June 2010 Council motion:
The Council moves the following suite of alternatives for preliminary analysis of chum salmon bycatch management measures. Note bolded items are additions while strike-outs represent deletions from previous suite of alternatives.

C-1(b) Bering Sea Chum Salmon Bycatch

Alternative 1 – Status Quo
Alternative 1 retains the current program of the Chum Salmon Savings Area (SSA) closures triggered by separate non-CDQ and CDQ caps with the fleet's exemption to these closures per regulations for Amendment 84 and as modified by the Amendment 91 Chinook bycatch action.

Alternative 2 – Hard Cap
Component 1: Hard Cap Formulation (with CDQ allocation of 10.7%)

a) 50,000
b) 75,000
c) 125,000
d) 200,000
e) 300,000
f) 353,000

Component 2: Sector Allocation

Use blend of CDQ/CDQ partner bycatch numbers for historical average calculations.

a) No sector allocation
b) Allocations to Inshore, Catcher Processor, Mothership, and CDQ
    1) Pro-rata to pollock AFA pollock sector allocation
    2) Historical average
        i. 2007-2009
        ii. 2005-2009
        iii. 2000-2009
        iv. 1997-2009
    3) Allocation based on 75% pro-rata and 25% historical
    4) Allocation based on 50% pro-rata and 50% historical
    5) Allocation based on 25% pro-rata and 75% historical

For Analysis:

CDQ	Inshore CV	Mothership	Offshore CPS
3.4%	**81.5%**	**4.0%**	**11.1%**
6.7%	**63.3%**	**6.5%**	**23.6%**[1]
10.7%	**44.77%**	**8.77%**	**35.76%**

Suboption: Allocate 10.7% to CDQ, remainder divided among other sectors (**see table**).

Component 3: Sector Transfer

a) No transfers or rollovers
b) Allow NMFS-approved transfers between sectors

[1] Note the actual midpoint is CDQ = 7.05%, CV 63.14%, Mothership 6.39%, CP 23.43% . However as noted by staff during Council deliberation numbers reflected in the table are an existing option as the historical average from 2005-2009 allocated 50:50 pro-rata AFA to historical average by section.

Suboption: Limit transfers to the following percentage of salmon that is available to the transferring entity at the time of transfer:

1) 50%
2) 70%
3) 90%

c) Allow NMFS to roll-over unused bycatch allocation to sectors that are still fishing

Component 4: Cooperative Provision

a) Allow allocation at the co-op level for the inshore sector, and apply transfer rules (Component 3) at the co-op level for the inshore sector.

Suboption: Limit transfers to the following percentage of salmon that is available to the transferring entity at the time of transfer:

1) 50%
2) 70%
3) 90%

b) Allow NMFS to rollover unused bycatch allocation to inshore cooperatives that are still fishing.

Alternative 3 – Trigger Closure

Component 1: Trigger Cap Formulation

Cap level

a) 25,000
b) 50,000
c) 75,000
d) 125,000
e) 200,000

Application of Trigger Caps

a) Apply trigger to all chum bycatch
b) Apply trigger to all chum bycatch between specific dates
~~c) Apply trigger to all chum bycatch in a specific area.~~

Trigger limit application:

Two options for application of trigger caps for area closure options (applied to caps under consideration)

1- **Cumulative monthly proportion of cap (left-side of table below)**
2- **Cumulative monthly proportion AND monthly limit (left and right sides of table together. Note monthly limit should evaluate +/- 25% of distribution below)**

Option of cumulative versus monthly limit for trigger area closures (assuming a trigger cap of 100,000 fish). Monthly limit based on minimum of monthly cumulative value and 150% of monthly historical proportion.

	Cumulative		Monthly limit	
Month	Cumulative Proportion	Monthly Cumulative	Monthly proportion	Monthly limit
June	10.8%	10,800	10.8%	10,800
July	31.5%	31,500	20.7%	31,050
August	63.6%	63,600	32.1%	48,150
September	92.3%	92,300	28.6%	42,900
October	100.0%	100,000	7.7%	11,550

Component 2: Sector allocation

Use blend of CDQ/CDQ partner bycatch numbers for historical average calculations.

a) No sector allocation

b) Allocations to Inshore, Catcher Processor, Mothership, and CDQ

1) Pro-rata to pollock AFA pollock sector allocation
2) Historical average
   i. 2007-2009
   ii. 2005-2009
   iii. 2000-2009
   iv. 1997-2009
3) Allocation based on 75% pro-rata and 25% historical
4) Allocation based on 50% pro-rata and 50% historical
5) Allocation based on 25% pro-rata and 75% historical

For Analysis:

CDQ	Inshore CV	Mothership	Offshore CPS
3.4%	**81.5%**	**4.0%**	**11.1%**
6.7%	**63.3%**	**6.5%**	**23.6%**[2]
10.7%	**44.77%**	**8.77%**	**35.76%**

Suboption: Allocate 10.7% to CDQ, remainder divided among other sectors.

