

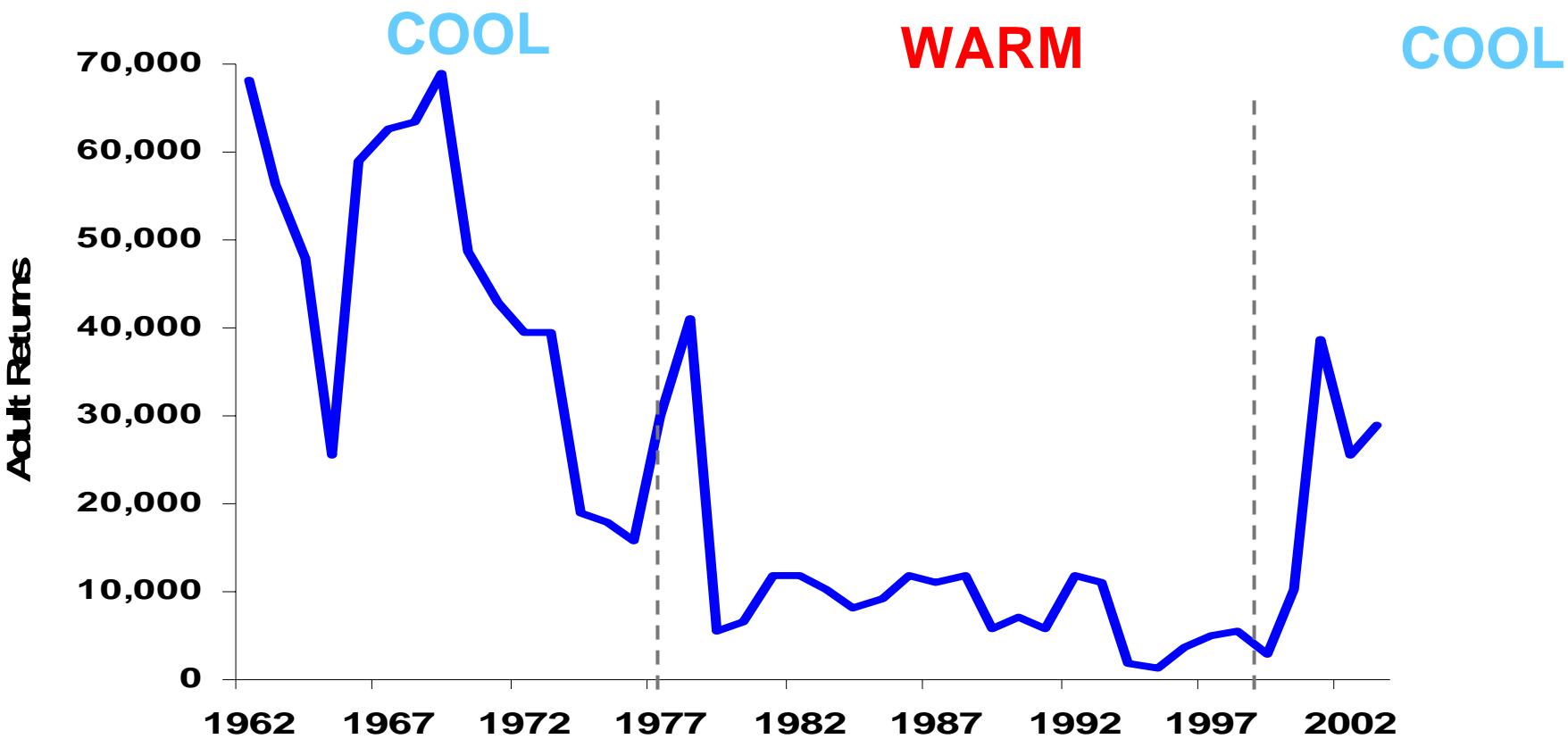
CANADA

Columbia River Chinook Status and Trends

Pacific Ocean

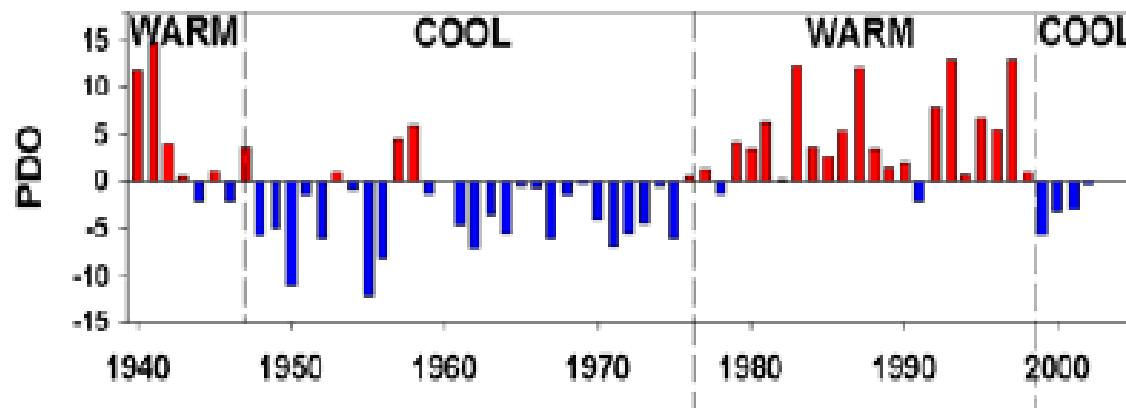
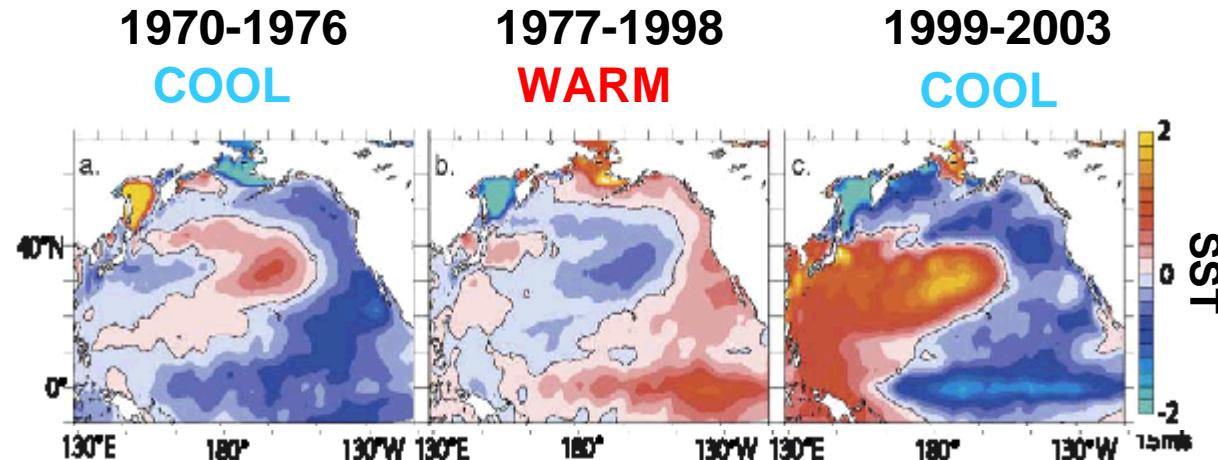


