UNCLASSIFIED
MECTS# 2005-502-00375
EKME # 539046

MEMORANDUM FOR THE REGIONAL DIRECTOR GENERAL, PACIFIC REGION

ACCEPTANCE OF THE CULTUS AND SAKINAW LAKE SOCKEYE RECOVERY STRATEGIES

(Decision sought)

SUMMARY

- Recovery teams consisting of departmental staff and stakeholder representatives developed recovery strategies for Cultus and Sakinaw Lake sockeye and recently submitted these documents to the Department.
- The recovery strategies informed the 2005/2006 Salmon IFMPs.
- It is recommended that you accept these documents as advice to be considered and incorporated in the fisheries planning process and for implementation of recovery programs.
- Acceptance of the recovery strategy documents by the Department will facilitate the process to integrate these documents into the National Recovery Program.

Background

- Recovery Teams were established by the Department for a three year term in the fall of 2003 to draft recovery strategies for each of the salmon populations designated as Endangered by COSEWIC (Interior Fraser Coho, Sakinaw Lake sockeye and Cultus Lake sockeye). The recovery teams completed their mandate by delivering draft recovery strategies to the Department in May 2005 and were subsequently disbanded. DFO area leads have taken over coordination of Cultus and Sakinaw sockeye implementation projects.

- The Environment Minister announced the Government's decision not list Cultus and Sakinaw Lake sockeye on Schedule I of SARA in January 2005.

- In the Minister's announcement a commitment was made to "pursue an action plan to protect and rebuild Cultus and Sakinaw Lake sockeye populations." Subsequent to the announcement, the Special Advisor to the Deputy Minister on SARA attended recovery team meetings to assure members that their work would be valued and used regardless of whether they were working under a SARA listing scenario or a "DFO action plan" under the Fisheries Act.

- In October and November 2004 broad consultation on the recovery strategies was conducted by the Department in collaboration with recovery team members to solicit information, input and feedback on the draft documents.

- A PSARC review of the science components of the Recovery Strategies was done in October 2004. The purpose was to review the scientific basis for the recovery objectives contained in the September 2004 draft recovery strategies for Cultus and Sakinaw Lake sockeye salmon and Interior Fraser coho salmon. The Subcommittee concluded that the technical information was sound and that the recovery objectives were set at the lower range of values to ensure persistence that may have been considered given historical abundances. The paper was accepted by PSARC.

- The recovery strategies were developed to meet the requirements should the species be listed under SARA. However, given the species were not listed, there are areas where the content differs slightly from the SARA requirements. A summary of the recovery goals and objectives for each strategy are provided in Attachment I. The recovery strategies are provided in Attachment II (Cultus Lake sockeye) and Attachment III (Sakinaw Lake sockeye).

Analysis / DFO Comment

- The completion of these recovery strategies is the first step in fulfilling the Minister's commitments to implement recovery programs for Cultus and Sakinaw Lake sockeye. Further, even in the absence of a SARA listing, the Department has an obligation (not legally binding) under the federal/provincial/territorial Species at Risk Accord to complete recovery strategies for species listed as endangered or threatened by COSEWIC.

- Cultus and Sakinaw Lake sockeye were designated by COSEWIC as Nationally Significant Populations based on three characteristics: genetically distinct; the presence of unique adaptations to the local environment; and the failure of previous attempts to transplant other populations. This is consistent with the Wild Salmon Policy (WSP) criteria for a Conservation Unit, and the population's recovery is consistent with WSP Objective 1 to safeguard the genetic diversity of wild salmon.

- The recovery strategies are also consistent with WSP Objective 2 to maintain habitat and ecosystem integrity in that they identify proposed critical habitat. They are also consistent with WSP Objective 3 to manage fisheries for sustainable benefits in that they allow exploitation during recovery. Some additional examples of how the recovery strategies address specific WSP strategies include:
    - Provides the basis for designating the populations as conservation units;
    - Documents freshwater habitats and describes critical habitats;
    - Identifies the need to incorporate ecosystem values when developing long term objectives; and

- Fully integrates the use of enhancement in recovery. They are less conservative than the WSP, however, which considered salmon to be wild if they have spent their entire life cycle in the wild and originate from parents that were also produced by natural spawning and continuously lived in the wild. The recovery strategies consider a successful natural spawner to be contributing to recovery provided it is either wild, or is the progeny of captive brood stock that have survived in the wild since their release as juveniles.

