Enhancing Environmental Protection and Yurok Tribal Sovereignty

This is the final report of findings and results from the Yurok Tribe Environmental Program- (YTEP) project "Enhancing Environmental Protection and Yurok Tribal Sovereignty." This project was funded by a grant for fiscal years 2008-2009 and a 6 month no-cost extension from the Administration for Native Americans (ANA)-Environmental Enhancement Program. The health of the environment, particularly the reservation environment and those traditional resources used for cultural, ceremonial and subsistence practices, are of primary importance to Yurok People. The community has voiced concerns about potential contamination of the Tribe's resources and the adverse health effects and cultural impacts of contaminated resources.

The Tribal government is constrained from regulating activities of many individuals and corporations on the YIR that affect the quality and safety of cultural and subsistence resources. First, there is insufficient and incomplete data on the extent of environmental contaminants throughout the YIR. Additionally, the Tribe's existing environmental regulatory framework is insufficient to adequately protect Tribal cultural and environmental resources on the YIR. The Tribe needs to acquire both the information and the capacity to better identify threats to environmental and public health, and it needs an environmental regulatory framework that enhances the Tribal Government's jurisdictional and enforcement authority over the Yurok Reservation. To address these issues involving both regulatory ability and environmental health on the YIR, YTEP used a three-phase approach to addressing environmental health on the Yurok Indian Reservation (YIR).

Phase 1

The first phase was to build internal capacity by compiling available data and information on potential and known point source locations of contaminants and toxins through: interviewing

the tribal membership, tribal staff, reservation community members, conducting archival research on the internet, and at local libraries, and also consulting with surrounding agencies such as the U.S. Forest Service, Redwood National Park, and Humboldt County Department of Environmental Health. In year 1, YTEP staff conducted public scoping at 6 of the 7 reservation council districts, at the Salmon Festival, the Annual Tribal Membership Meeting, Natural Resource Committee, Culture Committee, and NAGPRA Committees. Discussion at these public meetings was very constructive in helping YTEP indentify dozens of potential environmental pollution sites on the YIR. In year 1, YTEP staff consulted with 4 major landowners on the YIR; Six River's National Forest, Redwood National Park, Green Diamond Resource Company and the Weitchpec Nursery. Scoping with the agencies included requests for information on potential contaminants within the lands they own and manage on the YIR as well as discussion of access for the purpose of assessment of sites reported on their lands.

In year 1 we identified over 300 reports of potential environmental pollutants on the Yurok Indian Reservation. Known potential environmental pollutants vary in size, severity, location, & type. Some examples of data gathered include: illegal dumpsites, abandoned autos, herbicide spraying, burned homes, faulty septic systems, old mill sites, old mining sites, previously cleaned dumpsites, old home sites, and historic logging activity where machinery fluids were often improperly disposed into soil & waterways. All of the potential pollution source data gathered has been mapped and compiled in a Geographical Information System (GIS). (See the attached map). This data has also been stored in YTEP's secure & searchable computer database called Yurok Environmental Data Storage System (YEDSS).

High School students from the Klamath River Early College of the Redwoods (KRECR) were helpful in several capacities, including, but not limited to conducting archival research and

survey development. Additionally, students were exposed to the contaminant issues facing the Tribe and Reservation environment, as well as an introduction to toxicology. All of the reported environmental pollution data and maps were presented to the Yurok Tribal Council during Tribal Council planning sessions.

Another part of building internal capacity in phase 1 was for YTEP staff to complete both instructor-led and online GIS trainings. In years 1 and 2, three YTEP staff completed over 200 hours of GIS instruction from ESRI with assistance from the Bureau of Indian Affairs- National Geospatial Resource Center (NGRC). The NGRC also assisted by gifting us free ESRI GIS software.

Phase 2

The largest task in year two of this grant was field-truthing the compiled data from phase one. The field survey component identified and inventoried potential pollution sites within the exterior boundaries of the Yurok Indian Reservation where the Yurok Tribal Government has regulatory authority. In phase one; we collected over 300 reports of potential contamination by the tribal community, tribal staff, tribal committees, and archival research. Initially when the project began, YTEP anticipated that we would indentify a few dozen pollution sites, when in reality, we indentified 329 reports. Before conducting field site visits to validate the large amount of information and assess the potential eligibility of these sites for future study we developed a field survey strategy with the guidance and assistance from these Tribal departments: Police, Legal, Fisheries, Yurok Land Management, Watershed Restoration, and also students from the Klamath River Early College of the Redwoods High School.

In handling the very large workload of conducting field surveys at hundreds of sites on the remote and rugged YIR, we had to consider many factors in creating a field survey strategy.

We had to consider: limited access since the Tribe owns very few lands within the reservation boundaries, staff safety during the marijuana growing season, the large number of locations stretching throughout the 56,000 acre YIR, & the accuracy of the information given. Many of the reports gathered in year 1 were incomplete anecdotal memories of activities that occurred decades ago "someplace over there." Conversely, many of these reports were also very helpful and detailed.

Data management evolved throughout the project and dictated our field surveys. Potential pollution data was initially gathered on a standardized form titled "Community Scoping for Reservation Areas of Contamination." This initial form has a unique number with space for informants to describe the location of and type of environmental pollution. Attached to the form was a piece of sticky tape with an arrow and the same unique number written on it. Respondents were then asked to place the sticky tape on a large blank map of the YIR with the arrow pointing to where they approximate the pollution to be.

