

**WASHINGTON DEPARTMENT OF FISH & WILDLIFE
LYONS FERRY COMPLEX**

**2013-2014 Annual Performance
Report
to
Lower Snake River Fish and
Wildlife Compensation Plan**

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BACKGROUND

The Lower Snake River Fish and Wildlife Compensation Plan (LSRCP), was approved by the Water Resources Development Act of 1976, PL 94-587, Section 102. The LSRCP was prepared and submitted in compliance with the Fish and Wildlife Coordination Act of 1958, PL 85-624, to mitigate for the losses of fish and wildlife caused by construction and operation of the four dams and locks on the lower Snake River.

The Secretary of the Army, acting through the Chief of Engineers, was authorized to implement the LSRCP and to construct Lyons Ferry and Tucannon Fish Hatcheries, Dayton Pond, Curl Lake and Cottonwood Satellite Facilities. Upon completion the Secretary of the Army was authorized to turn ownership of these hatcheries and satellite facilities over to the U.S. Fish and Wildlife Service.

This Cooperative Agreement is established to facilitate the cooperation of the U.S. Fish and Wildlife Service and Washington Department of Fish and Wildlife in accomplishing the purposes and objectives of the LSRCP, primarily within the state of Washington. It provides for specified interchange of services, personnel, equipment, facilities and funds in order to accomplish LSRCP objectives through operation and maintenance of the hatcheries and satellite facilities.

WDFW will operate and maintain the aforementioned fish facilities with the goal of rearing sufficient numbers of fish to return 18,300 fall Chinook, 1,152 spring Chinook and 4,656 steelhead adults back to the Snake River basin and rear 86,000/lbs. of catchable trout to compensate for lost angler opportunities in the lower Snake River project.

PROJECTS

This report summary includes four (4) projects that were funded under the agreement by LSRCP and WDFW for the period October 1, 2013 to September 30, 2014. For the purpose of reviewing overall fish production goals and achievements, this report includes the Lyons Ferry and Tucannon Hatchery projects as one deliverable. Interaction between WDFW, LSRCP and the co-managers in the Snake River Basin provided the policy and guidelines for production and operations. Individual budgeted projects were as follows:

Lyons Ferry Complex Administration

Lyons Ferry Fish Health

Lyons Ferry Fish Hatchery

Tucannon Fish Hatchery

I. Lyons Ferry Complex Administration

Objective 1: Supervise, manage policy and administratively oversee operations, while cultivating a safe and productive work environment at the Lyons Ferry Hatchery, the Tucannon Hatchery, the Cottonwood Satellite Facility, the Dayton Pond Satellite Facility and the Curl Lake Satellite Facility.

Deliverable: *Safety compliance and work productivity emphasized. Oversight on USFWS Safety and Environmental Audits during FFY-14. Operational issues were addressed relative to multiple electrical failures and subsequent repairs. Subsequent corrections were started in FFY-13 and almost finished in FFY-14. Project is anticipated to be finished by the end of January FFY-15.*

Objective 2: Oversee facility operations with the goal of rearing sufficient numbers of fish to return 18,300 fall Chinook, 1,152 spring Chinook and 4,656 steelhead adults back to the Snake River basin and rear 86,000/lbs. of catchable trout to compensate for lost angler opportunities in the lower Snake River project.

Deliverable: *Adult collection goals were achieved to meet the production objectives of all stocks and species. See the 2013-14 Lyons Ferry Complex Production Summary in Section V.*

Objective 3: Recruit, hire, develop and retain a diverse, effectively deployed and well trained staff.

Deliverable: *Due to employees moving on to other WDFW facilities for promotions and more experience, management hired three new FHS-1's to fill the vacated positions at LFH and TFH.*

Objective 4: Maintain all appropriate permits necessary for operations, including any and all ESA related items.

Deliverable: *All appropriate permits were renewed for operational compliance, including: Public Water Source through Dept. of Health; NPDES for Cottonwood AF, Curl Lake AF, Lyons Ferry and Tucannon Hatcheries; U.S. Army Corps access approval for adult collection at Lower Granite Dam; NOAA extension on Section 10 permit #1530 for collection of hatchery broodstock at LGR.*

Objective 5: Ensure and oversee appropriate maintenance of all facilities and equipment.

