

# Narratives

## Executive Summary

At least ten AmeriCorps members will provide technician support to the Lummi Nation Natural Resources Department (LNRD) with riparian planting and maintenance, invasive plant removal, finfish and shellfish hatchery support, habitat monitoring, harvest management support, and oil spill preparedness on the Lummi Reservation and throughout the Lummi Nation Usual and Accustomed Areas. The project is targeted to start in late Fall 2013 with CNCS investment of \$102,201, matched with \$36,687 and ending on 6/30/2016, but is expected to continue as a regular program of the LNRD. This Tribal Conservation Corps project will focus on the CNCS focus area of Environmental Stewardship, Economic Opportunity, and Disaster Services.

## Rationale and Approach

### Area Description

The Lummi Indian Reservation (Reservation) is located approximately eight miles west of Bellingham, Washington, 90 miles north of Seattle, Washington, and 60 miles south of Vancouver, British Columbia, Canada. The Reservation is comprised of a five-mile long peninsula (Lummi Peninsula), which forms Lummi Bay on the west and Bellingham Bay on the east; a northern upland area and the smaller peninsula of Sandy Point; the flood plains and deltas of the Lummi River (a.k.a. Red River) and the Nooksack River; Portage Island; and associated tidelands.

The Reservation is located at the mouth of the Nooksack River and along the western border of Whatcom County, Washington. The Nooksack River drains a watershed of approximately 786 square miles, flows through the Reservation near the mouth of the river, and discharges to Bellingham Bay (and partially to Lummi Bay during high flows). The Reservation is located at the southern extent of Georgia Strait and the northern extent of Puget Sound.

Approximately 38 miles of highly productive marine shoreline surround the Reservation on all but the north and northeast borders. Much of the high-density development to date has occurred along the marine shoreline. The Reservation also features relatively low topographic relief and a temperate marine climate. Today, the Reservation uplands encompass approximately 13,000 acres and the tidelands are approximately 11,000 acres. There are approximately 4,500 enrolled tribal members. Nearly 3,500 live either on the Reservation, or in neighboring Whatcom County. Lummi per capita income is 47% lower than for Washington residents as a whole, poverty levels three times greater than

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for Washington State families as a whole.

### Assessment of Need

The Lummi Nation is known as the salmon people. Its livelihood, well-being and culture are unquestionably bound with the health of salmon stocks in the Nooksack River watershed and nearshore. Prior to European settlement, the river and nearby tidelands produced plentiful natural resources that allowed the Lummi people to develop a rich material, cultural and spiritual heritage. The right to harvest this bounty was explicitly preserved in the Treaty of Point Elliot of 1855. The 1974 Boldt decision (US vs. Washington) re-affirmed this right.

The Lummi Nation's ability to exercise its treaty rights is seriously threatened by the lack of harvestable fish and shellfish. This can be directly linked to the degradation and loss of high quality aquatic habitat. The decline of salmonid stocks has had cultural, social, and economic impacts on tribal members. The reduction of harvest has created a loss of fish for ceremonial use, downsizing of the tribal fishing fleet, and a loss in area tourism. The loss of traditional culture and spirituality that had been anchored by an abundance of salmon and other natural resources may be a catalyst for the noticeable increase in drug abuse, family violence and juvenile delinquency within the Lummi Nation.

European-Americans began settling in the area in the 1850s, attracted by high quality timber, coupled with an easy access to water transportation (Whatcom County Planning and Development Services Dept. 1997, as cited in Smith, 2002). Within the first few decades of Euro-American settlement, most of the lowland forests had been burned or logged, and most wetlands had been drained and ditched; much of these lands were converted to agriculture (LNR, 2005; Collins & Sheikh, 2004). Logging, coal mining, and the clearing of 130,000 acres of lowlands for agriculture created substantial changes in the river's landscape (LNR, 2005; Smith, 2002). Large riverine and estuarine habitats were channelized with levees and cleared of large woody debris (Collins & Sheikh 2004). Logging companies sold logged-off lands to employees and immigrants for small farm development. Commercial activity in the area since the 1950's gained speed, and former agricultural lands were converted for residential, commercial and industrial uses (Smith, 2002). Human population growth in Whatcom County increased by nearly 100% in this 40-year period (Smith, 2002).

