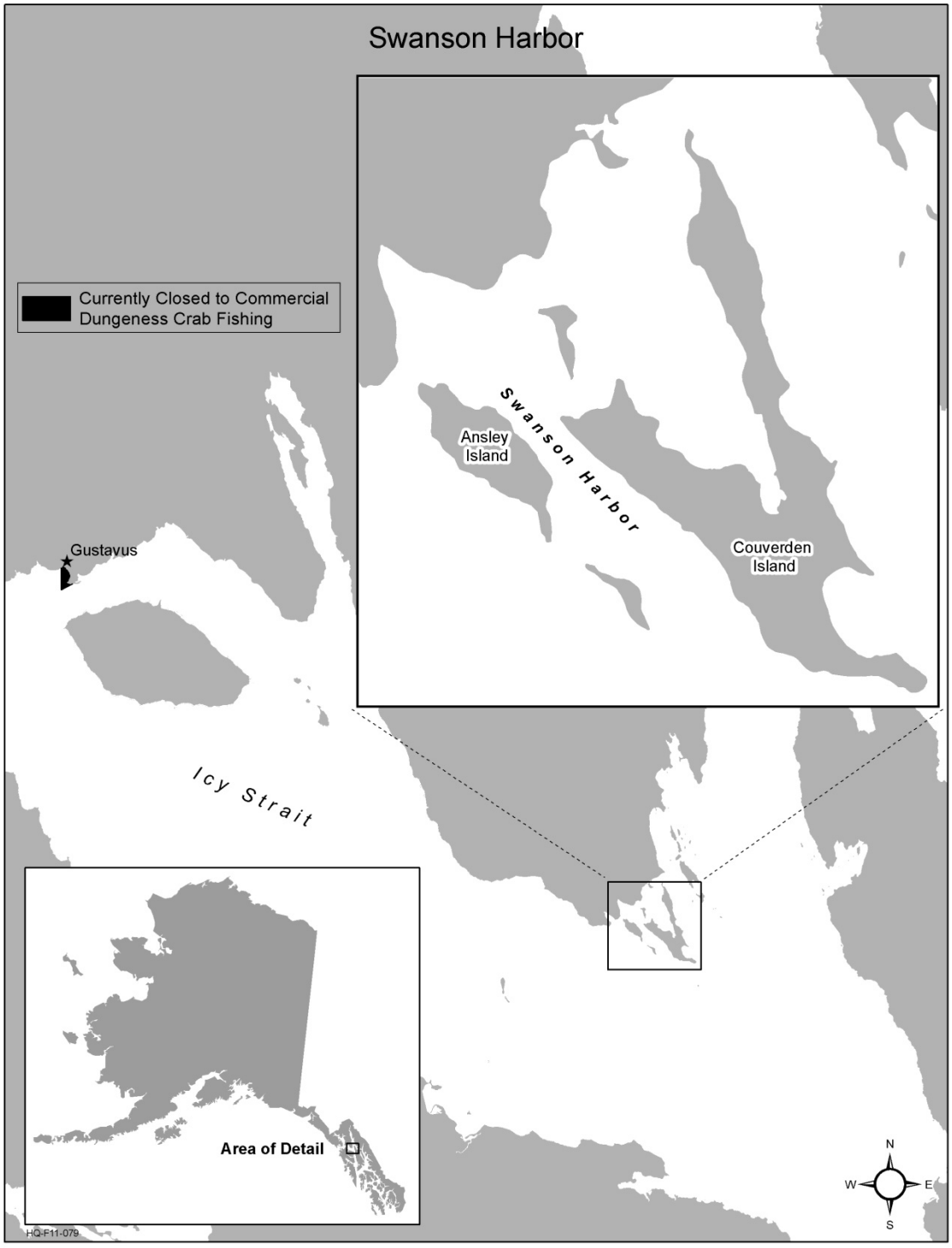

Figure 162-1.–Swanson Harbor and the Pt. Couverden area, and area currently closed to commercial fishing for Dungeness crab near Gustavus.

PROPOSAL 163 – 5AAC 32.150. Closed Waters in Registration Area A.

PROPOSED BY: Haines Borough.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a closed area to the taking of Dungeness crab in Excursion Inlet (Figure 163-1). A portion of the waters of Excursion Inlet would be closed to commercial harvest.

WHAT ARE THE CURRENT REGULATIONS? Various areas in Southeast Alaska, described in 5 AAC 32.150, are closed to commercial fishing for Dungeness crabs. The waters mentioned in this proposal and those immediately adjacent to them are open to commercial fishing for Dungeness crabs.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial Dungeness crab permit holders will be prohibited from fishing in Excursion Inlet.

BACKGROUND: Current regulations specify 14 areas closed to commercial harvest of Dungeness crab in Southeast Alaska. The proposed area is part of statistical area 114-80, in Excursion Inlet. Average commercial Dungeness crab harvest in statistical area 114-80 over the past 10 full seasons is 5,470 lb by two permit holders (Table 163-1). There is no information available on the magnitude of the noncommercial harvest in Excursion Inlet. There is a customary and traditional use finding for Dungeness crab in District 14 east of the Longitude of Point Dundas, which includes Excursion Inlet.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The department does not have any conservation concerns for the Dungeness crab resource in the proposed closed area.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for shellfish (except shrimp, king, and tanner) in District 14 (5 AAC 02.108).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

Table 163-1.–Commercial Dungeness crab harvest (lb) and effort in Statistical Area 114-80 2001/2002–2010/2011 seasons.

Season	Harvest	Permits	Landings
2001/02	*	*	*
2002/03	5,479	3	13
2003/04	3,594	4	11
2004/05	*	*	*
2005/06	2,890	4	7
2006/07	*	*	*
2007/08	*	*	*
2008/09	*	*	*
2009/10	*	*	*
2010/11	*	*	*
Averages	**5,470**	**2**	**10**

* Fewer than 3 permits fished; information confidential.

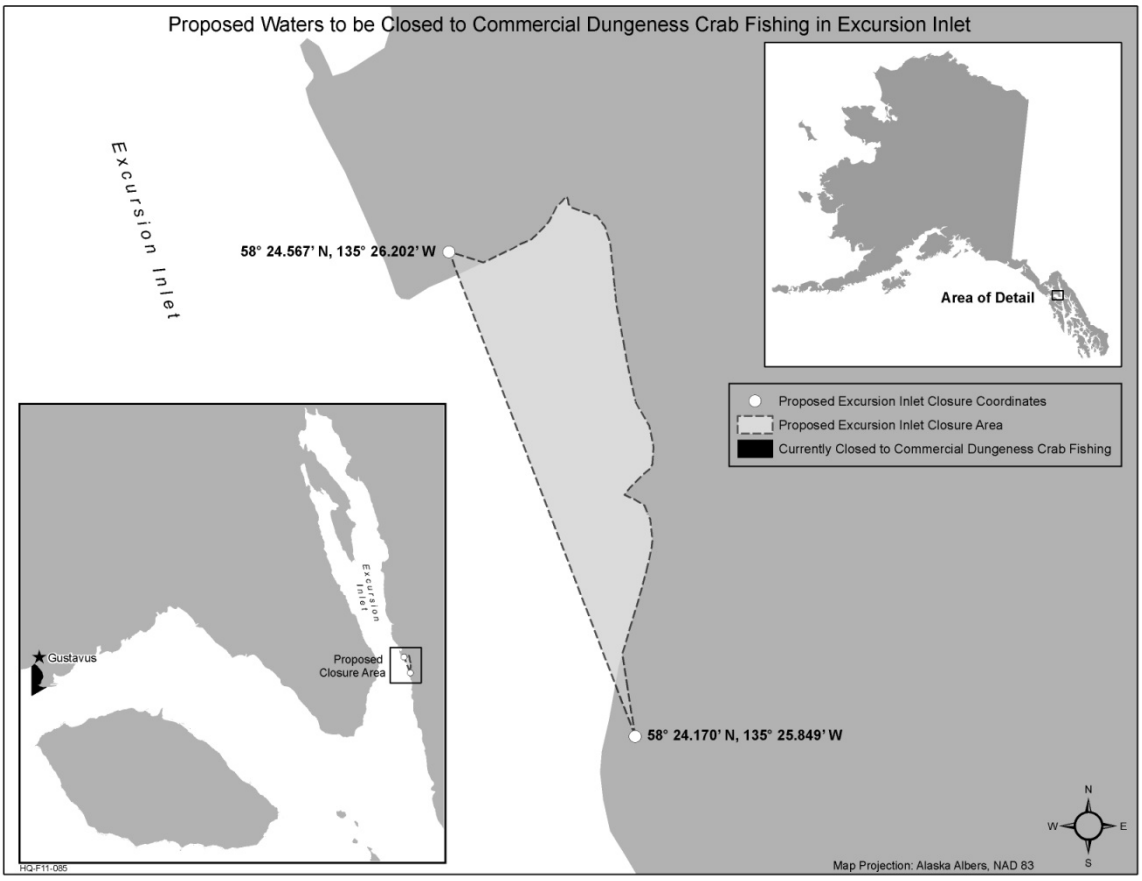

Figure 163-1.–Area around Excursion Inlet proposed for closure to commercial fishing for Dungeness crab and currently closed area near Gustavus.

PROPOSAL 164 – 5AAC 32.150. Closed Waters in Registration Area A.

PROPOSED BY: Ketchikan Guided Sportfish Association.

WHAT WOULD THE PROPOSAL DO? This proposal would establish closed areas to the taking of Dungeness crab in Helm Bay (Figure 164-1) and Traitors Cove (Figure 164-2) near the community of Ketchikan in Southeast Alaska. The waters of Helm Bay and Traitors Cove would be closed to commercial harvest. According to the coordinates provided in the proposal, waters of Smugglers Cove near Helm Bay would also potentially fall inside the closed area.

WHAT ARE THE CURRENT REGULATIONS? Various areas in Southeast Alaska, described in 5 AAC 32.150, are closed to commercial fishing for Dungeness crabs. The waters mentioned in this proposal and those immediately adjacent to them are open to commercial fishing for Dungeness crabs.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial Dungeness crab permit holders will be prohibited from fishing in Helm Bay and Traitors Cove.

BACKGROUND: Current regulations specify 14 areas closed to commercial harvest of Dungeness crab in Southeast Alaska. Helm Bay is a portion of statistical area 101-85, in Behm Canal. Traitors Cove is a portion of statistical area 101-90 in Behm Canal. Average commercial Dungeness crab harvest over the past ten full seasons in statistical area 101-85 is 5,881 lb by three permit holders and is 4,155 lb by two permit holders in statistical area 101-90. There is no information available on the magnitude of the noncommercial harvest in Helm Bay and Traitors Cove. There is not a customary and traditional use finding for Dungeness crab in that portion of District 1 that includes Helm Bay and Traitors Cove.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The department does not have any conservation concerns for the Dungeness crab resource in Helm Bay or Traitors Cove.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

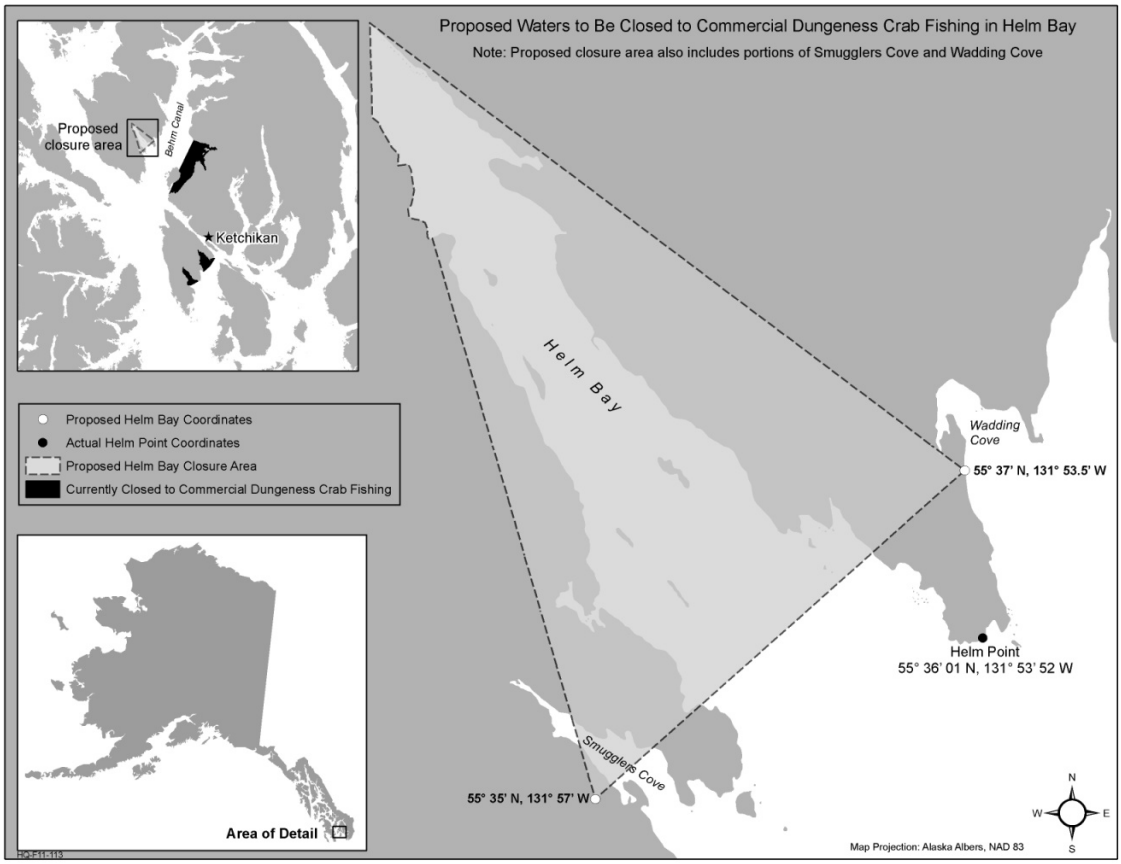

Figure 164-1.–Area around Helm Bay proposed for closure to commercial fishing for Dungeness crab and other areas currently closed to commercial fishing for Dungeness crab near Ketchikan.

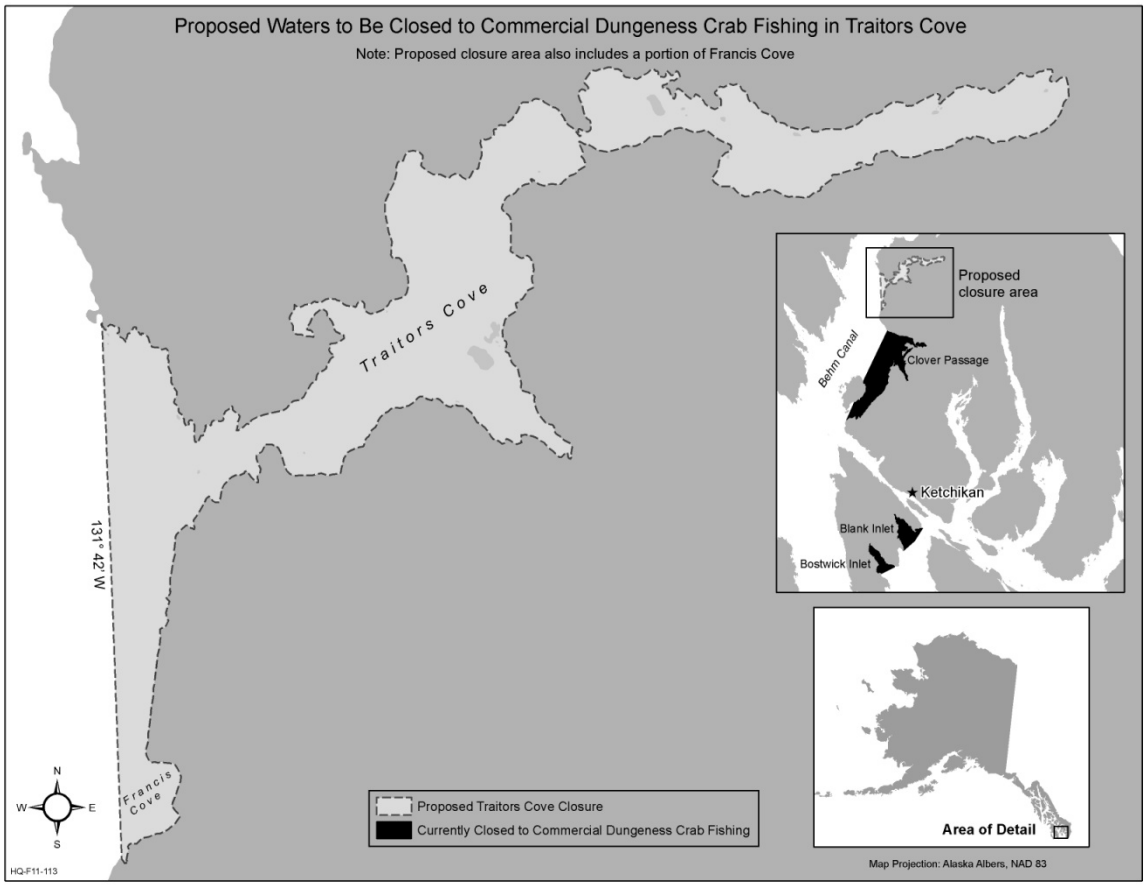

Figure 164-2.–Area around Traitors Cove proposed for closure to commercial fishing for Dungeness crab and other areas currently closed to commercial Dungeness crab fishing near Ketchikan.

PROPOSAL 165 – 5 AAC 32.125. Lawful gear for Registration Area A.

PROPOSED BY: Southeast Alaska Fisherman's Alliance.

WHAT WOULD THE PROPOSAL DO? This proposal would replace the word "identically" with "similarly" in reference to how an individual Dungeness crab fisherman's gear is to be buoyed and marked.

WHAT ARE THE CURRENT REGULATIONS? Current regulations require that each commercial Dungeness crab pot operated in Southeast Alaska be individually buoyed and marked. At least one buoy on each Dungeness crab pot or ring net must be legibly marked with the permanent ADF&G vessel license plate number of the Dungeness crab vessel operating the gear. The buoy, or multiple buoys attached to a Dungeness crab pot or ring net, may not bear more than one vessel license number. The vessel license number must be in symbols at least one and one-half inches high and at least one-quarter inch wide in color that contrasts with the background of the buoy. When more than one permit holder is fishing from a single vessel, at least one buoy or tag attached to a buoy on each pot or ring net must be legibly marked with the last five numeric digits of the permit holder's CFEC limited entry or interim use permit number. The buoy, multiple buoys, or tags attached to a Dungeness crab pot or ring net may bear the numeric digits from only one CFEC limited entry or interim use permit.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Dungeness crab pot buoys would continue to be marked with the ADF&G number of the vessel and Commercial Fisheries Entry Commission (CFEC) permit number of the permit holder operating the gear. Fishermen would be able to use Dungeness crab pot buoys that are not identical in size and shape.

