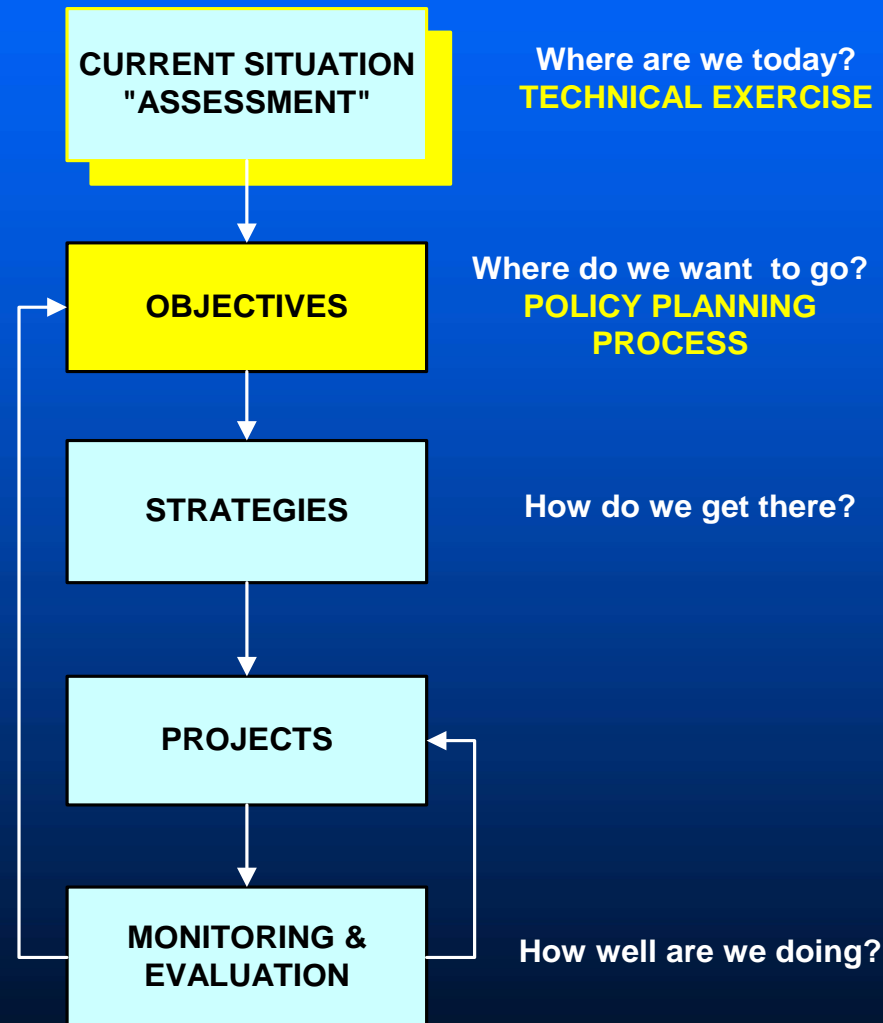


# Integration of Hatcheries with Subbasin Plans and the Development of Provincial Objectives

# Two Step Process to Develop Provincial Objectives for Anadromous Stocks

- Step One: Technical exercise
- Step Two: Policy planning, decision making process- Council Amendment process

