FINAL REPORT AND RECOMMENDATIONS OF THE MARINE MAMMAL PROTECTION ACT, SECTION 120

PINNIPED-FISHERY INTERACTION TASK FORCE: COLUMBIA RIVER

November 5, 2007

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BACKGROUND

Section 120: Pinniped Removal Authority – A Summary of Process Initiation

The United States Congress created Section 120 of the Marine Mammal Protection Act (MMPA) as part of its 1994 amendments to the Act. This section provides an exception to the MMPA "take" moratorium and authorizes the Secretary of Commerce, acting through the Assistant Administrator for Fisheries (AA), National Marine Fisheries Service (NMFS), to permit the intentional lethal taking of individually identifiable pinnipeds (seals and sea lions) that are having a significant negative impact on the decline or recovery of salmonids listed under the Endangered Species Act (ESA) or that the Secretary finds are approaching threatened or endangered status.

The Section 120 process begins with an application from one or more states. The application is reviewed by the AA to determine if it provides sufficient evidence to warrant establishing a Pinniped-Fishery Interaction Task Force to consider the situation described in the application. If the AA determines a Task Force is warranted, a *Federal Register* notice is published, announcing receipt of a complete application, the intent to establish a Task Force and requesting public comment on the application.

History of the Current Application

Oregon, Washington and Idaho submitted an application under Section 120 to NMFS on November 13, 2006 outlining a recommendation for lethal removal of 'individually identifiable pinnipeds' that are having a 'significant negative impact' on listed populations of salmon and steelhead that migrate through the Lower Columbia River each winter/spring. On January 30, 2007, NMFS determined that the application contained sufficient information to warrant convening a Task Force and published a Federal Register notice to initiate the MMPA Section 120 process and solicit public comment on the application. The comment period closed on April 2, 2007. The Pinniped-Fishery Interaction Task Force (see Appendix A for Membership and Protocols) was established on September 4, 2007 and held three two-day meetings. These meetings were facilitated by a private facilitation firm and this report was drafted by the firm on behalf of and with the assistance and consent of the Task Force.

The Role of the Pinniped-Fishery Interaction Task Force

Under Section 120, the Pinniped-Fishery Interaction Task Force shall within 60 days, and after reviewing public comments in response to the *Federal Register* notice:

(1) recommend to NMFS whether to approve or deny the proposed intentional lethal taking of pinnipeds, including along with the recommendation a description of the specific pinniped individuals, the proposed location, time, and method of such taking, criteria for evaluating the success of the action, and the duration of the intentional lethal taking authority; and

(2) suggest non-lethal alternatives, if available and practicable, including a recommended course of action.

In considering whether to recommend approval or disapproval of the States' application, the Task Force is to consider:

(1) population trends, feeding habits, the location of the pinniped interaction, how and when the interaction occurs, and how many individual pinnipeds are involved.

(2) past efforts to non-lethally deter such pinnipeds, and whether the applicant has demonstrated that no feasible and prudent alternatives exist and that the applicant has taken all reasonable non-lethal steps without success;

(3) the extent to which such pinnipeds are causing undue injury or impact to, or imbalance with, other species in the ecosystem, including fish populations;

(4) the extent to which such pinnipeds are exhibiting behavior that presents an ongoing threat to public safety.

<u>NMFS' Process Expectations of the Task Force & Meetings</u>

In a letter explaining its expectation of the Task Force and at the first meeting, NMFS clarified that:

- The Task Force would be required to work together to develop recommendations that document the points of consensus reached by the group as well as reporting the alternate points of view when consensus was not reached.
- All recommendations submitted by the Task Force should fairly reflect the full range of opinions and diversity of the group. To enhance this process, NMFS contracted with a professional facilitator who managed the Task Force, recorded meeting notes, and assisted the group in assembling its recommendations.
- Task Force meetings were open to the public and the date, time and location of the initial meeting was published in the *Federal Register*.
- Scheduling of subsequent meetings was determined by the Task Force and announced to the public via the NOAA Fisheries Northwest Region website and NOAA press releases.
- The public was not allowed to discuss or debate issues with the Task Force during working sessions. However, specific time frames were scheduled at the initial meeting to allow the public to provide or identify new or relevant information that may assist the Task Force in its deliberations.

The Task Force, with the assistance of the facilitators, decided the level of participation of the public and observers attending meetings, taking into consideration the length of the agenda and the need for members to speak on all issues. At each meeting, the public was given the opportunity to submit questions and suggestions in writing for the Task Force to consider during its deliberations.