Deliverable: *Maintenance of all facilities and equipment performed per the objective. See Section IV, 2013-2014 PERSONNEL/PURCHASES/MAINTENANCE, for a review of all activities.*

Objective 6: Manage policy and procedures to meet annual adult fish escapement and juvenile fish rearing goals, as described in a NOAA Fisheries approved HGMP.

Deliverable: *All policy and procedures implemented in meeting adult fish escapement and juvenile fish rearing goals, including: second year discontinuation of aquamycin treatment on yearling fall Chinook released on-station at LFH; Implementation of adult trapping protocols, as provided by Fish management and RM&E relative to origins and run timing.*

Objective 7: Oversee and ensure the development of an Annual Operations Plan for LSRCF facilities and production in Washington.

Deliverable: *The 2014-15 AOP was developed. Assistance provided by all of the co-managers during the AOP meeting which occurred on August 20 & 21 2014 in Dayton, WA.*

Objective 8: Oversee the fish marking program at all LSRCP facilities in Washington.

Deliverable: *All marking and tagging events were coordinated by hatchery staff leads (HS-3's), with guidance from the HS-4's and complex manager. The spring and summer tag orders were submitted by complex manager and RM&E staff to the LSRCP for purchase discount and timely delivery. Marking and tagging was performed by WDFW M&T Unit, utilizing the automated trailer for the majority of the marking and tagging events.*

Objective 9: Schedule all fish transportation associated with the LSRCP program in Washington.

Deliverable: *All transportation events were coordinated by hatchery staff leads (HS-3's), with guidance from the HS-4's and complex manager. WDFW Construction and Maintenance assisted in fish hauls to Captain John Rapids (fall Chinook yearlings), Cottonwood AF (Wallowa steelhead), Pittsburgh Landing (fall Chinook yearlings) and Walla Walla River (Wallowa steelhead direct release). All other fish hauls performed by LFH and TFH staff, including adult hauls (w/exception of Touchet steelhead adults, as hauled by RM&E staff).*

Objective 10: Maintain real property and personal property inventories for all facilities and equipment.

Deliverable: *Successfully completed. All items were accounted for.*

II. Lyons Ferry Fish Health

WDFW's Lyons Ferry complex fish health mission is to ensure and protect the health and productivity of fish cultured at Lyons Ferry (LF) complex facilities. All fish production at LF complex is conducted according to the Washington Co-managers Salmonid Disease Control Policy. The Lyons Ferry complex fish health program is staffed locally with a Fish Health Specialist. The WDFW Olympia fish health lab performs virology, bacteriology and parasitology testing on samples submitted.

Objective 1: The Fish Health Specialist will visit the Lyons Ferry Hatchery and the Tucannon Hatchery once a month to monitor fish health. During each visit, fish will be inspected and production and mortality records will be reviewed.

Deliverable: The fish health specialist visited Lyons Ferry and Tucannon at least monthly during the past year. During the visit, fish were inspected and mortality records were reviewed.

Objective 2: Respond to all fish disease outbreaks at all Lyons Ferry Complex facilities to diagnose problem and recommend treatment as needed. The Fish Health Specialist will direct the use of drugs and chemicals in a safe, effective and legal manner. The Fish Health Specialist will also monitor the use of any new drug treatments at Lyons Ferry Complex facilities under the USFWS – Aquatic Animal Drug Approval Partnership.

Deliverable: In some cases, fish disease problems required treatment. The fish health specialist diagnosed the problem and recommended treatments at that time. Erythromycin was administered under Investigational New Animal Drug (INAD) permit.

Objective 3: All Chinook and steelhead broodstocks will be tested for viral pathogens. Ovarian fluid and kidney/spleen samples from each stock will be tested for the viral pathogens at a minimum of the 5% assumed pathogen prevalence level.

Deliverable: All broodstocks were sampled for viral pathogens as shown in table 1. Infectious hematopoietic necrosis virus was detected in the Snake River fall chinook, Wallowa and Tucannon stock summer steelhead. No action was taken with the Snake river fall chinook. Eggs from IHN virus positive Wallowa females were destroyed and progeny of IHN virus positive Tucannon females were planted as fry.

Table 1. Broodstock viral testing in 2013 – 2014.

