

Contract Year 2012-2013 Monitoring and Evaluation Objectives and Tasks

Objective 1. Describe life history of juvenile spring Chinook salmon in Lookingglass Creek in order to evaluate supplementation success.

Task 1.1. Check the rotary screw trap every 2-3 days or more frequently if needed and enumerate, examine for marks, and interrogate for PIT tags all juveniles collected. ***Completed.***

Task 1.2. Mark (PIT-tag and/or fin clip) and release 25-50 fish per week for estimating trapping efficiency. ***Completed.***

Task 1.3. Collect FL and weight data from a representative sample of at least 25 outmigrants per week. ***Completed.***

Task 1.4. Collect and preserve genetics samples equivalent to approximately 3 times the number of redds in 2011, distributed proportionately between the three seasons of the migration year (fall, winter, spring). ***Completed.***

Task 1.5. PIT-tag and release at least 500 fish collected in the screw trap for each season of the migration year (fall, winter, spring). ***Completed, but goals of 500 per season not met. Totals were 356 (winter 2012) 414 (spring 2013), and 363 (fall 2013).***

Task 1.6. PIT-tag and release approximately 500-1,000 spring Chinook salmon parr captured by snorkel seining from several locations in the primary nursery area above the Lookingglass Hatchery trap. ***Completed. PIT-tagged 946 parr.***

Task 1.7. Tabulate numbers of parr (precocial) captured at the screw trap during completion of Task 1.5. ***Complete; 38 precocials were captured.***

Task 1.8. Collect and sample (fork length and weight) 50 parr per month at standard sites above and below the hatchery weir. ***Completed. Sampled approximately 50 per month for June, July, August, and September at 4 sites in the mainstem of Lookingglass Creek. Few parr were present at the Little Lookingglass Creek site.***

Task 1.9. Describe migration timing out of Lookingglass Creek and migration timing and survival to Lower Granite for fish PIT-tagged after capture at the screw trap (Tasks 1.5 and 1.6). ***Preliminary estimates completed for migration year 2013.***

Task 1.10. Validate and upload all PIT tag data to the PTAGIS database. ***Completed.***

Task 1.11. Collect life history data on precocial, natural-origin fish caught during summer parr PIT-tagging and screw trap operations, including fork length, weight, scales, and genetics tissues. ***Completed.***

Task 1.12. Mount, press and read any scales collected from juvenile spring Chinook salmon. ***Partially Completed.***

Task 1.13. Collect water temperature data using recording thermometers in Little Lookingglass Creek and at the screw trap. **Completed.**

Task 1.14. Perform quality control on all data collected and enter into databases developed to make data web-accessible. **Partially completed. Some data has not been posted to CTUIR website.**

Task 1.15. Compare life history metrics (outmigrant abundance, outmigration timing, size, condition factor, and survival and arrival timing to Lower Granite Dam) within the three stock scenario of Lookingglass Creek (extirpated endemic, Rapid River reintroduction, and current reintroduction (Catherine Creek captive brood) stocks), current hatchery-origin releases into Lookingglass Creek, and natural-progeny of other Grande Ronde Basin stocks. **Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.**

Task 1.16. Compare productivity metrics (smolts/redd, smolt-to-adult ratios) within the three stock scenario of Lookingglass Creek (extirpated endemic, Rapid River reintroduction, and current reintroduction (Catherine Creek captive brood) stocks), current hatchery-origin releases into Lookingglass Creek, and natural-progeny of other Grande Ronde Basin stocks. **Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.**

Objective 2. Describe life history and production of adult spring Chinook salmon in Lookingglass Creek in order to evaluate supplementation success.

Task 2.1. Obtain data and tissues (FL, sex, marks/tags, scales, genetics samples) from Lookingglass Hatchery staff for all spring Chinook salmon collected at the adult trap that are released above the Lookingglass Hatchery weir to spawn naturally in 2013. **Completed.**

Task 2.2. Conduct spawning ground surveys throughout the stream once a week during the spawning season, enumerating redds and logging locations with GPS and collecting carcass data and tissues. **Completed.**

Task 2.3. Mount, press and age scales collected from natural-returns. **Partially completed for scales collected during run year 2013. Completed for run year 2012.**

Task 2.4. Link carcass data and snouts and provide data and snouts to ODFW for transfer to the ODFW CWT lab in Clackamas. **Completed.**

Task 2.5. Obtain CWT ages from the RMIS database. **Completed for run year 2012. Data for run year 2013 not available yet.**