Additional Questions

In addition, NMFS specifically requested that the Task Force, when preparing its recommendation for approval or disapproval of the States' request to lethally remove pinnipeds, respond to the following questions:

(1) What criteria does the Task Force recommend to assist NMFS in the interpretation of "significant negative impact" and the extent to which pinnipeds are causing undue injury or impact to, or imbalance with listed species?

(2) If available and practicable, what non-lethal measures does the Task Force recommend be taken prior to implementing lethal removal?

(3) If lethal removal is included in the recommendations, what criteria did the Task Force use to individually identify the specific animals to be removed and which animals met those criteria at the time the Task Force completed its deliberations?

(4) If lethal removal is included in your recommendation, does the Task Force recommend a limit to the number of sea lions that may be removed and if so what is the justification for that limit?

(5) If lethal removal is included in the recommendations, what limitations (if any) would the Task Force recommend on timing, location, take methods or duration of the authorization?

(6) For purposes of post implementation evaluation, what criteria does the Task Force recommend for evaluating whether the implementation of the Task Force recommendations have been successful in addressing the pinniped-fishery interaction?

(7) Regardless of the outcome of this process, what might be the most effective means to achieve a long-term resolution to the pinniped – fishery conflict?

NMFS' Decision and Implementation Process

Once the Task Force completed its deliberations and submitted its recommendations, NMFS will determine a course of action informed by the Task Force recommendations. The ultimate decision to approve or deny the States' application, and any terms or conditions applied to any approval, lie solely with NMFS.

If NMFS approves the application for lethal removal authority, the MMPA requires that the Task Force evaluate the effectiveness of the permitted intentional lethal taking or alternative actions implemented. If implementation is found to be ineffective in

eliminating the problem interaction, NMFS will reconvene the Task Force to recommend additional actions. If implementation is effective, the Task Force shall so advise NMFS and the Task Force will be disbanded.

Other Applicable Laws

Besides the MMPA process described above, in considering the States' application, NMFS must also comply with the National Environmental Protection Act, the Endangered Species Act and other relevant statutes. Accordingly, NMFS plans to conduct an environmental review of the actions recommended by the Task Force along with other alternatives, including a "no-action" alternative, in support of its decision in response to the States' application.

TASK FORCE RECOMMENDATIONS

(1) RECOMMENDED ACTION ON THE APPLICATION FOR LETHAL REMOVAL

Based on information presented in the States' application and presented to the Task Force, a majority of the Task Force finds that California sea lions (CSL) are having a significant negative impact on the recovery of Columbia Basin threatened and endangered salmonids and have suggested two lethal removal options. One of the eighteen members of the Task Force did not reach the same conclusion or support the lethal take options. One member who did favorably support the significant impact finding and the lethal take recommendation indicated there was merit to questioning the strength of the impact of sea lion predation on the salmonids decline or recovery and would have preferred a more quantitative basis for decision making than was available to the Task Force.

As such, the Task Force did not reach a consensus recommendation on whether or not NMFS should/should not approve the States' application to use lethal removal. Instead, seventeen of the eighteen members supported approving the application. Descriptions of the options discussed by the Task Force and the basis for the various recommendations are laid out below. A separate minority view was developed by the one individual who did not support approving the application. This view is presented below as Appendix B.

BASIS OF RECOMMENDATIONS

Over the course of the 60-day period, staff from NMFS, the Army Corp of Engineers (COE), Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW) and the Columbia River Intertribal Fish Commission (CRITFC) presented information to the Task Force relative to the problem of CSL predation on threatened and endangered salmonids (e.g., current conditions, trends, and interactions; past efforts to deter; extent of injury to other species; and the ongoing nature of the threat). All the presentations and supporting documents were posted to a website for public viewing and were put on CD for each Task Force member and the NMFS

record. From these presentations and supporting documents, the Task Force relied on the following information as a basis for its recommendations:

Current Conditions, Trends and Interactions

California Sea Lions: The population of CSL currently is estimated at 238,000 in US waters. Officials stated that sea lions were observed in greater numbers in the Columbia River beginning in 1999. Their movement has been associated with an expanding population size and discovery by the sea lions of areas with abundant marine forage fish on which to prey. This trend, according to experts, will likely continue as long as there are abundant fish congregating and spawning in those areas. Based on the most recent NMFS stock assessment, experts also believe the sea lion population has reached its optimum sustainable population (OSP) level (Curette et al, 2007).

