1995 Water Quality Control Plan Periodic Review

Topic 2: Delta Cross Channel Gate Closure Objective
Topic 3: Salmon Doubling Narrative

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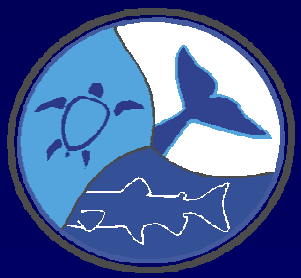
NOAA Fisheries

Presentation Outline

1. Viable Salmonid Population Concept
2. Population Status and Trends
3. Delta Cross Channel Gate Closure Objective
4. Salmon Doubling Narrative
5. NOAA Fisheries' Priorities



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1. Viable Salmonid Population Concept

Updated Status of Federally Listed ESUs of West Coast Salmon and Steelhead

West Coast Salmon Biological Review Team

Northwest Fisheries Science Center
Southwest Fisheries Science Center

July 2003

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1. Viable Salmonid Population Concept

2003 Updated Status:

1. Determined units to be considered "species" under ESA

2. Determined distinct population segments - ESUs

3. Allowed consideration of new data

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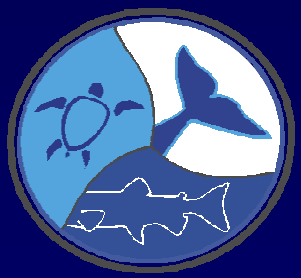
1. Viable Salmonid Population Concept

Uses a risk-matrix to quantify risks in 4 categories:

1. Spatial structure
2. Abundance
3. Production rate
4. Genetic diversity



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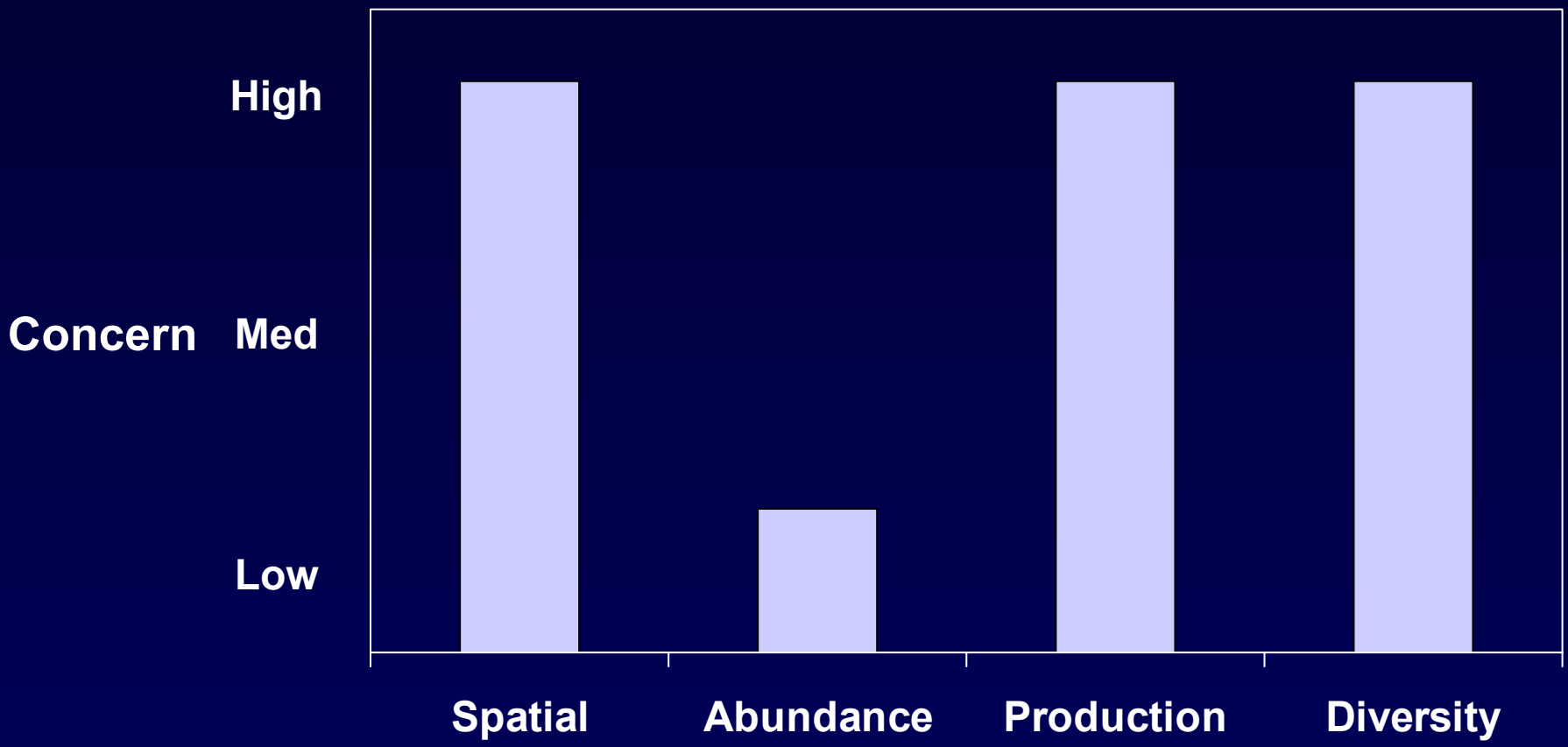
1. Viable Salmonid Population Concept



