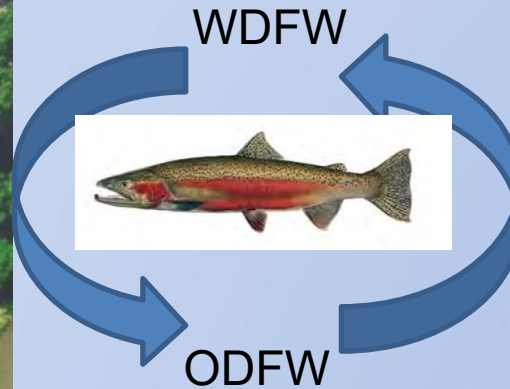


LSRCP - Discussions on Reciprocal Study



Rod Engle - ISRP Steelhead Review 2025

Wallowa Stock Steelhead in LSRCP

Current production in LSRCP program.

<u>Release Site</u>	WDFW Lyons Ferry	ODFW Irrigon
<i>on-station (Snake River)</i>	<i>60,000</i>	
<i>Touchet River (Walla Walla)</i>	<i>100,000</i>	
<i>Cottonwood Acclimation Site - Grande Ronde</i>	<i>225,000</i>	
<i>Wallowa (1st) - Grande Ronde</i>		<i>400,000</i>
<i>Wallowa (2nd) - Grande Ronde</i>		<i>160,000</i>
<i>Big Canyon - Grande Ronde</i>		<i>240,000</i>
<i>Totals</i>	<i>385,000</i>	<i>800,000</i>

Total Wallowa Stock = 1,185,000



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Wallowa Stock Steelhead in LSRCP

Implementation of Reciprocal Study

<u>Release Site</u>	WDFW Lyons Ferry	ODFW Irrigon
<i>on-station (Snake River)</i>	60,000	
<i>Touchet River (Walla Walla)</i>	100,000	
<i>Cottonwood Acclimation Site - Grande Ronde</i>	225,000	
<i>Wallowa (1st) - Grande Ronde</i>	200,000	-
<i>Wallowa (2nd) - Grande Ronde</i>	80,000	-
<i>Big Canyon - Grande Ronde</i>	120,000	-
<i>Totals</i>	785,000	-

Found Infrastructure = 20 raceways and water at Irrigon Fish Hatchery (ODFW)



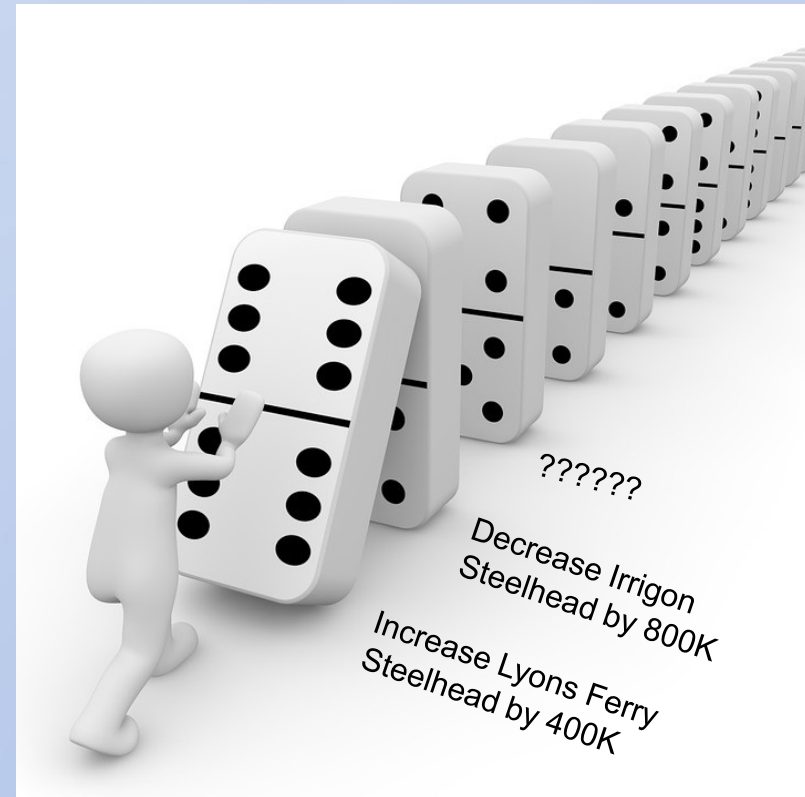
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Framing