Location	Date	Species-Stock	No. OF	No. KS	Results	% Positive
Lyons Ferry	08-27 to 09-17-13	CHS-Tucannon River	60	60	Negative	0
Lyons Ferry	11-13-13	CHF-Snake River	60	60	IHNv	0
Cottonwood Pond	03-19 to 04-08-14	SS-Wallowa	160	60	IHNv	1.3
Lyons Ferry	03-23 to 04-14-14	SS-Touchet River	14	14	Negative	0
Lyons Ferry	03-23 to 04-14-14	SS-Tucannon River	29	29	IHNv	10.3

OF = ovarian fluid, KS = kidney/spleen

Objective 4: All Chinook stocks will be tested for bacterial kidney disease with ELISA assay.

Deliverable:

For the Tucannon spring Chinook, BKD prevalence was low with 91% Below-Low (see table 2). No segregation or destruction efforts were employed with the Tucannon spring Chinook.

For the Snake River fall Chinook, BKD prevalence was low with 97.9% Below-Low females (see following table). Progeny of Below-Low BKD females were selected for the yearling programs. Progeny of Below-Low and Low BKD females were selected for shipment to ODFW. Progeny of all other females were utilized in the sub-yearling programs.

Table 2. BKD-ELISA testing of female chinook broodstock at Lyons Ferry Hatchery in 2013.

Species-Stock	No. Tested	Below Low		Low		Mod		High	
		No	%	No	%	No	%	No	%
CHF - Snake R.	765	749	97.9%	13	1.7%	0	0%	3	0.4%
CHS - Tucannon R.	78	71	91.0%	6	7.7%	0	0%	1	1.3%

Below-Low = < 0.10, Low = 0.11 - 0.199, Mod = 0.2 - 0.45, High= > 0.45

*125 fish tested by ODFW

Objective 5: The Fish Health Specialist will recommend specific health management tools and strategies for all spawning and production at Lyons Ferry Complex facilities.

Deliverable: *Specific fish health management strategies were employed with bacterial gill disease (BGD), bacterial kidney disease (BKD) and infectious hematopoietic necrosis (IHN). With BGD in sub-yearling fall chinook, low rearing densities were followed. BKD preventive measures for spring chinook included erythromycin injection of female broodfish, low rearing densities and a single feeding of erythromycin medicated rations. BKD preventive measures for fall chinook included screening and segregation of progeny and low rearing densities. With IHN in steelhead, female broodfish were screened and segregation and/or destruction of progeny of IHN positive females were employed.*

Objective 6: The Fish Health Specialist will be consulted during all fish production planning.

Deliverable: *The fish health specialist was involved in fish production planning include annual operating plan development.*

Objective 7: The Fish Health Specialist will communicate and coordinate with co-managers and cooperators concerning issues of fish disease control and prevention at the Lyons Ferry Complex and facilities receiving fish from the Lyons Ferry Complex.

Deliverable: *Any major fish health problems at Lyons Ferry complex are communicated to co-managers and cooperators. One avenue of communication is the semi-annual Pacific Northwest Fish Health Protection Committee meetings.*

Objective 8: The Fish Health Specialist will maintain an appropriate database pertaining to all fish health visits for disease identification and treatment, pre-liberation examinations, and broodstock testing. This data log should be readily available at the Lyons Ferry Complex.

Deliverable: *The fish health specialist maintains databases with fish health inspection, broodstock viral test, Chinook broodstock BKD-ELISA test and Myxobolus cerebralis (whirling disease parasite) tests.*

Objective 9: The Fish Health Specialist will write the fish health section of the Lyons Ferry Complex annual performance report.

Deliverable:

2013-2014 Fish Health Review – Major Fish Health Problems

The fish health problems at Lyons Ferry and Tucannon hatcheries were:

Bacterial Coldwater Disease (BCWD) was observed in Spokane stock rainbow trout at the Tucannon hatchery and in Wallowa and Tucannon stock steelhead at Lyons Ferry Hatchery. All fish were successfully treated with Aquaflor (florfenicol) medicated feed.

External parasite, Trichodina sp. and external fungus caused rainbow yearling mortality reared in the earthen pond in early spring. The fish were treated with a formalin drip at 25 ppm for 24 hours.

III. Lyons Ferry and Tucannon Hatcheries

WDFW will operate and maintain the Lyons Ferry and Tucannon Hatcheries and the associated Satellite Facilities as part of the Lower Snake River Compensation Plan.

Objective 1: Proposed spawning, fish marking, and fish production at Lyons Ferry Complex facilities for FY2013-14 is presented in Section V. WDFW staff will operate these facilities to meet the goals listed in the Production Summary Table.

