Technical Exercise to Integrate Hatcheries with Subbasins and the Development of Provincial Objectives

CBFWA February 25, 2005



Background

- Council is testing the feasibility of conducting a technical exercise that would improve the integration of hatcheries with subbasin plans.
- Tested in workshops in the Kalama and Yakima subbasins.
- Paper exercise complete for Wenatchee, Entiat, Methow and Okanogan subbasins— results rolledup to Columbia Cascade province
- Technical exercise can help inform a broader policy discussion on provincial and basin objectives.



Project Benefits

- Assists development of provincial objectives called for in F&W Program
- Better alignment of hatcheries with habitat
- Help guide hatchery reform
- Integration of production across 4 H's
- Quantifiable objectives and benchmarks assist development of better M&E program
- Promotes consistency across the basin and a common currency for evaluation
- Can assist state and federal recovery planning

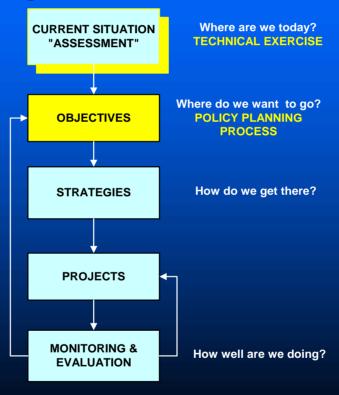


Two Step Process to Develop Provincial Objectives

- Step One: Technical exercise
- Step Two: Policy planning, decision making 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"- <u>numbers of adults.</u>
- 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: Proposed Technical Integration Process

HABITAT ASSESSMENTS: Subbasin Plans HATCHERIES: APRE/HGMP Database

HARVEST RATES: Harvest Mgt. Plans

HYDRO SURVIVAL: Biological Opinion

TECHNICAL INTEGRATION PROCESS (AHA) for each stock in subbasin. Roll-up to province and basin

ADULTS returning to the spawning grounds

ADULTS harvested

ADULTS returning to the spawning grounds

ADULTS harvested



CURRENT

USING EXISTING STRATEGIES

2 to the

LONG-TERM

WHAT CAN BE DONE WITH HABITAT WORK, HATCHERY IMPROVEMENT AND SELECTIVE HARVEST

Step Two: Proposed Policy Review and Program Amendment Process

NUMBER OF ADULTS





Example: Columbia Cascade Province

- Paper exercise using existing information from various sources
- Used "All-H-Analyzer" (AHA) model
- Chinook and steelhead stocks only
- Wenatchee, Entiat, Methow and Okanogan subbasins
- Caveat: For demonstration purposes only. Inputs and assumptions not reviewed.



All-H-Analyzer (AHA) Model Inputs

- Habitat: current and future productivity and capacity values from subbasin plans
- Hatchery: data, strategies and goals collected from APRE/HGMP process
- Harvest: current harvest rates from management plans.
- Hydrosystem: survival rates from hydro Bi-Op.



For each fish stock in each subbasin

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



Wenatchee Summer Steelhead

Wenatche	Wenatchee Summer Steelhead TOTAL			Current				Long Term			
Goa	Goal			Provide harvest				Rebuild natural production Provide harvest			
Stra	Strategy		Segregated hatchery program Selective harvest				Habitat restoration and protection Integrated hatchery program Selective harvest				
	Measurable Objectives	Total Run			1	1	1			,	
Mea		Harvest		1 1	 	 	1		1	-	i I
Obj		Hatchery Return			 	 	 		 	 	i I
		Natural Spawning		 	 	 	 			 	
			-	500	1,000	1,500	2,000-	500	1,000	1,500	2,000