BACKGROUND: Beginning in 1963, identical buoys for Dungeness crab pots were required to be marked with the vessel's ADF&G number. Subsequently, beginning with the 1989/1990 season, identically-marked buoys were required. The purpose was dual: to prevent individuals from pulling others' gear and to facilitate enforcement of pot limits. The requirement for the CFEC number to appear on the buoys of pots fished from vessels registered to multiple permit holders was established beginning with the 1997/1998 season.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The requirement for identically-marked Dungeness crab pot buoys in Southeast Alaska provides the Alaska Wildlife Troopers (AWT) an important enforcement tool. Identically-marked gear allows AWT to be more efficient when they conduct gear checks on the grounds and to enforce pot limits from the air rather than on the water.

Identically-buoyed and marked gear helps department staff gauge the amount of effort in a given bay when evaluating permits for development projects.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 166 – 5AAC 32.110. Fishing Seasons for Registration Area A.

PROPOSED BY: Clay Bezenek.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to maintain summer (June 15–August 15) and fall (October 1–November 30) Dungeness crab fishing season descriptions for District 1 (Figure 166-1), and would change the season description for District 2 (Figure 166-2), from a fall/winter season (October 1–February 28) to summer and fall seasons. This proposal also mentions establishing an area closed to commercial and sport Dungeness crab fishing in the waters of District 2 around Kasaan.

WHAT ARE THE CURRENT REGULATIONS? In Southeast Alaska, Dungeness crab seasons are as follows:

(1) in District 2 and Section 13-B, except the waters of the Sitka Sound Special Use Area, and beginning February 29, 2012, in District 1, from October 1 through February 28;

(2) in the waters of Section 13-B that are in the Sitka Sound Special Use Area, and in the waters of Whale Passage north and west of a line extending from 56º 05.65' N. lat., 133º 07.30' W. long. to 56º 05.85' N. lat., 133º 06.40' W. long., from October 1 through November 30;

(3) in all other waters of Registration Area A, from June 15 through August 15 and from October 1 through November 30.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? A summer Dungeness crab season from June 15 through August 15 would be opened for District 2 and a fall season from October 1 through November 30 would be retained, but the winter season from December 1 through February 28 would be eliminated. For District 1, the summer and fall seasons currently described in regulation would be maintained. An area closed to commercial and sport Dungeness crab fishing would be established in the waters of District 2 around Kasaan.

BACKGROUND: Until the late 1950s, a summer soft-shell closure for the Southeast Dungeness crab fishery was in effect from May 1 through September 1. It was subsequently revoked. Beginning in 1985, the commercial fishery was closed between August 16 and September 30 because field studies indicated that this is the major period when females molted and were mated. In the briefing document for that meeting, reasons for the proposed change include soft-shell and associated handling mortality, as well as allocation problems between personal use and commercial users in Section 13-B. Conclusions of research done later in Southeast Alaska support these field studies, indicating that peak timing of the female molt and mating is late summer through early fall. In response to increasingly high effort levels and high harvest rates, the season was further shortened three more months in 1989 by reducing the winter season in northern and central districts to October 1 through November 30. The season remained October 1 through February 28 in southern districts 1, 2, and Section 13-B. The split seasons were in effect since until the 2009 Board of Fisheries (board) meeting when season descriptions for districts 1 and 2 were changed to summer and fall seasons, but with a sunset clause allowing both districts 1 and 2 to revert to a fall/winter season beginning February 29, 2012. In 2010, the board revised the season description for District 2, changing it back to a fall/winter season to address subsistence concerns by the Organized Village of Kasaan.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The current Dungeness crab summer season of June 15 through August 15 in much of Southeast Alaska overlaps a portion of the male Dungeness crab molt period from February through July. As a result, catch and handling of soft-shelled Dungeness crabs can be high during the first few weeks of the summer fishery in some years. The incidence of soft-shelled crab also varies by area during any given season. The percentage of legal males that are soft-shelled can be very high in some periods and areas. In Dungeness crab surveys of Duncan Canal during early June, 59% of legal males were in shell condition 1 (soft) or 2 (light) in both 2001 and 2002 surveys. Dungeness crabs reach a marketable shell condition 3 (new) about two months after molting. Since handling mortality of soft-shelled crabs has been estimated as high as 50%, commercial yield is reduced by handling-induced deadloss. For this reason, the department has long advocated a fall/winter season be adopted for the entire Southeast Alaska Dungeness crab fishery, because avoiding the soft-shell period would increase yielded poundage and reduce handling mortality on discarded crabs.

In recent years, the commercial Dungeness crab fleet has become increasingly concentrated on the fishing grounds, leading to increased gear congestion. Changing the season dates in districts 1 and 2 to match those of the rest of Southeast Alaska would provide for increased distribution of the fleet during the summer fishery, but would eliminate the winter fishery in those areas open in December, January, and February. Historically, harvest in the winter fishery (December, January, and February) makes up a small percentage of the overall harvest (Table 166-1).

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 166-1.–Registration Area A (Southeast) commercial Dungeness crab fishery catch, in lb, by month, from 1990/1991 season to present.

Season	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
1990/91	0	499,302	281,647	8,551	1,053	3,272	0	0	0	582,317	926,234	360,416	2,662,792
1991/92	0	717,506	324,070	17,086	7,561	4,422	0	0	0	987,389	1,821,479	827,593	4,707,106
1992/93	0	177,194	101,101	12,403	*	4,025	0	0	0	935,175	1,360,389	503,792	3,095,419
1993/94	0	232,813	116,882	11,727	4,734	5,806	0	0	0	660,473	1,106,117	398,149	2,536,701
1994/95	0	242,047	97,299	38,076	*	*	0	0	0	523,740	716,277	302,939	1,921,739
1995/96	0	627,671	229,009	35,131	16,780	25,555	0	0	0	1,193,222	1,630,576	646,575	4,404,519
1996/97	0	686,308	314,634	35,442	19,408	30,821	0	0	0	1,197,906	1,925,600	795,721	5,005,840
1997/98	0	524,626	219,601	65,279	64,055	37,457	0	0	0	1,128,616	1,568,198	454,711	4,062,543
1998/99	0	383,335	178,943	33,544	19,080	5,345	0	0	0	853,216	672,988	183,048	2,329,499
1999/00	0	370,194	166,974	23,788	12,290	2,317	0	0	0	1,331,925	1,050,893	322,122	3,280,503
2000/01	0	299,645	136,807	7,524	9,692	2,846	0	0	0	975,841	884,852	248,203	2,565,410
2001/02	0	693,816	263,849	35,115	14,127	1,777	0	0	0	1,541,443	1,166,262	387,739	4,104,128
2002/03	0	977,240	355,447	36,871	21,451	4,800	0	0	0	2,169,951	2,885,891	881,014	7,332,665
2003/04	0	836,212	290,595	34,967	15,949	12,550	0	0	0	1,628,596	1,339,496	378,684	4,537,049
2004/05	0	607,852	236,475	36,010	7,408	11,352	0	0	0	1,829,607	1,454,980	405,947	4,589,631
2005/06	0	720,388	238,024	26,301	13,107	2,470	0	0	0	1,785,128	1,084,237	335,825	4,205,480
2006/07	0	783,691	204,913	14,046	2,704	1,665	0	0	0	1,741,957	1,254,440	500,554	4,503,970
2007/08	0	1,357,627	415,923	30,735	5,695	1,327	0	0	0	1,204,153	1,504,129	888,766	5,408,355
2008/09	0	801,375	168,098	4,620	1,122	*	0	0	0	1,546,315	1,645,744	563,497	4,731,668
2009/10	0	739,398	210,216	0	0	0	0	0	0	1,101,310	1,112,933	405,840	3,569,697
2010/11	0	453,422	114,467	*	0	*	0	0	0	1,431,374	1,008,528	232,935	3,245,265

* Fewer than 3 permits fished; information confidential.

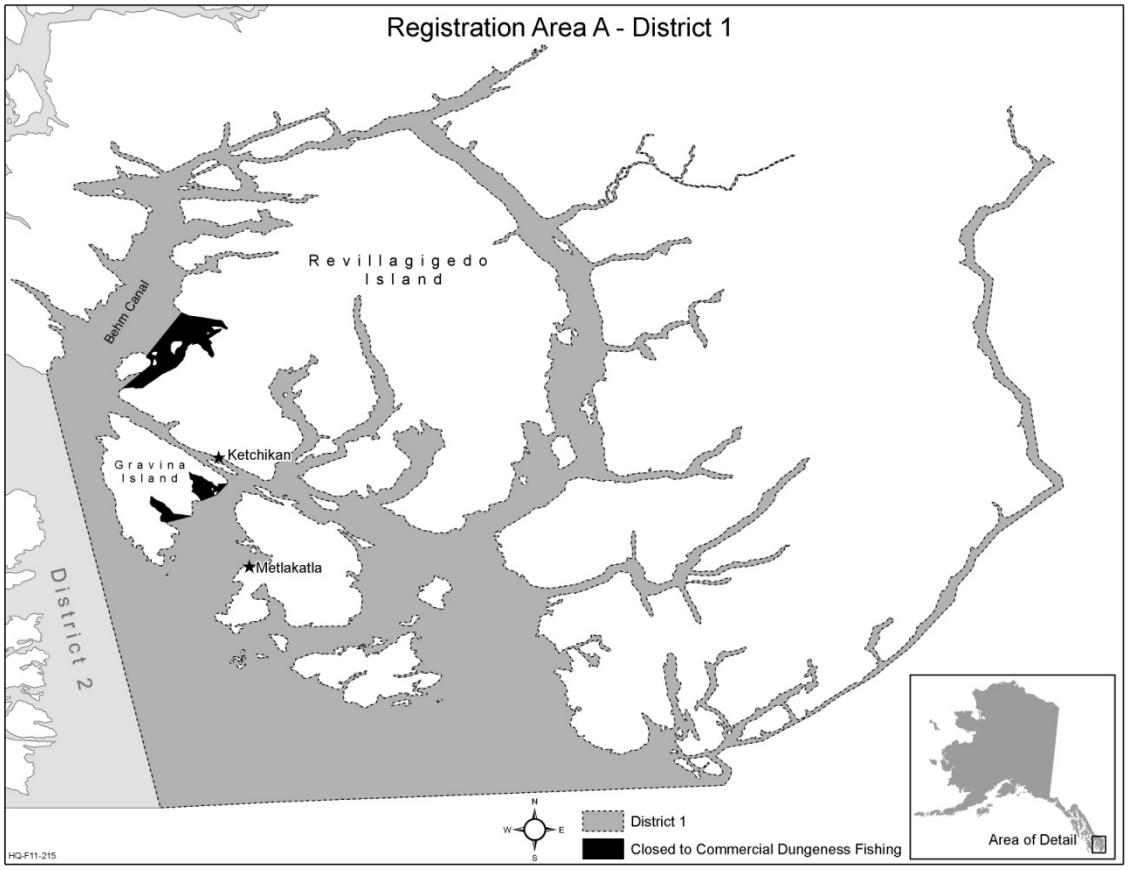

Figure 166-1.–Waters of District 1 and areas currently closed to commercial Dungeness crab fishing.

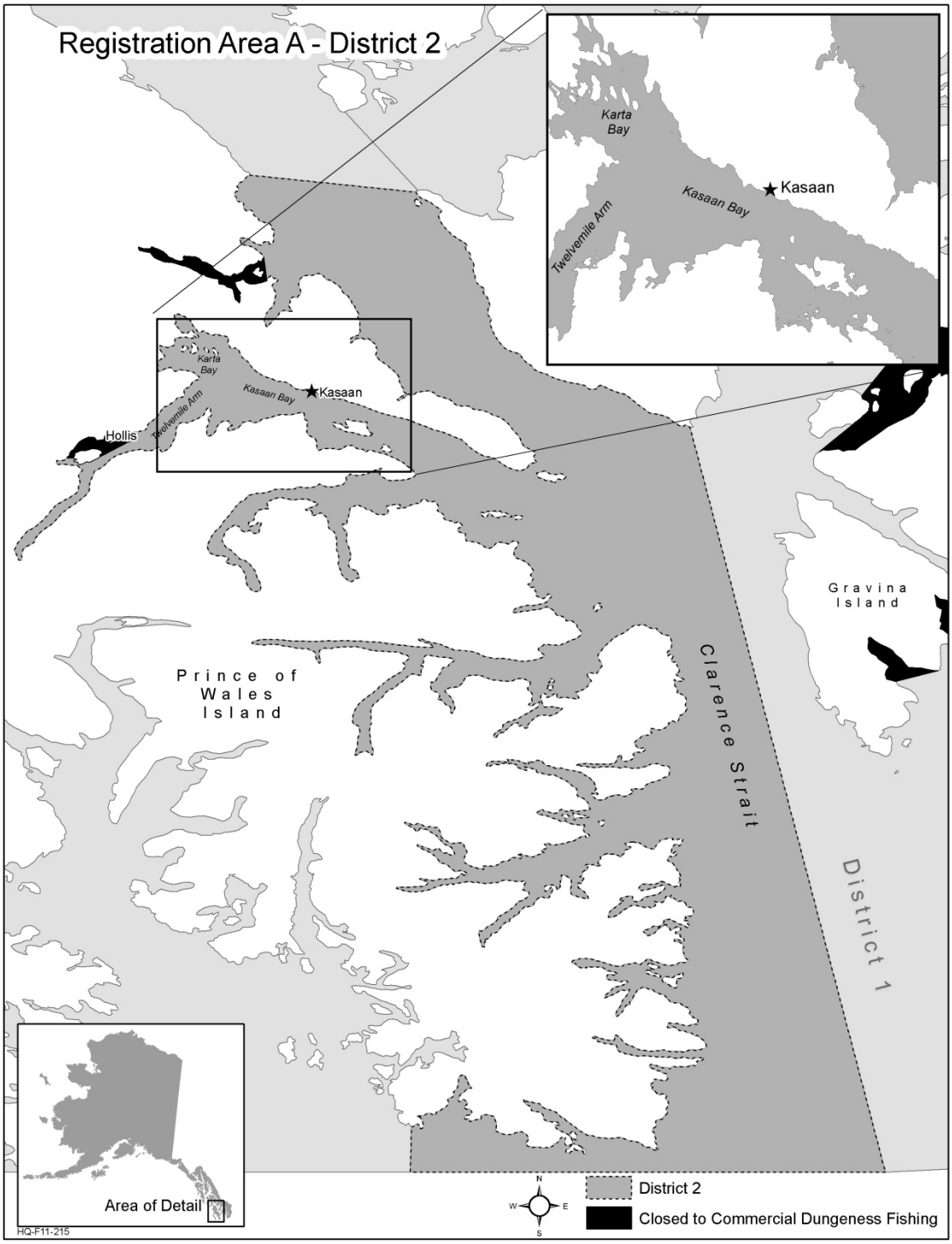

Figure 166-2.–Waters of District 2 and areas currently closed to commercial Dungeness crab fishing.

PROPOSAL 167 – 5AAC 32.170. Lawful gear for Registration Area D.

PROPOSED BY: Yakutat Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would lower the maximum amount of gear allowed in the Registration Area D (Yakutat) commercial Dungeness crab fishery from 400 pots to 60 pots.

WHAT ARE THE CURRENT REGULATIONS? In the Yakutat Registration Area no more than 400 pots may be operated by a vessel registered for the commercial Dungeness crab fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial permit holders fishing for Dungeness crabs in Registration Area D (Figure 167-1) would have a pot limit of 60 pots instead of 400 pots. Reducing the Yakutat Dungeness crab pot limit could have a negative economic impact on fishermen who have purchased relatively large amounts of gear and vessels to deploy it.

BACKGROUND: For most years and seasons before 1975/1976, the fishery was open all year. The accounting period started on January 1 and ended on December 31. In 1975, following eight consecutive years of harvests between one and two million lb and a rapid rise in the number of fishing vessels, the season was shortened to May 16, 1975 through February 28, 1976. It was then closed in the summer by emergency order (EO) because large numbers of soft-shelled crab were observed in the landed harvest. It was a season notable only because it marked the advent of short seasons and inseason management of the fishery based on stock conditions.

The 1976/1977 season started on June 1, with a scheduled closure on February 28, 1977. The season opening and closing dates remained the same through the 1981/1982 season, although several intervening seasons were closed by EO when large numbers of soft-shells were sampled at the dock. The season changed again in 1982 to May 1 through February 28, 1983. Each season from 1982/1983 through 1984/1985 was closed by EO at some point in the summer due to increasing numbers of soft shells in the landed harvest. In 1985, a split season was implemented from May 1 through July 14, and November 1 through February 28, 1986. Management of the summer fishery focused on avoiding major male molts, which frequently start on the western grounds around Icy Bay and move eastward through the summer. The summer season was generally tailored to start after the major molt on the western grounds and end before the major molt in the Yakutat Bay stocks. By 1986, it was evident that the May 1 opening was too early and the season was shortened to start on May 15. For each season since, the summer segment of the season has started on May 15 and ended on July 14, and the winter segment has started on November 1 and ended on February 28. The timing of the winter segment was intended to provide a fishery for local residents fishing in Yakutat Bay.

Although there were no proposals before the Board of Fisheries (board) at its January 1997 meeting to deal specifically with Yakutat stock status, it directed the department to take action. In the first three weeks of the 1997/98 season, a large portion of the harvest was recruit-size crab, which, coupled with low abundance, was indicative of poor stock condition. An EO closure was issued for June 13, 1997 to foster recovery of the stock. By also closing the winter portion of the fishery, it was thought that there would be an accrual of benefits from the summer closure. However, the 1998/99 fishery indicated further recruitment failure and overall low stock abundance. On June 9, 1998, the fishery was closed early for the second consecutive season. On June 15, 1999, the fishery was closed by EO for a third season. At the January, 2000 meeting of the board, it was designated as a collapsed and recovering fishery and has been closed since (Table 167-1).

Though the Registration Area A (Southeast) Dungeness crab fishery went through a permit moratorium, eventually leading to limited entry and a tiered pot limit by 1997, the Registration Area D (Yakutat) Dungeness crab fishery is an open-access fishery since permits for Yakutat ring net (D10D), Yakutat pot gear vessel under 60 feet (D09D), and Yakutat pot gear vessel over 60 feet (D91D) are unlimited.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. If the Yakutat Dungeness crab stock rebuilds to a level at which the commercial fishery may be opened, the department is concerned about its ability to manage the fishery under the current gear limit and potential effort level in an open-access fishery. Before any reopening of the Yakutat commercial Dungeness crab fishery, the department would need to survey the Dungeness crab stock in Yakutat. The stock was surveyed in 2004 and no appreciable recovery was detected at that time.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 167-1.–Registration Area D (Yakutat) commercial Dungeness crab fishery catch, effort, and value, 1990/1991 season to present.