The Lummi Nation, in Lummi Indian Business Council (LIBC) Resolution 92-124, adopted Tribal and

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Natural Resources Department Goals that define our right and obligation to restore the natural environment to support tribal fisheries, hunting and traditional gathering activities. The following are excerpts from Resolution 92-124:

\* LIBC Tribal Government Priority VIIa is to "Preserve and protect the culture of the Lummi Tribe;" and Special Emphasis A of Priority VIIa is to "Preserve and protect the natural resources."

\* Lummi Natural Resources Department's Priority Goal II is to "Define, develop, and protect treaty and aboriginal rights to a maximum sustainable allocation, to become self regulated and harvest all natural resources, including, but not limited to fish...."

\* Lummi Natural Resources Department's Priority Goal III is to "Develop and implement a watershed plan to protect and restore natural resource habitats and the environment both on reservation and off reservation to prevent extinction of species, and increase the sustained production of all natural resources within the Nation's traditional area."

Degradation of the Estuary and Nearshore Waters:

Like most western coastal watersheds, the landscape of the Nooksack River floodplain changed dramatically following the arrival of Euro-Americans in the late 1800s. Early maps and written accounts of the Nooksack River estuary (1860) describe the river discharging into Lummi Bay. The conversion to farmland involved the installation of drainage ditches, construction of dikes, clearing of logjams, and other actions to create a permanent separation of the river's two deltas. In the 1920s, a reclamation project that built levees along the lower Nooksack River was initiated. These levees restrict mainstem discharge into the Lummi River and down to Lummi Bay, and as wetlands conversion continued, eventually disconnected this distributary channel from its estuarine floodplain with its own series of levees. The diking and draining of wetlands in the Lummi Bay delta and the resulting loss of natural hydrology, salt marsh, and tidal riparian habitats has resulted in heavy compaction of the floodplain, filling of relict channels, and sporadic colonization by invasive species.

The Smuggler's Slough channel, once functioning as a migratory pathway for fish and a route for tidal exchange between the estuary's two deltas, has been effectively disconnected from the estuary by a series of levees built along several miles of river channel and a seawall built across the front of the Lummi Bay delta. These levees were built for agriculture reclamation of the tidelands in the 1930s. Smuggler's Slough functions as the primary drainage path between lower river farmlands and Lummi Bay, connected to miles of agriculture ditches and emptying through five tide gates built across its

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mouth.

Importance of the Estuary to Salmonid Stock Recovery:

Habitat degradation is considered the leading cause for the decline of WRIA-1 (Watershed Resources Inventory Area #1) salmonid populations (WRIA-1 Salmonid Recovery Plan 2005). Current habitat conditions are substantially less productive than historical conditions.

In the Nooksack basin, it is clear that abundances of several salmonid stocks have diminished substantially from historical levels as the land use in the watershed has intensified. Estimated historic abundances of early-timed (spring) Chinook in the Nooksack basin were 26,000 and 13,000, respectively, for North Fork/Middle Fork Nooksack (NF/MF) and South Fork Nooksack (SF) Chinook stocks (Mobrand Biometrics, unpublished data). The estimates are also reflected in catch records and observations (Lummi Natural Resources data). Recent escapements of wild fish for the two early populations averaged 170 fish (NF/MF) and 210 fish (SF) between 1997 and 2004 (Fisheries co-managers, unpublished data). This represents a 99.3% and 98.3% reduction in the number of NF/MF and SF spring Chinook fish returning to the river to spawn. Only 3 of 19 salmonid stocks identified in Water Resource Inventory Area (WRIA) 1 by Washington State Salmonid Stock Inventories are currently considered healthy: North Fork Nooksack fall chum, Samish fall chum, and North Fork/Middle Fork Nooksack pink salmon (WDFW, 2002; Blakely et al. 2000; WDFW 1998).

Many of these stocks have been significantly depleted; bull trout in WRIA 1 constitute a component of the Coastal-Puget Sound Distinct Population Segment (DPS), listed as Threatened (64 FR 58910, Nov. 1, 1999), and both early South Fork Nooksack Chinook and early North Fork/Middle Fork Nooksack Chinook stocks are considered essential for recovery of the Puget Sound ESU, and have been listed (64 FR 14308, Mar. 24, 1999). Further, Puget Sound/Strait of Georgia Coho salmon, including Nooksack Coho, is a species of concern, and NOAA Fisheries has listed Puget Sound steelhead as Threatened. Because the Nooksack basin represents such an important component of the Puget Sound diversity for ESA-listed Chinook salmon, it has become a major focus for salmon recovery. The populations of these fish are small and highly vulnerable to disturbance and because these anadromous salmon species exhibit unique life history strategies that require diverse habitat for successful production and maintenance. There is a great need to preserve and restore their habitats.