- Endorsement of these documents indicates that DFO has received the Recovery Team's advice on how to recover the species. The documents present the biological targets for recovery but do not take into account specific socio-economic considerations or risk management tolerance. Further, the documents do not constitute a commitment to implement all of the recovery strategies nor are there any legal requirements as there would have been for a SARA recovery strategy. The Department maintains full discretion to assess what options can be realistically implemented in light of management objectives, budgetary considerations and the need to set priorities.

- The advice in the recovery strategies will be incorporated into the IFMP planning process. An accompanying decision note outlining the implementation approach for the recovery strategies has also been prepared by Fisheries and Aquaculture Management.

Recommendations

- Indicate receipt of these documents as advice from the recovery teams and approval for regional publication and incorporation in the Integrated Fishery Management plan for Salmon

D. D. Radford
A/Regional Director, Fisheries and Aquaculture Management

I concur,
Paul Sprout
Regional Director General

Attachment (3)

C. Eros / A. Macdonald / P. Ryall

Attachment I

- **Cultus Lake sockeye recovery strategy**. The recovery *goal* is 'to halt the decline of the Cultus sockeye population and to return it to the status of a viable, self-sustaining and genetically robust wild population that will contribute to its ecosystems and have the potential to support sustainable use'. Recovery Objectives are the following:
  1. *Ensure the genetic integrity of the population by exceeding a four-year arithmetic mean of 1,000 successful adult spawners with no fewer than 500 successful adult spawners on any one cycle.* This objective secures genetic variability.
  2. *Ensure growth of the successful adult spawner population for each generation (that is, across four years relative to the previous four years), and on each cycle (relative to its brood year) for not less than three out of four consecutive years.* This objective ensures the population is growing.
  3. *Recover the population to the level of abundance at which it can be delisted (designated Not at Risk) by COSEWIC.*
  4. *Recover the population to a level of abundance (beyond that of Objective 3) that will support ecosystem function and sustainable use.*

- The Cultus Lake sockeye recovery strategy also proposes habitat that the recovery team believes is critical to the population's survival and recovery. While this information is no longer a legal requirement, it remains important when considering options for recovery activities. Areas proposed as critical habitat include:
  i) Migratory corridors: Sweltzer Creek, including where it joins Cultus Lake and the Chilliwack River;
  ii) Spawning and incubation areas: the lake bed at depths from 1 to 20 m at Lindell Beach, Snag Point, Spring Bay, Mallard Bay, Salmon Bay and Honeymoon Bay, as well as the aquifers that feed these spawning areas; and
  iii) Juvenile rearing areas: the lake pelagic zone.

- **Sakinaw Lake sockeye recovery strategy**. The recovery team has taken a similar approach to the Cultus recovery team but focus' on the immediate need to stop any further decline given the desperate status of the population (i.e., currently below the minimum population level). The recovery goal is 'To stop the decline of the Sakinaw Lake sockeye salmon population and re-establish a self-sustaining, naturally spawning population, ensuring the preservation of the unique biological characteristics of this population'. Recovery objectives include:
  1. *Inform the local community and other stakeholders about the recovery planning process for Sakinaw sockeye and encourage them to become involved in the stewardship of the Sakinaw Lake watershed.*
  2. *Achieve continued growth in the generational average by increasing spawner abundance relative to the brood year (4 years prior) for at least 3 out of 4 consecutive years.*
  3. *Increase the annual number of spawners (here including those removed for hatchery broodstock) to no fewer than 500 from 2004 to 2007.*

4. *Increase the number of naturally produced spawners to no fewer than 500 annually in 2008 to 2011.*

5. *Ensure that by 2017, the mean population abundance in any four-year period exceeds 1,000 naturally produced spawners, with no fewer than 500 naturally produced spawners in a year.*

6. *Identify, assess, protect and where necessary, rehabilitate habitats critical to the recovery goal.*

7. *Identify the level of abundance required to support ecosystem function and sustainable use, as a longer-term target for recovery.*

- The Sakinaw sockeye recovery strategy also proposes habitat that the recovery team believes is critical to the population's survival and recovery. While this information is no longer a legal requirement, it remains important when considering options for recovery activities. Areas proposed as critical habitat include:
  - i) The outlet of Sakinaw Lake. In order for the population to recover, the outlet needs to be minimally obstructed and disturbed so that the fish pass through it as quickly as possible.
  - ii) All lakeshore gravel at depths between 0 and 20-m at the five known spawning beaches (Sharon's, Haskins, Ruby Creek, Kokomo Bay, and Prospector Bay) as well as the watershed contributing to the lake spawning carrying capacity