Deliverable: Completed. See the 2013-14 Production Summary table in Section 5 for actual broodstock collection, egg takes, rearing and release numbers.

Objective 2: WDFW staff will maintain all Lyons Ferry Complex facilities and equipment in a safe and operable condition.

Deliverable: Successfully completed.

Objective 3: WDFW staff will directly schedule and oversee all fish marking at Lyons Ferry Complex facilities.

Deliverable: Successfully completed.

Objective 4: WDFW staff will directly schedule and oversee all transportation of fish reared at the Lyons Ferry Complex for liberation or transfer.

Deliverable: Successfully completed.

Objective 5: WDFW staff will participate in the development of an Annual Operations Plan for LSRCP programs at the Lyons Ferry Complex.

Deliverable: Completed and implemented. New procedures were approved by co-manager agreement for this AOP cycle.

Objective 6: WDFW staff will maintain in detail, all data associated with each fish production program at the Lyons Ferry Complex. This data shall be readily accessible at the Lyons Ferry Complex.

Deliverable: Successfully completed. All fish production information was entered into the WDFW database, Fish Books. Production reports were submitted to LSRCP by the monthly deadlines.

IV. 2013-2014 PERSONNEL/PURCHASES/MAINTENANCE

LYONS FERRY HATCHERY

PERSONNEL:

1. Ace Trump accepted the Operations and Hatchery Reform Manager Position that Doug had been filling in an acting roll.
2. Eric Johnson accepted a promotion to the Reiter Ponds acclimation facility.
3. Brad Hostettler accepted a transfer to the Sol Duc hatchery.
4. Eben Nesje hurt his back and worked part time while on L&I until he had back surgery in August. We look for him to be back to work after the first of the year.
5. Tanner Gallaher was promoted to the FHS-3 position vacated by Brad.
6. Larabee Miller was promoted to the FHS-3 position at the Tucannon hatchery that was vacated when Mike Mankey left the agency.
7. Mathew Miller, Greg Robison and James Hodges were hired as FHS-1's to fill the vacancies that had been created by employees leaving and promoting.
8. Steve Jones attended the NWFCC in Boise ID.

SIGNIFICANT PURCHASES:

1. 4' flexible hose for new 4" fish pump
2. New metal break and hole punch.
3. New valve actuators on all three steelhead adult ponds, one southside raceway and northside incubation room were purchased and installed.

PROJECTS:

1. Release structure upgrade/remodel was started. Will be finished during the next contract period before Christmas.
2. Phase two of the Marmes project was mostly finished. All physical work was completed by the first of October but the computer integration and update were not completed and should be completed by the end of January of the next contract period.
3. Started the engineering process for the new round tank project.
4. Started engineering for the salmon adult pond elevator and crowder upgrades. Work will be done during the next contract period.
5. Borrowed back hoe with sweeper attached from TFH and swept all blacktop at LFH over a period of 2 weeks.
6. Built new vehicle wash bay with steam cleaner.
7. A lot of time spent chasing leaks and line breaks in the dated underground sprinkler system around the entire facility.

HOUSING MAINTENANCE:

1. Serviced all heat pumps and had a substantial amount of work and repairs done to the units and Res. #2 and 6.

SIGNIFICANT EVENTS:

1. Process to get new round tanks to replace the existing failing tanks has gone to 100% design. Many phone meetings and on site meetings were conducted.
2. Contract awarded to Five Rivers Construction for the refurbishing of the release structure for the lakes. Work will be done during the next contract period.

TUCANNON FISH HATCHERY**PERSONNEL:**

1. Mike Mankey left WDFW to go to work in British Columbia at a brand new sturgeon aquaculture facility.
2. Larabee Miller was promoted from a FHS-2 position at the Lyons Ferry Hatchery to the FHS-3 position vacated with Mike leaving.
3. Scott Breslin (FHS2) moved into the residence vacated by Mike Mankey.
4. Doug Maxey attended the Annual Fish Culture Conference in Boise, ID.

SIGNIFICANT PURCHASES:

1. TFH staff replaced the Chevy Colorado with a new Toyota Tacoma. LSRCP provided the funds and WDFW acquired the vehicle.
2. New sun shade material was purchased to cover one of the round ponds. It attaches directly to the bird netting and is much better than the sun shade that was previously hung over head. More covers will be ordered to cover the remaining five round ponds.
3. Annunciator alarm cards were purchased to replace the one that failed and to have a backup card for potential future failures.