- What would it mean for both facilities if implemented? What would it mean for LSRCP?
- “Found” infrastructure
 - Space and water available at Irrigon... about 20 raceways.
 - Better address LSRCP programs?
 - Fall Chinook Salmon
 - Spring Chinook Salmon
 - Steelhead
 - SDM Tools and Framework

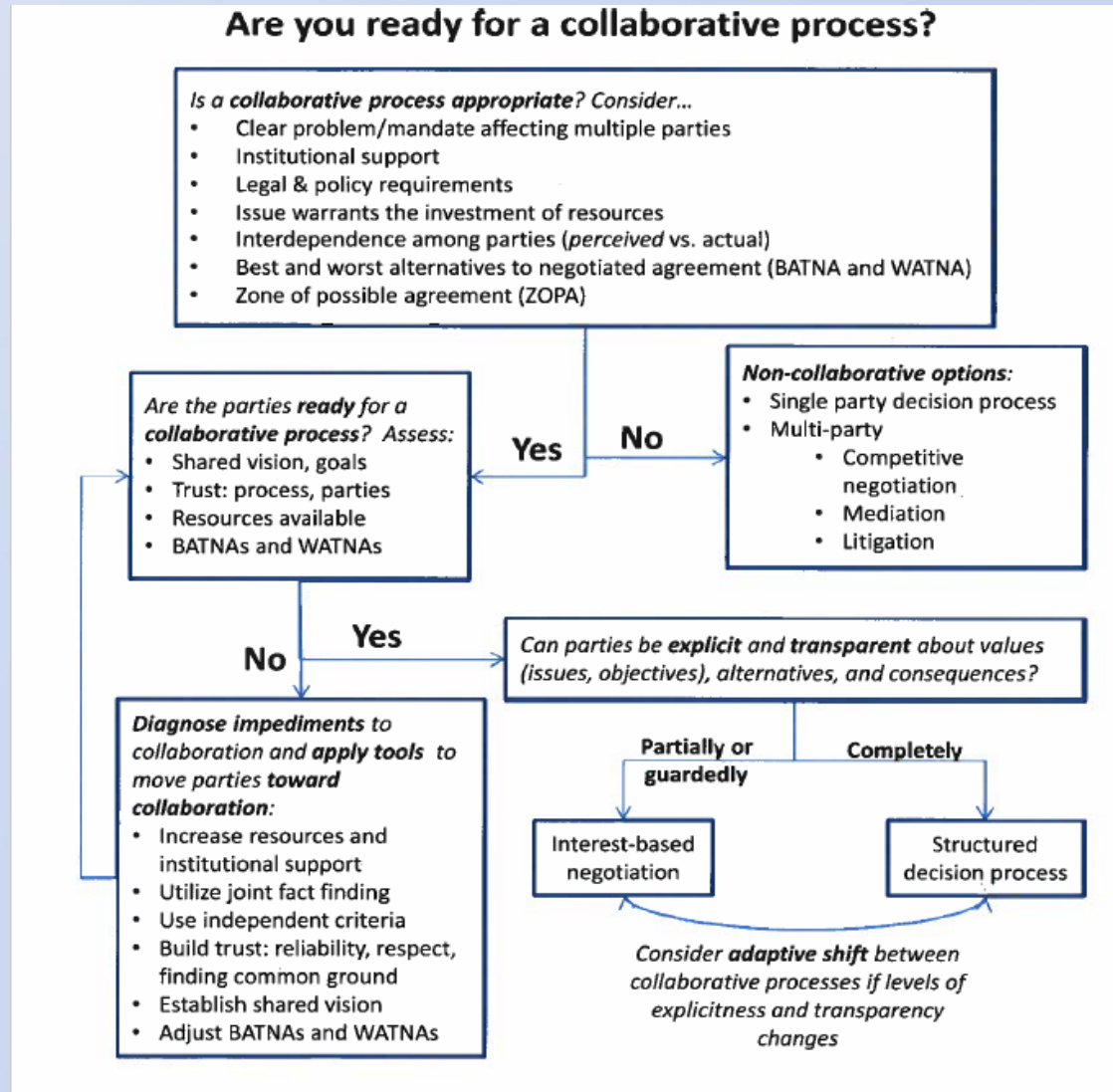


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Collaborative Process – 2020-2022



