Spring/Summer Chinook Harvest Programs: Roadmap for reducing risk and moving a large mitigation program to full integration

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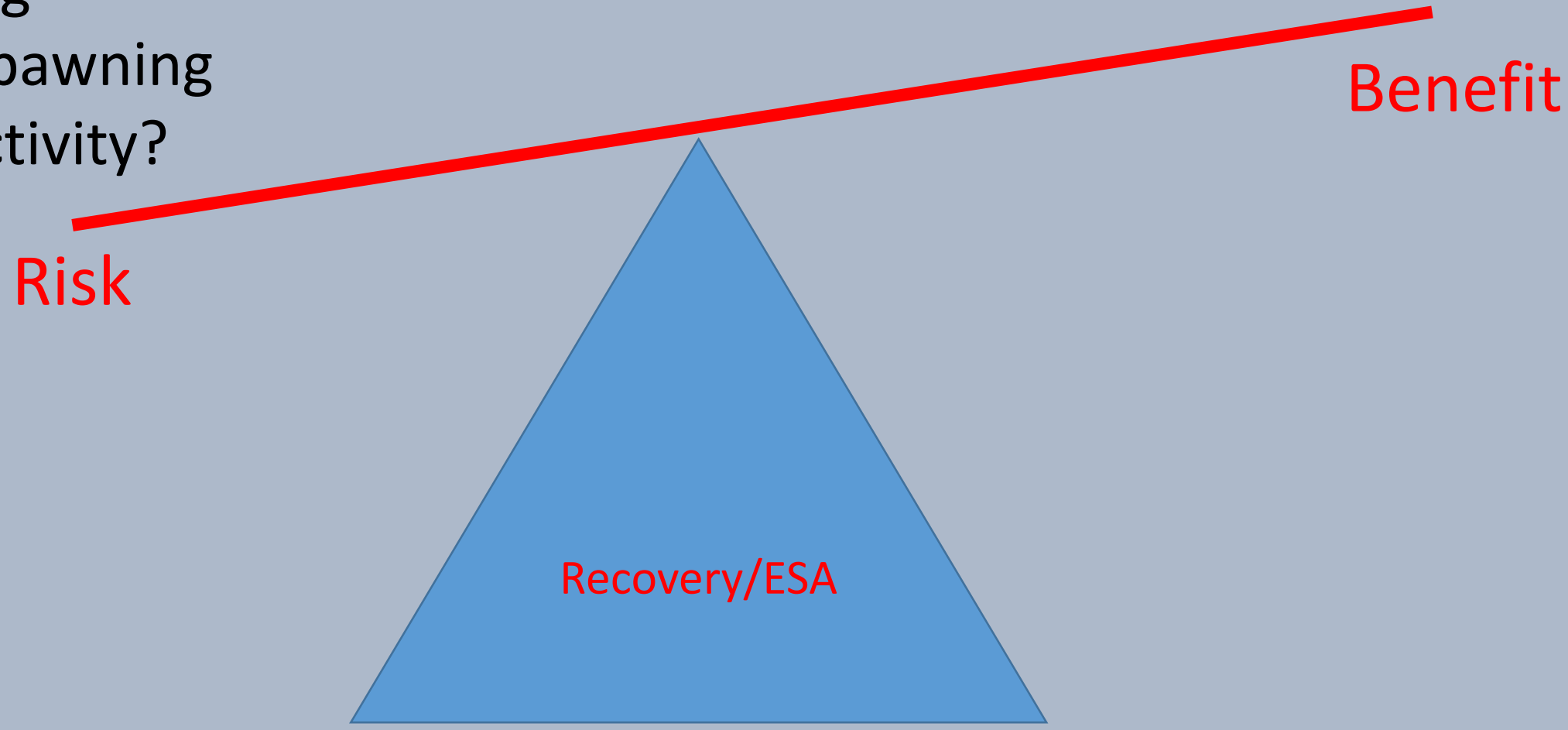
Why do we care?

Stock of origin
Straying
Wild Spawning
Productivity?

Fishery Benefits
Safety Net
Increased Abundance



Goals of Integrated Management

1) **Continue fishery benefits**
2) **Reduce risk to wild fish**
3) **Not “mine” wild populations**

Biological

All MPGs within an ESU must be at low risk (viable)