In the Columbia River system, as many as 2,000 pinnipeds have been observed on the Columbia River jetty, downstream from Astoria. The States have estimated there may be as many as 1,000 pinnipeds in the 145 mile stretch of the river from the mouth up to Bonneville Dam, based on counts in the lower river near Astoria. The COE monitoring effort over the past 6 years (2002-2007) has allowed scientists to identify up to 271 unique CSL, 71 of which have been branded. Of the 271 sea lions, 151 were classified as "highly identifiable". Some of these identifiable sea lions that were previously observed visiting Bonneville Dam and then retreating to Astoria are now observed staying in the Bonneville Dam area for a month or more. CSL frequently make several trips between Astoria and Bonneville Dam during a season. Approximately 50-60% of the identified pinnipeds have been observed returning to Bonneville Dam in multiple years. These animals have been seen to haul out at the spillway, corner collector and other areas near the dam.

Columbia River Salmonid Populations: Of 13 listed salmon and steelhead stocks, five are potentially affected by pinniped predation at Bonneville Dam: lower Columbia River Steelhead, lower Columbia River Chinook, upper Columbia River spring-run Chinook, Snake River spring/summer Chinook, and middle Columbia River Steelhead are present at Bonneville Dam when pinnipeds are present. Most of the populations within those listed stocks are not meeting their viability targets as established in Technical Recovery Team and recovery planning documents, and are at high risk of extinction. Some hatchery programs are now included in the listed stocks pursuant to NOAA's 2005 "Hatchery Listing Policy". Analysis of salmon DNA compiled from 2003-2007 at Bonneville Dam showed that 30-45% of the salmon passing Bonneville Dam were listed fish, with the remaining portion of the upriver salmonid runs deemed non-listed.

CSL were observed to have preyed upon an estimated minimum 3,000-4,000 salmonids each year in a study area at or near Bonneville Dam from 2003-2007, representing 1-4% of ESA listed stocks. This represents a change in predation from 1,000 salmonids observed to have been taken in 2002. 99.2% of all salmonids observed taken near the dam were taken by CSL. Observations were made only during the day at Bonneville Dam and, as such, experts believe that these estimates likely are low given the practical limitations of observation elsewhere in the river and at night. Additionally, fish injury

and scarring resulting from pinniped interactions increased from 12% to 38% from 1999-2005 indicating delayed mortality may have increased. 95.8% of all CSL scat samples collected near the dam contained salmonid remains. Sea lion scat samples in 2006 showed both ESA listed and non-listed hatchery fish were consumed by CSL.

Past Efforts to Deter Pinnipeds

In December 2005, noting the growth of pinniped populations all along the west coast and their movement into non-traditional territory, NMFS hosted a Non-Lethal Deterrence Workshop in San Diego. At this workshop interim guidance was developed and posted to NOAA's website that included a list of suggested techniques and measures that do not cause serious injury or mortality to pinnipeds. The non-lethal deterrent tools used at Ballard Locks in the 1980's and 1990's are the same available today and include underwater firecrackers, acoustic devices, aversive conditioning (such as taste aversion), barrier nets, exclusion devices, capture and relocation, and capture and hold.

The COE and the states have employed many of these deterrence techniques at or near the Bonneville Dam for the past three years. Hazing efforts increased each year with hazing occurring 7 days a week during all daylight hours for three months during 2007. Hazing from shore and boats was done from Bonneville Dam down to navigation marker 85. The COE installed Sea Lion Exclusion Devices (SLEDs) at fish ladder entrances which prevented all but one sea lion (C-404) from entering the ladders. Daily hazing efforts occurred from March 1 to May 30, 2007 at Bonneville, including the trap and haul out site within the Boat Restriction Zone (BRZ), but resulted in no change to CSL presence or predation levels, and animals that were captured and relocated returned to the area almost immediately.

The combined deterrent efforts over the past three years have failed to adequately reduce predation. Initial observations suggested that in addition to daily CSL foraging, foraging on salmonids may be increasing in the morning and late evening hours outside the hazing periods. Monitoring and hazing efforts are largely limited to daylight hours for pragmatic reasons (e.g, narrow field of view and bright lights limit the effectiveness of night vision goggles).

