



NOAA
FISHERIES

Pacific Islands
Regional Office

Main Hawaiian Islands Insular False Killer Whale Distinct Population Segment

Draft Recovery Plan – Overview



May 22, 2019

Presentation Outline

- What is a recovery plan?
- New recovery planning approach
- Timeline of recovery planning events
- Summary table of threats to the MHI IFKW DPS
- Summary of recovery goal, objectives, criteria, actions, priorities
- Time & costs

What is a Recovery Plan?



What is a Recovery Plan?

- Guidance documents for the conservation and survival of listed species
- Have no force of law—they are not regulations
- Can seek the expertise of qualified agencies, institutions, and persons in developing and implementing recovery plans
- Must seek peer review and public comment on draft or revised recovery plans

Recovery Plans are *Extremely* Important

- Provide a roadmap to improve species status so that it can be delisted
- Help identify, organize, coordinate, and prioritize recovery actions
- Provide recovery criteria as a metric for when delisting can be considered and by which recovery progress can be monitored
- Help identify potential partners and funding sources to facilitate recovery
- Provide outreach and communication

New Recovery Planning Approach



New Recovery Planning Approach

3 individual documents instead of 1:

- Species Status Assessment
- Recovery Plan
- Recovery Implementation Strategy

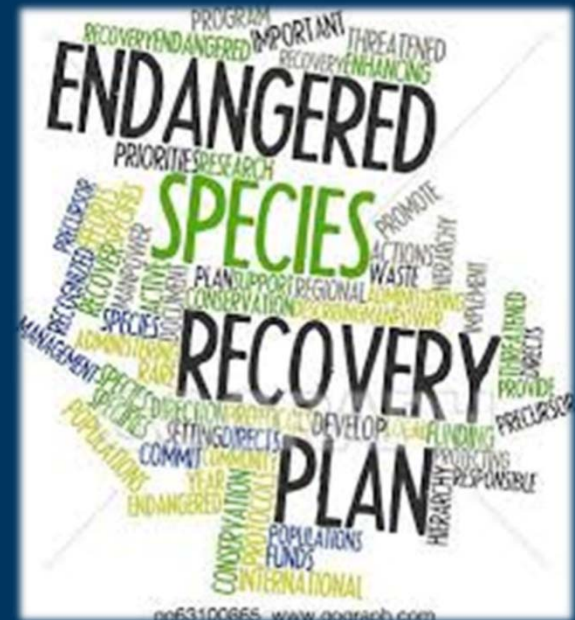
Recovery Planning Approach

- *Species Status Assessment:*
 - Detailed info on species (biology, ecology, status, threats)
 - Can be updated readily without having to revise the entire recovery plan
 - Traditionally in **Background** of recovery plan (which could become quickly outdated and burdensome to update)
- *Recovery Plan:*
 - Focuses on 3 statutory requirements:
 - Site-specific recovery actions
 - Measurable criteria for downlisting & delisting
 - Time & cost estimates to achieve recovery
- *Recovery Implementation Strategy:*
 - Provides detailed implementation activities in a separate document
 - Can be readily updated without revising recovery plan

Recovery Planning Approach (cont'd)

Developing prototype web-based recovery plan concept

Moving away from static .pdfs to searchable & dynamic plans that are easier to update



Timeline of Recovery Planning Events



Timeline of Recovery Planning Events

Date	Action
Nov. 2012	Listed MHI IFKW as an endangered DPS
Oct. 2013	FR Notice of Intent to prepare recovery plan & solicited relevant info
Sept. 2016	Published 23-page recovery outline to guide interim recovery efforts
Oct. 2017	Held 4-day recovery planning workshop with ~40 invited experts
Feb. 2018	Posted 27-page workshop summary online
Apr. 2019	Submitted Draft Species Status Assessment & Draft Recovery Plan for peer review
May 2019	Peer review returned
Fall 2019	Anticipate publication of Species Status Assessment online; Draft Recovery Plan available for 60-day public comment period
Summer 2020	Anticipate publication of Final Recovery Plan

Summary Table of Threats to MHI IFKW DPS



19 current/future threats...

Threat (Cause)	Relative Concern	Major Effect	ESA Listing Factor(s)	Extent	Frequency	Severity	Trend	Evidence
Incidental take in non-longline commercial and recreational fisheries	5	Injury/mortality	E	Localized	Unknown	High	Increasing	Limited
Inadequate regulatory mechanisms of non-longline commercial and recreational fisheries	5	Injury/mortality	D	Range wide	Continuous	High	Stable	Clear
Small population size	5	Limited genetic diversity, inbreeding depression, other Allee effects	E	Range wide	Continuous	High	Unknown*	Clear
Competition with commercial non-longline fisheries	4	Reduced prey size and total prey biomass, reduced foraging success, reduced fitness (reproductive and/or survival)	A	Range wide	Continuous	Unknown but potentially high	Unknown	Unclear
Competition with recreational fisheries	4	Reduced prey size and total prey biomass, reduced foraging success, reduced fitness (reproductive and/or survival)	A	Range wide	Continuous	Unknown but potentially high	Unknown	Unclear
Environmental contaminants and naturally occurring biotoxins	4	Reduced prey quality and quantity, compromised health, reduced fitness, disease	A, C	Range wide	Continuous	Medium / high	Unknown	Clear

19 current/future threats...