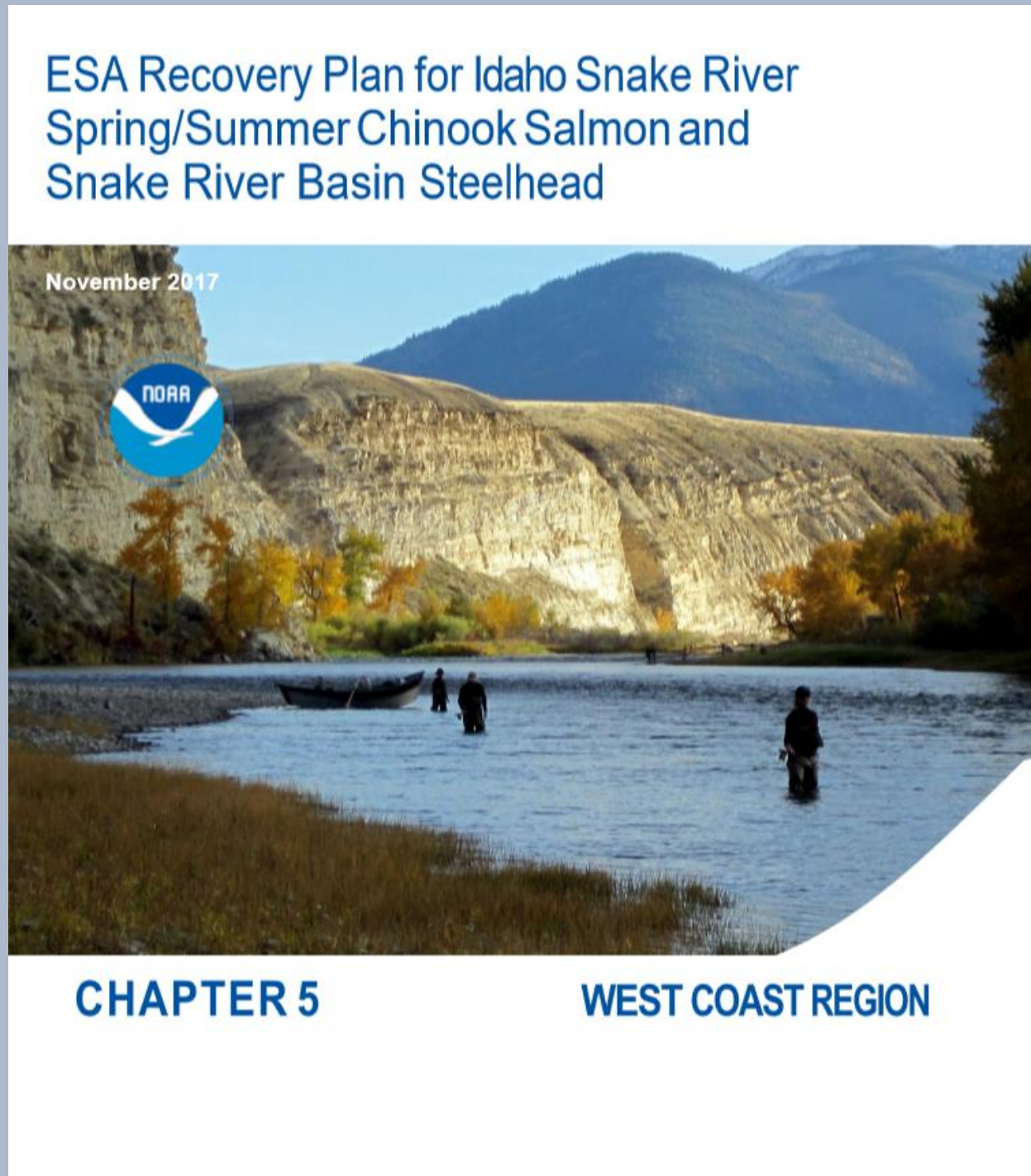
1) ½ or at least 2 populations within MPG viable or highly viable.

2) At least one population highly viable.

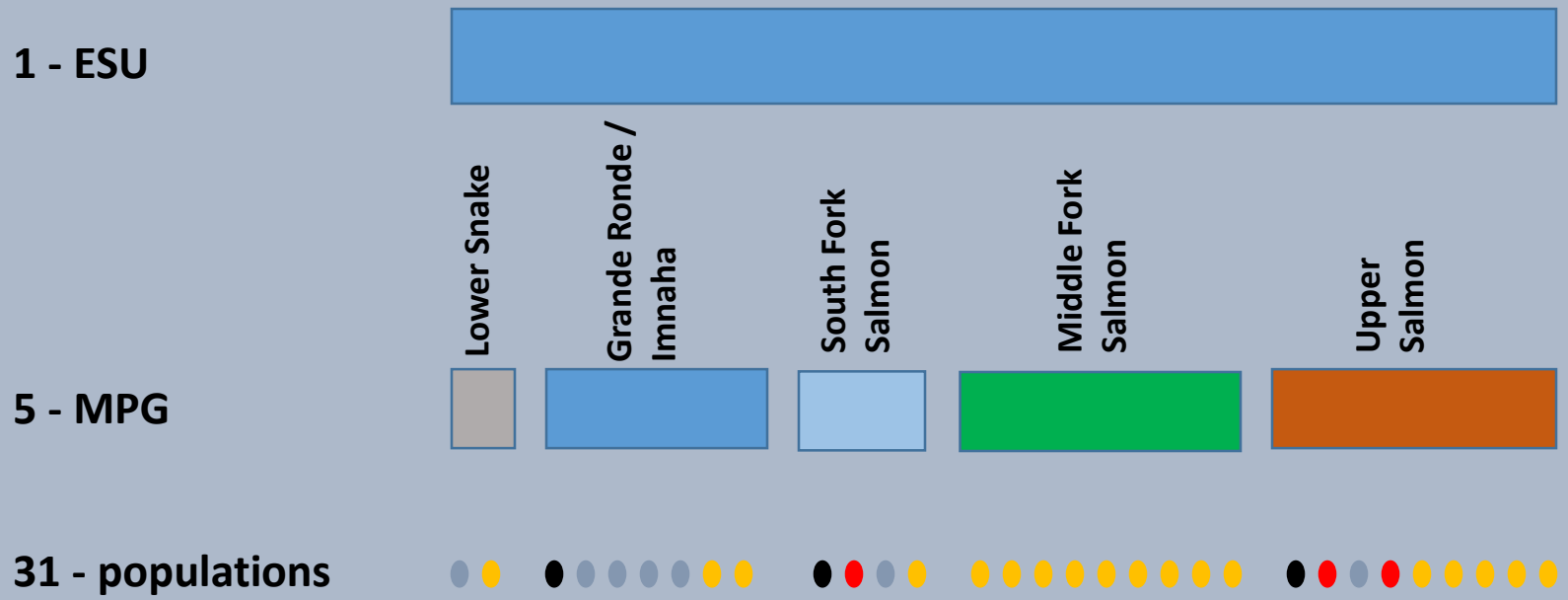
3) Proportional representation of very large, large, intermediate populations