After a significant number of pieces of sticky tape were added to the "sticky tape map" YTEP staff digitized the locations on a GIS map with a corresponding attribute table that included the location description and unique survey number from the public scoping survey forms. With this digitized map of potential pollution locations YTEP staff was able to begin field site visits. For the field surveys, numerous maps were made with site locations, descriptions, survey numbers, and land ownership parcel information that assisted in prioritizing sites located on tribally controlled land which was easiest to access. Once these series of field maps were created, YTEP staff was able to create "survey kits" which included: 1) GIS paper maps, 2) copies of original public scoping survey forms for reference, 3) GPS unit, 4) field

survey site forms which are similar to the public scoping forms but include latitude and longitude, 5) camera.

Ground truthing activities have been completed and represented the largest task in our 2 year work plan. Because of the much larger than anticipated number of reported pollution sites, and being understaffed, YTEP wasn't able to complete our grant duties by our original deadlines in year 2. YTEP applied for and received a 6-month No Cost Extension (NCE). Under our NCE we were able to successfully field survey 40 reports per month.

The results of our ground surveys were: YTEP staff conducted over 100 site visits to reported sites, which represented 161 reports. Many of the locations were reported more than once and therefore we had more reports than locations. We also found over 31 new unreported small dumpsites, junk cars, & burned residences that were previously unreported. At the beginning of our field surveys, we used parcel ownership and pollution site location info on the 329 reports and narrowed down our goal of possible sites to 218. 109 of the 329 reports were located off the reservation or where determined to be unlocatable, thus resulting in a possible 218 validated reports. From over 100 actual site visits throughout the YIR, nearly 192 of 329 reported sites were validated.

Our anticipated strategic risks proved to be correct. Creating an inventory of environmental pollutants on the YIR was successful but because some of our pollutant location information was faulty, unverifiable and often located on private land, we were unable to meet our goal of validating 90% of reported environmental pollutants via field survey. We were however able to verify nearly half of all reported potential environmental pollutants and during field survey activities located over 30 previously unreported sites. The verified data has been logged into our department database as well as put into a GIS. We now have great confidence in

our validated pollutant data, which will continue to be useful long after this project ends. Utilizing the GIS skills learned from phase 1, YTEP staff conducted a geospatial analysis of the Reservation's contours to estimate locations of potential sediment contributions. Sedimentation of streams can greatly impact water quality & be another form of environmental pollution.

Another component to phase 2 was to present our findings to the Tribal Council, Tribal membership and concerned parties. Similar to the first year, YTEP staff conducted another round of public scoping with Tribal members and reservation community members. Within the past two and a half years, we have conducted Community scoping in each of the 7 Council Districts, at the Salmon Festival, Annual Meeting, Natural Resource Committee, Culture Committee, and NAGPRA Committees. Discussion at these meetings has been constructive in helping YTEP plan the management of this information after this grant ends. The information from this ANA grant is building capacity to apply for numerous other grants in the future.

The last component of phase 2 was to develop a public awareness initiative on environmental hazard risk reduction by providing information on culturally appropriate risk reduction measures in the form of 1 informational booklet mailed to over 400 tribal households and 6 informational pamphlets placed at all Tribal facilities. The information in the booklet and pamphlets was intended to assist the Yurok Tribal Membership and reservation community in protecting their health and the health of the environment, by informing them about a wide range of health risks from environmental pollution on the YIR and ways to prevent potential health hazards. Information in the pamphlets and booklet were topics derived from identified community concerns and addressed: reducing backyard trash burning, reducing illegal dumping, pesticides on the YIR, historic gold mining on the YIR, historic logging on the YIR, and traditional subsistence resource use.

Phase 3

Phase three was intended to enhance tribal regulatory authority by creating a plan utilizing the data gathered from this project to inform the development of a Tribal Environmental Protection Act (TEPA), and enhancing other environmental ordinances in order for the Tribe to more effectively manage environmental issues within the Reservation. Because ANA scaled back or original 3 year proposal, which would have allowed us to update numerous existing tribal ordinances and create new tribal laws and policies, we have been unable to fully develop the third phase.

YTEP complied research on many other Tribe's existing Tribal Environmental Policy Act (TEPA). YTEP staff also consulted with the Tribal Legal Department to develop a plan for future TEPA development, but because this grant's funding was cut back, our access to the Legal Department was less than anticipated.

During our extensive public scoping, we were able to field tribal member and community concerns about pollution and health risks from pollution on the YIR. Conversations and surveys of the tribal membership show that they are most concerned about pesticides applied on large portions of the YIR by Green Diamond Resource Company which is a private timber company that owns a majority of the land within the exterior boundaries of the YIR. Possible solutions like strengthening Tribal laws and expanding Tribal jurisdiction were discussed during our extensive public scoping. In addition to pesticide concerns, the information topics distributed to the Tribal membership in informational pamphlets and a booklet were chosen by community concerns gathered in public scoping.

In conclusion, this project "Enhancing Environmental Protection and Yurok Tribal Sovereignty" has been a success because of the extensive community participation through

public scoping at dozens of public meetings, interviews with tribal staff, and Tribal Committees. An unexpected benefit from this project has been a heightened awareness by the Tribal Leaders, Tribal Members, Tribal Staff, and Tribal Committees, about pollution and its potential risks. People now think about pollution in ways that they previously did not. Another benefit is that the massive amount of pollutant data gathered during this project has helped build a baseline of pollutant and toxin information that will be useful long after this grant's completion.

Report created by:
Joe Hostler
Yurok Tribe Environmental Program-YTEP