Collaborative Process – 2020-22

September 2020... LSRCP initiated conversations with Cooperators

- “What opportunities for program changes or enhancements are there given uses of Lyons Ferry and Irrigon hatcheries and the available space?”
- Spring Chinook, Fall Chinook, Steelhead

LSRCP Objectives

- Cost efficiencies to address current and future budget climate
- Where possible, address spring Chinook mitigation goals
- Ensure consideration of ESA, *U.S. v. Oregon*, scientific defensibility.
- Maintain and/or enhance in-kind/in-place LSRCP mitigation obligations.
- Policy considerations



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Collaborative Process

- LSRCP met individually and collectively for brainstorming efforts. Convened multi-party meetings in addition to AOP discussions.
 - WDFW, ODFW, CTUIR, NPT
 - SBT and IDFG*
- Product
 - 22 alternatives developed.
 - Most involve study implementation, some completely stand alone.
 - Impacts beyond Wallowa steelhead programs and into LSRCP spring and fall Chinook programs to address goals.



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These are the base programs at Lyons Ferry and Irrigon currently (2020).				
			Lyons Ferry Hatchery	Irrigon Fish Hatchery
Spring Chinook				
	<u>Stock</u>	<u>Rel Site</u>		
	Tucannon Stock	Tucannon	225,000	-
	Carson Stock	Touchet	250,000	-
Fall Chinook (SRFC stock)				
	<u>Age Class</u>	<u>Rel Site</u>		
	Yearlings	on-station	450,000	
	Subyearlings	on-station	700,000	
		FCAP	1,900,000	
		Salmon River		1,000,000
		Grande Ronde		200,000
Steelhead				
	<u>Stock</u>	<u>Rel Site</u>		
	<i>Wallowa</i>	<i>on-station</i>	<i>60,000</i>	
		<i>Touchet</i>	<i>100,000</i>	
		<i>Cottonwood</i>	<i>225,000</i>	
		<i>Wallowa (1st acc)</i>		<i>400,000</i>
		<i>Wallowa (2nd acc)</i>		<i>160,000</i>
		<i>Big Canyon (OR)</i>		<i>240,000</i>
	Tucannon (mit.)	Tucannon	100,000	
	Tucannon (cons.)	Tucannon	50,000	
	Touchet	Touchet	50,000	
	Imnaha, Little Sheep			215,000
Trout				
		Catchables	125,000	140,000

Summary of 22 Developed Options

- Implement fully or variable production changes to Wallowa steelhead (10/22).....
 - ODFW fall brood steelhead programs additionally impacted in some scenarios
 - With opened space, Irrigon could raise up to 2.0 M subyearling fall Chinook.
 - All 10 affect fall Chinook salmon at either Irrigon or Lyons Ferry hatchery in some way (increase/decrease shifting programs from LFH to Irrigon or elsewhere).
 - WDFW and ODFW Policy concerns attached to steelhead options...
 - ESA consultation with spring Chinook options considered....
- Change or impact fall Chinook at IFH/LFH (17/22)
 - Many involve rearing changes to Snake River Fall Chinook production...moving all or portion from LFH to Irrigon Hatchery.
 - NPT and CTUIR expressed concerns with fall Chinook program impacts and another desired change.....conversion of yearling fall Chinook program to subyearlings at Lyons Ferry Hatchery.
 - Steelhead secondary to fall Chinook.