4) All major life histories represented

5) Populations not meeting viability standards should be maintained



Snake River Spring/Summer Chinook Salmon

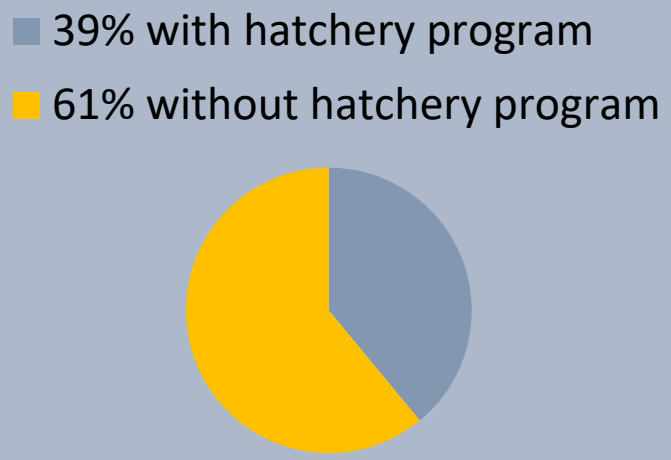


= LSRCP and FWP

= LSRCP

= IPC

= No Hatchery

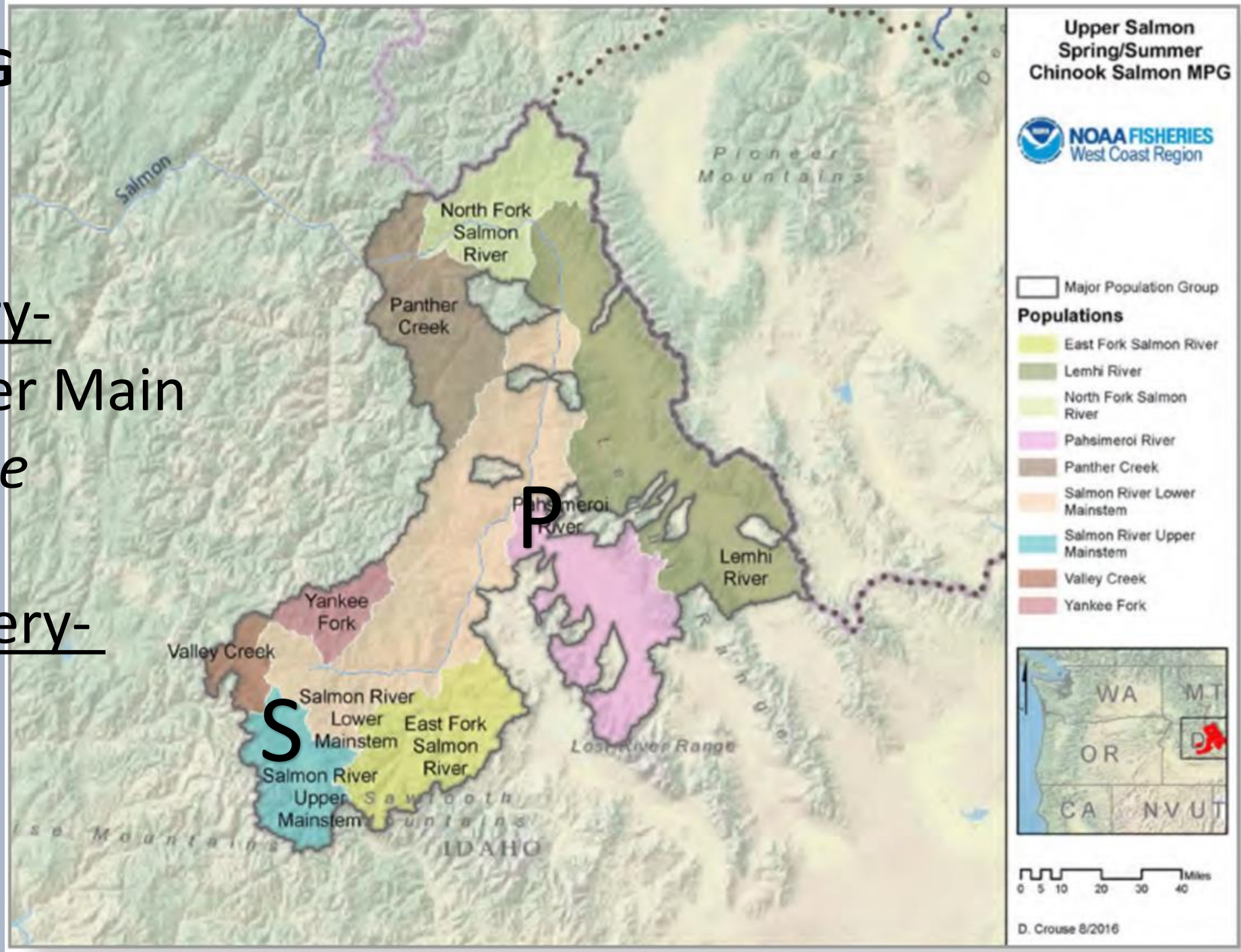


Slide- Courtesy of J. Hesse, NPT

Upper Salmon MPG
Spring/Summer
Chinook Salmon

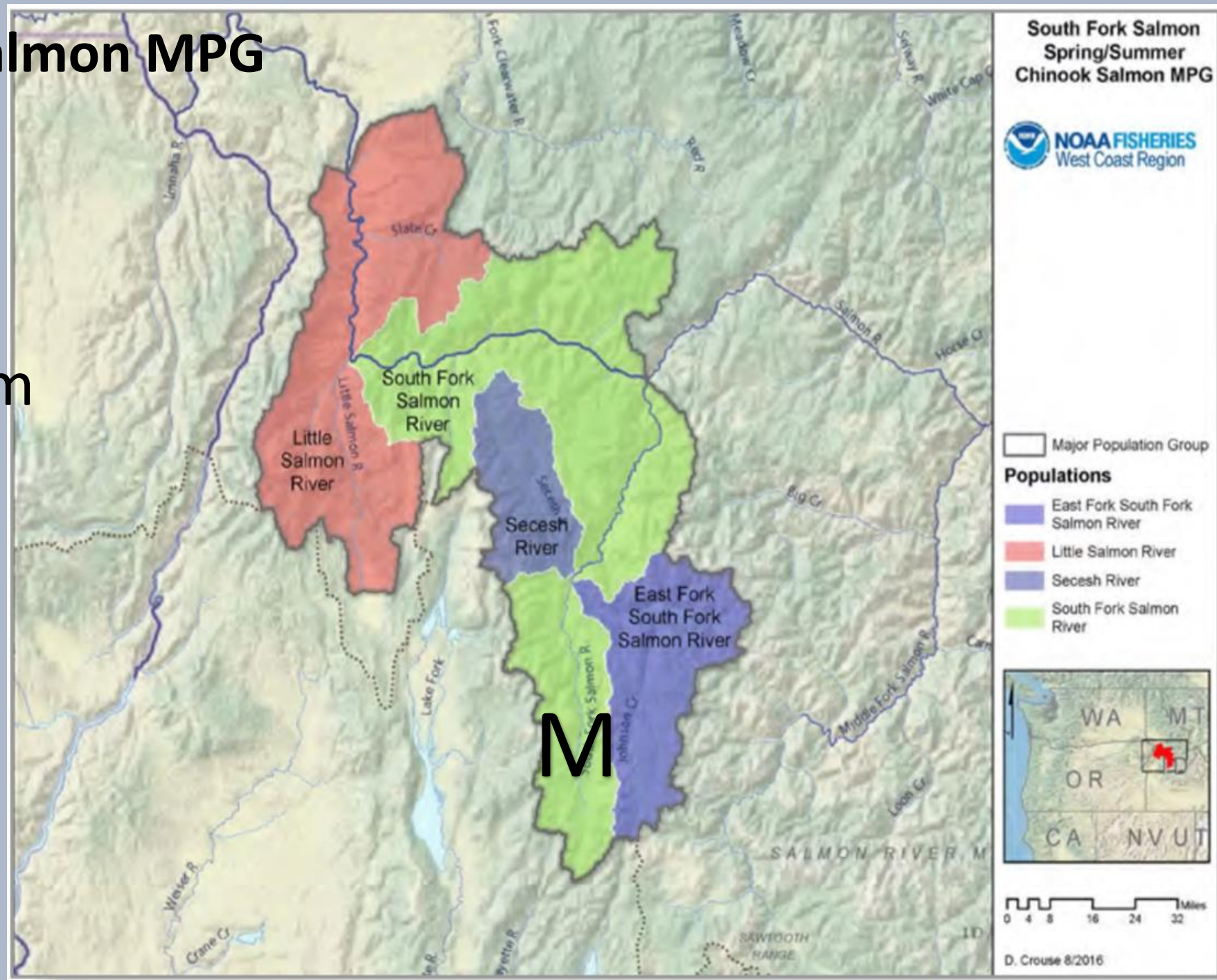
<u>Sawtooth Hatchery-</u>
Salmon river Upper Main
Goal- Highly Viable