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Restoring freshwater wetlands in the Nooksack estuary is an important element for mediating the impacts of poor water quality to fish and wildlife habitat, as well as shellfish harvesting areas for tribal members. The Nooksack Estuary, like much of the Puget Sound, has seen a drastic decline in the abundance and function of wetlands. In 1888, U.S. Coastal and Geodetic Survey maps showed 8,785 acres of Nooksack estuarine wetlands. In 2004, wetlands mapping conducted by the Lummi Nation identified only 3,211 acres of wetlands remaining. Of the remaining 3,211 acres of wetlands, more than half is disconnected from its natural hydrology and fish access by dikes, roads, and tide-gates. This represents a 64% reduction, mostly related to the conversion to agriculture, of wetlands from early historic times. Many of these former wetlands are now fallow and overgrown agricultural lands that retain the potential for acquisition and restoration to provide key habitat that is severely limited throughout the Puget Sound.

The tribe regularly samples estuarine surface water quality at 49 sites, including six in Lummi Bay. Water quality parameters have consistently shown a reoccurrence of the high bacteria levels, high temperatures, and low dissolved oxygen levels. A continuing trend observed in both the Bellingham and Lummi Bay watersheds was the introduction of fecal contamination into these bays from rivers, ditches, and streams originating off the Reservation. Dilution and deactivation from the saline waters in the bays decreases the bacteria density from the levels found in the fresh water sample sites, but not sufficiently to consistently avoid exceeding water quality criteria protective of shellfish harvesting. In the past decade, tribal shellfish harvesters have endured numerous closings due to fecal contamination of shellfish growing beds. Tribal members also experience temporary closures of traditional beds elsewhere in the estuary one to three times a year.

Harvesting fish and shellfish in the Nooksack estuary holds considerable value to Lummi tribal members, both for cultural ceremony and subsistence. The tribe operates a shellfish hatchery in Lummi Bay that grows and sells seed to growers worldwide. The hatchery also seeds a few areas of the Lummi Bay tide flats, where the Lummi people traditionally harvest shellfish. Poor water quality has directly impacted this harvest in the past. For example, a 220-acre area of Bellingham Bay was closed to commercial harvest over the November 1996 through May 2006 period due to fecal contamination originating in the Nooksack River. An estimated \$8 million (based on an average tribal income of \$800,000/year) in revenue was lost.

To protect tidelands, nearshore marine waters and waterways on the Reservation from hazardous spills, the Water Resources Division coordinates oil spill drills 2-3 times a year. Participants must also

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participate in a training session.

The Restoration Division is in the process of restoring wetlands on the Lummi Reservation. Thus far, we have acquired over 345 acres in the Smuggler's and Marietta Slough project area, planted 103.5 acres, and restored 1.37 miles of fish passage between Bellingham and Lummi Bays. Two barriers to fish passage along Smuggler's Slough are scheduled to be replaced by 2015, with 241 acres targeted for acquisition.

### Program Design

AmeriCorps members, representing Lummi tribal members, will serve on the Lummi Nation Tribal Conservation Corps (LNTCC) to protect and restore these natural resources that the tribe has relied on since time immemorial. In the last few years, one of the key initiatives of the Lummi Nation has been a succession plan for leaders who are tribal members in the Lummi Indian Business Council. One of the problems has been finding young tribal members with the skills and educational background to fill this void. The Natural Resources Department has only two younger (both in their 30s and 40s) who have the minimum education background required by the LIBC (an AA degree) to become a manager. In addition, it has been difficult to fill other natural resources technician and professional staff positions with skilled workers. The Natural Resources department has been continually understaffed to support much of its work, and must either hire outside contractors to complete the work, or rely on college student volunteers for monitoring who are only performing the task as part of their coursework. Once the class is completed, the monitoring is dropped. In some cases, grants are not applied for because of the difficulty in finding qualified workers, especially Lummi tribal members, to fill positions.