Snake River Wild Spring/Summer Chinook



(NOAA Tech Memo, 2004)

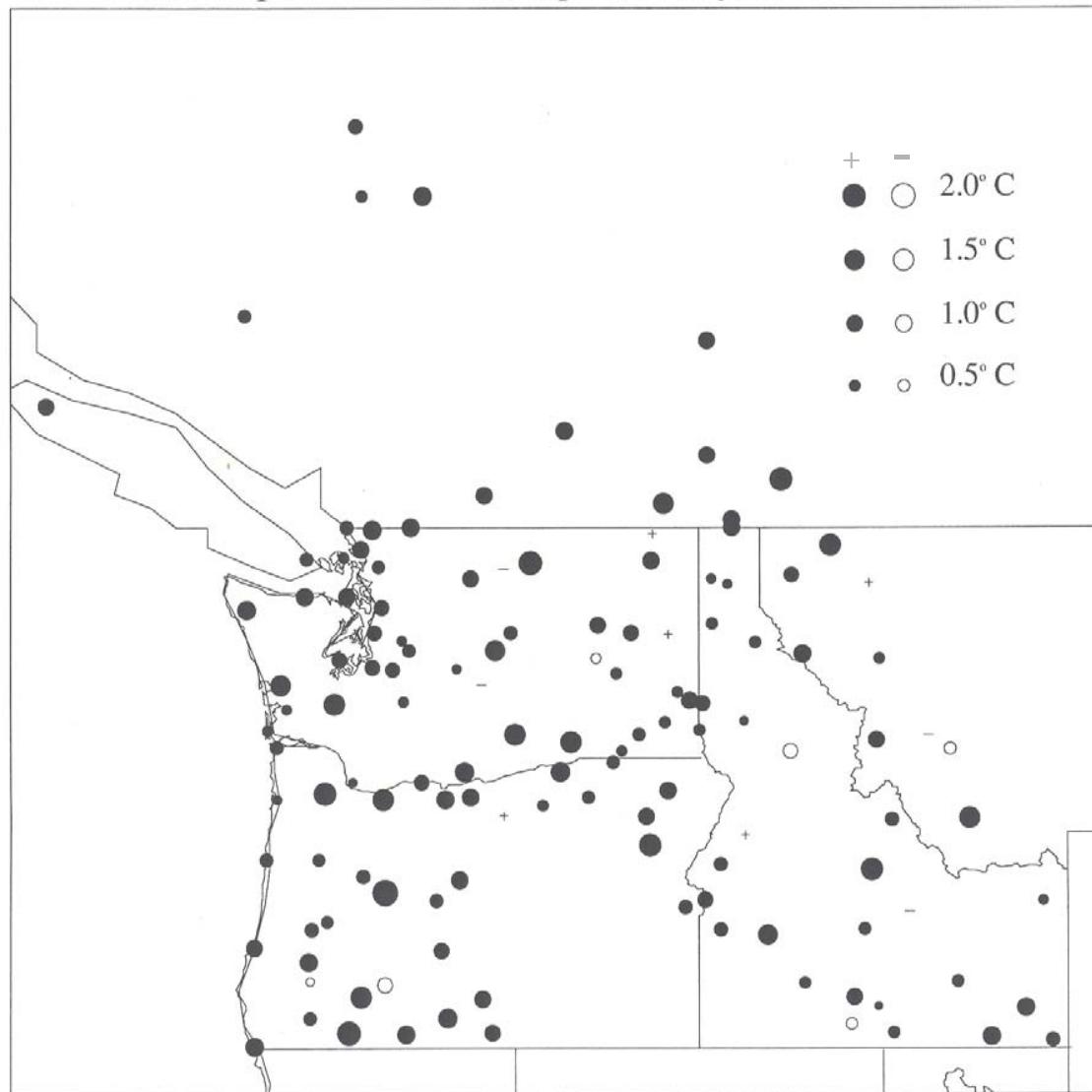
Climate



(Peterson and Schwing, 2003)