<u>Pahsimeroi Hatchery-</u>
Pahsimeroi River-
Goal- Viable



South Fork Salmon Salmon MPG
Summer
Chinook Salmon

McCall Hatchery-
South Fork Mainstem
Goal- Viable



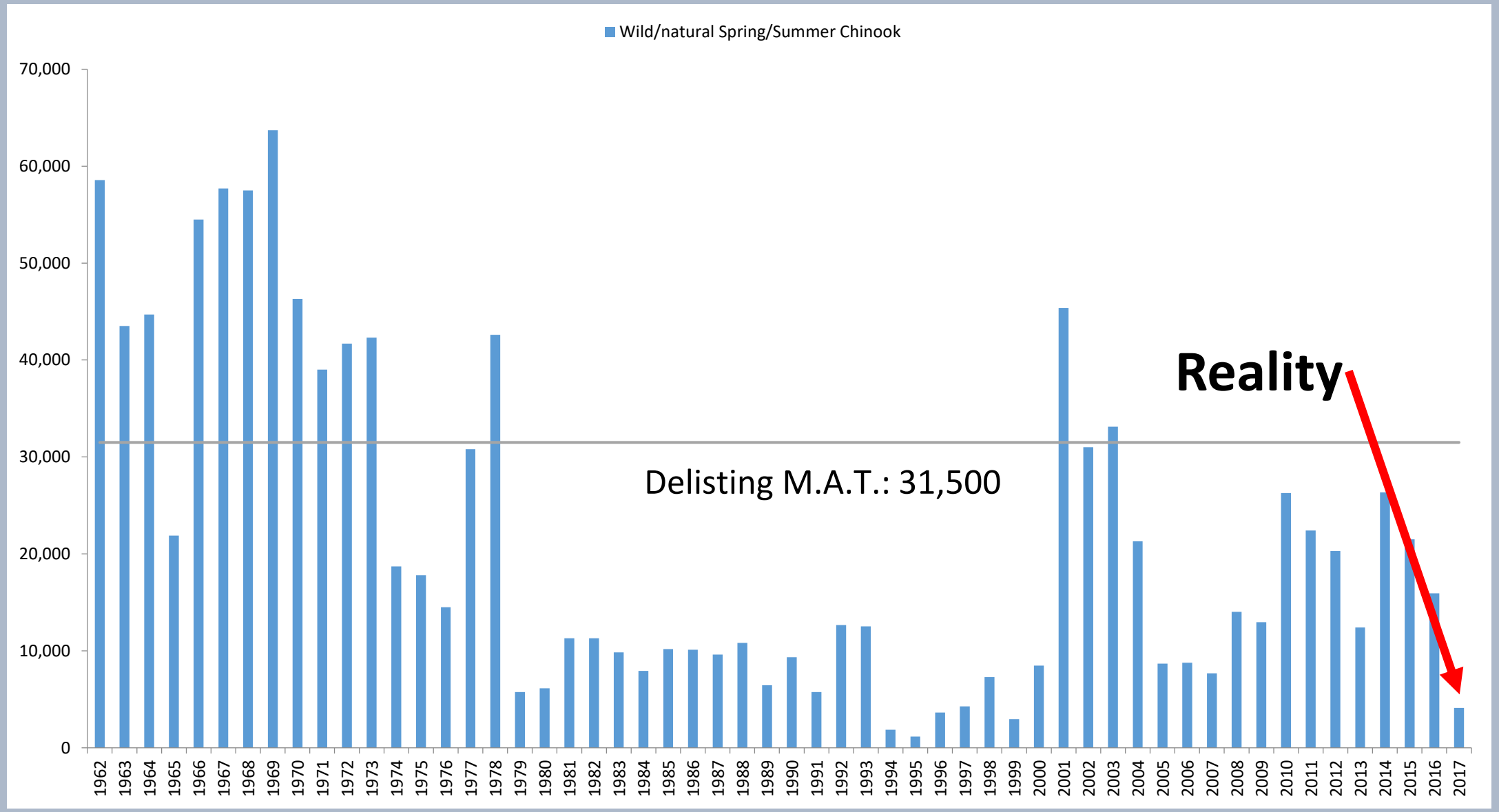
Factors (somewhat) out of our control

1) Numbers of Wild Returns
2) Survival of hatchery smolts post release
3) Location of weir
4) Spawning below weir

Factors (somewhat) within our control

1) broodstock (numbers H x W parents)
2) Spawners upstream of the weir
3) removal of hatchery origin fish from wild spawning