Task 2.6. Estimate total redds, redd distribution, fish/redd, sex ratio, age composition, run timing, spawn timing, total escapement, and length frequency of adults, and progeny- per-parent ratios for natural-origin spawners above the Lookingglass Hatchery weir. **Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.**

Task 2.7. Enumerate redds and describe carcass characteristics for spawners below the Lookingglass Hatchery weir. *Completed for run year 2012. Preliminary estimates completed for run year 2013.*

Task 2.8. Describe hatchery-origin strays recovered on spawning ground surveys above and below the Lookingglass Hatchery weir. *Completed for run year 2012. Preliminary estimates completed for run year 2013.*

Task 2.9. Perform quality control on all data collected and enter into databases developed to make data web-accessible. *Partially completed. Some data has not been posted to CTUIR website.*

Task 2.10. Compare adult life history metrics (run and spawn timing, redd distribution, sex ratio, age composition, length-at-age, prespawning mortality) within the three stock scenario of Lookingglass Creek (extirpated endemic, Rapid River reintroduction, and current reintroduction (Catherine Creek captive brood) stocks), current hatchery-origin releases into Lookingglass Creek, and natural-progeny of other Grande Ronde Basin stocks. *Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.*

Task 2.11. Compare adult productivity (progeny-per-parent) within the three stock scenario of Lookingglass Creek (extirpated endemic, Rapid River reintroduction, and current reintroduction (Catherine Creek captive brood) stocks), current hatchery-origin releases into Lookingglass Creek, and natural-progeny of other Grande Ronde Basin stocks. *Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.*

Objective 3. Determine if there are negative artificial propagation effects of utilizing Catherine Creek stock F₁ generation captive broodstock returns as broodstock in Lookingglass Creek.

Task 3.1. Compare life history, survival and production metrics of Catherine Creek stock F₁ generation conventional broodstock (derived from conventional and wild crosses) versus Catherine Creek stock F₁ generation captive broodstock that are used for conventional broodstock in Lookingglass Creek. *Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.*

Task 3.2. Compare life history, survival and production metrics of Catherine Creek stock F₁ generation captive broodstock returns utilized to spawn in the wild (Catherine Creek program or adult outplants to Lookingglass Creek) versus F₂ generation which are utilized to spawn in the wild (Lookingglass program utilizes F₁ captive broodstock returns as broodstock then F₂ returns spawn in the wild). *Included in 2009-2010, 2011, and 2012 annuals. Working on initial draft of 2013 annual report.*

Objective 4. Assist comanagers and cooperators in completing LSRCP-related project tasks as time and budget allow.

Task 4.1. Assist ODFW in completing spring Chinook salmon spawning ground surveys in the

Grande Ronde Basin. **Completed. Assisted on Catherine Creek and Upper Grande Ronde River.**

Task 4.2. Assist ODFW in collecting data and tissues during spawning of spring Chinook salmon broodstock at Lookingglass Hatchery. **Completed.**

Task 4.3. Assist ODFW in pretransfer sampling of juvenile spring Chinook salmon reared at Lookingglass Hatchery. **Completed.**

Task 4.4. Assist ODFW in other LSRCP-related activities when CTUIR staff and equipment are available. **Completed. Production pit tagging assistance was completed in October. In November assistance provided to collect conventional broodstock steelhead at Troy.**

Objective 5. Synthesize and disseminate project information.

Task 5.1. Submit Performance Report for the 2012-2013 contract with objectives, tasks, and completion status by 31 December 2012. **Draft with edits submitted to CTUIR for final review.**

Task 5.2. Submit final copy of the 2011 annual report to LSRCP and comanagers for review by 31 December 2013. **Draft with edits submitted to CTUIR for final review in past week.**

Task 5.3. Analyze data and synthesize in annual report for the 2011-2012 contract using standard scientific format. **Draft with edits submitted to CTUIR for final review.**

Task 5.4. Submit a draft annual report for the 2011-2012 contract to reviewers by 31 August 2013. **Draft with edits submitted to CTUIR for final review.**

Task 5.5. Submit final copy of the annual report for the 2011-2012 contract to LSRCP and managers by 30 September 2013. **Draft with edits submitted to CTUIR for final review week.**

Task 5.6. Make project information and reports available over the Internet. **In progress, ongoing.**

Task 5.7. Consult with other professionals to improve project efficiency and work products. **Completed.**

Task 5.8. Complete final project funding proposal, statement of work and budget for the 2013-2014 contract year by 1 September 2013. **Completed.**

Task 5.9. Report bull trout take to Joe Krakker, USFWS as requested. **Completed.**

Task 5.10. Report take of spring Chinook salmon and summer steelhead in annual report. **Completed.**