To fill these needs, AmeriCorps workers will learn about environmental problems, salmonid and shellfish biology, and how the ecosystem supports the needs for shellfish and endangered salmonids. We will engage up to 10 Lummi youth and young adults from ages 16-25 in various aspects of monitoring, planning, restoration and data analyzing on the Lummi Reservation and on Lummi Nation owned property where the Skookum Fish Hatchery is located on the South Fork Nooksack River. To start off with, we will employ one half member who will serve as the lead supervisor to coordinate crews. AmeriCorps crew members requested include 2 reduced half-time, 3 quarter-time and 4 minimum time. The 4 minimum time members will consist of high school members who will

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work primarily through the summer at the hatcheries and conducting riparian maintenance work. The reduced half time and quarter time members will work throughout the year, with riparian plantings, hatchery support, harvest management sampling, and stock assessment. All members will be involved in learning GPS techniques and be involved with spill response drills.

Riparian restoration: AmeriCorps members will learn how to plan a riparian restoration project, learning about appropriate plants, soil types, importance of water quality and native macroinvertebrates. They will then learn proper planting techniques and apply protective beaver devices. They will then learn how to monitor survival rates, take water quality measurements identify macroinvertebrates, and learn how to use a GPS unit. At least 60 acres will be restored and maintained.

Harvest management support: Members will conduct biological sampling from salmonids harvested during peak period from mid-August to mid-October. Some sampling will also occur in the spring for Dungeness crab. Crew members will learn how to identify different species and how the information is used to determine sustainable harvest levels.

Stock assessment support: Crew members will participate in beach seining surveys in the Nooksack delta. They will learn how to identify different species and why surveys are important in determining stock levels, health and where juveniles are residing. Basic water quality measurements will also be taken. Members will participate in Chinook salmon spawner surveys in the lower and upper Nooksack river watershed. They will learn about how to identify a redd (nest dug in the gravel with eggs), best habitat conditions to support redds, and why many redds and juveniles fail to survive.

Shellfish hatchery support: Crew members will plant oyster seed on 5,000 tideland acres owned by the Lummi Nation. They will also learn how to culture algae, oyster and clams from the spawning stage to when the seed are ready to put on the grounds to grow out. Planting oyster seed is conducted in the summer and processing cultures of algae, oyster and clams is conducted year-round.

Fish Hatchery support: Crew members will learn about the operations of the fish hatchery, how it supports the Lummi Nation's treaty rights, and how the Chinook salmon broodstock program supports rebuilding of the endangered species. The LNTCC will provide support for feeding fish,

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capturing and releasing fish, and general maintenance.

Spill response: AmeriCorps members will participate in a 24 hour hazwoper training to become certified in hazardous material handling and spill response. They will also participate in oil spill drills (2 per year) in order to maintain certification. Once certified, members may be called on to assist in oil spill response efforts in the local area.

The exposure to the variety of tasks related to natural resource management will provide members an opportunity to select a career path of most interest to them and allow them to further training and education in the topics of interest. Once the members attend college to obtain a degree, these on-the-ground skills will provide the members an advantage over others with a similar degree but no experience. Any type of experience, whether volunteer or through an AmeriCorps program shows hiring officials that this person knows how to apply what they've learned. At Lummi Natural Resources, those workers who have either volunteered or held a seasonal position, and proved themselves to be hard workers, have received positions as they open up. As mentioned previously, we've had difficulty finding interested and qualified natural resource workers, and are unsure whether the Lummi Nation community understands what we as a department provide for them. With AmeriCorps workers who are tribal members, we hope that they will also serve as ambassadors for the Natural Resources department and show why protection and restoration of the resources that they and their ancestors have relied on are important.

By the end of three years, we expect to see an increased interest in a natural resources career with the Lummi Natural Resources Department, by the increased number of applicants. Each participant who has completed high school has taken at least one college level course, with at least two former AmeriCorps members enrolled in a full-time college program. Metrics were selected based on amount of work needed by division managers, capacity for managing program and number of members each year, and based on the Restoration Division experience with volunteer recruitment from the Lummi Youth Academy, the Lummi Nation schools and the Northwest Indian College. We have found that there is generally a core set of youth, around 8-10 who participate each year, and have identified 2-3 individuals who express an interest in furthering their abilities. These individuals have asked for other opportunities either within the tribe or with other organizations.

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Each year, every member will be asked to fill out a questionnaire with regards to their experience. This information, coupled with information provided by division managers will be included in the annual report to funders, and via a presentation to the LIBC. Activities on a quarterly basis will be reported to the Lummi Nation community via the community newspaper, the Squol Quol. A Facebook page will be created to provide current updates to the community, and we will also work to submit stories to the local newspaper and the newsletter for the Northwest Indian Fisheries Commission (of which the Lummi Nation is a member).

