

CONFEDERATED TRIBES OF SILETZ INDIANS



Project Title:	Assessment of Aquatic Resources in the Siletz River Basin
Award Amount:	\$210,534
Type of Grant:	Environmental
Project Period:	Sept. 2009 – Sept. 2011
Grantee Type:	Tribal Confederation

PROJECT SNAPSHOT

- 3 full-time equivalent jobs created
- 1 Native American consultant hired
- 11 elders involved
- \$31,976 in resources leveraged
- 4 partnerships formed

BACKGROUND

The Confederated Tribes of Siletz Indians (CTSI), with over 4,500 enrolled members, is comprised of the descendants of 27 coastal bands indigenous to Oregon, Washington, and California. The 4,800-acre Siletz Reservation is located mainly in the Siletz watershed on the central coast of Oregon.

In 1999, with Environmental Protection Agency (EPA) funding, tribal environmental planners wrote a multi-year watershed preservation plan outlining threats and proposing solutions to protect the health of tribal rivers and estuaries. In particular, the planning team sought to understand how and the extent to which herbicide and pesticide application on commercial and residential lands polluted tribal waters and affected the

health of its fisheries. Of special concern was the effect of toxins on the lamprey eel, a species important in the traditional diets of tribal members.

PURPOSE AND OBJECTIVES

Following the goals set out in the CTSI’s multi-year EPA plan, the purpose of this project was to test for the presence or absence of chemicals in the surface waters of the Siletz River and to research the effects of chemicals on lamprey species.

To meet this purpose, project staff, based in the tribe’s Department of Natural Resources, outlined three objectives. The first objective was to research the State of Oregon Department of Agriculture records to determine the types of chemicals currently and historically present in central coastal region waters, and to perform in-stream sampling to measure the presence of chemicals in Siletz River Basin surface waters. The aquatics program leader hired a student contractor from the Oregon State University Fisheries Science Program to assist in this research. Unfortunately, during the first year, the state of Oregon did not publish regional information on the distribution of pesticide applications, and the

data project staff sought was no longer available. The project team overcame this challenge by working with the Oregon Department of Environmental Quality and the U.S. Geological Survey to identify chemicals historically present in the waters of the basin. The contractor was able to identify target herbicides (Atrazine, Hexazinone, 4-D, Clopyralid, Triclopyr, Sulfometuron-methyl, Glyphosate) more likely to be present in the basin, and tested for the presence of these herbicides 12 times over a two-year period. None of the samples contained identified herbicides. However, the project team noted relatively high concentrations of one target herbicide, Atrazine, have been found for several years in the surface waters of the nearby Willamette Valley, where the Siletz Tribes' lamprey harvest currently occurs.

The second objective was to examine the effects of chemicals used in the Siletz Basin on the health, migration, and spawning patterns of the lamprey eel. In year one, the contractor devised a control experiment, using a 16-foot long Y maze, to determine the extent to which adult female lampreys orient to the pheromones of adult lampreys. Her trials, conducted in an Atrazine-free environment, revealed that female lampreys in the spawning phase seek out the scent of male lamprey pheromones at a consistent, measurable rate. In year two, the student conducted more Y maze experiments, finding that lampreys exposed to Atrazine had a reduced ability to migrate to or find other spawning adults. Project staff also conducted a physiological study of lamprey heart rates in both years, to determine the extent to which the heart rates of lampreys in both groups accelerated in response to the scent of recently killed fish. Under normal circumstances, lampreys respond to the scent of dead lampreys with an increased heart rate. In this study, lampreys exposed to Atrazine responded to the scent of killed fish

with lower heart rates, confirming again that Atrazine most likely had the effect of impairing olfactory response.

The project's third objective was to present findings from the experiment to the Oregon Department of Environmental Quality (DEQ) to inform the formulation of new total maximum daily load levels (TMDL) for the central coastal region. A TMDL is the maximum amount of a pollutant that a body of water can receive and still meet safe water quality standards. By the project's end, the tribe had participated in a series of government to government meetings with the DEQ to discuss setting the TMDL, but the process for setting the limits was delayed until the spring of 2012.

OUTCOMES AND COMMUNITY IMPACT

Through this project, the tribe, state, and scientific community have gained a stronger baseline understanding of normal lamprey behavior patterns. This knowledge will enable the tribe to more easily conduct future experiments, amassing more robust data, to observe how pesticides and herbicides cause deviation in lamprey behavior.