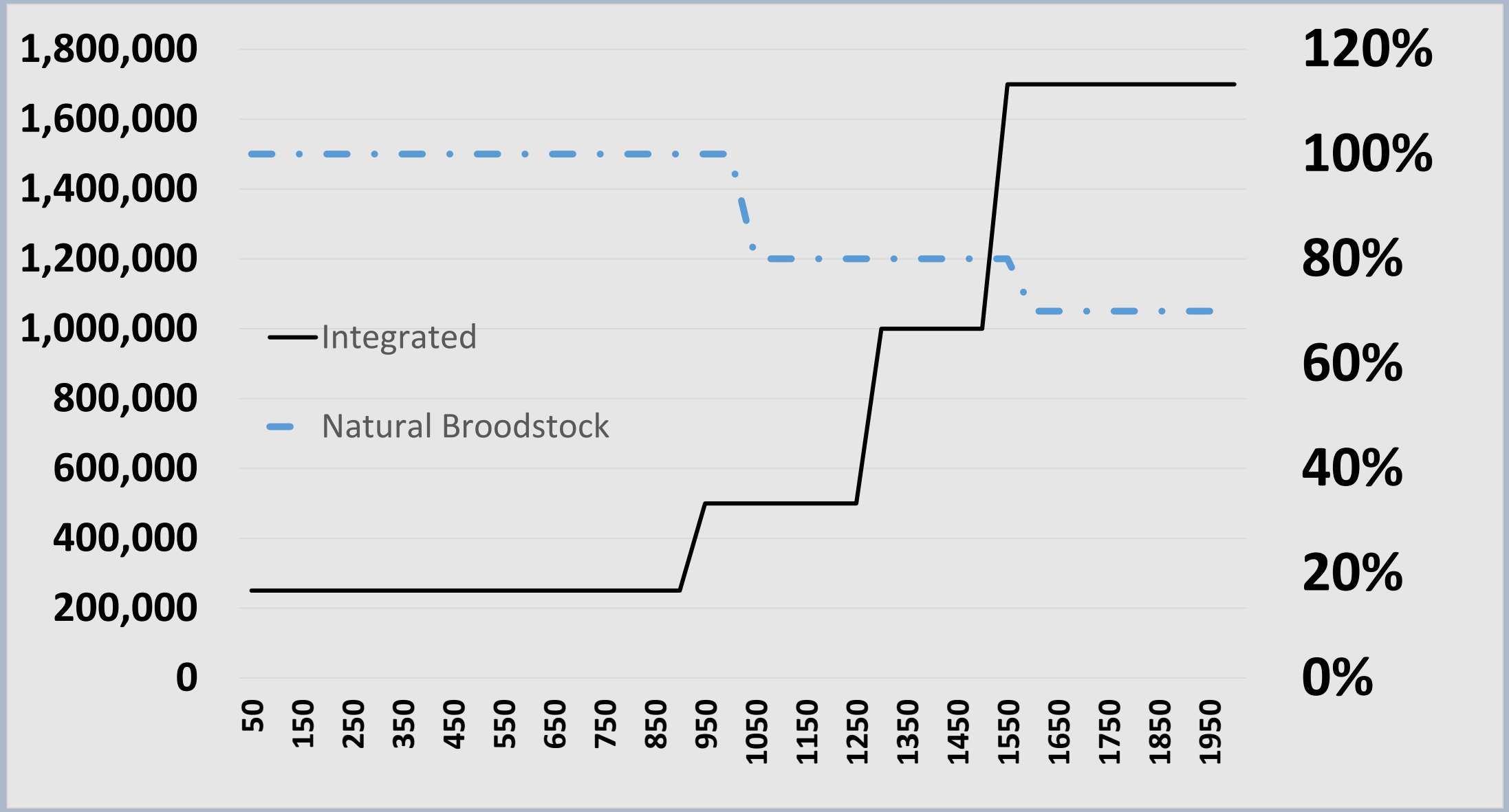
Wild Spring/Summer chinook Salmon



Sawtooth Hatchery

2.1 million Smolts
>800 miles
87% spawning habitat
High weir efficiency
Recovery Target- Highly Viable

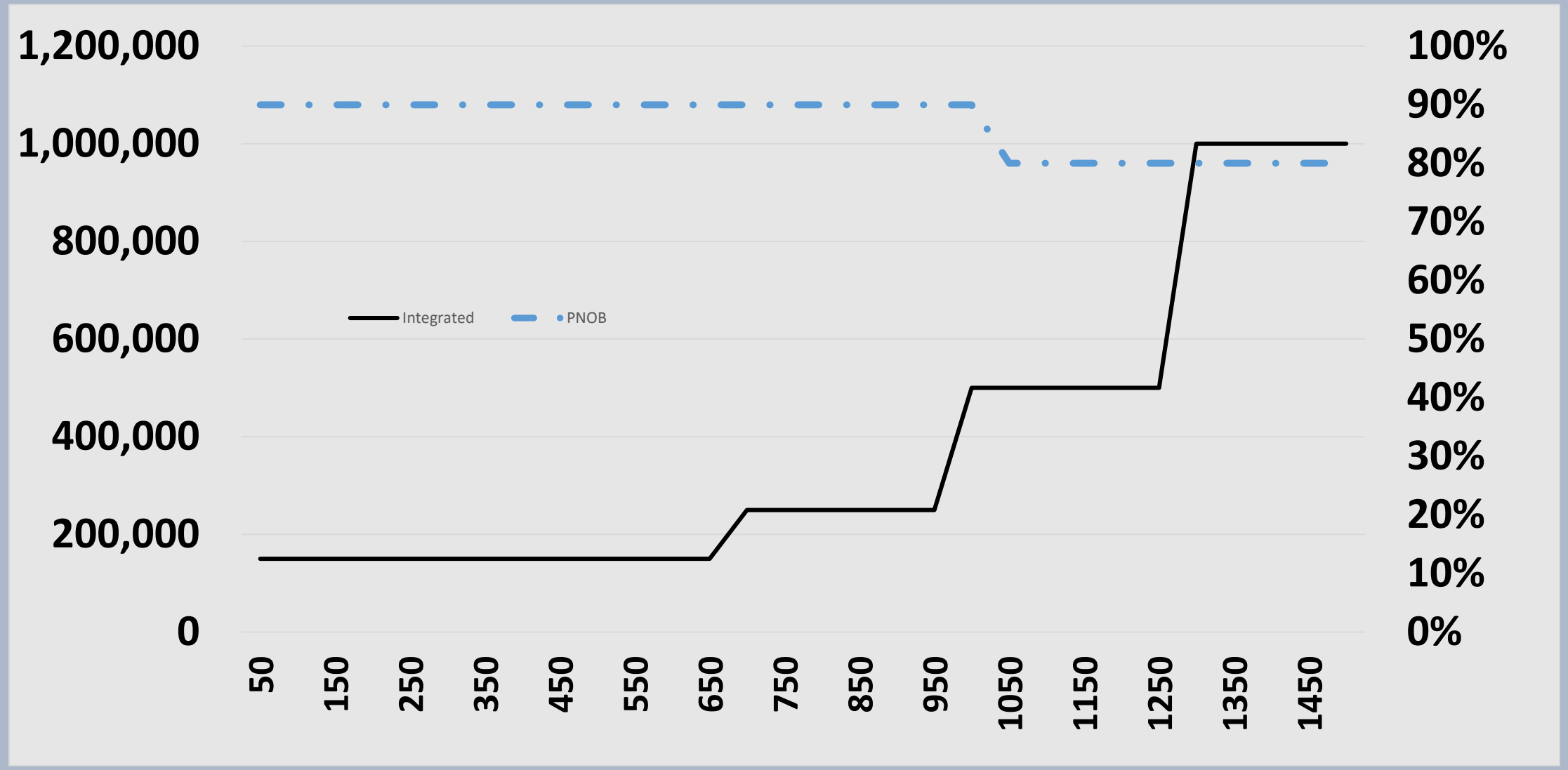
Sliding Scale Integration- Sawtooth- 442