# Strategic Planning (Council's F&W Program Framework)

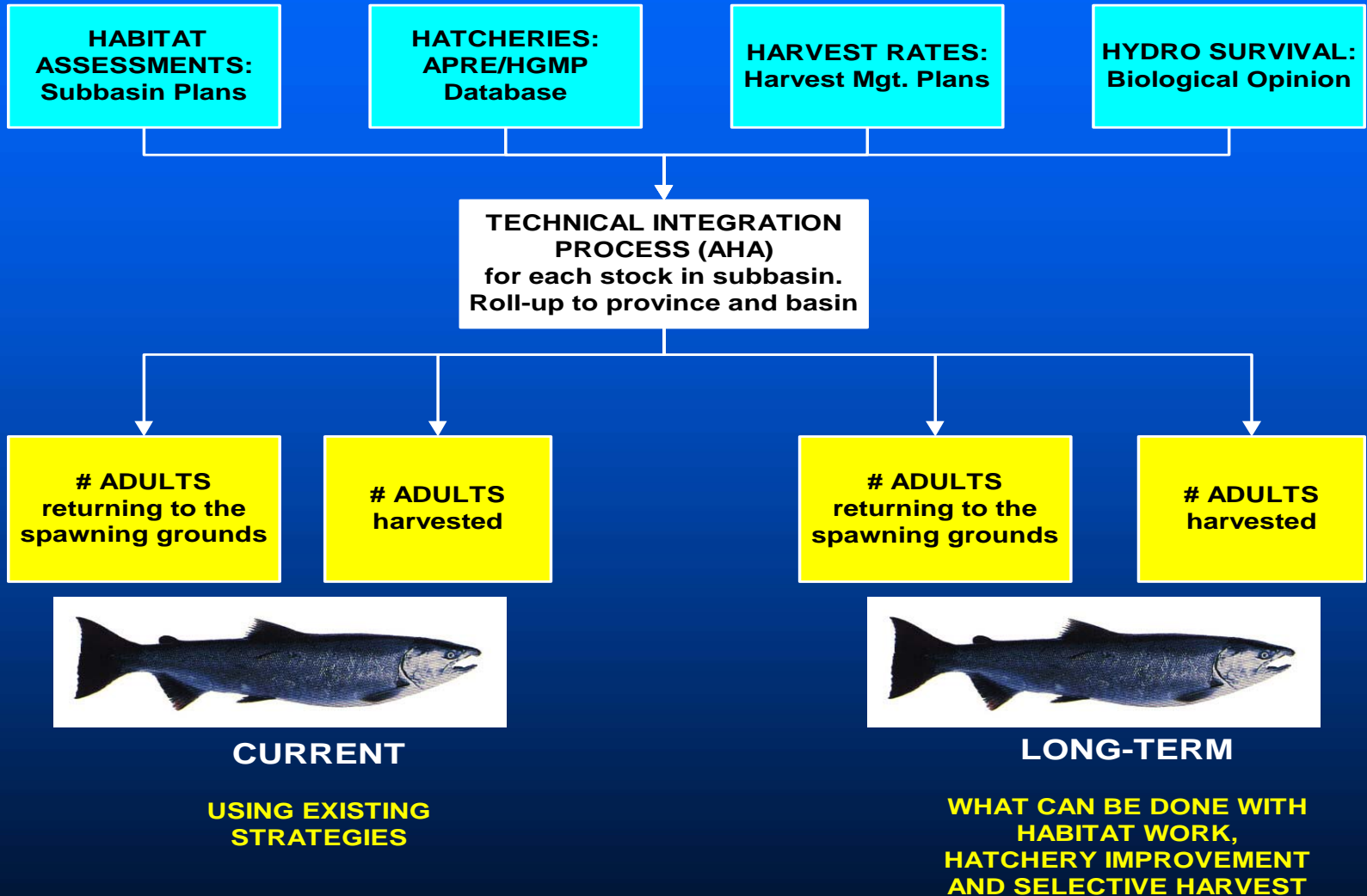


# Assess current situation: Where are we today?

Technical exercise will:

- Integrate 4H assessment work and produce results in a “common currency” - numbers of adults.
- Examine how many and what type of fish can be produced under existing conditions and programs.
- Look at how many fish and what type can be produced after implementing proposed actions and strategies.

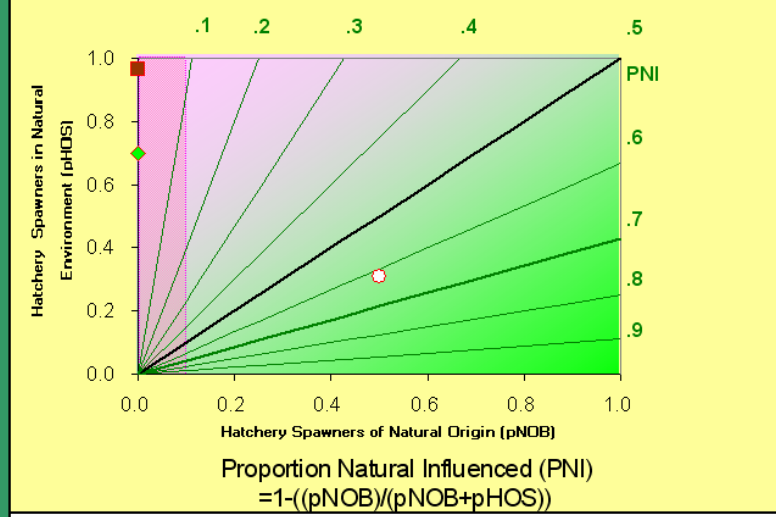
# Step One: Technical Integration Process