Year/Season	Number				Lb per permit	Pots lifted	CPUE	Mean crab weight
	Permits	Landings	Crabs	Lb				
1990/91	36	327	867,031	2,101,676	58,380	177,984	4.9	2.4
1991/92	67	506	1,133,583	2,853,322	42,587	252,606	4.5	2.5
1992/93	49	265	541,961	1,392,700	28,422	176,345	3.1	2.6
1993/94	44	253	352,151	815,969	18,545	119,496	2.9	2.3
1994/95	47	251	393,371	915,523	19,479	108,923	3.6	2.3
1995/96	46	277	239,602	557,528	12,120	95,419	2.5	2.3
1996/97	27	155	111,930	244,825	9,068	42,362	2.6	2.2
1997/98	30	87	74,810	156,072	5,202	34,177	2.2	2.1
1998/99	29	92	62,525	121,478	4,189	26,178	2.4	1.9
1999/00	10	52	31,966	65,386	6,539	14,630	2.2	2.0
2000/01–2011/12	FISHERY CLOSED							

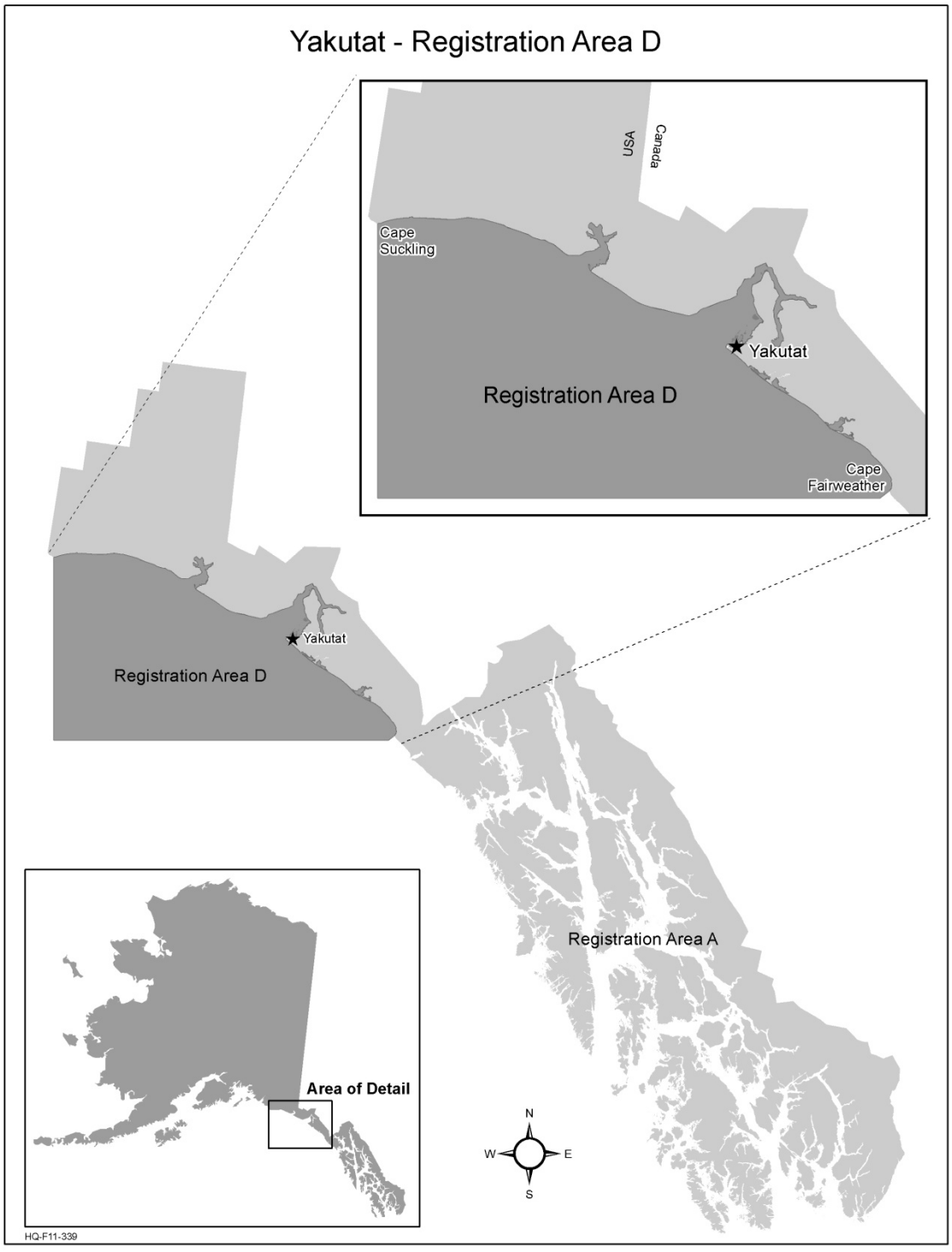

Figure 167-1.–Registration Area D (Yakutat).

PROPOSAL 168 – 5 AAC 31.145. Southeastern Alaska Area Pot Shrimp Fishery Management Plan.

PROPOSED BY: Brennon Eagle.

WHAT WOULD THE PROPOSAL DO? This proposal would mandate that subdistricts or statistical areas that account for less than 5% of the total harvest in a fishing area remain open for a period of three to seven days after the guideline harvest level (GHL) for that area is obtained. Subdistrict(s) with greater than 5% of the total harvest will close at the time the GHL is taken.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 31.145. *Southeastern Alaska Area Pot Shrimp Fishery Management Plan* provides direction for the department to manage the fishery for sustained yield, including: identification of the target shrimp species by district, maintenance of multiple age classes in populations to reduce dependence on annual recruitment, reducing fishing periods during sensitive life history stages, reducing mortality on small sized shrimp, maintaining stocks to provide for rebuilding populations if necessary, continuing development of district fisheries with low historical harvests, and provisions for re-opening areas during a summer fishing period; the plan also states the historical base period for guideline harvest ranges is listed in 5 AAC 31.115. The department annually establishes guideline harvest levels for each of 19 areas within guideline harvest ranges (GHR) in regulation, the season opens by regulation on October 1, and areas are closed by the department by emergency order (EO) when fishery monitoring indicates that the seasonal guideline harvest level in an area has been taken.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow a higher shrimp harvest in a defined fishing area than the GHL set preseason. It would allow more shrimp to be harvested in areas that typically receive minimal or no effort. Further, it could concentrate pressure in core areas by shrimpers focusing directly on core areas because they will receive additional time in the noncore areas after the GHL has been harvested. Complexity of the fishery would increase.

BACKGROUND: Harvest records indicate the pot shrimp fishery began with sporadic effort and low harvest through the mid 1970s, when the pot shrimp fishery served as a supplemental source of income for salmon fishermen. Total Southeast Alaska harvest levels in the 1970s averaged 17,000 lb per year. Through the mid 1980s, shrimp were primarily sold at the dock to private individuals, restaurants, or other markets without passing through the traditional system of processors established for other fisheries. Harvest levels in the 1980s increased to an average of 270,000 lb per year. From the 1990/1991 through 1994/1995 seasons, the character of the fishery underwent further changes: the number of pot shrimp fishermen increased to 248 and the average annual harvest increased to 825,000lb. In October 1994, the first floating processor

entered the fishery. Pot fishing efficiency and the pace of the fishery greatly increased during this time. The department first closed an area by emergency order (EO) in March 1995.

In 1995, Commercial Fisheries Entry Commission (CFEC) received petitions requesting limitation of the number of participants in the Southeast Alaska pot shrimp fishery. By February 1998, CFEC began the process of issuing limited entry permits for the fishery.

GHLs have been established for each district, beginning with the 1995/1996 season, and are based on historical harvest from the prior five seasons. From that season on, the department has managed the fishery by closing fishing areas by EO when GHLs are harvested. In 1996, District 13 was split into two fishing areas and GHRs were established for both areas based on historical harvests. In 2000, District 3 and District 12 were each split into two areas, with GHRs established for each area. From 1995 to 2000, the composition of the fleet changed from catcher boats to primarily catcher-processors. The average harvest during this time period was 932,000 lb.

In 2000, the board adopted the *Pot Shrimp Management Plan* into regulation. From 2000 to 2010, the harvest averaged 889,000 lb with the catcher-processor's harvest comprising the majority of the harvest. In 2003, the Board of Fisheries (board) formalized the Pot Shrimp Task Force. In 2004, the department began a process of systematic and annual reviews of available shrimp stock status information in order to adjust GHLs. This review process has continued annually each year since. Table 168-1 shows the GHLs for the 2011/2012 season. In 2006, the board adopted into regulation catcher-processor reporting requirements and increased GHRs in certain fishing areas. In 2009, the board made modifications for reporting requirements of pot shrimp fishermen. In recent years, the shrimp market has not been as strong as it was in the late 1990s and early 2000s. As a result, there has been less participation in the fishery, with only 109 boats participating in the 2010/2011 fishery. This, coupled with decreases in shrimp abundance in many districts, has resulted in extended closure times in a number of areas.

Table 168-1.–Southeast Alaska pot shrimp fishery 2010/11 summary and 2011/2012 GHLs. (Harvests and GHL shown are in pounds of whole shrimp.)

District	2010/2011 Closure Date	Days Open in 2010/2011	10-year Average Harvest	2010/2011 Harvest	2011/2012 GHL [a]
District 1	Nov. 7	38	119,209	37,129	50,000
District 2	Nov. 2	33	84,380	68,893	65,000
Section 3-A	Oct. 30	30	218,114	85,228	95,000
Sections 3-B/C	Oct. 22	22	49,119	33,104	30,000
District 4	Feb. 12	135	16,415	21,384	20,000
District 5	31-Jul	229	13,536	10,555	20,000
District 6	Dec. 31	92	64,273	36,083	**24,000**
District 7	Nov. 3	34	85,350	49,134	54,600
District 8	Dec. 31	92	18,841	13,613	15,000
District 9	Nov. 18	48	19,119	21,893	**14,000**
District 10	Oct. 8	8	51,134	56,748	48,000
District 11	Oct. 10	10	22,240	24,203	20,000
District 12-Tenakee	Oct. 2	2	21,983	14,152	Closed
District 12-Remainder	19-Oct	19	15,157	8,953	10,000
Sections 13-A/B	31-Jul	229	13,587	13,795	15,000
Section 13-C	Oct. 6	6	33,923	32,216	30,000
District 14	n/a	n/a	17,057	Closed	Closed
District 15	Nov. 19/Feb. 28[b]	151	13,043	9,304	15,000
District 16	Nov. 23	54	16,633	Confidential	**Closed**
TOTAL					**535,600**

[a]**Bold faced type** indicates a changes from previous season's GHL.
[b]D-15 East- and westside closure dates.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The department already has the authority to close a portion of an area with a GHL while keeping the remainder of the area open. The department has taken management actions at the sub-area level, but this strategy has been implemented due to concerns about excessive harvest within portions of an area. For example since the 2009/2010 season, the department has closed a portion of District 1 due to concerns for the shrimp stocks in that area. The department has also implemented partial area closures within sections 13-A and 13-B for the 2010/2011 summer seasons, District 15 starting in 2009/2010 season, and in District 9 and sections 13-A/B for the 2011/2012 season.

In cooperation with the Pot Shrimp Task Force, the department has allowed test fisheries in two areas in order to allow exploration for new grounds. During the 2011/2012 season, in District 12-Remainder, some area was left open to allow an exploratory fishery for a very small

remaining quota. None of these areas have produced any significantly new levels of shrimp harvests.

Adoption of this proposal would greatly increase the complexity of managing the pot shrimp fishery by adding numerous subdistricts with differing management on a regional scale. Fishermen, as well as managers, would have to pay closer attention to announcements to determine what areas were closed and what areas remained open, and for what length of time the areas were open. In many of these remote areas, communications are poor, making receiving detailed announcements difficult. Additionally, the department has concerns with receiving accurate catch information in a timely manner in order to determine the level of harvest subdistricts actually receive at the time a closure decision needs to be made. For boats selling to a shore-based processor, there can be a time lag of seven or more days in receiving fish ticket information. Catcher-processors are required to report once perweek. During this period, fishermen can move between subdistricts, significantly affecting the harvest from that subdistrict. If this proposal were adopted, the department is concerned with the potential for core fishing areas to receive increased harvest pressure because fishermen may initially concentrate in these areas knowing that there would be additional opportunity in noncore areas after core areas closed. Therefore with this proposal there is increased incentive for fishermen to illegally misreport locations of harvests to keep the area they are fishing open longer. If this proposal were to be adopted, the department would most likely be more conservative when initially setting GHLs, knowing the overall harvest from an area would be greater and that there is potential for increased harvest pressure in the core areas.

The department realizes there are many areas within the various pot shrimp fisheries that receive little or no effort. Even within the core areas, there are areas that are largely unfished due to tides, depth, and/or weather. There may be some merit in not exploiting all of the areas where shrimp are found since these areas could replenish the harvested areas at a quicker rate or provide for larval recruitment. This principle is currently recognized in the *Pot Shrimp Management Plan.*

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 169 – 5AAC 31.115. Shrimp Pot Guideline Harvest Ranges for Registration Area A.

PROPOSED BY: Greg Fisk.

WHAT WOULD THE PROPOSAL DO? This proposal would direct the department to work with the Pot Shrimp Task Force in splitting pot shrimp fishing areas.

WHAT ARE THE CURRENT REGULATIONS? Shrimp pot guideline harvest ranges (GHRs) for Registration Area A are listed in 5 AAC 31.115 for each of the 19 areas now managed in the fishery. All ranges are listed as pounds of whole shrimp; the lower end of each range is zero pounds.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal could create more pot shrimp fishing areas, each with its own distinct guideline harvest level.

BACKGROUND: See background for Proposal 168.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The department currently has the ability to split areas where fishing area, effort, harvests, and geographic differences within a district warrant the splits. The department has split areas in the past and will continue to look at fishing areas to see if future splits are justified. The department now manages 19 separate areas in the region, and during the 2011/2012 season, added predetermined closures in portions of three districts and subdivided District 15, as a management strategy, beginning with the 2009/2010 season. For the current season, there are a total of 23 uniquely-managed areas for shrimp within the region. The department has concerns with multiple simultaneous fisheries for different species, static staffing levels, limited budgets, and shrimp research program needs competing with ever-increasing expectations on the part of the public. Any recommendations made by a group outside of the department must be weighed in light of these considerations.

The Pot Shrimp Task Force, as formed by the Board of Fisheries (board) in 2003, was envisioned to have defined and balanced representation of fishermen by community as determined by elections. Based upon a charge statement adopted by the board, the task force structure was for a committee of twelve commercial pot shrimp permit holders from the following communities:

Petersburg—one
Craig—one
Sitka—two
Wrangell—two
Ketchikan—two
Northern Southeast Alaska At-Large—two
Southern Southeast Alaska At-Large—one
Out of Southeast Alaska—one

The membership was to be filled by interested permit holders chosen at a community meeting of permit holders from that community. The at-large seats were to be filled by a letter sent to the permit holders in the communities for each seat. After interested members sign up by a date specified in letter, a ballot will be sent to the permit holders for that at-large seat for the original election and seating of task force members. The task force will develop, at an organizational meeting, length of terms for task force members, whether alternates will be used for the committee, election of officers, how and why a member of the task force may be replaced, and how members will be appointed in the future. The charge statement also provided direction on meeting schedules and included a postseason meeting in person and a preseason teleconference. Meetings will be held on a rotational schedule among centrally-located communities to be chosen by task force members. Other meetings and teleconferences could be scheduled as needed. Task force members are responsible for their own expenses to attend the meetings. The charge statement included specific direction for the task force to maintain contact through the Board of Fisheries by designating a board member to serve as the point of contact.

Since the board adopted the charge statement in 2003, the task force has met periodically. It is not clear whether this group continues to be representative of the pot shrimp fishery as directed by the formal charge statement. It is also not clear which member of the Board of Fisheries is the point of contact for the task force. The department has no authority over task force membership, but remains willing to meet with industry to discuss the fishery. The current, formally-mandated task force, with the structure envisioned under the existing charge statement, is one approach for this communication between industry and the department. Another approach is to repeal the formal charge statement and provide for meetings on an informal basis, as needed, and when there is mutual agreement on the need for meetings. The latter approach has worked very successfully for the salmon purse seine fishery, the salmon drift gillnet fishery, the salmon troll fishery, and the Sitka herring fishery.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 170 – 5AAC 31.145. Southeastern Alaska Area Pot Shrimp Fishery Management Plan; and 5 AAC 31.115. Shrimp Pot Guideline Harvest Ranges for Registration Area A.

PROPOSED BY: Otto Florshutz.

WHAT WOULD THE PROPOSAL DO? This proposal would change the management of the pot shrimp fishery from managing to a guideline harvest level (GHL) set preseason to within a guideline harvest range (GHR) based on inseason assessment of the fishery.

WHAT ARE THE CURRENT REGULATIONS? Shrimp pot GHRs for Registration Area A are listed in 5 AAC 31.115 for each of the 19 areas now managed in the fishery. All ranges are listed as pounds of whole shrimp; the lower end of each range is zero pounds. 5 AAC 31.145. *Southeastern Alaska Area Pot Shrimp Fishery Management Plan* provides direction for the department to manage the fishery for sustained yield, including: identification of the target shrimp species by district, maintenance of multiple age classes in populations to reduce dependence on annual recruitment, reducing fishing periods during sensitive life history stages, reducing mortality on small sized shrimp, maintaining stocks to provide for rebuilding populations if necessary, continuing development of district fisheries with low historical harvests, and provisions for re-opening areas during a summer fishing period; and the plan also states the historical base period for guideline harvest ranges is listed in 5 AAC 31.115. The department annually establishes GHLs for each of 19 areas within GHRs in regulation; the season opens by regulation on October 1 and areas are closed by the department by emergency order when fishery monitoring indicates that the seasonal GHL in an area has been taken.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would fundamentally change how the pot shrimp fishery is managed, from managing to a GHL set preseason to a harvest level set inseason.

BACKGROUND: The *Southeast Alaska Pot Shrimp Management Plan* was adopted in regulation at the 2000 Board of Fisheries (board) meeting. It describes the target species in each district and establishes management policies for maintaining a number of age classes to reduce the dependence on annual recruitment; avoiding fishing during the spring egg hatch, summer growth, and recruitment periods; reducing mortality of small shrimp; and maintaining adequate brood stocks of shrimp. It also calls for continued development of the fishery in districts that historically have low harvests and provides for re-opening of a summer fishery for GHLs not taken during the winter. Finally, it establishes the time period of harvest history upon which the spot shrimp and coonstripe shrimp allowable harvest is based.