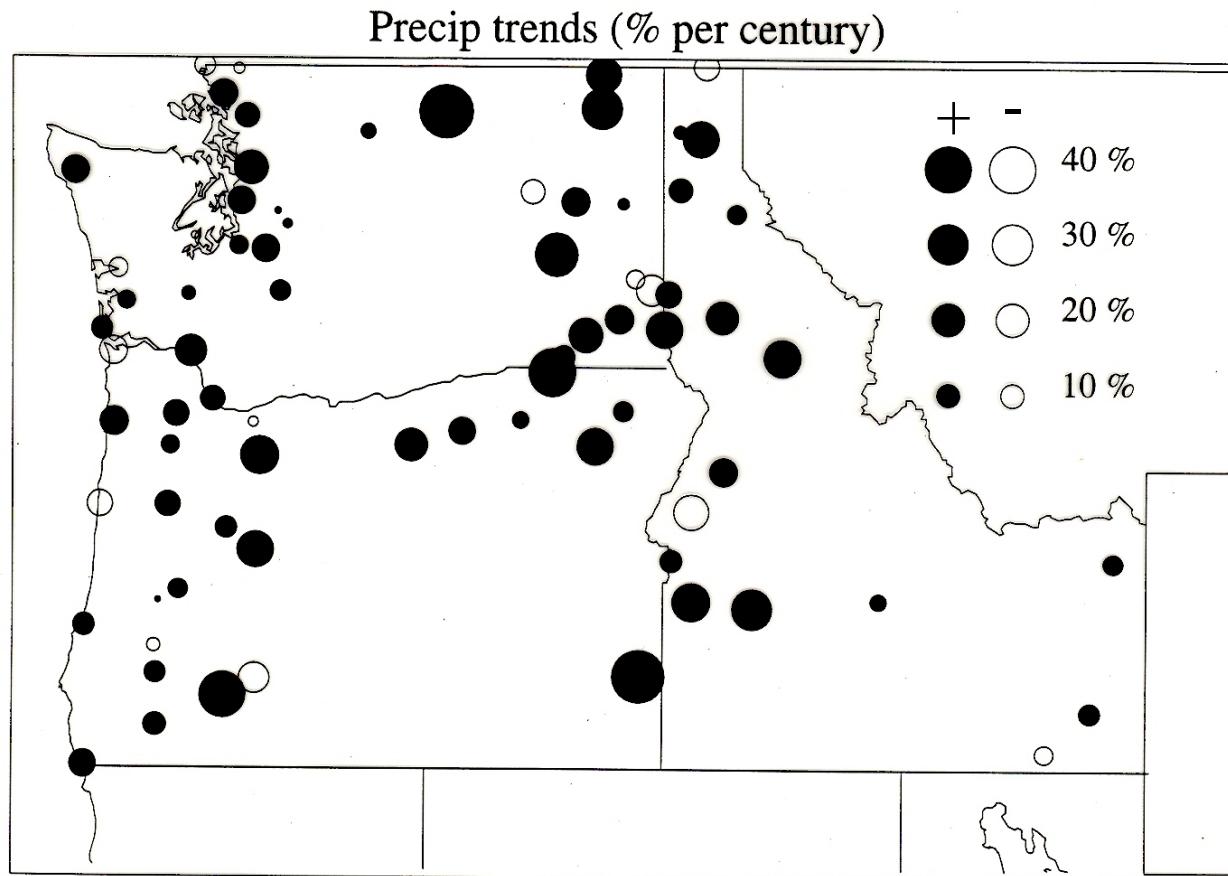
Temperature trends – Pacific Northwest

Temperature trends ($^{\circ}\text{C}$ per century), since 1920

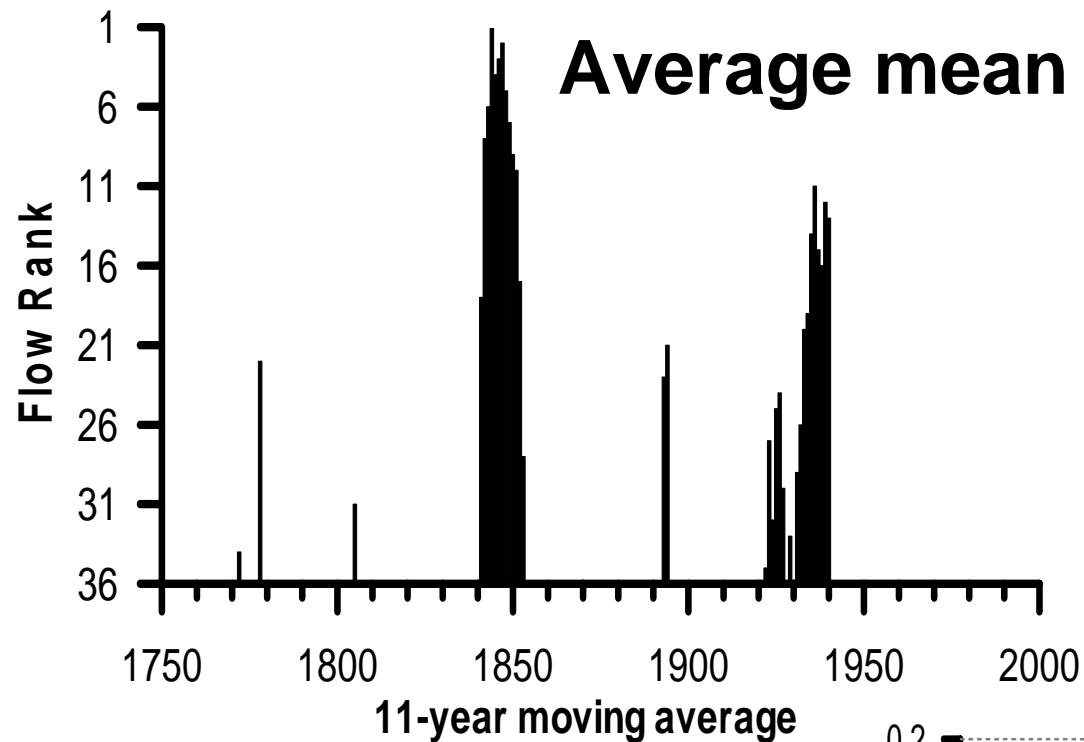


(Mote, P. W. 2003. Northwest Science 77: 271-282.)

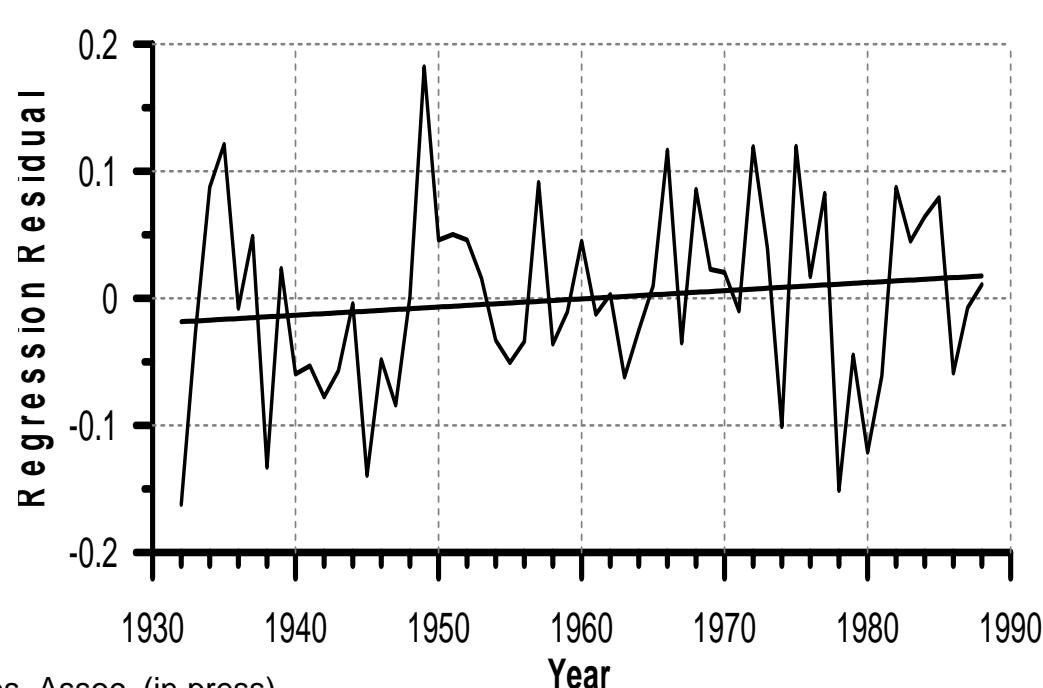
Precipitation trends – Pacific Northwest



Average mean flow – ‘low flows’



Trend in flow



Viable Salmonid Populations

- Partition ESU into independent populations
- Evaluate viability of individual populations
 - Abundance
 - Productivity
 - Spatial structure
 - Diversity
- Determine how many and which populations need to be in what status