# All-H Analyzer (AHA)

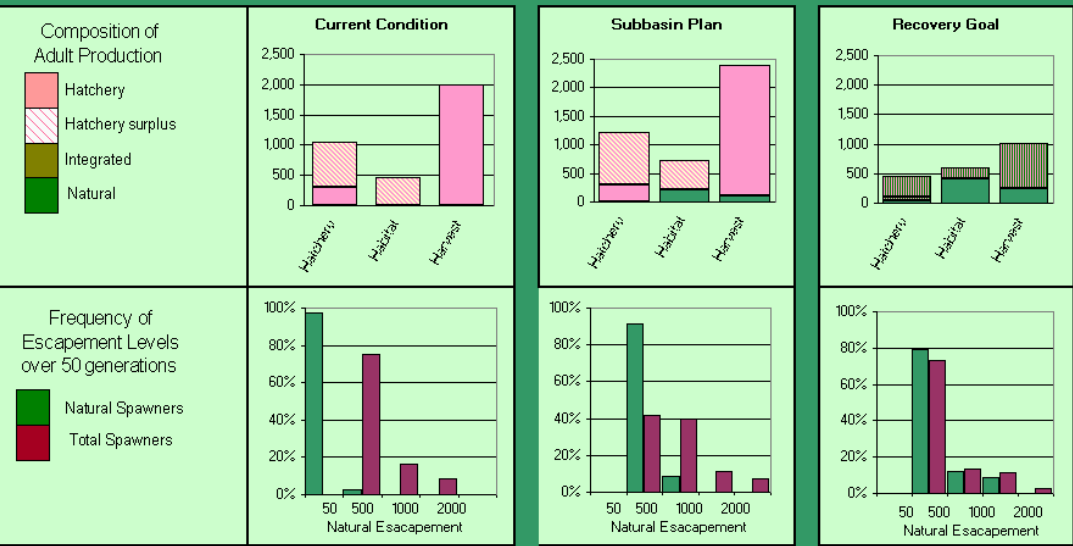
	Current Condition		Subbasin Plan		Recovery Goal	
<b>Habitat</b>						
Capacity of environment	950	Fish	1,279	Fish	1,279	Fish
Productivity of environment	1.8	Recruits/Spawner	3.8	Recruits/Spawner	3.8	Recruits/Spawner
<b>Hydroelectric</b>						
Smolt to Adult Survival						
<b>Harvest</b>						
Total Exploitation Rate	34%	57%	34%	57%	34%	57%
<b>Hatcheries</b>						
	Broodstock	Smolts Released	Broodstock	Smolts Released	Broodstock	Smolts Released
Capacity of hatchery	300	504,900	300	532,950	100	229,093
Productivity of hatchery	10.4	Recruits/Spawner	12	Recruits/Spawner	12	Recruits/Spawner
Intended Composition of Spawners	Natural Spawners	Hatchery Broodstock	Natural Spawners	Hatchery Broodstock	Natural Spawners	Hatchery Broodstock
	0%	0%	0%	0%	50%	50%
	came from hatchery origin	came from natural spawned parents	came from hatchery origin	came from natural spawned parents	came from hatchery origin	came from natural spawned parents
Destination of Hatchery returns	30%	70%	30%	70%	30%	70%
	Enter natural environment	Return to the hatchery	Enter natural environment	Return to the hatchery	Enter natural environment	Return to the hatchery

Composition of Spring chinook Spawners in the Kalama River



## Analysis of Spring chinook in the Kalama River

Date: 1/7/2005



# Step Two: Proposed Policy Review and Program Amendment Process

NUMBER OF ADULTS



Strawman  
**LONG TERM RESULTS** (de  
facto objectives) from  
technical exercise

