HARVEST AND HATCHERIES: A NEW VISION FOR THE LOWER COLUMBIA RIVER

CONSERVATION AND SUSTAINABLE FISHERIES PLAN

Washington Department of Fish and Wildlife

Fish and Wildlife Commission Meeting

March 18, 2016

CONSERVATION AND SUSTAINABLE FISHERIES PLAN (CSF PLAN)

- Implementing Commission "Hatchery and Fishery Reform Policy" in Region 5
- Consistent with the lower Columbia Recovery Plan
- Describes detailed actions
- All "H" approach necessary to achieve recovery
  - Plan focused on Hatcheries and Harvest actions
  - Habitat and Hydro actions are called for in the recovery plan

PURPOSE AND GOALS

- Purpose
  - ✓ Implement hatchery and fishery reform actions

- Goals
  - ✓ Contribute to recovery of natural origin populations
  - ✓ Support sustainable sport and commercial fisheries

LONG TERM VISION

- Habitat of sufficient quality and quantity to support viable populations
- Sufficient spawners to fully utilize habitat
- Fish that are sufficiently fit to effectively use the habitat
- Hatchery production is adequate to support productive sustainable fisheries
- Wild populations are restored to healthy and harvestable levels

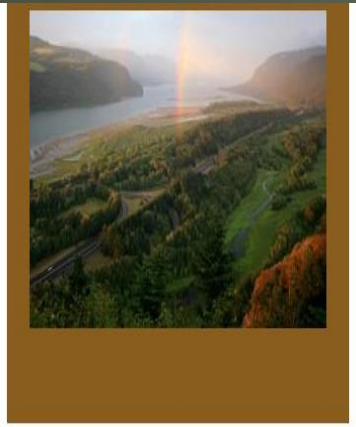
HATCHERY AND FISHERY REFORM POLICY C-3619

”Advance conservation and recovery of wild salmon and steelhead by promoting and guiding the implementation of hatchery reform”

THE EARLY DAYS – PUBLIC OUTREACH

Date	Meeting
January 2008	Joint Commission Meeting
June 2008	Lower Columbia Fish Recovery Board Regular Meeting
July 2008	Region 5 Fish Management Staff Meeting
August 2008	Salmon for our Coastal Communities Meeting
August 2008	Public meeting in Cathlamet
August 2008	Public meeting in Longview
August 2008	Public meeting in Washougal
August 2008	Public meeting in Westport
October 2008	Meeting with Legislators from Wahkiakum County
November 2008	Seattle Trollers Association Annual Meeting
January 2009	Lower Columbia Commercial and Recreational Advisory Groups Meeting
October 2011	Lower Columbia Fish Recovery Board Regular Meeting

SUMMARY DOCUMENT



- Introduction and Background (Chapters 1-6)
  - Recovery Plan summary
  - Population assessments and recovery targets
  - Hatchery and harvest impacts
  - HSRG analysis and criteria
- Population Specific Actions and Expected Results (Chapters 7-8)
- Results, Implementation, Monitoring & Adaptive Management (Chapters 9-10)

BACKGROUND

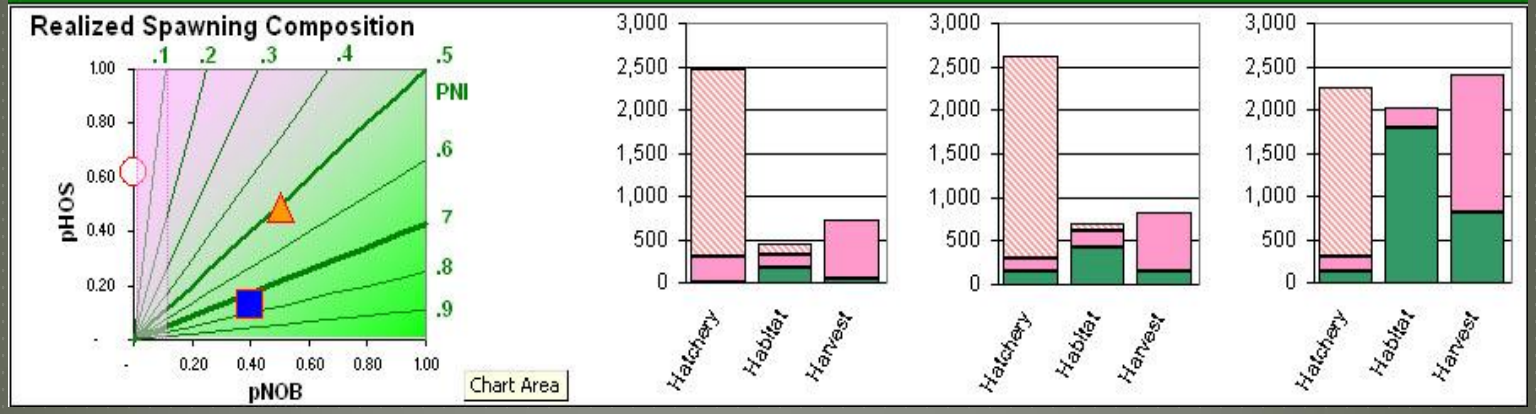
- Plan development began around 2008
  - Mitchell Act budget constraints
  - HSRG recommendations
  - Hatchery and Fishery Reform Policy
  - *US v. Oregon* agreements
- Initial actions included:
  - Reduced hatchery fish production
  - Moved hatchery fish production to other areas
  - Improved access for natural origin adults
  - Control of hatchery fish on spawning grounds
  - Public outreach