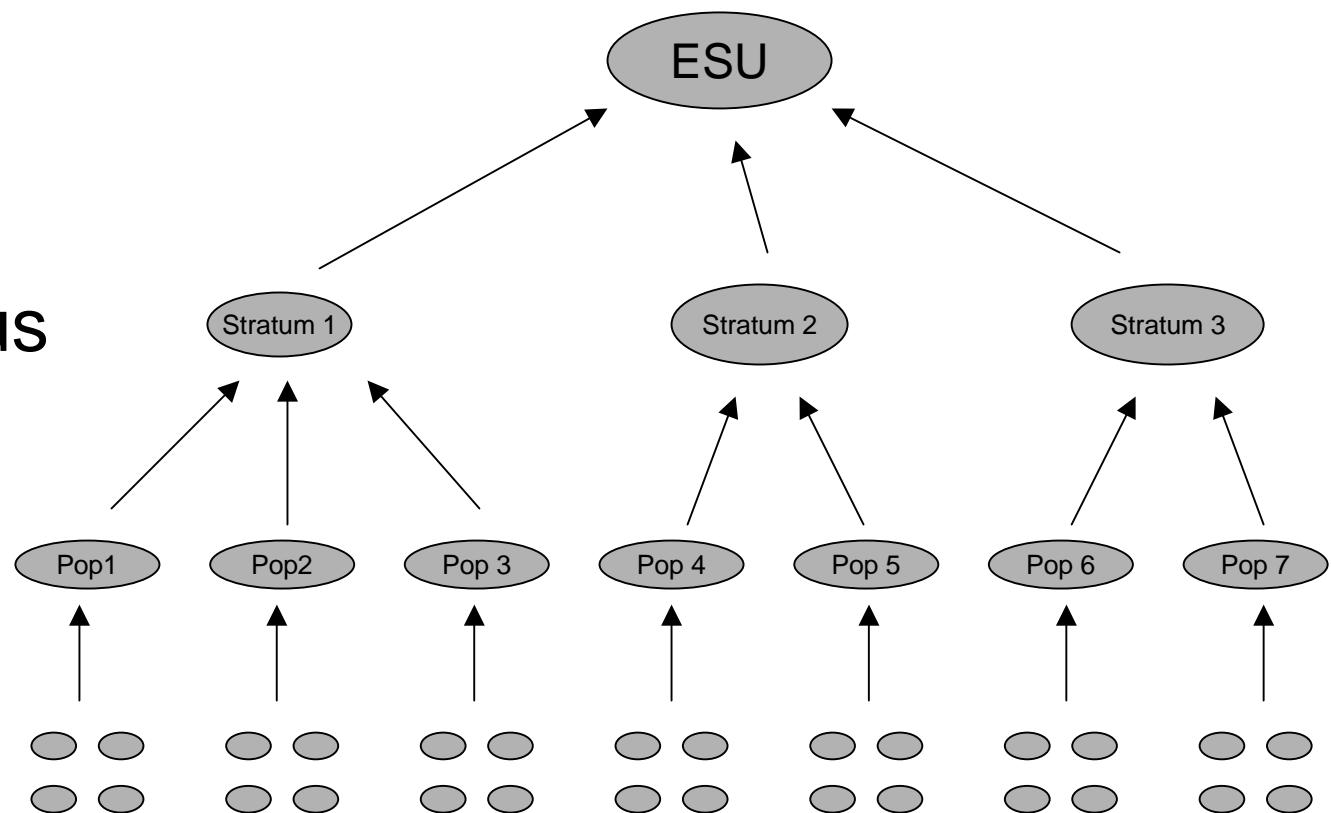
Hierarchical Criteria

ESU Status

Stratum Status

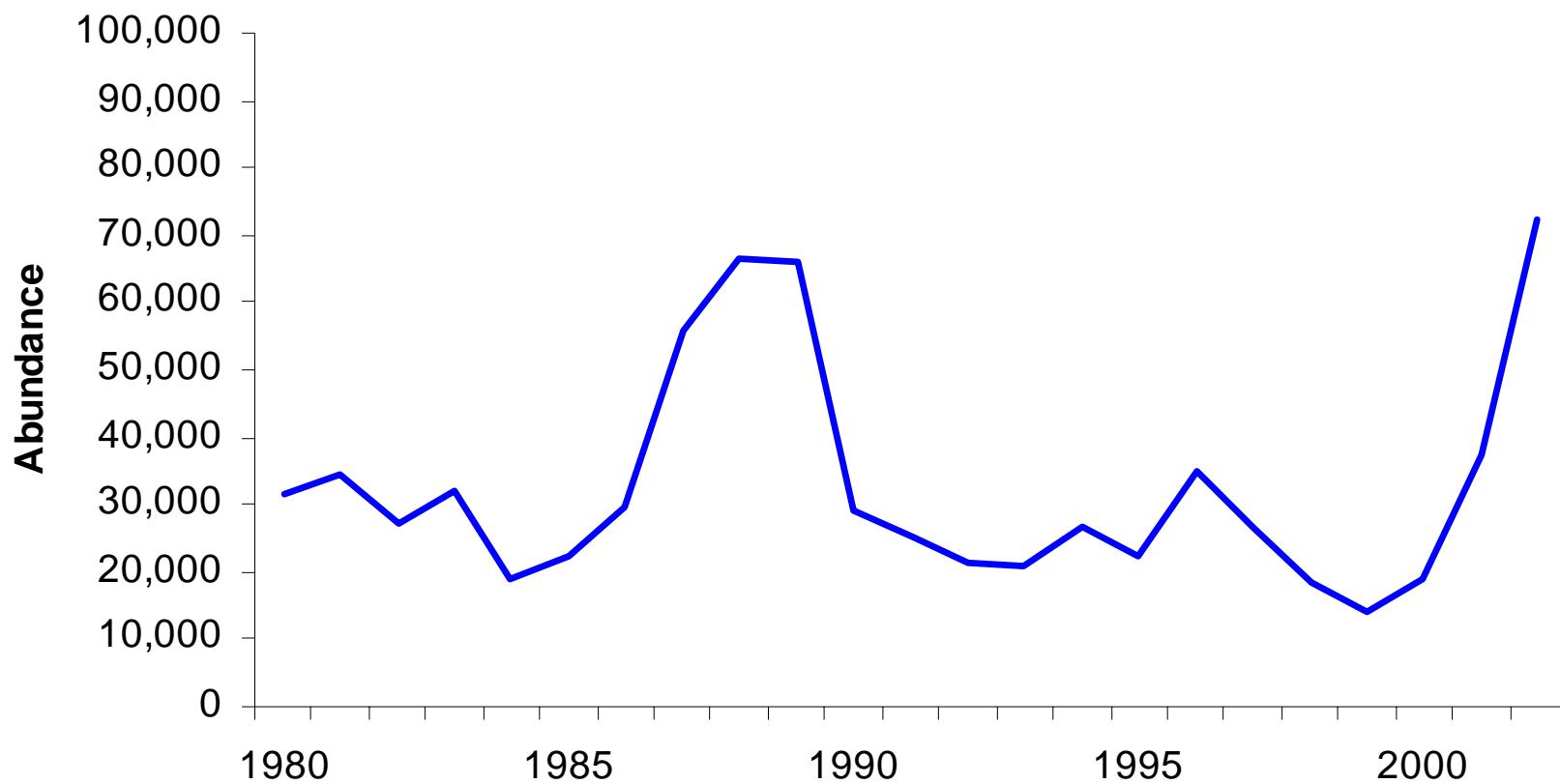
Pop Status

Pop
Attributes



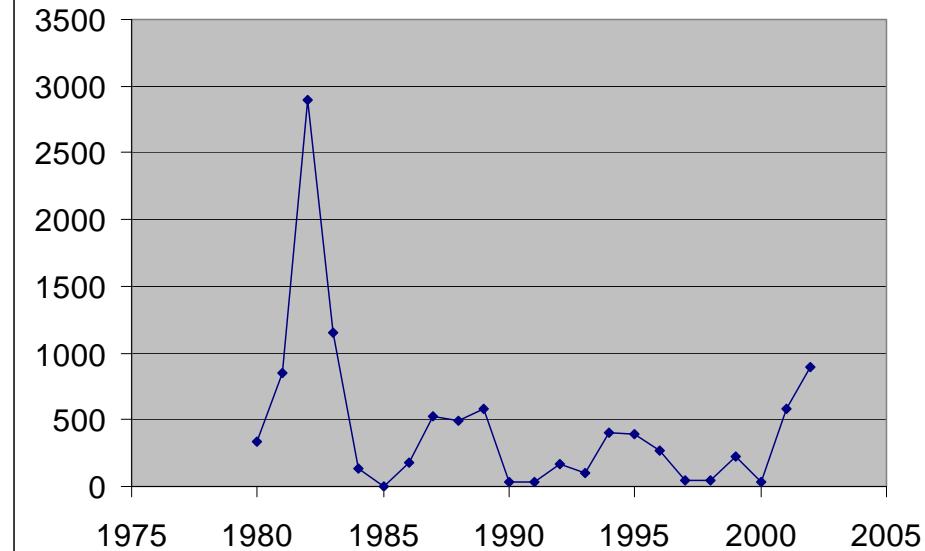