Extent of Injury to Other Species

Lamprey, sturgeon, shad and northern pike minnows also were preyed upon by CSL at Bonneville Dam. While the focus of the Task Force discussions was on the impacts to salmonid populations, the tribal representatives noted that lamprey are an additional species of concern as they are important for tribal religious, ceremonial and subsistence activities. Tribal comments also focused on the importance salmonids have in the broader ecosystems to which the fish return (e.g. feed other fish/birds/wildlife, nutrient cycling processes, etc). The States also expressed concern with pinniped predation on White sturgeon near the dam, in particular the wild brood stock sturgeon. The States acknowledged, however, that the majority of sturgeon predation was by Steller sea lions.

On-Going Nature of Threat to Public Safety

As noted in the States' application, commercial salmon gillnet fisheries in the Columbia River have encountered problems with harbor seals damaging gear and catch for many years. Similar problems with CSL have increased with growing numbers of these animals in the river through the 1990s. Most recently, negative interactions between sport anglers and CSL in many areas of the Columbia River and some tributaries have become a serious problem. CSL often exhibit bold and aggressive behaviors. There have been reports of anglers both in boats and on shore being bitten by sea lions attempting to take the anglers' catch, anglers being pulled overboard while holding onto a landing net that was grabbed by a sea lion, and even reports of boats being sunk by sea lions coming aboard to take a recently landed salmon. Many sport angling vessels are small and could be capsized (or sunk) by these types of actions by sea lions.

As a result of this information, a majority of the Task Force recommends approving the States' application and developed two recommended options for lethal take of CSL. One member of the Task Force disagreed and presented a minority 'no lethal take' opinion. All of these can be found later in this report.

(2) RECOMMENDED NON-LETHAL ALTERNATIVES

By consensus of all Task Force members, the Task Force suggests the following course of action with regards to non-lethal alternatives:

a. Continue to adaptively manage non-lethal hazing efforts
    i. Where practicable, consideration should be given to harassment efforts in downstream areas where there is a higher probability of affecting less experienced animals prior to their recruitment into the habituated group;
    ii. Monitor the non-lethal actions to evaluate and maximize effectiveness to guide future efforts.
b. For the future, NOAA and other regional entities should pursue emerging technologies for non-lethal harassment of sea lions, such as the Smith-Root electrical field barrier option; and
c. NOAA and other regional entities should also pursue funding to support these efforts.

BASIS OF NON-LETHAL RECOMMENDATIONS

The Task Force felt strongly that preventing recruitment of CSL that have not yet learned of the density of salmon resources at Bonneville Dam is of utmost importance. This is especially true if the lethal taking of sea lions that have foraged at the Dam is likely to lead to reduction or elimination of sea lion predation at Bonneville Dam. Despite the limited success of hazing efforts as described under the "Past Efforts to Deter" section, many on the Task Force believed that combining non-lethal hazing, especially further down river from the Dam, along with lethal taking at the Dam may provide the greatest potential for preventing the less experienced sea lions from reaching the dam and learning about the high density salmonids resources available there.

It should be noted, however, that there was a philosophical difference among members about whether or not removing pinnipeds will have the desired or intended impact on new recruits. Because of this, the group agreed on the need to carefully monitor and evaluate the results of any future actions and adaptively manage the situation based on this information.

TASK FORCE ANSWERS TO NMFS' ADDITIONAL QUESTIONS

(1) Criteria to assist NMFS in the interpretation of "significant negative impact" and the extent to which pinnipeds are causing undue injury or impact to, or imbalance with listed species:

All but one member of the Task Force inferred that California sea lions are having a 'significant negative impact' on the recovery of Columbia Basin threatened and endangered salmonids based on the overall weight of evidence from information provided and discussion of the suggested criteria listed below. However, the Task Force was unable to agree on quantitative criteria to assist NMFS in defining 'significant negative impact' due to the ambiguity of the phrase as used in the MMPA, and the type and limitations of data available.