HATCHERY ACTIONS

- Restrict number of hatchery fish in natural spawning areas
- Reprogram hatchery production and manage broodstock to minimize risk to wild fish
  - Utilize natural origin fish in brood – Integrated programs
- Manage production levels to provide productive and sustainable sport, commercial and tribal fisheries
- Upgrade fish rearing and handling facilities
- Improve infrastructure

HGMPS AND AHA MODELING

Subbasin	Species	Stock Name	Current		Short Term		Long Term	
MyBasin	Chinook	MyChinook						
Habitat:	Productivity | Capacity		2.0	4,000	2.0	4,000	3.0	5,000
Harvest:	Harvest Rate [Wild | Hatchery]		0.2	0.2	0.2	0.2	0.3	0.4
Primary Hatchery Program	Broodstock Composition:		pNOB	pHOS	pNOB	pHOS	pNOB	pHOS
		Goal	0%	50%	50%	40%	40%	90%
		Realized	0%	62%	50%	47%	40%	13%
	[Broodstock | Smolt Release]		300	504,900	300	503,118	300	503,118
	HOR Destination [Hat | River]		90%	10%	90%	10%	90%	10%
	[Recruits/Spawner | Fitness?]		10.4	y	10.4	y	12.0	y



INTEGRATED HATCHERY PROGRAMS

- Fall Chinook – all hatchery programs
  - Lower Cowlitz, Toutle, Kalama, Washougal
- Spring Chinook
  - None currently – focus is re-introduction into upper basins and juvenile fish passage
- Coho – late stock
  - Grays , upper Cowlitz, Kalama, Lewis, Washougal
- Coho – early stock
  - Toutle
- Winter steelhead
  - Abernathy (USFWS), lower and upper Cowlitz, Kalama, Lewis,
- Summer steelhead
  - Kalama

WEIRS

- Grays
- Elochoman
- Cowlitz tributaries
- Coweeman
- Kalama
- Washougal

Purposes:

- ✓ Control hatchery fish on spawning grounds
- ✓ Monitor abundance
- ✓ Collect broodstock for hatchery

Coweeman Weir

HARVEST ACTIONS

- Increase harvest of hatchery fish
  - Implement mark-selective fisheries to increase harvest of hatchery fish
- Manage harvest to support recovery of natural populations
- Maintain or establish wild steelhead gene banks or wild salmon management zones

MARK-SELECTIVE FISHERIES (MSF)

- Coho , steelhead
  - Most non-tribal fisheries are MSF
- Spring Chinook
  - All non-tribal fisheries are MSF
- Fall Chinook – limited MSF
  - Ocean sport fisheries – recently about 1-3 weeks
  - Mainstem Columbia River sport – recently about 1-3 weeks
  - Columbia River commercial – seine fisheries in process of implementation – small scale fisheries occurred in 2015

WILD STOCK MANAGEMENT ZONES

- Included in Hatchery and Fishery Reform Policy
- Steelhead gene banks have been designated
- Wild salmon management zones next step