Threat (Cause)	Relative Concern	Major Effect	ESA Listing Factor(s)	Extent	Frequency	Severity	Trend	Evidence
Short and long-term climate change	3	Compromised health, reduced foraging success, reduced fitness (reproductive and/or survival)	A, C, E	Range wide	Continuous	Low / medium	Increasing	Limited
Anthropogenic noise	3	Reduced communication, reduced foraging success, injury or mortality	A, E	Localized & range wide	Intermittent / continuous	Medium	Stable or increasing	Limited
Cumulative & synergistic effects	3	Chronic stress, reduced fitness (reproductive and/or survival) and resilience	A, C, D, E	Range wide	Continuous	Unknown / potentially high	Unknown	Unclear
Competition with commercial longline fisheries	2	Reduced prey size and total prey biomass, reduced foraging success, reduced fitness (reproductive and/or survival)	A	Range wide	Continuous	Potentially low	Stable	Unclear
Marine debris ingestion	2	Compromised health, reduced foraging success, mortality	E	Range wide	Intermittent	Low	Unknown	Limited
Intentional harm	2	Displacement, injury, mortality	E	Localized	Rare / Unknown	High	Unknown	Unclear

7 threats rated 1 (Low relative concern): oil spills, predation, incidental take (com. fish), interactions with marine structures, vessel strikes, whale/dolphin watching, & competition with marine species

Summary of Recovery Goal, Objectives, Criteria, Actions, and Priorities



RECOVERY GOAL

- Overall goal = to remove the MHI IFKW DPS from the Federal List of Endangered and Threatened Wildlife.
- Interim goal = to reclassify the DPS from endangered to threatened status.

RECOVERY OBJECTIVES

Demographic

1. Ensure productivity & social connectedness of the MHI IFKW DPS (trend, abundance, and social clusters) have met or exceed target levels.

Threats-based

2. Address threats from fisheries including incidental take & competition with fisheries for prey.
3. Address threats from environmental contaminants & biotoxins.
4. Address threats from anthropogenic noise.
5. Better understand the effects of climate change and manage accordingly.
6. Ensure regulatory mechanisms (i.e., state & federal management and post-delisting monitoring), are in place prior to delisting.
7. Ensure secondary threats & synergies among threats are not limiting recovery of the population.


RECOVERY CRITERIA

Status	Demographic Criteria		Threats-based Criteria
Reclassified from Endangered to Threatened (i.e., downlisted)	<p><u>Productivity</u>: Increasing average annual population trend is $\geq 2\%$ over one generation (25 years), and there are, at a minimum, 248 individuals.</p> <p><u>Survey</u>: Abundance survey occurs on a regular (~biennial) basis and is sufficient to assess the population status and detect changes in trends; and</p> <p><u>Social connectedness</u>: At least 3 social clusters, and no more than 50% of the population exists within a single social cluster.</p>	AND	The 20 reclassification threats-based criteria are satisfied.
Reclassified to Recovered (i.e., delisted)	<p><u>Productivity</u>: Population is stable or increasing over at least one generation (25 years), and there are, at a minimum, 406 individuals; and</p> <p><u>Survey</u>: Abundance survey occurs on a regular (~biennial) basis and is sufficient to assess the population status and detect changes in trends; and</p> <p><u>Social connectedness</u>: At least 3 social clusters, and no more than 50% of the population exists within a single social cluster.</p>	AND	The 20 reclassification and 16 delisting threats-based criteria are satisfied.

RECOVERY ACTIONS

~100 recovery actions divided into 7 categories:

Research,
Management,
Monitoring,
Outreach &
Education

- 
1. population dynamics
 2. recreational and non-longline commercial fisheries
 3. contaminants and biotoxins
 4. noise
 5. climate change
 6. outreach
 7. secondary threats and synergies

RECOVERY PRIORITIES

Recovery Action Priority Numbers

Priority 1	An action that must be taken to prevent extinction or to prevent the DPS from declining irreversibly.
Priority 2	An action that must be taken to prevent a significant decline in the DPS' population/habitat quality, or some other negative effect short of extinction.
Priority 3	All other actions necessary to provide for the full recovery of the DPS.

LASTLY, TIME & COSTS



TIME & COSTS

- Project a ~50-year timeframe to achieve delisting of the MHI IFKW DPS.
 - Accounts for ~2 generations of MHI IFKWs
 - Assumes high resource investment into implementation of recovery actions.
- Conservative estimate ~\$75-100M to recover DPS.

QUESTIONS?

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Photo by Robin Baird



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