When the TMDL discussions occur, the tribe will have a peer-reviewed science paper, written by the student contractor, explaining the results of the Atrazine experiment. Project staff are confident that the paper will inform policy discussions on TMDL limits in the future. As efforts continue to uncover the effects of other chemicals on lampreys, the tribe's presence in these discussions may have an effect on the TMDLs allowed for other toxic chemicals in surface waters, for years to come. According to Tribal Aquatics Program Leader Stan van de Wetering, "What we have learned from this project has given us an elevated ability to sit at the table to develop environmental regulations in our region."

CONFEDERATED TRIBES OF THE GRAND RONDE COMMUNITY OF OREGON



Project Title:	Coho Salmon and Pacific Lamprey Project
Award Amount:	\$141,636
Type of Grant:	Environmental
Project Period:	Sept. 2009 – Sept. 2011
Grantee Type:	Tribe

PROJECT SNAPSHOT

- 1 full-time equivalent job created
- 50 youth involved
- \$3,085 in resources leveraged
- 4 individuals trained
- 8 partnerships formed

BACKGROUND

The Confederated Tribes of the Grand Ronde Community of Oregon (CTGR) Reservation is located in the foothills of the Coast Range Mountains. CTGR has approximately 5,000 members and is composed of more than 20 tribes and bands whose traditional lands included regions throughout western Oregon and northern California. From 1954 through 1987, the state periodically stocked Yamhill River with Coho salmon to establish new Coho runs throughout the upper Willamette Valley and to supplement native coastal Coho runs. However, in 1987 the state stopped hatchery releases due to the effect on native cutthroat trout and winter steelhead. Since then the Coho have sustained themselves and naturally reproduced on their own. Another species inhabiting these waters is the Pacific lamprey eel. There are significant

gaps in knowledge regarding Pacific lamprey, whose numbers have dwindled in recent years compared with historical levels. It is not known why their numbers have diminished, but in the meantime tribal members continue to harvest them for food. Salmon and lamprey are traditional cultural foods, but without more documented scientific knowledge, CTGR's ability to manage harvests has been limited.

PURPOSE AND OBJECTIVES

The purpose of this two-year project was for the tribe to expand its knowledge base regarding Coho salmon and Pacific lamprey, enabling effective resource management. The objective for year one was to trap 95 Coho salmon and 60 Pacific lamprey eel from Agency Creek, analyze them for genetic markers regarding rearing stream affinity, and draft a corresponding report. Project staff successfully trapped 920 Coho and 105 ammocetes (juvenile lamprey). From a stratified sample of over 200 Coho, staff sent 95 samples along with 60 samples of lamprey eel to a biology lab for analysis. No genetic connection between the Coho salmon and hatchery brood stock from years past was found, indicating the Coho are a unique run of salmon. In addition, the lab

found each year's run is genetically different from previous years. There are two species of lamprey in the area (pacific and brook) that look identical but vary genetically. Because so little was known about lamprey, year one findings established baseline information, such as identifying genetic markers and how those markers compare to other species.

The objective for year two was to repeat the sampling process of year one, draft a report comparing the results from the two years, and write an amendment to CTGR's Fish and Wildlife Management Plan. At the end of the project period, lab results from year two were still pending, thus the report and amendment have not yet been drafted.

OUTCOMES AND COMMUNITY IMPACT

As a result of the project, CTGR now has scientifically defensible data and the ability to make informed management decisions regarding Coho salmon and pacific lamprey eel. This expanded knowledge base will enable the tribe to more effectively advise the state on fish and wildlife policy issues, as well as to manage its own resources. For example, since Coho salmon are not genetically related to the brood stock from years past, the species appears to be native to the area. This suggests tribal members may have more of a right to harvest this species than was previously thought. Given the fact that both Coho salmon and pacific lamprey are traditional foods for tribal members, these findings will likely add to the community's food supply. Additionally, the data obtained provide information for managing other species, such as steelhead trout, because CTGR now has increased understanding of how each species affects the others.

This project brought positive attention to the tribe within the scientific community and spurred the interest for new partnerships with Oregon State University, University of Manitoba, the Columbia River Intertribal Fish Commission, and California Western Fishes (a research entity funded by NOAA). Sharing data and resources will ensure that CTGR and its members continue to benefit from increased knowledge and capacity moving forward.

"The results of the genetic analysis put the tribe in a position to make informed decisions and influence the state on how these fish are managed."