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Options and Path Forward (5)

OPTION VOTE		OPTION VOTE		OPTION VOTE		OPTION VOTE		OPTION VOTE	
NPT (LSRCP disc.)	MAYBE	NPT (LSRCP disc.)	MAYBE	NPT (LSRCP disc.)	MAYBE	NPT (LSRCP disc.)	MAYBE	NPT (LSRCP disc.)	MAYBE
WDFW	YES	WDFW	YES	WDFW	YES	WDFW	YES	WDFW	YES
ODFW	YES	ODFW	NO	ODFW	YES	ODFW	YES	ODFW	YES
CTUIR	MAYBE	CTUIR	YES	CTUIR		CTUIR	YES	CTUIR	YES
		Best Opt if all FCAP ship to IFH (1.9M) to allow LFH to rear more springers. Yearling FCH to Subs adds other options like Option 11		LFH all the same as Option 14		LFH all the same as Option 14		LFH all the same as Option 14	
Option 9		Option 14		Option 15		Option 16		Option 18	
Spring Chinook Production for Snake River Add 500K SPCH at LFH, Some SNFCH to IFH		Lake Construction at IFH Rear WAL Production StS in lake at IFH		All Wallowa Steelhead to WFH in November Utilize WFH wildlife/abatement lake for 2nd Acc. Group All Steelhead transferred to WFH in November.		All Wallowa Steelhead to WFH in November Utilize unused raceways at WFH for 2nd Acc. Group All Steelhead transferred to WFH in November.		Modifications to Wallowa Acclimation Ponds Increase carrying capacity via wall construction	
Production Changes LFH:		Production Changes LFH:		Production Changes LFH:		Production Changes LFH:		Production Changes LFH:	
Steelhead	No Change	Steelhead	Possible Change **	Steelhead	Possible Change **	Steelhead	Possible Change **	Steelhead	Possible Change **
Spring Chinook	Increase 500K	Spring Chinook	Opt1: 500K, Opt2: 700K, +250K TC	Spring Chinook	Opt1: 500K, Opt2: 700K, +250K TC	Spring Chinook	Opt1: 500K, Opt2: 700K, +250K TC	Spring Chinook	Opt1: 500K, Opt2: 700K, +250K TC
Fall Chinook Sub	Decrease 600K (or to IFH?)	Fall Chinook Sub	Decrease 1.9M FCAP (or to IFH)	Fall Chinook Sub	Decrease 1.9M FCAP (or to IFH)	Fall Chinook Sub	Decrease 1.9M FCAP (or to IFH)	Fall Chinook Sub	Decrease 1.9M FCAP (or to IFH)
Fall Chinook Year	No Change	Fall Chinook Year	No Change or convert to subs	Fall Chinook Year	No Change or convert to subs	Fall Chinook Year	No Change or convert to subs	Fall Chinook Year	No Change or convert to subs
Production Changes IFH:		Production Changes IFH:		Production Changes IFH:		Production Changes IFH:		Production Changes IFH:	
Steelhead	No Change	Steelhead	Decrease up to 400,000	Steelhead	No Change	Steelhead	No Change	Steelhead	No Change
Spring Chinook	No Change	Spring Chinook	No Change	Spring Chinook	No Change	Spring Chinook	No Change	Spring Chinook	No Change
Fall Chinook Sub	Increase up to 1M	Fall Chinook Sub	Increase up to 2M	Fall Chinook Sub	Increase up to 2M	Fall Chinook Sub	Increase up to 2M	Fall Chinook Sub	Increase up to 2M
Fall Chinook Year	No Change	Fall Chinook Year	No Change	Fall Chinook Year	No Change	Fall Chinook Year	No Change	Fall Chinook Year	No Change

Priority	Action	Status Toward Agreement
1. Fall Chinook	Implement conversion of yearlings at LFH to subyearlings at LFH/IFH - 2023/2024	US v. Oregon approved NOAA Consultation in development (2022-2025)
2a. Steelhead	Partial/Full Implementation of Reciprocal Study	Present to Future (2025-2027)
2b. Spring Chinook	Improvement toward LSRCP goal	TBD



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Questions?