### Member recruitment:

Members will be recruited from families that are members of the Lummi Nation, in order to provide for the tribes' self sufficiency in natural resources protection for ongoing generations. Announcements will be sent via email to all LIBC departments, posted at the new tribal center, Lummi Nation Schools, the Lummi Youth Academy (a voluntary program for at-risk Lummi youth), and the Northwest Indian College which is located on the Lummi Reservation. The application form will include questions about future goals, why they are interested in the position and time commitment. LNRD staff will review applications, and select members for interviews.

### Member training

To begin the project, an in-class session will be held to orient the members to AmeriCorps program, Natural Resources Department and the Lummi Indian Business Council. This will include presentations by each Natural Resources division, and include a presentation by the Cultural Resources and human resources department. The human resources department representative will outline LIBC rules and regulations as they pertain to the AmeriCorps jobs. Oversight and adherence to policies will be by Natural Resources division managers, with any reports given to the Restoration division manager.

Specific environmental education and training will occur in separate sessions, prior to the task.

### Training topics include:

- \* Salmon and shellfish biology, habitat needs.
- \* Water quality and water resources: why it's important and what parameters are measured.
- \* Native and nonnative plant identification, importance for wildlife, subsistence, and cultural needs.
- \* Safety on the job specific to the task.

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- \* CPR and Basic first aid training/certification
- \* 24 Hour hazwoper and oil spill response training

Specific task training will occur on the job according to the following schedule:

Task/Training	Timeline
CPR and Basic first aid training/certification	Fall 2013
Salmon and shellfish biology, habitat needs.	Fall 2013
Water quality and water resources: why it's important and what parameters are measured.	Winter 2014
Native and nonnative plant identification, importance for wildlife, subsistence, and cultural needs.	Winter 2014
Safety on the job specific to the task.	Prior to each task

### Member supervision

Each Natural Resources division will provide supervision over all AmeriCorps members during tasks related to their division. The lead AmeriCorps member (half-time member) will serve as coordinator and liaison between the crew members and division managers. She/he will ensure that members are properly attired, follow safety protocols, transported to the appropriate site, and track timesheets. The lead will be chosen after all interviews have been conducted, based on prior experience in leading crews. This lead crew member will be provided additional training by the Restoration Program Manager with assistance by Frank Bob, Natural Resources Specialist and the LI BC human resources department. This training will provide specifics on what documents we will need for timesheets, office protocols (including ordering of supplies), LI BC personnel rules, how to handle and report problems with crew members. He/she will be encouraged to talk to any of us should he/she have any questions. Frank will provide supervision for the lead AmeriCorps member providing general support and answering specific division questions. Jill Komoto, Restoration Program Manager will provide overall program supervision and serve as the liaison with other LI BC departments and Council members.

### Member experience

By engaging AmeriCorps members in the various aspects of environmental protection and restoration efforts by the Lummi Nation Natural Resources Department, crew members will understand the

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bigger picture and why each component is important for their own livelihood and the community they live in. So many people take for granted that they have food to eat, but where does that fish and clams come from? What conditions are necessary for the survival and growth? This includes everything from clean and cool water, shade and cover in the form of native trees for temperature and protection from predators, specific gravel size for spawning, and how climate change threatens these species further. They will understand how much of a decline salmonid stocks have been in, and what can be done to restore them.

At the end of their term, members will be given a questionnaire to help us learn how to better structure the program. Questions will be asked about what they enjoyed the most, what they would like to learn more about, and other questions related to specific tasks. They will be asked to rate each component, and what was confusing or problems they encountered.

At the beginning of the program, all members will attend a general training session which will include a presentation on AmeriCorps rules and background on the program. The presentation will include information about other local AmeriCorps program. Each member will be given shirts, sweatshirts and hats with the AmeriCorps logo. Initially, since work will be focused on the Lummi Reservation, there may not be much contact with other AmeriCorps members. The Nooksack Salmon Enhancement Association (NSEA), one of our partners in recent years, employs AmeriCorps workers and a members from Washington State Conservation Corps. As time allows, we will seek to work with NSEA to include the LNTCC members in their volunteer planting parties.