PROJECTS:

1. Had rotating drum screen at Rainbow Lake pulled and completely rebuilt. Work was performed at the WDFW Yakima Screen shop and paid for by LSRCP.
2. Rotating drum screen at river intake was serviced and had nylon end bearings and drive chain sprockets replaced.
3. Paint bird predation prevention steel pole structures.
4. Federal bridge inspection was performed on the hatchery entrance bridge. Results were not released to the hatchery to date.

5. A new pressure switch was purchased to replace existing pressure switches. If everything works as planned we will plan to purchase more in the future, replacing them at all pump locations.
6. Window seals next to entrance door were replaced.
7. Audible alarm horn timer installed to decrease drainage of 24 volt backup supply during alarms.
8. AAA Tree Service removed several hazard trees around the facility, primarily near the round ponds and residence #1. Hatchery staff completed the cleanup efforts.

HOUSING MAINTENANCE:

1. New heat pump and duct work was installed at Res. #1. Res. #2 received new duct work to replace the old. The HVAC duct work was replaced due to the internal insulation coming loose and having the potential of becoming air-borne in the residence.
2. Replaced entire carpeting in residence #2.
3. Roto-Rooter fixed restricted washing machine drain in residence #2.

SIGNIFICANT EVENTS:

1. A major in stream river habitat project took place during this period starting at the hatchery entrance bridge and ending approximately a mile and one half downstream. This involved the placement of over 500 logs / structures in this stretch of the Tucannon River. Hopefully this project does not impact the integrity of our facility protection dike that has endured previous high water events.

DAYTON ACCLIMATION FACILITY

1. Brush control around acclimation pond perimeter fence.

COTTONWOOD ACCLIMATION FACILITY

1. Replaced cyclone panel in pond perimeter fence with a gated panel to provide future access for ease of drainage ditch sediment removal.
2. Organizing dam board labeling and storage system at the trap.

