

## Draft Revised Steller Sea Lion Recovery Plan

Comparison of May 2006 version with May 2007 version – A guide to inform the SSL Mitigation Committee’s review of the May 2007 Draft Revised SSL Recovery Plan

### Overall changes:

- Threats assessment: Killer whale predation is now rated Medium (was Potentially High), and Incidental take due to interactions with fishing gear is now rated Low (was Medium)
- The scenarios for how the SSL decline could have unfolded have been removed
- The section on Factors potentially influencing the wSSL has been restructured slightly
- And the section on Development of recovery criteria has been restructured
- Appendices 1 and 2, Managing and maintaining SSL prey fields and Nutritional stress, respectively, have been removed, and Nutritional stress beefed up, sections moved into body of the Plan, and reorganized
- Small revisions, updates, and clarifications are provided throughout the wSSL sections primarily

### Detailed review:

(Note: Some changes made in the May 2007 draft plan because of comments received or new data are noted as such below.)

### Executive Summary

- Recovery Criteria – wSSL Downlisting criteria: Removed #2 (Population ecology and vital rates are consistent with the trend observed under #1) and added an explanation to #1 (**COMMENTS**)
- wSSL Delisting criteria – same change as above
- eSSL delisting criteria – same change as above
- Recovery actions – moved to #1 Action 1.1.1 and added a fourth action (1.5 – develop an implementation plan) (**COMMENTS**)

### Background

- Added discussion of Asian DPS genetic research and discussion of possible meta population structure in the eSSL and wSSL (**NEW DATA**)
- Updated discussion of non-pup counts (**NEW DATA**)
- Updated and revised section on reproduction
- Updated and expanded sections on birth and survival rates (**NEW DATA**)
- Revised and moved materials (equivalent to about 2 pages of text) to the nutritional stress section and included a summary; beefed up discussion of the issue (**COMMENTS**)
- Moved Table III-2 in old Plan to new Plan as Table I-15 (on data gaps for assessing manifestations of nutritional stress)

### Conservation Measures

- Revised the introduction to clarify effects of shooting, fishery restrictions, and harvests of SSLs in SSL decline
- Slightly reorganized section on Reduced prey availability due to fisheries

### Factors Potentially Influencing the Western Population

- This section was rewritten and reorganized (**COMMENTS**)
- New information added to Abundance and diet of killer whales (**NEW DATA**)
- New materials added to section on sequential megafauna collapse hypothesis
- New section on Direct impact of killer whales (about 5 paragraphs) (**NEW DATA**)
- New materials added to section on Toxic substances; also some updating (**NEW DATA**)
- Disturbance section was relocated
- Under Nutritional stress, Reduced prey biomass and quality, Environmental variability, some new materials were added on historic (100+ years ago) abundance and old sightings of SSLs in Alaska (**NEW DATA**)
- The Nutritional stress data gaps summary – fatty acid section was removed
- Table III-2 was removed (Data gaps for assessing potential biological manifestations of nutritional stress in the wSSL)

### Threats Assessment for the wSSL

- The introduction was expanded and some new materials added to how the threats assessment was conducted (**COMMENTS**)
- Predation by killer whales was changed from High to Medium (**COMMENTS**) (**NEW DATA**)
- Additional and revised discussion of this threat were added
- Incidental take due to interactions with active fishing gear was changed from Medium to Low
- The discussion of this threat was revised
- Section on Synthesis and discussion of threats was added – it was previously a direct and indirect threats section – this new section is more focused on top-down and bottom-up threats (**COMMENTS**)
- Paragraphs describing alternative scenarios for the SSL decline were removed (those were: predation, environmental variability, fishing, and multiple threats) (**COMMENTS**)

### Recovery Plan for the Western Population

- New section added on Definition of Recovery (2+ pages)
- Under Recovery strategy, Action 1.1.1 moved to #1 and a new priority action added (1.5: Develop an implementation plan) (**COMMENTS**)
- Section on Development of recovery criteria revised slightly and new materials added (**COMMENTS**)
- Extensive addition (9+ pages) of materials on how the PVA and other information was used to develop the recovery criteria (**COMMENTS**)

- A new section was added on how new vital rates information will be used to support reclassification (**COMMENTS**)
- The vital rates criterion was removed from the list of reclassification of the wSSL (and the eSSL in a later section) (**COMMENTS**)
- In the Recovery Factor Criteria – Threatened, under Factor E, the threat “Maintain sufficient NMFS staff...” was removed
- Under Recovery Factor Criteria – Delisting, under Factor E, threats were reordered and a new threat “A stranding network is in place” was added
- A summary of the recovery actions is provided at the beginning of the detailed outline
- Some minor changes were made to the Recovery action and implementation schedule (nothing substantive)

#### Factors Potentially Influencing the eSSL

- No changes

#### Recovery Plan for the eSSL

- A new section was added on how new vital rates information will be used to support reclassification
- The vital rates criterion was removed from the list of reclassification of the eSSL (**COMMENTS**)

#### Appendices

- Appendix 1 – Managing and maintaining SSL prey fields – removed (**COMMENTS**)
- Appendix 2 – Nutritional stress in SSLs – removed (some materials incorporated into the body of the document) (**COMMENTS**)

#### Notes:

**(COMMENTS)** = This change in the Plan was stimulated, at least in part, from comments received from the public or the peer reviewers on the May 2006 draft plan

**(NEW DATA)** = This change in the Plan was based, at least in part, on new data (or new published papers) that became available or additional publications were reviewed that provided new information on the issue.

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