The department currently determines GHLs preseason by reviewing stock assessment surveys, inseason sampling, and fishery performance data. Through review of this information, it is determined if adjustments to GHLs are warranted. When necessary, adjustments are made in increments of 20% to 40% of either GHL, or current catch, and are kept in effect for at least three seasons, except in extreme cases, to examine the effects of harvest level changes. Data collected include trends in size composition and trends in shrimp catch rates. Size composition data are collected during sampling dockside, on the grounds, and during fishery-independent stock assessment surveys. Catch-rate data are available from fish tickets and from fishery-independent stock assessment surveys. A voluntary logbook program has also provided information on the size composition of the commercial harvest.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. To effectively prosecute inseason management based on inseason assessment requires a tremendous quantity of very timely fishery data that the department cannot obtain with current resources.

The department does not have the resources or personnel to collect and analyze stock assessment data for each area managed inseason and to base timely management actions upon that data and analysis. Excessive reliance on fishery performance data collected inseason may lead fishery managers to make inappropriate management decisions since catch per unit effort is not necessarily related to stock status in an area. Furthermore, the *Southeast Alaska Pot Shrimp Management Plan* explicitly directs the department to maintain a multi-age stock and avoid excessive reliance on annual recruitment. This conservative management strategy is precautionary and appropriate when only limited stock assessment information is available.

The department recommends continuing with its current practice of setting GHLs preseason and targeting those GHLs. Setting GHLs preseason gives fishermen and their markets an expectation of harvests and potential closure times. It provides a level of stability to the fishery. It allows the department to better monitor trends in stock abundance and health to make the best decisions possible concerning the fishery. The department recognizes timely action should be an integral part of any GHL policy. With emergency order authority, the department now determines the exact date and time of closure based on the preseason GHL and inseason harvest information. In most cases, where inseason action has been taken, the area has been closed before the GHL has been fully harvested due to stock concerns. The best information the department has inseason is commercial catch-rate data. It should be noted that commercial catch-rate information alone is difficult to interpret. Declines in catch rates only generally indicate declining stock health. However, an increase in fishery performance in one season does not necessarily indicate an increase in overall stock abundance or health. Fishermen have been shown to increase fishing efficiency as populations decline within a season, or between seasons, in ways that are difficult to quantify and interpret. Specific examples of this include changes in fleet composition, improved navigational plotting equipment allowing fishermen to better pinpoint habitat, improved gear efficiency, changes in bait type or volume, and changes in the ability to sort harvested shrimp into different size classes. Although commercial catch per unit effort may be of value at times, it does not provide a size breakdown or other information that provide insight into stock status.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 171 – 5 AAC 31.115. Shrimp pot guideline harvest ranges for Registration Area A.

PROPOSED BY: Greg Fisk.

WHAT WOULD THE PROPOSAL DO? This proposal would eliminate the current pot shrimp guideline harvest range (GHR)-based management and replace it with a spawner index-based inseason management system. This system would use a defined ratio of males to females (spawner index system) in the catch to determine if the fishery in a given area should remain open

or be closed. The spawner index approach would be implemented through interim steps, with full implementation throughout Southeast Alaska by 2015.

WHAT ARE THE CURRENT REGULATIONS? Shrimp pot GHRs for Registration Area A are listed in 5 AAC 31.115 for each of the 19 areas now managed in the fishery. All ranges are listed as pounds of whole shrimp; the lower end of each range is zero pounds.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Under the spawner index-based approach, the pot shrimp fishery would close when the number of females caught per pot reaches a minimum monthly spawner threshold. The spawner index system would be implemented through an intensive inseason monitoring program on the grounds. Sampling would examine the sex and assumed year class of the shrimp on a per pot basis. Multiple pots would be sampled per string and multiple strings would be sampled over each management area. Once a minimum monthly spawner index was reached, the management area would be closed until the next season's opening date.

BACKGROUND: Current regulations establish 19 area-specific GHRs in Registration Area A, each covering either an entire district, or a portion of a district thought to be a separate population, or an area of high potential fishery impact. The department determines guideline harvest levels (GHLs) preseason by reviewing stock assessment surveys, inseason sampling, and fishery performance data. The department uses this information to determine if adjustments to the GHL are warranted. When necessary, adjustments are made in increments of 20% to 40% of either GHL or current catch, and are generally implemented for at least three seasons to provide adequate time to assess the effects of harvest level changes.

The *Southeast Alaska Pot Shrimp Management Plan* was adopted in regulation at the 2000 Board of Fisheries (board) meeting. It describes the target species in each district and establishes management policies for maintaining a number of age classes to reduce the dependence on annual recruitment; avoiding fishing during the spring egg hatch, summer growth, and recruitment periods; reducing mortality of small shrimp; and maintaining adequate broodstocks of shrimp. It also calls for continued development of the fishery in districts that historically have low harvests and provides for re-opening of a summer fishery for GHLs not taken during the winter. Finally, it establishes the time period of harvest history upon which the spot shrimp and coonstripe shrimp allowable harvest is based.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. To effectively prosecute inseason management based on inseason assessment requires a tremendous quantity of very timely fishery data that the department cannot obtain with current resources. The department does not have the resources or personnel to collect and analyze stock assessment data for each area managed inseason and to base timely management actions upon that data and analysis. The management approach advanced by this proposal is based on the current management system in place in British Columbia (B.C.), Canada. That system is costly, labor

intensive, and has been contracted out to a team of industry-funded, industry-hired samplers. It is uncertain if this system is providing substantial advantages for the B.C. spot prawn fishery. The department does not have adequate resources to conduct stock assessment and management as is done in B. C. Furthermore, the *Southeast Alaska Pot Shrimp Management Plan* explicitly directs the department to maintain a multi-age stock and avoid excessive reliance on annual recruitment.

The department recommends continuing its current practice of setting GHLs preseason and targeting those GHLs. Setting GHLs preseason gives fishermen and their markets an expectation of harvests and potential closure times. It provides a level of stability to the fishery. It allows the department to better monitor trends in stock abundance and health to make the best decisions possible concerning the fishery. The department recognizes timely action should be an integral part of any GHL policy. With emergency order authority, the department now determines the exact date and time of closure based on the preseason GHL and inseason harvest information. In most cases, where inseason action has been taken, the area has been closed before the GHL has been fully harvested due to stock concerns. The best information the department has inseason is commercial catch-rate data. It should be noted that commercial catch-rate information alone is difficult to interpret. Declines in catch rates only generally indicate declining stock health. However, an increase in fishery performance in one season does not necessarily indicate an increase in overall stock abundance or health. Fishermen have been shown to increase fishing efficiency as populations decline within a season, or between seasons, in ways that are difficult to quantify and interpret. Specific examples of this include changes in fleet composition, improved navigational plotting equipment allowing fishermen to better pinpoint habitat, improved gear efficiency, changes in bait type or volume, and changes in the ability to sort harvested shrimp into size classes. Although commercial catch per unit effort may be of value at times, it does not provide a size breakdown or other information that provides insight into stock status.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 172 – 5 AAC 31.136. Closed waters in Registration Area A.

PROPOSED BY: Taiya Inlet Watershed Council.

WHAT WOULD THE PROPOSAL DO? This proposal would close commercial shrimp fishing with pots in that portion of Taiya Inlet north of a line from Sturgill's Landing to Burro Creek between the dates of September 1 to March 1. This would include waters of Taiya Inlet north of a point on the eastern shoreline at the latitude of approximately 59° 25.3' N latitude to a point on the western shoreline of Taiya Inlet at the latitude of approximately 59° 26.1' N latitude (Figure 172-1).

WHAT ARE THE CURRENT REGULATIONS? There are five different areas closed to commercial shrimp fishing in Southeast Alaska. There are currently no closed waters to commercial shrimp fishing in District 15.

The pot shrimp season in Registration Area A is from October 1 through February 28 unless closed earlier by emergency order. The shrimp fishery may open from May 15 through July 31 (summer season) in a district where the guideline harvest range was not reached during the winter season.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would close a specified area in Taiya Inlet to the commercial taking of shrimp by pots when other districts in Southeast Alaska are open to commercial pot shrimp fishing. Coonstripe shrimp populations *Pandalus hypsinotus* in Taiya Inlet would be reallocated from commercial to personal use, subsistence, and sport users. Commercial shrimp fishing could occur during the summer season (May 15 through July 31) in this area if a manageable amount of guideline harvest level remains for eastern District 15. This could possibly result in increased fishing effort on Taiya Inlet shrimp during the summer season, which is also when most of the area personal use and subsistence shrimp effort occurs.

BACKGROUND: On average, four commercial fishermen harvest 5,843 lb annually of (primarily coonstripe) shrimp from the waters of Subdistrict 115-35, which encompasses Taiya Inlet (Table 172-1; Figure 172-1). The Division of Subsistence community profile database estimates that in 1987, 5,200 pounds of marine invertebrates of all species were harvested for household consumption in Skagway.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for shellfish (except king and tanner) in Section 15-A (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for shellfish in Yakutat and Southeast Alaska.

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

Table 172-1.–Commercial harvest of coonstripe and spot shrimp in Subdistrict 115-35 from 1994/1995–2010/2011 seasons.

Season	Permits	Coonstripe lb	Spot lb
1994/1995	5	5,491	*
1995/1996	4	1,386	214
1996/1997	*	*	0
1997/1998	3	7,663	0
1998/1999	4	5,168	0
1999/2000	4	7,767	0
2000/2001	5	4,578	0
2001/2002	8	3,497	0
2002/2003	3	16,147	0
2003/2004	4	3,372	0
2004/2005	4	3,364	0
2005/2006**	*	*	0
2009/2010	*	*	0
2010/2011	*	*	0
Average	4	5,843	21

*Confidential. (Fewer than three boats reporting.)

**From 2006/2007 through the 2008/2009 seasons, District 15 was closed to commercial shrimp harvest.

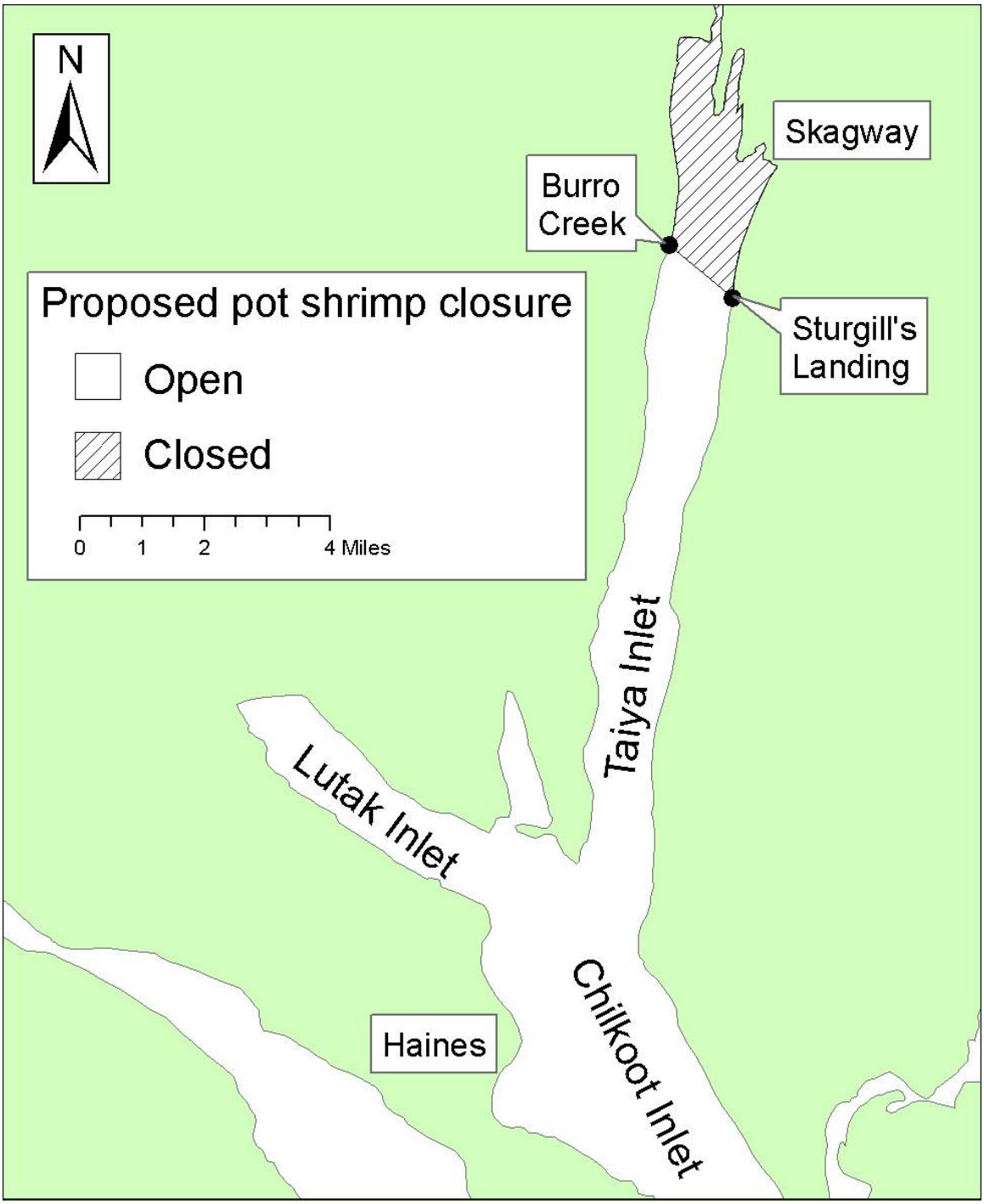

Figure 172-1.–Area of Taiya Inlet proposed for closure to commercial shrimp fishing with pots from September 1 through March 1.

PROPOSAL 173 – 5AAC 31.110. Shrimp pot fishing seasons and periods for Registration Area A.

PROPOSED BY: Don G. Mudhoven and Donald T. Mudhoven Jr.

WHAT WOULD THE PROPOSAL DO? Shift the Registration Area A pot shrimp fishery one month later in the year by revising the opening and closing dates from the current October 1–February 28 to November 1–March 31.

WHAT ARE THE CURRENT REGULATIONS? 5AAC 31.110. Shrimp pot fishing seasons and periods for Registration Area A. Except as provided in 5 AAC 31.145(d), in Registration Area A, shrimp may be taken by pots only from October 1 through February 28, unless closed earlier by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the season would begin in November when there is less daylight and potentially worse weather. The normal routine of shrimpers accustomed to the current October start date would be disrupted. The opportunity to harvest shrimp may be reallocated amongst permit holders.

BACKGROUND: The pot shrimp seasons in Southeast Alaska have been established by the Board of Fisheries (board) based on allocation and biology.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. There may be allocative implications with a later start date, favoring boats better able to operate in the more extreme weather that occurs later in the fall. The proponent states that starting the season one month later would improve the quality of shrimp harvested and increase the exvessel value, but does not explain how. By starting the winter season one month later, there will be less daylight and more difficult weather for fishermen participating in the pot shrimp fishery. The board adopted the pot shrimp season based on biological information from the department, and March was identified as the beginning of the egg-hatch period. If the guideline harvest level (GHL) is not harvested earlier in the season, fishing could occur in March, during the egg hatch. If this proposal were adopted, the department recommends keeping February 28 as the closure date. GHLs not harvested during the fall/winter season can be reopened for harvest during the spring/summer season; however, there may be market competition with British Columbia (B.C.) during this time, resulting in a lower price. Since the majority of shrimpers also fish for salmon, the current season allows them to transition directly from salmon to shrimp. A later start date would not affect the department's ability to manage the fishery.

COST ANALYSIS: Adoption of this proposal may result in an additional direct cost for a private person to participate in this fishery. There may be increased operating and/or lost gear costs associated with fishing in more extreme weather.

PROPOSAL 174 – 5AAC 31.124 (e)(5). Lawful shrimp pot gear for Registration Area A.

PROPOSED BY: Wrangell Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the number of hours per day shrimp pot gear can be operated in Registration Area A from eight hours to 12 hours, and would prohibit hauling any pot more than once in a 24-hour period.

WHAT ARE THE CURRENT REGULATIONS? Shrimp pot gear may be deployed or retrieved only from 8:00 a.m. until 4:00 p.m. each day. The department can increase or fishing hours by emergency order in order to achieve the guideline harvest range.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would increase the pace of the fishery by providing four additional hours each day for fishermen to operate pot gear in the Southeast Alaska pot shrimp fishery. This increase in the pace of the fishery would be moderated to an unknown extent by prohibiting hauling any pot more than once a day, although enforcement of such a regulation is not practical. Fishermen would have greater ability to compensate for bad weather if they were given extended days.

BACKGROUND: The pot shrimp fishery is managed by establishing a guideline harvest level (GHL) for a district or portion of a district and allowing the fishery to proceed until that GHL is reached. Each season, the GHL for an area is determined by department research staff and area managers as the level of harvest that will provide the maximum sustainable yield of shrimp from that district or portion of a district. The current hours for operating pot gear were established by the Board of Fisheries with the intention of slowing the pace of the shrimp pot fishery and prevent the hauling of pot gear multiple times per day. Hauling gear multiple times each day following short soak periods increases the mortality of small shrimp because they have less time to escape through the pot webbing.

DEPARTMENT COMMENTS: The department is **OPPOSED** this proposal. Although the intentions of providing more time for safer operations of pot gear and better utilization of weather windows in the often stormy fall pot shrimp season are good, it would be extremely difficult to enforce the stipulation of hauling gear only once each day. Some pot shrimp fishermen can and do haul their full complement of gear twice a day, and many others will haul a portion of their gear twice a day during the currently-allowed hours of operation. Extended hours would increase the temptation and opportunity to haul gear two or more times per day, increasing the catch rate of smaller shrimp, contrary to 5AAC 31.145(b)(2)(C) *Southeastern Alaska Area Pot Shrimp Fishery Management Plan* that states "The department shall manage the spot and coonstripe shrimp fisheries to reduce mortality of small shrimp of any species." Longer soak times allow the regulatory mesh size to passively sort out smaller shrimp. Short of having

an observer on every pot shrimp vessel, there is no good way to monitor compliance with the once-a-day hauling rule. The currently-allowed eight hours a day do provide ample opportunity, most days, for a pot shrimp fisherman to haul his/her gear at least once, and is much more enforceable than a single-haul-per-day regulation would be.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 175 – 5 AAC 31.126. Shrimp pot marking requirements for Registration Area A.

PROPOSED BY: Don G. Mudhoven and Donald T. Mudhoven, Jr.

WHAT WOULD THE PROPOSAL DO? This proposal would allow pot shrimp fishermen to deploy more pots on a longlined string of shrimp pots, marked by only one buoy, than current regulations allow. Additionally, it removes the requirement of pot tags from regulation.

WHAT ARE THE CURRENT REGULATIONS? Shrimp pot buoys are marked with the vessel license number according to specifications in regulation.

If required by the department in order to provide for enforcement of gear limits, each shrimp pot must have one uniquely-numbered identification tag issued by the department and attached to the pot.