AMENDMENT PROCESS  
Call for Recommendations

REGIONAL INPUT

Adoption of objectives into  
Fish and Wildlife Program

# Example: Columbia Cascade Province

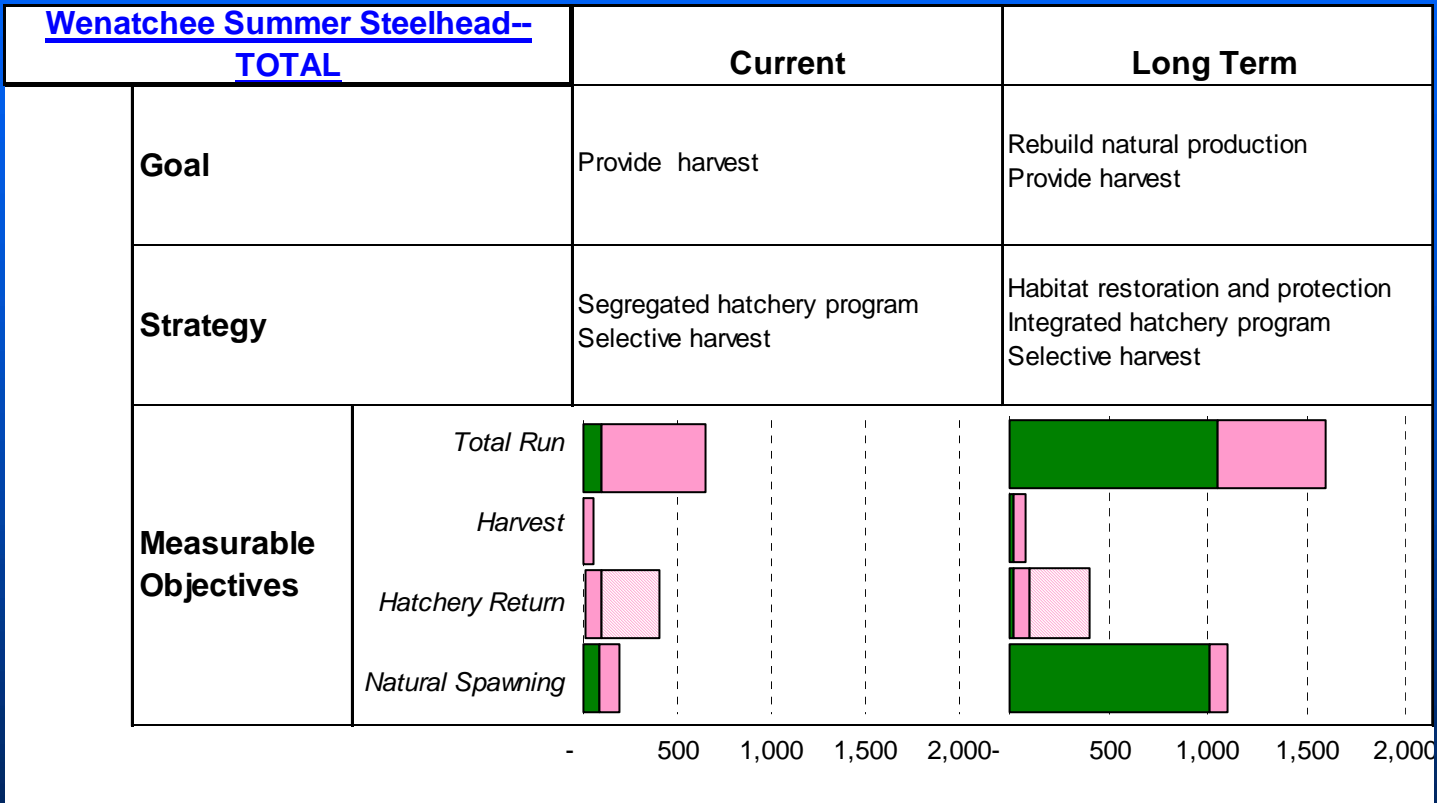
- Exercise using existing information from various sources
- Used “All-H-Analyzer” (AHA) model
- Chinook and steelhead stocks only
- Wenatchee, Entiat, Methow and Okanogan subbasins



# For each fish stock in each subbasin

- Examine current goals and strategies
- Examine long-term goals and strategies
- Use the model to determine how many adults could be hatchery and naturally produced near-term and long-term
- Roll results up to the provincial level