### Volunteer generation

At this time, our focus is on developing skills and interest for future leaders in the Lummi Nation Natural Resources Department. This program will also be providing funds to help the Lummi youth and young adults pursue a secondary education so that they lead the LNRD into the future and protect tribal natural resources. At this time, the focus is not on generating volunteers, however as we increase the skill set and obtain funding for future phases of restoration both on the reservation (Smuggler's Slough), we will need additional volunteers to support AmeriCorps member efforts. The AmeriCorps members will then serve as coordinators and teachers for volunteers in planting native trees/shrubs. After year 2, we expect to show the value of the AmeriCorps program and the importance to teach youth at a younger age. We hope to utilize AmeriCorps members in the future to

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teach grade school students about what they've learned and why it is important. At this time we'd like to request a waiver for the volunteer generation requirement.

### Organizational commitment to AmeriCorps Identification

Because the Lummi Natural Resources department, with the Restoration Division as the lead in overseeing this project, all materials will be provided and developed will include the AmeriCorps name/logo as sponsor for the program.

### Organizational Capability

The mission of the Lummi Nation Natural Resources Department is: "To enhance, manage and protect the natural resources into perpetuity for the benefit of the Lummi people in accordance with the policy and procedure of the Lummi Nation."

The Restoration Division of the Lummi Natural Resources department will lead and coordinate the activities for the AmeriCorps crew. Since 1996, the Restoration Division has completed salmon habitat protection and restoration activities:

- \* 200 Instream Habitat Structures constructed, including 43 engineered logjams which will provide cool water habitat for migrating and spawning salmonids
- \* Preservation of 1485 acres of critical habitat through acquisition
- \* 475 acres of Riparian Stand Treatment along 91.5 miles of stream
- \* 176 Miles of Forest Road Abandonment and Storm Proofing to prevent fine sediment inputs into the Nooksack River system
- \* 9 Fish Blockages Removed to open up 5 miles of stream habitat.
- \* Obtained and managed over 21.8 million in grants

Key individuals for implementing and managing the project:

Frank Bob, Restoration Assistant is a 16-year veteran of the Lummi Natural Resources department and is LNR's lead for education and outreach efforts. Frank has also started the first volunteer program in 2010 at Smugglers Slough and coordinates activities with NSEA, the Lummi Youth Academy, and the Northwest Indian College. Frank will serve as lead coordinator for the AmeriCorps Lummi Nation Tribal Conservation Corps, recruit/interview members, arrange for initial trainings, and coordinate task implementation with Division managers and the AmeriCorps lead supervisor. He will also provide training with the Restoration Technician on restoration techniques, including native

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planting and invasive removal.

Jill Komoto, LNRD Restoration Program Manager has over 28 years of experience in budgeting, project management and conservation planning. Her experience includes management of a 40 million dollar budget, development of watershed and marine ecosystem management plans and outreach with challenging stakeholders. She spent years working with the Native Hawaiian community, including youth in the State of Hawai'i in water quality monitoring, education and outreach activities and biological monitoring. She is the primary author of several volunteer handbooks for Hawaii including a water quality manual and community projects handbook. Jill will recruit and interview members, ensure that LI BC and AmeriCorps policies are followed, manage grant budget and reporting, and coordinate media and Lummi Nation community outreach and updates.

Eric Stover, LNR Restoration Project Scientist is the project manager for the Smugglers Slough project and recently oversaw the completion of Phases 1 and 2. He also has extensive Geographic Information Systems (GIS) experience, obtaining a certificate in GIS from the University of Washington. During his time with People for Puget Sound, he served as project manager for several estuary restoration projects in the San Juan Islands, overseeing community volunteers. Eric will provide training for monitoring of the Smuggler's Slough project, to include macroinvertebrate, water quality and flow monitoring, and fish identification.

Chris Phair, LNR Restoration Technician is the lead for LNR's riparian restoration program. He provides the layout and plant lists for these projects, consulting with staff and funding agencies. This includes coordination with landowners, purchase of plants and other supplies, supervision of planting teams and planting itself. Chris has been the field supervisor since 2008, and has owned a business that has been the primary contractor on various types of restoration projects He will assist in the training of AmeriCorps members for riparian restoration, to include planting, native plant maintenance, and invasive plant removal.