Shrimp pots deployed on a longline consisting of more than five pots must have at least one buoy attached to each end of the longline.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would increase the efficiency of pot shrimpers who mark longlined strings of shrimp pots with only one buoy by reducing time spent hauling and setting buoy line. There could be more pots lost during the fishery when the groundline parts or is fouled with other shrimpers' gear. Lost shrimp pot gear may initially lead to higher mortality of invertebrate and fish species caught in lost pots. Conflicts between shrimpers working in proximity to each other may increase since shrimpers would have less indication of the direction and length of strings of longlined pots marked with only one buoy.

If adopted, this proposal would also remove the department's authority to require pot tags for the pot shrimp fishery. Should excess gear violations interfere with the department's ability to manage the fishery and a pot tag program becomes desirable, the department would need to submit a proposal in the future seeking to re-implement pot tagging requirements.

BACKGROUND: The Southeast Alaska pot shrimp fishery is a limited-entry fishery, with 274 total active permits. During the 2010/2011 season, 113 permits registered to fish pots for shrimp, with a total of approximately 13,000 pots. Pot shrimpers have the choice of either fishing a maximum of 140 small (perimeter of no more than 124 inches) pots or 100 large (perimeter no more than 153 inches) pots. In the 2010/2011 season, 73% of the gear declared by registered shrimpers was small pots. Most shrimpers typically longline strings of two to 20 pots, with two buoys required to mark longlined strings of more than five pots.

Originally, only one buoy was required to mark a string of longlined shrimp pots. In 2006, the board adopted 5 AAC 31.126(c) requiring two buoys to mark a string of more than five pots. Reasons cited were that gear loss would be reduced in the case of groundline parting, and with both ends of a set clearly marked, other shrimpers would be less likely to set gear over the top of gear already deployed. With fewer pots lost during fishing operations, incidental mortality of fish and invertebrate species in ghost-fishing gear would be reduced.

The pot shrimp tag program was originally conceived and supported by the pot shrimp fleet, was supported by Alaska Wildlife Troopers, and was implemented in October 1998. The intent of the regulation was to reduce the possibilities that shrimpers would fish more than their legal limit of pots. Over the course of five seasons, pot tags proved to be a significant administrative burden on both fishermen and the department. In 2003, the Board of Fisheries adopted regulations removing the requirement that each shrimp pot must have a tag, allowing the department to require this regulation by emergency order. Since the 2003/2004 season, pot tags have not been required.

DEPARTMENT COMMENTS: The department is **OPPOSED** to allowing only one buoy to mark a longlined string of more than five pots. The long-term biological and economic benefits of buoys on either end of a longlined string of pots outweigh the short-term savings due to the efficiencies of strings marked by a single buoy. Requiring buoys on both ends of a string decreases gear loss and incidental mortality of shrimp and other species captured by ghost-fishing pots. Additionally, confusion and conflict on the fishing grounds may be reduced when both ends of a longlined string of shrimp pots are clearly marked, allowing other shrimpers to see the length and direction of a set.

The department is **NEUTRAL** on removing pot tag requirements from regulation.

Although pot tags are the only effective means for the enforcement of gear limitations, in Area A, shrimp pot tags have not been required since the 2003/2004 season due to the significant administrative burden on both fishermen and the department.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 176 – 5 AAC 31.128. Operation of other gear in Registration Area A.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit a permit holder or permit holders from registering a vessel for the commercial beam trawl shrimp fishery and the commercial Dungeness crab fishery at the same time. This proposal would also clarify that more than one permit holder registering a single vessel for the commercial shrimp pot fishery and the commercial beam trawl shrimp fishery at the same time is prohibited. Also, this proposal would provide regulatory language describing conditions by which a permit holder or holders can transition between the two fisheries.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow a person to register a vessel for the commercial shrimp pot fishery and commercial king and Tanner crab pot fishery at the same time, and prohibit a person from registering a vessel for the shrimp pot and beam trawl fishery at the same time. In most cases, current regulations allow switching between commercial pot fisheries after pots from one fishery are placed into storage condition (are not operable) and the department is contacted to void the appropriate registration. Regulations also provide clarity concerning the combined use of commercial, subsistence, sport, and personal use pots and prohibit operation of subsistence, sport, and personal use pots during the 14-day or 30-day periods surrounding commercial fisheries.

Current regulations do not prohibit a person from registering a vessel for the commercial shrimp beam trawl fishery and commercial Dungeness crab fishery at the same time, and do not clearly prohibit more than one permit holder registering a single vessel for the commercial shrimp pot fishery and the commercial beam trawl shrimp fishery at the same time.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial fishermen, department staff, and the Dungeness crab resource will benefit by removing a loophole in regulation that could potentially allow Dungeness crab to be targeted with beam trawls. Commercial fishermen and department staff will benefit from clearer regulatory language, similar to that which prohibits simultaneous commercial shrimp pot and commercial beam trawl shrimp registration.

BACKGROUND: Since 1934, trawls have been prohibited in the Southeast Alaska Dungeness crab fishery. However, current regulations allow for a permit holder or permit holders to register a vessel for the commercial beam trawl shrimp fishery and the commercial Dungeness crab fishery at the same time.

In 2006, a new regulation prevented simultaneous registration for the pot shrimp and beam trawl shrimp fisheries. While this regulation makes it clear that an individual with separate beam trawl shrimp and Dungeness crab permits may not register a single vessel for both fisheries, the current regulatory language does not prohibit two individuals, one with a beam trawl shrimp permit and the other with a Dungeness crab permit, from registering a single vessel for both fisheries.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. If towed in shallow waters on soft bottom, trawls are effective at catching Dungeness crabs. A vessel that is validly registered for both the Dungeness crab fishery and the shrimp beam trawl fishery is legally permitted to have Dungeness crabs onboard while operating beam trawl gear. This situation creates incentive for a person to register for both fisheries and target Dungeness crabs with beam trawl gear or to retain Dungeness crabs incidentally taken in beam trawl gear. Mortality rate of Dungeness crabs caught in beam trawls is likely greater than for crabs caught in pot gear.

COST ANALYSIS: If a permit holder did not want to use a single vessel to transition between the beam trawl and Dungeness fisheries, and instead wanted to somehow participate in both fisheries simultaneously, that permit holder would need to use two vessels. Since permit stacking is allowed in the Dungeness fishery, a permit holder wishing to participate in both fisheries simultaneously would not necessarily need to purchase a second vessel.

PROPOSAL 177 – 5 AAC 31.XXX. New regulation or new task force charge statement.

PROPOSED BY: Greg Fisk.

WHAT WOULD THE PROPOSAL DO? This proposal would create a Shrimp Beam Trawl Task Force to work with the department on crafting potential regulation changes.

WHAT ARE THE CURRENT REGULATIONS? The Board of Fisheries (board) has not established a Shrimp Beam Trawl Task Force.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, a Shrimp Beam Trawl Task Force would be created for industry to work jointly with the department on potential regulation changes in the shrimp beam trawl fishery.

BACKGROUND: The shrimp beam trawl fishery in Southeast Alaska has historically targeted northern shrimp *Pandalus borealis* and secondarily, larger sidestripe shrimp *Pandalopsis dispar*. Other species incidentally-captured and landed in smaller quantities are coonstripe shrimp (*Pandalus hypsinotus*), humpy shrimp (*P. goniurus*), and spot shrimp (*P. platyceros*).

Management is based on a closed season designed to prevent fishing on major stocks during the egg-hatch period from March 1 through April 30; guideline harvest levels determined by historical, area-specific harvests; and three fishing periods in the three major fishing areas, plus a fourth fishing period in the Stikine Flats area only. Within the fishing season, fishing period length and timing are based upon industry input designed to spatially and temporally spread harvest and to meet processing requirements.

Shrimp harvest with beam trawl gear peaked in the 1986/1987 through 1997/1998 seasons. Since the 1997/1998 season, total harvest and number of permits fished have steadily declined. Declines in total harvest and effort were due to low prices for northern shrimp, a lack of processor interest in northern shrimp, and fewer active participants in the fishery.

Regionwide harvest declined further in the 2006/2007 season after the main buyer of northern shrimp in Petersburg stopped buying after an 80-year history in the fishery. Since the 2006/2007 season, harvests have largely been largely comprised of sidestripe shrimp, marketed to smaller buyers and through dockside sales

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department intends to work collaboratively with industry on potential changes to shrimp beam trawl regulations. If the board chose to facilitate that process through creation of a formal task force, as they have done for other fisheries in Southeast Alaska (e.g., the Southeast King and Tanner Task Force), then the department recommends providing the task force a clearly-defined mandate and objectives, and appointing individuals to the task force who represent a wide cross-section of the industry. Alternatively, the board could allow the department to form an ad hoc, informal task force with members of the shrimp beam trawl industry, similar to the Southeast Alaska Purse Seine and Drift Gillnet task forces.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct cost for a private person to participate.

PROPOSAL 178 – 5AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Change the existing harvest rate for sea cucumbers from a single fixed annual rate of 6.4% to a fluctuating annual rate ranging from 3.2% to 9.6%, which varies with the current stock biomass level relative to the original biomass level. When biomass is below 50% of the original biomass, an area would be closed to harvest.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 38.140 Southeastern Alaska Sea Cucumber Management Plan. (h) The department shall establish a guideline harvest level for each area open to the harvest of sea cucumbers. The guideline harvest level shall be based on

population estimates from the department's biomass assessment, and shall be calculated as a product: Guideline Harvest Level = 3 x CF x GF x M x P, where:

CF = 0.4 scaling factor relating maximum sustainable fishing mortality to unexploited population size;

GF = 0.5 correction factor to allow for errors in assumptions upon which the surplus production model is based;

M = 0.32 estimated instantaneous mortality rate for sea cucumbers;

P = virgin population size, taken as the lower bound of the one-sided 90 percent confidence interval.

The guideline harvest level includes a factor of three to account for a two-year closure under (c) of this section.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The proposal would set harvest at levels intended to bring the sea cucumber population level to 60–80% of its original biomass, which is a stock size expected to have high productivity, while maintaining stock size.

BACKGROUND: The department calculated the current annual harvest rate of 6.4% based on a surplus production model, which is a relatively simple and widely-used model to estimate sustainable production for populations where data are limited. The concept of surplus production asserts that if recruitment and growth is greater than natural mortality, then the population will grow, which allows harvest opportunity. A fixed-harvest rate was established because no data existed to justify variable rates. The fixed harvest rate has been used to determine guideline harvest levels (GHLs) for all fishery management areas in the Southeast Alaska sea cucumber fishery since 1990, when the current fishery management plan was established. Consequently, as many as eight fishery seasons have taken place in some areas, which has allowed the department to further evaluate the appropriateness of harvest rate and the impact of removals on the population.

Commercial divers have expressed concerns about their observations of declining populations in some areas and that they are having more difficulty finding sea cucumbers to harvest. The department has monitored stock levels since 1990 by conducting stock assessment surveys with the goal of estimating average density, average weight, and overall abundance and biomass once every three years for each fishery management area. Survey results indicate that sea cucumber abundance has declined in some areas. However, in the early phase of a fishery an initial decline is typically expected and considered desirable as it may lead to increased stock productivity. An assumption of the surplus production model is that population growth, and therefore yield, is greatest when populations are at moderate levels (Figure 178-1). This is because when the population is at its maximum (e.g. prior to exploitation), the habitat may be at carrying capacity and thus there would be increased competition for resources. Conversely, if the population is at low levels, then there are not enough sea cucumbers to sustainably reproduce. One classic

surplus production model assumes that maximum sustainable yield occurs when a population is at 50% of its unfished stock size. However, although maximum yield may theoretically be attained at this stock level, targeting this level increases the risk of reducing the population below a productive level because of uncertainty surrounding estimates of population size. Targeting a stock at 50% of unfished stock size could lead to less productivity, in addition to creating a standing stock that is smaller and more vulnerable to reproductive failure. Targeting a level of 60–80% of unfished stock size is expected to safeguard against these impacts, and to provide high yield while reducing risk of producing an undesirably low stock size.

Results of the department's surveys suggest that although sea cucumber stocks declined initially, in many cases they appear to have stabilized at or above 50% of the original biomass estimate. This may be an indication that the current harvest rate is sustainable in many areas. However, stock level has not declined in all areas. Stocks in some areas have apparently increased beyond the original population estimate, while others have fallen below the 50% level (Figure 178-2). This is evidence that some stocks may be more productive than others, which could be due to variation in habitat quality, or genetic composition of stocks. More productive stocks may be capable of withstanding greater harvest pressure, whereas the current harvest rate may be too high for less productive stocks.

Setting the harvest level proportional to stock size guides the stock to a more productive level. This is accomplished by harvesting more aggressively (9.6% annual maximum) at higher stock levels to intentionally reduce the stock toward the level of maximum yield, and reducing harvest when the stock is below optimal productivity (3.2% annually) to allow the stock to recover toward the level of maximum yield (Figure178-1). The proposal would close an area to harvest when the stock is below the 50% level. The goal of the proposed harvest rate schedule is to allow the harvest rate to vary in order to maximize harvest opportunity at high stock levels and avoid overharvest of stocks at low levels. The continued use of a fixed harvest rate may be appropriate at moderate stock levels, but it results in loss of harvest opportunity at high stock levels, while risking overharvest at low stock levels.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The variable-harvest rate schedule is viewed as an improvement over the existing fixed-harvest rate in areas where stocks behave consistently with assumptions in the surplus production model; that is, for stocks in a state of equilibrium that could be expected to respond to increased or decreased harvest pressure. However, stocks in areas occupied by sea otters do not necessarily meet this assumption. In these areas, when stocks fall below the optimal population level, it is unlikely they will respond to decreased harvest pressure, and, if they fall below the 50% unfished biomass level, it is unlikely they will recover. For this reason, the goal of using a variable-harvest rate and threshold probably cannot be met in areas occupied by sea otters. The proposed harvest rate schedule was determined based on the concept of maximum sustained yield; however, the department is uncertain how this concept should be applied for populations that cannot replenish themselves naturally and are not expected to recover.

If the board directs the department to apply manage sea cucumbers differently for areas occupied by sea otters, then the department request that the board establish criteria to aid the department in designating areas as impacted by sea otters.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

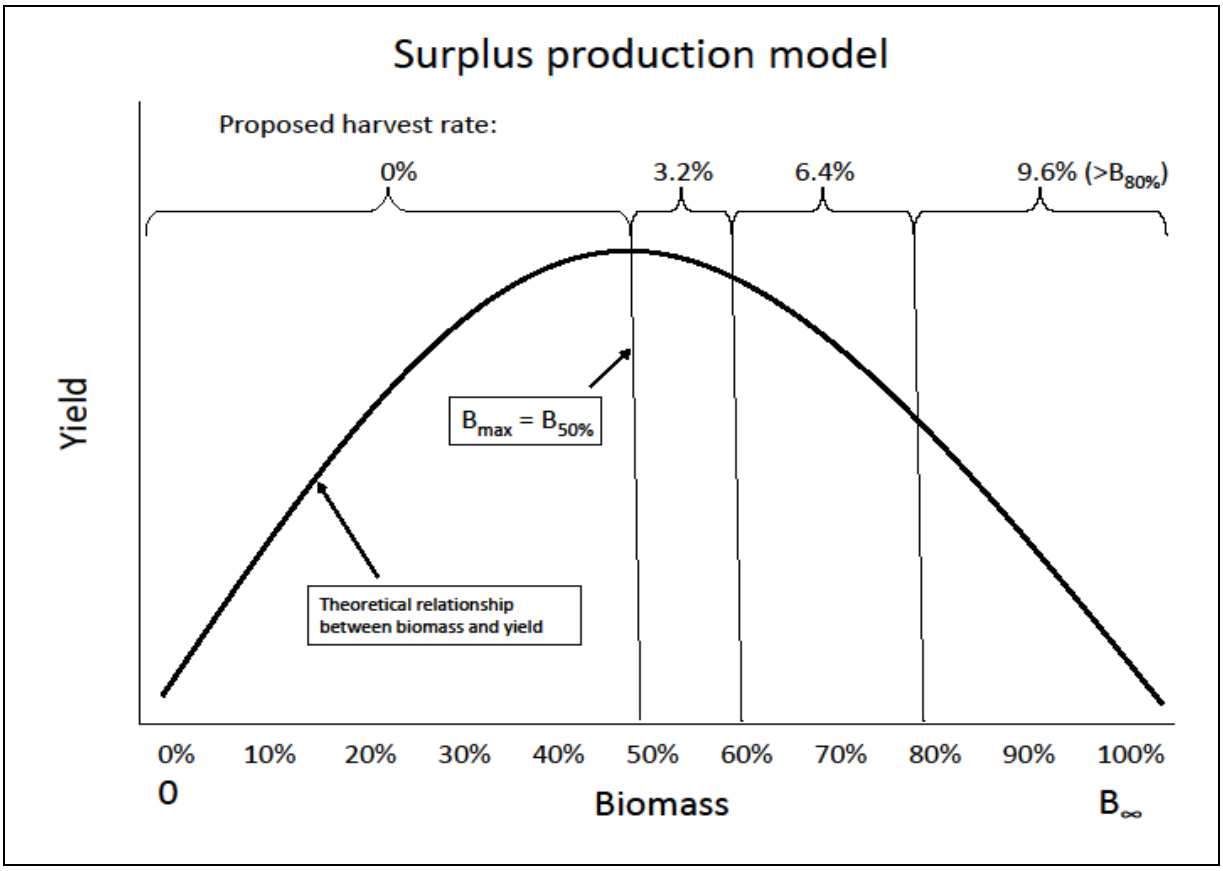

Figure 178- 1.–Proposed sea cucumber harvest rates relative to percent of initial biomass and theoretical yield. Bmax represents the stock level of maximum production and B∞ is the unfished biomass.

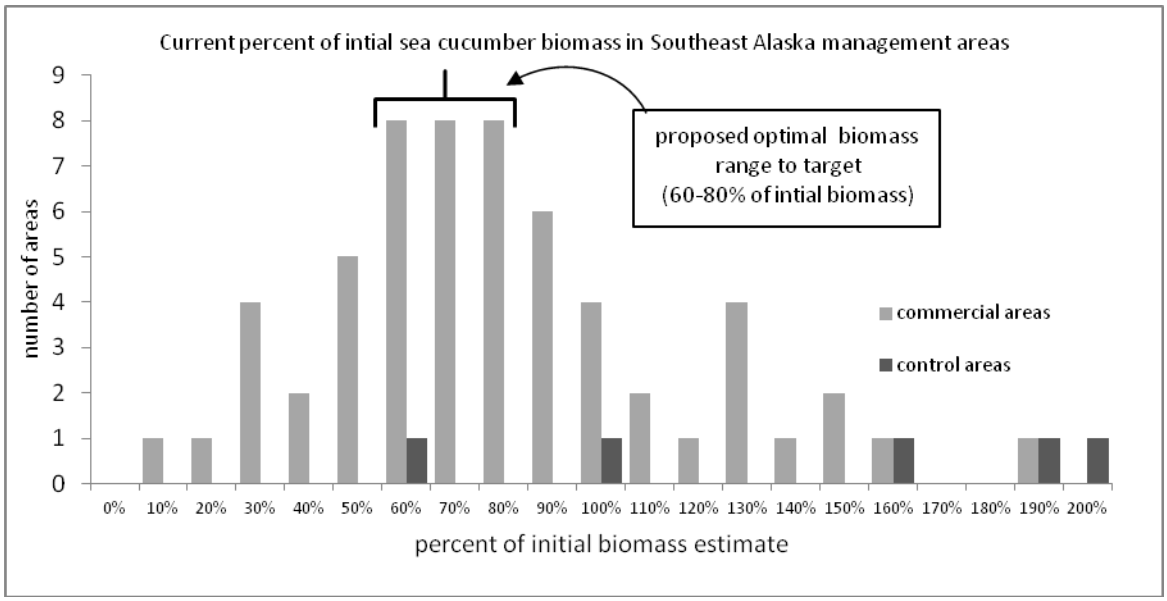

Figure 178- 2.–Number of commercial sea cucumber areas in Southeast Alaska expressed as current biomass relative to original biomass.