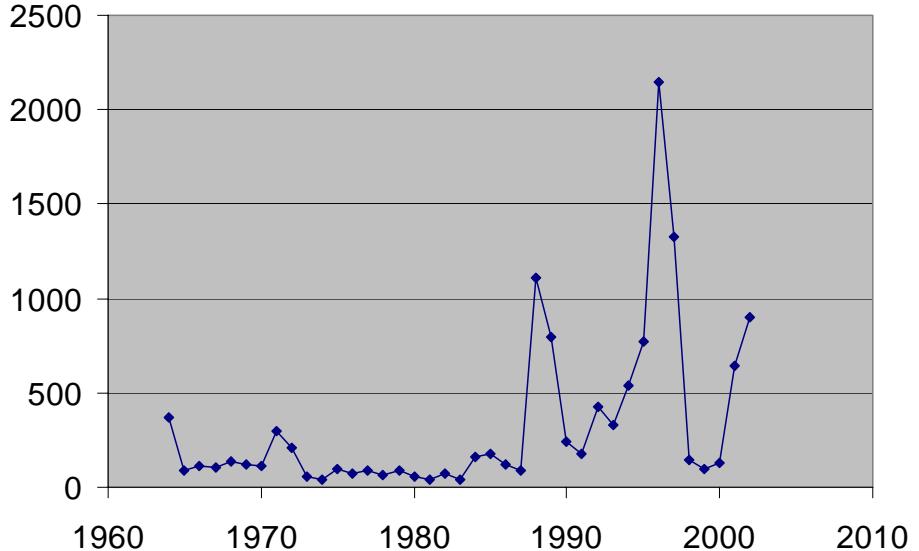
Lower Columbia Chinook

Hatchery and Wild Returns

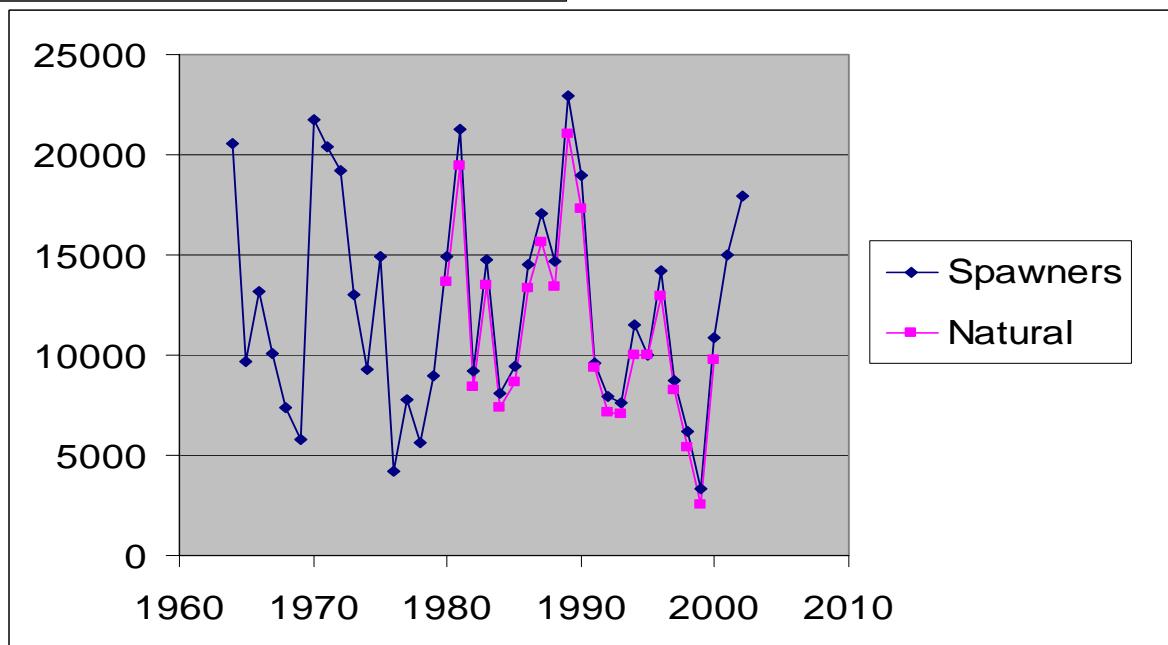


Coweeman Fall (tules)

Kalama River (springs)



Lewis Fall (brights)