Kelly Dirksen, Fish and Wildlife Manager

CONFEDERATED TRIBES OF THE GRAND RONDE COMMUNITY OF OREGON



Project Title:	Grand Ronde Chinuk Wawa Immersion Project
Award Amount:	\$671,460
Type of Grant:	Language
Project Period:	Sept. 2008 – Sept. 2011
Grantee Type:	Tribe

PROJECT SNAPSHOT

- 3 full-time equivalent jobs created
- 5 elders involved
- 124 youth involved
- \$69,817 in resources leveraged
- 14 individuals trained
- 8 partnerships formed
- 7 language teachers trained
- 80 youth increased their ability to speak a native language
- 7 adults increased their ability to speak a native language
- 3 people achieved fluency in a native language

BACKGROUND

The Confederated Tribes of the Grand Ronde Community of Oregon (CTGR) Reservation is located in northwest Oregon, in the foothills of the Coast Range Mountains. CTGR is composed of more than 20 tribes and bands whose traditional lands included regions throughout western Oregon and northern California. Each individual tribe was linguistically and culturally distinct, resulting in seven

languages composed of at least 25 dialects. Presently, Chinuk Wawa is the only surviving native language of the Grand Ronde community, and is a source of pride for CTGR and its members. Its use had steadily diminished since the 1920s, but CTGR's Chinuk Immersion Program has helped the language resume a prominent role in the Grand Ronde community. Specifically, immersion offerings for pre-school and kindergarten students have demonstrated considerable success.

PURPOSE AND OBJECTIVES

The purpose of this project was to expand on the tribe's language preservation efforts by offering a greater number of immersion classes to kindergarten, pre-school, and elementary school students. The first objective was comprised of three parts: 1) to provide 1,860 hours of Chinuk Wawa language immersion instruction to 15 kindergarten students; 2) to have all 15 students reach Level 2 language proficiency, and; 3) to provide 90 hours of after-school immersion instruction to at least 30 children. An average of eight kindergarteners participated each year, and by the end of the project, staff exceeded the goal by providing 3,360 hours of immersion instruction. In addition, staff provided 3,766 hours of

instruction to pre-school students, and 182 hours to students in the after-school language program. After-school sessions took place once a week for one hour at a time. Approximately 30 students participated in this portion of the program each year, and most were involved for all three years. Students typically started at Level zero and staff were successful in helping the vast majority of participants reach Level two by the end of the project, indicating proficiency in basic vocabulary, phrases, and sentences.

Staff gave all students pre- and post-tests to measure progress in each of the subject areas, such as colors, shapes, and animals. Pre- and post-tests were scored on a five-point scale, and the vast majority of students demonstrated significant progress. Most students began each subject area with scores ranging from 0.5 to 2.0, and finished with scores of 4.0 or higher, which roughly equates to Level two proficiency. All students received annual oral assessments, and kindergarten and after-school students also received annual written assessments. Participants in all facets of the program progressed at least one full point from pre-test to post-test.

The second objective was comprised of two parts: 1) to create or enhance seven geographically and culturally relevant subject units each year, and; 2) to provide 30 hours of training on curriculum implementation to at least four Chinuk language instructors. Project staff successfully created seven new curriculum units and trained seven Chinuk instructors in the new curriculum via master/apprentice instruction with master Chinuk speaker Henry Zenk. Master/apprentice sessions took place weekly, for at least one hour per session. Training topics included book translation, immersion methods, and subject-specific vocabulary for the new curricula,

such as fishing and hunting. By the end of the project, Mr. Zenk had provided 50 hours of training to seven teachers, significantly exceeding the original goal.

OUTCOMES AND COMMUNITY IMPACT

Student participants developed their ability to speak and understand Chinuk Wawa, and received an opportunity to connect with their native culture in a meaningful way. Through this experience, students increased self-esteem, academic focus, and sense of cultural identity. For example, Travis Stewart, who works for the tribe as a cultural specialist and has an eight-year-old daughter who participated in the program, stated that being exposed to another language helped his daughter focus and be attentive to other subjects in school. He added that studying Chinuk has sparked her interest in her culture and her people's history, and he feels that this language program has played an important part in bringing together other activities to maintain cultural vitality. Another parent of two children in the program, Luhui Whitebear, stated, "Everything in the program is native-based. My kids were both really into it—activities were age-appropriate and fostered a strong sense of engagement for the kids. Classes provided a good sense of stability, and my kids did better in other areas of school and have been more involved with other cultural activities since being in the program." Through enhancing the language proficiency of these young students, the project has resulted in increased knowledge and use of Chinuk Wawa that will augment the language's presence in the Grand Ronde community for years to come.

"This language program has been a key cog in the machine, and without it, so many other important cultural activities wouldn't happen."