PROPOSAL 179 – 5AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan.

PROPOSED BY: Southeast Alaska Regional Dive Fisheries Association.

WHAT WOULD THE PROPOSAL DO? Require the department to designate fishery areas as impacted by sea otters, in the past or present, and increase the harvest rate in each of these areas to an unspecified level beyond that which is currently established.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 38.140 Southeastern Alaska Sea Cucumber Management Plan. (h) The department shall establish a guideline harvest level for each area open to the harvest of sea cucumbers. The guideline harvest level shall be based on population estimates from the department's biomass assessment, and shall be calculated as a product: Guideline Harvest Level = 3 x CF x GF x M x P, where:

CF = 0.4 scaling factor relating maximum sustainable fishing mortality to unexploited population size;

GF = 0.5 correction factor to allow for errors in assumptions upon which the surplus production model is based;

M = 0.32 estimated instantaneous mortality rate for sea cucumbers;

P = virgin population size, taken as the lower bound of the one-sided 90 percent confidence interval.

The guideline harvest level includes a factor of three to account for a two-year closure under (c) of this section.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Commercial harvesters would realize higher, short-term yield. Sea cucumber stocks in areas occupied by sea otters would likely decline more rapidly than under the current harvest rate approach.

BACKGROUND: During the early 1900s, sea otters *Enhydra lutris* were not present in the Alexander Archipelago due to their near extermination as a result of the fur trade that ended about 100 years ago. In 1965, the department captured 412 sea otters near Amchitka Island and in Prince William Sound and transplanted them to several locations in Southeast Alaska. This small sea otter population remained at a low level until 1987, when it began a period of rapid growth. Management of sea otters falls under the authority of the U.S. Fish and Wildlife Service (USFWS). In 2009 the U.S. Geological Survey published a joint report with the USFWS on sea otter population status and trends in Southeast Alaska during 1969-2003. The most recent published population estimates reported by the U.S. Geological Survey were made for 2002–2003. At that time, nearly 9,000 sea otters were estimated to be in all of Southeast Alaska, including Glacier Bay. Current population size is likely considerably larger considering the high population growth rates that have been estimated in the past. A report published by the McDowell Group in 2011 estimates the current sea otter population in Southeast Alaska at

18,890 animals. The extent of sea otter distribution within Southeast Alaska prior to the fur trade is unknown; however, because there exist numerous unoccupied areas remaining that contain substantial populations of prey species, sea otter populations are expected to continue expanding in Southeast Alaska.

Sea otters prey primarily on benthic invertebrates, including mollusks, echinoderms, and crustaceans. The increasing population of sea otters in Southeast Alaska has had negative effects on the region's commercial dive fisheries by reducing standing stock biomass, which has resulted in lower allowable harvests in some areas. Guideline harvest levels (GHLs) have been reduced in a substantial proportion of areas of the sea cucumber fishery, as well as other dive fisheries (Table 179-1). Although the amount of lost biomass and revenue due to sea otters is probably substantial, it is difficult to quantify because stock declines resulting from sea otter predation may be intertwined with declines due to fishing, and it is difficult to determine when significant sea otter impacts began in an area. As the sea otter population continues to expand, further declines in population size and GHLs are expected in coming years.

Sea otter impacts to geoduck and sea urchin populations are relatively easy to detect because direct evidence remains, such as craters created by sea otter digging up geoducks, empty or broken geoduck clam shells, and broken urchin tests (shells) and spines. However, impacts to sea cucumber populations are more difficult to detect because no physical evidence is left behind and it is necessary to deduce the impact based on trends in sea cucumber population levels and knowledge about sea otter presence in the area. Nevertheless, clear downward trends are usually apparent for populations of sea cucumbers after sea otters have colonized an area. For example, Tebenkof Bay is area where sea otters became re-established in the late 1990s and since that time the sea cucumber population has steadily declined. In 1992, the department estimated the sea cucumber biomass in Tebenkof Bay at approximately 1,000,000 lb; in 2004, the biomass was estimated at 11,000 lb; in 2011, zero sea cucumbers were found during the survey and a large number of sea otters were observed during the survey. Sea cucumber populations in most other areas occupied by sea otters have not declined as dramatically, although population levels in several areas are currently estimated at 10–20% of their original biomass.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The department is required by the state's constitution and statute to manage fishery harvests based on the principle of sustained yield. Notwithstanding changes outlined in Proposal 178, the current harvest rate was developed based on the principle of maximum sustained yield (MSY), meaning that harvest beyond this level would inhibit the population's ability to replenish itself over the long term. Therefore, exceeding this harvest rate for the express purpose of harvesting sea cucumbers prior to sea otter predation may not be consistent with the principle of sustained yield.

The department recognizes that the ongoing re-colonization of Southeast Alaska by sea otters represents an unusual example of an imbalance between predator and prey species, where prey species are not expected to recover to levels present prior to re-colonization. When a population is in severe decline, conserving brood stock is of utmost importance to allow perpetuation of the population, and therefore, lowering the exploitation rate or closing an area to harvest is warranted. The reasons for this are that there is an assumption of equilibrium, that the population should eventually rebound if the mortality rate is lessened, and that natural fluctuation

of that population, as well as its predators, is expected. The current harvest rate used for sea cucumbers, as well as those used for sea urchins and geoducks, was calculated based on these assumptions. However, the impacts of sea otter re-colonization are more similar to those expected from an ecosystem regime shift or an event that affects the entire population negatively, such as disease, where there exists constant decline and little prospect for recovery. Therefore, although the current harvest rate was determined based on the concept of MSY, the department is uncertain if this concept applies in situations for populations that cannot replenish themselves naturally and may not be expected to recover.

If the board directs the department to manage sea cucumbers differently for areas occupied by sea otters, then the department requests that the board establish criteria to aid the department in designating areas as impacted by sea otters.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 179-1.–Percent of commercial fishery areas in Southeast Alaska that have been closed or experienced substantial population decline as a result of sea otter predation, as determined by department data and observation.

Species	% of areas impacted by sea otters	% of areas closed due to sea otters
Sea cucumbers	18	4
Geoducks	66	0
Sea urchins	22	7

PROPOSAL 180 – 5AAC 38.140.Southeastern Alaska Sea Cucumber Management Plan.

PROPOSED BY: Ketchikan Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would change the open fishing period for sea cucumbers to Sunday and Monday during the week of Thanksgiving.

WHAT ARE THE CURRENT REGULATIONS? 5AAC 38.140. (b) Southeastern Alaska Sea Cucumber Management Plan.

(1) The fishing periods in October will occur during periods set by the commissioner, by emergency order, the fishing periods will be on Monday from 8:00 a.m. to 3:00 p.m. and on Tuesday from 8:00 a.m. to 12:00 noon;

(2) The fishing periods from November through March will occur during daylight hours on Monday and one-half of the daylight hours on Tuesday each week…

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would change the start day of the commercial sea cucumber fishery from Monday to Sunday during the week of the Thanksgiving holiday.

BACKGROUND: The Board of Fisheries (board) adopted the *Southeastern Alaska Sea Cucumber Management Plan* in 1990, which provided for a season that began October 1 with two 48-hour openings per week. The season was changed to a November start date in 1993, and in order to extend the season, weekly fishing periods were reduced to seven daylight hours on Mondays in November, plus an additional four daylight hours on Tuesdays from December through March.

The *Sea Cucumber Management Plan* was amended by the board for the 1997–1998 season and provided for an October 1 start date, with weekly fishing periods of seven daylight hours on Mondays in October, plus an additional four daylight hours on Tuesdays from November through March.

During the January 2000 board meeting, the weekly fishing period was amended, providing for Monday, 8:00 a.m. to 3:00 p.m. and Tuesday 8:00 a.m. to 12:00 p.m. openings in October.

The current 1.5-day, daylight only, openings were established to slow the pace of the fishery and make them more manageable, especially in areas with small guideline harvest levels.

Over the past ten years, due to industry requests, the department has shifted the weekly fishing days to Sunday/Monday by emergency order during the week of the Thanksgiving holiday to accommodate divers and processors who want to be done diving and processing sea cucumbers by Thanksgiving. With a Monday/Tuesday fishery, buyers are still processing sea cucumbers on the Thanksgiving holiday.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 181 – 5AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would extend the weekly time divers fishing in northern Southeastern Alaska are allowed to harvest sea cucumbers after November 1 by adding three hours on Tuesdays, from 12:00 p.m. to 3:00 p.m.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan. (b) Sea cucumbers may be taken from October 1 through March 31. Fishing periods will be as follows:

(1) the fishing periods in October will occur during periods set by the commissioner by emergency order; the fishing periods will be on Mondays from 8:00 a.m. to 3:00 p.m. and on Tuesdays from 8:00 a.m. to 12:00 noon;

(2) the fishing periods from November through March will occur during daylight hours on Monday and one-half of the daylight hours on Tuesday each week during periods set by the commissioner by emergency order; these fishing periods may be extended by emergency order to obtain the guideline harvest level.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Divers fishing in areas north of Sumner Strait would have more weekly fishing time starting in November by regulation. The additional time would likely increase weekly harvest during this time period, and, as a result, guideline harvest levels (GHLs) could be obtained sooner. There could be less opportunity for divers who started their fishing season in the southern Southeast are to extend their season by moving into northern districts to fish. The overall Southeast sea cucumber quota would likely be harvested more quickly.

BACKGROUND: The commercial sea cucumber fishery expanded rapidly in the 1980s, causing the fishery to grow beyond the permit system initially used for management. In response to the very rapidly expanding fishery, the department was required to close the commercial fishery in May 1990 and reopened the commercial sea cucumber fishery in October 1990. This occurred after developing the *Southeastern Alaska Sea Cucumber Management Plan* (5 AAC 38.140.). Initially, commercial harvest of sea cucumbers was conducted during two 48-hour periods per week. In an effort to control harvest and extend the season, in 1993, the start date of the dive fishery was pushed back to November 1 and fishing time in the sea cucumber fishery was reduced to seven daylight hours on Mondays, with four additional hours on Tuesdays, from December through March. In 1994, the Board of Fisheries (board) enacted regulations limiting harvest to 2,000 lb of eviscerated sea cucumbers per diver per week to make the fishery more manageable. The *Southeastern Alaska Sea Cucumber Management Plan* was amended for the 1997/98 season to open on October 1, with weekly fishing periods comprised of seven daylight hours on Mondays in October, and an additional four daylight hours on Tuesdays from

November through March. During the January 2000 board meeting, the weekly fishing period was amended to extend fishing time to Mondays from 8:00 a.m. to 3:00 p.m. and on Tuesdays from 8:00 a.m. to 12:00 p.m. throughout the season.

The *Southeastern Alaska Sea Cucumber Management Plan* (5 AAC 38.140) sets out how the commercial sea cucumber fishery is conducted. No area or section can be opened for the commercial harvest of sea cucumbers unless that area or section has had an assessment conducted within two years to determine the abundance of sea cucumbers in that area or section. Once a fishery has occurred in an area, that area is not available for commercial harvest of sea cucumbers for a period of two seasons. This sets up a fishery that has a three-year rotation on areas assessed by the department for sea cucumber abundance. In the last ten years, the majority of the fishery areas and effort has been concentrated in the areas within and south of Sumner Strait (Southern Area harvest, districts 1 through 8) (Table 181-1). Areas considered north of Sumner Strait are areas open to the commercial harvest of sea cucumbers in districts 9 through 16.

Table 181-1.–Northern and southern area sea cucumber harvests in Southeast Alaska in lb, number of divers making landings, and number of areas open, 2001–2010.

Season	Southern Area Harvest	Northern Area Harvest	Total SE Harvest	No. Southern Areas	No. Northern Areas	No. Divers Harvesting in South	No. Divers Harvesting in North	Total No. of SE Divers
2001/2002	1,090,961	347,490	1,438,451	9	4	171	77	235
2002/2003	1,287,548	351,892	1,639,440	12	4	153	68	201
2003/2004	1,450,142	248,508	1,698,650	10	5	161	47	195
2004/2005	1,090,752	283,780	1,374,532	10	6	153	56	194
2005/2006	1,100,769	336,962	1,437,731	12	6	155	70	198
2006/2007	1,327,571	269,886	1,597,457	11	6	146	49	175
2007/2008	1,029,363	388,585	1,417,948	12	9	138	67	181
2008/2009	798,933	303,704	1,102,637	13	5	134	63	175
2009/2010	1,360,287	250,539	1,610,826	11	6	142	46	169
2010/2011	897,584	376,957	1,274,541	14	8	138	69	180
Average	1,143,391	315,830	1,459,221	11	6	149	61	190

It should be noted that fishing areas north of Sumner Strait tend not to be as productive as the areas to the south, and also tend to be in areas that are more exposed to weather than areas south of Sumner Strait. Additionally, the amount of daylight hours for diving operations is slightly shorter in higher latitudes of Southeast Alaska. For example, Juneau's daylight loss per day, as the winter solstice approaches, is approximately 1.1 minutes more per day than Ketchikan's.

This results in approximately 40 fewer minutes of daylight in Juneau than in Ketchikan on the winter solstice.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. Allowing more time in northern areas will allow divers that reside, or most commonly fish in the north, more opportunity. It should be noted the department already has the authority in regulation to adjust fishing periods and individual weekly quotas after November 1. The department has exercised this authority in past seasons for different reasons, including when the season extended well into November and beyond, when most, if not all, of the southern areas had closed and participation remained consistently light or nonexistent, or when very little of GHL was being caught each week. The department would continue with this management approach if this proposal were not adopted. The department does not have any management or conservation concerns should this proposal be adopted.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 182 – 5AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association and Mike Reif.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit unlicensed Commercial Fisheries Entry Commission (CFEC) sea cucumber permit holders from diving off of a vessel registered to harvest sea cucumbers for a period of 48 hours before, during, and 48 hours after a commercial fishing period.

WHAT ARE THE CURRENT REGULATIONS? 5AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan.

(e) During an open sea cucumber fishing period, no more than two licensed CFEC sea cucumber permit holders may conduct fishing operations from, or land commercially harvested sea cucumbers from, a vessel that is licensed and registered to commercially fish for sea cucumbers. From 24 hours before, during, and for 24 hours after a fishing period, or when commercially harvested sea cucumbers are on board the vessel, no more than three licensed CFEC sea cucumber permit holders may be transported, housed, quartered, or domiciled on board a vessel that is licensed and registered to commercially fish for sea cucumbers.

5AAC 38.054. Unlawful use of dive fishing gear.

(a) A person or vessel that is licensed or registered to commercially fish for any species of miscellaneous shellfish may not operate dive fishing gear

(1) in waters closed to the taking of miscellaneous shellfish in a registration area from 14 days before a commercial opening for miscellaneous shellfish in that registration area;

(2) during closed periods between weekly commercial openings for miscellaneous shellfish in that registration area; or

(3) during the 14-day period after the person has participated in a commercial miscellaneous shellfish fishery in that registration area, as indicated by the date of landing on a fish ticket.

(b) The prohibition described in (a) of this section does not

(1) include diving for a non-harvesting purpose authorized by a local representative of the department; or

(2) prohibit a diver from legally participating in any commercial miscellaneous shellfish fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would create redundant regulations prohibiting any person on board a vessel registered to harvest sea cucumbers from entering the water 48 hours before, during, and for 48 hours after a commercial sea cucumber fishery. Current regulations prohibit licensed or unlicensed divers from conducting dive operations from a licensed commercial dive fishing vessel.

BACKGROUND: 5 AAC 38.140 (e) was adopted by the Board of Fisheries (board) due to concerns from the industry of the potential for 'motherships' carrying a fleet of small boats and divers that would quickly harvest guideline harvest levels (GHLs), increasing the pace of a fishery. In areas with small GHLs, significant overharvest could potentially occur with this large amount of localized effort. It also limits the total number of divers from a commercially-registered vessel during an open sea cucumber fishing period to two licensed CFEC divers.

While this regulation relates specifically to the sea cucumber management plan under 5 AAC 38.140, 5 AAC 38.054, *Unlawful Use of Dive Fishing Gear*, clearly prohibits use of any dive fishing gear by a person or from a vessel that is licensed or registered to commercially fish for any species of miscellaneous shellfish prior to, during closed periods between, and after weekly openings. This regulation was adopted by the board to prevent use of dive gear for prospecting and stockpiling of sea cucumbers between openings.

DEPARTMENT COMMENTS: The department **SUPPORTS** clarifying the regulation to explicitly state that unlicensed divers or dive tenders with crew members licenses are prohibited from diving from a registered vessel during open periods under 5 AAC 38.140(e). The stated issues in this proposal are already illegal under current regulations in 5 AAC 38.140(e) and

5 AAC 38.154. No person can presently operate dive fishing gear on a vessel that is registered or licensed to fish for miscellaneous shellfish 14 days before, between openings, and 14 days after fishing.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSALS 183 AND 184 – 5AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSALS DO? These proposals would allocate an equal portion of the annual Southeast Alaska commercial geoduck fishery guideline harvest level (GHL) to registered permit holders and limit the weekly total geoduck clam harvest in Southeast Alaska. Proposal 183 would also define desirable and less desirable geoduck harvest areas and split a registered permit holder's harvest allocation between those two types of areas.

WHAT ARE THE CURRENT REGULATIONS? The current regulations guiding the fishery are contained in 5 AAC 38.142, *Southeastern Alaska Geoduck Fishery Management Plan*. The season is October 1 through September 30. Guideline harvest levels are set for each area based on department dive surveys. Fishing periods are established by emergency order (EO). The department may consider paralytic shellfish poison (PSP) levels when opening areas in order to maximize product value through live sales. The department requires logbooks and has authority to establish weekly harvest limits. 5 AAC 38.146, *Registration Requirements for Red Sea Urchins, Sea Cucumbers, and Geoduck Clams in Registration Area A (d)* requires vessel registration and (c) provides the department the option to register Commercial Fisheries Entry Commission permit holders for one specific geoduck bed at a time. Paralytic shellfish poison sampling and testing is regulated by the Alaska Department of Environmental Conservation (DEC).