# Wenatchee Summer Steelhead



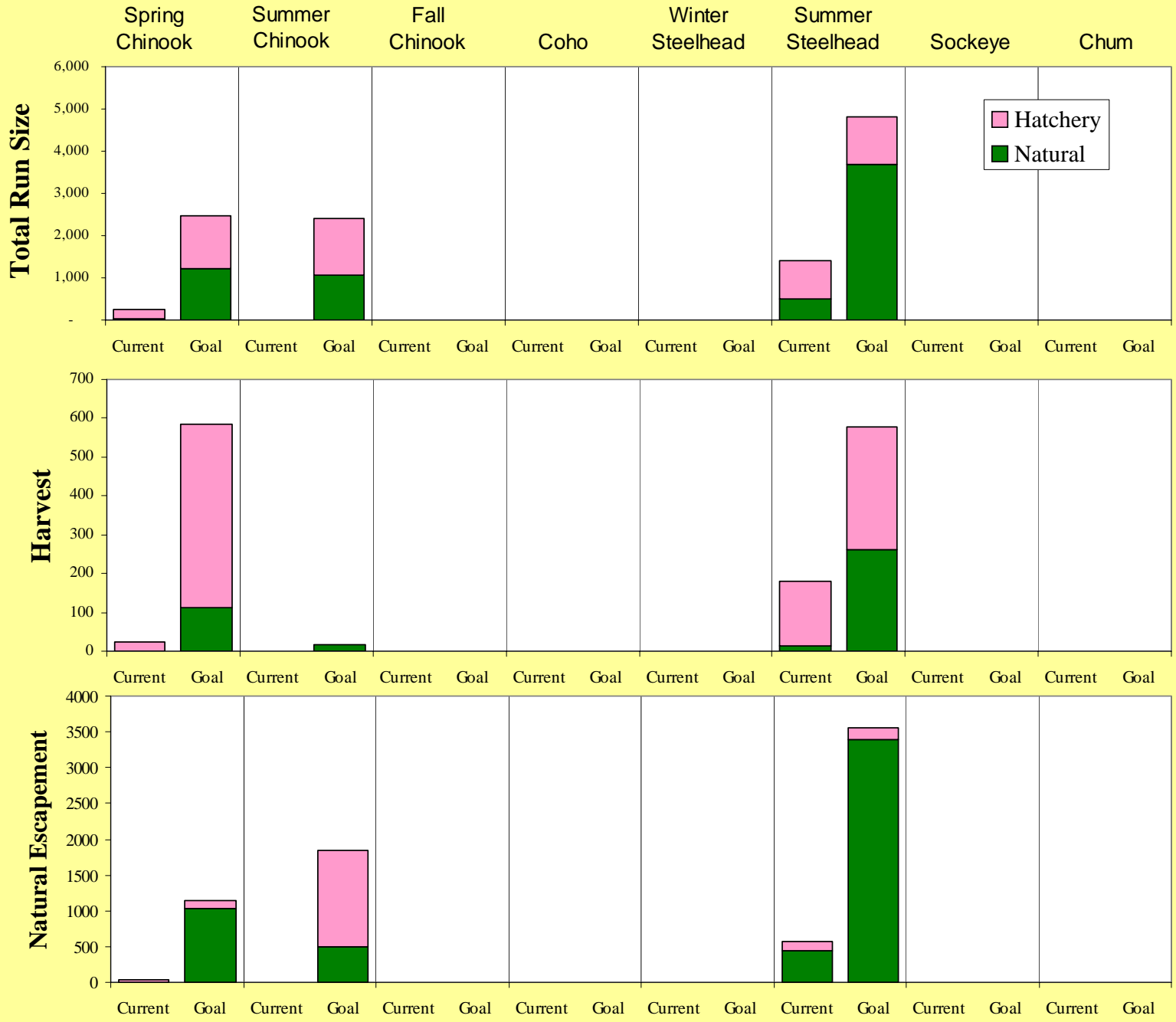
# Okanogan Summer Steelhead (L. Similkameen) - Integrated

<u>Okanogan Summer Steelhead (L. Similkameen)- Integrated</u>		Current	Long Term
<b>Goal</b>		Provide harvest	Rebuild natural production Provide harvest
<b>Strategy</b>		Integrated hatchery program Selective harvest	Habitat restoration and protection Integrated hatchery program Selective harvest
<b>Measurable Objectives</b>		<p>Current Measurable Objectives:</p> <ul style="list-style-type: none"> <li>Total Run: ~550</li> <li>Harvest: ~150</li> <li>Hatchery Return: ~250</li> <li>Natural Spawning: ~100</li> </ul>	<p>Long Term Measurable Objectives:</p> <ul style="list-style-type: none"> <li>Total Run: ~900 (split into ~350 green and ~550 pink)</li> <li>Harvest: ~150</li> <li>Hatchery Return: ~250 (split into ~50 green and ~200 pink)</li> <li>Natural Spawning: ~400 (split into ~350 green and ~50 pink)</li> </ul>