The Restoration Program Manager will meet with staff and explain the LNTCC program and AmeriCorps program policies. The Restoration Division will provide each division with a list of topics to cover prior to the task, so that members understand basic information needed for the task (such as

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identifying fish species), and why the task is important. Due to the Restoration Program Manager's extensive financial background, she will oversee and manage all budgets and expenses and provide information necessary for all reports to the Grants office of the LI BC. The Restoration Program Manager has experience in evaluating programs for efficiency, ability to meet deliverables and identifying lessons learned to be passed on for future program development. This is also a part of every final grant report for every project. Restoration grants have been received from various federal grant programs from the Natural Resources Conservation Service (NRCS), National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), US Fish and Wildlife Service (USFWS), Bureau of Indian Affairs (BIA), and the US Forest Service (USFS). She worked in Hawaii with the State Aquatics program to review the State's Coral reef management program, develop a strategic plan, and work concurrently with the NOAA consultant to develop a plan that met their requirements. The Restoration Division has talked to the US Fish and Wildlife coordinator of their Tribal Conservation Corps (TCC) program, receiving advice on how to organize and start our program. While the USFWS has limited to no funding for their TCC program at this time, they have offered technical support to help us out with logistics.

The Lummi Natural Resources department is led by an Executive Director who reports to the General Manager of the LI BC. There are eight division managers who all report to the executive director. The LNRD staff consists of several long-term employees, both tribal and non-tribal members who know about the history of the tribe, the natural resources department, fish stocks and the watershed. Staffing includes biologists, hydrologists, engineers, ecologists, forestry experts, accountants and soil experts. The Executive Director and division managers are aware of this proposed program, and are excited about its potential. In many of our manager meetings that are held, there is discussion about the need to engage Lummi youth more in natural resources to help sustain the tribe, or about the lack of available and skilled workers to complete our work. We also see this program as not only a way to build skills and create additional jobs, but another positive avenue for youth to pursue so that they don't succumb to substance abuse. Several other youth programs on the reservation have been successful in preventing this abuse, and this program goes beyond in creating jobs and skills for future success by Lummi youth. Various youth programs give presentations to the managing council of the tribe, and this is appreciated by LI BC council members. Two Natural resources staff, (the executive director and environmental policy director) are currently members on the council. All LI BC council and LNRD staff understand that the youth are the key to sustaining their tribe and culture.

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### Sustainability

The Restoration Division of the Lummi Natural Resources department has obtained and managed over \$21.8 million dollars in grant funds in the past seventeen years. Sources include local, federal, and state funding programs. Throughout the years, the Restoration division has developed a good relationship with funders; and especially with the recent staff, have demonstrated an impressive ability to organize and manage grants, budgets, and their deliverables. We have also established good working relationships with our local partners, who have provided us with volunteer support and access via their land for our restoration projects. Local partners include the Nooksack Tribe, Nooksack Salmon Enhancement Association, Whatcom Conservation District, Whatcom Land Trust, Whatcom County, City of Bellingham, Lummi Youth Academy, Northwest Indian College, Western Washington University. We also work in the upper watershed with private landowners, such as timber harvest companies as well as the Whatcom Land Trust to implement in-stream projects. We partner with these organizations on several grants and projects, including monitoring, volunteer planting and instream habitat restoration. For this project, we will work with the Lummi Youth Academy and the Northwest Indian College (NWIC) to identify potential members of the LNTCC. We will also partner with the NWIC for assistance with macroinvertebrate surveys. After demonstrating the usefulness of the project on the Lummi Reservation and Lummi owned property, we expect to expand the work of the LNTCC to the upper watershed. This will include riparian restoration along the Nooksack River and its tributaries, additional spawning surveys, restoration project monitoring, and habitat assessments. Through restoration project funding, we will obtain funds to support AmeriCorps member participation. Within 1-2 years after the project begins, we expect to show the success of the program via outreach through presentations by AmeriCorps members and other media and obtain substantial funding from the Lummi Nation general fund. Our partners provide access to sites, volunteer support and some monetary funding for both riparian plantings and instream projects.

### Compliance and accountability

Compliance with AmeriCorps rules and regulations will not be a problem with this project since it is managed by one department and all sites are part of the department's operations. At the beginning of the project, when an introduction to the AmeriCorps program, the Natural Resources department and LIBC rules, AmeriCorps rules will be presented as well. All division managers will be given a set of the

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prohibited activities as well. If an instance of noncompliance occurs with an AmeriCorps member, that member will be removed from the program and CNCS will be informed. Any noncompliance by a staff member will be disciplined according to the LI BC human resources process and removed from the project.