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? If adopted, both proposals would require the department, the Southeast Alaska Regional Dive Fisheries Association (SARDFA), DEC, and Alaska Wildlife Troopers (AWT) to follow a rigid weekly management protocol in order to provide for an equal-share fishery. In addition to managing the fishery to limit harvests to GHLs provided, the department would need to: establish a system to track registered participants' progress toward their seasonal equal-share harvest limits; manage a system of weekly registration to allow fishing in areas that passed PSP testing; manage all diver's weekly requested harvest amounts for each area; and change weekly requested harvest amounts for each diver in an area based on the number of divers and total poundage requested for that area to stay within the GHL for that area and to stay within the

overall fishery weekly harvest amount as determined by SARDFA. The department or AWT would need to enforce that seasonal shares and weekly harvests are within these limits and would need to verify that divers were only in specific areas where they were registered to dive. A procedure for handling overages would need to be established.

Additionally, Proposal 183 would require that SARDFA define desirable and less desirable harvest areas and require registered participants to split their harvests between these areas. The department or AWT would be tasked with enforcing these additional requirements on geoduck clam harvesters.

The major benefit of the proposals would be to maximize the economic value of the fishery. Value would be maximized by rigidly regulating harvests on a weekly basis to provide for more orderly marketing and shipping of live clams, reducing the probability of placing a significant quantity of clams on the market all at once. As stated in the proposal, additional benefits might include improvements in product quality or reputation and increased participant safety.

Fishermen and companies who do better in a competitive environment may sacrifice harvest share through redistribution of harvests. It is unclear how regulated weekly regional and individual harvest amounts, shipping capacity, competing markets, changing markets, rising fuel costs, other economic factors, and/or shipping capacity will change over time. Fishermen would need to commit to harvesting in a specific area each week by a specified time or effort levels would be exceedingly high or low in certain areas.

The department would need to spend considerably more time managing the geoduck fishery than under the current system which would require funding new positions.. Weekly registrations would require direct and multiple weekly contact with up to 105 limited entry permit holders, with increased and regular contact between the department and SARDFA. The time spent on the registration procedure, any delay in the PSP area certification procedure, time for advanced notification before a fishery, and time for travel to remote fishing areas may all reduce the time available for fishing within the current three-day window after PSP certification unless all are precisely coordinated. When some areas are sampled out of synchronization with other areas, or problems arise with shipments of samples or DEC testing schedules, then areawide registrations might already have occurred or fisheries might already have been announced. Due to expected time constraints associated with registrations, the PSP sampling program would need to be improved for greater reliability and timelier reporting.

BACKGROUND: The geoduck fishery is presently managed each week to balance market conditions, travel to remote fishing areas, and the opportunity to harvest live clams. SARDFA contracts divers to collect geoduck clam samples on Saturday or Sunday of each week. Time and location of the sampling may be verified by remote tracking of the sample vessel or through direct observation by a DEC representative. Samples are shipped direct to the DEC laboratory for analysis of PSP levels. DEC generally analyzes samples on Monday or Tuesday and notifies

both SARDFA and the department which areas are certified for live sale. When results are made available, the department issues a news release announcing fishing periods based on these results, expected effort and harvest rates, and the remaining GHL for each area. The one or two days following the announcement are considered travel days, and, early in the season, fisheries generally occur on Thursday for six hours. Later in the season, harvest time may be increased by decreasing the travel time and opening earlier for six hours on Wednesday. In the Ketchikan area, DEC area certification expires three days after testing, generally following the Thursday opening. In the Sitka area, DEC certifications expire after seven days. This cycle repeats weekly from October or November through April until the GHLs from all of the areas managed throughout the region have been harvested. There is a provision to open areas at the end of the season for the lower-valued processed clam market if GHLs are not harvested earlier for live-market sale.

Table 183-1 presents summary information for the geoduck fishery, including GHLs, harvest, annual effort, calendar days open for harvest, reported prices, exvessel values, and average earnings from 1985 to spring of 2010. Price information is inconsistently provided to the department on fish tickets so the information given may underestimate the value of the fishery. Guideline harvest levels have generally increased during recent years as new areas have been surveyed and added for harvest. Price, exvessel value, and average earnings have increased during recent years, with a notable increase in the fall of 2003. Prefishery PSP evaluation and area certification for live sales began during that season, and since that time, 90% to 100% of clams have been sold on the live market.

Table 183-2 shows the harvest of geoduck clams, in lb, by week for the past eight years during which the fishery has been managed for live harvests. Note that the fishery now begins in week 40, at the beginning of October, and is opened weekly until GHLs have been harvested in all areas, which is as late as week 20, in mid May, but which usually occurs by week 12, in mid March.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals.

The harvest-by-week data in Table 183-2 are not consistent with the characterization of the present fishery as a "derby" because the fishery, as now managed, occurs on a weekly basis over a six-month period. Openings are limited based on PSP sampling of available areas; PSP sampling is scheduled by SARDFA. The amount of product placed on the market reached a peak of 100,192 lb in week 49 of the 2010/2011 season, but in many weeks, regionwide harvests are below 50,000 lb per week. The fishery could be managed, in cooperation with SARDFA, to limit the weekly harvest amount, but that amount would be market-driven, variable, and based on coastwide production. If weekly poundage was set, there are multiple factors that would influence the actual weekly harvest.

The department is concerned that equal quota shares may encourage high-grading of geoduck clams to maximize marketability and value. Quality of product may be influenced by substrate type, which affects shell color, or by size. If permit holders are guaranteed an equal quota share, there is greater incentive to maximize value by selecting the highest-quality geoduck clams and discarding those of lesser quality, thereby increasing the fishing mortality rate.

If either of these proposals is adopted, the department could not manage the fishery as proposed within current staffing levels and operating budgets and without compromising the management and stock assessment of other fisheries. There may also be additional costs to the state associated with increased costs to either DEC for PSP screening or for AWT for law enforcement purposes. Expenses associated with the geoduck fishery are presently supported through SARDFA by a 7% tax on landings.

COST ANALYSIS: Adoption of these proposals may result in an additional direct cost for a private person to participate in this fishery. There would likely be additional fishing-related expenses and reduced weekly harvests associated with trip limits that might be offset by increased prices. There would also be additional costs for several state agencies; presently geoduck fishermen are assessed 7% of the value of their geoduck landings, the maximum allowed, to fund fishery-related expenses for SARDFA, DEC, and ADF&G.

Table 183- 1.–Registration Area A (Southeast Alaska) commercial geoduck clam harvests, effort, value, and season length, 1985/1986 through 2010/2011.

Season[a]	Guideline Harvest Level (lb)	Total Lb Landed	Average Price per Lb[b]	Estimated Exvessel Value[b]	Number of Divers	Number of Landings	Total Days Open	Average Lb per Diver	Average Earnings per Diver[b]
1985–86	[c]	143,868	$0.21	$30,212	8	40	240	17,984	$3,777
1986–87	[c]	28,191	$0.25	$7,048	3	9	240	9,397	$2,349
1987–88	125,000	185,674	$0.30	$55,702	6	156	240	30,946	$9,284
1988–89	189,232	143,188	$0.49	$70,162	9	127	240	15,910	$7,796
1989–90	199,000	207,083	$0.51	$105,612	18	165	240	11,505	$5,867
1990–91	196,000	189,585	$0.51	$96,688	15	130	176	12,639	$6,446
1991–92	219,000	193,074	$0.66	$127,429	20	131	33	9,654	$6,371
1992–93	196,000	189,379	$1.11	$210,211	22	109	19	8,608	$9,555
1993–94	219,000	209,322	$1.50	$313,983	40	115	11	5,233	$7,850
1994–95	195,000	197,246	$1.85	$364,905	64	190	14	3,082	$5,702
1995–96	209,000	229,681	$2.02	$463,956	109	401	10	2,107	$4,256
1996–97	196,000	203,017	$2.57	$521,754	97	359	6	2,093	$5,379
1997–98	196,000	180,443	$3.89	$701,923	110	312	3	1,640	$6,381

-continued-

Table183-1–continued (page 2 of2)

Season[a]	Guideline Harvest Level (lb)	Total Lb Landed	Average Price per Lb[b]	Estimated Exvessel Value[b]	Number of Divers	Number of Landings	Total Days Open	Average Lb per Diver	Average Earnings per Diver[b]
1998–99	112,500	111,311	$2.13	$237,092	98	206	66	1,136	$2,419
1999–00	250,400	202,260	$1.60	$323,616	61	240	50	3,316	$5,305
2000–01	391,100	438,334	$1.06	$464,634	74	543	148	5,923	$6,279
2001–02	285,322	283,405	$0.72	$204,052	37	324	78	7,660	$5,515
2002–03	382,100	392,406	$1.69	$663,166	50	537	35	7,848	$13,263
2003–04	341,000	377,584	$2.87	$1,083,666	49	482	25	7,706	$22,116
2004–05[d]	477,000	535,516	$3.93	$2,104,578	60	710	24	8,925	$35,076
2005–06[d]	403,800	436,040	$2.04	$889,522	64	545	51	6,813	$13,899
2006-07[d]	687,100	726,866	$3.88	$2,820,240	66	812	42	11,013	$42,731
2007-08[d]	590,800	611,164	$3.12	$1,906,832	59	675	42	10,359	$32,319
2008-09[d]	868,700	906,685	$3.66	$3,318,467	56	920	39	16,191	$59,258
2009-10[d]	630,900	658,714	$6.74	$4,439,732	60	694	28	10,979	$73,996
2010-11[d]	824,800	845,582	$6.61	$5,589,297	69	953	25	12,255	$81,004

[a]Season = October 1 through September 30.

[b]Average price data are based entirely on ADF&G fish ticket data. Note: 1985–2000 prices were reported for 90% of total lb landed; however, from 2001–2009 and for the 2010/2011 season prices were reported for only 35% of total lb landed and for the 2009/2010 season; prices were reported for 50% of the total lb harvested.

[c]Five-year, 300,000-lb GHL in three areas.

[d]Mariculture site fisheries are not included.

Table 183-2.–Geoduck clam harvests in lb by week for the 2003/2004–2010/2011 seasons.

	Season							
Stat Week	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
40	0	0	0	38,016	54,075	46,483	46,900	0
41	0	0	0	33,055	50,160	60,765	58,007	64,034
42	0	0	0	47,929	55,156	51,082	49,406	61,435
43	0	0	0	48,178	46,009	31,956	60,828	78,045
44	0	0	0	48,839	62,529	65,585	43,951	91,063
45	0	12,313	54,070	52,869	46,157	59,608	44,547	44,336
46	0	52,273	50,442	54,967	20,078	63,276	20,316	59,130
47	0	45,028	77,073	0	0	66,808	36,432	56,858
48	0	72,217	0	27,032	57,502	0	55,028	0
49	0	39,509	26,554	72,327	88,952	45,571	37,408	100,192
50	15,546	3,574	13,291	8,743	23,115	43,739	0	83,482
51	24,775	0	4,426	0	0	54,450	0	43,203
52	0	39,513	1,017	0	0	0	0	0
53	0	26,601	773	**	0	0	0	0
1	2,955	0	17,737	67,312	13,889	0	0	0
2	46,609	1,116	2,232	93,334	20,263	26,769	50,348	0
3	49,081	14,171	0	2,224	28,180	29,582	43,621	20,408
4	40,127	13,480	1,484	1,760	21,644	24,944	63,271	20,604
5	56,852	62,081	8,853	52,259	2,648		8,678	47,115
6	65,040	7,058	36,402	37,097	1,400	46,910	5,245	29,289
7	22,857	731	25,503	14,583	2,434	51,102	3,316	9,228
8	7,780	0	2,559	17,462	0	23,444	0	11,311
9	0	61,930	3,632	8,880	1,216	49,521	0	10,647
10	0	12,564	1,743	0	4,314	42,798	0	0
11	15,622	8,315	23,814	0	8,100	4,232	0	5,387
12	0	0	0	0	0	7,988	31,412	9,815
13	0	4,958	0	0	0	1,966	0	0
14	0	465	0	0	3,343	4,944	0	0
15	0	1,870	0	0	0	3,162	0	0
16	0	55,749	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
19	0	0	84,435	0	0	0	0	0
20	30,340	0	0	0	0	0	0	0
Weekly Average	31,465	25,501	22,949	38,256	29,103	37,779	38,748	44,504
Total Harvest	377,584	535,516	436,040	726,866	611,164	906,685	658,714	845,582
GHL	341,000	477,000	403,800	687,100	590,800	868,700	630,900	824,800

Note: No harvest took place during years and weeks shown as blank and ** indicates that data are *confidential.*

PROPOSALS 185, 187, 188, AND 189 – 5AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSALS DO? Proposals 185, 187, 188, and 189 all intend to have the department set a weekly harvest goal in the geoduck clam fishery. Proposal 185 would also provide for a year-round geoduck clam fishery. Proposals 187, 188, and 189 would set the weekly harvest goal in coordination with SARDFA. Additionally, proposals 187 and 188 would require the department to establish a weekly registration program; Proposal 187 would then allocate the weekly harvest goal equally amongst registered participants, while Proposal 188 would allow registered participants to harvest geoducks on their preferred day during periods that the area is certified by DEC for live sale.

WHAT ARE THE CURRENT REGULATIONS? See short geoduck regulations summary under Proposal 183. Under 5 AAC 38.146(c), geoduck permit holders may be required to register for one geoduck bed at a time, and 5 AAC 38.142,(k) allows for establishing a maximum amount of geoducks that may be harvested during a fishing period. The combination of these two provisions has been used sparingly to ensure that harvests in specific areas with small remaining guideline harvest levels were not exceeded. 5 AAC 38.142 allows setting harvest rates for development of the fishery; however, setting regionwide trip limits implies allocation among harvesters and is beyond the department's authority.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? See comments for Proposal 183. The effects are the same with equal-share or trip limits.

BACKGROUND: See Proposal 183 and associated tables.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals. The department does have concerns related to the additional management and administrative burdens associated with these proposals.

COST ANALYSIS: Adoption of these proposals may result in an additional direct cost for a private person to participate in this fishery. There would likely be additional fishing-related expenses and reduced weekly harvests associated with trip limits that might be offset by increased prices. There would also be additional costs for several state agencies; presently, geoduck fishermen are assessed 7% of the value of their geoduck landings, the maximum allowed, to fund fishery-related expenses for SARDFA, DEC, and ADF&G.

PROPOSAL 186 – 5AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would change the season dates in the *Southeast Alaska Geoduck Fishery Management Plan* to July 1–June 30.

WHAT ARE THE CURRENT REGULATIONS? 5AAC 38.142. (c) From October 1 through September 30, geoduck clams may be taken only during fishing periods established by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would move the Southeast Alaska geoduck fishery start date from October 1 to July 1. The intent of the proposal is to increase marketing opportunities during July, August, and September. By starting the season on July 1, the guideline harvest level (GHL) would be set at that time, allowing for harvest of geoduck clams to occur starting in July, when historically all available GHL has already been harvested. If adopted, Southeast Alaska Regional Dive Fisheries Association (SARDFA) would need to expend some of the geoduck clam harvester's 7% assessment tax revenues to sample paralytic shellfish poison (PSP) levels during the summer months. Areas meeting the Alaska Department of Environmental Conservation (DEC) live-sale standards could be opened by the department for harvest. If geoduck clams could be marketed earlier in the season, the value of those clams could potentially be increased. Progress toward the harvest of GHLs might start earlier and individual fisheries of the season might close earlier, depending on summer PSP and effort levels during the summer months. Some geoduck clam fishermen who now participate in other summer fisheries may not be able to fish geoduck clams in July, August, or September before some of the GHLs are taken, so this proposal may reallocate among those now participating in the fishery.

BACKGROUND: The geoduck fishery has opened in the fall since the fishery began in 1985. The current season was established with 5 AAC 38.142. *Southeastern Alaska Geoduck Fishery Management Plan*, which was developed in cooperation with SARDFA before adoption by the Board of Fisheries (board) in January 2000. For the past six seasons, the fishery has opened in early October, and for the prior three seasons, in November or December. With these start dates and provisions to harvest clams for the processed market at the end of the season, all GHLs have been harvested by early April to mid May over the past eight years (Table 183-2). Harvest periods are established by emergency order and announced by news release. Although the season can initially be opened at any time throughout the year, the department works closely with SARDFA to provide fishing periods when the industry, as represented by SARDFA, would prefer to harvest the clams.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal, but does have concerns related to the availability of existing management staff if the geoduck fisheries were opened in the summer months instead of the fall and winter months. Fishery management biologists that now manage the geoduck fishery are fully occupied overseeing salmon fisheries during the summer months.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 190 – 5AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would require the department to adjust years when fishing areas are included in harvest rotations to provide more consistent guideline harvest levels (GHLs) on an annual basis in the geoduck clam fishery.

WHAT ARE THE CURRENT REGULATIONS? Under 5AAC 38.142(g), the department shall designate harvest areas, conduct stock assessment surveys, and establish GHLs at two percent per year of the estimated biomass. Under the current system, defined areas with established GHLs generally open once every two years.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would require the department to move areas between rotations to balance the GHLs between rotations. Recently, there has been an imbalance in GHLs such that one year's GHL has been higher than the next; this was cyclical due to the two-year rotation. This proposal would balance the year-to-year variation in quota by moving areas from the high GHL rotation year to the low GHL rotation year.

BACKGROUND: While there has been some discussion about this in the past, only recently has a decision been reached to actually move GHLs in coordination with the Southeast Alaska Regional Dive Association (SARDFA). Recently, however, significant GHL reductions due to sea otter predation were made in the large-year rotation. In coordination with SARDFA, it was decided that due to this decrease, no movement of GHL was needed to balance the large and small-rotation years.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal because the department is already working with industry. through SARDFA. to address this issue. All commercial geoduck divers are members of SARDFA.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 191 – 5AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would limit the length of the surface-supplied air hose and water jet hose used in the Southeast Alaska geoduck dive fishery to a maximum length of 300 feet.

WHAT ARE THE CURRENT REGULATIONS? A person may only take geoducks with dive gear and while using a manually-operated, water jet device having a manual shut-off valve and a nozzle with an inside diameter of not more than seven-eighths inch. There is currently no limitation on the length of either air supply or water jet hoses. The department has the ability to modify gear by emergency order, if necessary, for conservation.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the department does not foresee significant impacts on management of the fishery. Divers that currently use hoses longer than 300 feet will have a reduced area they can harvest without moving their vessel.