# Entiat Subbasin



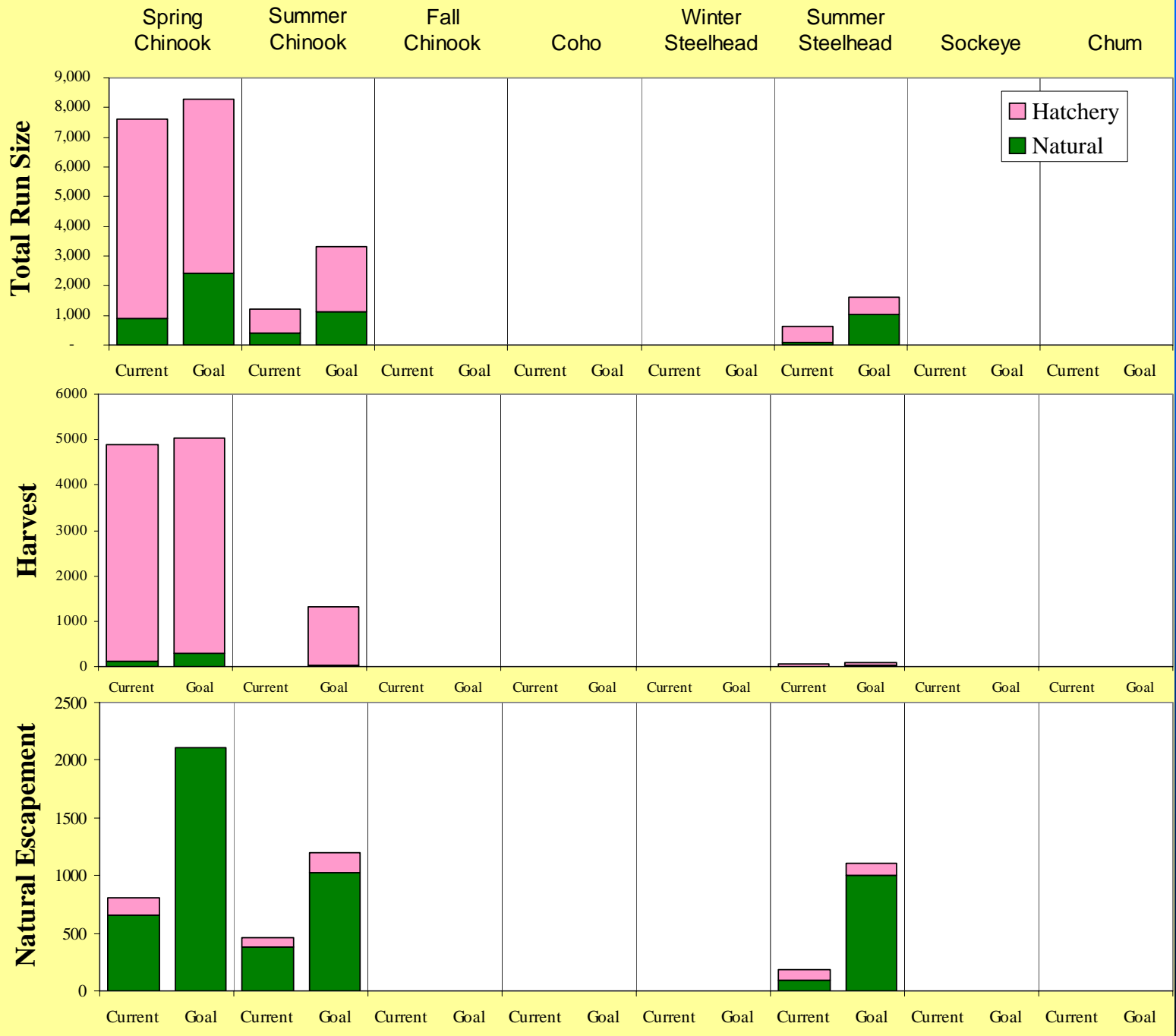
# Methow Subbasin



# Okanogan Subbasin



# Wenatchee Subbasin



# Cascade Province