Criteria which NMFS might use in the interpretation of significant negative impact include:

- Timing: are pinnipeds present at the same time that ESA listed salmon are migrating?
    - The peak abundance of CSL below the Bonneville Dam coincides directly with the passage of ESA listed spring salmonids at Bonneville Dam.
- Do the data at Bonneville Dam and existing science on CSL indicate that predation has increased beyond historical levels?
    - CSL predation on upriver spring run salmonids at Bonneville Dam is a recent phenomenon.
    - Observations of predation at the dam (4.2% observed in 2007) are known to be minimum estimates.
    - Observations of highly identifiable CSL at and near the dam confirm that certain individuals consume large numbers of salmon. These same individuals have been documented to occur at the dam and nearby waters in multiple years and often remain there (within a year) for a month or longer during the spring salmonid run.
    - Scars and injury rates to salmonids, as measured at Bonneville Dam, have increased in recent years resulting in some unknown delayed mortality.
    - CSL scat sampling near the dam confirm that salmon are the major component of the CSL diet (95%).
    - CSL are indiscriminately taking prime reproductive wild/listed fish that are concentrated and delayed by the existence of the dam.
    - CSL predation is likely to pose greater biological risk to salmonids in years when run sizes are small.

- Is the problem likely to persist over time if the impact remains unchecked?
    - Reducing pinniped predation will likely result in measurable improvements that may contribute to salmon recovery and will enhance salmonid conservation.
    - Based on observations over the past 6 years, while unchecked, the problem has continued to increase each year and is expected to continue.
- Is the level of ESA listed salmonid mortality comparable to other forms of in-river mortality that currently are being managed?
    - All other forms of known mortality are being managed under various management plans and recovery programs.

Other considerations for taking action:

- There is a comprehensive salmon recovery framework in place that includes multiple actions, monitoring and evaluation.
- CSL predation should be addressed and its impacts evaluated in context of other limiting factors (i.e. not on their own).
- Non-lethal hazing has been ineffective at reducing predation.
- The proposed level of lethal removal will have no long term negative impact on CSL populations.
- Abundance: CSL abundance is within the range of OSP and near or at carrying capacity.
- The problem is related to/resulting from human caused factors.
- NOAA and other regional entities should secure funding to support these efforts.

(2) <u>If available and practicable, what non-lethal measures does the Task Force recommend be taken prior to implementing lethal removal?</u>

See 'Recommended Non-Lethal Alternatives' above. Also, the majority of the Task Force believed that additional non-lethal measures should not be required prior to implementation of lethal measures. Instead, non-lethal measures should be taken concurrently with lethal measures to further pinniped deterrence goals.

<u>(3) If lethal removal is used, criteria used to identify specific animals (4) Limit to the number of sea lions that may be lethally removed & justification, (5) Limitations on timing, location, take methods or duration of the authorization and (6) Criteria for evaluating success</u>

Questions 3, 4, 5 and 6 are answered in the body of the lethal take Options 1 & 2. It must be noted that seventeen of the eighteen Task Force members supported one or both of these options (the actual preferences are noted below). One member was opposed to using lethal take or Section 120 of the MMPA for managing the Columbia River pinniped-fishery conflict, as noted in the "Alternative View" section, below.

<u>**Lethal Option 1** ("Preferred" by 10 of the 18 Task Force members. "Acceptable" to 17 of 18 members. "Unacceptable" to 1 member)</u>:

Guiding Principle: Remove the minimum number of CSL necessary to affect and reduce the number of CSL recruits to the area below Bonneville Dam by using non-lethal and lethal actions over the long term.

Interim Goal: Reduce CSL predation on salmonids in the observation area used to date below Bonneville Dam to a rolling 3-year average of 1% within 6 years (based on the current January 1 – May 31 COE monitoring program). *(Note: a value 1% was chosen because the Task Force did not have available analysis to provide a quantitative level of predation that would not have a significant impact on salmonid recovery. Additionally, 1% would be substantially closer to any historical rate of pinniped predation on salmonids in this area of the river, which was believed to be greater than zero).*

- Lethal take will occur in the first three years and can continue ONLY if the rolling 3-year average of predation exceeds 1%, unless new information suggests the need to change this criterion or unless the Upriver Spring Chinook run size is predicted to be 82,000 or less. This decision should be made on an annual basis after the first three years.
- This goal should be reevaluated by the Task Force at the end of the first three years based on new information collected.
- 'California sea lion exclusion zone' (CSLEZ) description: From Bonneville Dam down to a line extending from the Hamilton Island boat ramp straight across to a point 100 yards downstream from Tanner Creek.