BACKGROUND: In the Southeast Alaska geoduck clam fishery, harvest can only occur using dive gear and a hand-operated water jet to dislodge geoducks from the sea bed. Current regulations concerning gear limitations were adopted to prevent waste and/or destruction of the fishery resource, primarily juvenile clams. This proposal is intended to reduce intrusions by divers using hoses longer than 300 feet into areas where adjacent divers are harvesting. The proposal suggests that safety would be increased by reducing the possibility of entanglement with anchor lines, diver air and/or stinger hoses, and by reducing poor visibility conditions created by another diver harvesting in proximity. This proposal has a companion proposal (Proposal 192) to provide a minimum distance of 200 yards between vessels participating in the fishery.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department views this proposal as allocative in nature and does not have management concerns if this proposal is adopted. Adoption of this proposal, in conjunction with adoption of proposal 192, may result in an added margin of safety by providing greater separation of divers and vessels.

COST ANALYSIS: Adoption of this proposal will require some divers to shorten their diver and water pump hoses to comply, but the cost is expected to be minimal.

PROPOSAL 192 – 5AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan.

PROPOSED BY: Sitka Geoduck Marketing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a minimum distance of 200 yards that vessels could anchor from one another while participating in the Southeastern Alaska geoduck fishery.

WHAT ARE THE CURRENT REGULATIONS? A person may only take geoducks with dive gear and while using a manually-operated water jet device having a manual shut-off valve and a nozzle with an inside diameter of not more than seven-eighths inch. There is currently no limitation on the length of either air supply or water jet hoses. The department has the ability to modify gear by emergency order, if necessary, for conservation.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the department does not foresee significant impacts on management of the fishery. Some vessels who otherwise would have fished along with another boat in a small area may be forced to find a different location.

BACKGROUND: There are currently no regulations in the Southeast Alaska geoduck clam fishery regarding minimum distance that vessels must maintain while harvesting. Current regulations concerning gear limitations were adopted to prevent waste and/or destruction of the fishery resource, primarily juvenile clams. This proposal is intended to reduce conflicts between divers harvesting in proximity to one another. The proposal suggests that safety would be increased by reducing the possibility of entanglement with anchor lines, diver air and/or water jet hoses, and by reducing poor visibility conditions created by another diver harvesting in proximity. This proposal has a companion proposal (Proposal 191) to provide a maximum length of air supply and water jet hoses of 300 feet to further facilitate the intent of this proposal.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department views this proposal as allocative in nature and does not have any management concerns if this proposal is adopted. Adoption of this proposal, in conjunction with adoption of proposal 191, may result in an added margin of safety by providing greater separation of divers and vessels. Adoption of this proposal may result in a regulation that is difficult to enforce.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 193 – 5 AAC 38.054. Unlawful Use of Dive Fishing Gear.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This is a two-part proposal. If adopted, this proposal would prohibit a diver from participating in a commercial dive opening for 28 days following the unauthorized use of dive gear. If adopted, this proposal would allow commercial divers to dive on aquatic farm sites without first obtaining a permit from the department authorizing that activity within the 14-day diving restriction period specified in 5 AAC 38.054.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 38.054. Unlawful use of dive fishing gear.

(a) A person or vessel that is licensed or registered to commercially fish for any species of miscellaneous shellfish may not operate dive fishing gear

(1) in waters closed to the taking of miscellaneous shellfish in a registration area from 14 days before a commercial opening for miscellaneous shellfish in that registration area;

(2) during closed periods between weekly commercial openings for miscellaneous shellfish in that registration area; or

(3) during the 14-day period after the person has participated in a commercial miscellaneous shellfish fishery in that registration area, as indicated by the date of landing on a fish ticket.

(b) The prohibition described in (a) of this section does not

(1) include diving for a non-harvesting purpose authorized by a local representative of the department; or

(2) prohibit a diver from legally participating in any commercial miscellaneous shellfish fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit divers from participating in any miscellaneous shellfish dive fisheries for 28 days following the unauthorized use of dive gear according to 5 AAC 38.054(a). Currently, divers are not allowed to use their dive gear 14 days before, between open fishing periods and for 14 days after a commercial fishery unless specifically authorized by the department or unless participating in another commercial fishery. This proposal would also allow an aquatic farm diver to conduct day-to-day operations on their mariculture site without requiring a permit from the department.

BACKGROUND: The intent of regulations in 5 AAC 38.054 was to prevent prospecting and stockpiling of miscellaneous shellfish prior to or between commercial dive fishery openings. These regulations are difficult to enforce because there are three separate miscellaneous shellfish dive fisheries that begin on October 1 of each year. Many commercial divers fish in both the sea cucumber and geoduck clam fisheries. Sea cucumber fisheries take place on Mondays and Tuesdays, and geoduck clam fisheries occur on Thursdays of each week. Currently, if a diver is issued a citation for illegal use of dive gear according to 5 AAC 38.054 (a), he or she can continue fishing during the next commercial opening.

Regulations prohibit a diver who is involved in both commercial dive fisheries and the aquatic farm site industry from diving on an approved aquatic farm site without a special permit from the department. The aquatic farm industry is growing and the department is concerned that as the mariculture industry continues to grow, the permitting process will become burdensome. The proposed exemption from 5 AAC 38.054(a) would be confined to the boundaries of the person's aquatic site.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The first part of this proposal would help to enforce the fair-start rule by adding additional consequences for divers who have plead no contest or who have been convicted of violating 5 AAC 38.054(a). This portion of the proposal was developed upon request and in cooperation with Alaska Wildlife Troopers (AWT). Under current regulations, there are minor consequences to a diver who violates the 14-day dive rule. A diver in violation of provisions of 5 AAC 38.054 may be allowed to keep and sell unlanded product by claiming it was legally harvested during a previous opening. The provision to preclude further use of dive gear for 28 days following illegal use would render any sales subsequent to a conviction illegal and any profit subject to surrender to the state during sentencing after conviction. The selection of a 28-day period is a somewhat arbitrary number and the department defers to AWT or the Alaska Department of Law for an appropriate timeframe.

By exempting aquatic farm site operators from the 14-day dive rule, department-issued paperwork will be reduced and dive fishermen will be alleviated from having to make additional trips to a department office to obtain a special permit allowing them to conduct aquatic farm site operations during the miscellaneous shellfish dive fishery season.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 194 – 5 AAC 38.146. Registration requirements for red sea urchins, sea cucumbers, and geoducks in Registration Area A.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would require fishermen participating in the Southeastern Alaska geoduck clam fishery to contact the department two full business days prior to the weekly opening before fishing for geoduck clams in a different registration management area.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 38.146. Registration requirements for red sea urchins, sea cucumbers, and geoducks in Registration Area A.

(a) Registration Area A is a registration area for red sea urchins, sea cucumbers, and geoducks. The registration management areas for geoducks are described as follows:

(1) Southern Management Area: Districts 1–8; and

(2) Northern Management Area: Districts 9–16.

(b) For red sea urchins and geoducks, the registration year is October 1 through September 30. For sea cucumbers, the registration year is October 1 through March 31.

(c) The department may require holders of CFEC permits for red sea urchins or sea cucumbers to register with the department before harvesting those resources. Before harvesting geoducks, a holder of a CFEC permit to harvest geoducks must register with the department. The department may require registration that allows for geoduck fishing in only one registration management area or in one defined harvest area with a specified guideline harvest level. If a CFEC permit holder is allowed by the department to fish for geoducks in a different registration management area, the permit holder shall contact the department at least 24 hours before fishing for geoducks in a different registration management area.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would require permit holders participating in the Southeast Alaska geoduck clam fishery to contact the department two full business days prior to a weekly geoduck opening if permit holders plan to fish in a different registration area. This will allow the department to adjust fishing time based on expected effort and provide adequate notice to participants. This will also result in better management precision in achieving guideline harvest levels (GHL). This will require fishermen changing registration areas to plan a little further in advance of an opening.

BACKGROUND: In the Southeast Alaska geoduck clam fishery there are two separate registration areas, the Southern Management Area, which includes districts 1–8 and the Northern

Management Area, which includes districts 9–16. These areas are further subdivided into smaller geoduck fishery rotational areas, each with a separate GHL. For each geoduck fishery rotation area that passes paralytic shellfish poison testing, the department establishes opening times for weekly fishing periods based on estimated effort levels and remaining GHL. In areas where remaining GHLs are relatively small, changes in effort can result in substantial changes in fishing time allowed in order to remain within established GHLs or to allow maximum harvesting opportunity.

Twenty-four hours is not sufficient time for the department to make changes in opening time periods and provide adequate advance notice to fishermen. Requiring fishermen to contact the department two full business days prior to changing registration management areas would allow the department to provide sufficient advance notice of opening times to fishermen.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 195 – 5 AAC 02.135 Subsistence abalone fishery; 5 AAC 77.670. Personal use abalone fishery; and 5 AAC 47.020. General provisions for seasons and bag, possession, annual, and size limits for the salt waters of the Southeast Alaska area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce abalone bag limits in the personal use and subsistence fisheries and repeal the personal use restriction currently in place in Section 13-B.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow sport, personal use, and subsistence abalone fisheries. In the subsistence abalone fishery, the possession limit is 50; in the personal use fishery, the possession limit is 50, except in Section 13-B north of the latitude of Dorothy Narrows, the possession limit is 20; and in the sport abalone fishery, the possession limit is five. In all three fisheries, the minimum size limit is three and one-half inches and there is no closed season. There is a prohibition on the use of scuba or hookah gear in the subsistence, personal use, and sport fisheries.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal will reduce subsistence and personal use harvest opportunity. Reduced daily possession limits will reduce overall harvests of abalone since those harvesting will not be able to retain as many and since some people may choose not to harvest with reduced limits in effect. This proposal would also repeal the regulation that allows a daily bag limit of 20 abalone north

of Dorothy Narrows, which would reduce complexity of the regulations. Abalone spawning populations will have increased ability to spawn and to increase.

BACKGROUND: The pinto abalone or northern abalone (*Haliotis Kamtschatkana*) has a range from Sitka, Alaska to Point Conception, California, and is the only species of abalone in Alaska. Pinto abalone were commercially harvested in Southeast Alaska until 1996 and have been closed for commercial harvest since then. Initial declines in the abalone population were attributed to commercial fishing; however, since the closure, predation by sea otters is believed to be the primary cause of continued decline.

Regionwide department dive surveys of commercially-taken shellfish stocks have incidentally included observations indicating a decline in abalone abundance throughout their range in Southeast Alaska.

Subsistence household surveys conducted in 1997 and 1998 show dramatic decreases in the average household use of abalone harvested for subsistence uses in many areas of Southeast Alaska. From 1972 to the 1997/1998 household survey, subsistence abalone use per household dropped an average of 98% in the communities of Craig, Klawock, and Hydaburg (Table 195-1).

Table 195-1.–Average harvest of abalone for subsistence uses, per household, by community, 1972–1997.

Year	Hydaburg	Klawock	Craig
1972	382	397	350
1977	373	307	283
1980	230	128	125
1981	236	111	68
1987	75	60	41
1997	9	3	6

Notes: Source for 1972–1981 data is Mills 1982. (*The procurement and use of abalone in Southeast Alaska*; ADF&G Division of Subsistence Technical Paper No40; Juneau).
Source for 1987 and 1997/1998 data is ADF&G Division of Subsistence Community Subsistence Information System (CSIS).

Sea otter predation, severe poaching, and other factors have diminished most pinto abalone populations in other states and Canada. Department researchers and managers are concerned that continued harvest of abalone at the present bag limits will put added stress on small populations.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The department is concerned about the downward trend in abalone populations throughout Southeast Alaska. The department further recommends that subsistence, personal use, and sport

bag and possession limits be made consistent at five or ten abalone for all three fisheries, to keep regulations simple and easily enforceable.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for abalone in District 13 (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for shellfish in Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

PROPOSAL 196 – 5AAC 02.135. Subsistence abalone fishery; 5AAC 77.670. Personal use abalone fishery; and 5AAC 47.020. General provisions for seasons and bag, possession, annual, and size limits for the salt waters of the Southeast Alaska area.

PROPOSED BY: Ryan Kauffman.

WHAT WOULD THE PROPOSAL DO? This proposal would lower subsistence limits from 50 to 10 daily, with a 30 abalone annual limit. Personal use bag limits would be reduced from 50 to five daily, with a 25 abalone annual limit. The sport fishery bag limit would be lowered from five abalone per day to three abalone per day, with a six abalone annual limit. This proposal would increase minimum size from 3.5 to 3.75 inches for all fisheries. The author of this proposal also requests that the department include information in the *Southeast Alaska Sport Fishing Regulations Summary* about the dangers of improper harvest techniques. This proposal would also repeal the regulation that allows a daily bag limit of 20 abalone north of Dorothy Narrows.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow sport, personal use, and subsistence abalone fisheries. In the subsistence abalone fishery, the possession limit is 50; in the personal use fishery, the possession limit is 50, except in Section 13-B north of the latitude of Dorothy Narrows, the possession limit is 20; and in the sport abalone fisher, the

possession limit is five. In all three fisheries, the minimum size limit is three and one-half inches and there is no closed season. There is a prohibition on the use of scuba or hookah gear in the subsistence, personal use, and sport fisheries.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal will reduce subsistence and personal use harvest opportunity. Reduced daily possession limits will reduce overall harvests of abalone since those harvesting will not be able to retain as many and since some people may choose not to harvest with reduced limits in effect. This proposal would also repeal the regulation that allows a daily bag limit of 20 abalone north of Dorothy Narrows, which would reduce complexity of the regulations. Abalone spawning populations will have increased ability to spawn and to increase.

This proposal would add complexity to regulations by adding annual limits for all fisheries. The proposed increase in the size limit may increase handling mortality since harvesters generally pry abalone from rocks prior to measuring shell size, sometimes breaking shells, and they would need to sort through increased numbers of abalone to obtain the minimum legal size.

BACKGROUND: The pinto abalone or northern abalone (*Haliotis Kamtschatkana*) has a range from Sitka Alaska to Point Conception California and is the only species of abalone in Alaska. Pinto abalone were commercially-harvested in Southeast Alaska until 1996 and have been closed for commercial harvest since. Department biologists have observed a steady decline in abalone populations throughout Southeast Alaska. This decline is attributed primarily due to sea otter predation and predation by other furbearers, such as river otters that consume abalone.

Regionwide department dive surveys of commercially-taken shellfish stocks have incidentally included observations indicating a decline in abalone abundance throughout their range in Southeast Alaska.

Subsistence use harvest surveys conducted in 1997 and 1998 show dramatic decreases in the average household use of abalone in many areas of Southeast Alaska. From 1972 to the 1997/1998 survey, abalone use per household dropped an average of 98% in the communities of Craig, Klawock, and Hydaburg (Table 195-1)

Southeast Alaska currently has the only viable populations of pinto abalone in the Pacific Northwest and Canada. Sea otter predation, poaching, and other factors have diminished most pinto abalone populations in other states and Canada. Department researchers and managers are concerned that continued harvest of abalone at the present bag limits will put added stress on these small populations.

DEPARTMENT COMMENTS: The department **SUPPORTS** a lower bag and possession limit for subsistence and personal use fisheries. The department further recommends that subsistence, personal use, and sport bag and possession limits be made consistent at five or ten abalone for all three fisheries, to keep regulations simple and easily enforceable. The department is concerned about the downward trend in abalone populations in Southeast Alaska and is NEUTRAL on an annual limit for all user groups. While annual limits may help reduce harvests to a degree, annual limits can more readily be implemented for the sport and personal use fisheries by recording harvests on the back of a sport fishing license, but there is no practical means to enforce annual limits in the subsistence fishery. The department is **OPPOSED** to an increase in a minimum harvest size and does not believe an increase would provide any net benefit for population stability. The department is concerned that a new size limit would create confusion, with a result of increased handling mortalities. Abalone are prone to mortalities from any cut or laceration.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for abalone in District 13 (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for shellfish in Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

PROPOSAL 197 – 5 AAC 77.668. Personal Use Clam Fishery.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would remove the possession limit of 50 razor clams for the area of western Kruzof Island from Cape Edgecombe to Cape Georgiana, and would close the personal use fishery for razor clams in the Sitka Sound Special Use Area (SSSUA).

WHAT ARE THE CURRENT REGULATIONS? In the personal use clam fishery, there are no closed seasons and no possession limits, except for geoducks and razor clams. For geoducks, the daily possession limit is six clams. For razor clams, the possession limits are 10 clams in the SSSUA and 50 in a defined area on the outer coast of Kruzof Island.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would return to no limits for the personal use razor clam fishery on western Kruzof Island beaches and would close the personal use razor clam fishery in the Sitka Sound Special Use Area. Since there isn't any known harvest on the western Kruzof Island beaches there isn't a need for a possession limit for that location. There is a companion proposal to close the subsistence fishery for razor clams in the SSSUA (Proposal 198). The small remaining population of razor clams in the SSSUA would be allowed to reproduce and rebuild over a long time frame. The department does not consider this population to have a harvestable surplus.

BACKGROUND: Prior to 1994, Kamenoi Beach on Kruzof Island supported the primary sport, personal use, and subsistence fisheries for razor clams in the Sitka area. From 1977 through 1986, trends in annual harvests of razor clams in the Sitka area, which averaged about 8,700 clams, were stable. After 1986, annual harvests declined until 1993, when 1,000 clams were taken. Numerous reports from the public indicated a substantial decrease in the number of razor clams on Kamenoi Beach. The department is unsure of the reasons why razor clams declined, but most likely, the decline was from a combination of overharvest and increased sea otter predation.

The sport and personal use fisheries for razor clams in Sitka Sound were initially closed by emergency order (EO) in 1993 in order to protect the stock. The sport fishery for razor clams in the Sitka Sound Special Use Area is now closed by regulation (5 AAC 57.022). The subsistence and personal use fisheries were closed by EO in 1997. Annual surveys were conducted by the department from 1995–2002, with 2002 having the lowest index count during that period. Though there have not been any surveys conducted since 2002 due to budgetary constraints, there is no expectation that there has been appreciable recovery in the stock. The closure of razor clams in the Sitka Sound Special Use Area should be in regulation until it can be determined that the stock has sufficiently recovered to allow harvest.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 198 – 5 AAC 02.130. Subsistence clam fishery.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would close the subsistence razor clam fishery in the Sitka Sound Special Use Area.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 02.005. Subsistence fishing permitted. Shellfish may be taken at any time in any area of the state, by any method, unless restricted by the subsistence fishing regulations in this chapter.

5 AAC 02.130. Subsistence clam fishery. In the subsistence taking of geoducks the bag limit is six geoducks per person per day.

5 AAC 77.674. Personal use bottomfish fishery (3)(A) In the Sitka vicinity: (i) in the Sitka Sound Special Use Area, which is that area of Sitka Sound enclosed … (The Sitka Sound Special Use area is described under this regulation.)

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would close the subsistence razor clam fishery in the Sitka Sound Special Harvest Area. This area has been closed to subsistence razor clam harvest, by emergency order (EO), since 1997.

BACKGROUND: See background discussion for companion proposal 197.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal.

COST ANALYSIS: Adoption of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATIONS REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? There is a positive customary and traditional use finding for clams (except geoducks) in District 13 (5 AAC 02.108).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? There are no codified amounts necessary for subsistence for shellfish in Yakutat and Southeast Alaska.
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.