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1. Viable Salmonid Population Concept

NOAA Fisheries supports the doubling effort as it will contribute toward recovery of listed salmonids; HOWEVER,

The doubling goals are antiquated and in need of revision and,

The VSP concept should be used to assess the viability of ESUs.

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2. Population Status and Trends

Spring-run Chinook Salmon

"The BRT was concerned about the loss of diversity caused by extirpation of populations from most of the Central Valley, including all San Joaquin tributaries."

Determined the Central Valley steelhead ESU to be "likely to become endangered."

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2. Population Status and Trends

Central Valley steelhead:

The BRT was "highly concerned" by the decline in total abundance of the ESU and that the decline appeared to be continuing.

Determined the Central Valley steelhead ESU to be "In danger of extinction."

NOAA Fisheries

2. Population Status and Trends

Winter-run Chinook Salmon:

NOAA Fisheries proposed to change status to threatened as a result of recent improvements in the viability of the ESU.

This is likely a result of numerous factors such as: a more favorable hydrology, changes in ocean harvest, improved temperature management, and improved water project operations (including Delta Cross Channel closures).

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3. Delta Cross Channel Gate Closure Objective

NOAA Fisheries finds the Delta Cross Channel Gate Closure Objective to be a critical tool in the protection of listed salmon; HOWEVER,

Recent spring-run Chinook studies indicate yearling migrations starting in October or earlier.

NOAA Fisheries

3. Delta Cross Channel Gate Closure Objective

"A Status Review of the spring-run Chinook salmon in the Sacramento River Drainage" (DFG 1998)

"The Majority of juvenile production continues to rear in the tributaries over the summer months and emigrates the following fall as yearlings…"

"Emigration of yearlings occurs from October through March…"

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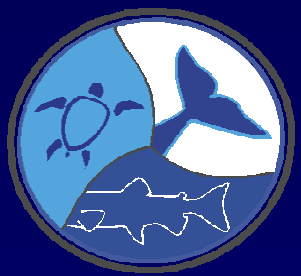
3. Delta Cross Channel Gate Closure Objective

Additional references-

Brandes and McLain. 2001. Juvenile Chinook salmon abundance, distribution, and survival in the Sacramento-San Joaquin Estuary. (Figures 14 and 15)

USFWS. 2000. 1999 annual progress report: "Abundance and survival of juvenile Chinook salmon in the Sacramento-San Joaquin Estuary." Stockton, California. (Pages 30 - 39)



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3. Delta Cross Channel Gate Closure Objective

NOAA Fisheries recommends modifying existing salmon decision process to incorporate improved spring-run gate closure trigger criteria as well as improved detection and prediction methods.

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3. Delta Cross Channel Gate Closure Objective

Recommend the Board assist with the development of additional protection measures for spring-run Chinook salmon migrating past the DCC during the early-fall.

Central Valley steelhead should also be monitored and incorporated into the DCC objective.

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4. Doubling Narrative

NOAA Fisheries recognizes the importance of the doubling narrative and is supportive of the objective.

Because the assessment of doubling has been and will be problematic, NOAA Fisheries recommends incorporating VSP criteria.

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4. Doubling Narrative

NOAA Fisheries Recommends Amending the Salmon Doubling Narrative to read as:

Water quality measures shall be maintained, together with other measures throughout the watersheds of the Central Valley and Delta, sufficient to achieve ***sustained viable salmonid populations****, including the recovery of listed salmon* ***and steelhead populations****, consistent with State and Federal laws.*

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4. Doubling Narrative

In order for the Salmonid Narrative to be effective, we recommend the Board coordinate Delta actions with upstream actions.

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5. NOAA Fisheries' Priorities

A balanced approach to upstream and downstream protective measures should be incorporated into the WQCP.

All actions should minimize adverse effects to listed species and critical habitat and lead to recovery.

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