CSL Suitable for Lethal Take

CSL meeting the following conditions can be added to a list of animals that are eligible to be lethally taken. The first part of the parenthetical statements after each lettered statement below reflects the area in which an animal must be observed in order to be added to the lethal take list and the second part reflects any limitation on where the sea lion can subsequently be killed if it is deemed suitable for lethal take (e.g. Area where animal must be observed/Lethal take area). In some very restrictive cases the likelihood of individual CSL that are not individually identifiable can be inferred to be effective foragers on salmonids based on their location. Thus we allow an immediate lethal take of those sea lions without a requirement of individual identification and they are described as "spontaneous lethal takes":

A. Identifiable CSL (marked, tagged, branded, or with identifiable natural marks) that have been observed to have caught a salmon in the CSLEZ below Bonneville Dam (CSLEZ/Navigation Marker (NM)85); or
B. All animals on Table 3.3 (see Appendix D) are automatically on the 'suitable for lethal take' list if seen in 2008 or forward (CSLEZ/NM 85); or
C. CSL that have occupied a fish ladder or the area within 50 feet of a fish ladder [spontaneous: can be killed on the spot] (CSLEZ/NM 85); or
D. CSL seen eating a salmon in the protected area [spontaneous: can be killed on the spot while eating or attempting to eat salmon] (CSLEZ/CSLEZ); or
E. CSL that are observed and documented on a total of any 7 days in the area from NM 85 to Bonneville dam and observed taking a salmon (NM 85/NM 85); or

F. CSL that are identifiable and have been observed to take at least 30 salmon or been observed in at least 3 years within the area between NM 85 and Bonneville Dam (NM 85/anywhere except in a rookery).
G. If the predicted run size of Upriver Spring Chinook is 82,000 or less, then any CSL above marker 85 may be taken.

Number of CSL allowed to be taken per year: Applying the Guiding Principle above, along with the lack of a quantitative objective level of CSL predation on salmonids that would eliminate a significant negative impact, the Task Force accepted the proposed level of maximum number of CSL allowed to be lethally taken per year recommended by the States in their Section 120 application (Up to a number roughly equivalent to 1% of PBR (Potential Biological Removal as defined under the MMPA). Using the Guiding Principle, managers may decide to take fewer CSL based on an in-year assessment.

Other issues:

- Method of take should be humane, using appropriate firearms or other methods deemed appropriate by the Institutional Animal Care and Use Committee (IACUC).
- Recovery of carcasses: coinciding with monitoring and control efforts, managers should make all reasonable and practicable efforts to recover as soon as possible.
- Lethal take must be done in a manner likely to maximize the effectiveness of non-lethal hazing.
- Marking (both permanent and temporary) of CSL will be emphasized to increase effectiveness of actions as identified above in 'suitable for lethal take'.
- The Pinniped-Fishery Interaction Task Force should meet and evaluate after the first year of implementation of this option.
- Concurrent with implementation of this option, an in-depth monitoring and evaluation of the overall fish impacts from pinniped predation in the Columbia River should be undertaken.
- Also concurrent, a Lower River Pinniped Management Plan for longer term, ecosystem based management should be developed.

Lethal Option 2 ("Preferred" by 7 of 18 members. "Acceptable" to 15 of 18 members. "Unacceptable" to 3 members):

Goal: Reduce CSL presence to zero above navigation marker 85, reduce predation to 0.5% in the observation area used to date below Bonneville Dam.

Guiding Principle: Remove the minimum number of pinnipeds necessary to affect and reduce the number of recruits to the area below Bonneville Dam over the long term.

(3) Criteria for Selecting CSL Suitable for Lethal Take
Zero tolerance in the California Sea Lion Exclusion Zone (CSLEZ).

(4) Limit to the number of CSL that may be removed and justification

Lethal removal of up to 2% of the PBR to achieve zero sea lions above navigation marker 85 will have no impact on the reproductive success of the population. This higher take limit than applied for in the States' application recognizes that there may be more than 85 sea lions (1% PBR) at Bonneville in the first year of a lethal removal program.

(5) Limitations on timing, location, take methods or duration of the authorization
From January 1st through May 31st, take all CSL above navigation marker 85. Highly identifiable individuals (e.g. branded with a history of predation or multiple day presence, as listed in Appendix D,Table 3.3) could be taken elsewhere in the Columbia River. The methodology should be at the discretion of the States and consistent with humane methods.

Duration: 6 years.

(6) Criteria for evaluating success
To measure success, 0 to low abundance of CSL at Bonneville Dam and predation <0.5% of the salmonid run over the dam January 1st through May 31st (steelhead & others combined).

(7) Suggestions for achieving a long-term resolution to the pinniped-fishery conflict.