Travis Stewart, CTGR Cultural Specialist

COQUILLE INDIAN TRIBE



Project Title:	Coquille Forest Environmental Management Capacity Building Project
Award Amount:	\$452,228
Type of Grant:	Environmental
Project Period:	Sept. 2008 – Sept. 2011
Grantee Type:	Tribe

PROJECT SNAPSHOT

- 4 full-time equivalent jobs created
- \$180,705 in resources leveraged
- 10 individuals trained
- 29 partnerships formed
- 10 youth involved

BACKGROUND

The Coquille Indian Tribe serves over 850 enrolled members, half of whom reside in the tribe’s five-county primary service area in southwest Oregon. Under the Coquille Forest Act of 1996, the Bureau of Land Management (BLM) transferred 5,400 acres of ancestral Coquille forest land from federal control back to the tribe. This act mandated the tribe to meet the same forest management standards and guidelines required for federally controlled forestland adjacent to the transferred land. The tribe’s Department of Land, Resources, and Environmental Services (LRES) is responsible for meeting these forest management requirements, which include regularly monitoring and evaluating water quality, conducting environmental assessments of timber sales, and surveying and creating an inventory of endangered and threatened species and their habitats.

Prior to the project, the tribe faced a backlog of field inventories needed to meet federal forest management regulations. Investment in assessment equipment, training, and staff resources was necessary to address the backlog and enhance the LRES’ capacity to meet field inventory requirements.

PURPOSE AND OBJECTIVES

The project’s purpose was to develop the tribe’s capacity to meet the reporting requirements of the Coquille Forest Act. In line with this purpose, the first objective was to develop the LRES’ capacity to monitor and manage water quality in the watershed lands of the Coquille Forest. To accomplish this objective, the project team first needed to upgrade the LRES database to enable effective storage of water quality data and reports. LRES staff purchased a new server and software to manage records, and organized data files into one location with a centralized point of access. Next, LRES hired two project staff (a water and environmental specialist and a program assistant); purchased water assessment data loggers, field equipment, and laboratory equipment; and trained staff in how to use the equipment.

Since the new logging devices collected on-site water samples and measured water quality continuously, staff were able to improve the efficiency and accuracy of the data collection process. Project staff set up a schedule for a data collection rotation and completed two years of data collection at 20 water sites. This enabled the LRES to establish a baseline for peak water flow, Coho fish run patterns, turbidity, temperature, bacteria presence, ph level, and the amount of dissolved oxygen in the watershed lands. The data also allowed the LRES to detect non-point source water pollution on forestland.

The second objective was to develop the LRES' capacity to document and manage non-aquatic habitats on tribal lands to meet tribal and federal regulatory requirements. To accomplish this objective, LRES hired a natural resource technician and provided her with training in completing the reports mandated by the 10 regulatory acts affecting the Coquille Forest. Then, project staff initiated an internship program and trained eight interns in completing wildlife inventories. Over the course of three years, the interns completed wildlife, habitat, and timber inventories for 45 percent of the Coquille Forest, and the natural resource technician completed required reports with the compiled data. Through such inventories, the tribe was able to: survey the health, growth and stocking of 300 permanent forest plots; survey the presence of downed wood and wildlife trees; survey the presence of pre-threatened, threatened, and endangered species; and survey the presence of surveyed and managed species (as required by the BLM).

The third objective was to develop a community outreach program that would increase economic viability and enhance

environmental management of the forest. Staff published reports of LRES activities in the tribal newsletter and on the website; developed three crucial federal and state partnerships; held county fair presentations and forest tours; and hosted a youth summer academy, a "Kids in the Woods" educational program, and a mid-winter gathering.

OUTCOMES AND COMMUNITY IMPACT

Through this project, the tribe significantly improved its capacity to manage forestland and abide by federal regulations on forest transferred under the Coquille Forest Act. The tribe now has greater knowledge of its aquatic and non-aquatic habitats, and the LRES staff are well-trained to monitor water quality and inventory forest habitat.

The LRES has eliminated regulatory reporting backlogs, can better forecast forest growth and project revenue, and now completes its scheduled reports ahead of due dates. The tribe has improved its capacity to protect natural resources, and can quickly and accurately measure the effect of timber sales on threatened and endangered species and forest health. Furthermore, by involving and engaging 10 tribal youth in the project, LRES is making efforts to develop a new generation of tribal environmental managers.