LC/W TRT

Lower Columbia Chinook

Extremely
Low Risk

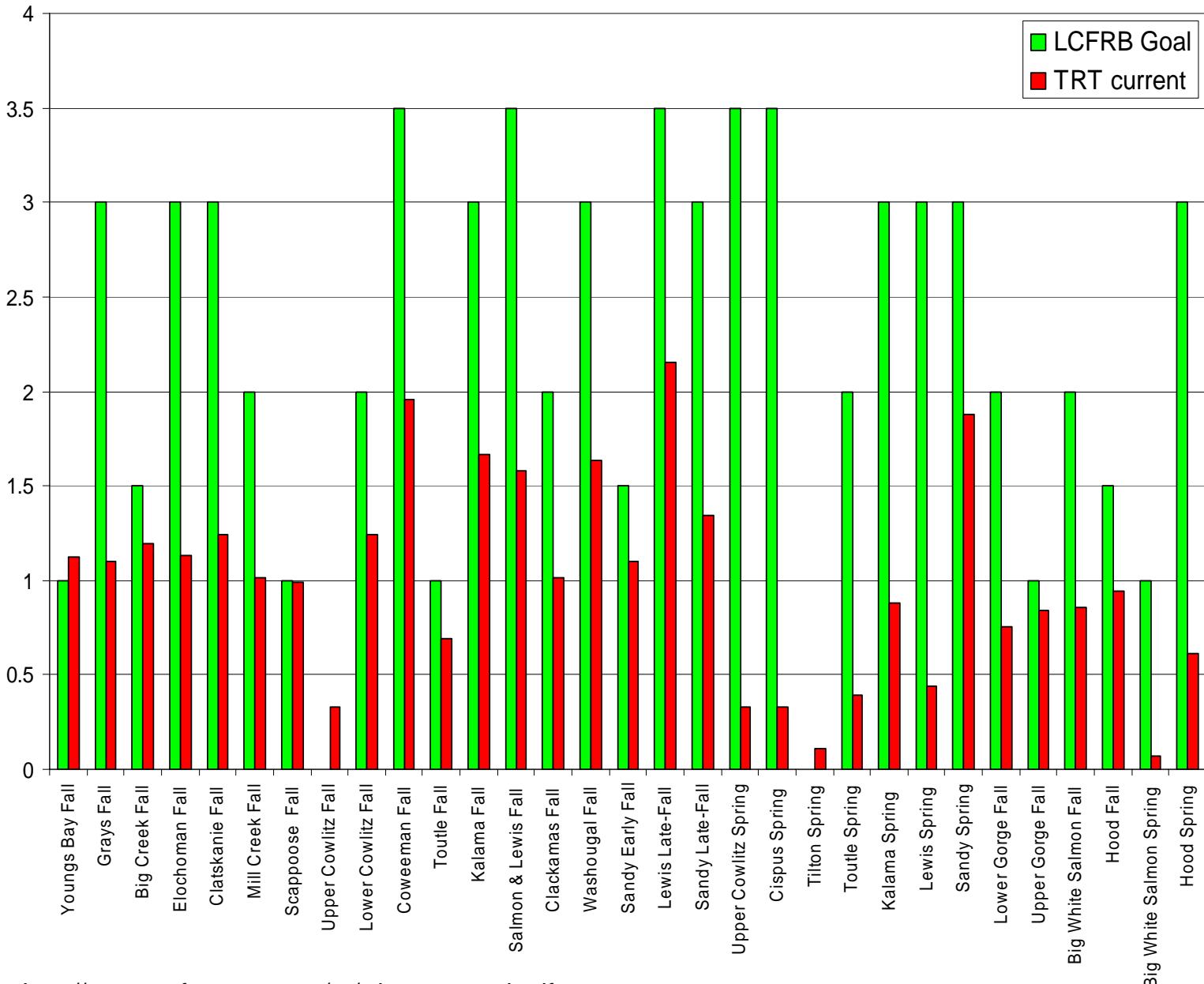
LCFRB Goal
TRT current

Viable

Moderate
Risk

High
Risk

Extinct

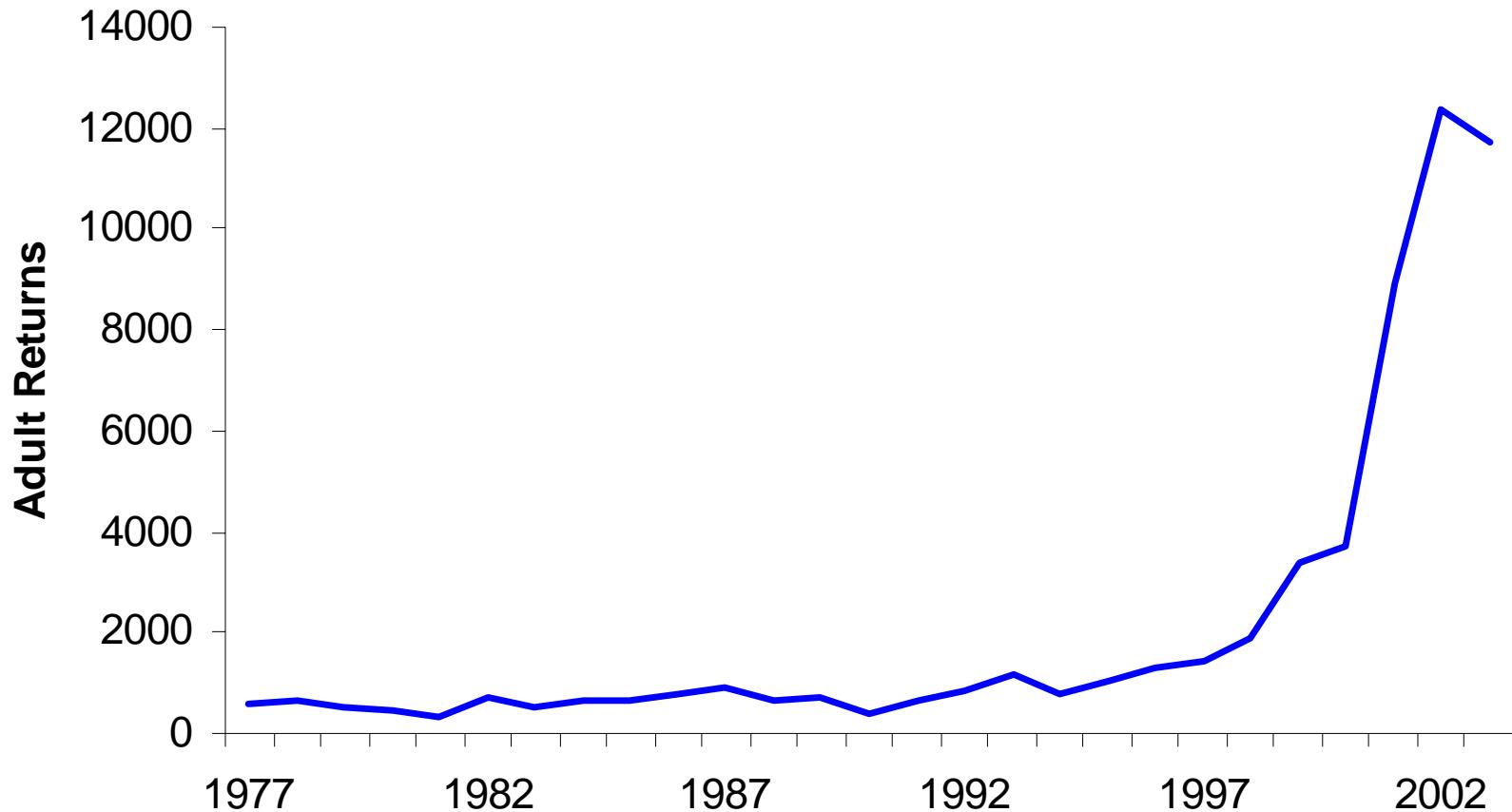


Lower Columbia Status Summary

- No populations are currently viable
- All populations have room for improvement