CURL ACCLIMATION POND

1. Calculating cyclone perimeter fence specifics due to extreme predation mortality.

Lyons Ferry Complex 2012-2013 Production Summary

Lyons Ferry Hatchery 2013 - 2014 Production Summary

Stock / Species	Brood Year	Broodstock Collected	Egg Take	Transfer	On Hand	Release	Size (fpp) at Transfer / Release	Total lbs. at Transfer / Release	Marks/CWT	PIT Tags
Tucannon Spring Chinook	Goals	170	260,000	230,000			25	9,200	225k CWT	15,000
	2012	170	269,500	30,000 ^a 228,400 ^b			Eyed Eggs 31	15 7,410	231,800 CWT	15,000
	2013	158	275,188	30,000 ^a	213,650 ^b		Eyed Eggs		213,813 CWT	Not Yet tagged
Snake River Fall Chinook	Goals	3,000	4,555,000	1,600,000 ^c 1,554,000 ^d 465,000 ^e		200,000	50 to 75 Eyed Eggs	36,000 1,036 90,000	700k AdCWT, 300k CWT 400k Ad CWT, 800k Ad 435 AdCWT, 465k CWT	32,000 6,000 39,000
	2012	3,033	4,396,750	495,664		503,273	10 to 12	91,157	480,444 AdCWT: 514,076 CWT	30,000
	2013	2,353 Adults 563 Jacks	4,522,000	1,632,283 1,558,800	918,754		209,972	50 to 75 Eyed Eggs	1,039	711,346 AdCWT: 304,538 CWT 446,979 AdCWT: 473,395 CWT
Tucannon Summer Steelhead	Goals	40	120,000	50,000 ^f		25,000 ^g 25,000 ^g	6 4.5 4.5	8,333 5,556 5,556	50k CWT Only 25k AdCWT 25k Ad Only	7,500 3,750 3,750
	2013	43	150,614	50,091		28,108 13,298	16.9 5.5 5.5	2964 5.5 5.5	50,091 CWT Only 28,108 AdCWT 13,298 Ad Only	7,491 7,497
	2014	53	165,612		50,818 30,962 26,075				51,045 AD Only 31,086 AD Only 26,153 AD/CWT	Not Yet Tagged
Touchet Summer Steelhead	Goals	36	65,000			50,000	4.5	11,111	50k CWT Only	5,000
	2013	29	65,469			49,523	4.8	10,317	49,523 CWT only	5,000
	2014	34	63,758		49,241				49,395 CWT only	Not Yet tagged
Wallowa Summer Steelhead	Goals	120	600,000	202,500 ^h 86,000 ⁱ		200,000 ^h 85,000 ⁱ 100,000 ^j 120,000 ^k	6 - 4.5 6 - 4.5 4.5 4.5	44,444 18,888 22,222 26,667	180k Ad, 20k Ad-LV-CWT 66k Ad, 20 Ad-LV-CWT 80k Ad, 20k Ad-LV-CWT 90k Ad, 20k Ad-LV-CWT	
	2013	968	846,970	209,799 91,068		209,900 90,000 109,436 117,500	5.1 6.1 4.1 4.3	5.1 14,754 26,692 27,325	188,039 Ad: 20,227 Ad/CWT 68,746 Ad:20,386 Ad-CWT 88,146 Ad: 20,117 Ad/CWT 96,581Ad:20,082 Ad/CWT	6,000 3,000 3,000 2,995
	2014	861	710,030		202,500 86,000 100,832 65,421				181,305Ad: 21,195 Ad-CWT 69,000Ad: 21,066 Ad-CWT 80k Ad: 21,042 Ad-CWT 65,358 Ad: 21,117 Ad-CWT	6,000 3,000 3,000 3,000
Spokane Rainbow Trout	Goals	N/A	152,000	17,600 ^l 1,650 ^m		29,500 ⁿ 74,000 ^o 1,000 ^p	3 1 3 2.5 0.67	5,867 1,650 9,833 29,600 1,500	N/A	N/A
	2012	N/A	174,900	7,500 802		3,815 76,054 1,153	3 0.5 2.7 2.5 0.67	2,500 1,602 1,413 30,422 1,730	N/A	N/A
	2013	N/A	153,500	16,520	1,680 83,800 1,180	29,507	3	9,836	N/A	N/A

Tucannon Fish Hatchery 2013 - 2014 Production Summary

Stock / Species	Brood Year	Broodstock Collected	Fish/Eggs Received	On Hand	Release	Size (fpp) at Release	Total lbs. at Release	Marks/CWT	PIT Tags
Tucannon Spring Chinook	Goals	170	30,000 eyed eggs 198,000 juveniles		N/A	12	9,200	225k CWT	15,000
	2012	170	30,000 eyed eggs 228,400 juveniles		146,561	14	10,469	146,561	15,000
	2013	158	30,000 eyed eggs	26,854	N/A				Not yet tagged.
Tucannon Summer Steelhead	Goals	40	50,000		50,000	4.5	11,111	50k CWT Only	7,500
	2013	43	50,688 juveniles		49,759	4.8	10,366	49,759 CWT Only	7,500
	2014	52							
Spokane Rainbow Trout	Goals	N/A	126,000 eyed eggs		93,358 4,000	2.5 0.67	37,343 6,000		
	2012	N/A	126,426 eyed eggs		97,933 4,152	2.34 0.65	41,851 6,388	N/A N/A	N/A N/A
	2013	N/A	126,306 eyed eggs	113,219 4,188					

^a Tucannon Fish Hatchery received 30,000 eyed eggs for rearing feasibility study. BY2013 was the final year for this study.

^b Juvenile spring Chinook transferred to Tucannon Fish Hatchery for acclimation.

^c FCAP subyearling fall Chinook

^d Eyed egg transfer to Irrigon Hatchery

^e FCAP yearling fall Chinook

^f Conservation group transferred to Tucannon Fish Hatchery for acclimation

^g Reared full term at Lyons Ferry and direct stream planted.

^h Transferred to Cottonwood Acclimation Pond and released into the Grande Ronde River.

ⁱ Transferred to Dayton Acclimation Pond and released into the Touchet River.

^j Reared full term at Lyons Ferry and direct stream plant into the Walla Walla River.

^k Reared full term at Lyons Ferry and direct stream plant into the Snake River.

^l Triploid rainbow trout for IDFG.

^m Triploid rainbow trout for Nez Perce Tribe resident fish program.

ⁿ Triploid rainbow trout planted in Rock Lk.

^o Diploid rainbow trout.

^p Mitigation jumbo trout.