Finally, due to LRES' increased ability to assess forestland through this project, the BLM and Coos County have contracted with the department to monitor and assess over 59,000 acres of land. These partnerships will provide an important source of revenue to sustain LRES' activities in the coming years.

NATIVE AMERICAN YOUTH AND FAMILY CENTER



Project Title:	Life Skills Development and Economic Security Project for Native Americans
Award Amount:	\$1,140,331
Type of Grant:	Social and Economic Development Strategies
Project Period:	Sept. 2008 – Sept. 2011
Grantee Type:	Native Nonprofit

PROJECT SNAPSHOT

- 12 full-time equivalent jobs created
- 3 businesses created
- \$1,213,553 in resources leveraged
- 10 individuals trained
- 36 partnerships formed

BACKGROUND

The Native American Youth and Family Center (NAYAFC) was founded in 1974 and incorporated as a nonprofit organization in 1994 to provide a variety of family and community support services to Native Americans living in the Portland area. Roughly half of NAYAFC's 55,000 member client base lives 200 percent below the federal poverty level, and an additional 29 percent live between 100 and 200 percent below the federal poverty level. The target population for this project was Native Americans ages 16 and over who lacked continuous employment, stable housing, and financial security.

PURPOSE AND OBJECTIVES

The purpose of this project was to develop job skills necessary for lifelong employment and increase the economic security of participants through Individual Development Accounts (IDAs) provided by the state of Oregon. The first objective was to establish professional skills training and life coaching services to prepare participants for jobs or enrollment in formal job training programs. Many potential clients faced obstacles to participation, such as unstable housing situations and difficulty paying for utilities and transportation. Project staff helped individuals stabilize their situations by connecting them with housing support, debt consolidation, and other financial relief services, thereby enabling their participation. Ultimately, the project team was able to meet the goal of enrolling 75 participants in each of the project's three years.

Project staff provided participants with training and coaching in the areas of financial literacy, introduction to business, developing budgets, managing credit, goal setting and planning, and micro-enterprise

and entrepreneurial development. All coaching and training was tailored to participants' individual needs and goals, determined through a collaborative, one-on-one intake process. Participants had a wide array of needs, from editing resumes and polishing interview skills, to ex-offenders' rehabilitation. In order to promote participant buy-in, staff focused on establishing and maintaining personal connections with participants throughout the project. Staff negotiated agreements with the Oweesta Corporation, Irvington Covenant Constructing Hope, and Oregon Trades Women to provide professional experiences and formal job training for participants.

The second objective of the project was for 150 program participants to establish IDAs. Applicants were first required to complete a needs assessment, formal goal setting process, and family financial management skills training. The IDAs could be used for home-ownership, starting a business, or post secondary education. By the end of the project, 179 participants successfully enrolled in IDAs, in which the state matched IDA participants' contributions at a three to one ratio.

OUTCOMES AND COMMUNITY IMPACT

Participants learned the value of formal goal setting, increased their financial literacy, developed personal budgets, learned how to manage credit and debt, received job training, and built new professional skill sets. Consequently, participants managed their personal finances more efficiently, developed clear professional goals, and embarked on specific steps toward realizing those goals, including enrolling in formal job training programs and acquiring gainful employment.

Several employment opportunities resulted from NAY AFC's involvement in the formation of three businesses during the

project period. NAY AFC partnered with a green energy company called Verde to form a new nonprofit renewable energy company called Verde Energy. Five program participants received training in green energy technologies from Verde Energy, specifically weatherization of houses, and were hired as full-time technicians at the conclusion of the project. NAY AFC's onsite kitchen was used to establish a catering enterprise called Nawitka, where seven participants gained full-time employment following the project. A third enterprise development was Naya Construction, which provided professional skill building opportunities for participants in carpentry, electrical work, plumbing, landscaping, and construction. By project's end, five participants were working full-time for Naya Construction.

Of the 179 IDA participants, 34 enrolled to start micro-enterprises and cumulatively saved \$92,000 including match; 19 purchased assets to start their businesses; and 18 completed formal business plans for ventures, including a bike shop, a private yoga instructor, and a licensed acupuncture business. Sixteen participants saved IDAs for home ownership and three have been able to buy homes using their IDA for part of the down payment. The remaining enrollees are saving IDAs toward postsecondary education. Regardless of their individual goals, program participants overwhelmingly expressed a newfound sense of direction, self confidence, and pride.

"Before this program I felt lost. I knew I wanted to go to school, but I didn't know how to move forward. Now I'm getting an associate degree in renewable energy, and my life has changed dramatically."

Rhea Standing Rock, IDA Participant