### **Cost Effectiveness and Budget Adequacy**

Since this request is for the start-up of the Lummi Nation Tribal Conservation Corps, the maximum cost per Member Service Year will be higher than in subsequent years. This initial budget provides some of the basic needs for continuation of a Lummi Nation Tribal Conservation Corps, including equipment (such as a used van for transportation) and other supplies that are not disposable (such as additional weed whackers). In addition, other costs such as FICA are not included because these costs are exempt for Lummi tribal members who are involved with protecting treaty fishing rights. The only funds for other program staff are for members of the Restoration Program Division. Other division staff and managers will be involved in the training and supervision of AmeriCorps members, but these costs are not included here since this may be difficult to track.

Future years MSY will go down as we seek funding as part of our restoration and other natural resource program grants, integrating AmeriCorps members into riparian restoration, habitat monitoring, and water quality monitoring in the upper Nooksack River watershed and Nooksack estuary.

Restoration Program Funding Sources:

- \* NOAA:
- \* USFWS: Coastal Restoration, Riparian, Coastal Wetlands, Tribal Wildlife
- \* NRCS: Wetlands Restoration Program, EQIP, CREP
- \* EPA
- \* Bureau of Indian Affairs
- \* State Salmon Recovery Funding Board
- \* State Estuary and Salmon Restoration Program
- \* State Department of Ecology
- \* Private landowners (utilities, forest landowners, nonprofit landowners)

CNCS proposed funding represents 6.4% of the Restoration Programs yearly budget, and 0.9% of the total Natural Resources department budget. We are seeking a waiver from the matching requirement for the first year of this program. After showing the utility of this program to the department on the

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tribe, we expect to receive some funding from the general fund of the LIBC as well as from the various divisions. At the time of this grant application, all budgets for 2013 had been completed and approved and each division would need to submit a revision mid-year. We currently have some grant applications out for riparian restoration in the upper watershed and will be seeking some fish barrier replacement funds from NOAA and the US Army Corps of Engineers (USACE) which will include monitoring for Smuggler's Slough. Some match funding is received from the BIA, NRCS, EPA, general funds from the Lummi Indian Business Council, and NOAA.

### Cost effective approach

Currently, to meet staffing needs and to complete deliverables from grants, outside consultants must be hired. These firms charge a high overhead, as they need to support other costs such as rent. Charges for a surveying technician or laborer can be as high as \$30 per hour, which is more than most natural resources technicians, specialists or even divisions managers earn. Other short term needs are met through unskilled programs such as dislocated fishers. These workers might work fine for the immediate need, but do not fit the long term needs of the department as the department seeks future leaders who have the educational background. The department also utilizes tribal owned businesses for riparian work, but due to health reasons and lack of consistent staffing by the tribal business, have sought other outside businesses. By exposing Lummi youth to a variety of different natural resources tasks, the youth can identify which college program to apply for. These same youth will develop into biologists, ecologists, hydrologists and engineers that the LNRD needs so that they can prepare designs, planning documents and manage projects for natural resource protection and restoration. For maintenance of acres of recently planted areas, using a crew of AmeriCorps workers to treat smaller areas not accessible by a large riding mower gets the job done faster. Currently it takes months to complete the task with only two technicians. Using weed whackers with volunteers is risky from a liability aspect.

Besides actual costs for implementing the program, there are some other costs in terms of not providing temporary jobs for other LIBC worker placement programs.

### Budget adequacy

This budget is based on previous experience with education and outreach activities, including the development of a volunteer water quality program. It was also based on our discussion with the coordinator of the USFWS Tribal Conservation Corps program. Some of the supplies we have on

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hand, others we needed to supplement due to the number of crew members involved. Each division was asked if any additional supplies were needed to support crew member tasks. Some of the supplies requested can be used for multiple divisions, such as boots, waders, and general safety equipment. One of the biggest needs is the purchase of a used van so that all crew members can be transported together to each site on the reservation. While each division has crew cabs and can supply them as needed, they may be needed for other tasks and a van dedicated for the AmeriCorps program is needed.

Background checks and drug tests are provided by the LIBC and included as match. FICA is exempt for tribal members engaged in fisheries activities, and thus is not included in the additional member costs. All tribal members in the Natural Resources department are 100% exempt.

### **Evaluation Summary or Plan**

N/A

### **Amendment Justification**

N/A

### **Clarification Summary**

N/A

### **Continuation Changes**

N/A