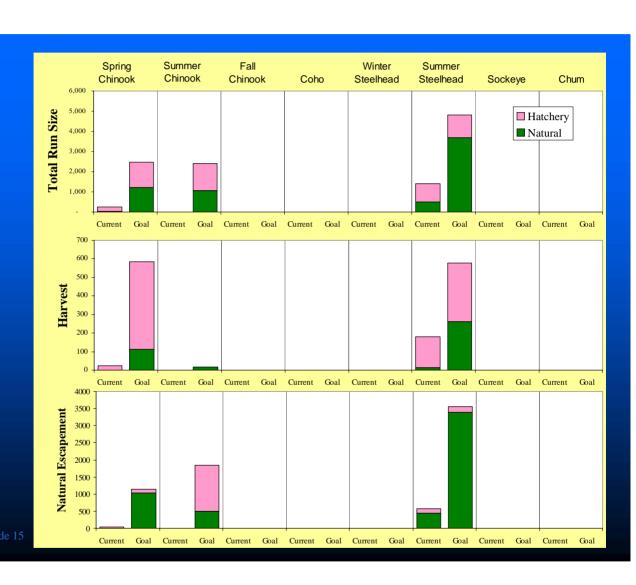


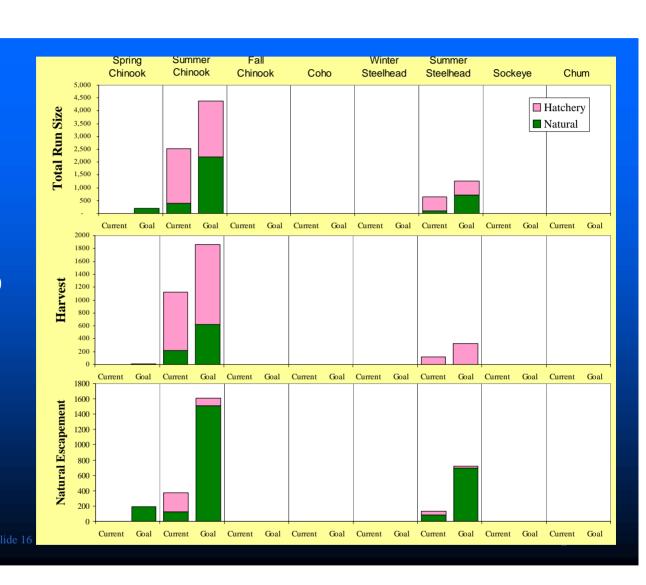
Okanogan Summer Steelhead (L. Similkameen) -Integrated

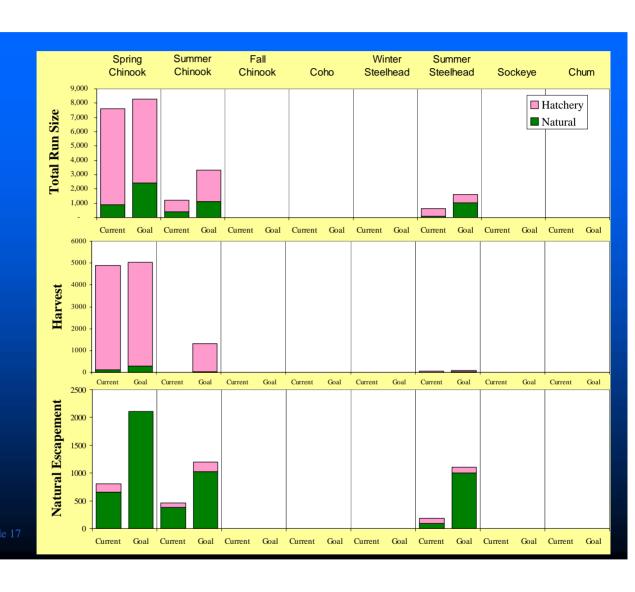
gan Summer (milkameen)- In		Current	Long Term		
Goal		Provide harvest	Rebuild natural production Provide harvest		
Strategy		Integrated hatchery program Selective harvest	Habitat restoration and protection Integrated hatchery program Selective harvest		
	Total Run				
Measurable	Harvest				
Objectives	Hatchery Return				
	Natural Spawning				
		500 1,000	D- 500 1,000		

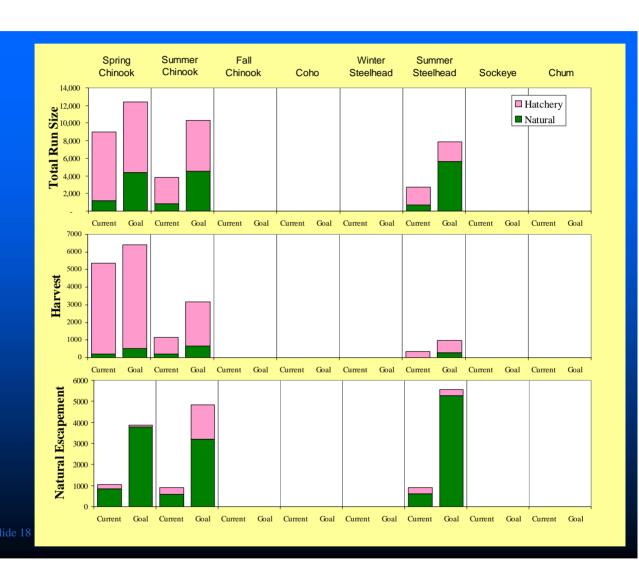












Next steps

- Continue to discuss ideas with people to ensure coordination of effort
- Address ISRP/ISAB recommendations
- Possibly conduct a work session in Columbia Cascade to review paper exercise.
- Improve tools and database to meet Council's and regional needs
- Develop a work plan and budget for Council consideration in March.





Cascade Province Summer Steelhead

	Cascade Province Summer SteelheadTOTAL				Long Term		
Goal		Provide harvest			Rebuild natural production Provide harvest		
Strategy	Strategy		chery progra	ms	Habitat restoration and protection Integrated hatchery program Selective harvest		
Measurable Objectives	Total Run Harvest Hatchery Return Natural Spawning						
	-	2,000	4,000	6,000 -	5,000 1	0,000	