McCall Hatchery

1 million Smolts
> 690 miles
23% spawning habitat
High weir efficiency
Recovery Target- Viable

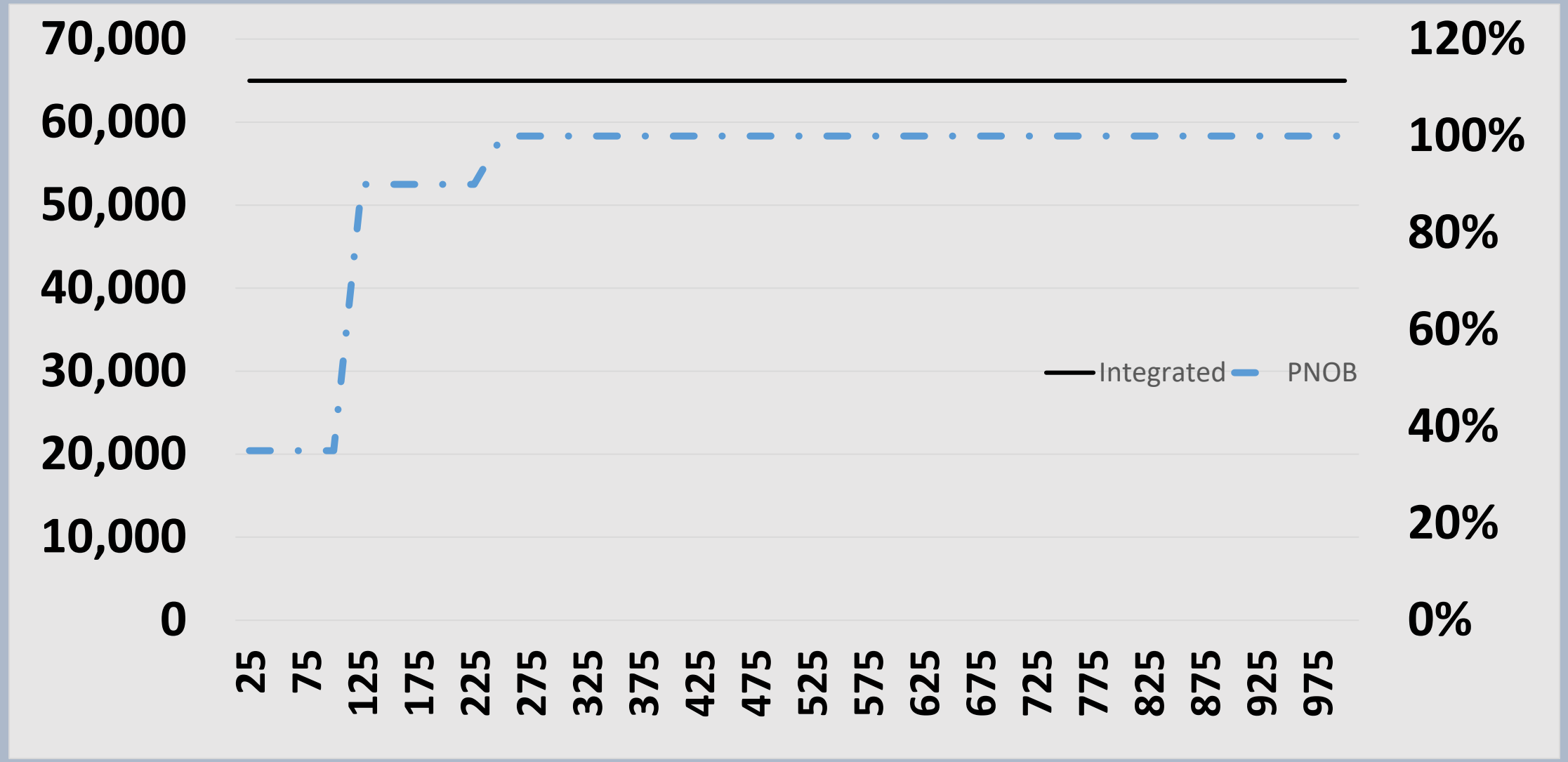
Sliding Scale Integration- South Fork Salmon- 346