LSRCP Objectives

- Cost efficiencies to address current and future budget climate
- Where possible, address spring Chinook mitigation goals
- Ensure consideration of ESA, U.S. v. Oregon, scientific defensibility.
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Additional Slides



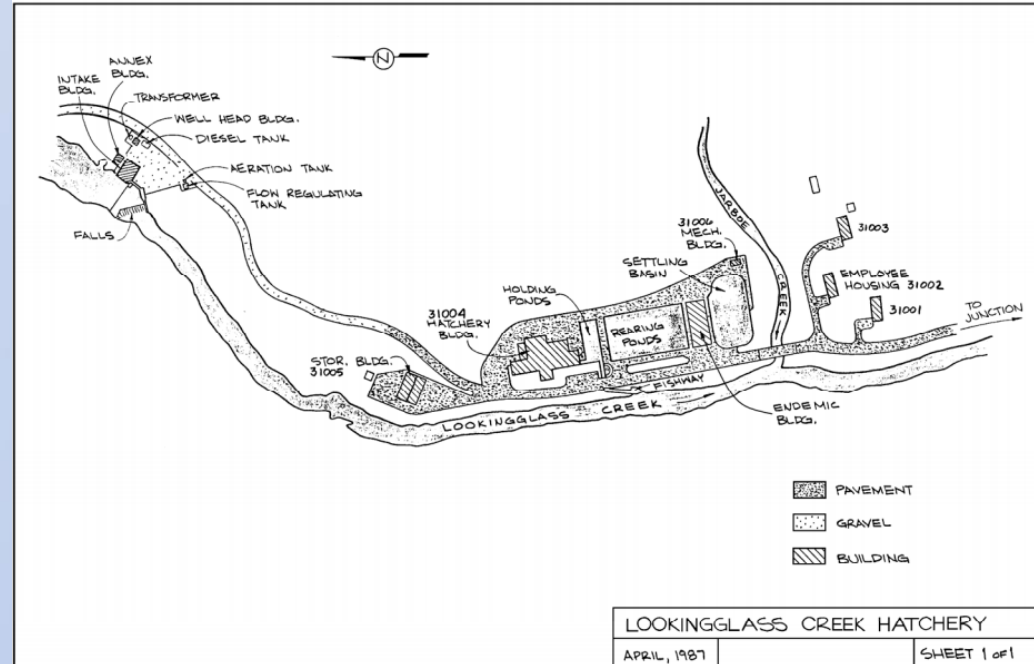
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Byproduct of CP and SDM – Stand Alone Options

- Add additional steelhead existing LFH production (50K-110K)
- Add 4 raceways to Lookingglass Hatchery (280K spring Chinook)
- Would not have been identified without structured thinking and discussions.



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Results

- Overall 2:1 survival advantage of steelhead reared at Lyons Ferry compared to Irrigon.
- Densities.....

	<i>WDFW Lyons Ferry (kg/m3)</i>	<i>ODFW Irrigon (kg/m3)</i>
<i>Rearing</i>	<i>1.0</i>	<i>19.5</i>
<i>Release Site</i>	<i>2.0</i>	<i>19.3</i>



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Results

- Overall 2:1 survival advantage of steelhead reared at Lyons Ferry compared to Irrigon.

- Densities.....

	<i>WDFW Lyons Ferry (DI)</i>	<i>ODFW Irrigon (DI)</i>
<i>Rearing and Release Site</i>	<i>0.01-0.02</i>	<i>0.15</i>



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Wallowa Stock Steelhead

- Developed for Harvest Mitigation under the LSRCP
- Late 70's – Adults trapped at Little Goose Dam (consisted of both A and B run fish), “Wallowa Stock” name as held by ODFW.
- Combined releases in the Grande Ronde by ODFW and WDFW started in 1982.
- Stock management has been mixed between both agencies/sites.
- Not ESA-Listed
- Washington production *in the U.S. v. Oregon Agreement*
- Oregon production *not within* the *U.S. v. Oregon Agreement*



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Summary of Options (Cont'd)

- Add spring Chinook at Lyons Ferry (10/22) or Irrigon (2/22)
 - Impact fall Chinook, either on-station yearlings or FCAP subyearlings
 - Involve either Asotin program (Tucannon Stock) or undetermined program (Snake Basin Carson Stock or Carson Stock)
 - Additional spring Chinook production not related to Washington was attempted, but failed.....



Spring Chinook - IDFG



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