Snake River Fall Chinook

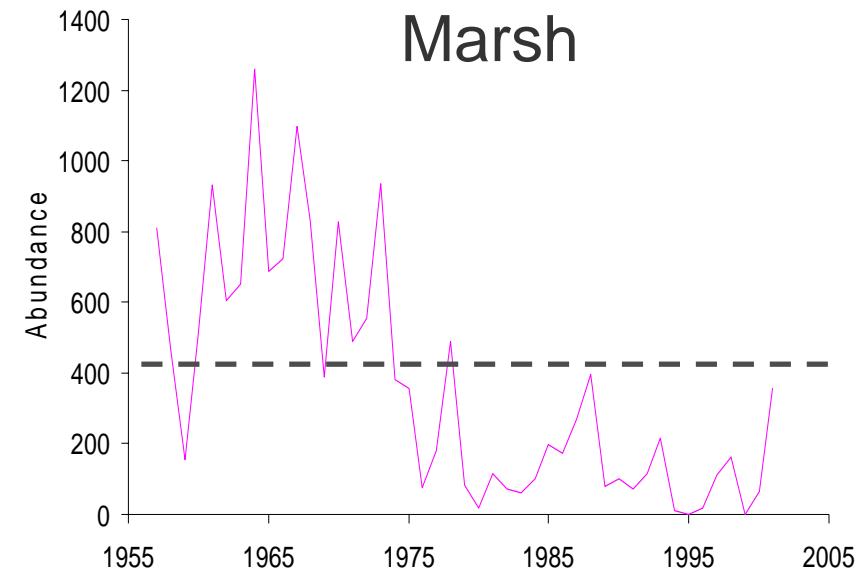
Hatchery and Wild Returns



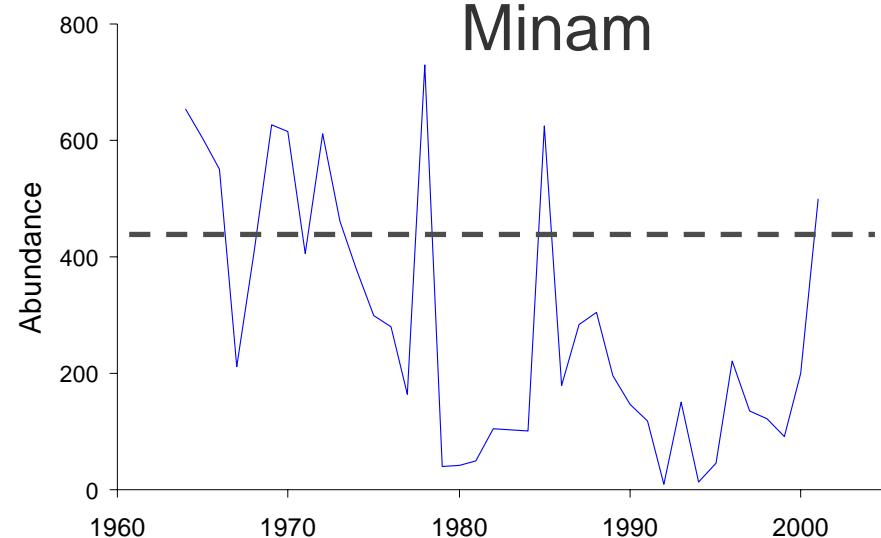
(BRT Report, 2003)