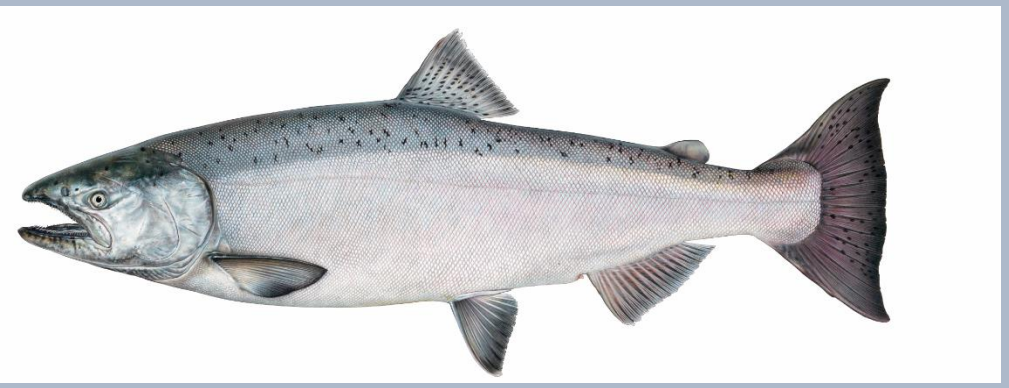
Pahsimeroi Hatchery

1 million Smolts
790 miles
99% spawning habitat
High weir efficiency
Integrated/Segregated
Recovery Target- Viable

Sliding Scale Integration- Pahsimeroi- 18

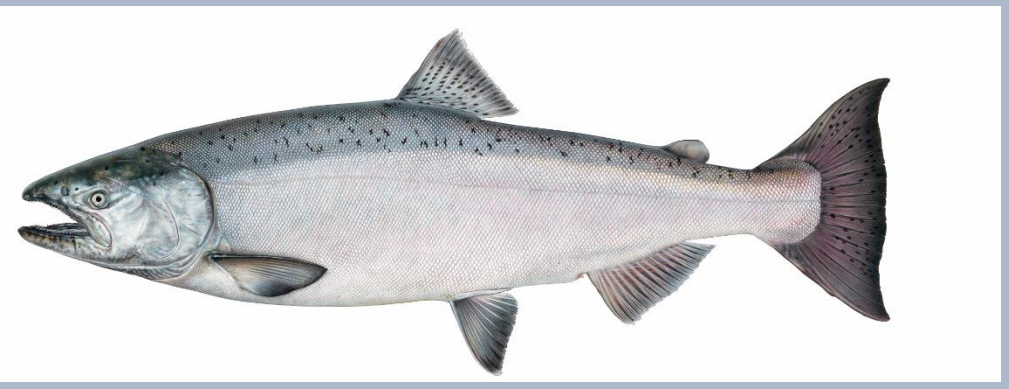


Adult Management



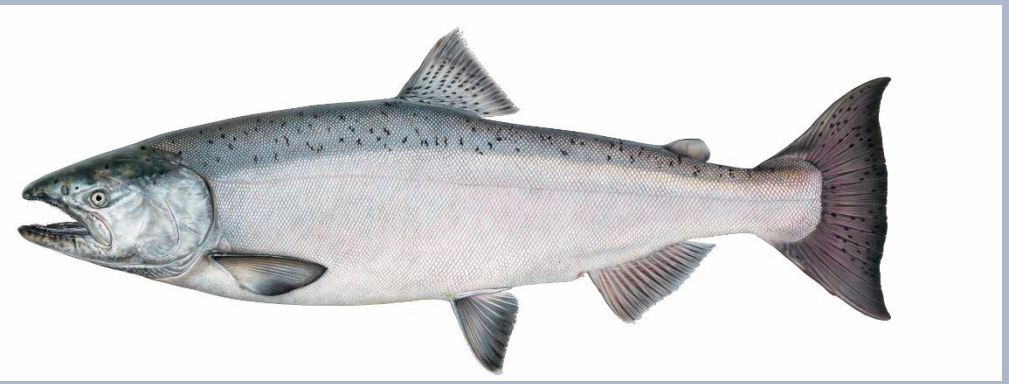
Wild Fish →

Spawning in Wild
Integrated Brood



Integrated Fish →

Spawning in Wild
Integrated Brood
Segregated Brood
Harvest



Segregated Fish →

Harvest
Segregated Brood
Remove at Weir

Future-?

Flexible scales to allow management

PHOS decreases

PNI increase

Maintain fishery benefits