WILD STOCK MANAGEMENT ZONES

- Several rivers already meeting objectives
  - 13 Wild Stock Management Zones (includes steelhead gene banks)
  - 19 populations benefit
    - 7 Fall Chinook
    - 6 Coho
    - 4 Winter steelhead
    - 2 Summer steelhead

STEELHEAD GENE BANKS

- Included in Statewide Steelhead Management Plan
- Established March 2014
  - East Fork Lewis winter and summer steelhead
  - North Fork Toutle/Green winter steelhead
  - Wind summer steelhead
- Established March 2016
  - Grays/Chinook winter steelhead

MONITORING AND EVALUATION

- Key aspect of CSF Plan implementation
- Needed to monitor actions, document results, track trajectory, and report on ESA standards
- Will help determine next steps
- Focus on Viable Salmonid Populations (VSP) parameters
  - Abundance
  - Spatial Distribution
  - Productivity
  - Diversity

ADAPTIVE MANAGEMENT

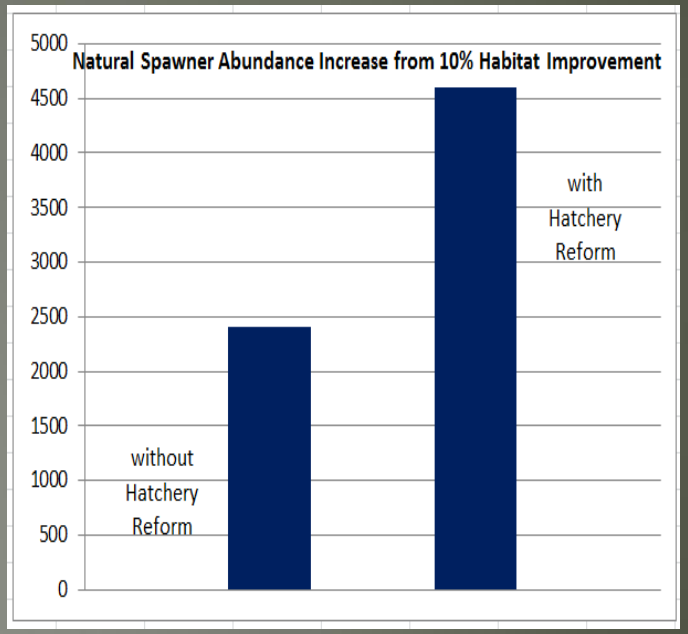
- Key component of CSF Plan
- With monitoring results will help shape future actions
- Many components of CSF Plan are in initial stages
  - Need results of actions to determine if course corrections are needed
- Several key things in play:
  - Hatchery reform actions
  - Increased population monitoring = increased knowledge of population response
  - Role of fisheries

CHALLENGES TO SUCCESS

- Stabilizing hatchery operation and maintenance funding
- Funding facilities improvements
- Adequately funding monitoring and evaluation program
- Increasing effectiveness of selective fisheries, especially mark-selective
- Implementing actions for multiple species simultaneously
- Achieving necessary hydro and habitat improvements

OTHER H'S

- Hydro
  - Success in reintroduction programs critical, especially for spring Chinook
  - Support critical production and monitoring programs
- Habitat
  - Habitat protection and improvement cornerstone of Recovery Plan
  - Compounds benefits of hatchery reform actions



PUBLIC OUTREACH/COMMENTS ON PLAN

Date	Meeting
February 2015	Lower Columbia Fish Recovery Board Regular Meeting
October 2015	Lower Columbia Fish Recovery Board TAC Meeting
November 2015	Lower Columbia Fish Recovery Board TAC Meeting
December 2015	Lower Columbia Fish Recovery Board Regular Meeting

- PacifiCorp
- Native Fish Society
- Hatchery Scientific Review Group
- USFWS
- WA Fly Fishing Club
- Western Watershed Projects
- Wild Salmon Center & Clark-Skamania Flyfishers (jointly)
- 22 individuals

SUMMARY/NEXT STEPS

- The CSF Plan:
  - Provides a good path to success, the key is effective implementation
  - Utilizes hatcheries to address the challenge of simultaneously meeting conservation and harvest goals
  - Will result in increased population productivity, natural-origin abundance and harvest of hatchery-origin fish
  - Will achieve biological impact reduction targets set forth in Recovery Plan, but increased progress in other H's will be necessary to recover listed populations
- Adequate funding is necessary to fully implement CSF Plan

QUESTIONS?