~~Component 3: Sector Transfer~~

~~a) No transfers or rollovers~~

~~b) Allow NMFS-approved transfers between sectors~~

~~Suboption: Limit transfers to the following percentage of salmon that is available to the transferring entity at the time of transfer:~~

~~1) 50%~~
~~2) 70%~~
~~3) 90%~~

~~c) Allow NMFS to roll-over unused bycatch allocation to sectors that are still fishing~~

~~Suboption: Limit transfers to the following percentage of salmon that is available to the transferring entity at the time of transfer:~~

~~1) 50%~~
~~2) 70%~~
~~3) 90%~~

Component **3**~~Component 4~~ : Cooperative Provisions

a) Allow allocation at the co-op level for the inshore sector, and apply transfer rules (Component 3) at the co-op level for the inshore sector.

Suboption: Limit transfers to the following percentage of salmon that is available to the transferring entity at the time of transfer:

1) 50%
2) 70%
3) 90%

[2] Note the actual midpoint is CDQ = 7.05%, CV 63.14%, Mothership 6.39%, CP 23.43% . However as noted by staff during Council deliberation numbers reflected in the table are an existing option as the historical average from 2005-2009 allocated 50:50 pro-rata AFA to historical average by section.

b) Allow NMFS to roll-over unused bycatch allocation to cooperatives that are still fishing

Component **4** ~~Component 5~~: Area and Timing Options

~~a. Large area closure~~

~~b. Discrete, small area closures identified by staff in February Discussion paper (20 ADF&G statistical areas, identified in Table 4)~~

c. **Groupings of ADFG area closures by month that represent 40%, 50%, 60% of historical bycatch.** ~~the small area closures (as presented) (described in Option b above) into 3 zones that could be triggered independently with subarea, rather than statistical area, level closures~~

The analysis should include quantitative analysis of the 50% closure options and qualitative analysis of the 40% and 60% closure options.

Component **5**~~Component 6:~~ Timing Option – Dates of Area Closure

a) Trigger closure ~~of Component 5 areas~~ when the overall cap level specified under Component 1(a) was attained

b) ~~Under Component 5(b)~~ discrete small closures would close when a ~~an overall~~ cap was attained and would close for the time period corresponding to periods of high historical bycatch.~~,~~ ~~considering both number of salmon. a (i.e. Table 11 in February Discussion Paper) Under Component 5(c) Subareas within a zone would close for the time period corresponding to periods of high historical bycatch within the subarea when a zone level cap was attained.~~

c) ~~Under Component 5, Areas close when bycatch cap is attained within that area (i.e. Table 12 in February Discussion Paper)~~

~~a. for the remainder of year~~

~~b. for specific date range~~

Component **6** ~~Component 6~~: Rolling Hot Spot (RHS) **system** ~~Exemption~~ – Similar to status quo (**with RHS system in regulation**), participants in a vessel-level (platform level for Mothership fleet) RHS would be exempt from regulatory triggered closure below.

1. **A large area trigger closure (encompassing 80% of historical bycatch).**
   ~~a)~~ Sub-option: RHS regulations would contain an ICA provision that the regulatory trigger closure (as adopted in Component **4** ~~5~~) **apply to participants with a rate in excess of 200% of the Base Rate.** ~~that do not maintain a certain level of rate-based chum salmon bycatch performance.~~

In constructing an ICA under this component, the following aspects should be considered:

- **Closures that would address timing & location of bycatch of Western AK chum stocks.**

In addition, include the following items in the initial review analysis:

1. Analyze discrete area approach normalized across years (i.e. proportion of salmon caught in an area in a year rather than numbers of salmon);
2. Discuss how Component **6**~~7 and suboption~~ would be applied;
3. In depth description of the rolling hot spot regulations (Amendment 84), focusing on parameters that could be adjusted if the Council found a need to refine the program to meet objectives under Component 7. **Specifically analyze:**
   a. **the base rate within the RHS program;**
   b. **the options for revising the tier system within the RHS program;**
   c. **the Council's options for revising the fine structure within the RHS program. Analysis should include a discussion of the meaningfulness of fines, including histograms of number and magnitude of fines over time as well as a comparison of penalties under the RHS program to agency penalties and enforcement actions for violating area closures.**
4. Discussion from NMFS of catch accounting for specific caps for discrete areas, and area aggregations described in Component 5 and for areas within those footprints that may have other

shapes that could be defined by geographic coordinates [Component 6(c)] Discussion from NMFS on the ability to trigger a regulatory closure based on relative bycatch within a season (with respect to catch accounting system and enforcement limitations) considering changes in bycatch monitoring under Amendment 91.

5. Contrast a regulatory closure system (Components 5 and 6) to the ICA closure system (Component 7) including data limitations, enforcement, potential level of accountability (i.e., fleet-wide, sector, cooperative, or vessel level).
6. Examine differences between high bycatch years (i.e. 2005) and other years to see what contributes to high rates (i.e. timing/location, including fleet behavior and environmental conditions).
7. Examine past area closures and potential impacts of those closures on historical distribution of bycatch and on bycatch rates (qualitative); include 2008 and 2009 data and contrast bycatch distribution under VRHS versus the Chum Salmon Savings Area.