Regardless of the outcome of this process, the Task Force agreed by consensus that enhanced monitoring and evaluation at Bonneville Dam and throughout the entire lower river is needed to achieve a long-term resolution to the pinniped – fishery conflict. These enhanced data are expected to provide more certainty for making future management decisions that could aid in the resolution of this conflict. In the absence of these data, uncertainties will remain about the best choices for management actions. The level of comfort or discomfort with these uncertainties and the willingness to accept any risks associated with taking action or no action was at the base of what led Task Force members to make the recommendations they made.

Additionally, individual Task Force members put forth the following suggestions for possible longer-term resolution of this inter-species conflict:

- Continue to pursue other non-lethal hazing technologies
- Look at other measures within the MMPA that could effectively manage the problem
- Pursue all measures to recover threatened or endangered fish
- Congress/NMFS should pursue modifications to the MMPA: as CSL become sustainable, create a less arduous process to allow management to occur. For example, when they have reached OSP, allow for development of a management plan as is allowed in the Migratory Bird Treaty Act.
- NOAA/NMFS convene a Task Force to discuss recommendations regarding possible modifications to the MMPA and pinniped-fishery conflicts.
- Consider making alterations to the jetties at the mouth of the Columbia River that would discourage CSL haul out.

ALTERNATIVE VIEW: No Lethal Action (Option 3) ("Preferred" by one member, "Acceptable" to 2 members, and "Unacceptable" to 16 members)

The following view opposing lethal take was expressed throughout the Task Force meetings by one member of the Task Force. A brief summary of the view was presented in writing on the final day of the Task Force deliberations (see Appendix C-Meeting Notes). The majority of the Task Force agreed that only the following statement would be included in this report:

> "Section 120 is not appropriate for use in this type of situation. Other sections of the act are more appropriate."

This represents the view of one member of the Task Force who supplied a written Minority Opinion that was distributed to Task Force members on November 2, 2007. The majority expressed that, in the absence of deliberation of the content of the Minority Opinion, this Report should state that the others did not give input into its formulation. Some members felt very strongly that only the above statement should be in this Report and the majority agreed that the rationale behind this statement should be included as an appendix (see Appendix B).

CONCLUDING REMARKS OF THE FACILITATOR

The Pinniped-Fishery Task Force met for six full days between September 4 and October 31. During these meetings, the members heard information from a team of resource advisors and shared additional information that served as the foundation for their gaining a deeper understanding of the complexities underlying the Columbia River pinniped-fishery conflict. At the heart of this issue is the interaction between multiple species which are highly valued by many diverse groups. The care for these species is rooted in deeply held values that spring from religious, cultural, moral, economic and aesthetic perspectives. These perspectives were shared in the discussion of the data and anecdotal information presented to the Task Force. Between meetings, Task Force members exchanged information amongst themselves, and received additional information from their resource advisors. This information was also discussed at the Task Force meetings. All of these deliberations have been summarized in the meeting notes attached to this report in Appendix C.

Seventeen of the eighteen members agreed that the pinniped-fishery interaction is having a significant negative impact on endangered salmonids in the Columbia River and proposed criteria for NOAA to reach the same conclusion. As such, seventeen of the eighteen members recommended approving the States' application to lethally remove pinnipeds. The Task Force developed three options for NOAA and the Secretary of Commerce to consider in making a finding in relation to the States' application under Section 120 of the MMPA. In addition, the Task Force reached consensus on a non-lethal approach to managing the pinniped-fishery conflict—as well as the need to enhance monitoring and evaluation through the lower Columbia River.

Finally, the Task Force, and all who attended their meetings and read the material, gained a great deal from the level of knowledge shared by all members of the Task Force and the staff of the state, federal and tribal governments who have been working to help solve this important natural resource dilemma. The discussions and efforts of all who were part of this effort should serve well to aid NOAA and the Secretary in the final decision about the States' application.

This report is respectfully submitted by Donna Silverberg and the facilitation team of DS Consulting on behalf of the Pinniped-Fishery Interaction Task Force on November 5, 2007. The Task Force has had an opportunity to review this report and provide appropriate revisions, as they deemed necessary.

Appendices:
A- Task Force Membership/Protocols
B- Minority Opinion
C-Task Force Meeting Agendas and Notes
D-Table 3.3
E-List of presentations
F-List of all who attended meetings
G-List of all Federal Register & media notices of meetings