Snake River S/S Chinook Population Abundance Targets

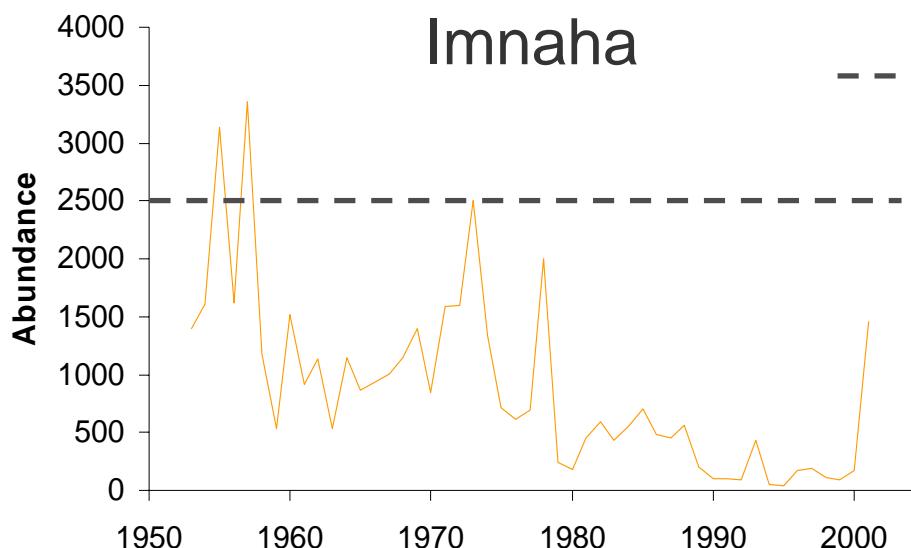
Marsh



Minam



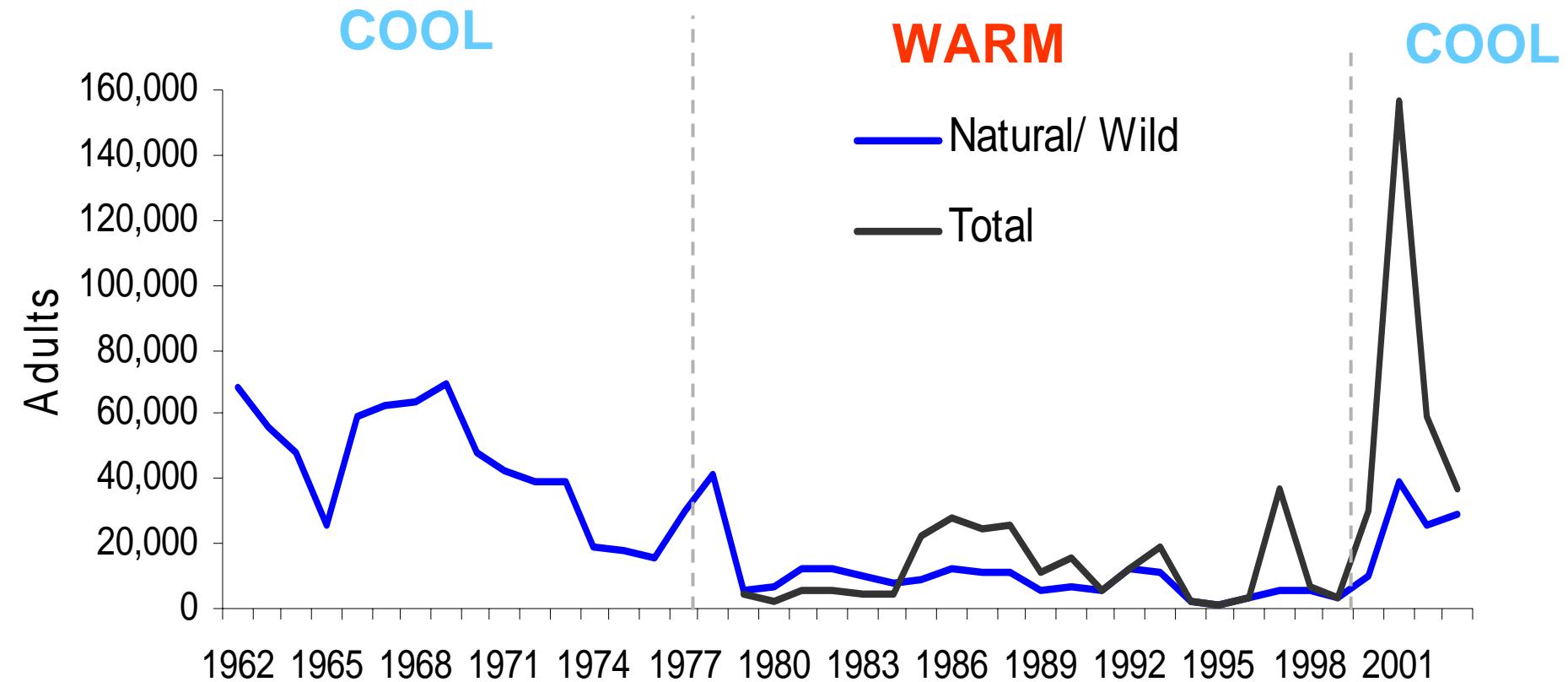
Imnaha



-- Interim recovery targets

(BRT Report, 2003)

Snake River Spring/ Summer Chinook ESU



(BRT Report, 2003)

Interior Columbia Spring/Summer Chinook

Number of VSP Impairments

River

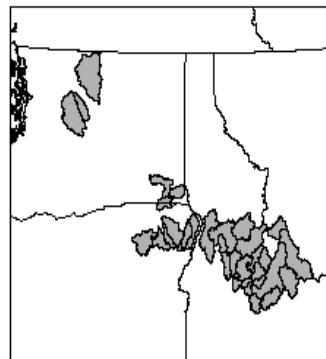
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2

3

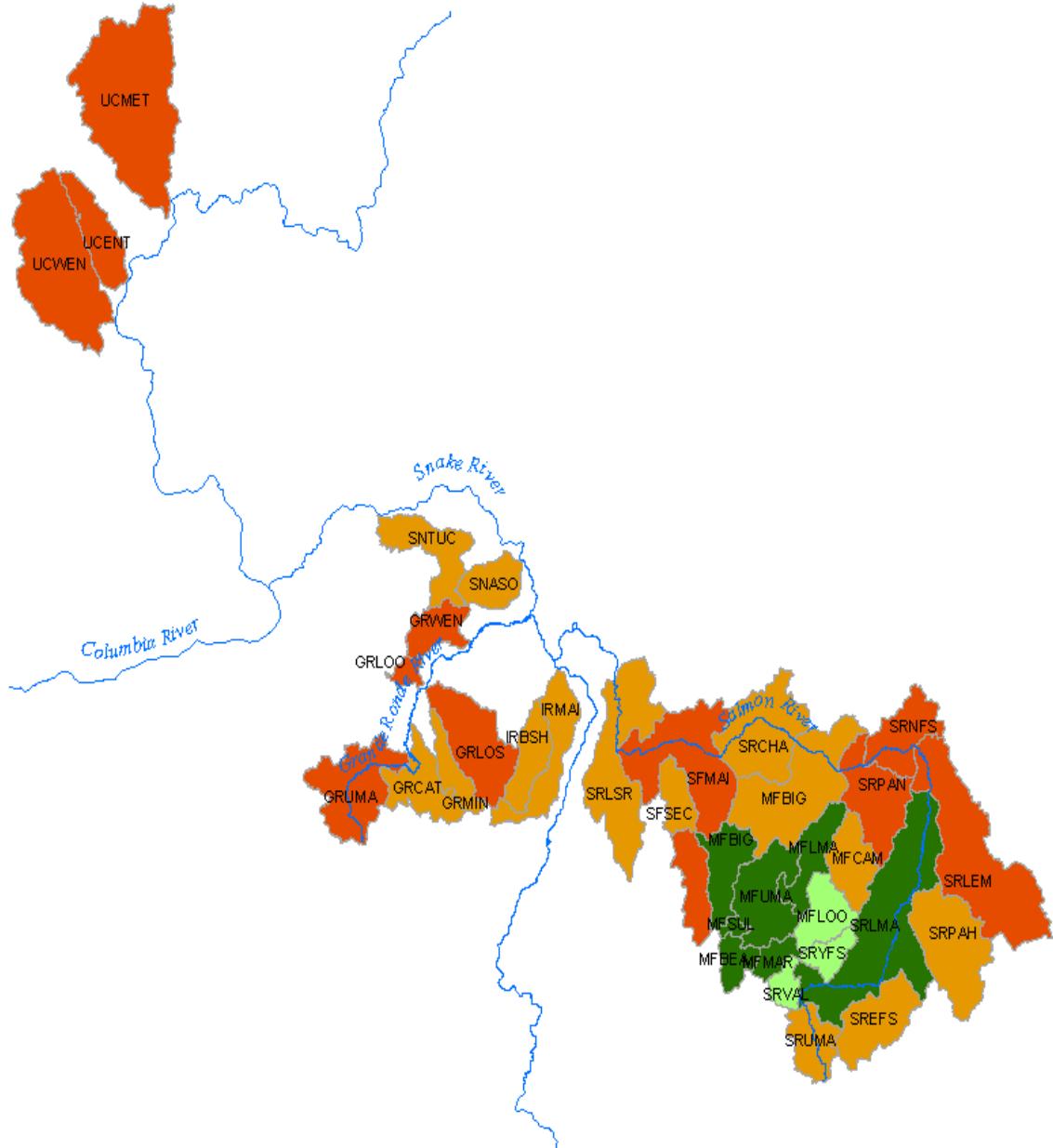
4

0 37.5 75 150
Kilometers



National Oceanic
and Atmospheric
Administration

National Marine
Fisheries Service



Interior Status Summary

- All populations have at least one VSP parameter with “room to improve”
- Most populations with multiple parameters with “room to improve”