**Areas of Potential Support for First Foods Project from**

**Communities and Forest Management Social Science Team**

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The following are not project proposals per se, but rather ideas for discussion with the Warm Springs Tribes to identify areas of potential interest of projects that could be mutually developed further. We stress that our approach to working with the Tribes would be participatory, and could range from consultation/support roles to participatory research endeavors – depending on what is needed and desired by them.

**1** – **Participatory assessment and restoration of culturally important plant species with emphasis on youth education and cultural revitalization**

Several key issues of concern related to culturally important plant species emerged from the discussion at the September 2007 meeting between the Warm Springs Tribes and the PNW Research Station. Two of them were (1) the need to understand the conditions, health, and vitality of culturally important plant species on tribal land and adjacent federal lands, and (2) the desire to revitalize use and awareness of culturally important plant species among tribal members.

A number of projects could be designed that could meet the dual goals of developing an assessment and restoration strategy of culturally important plant species while at the same time contributing to the education of youth in cultural practices associated with these species. We provide some project ideas to generate further discussion about projects that best meets the needs of the Warm Springs Tribes.

One idea would be to conduct an assessment of key issues and concerns surrounding the health, distribution, and abundance of culturally important plant species on tribal and adjacent federal lands. Tribal youth and elders, as well as tribal natural resource specialists, could participate in the plant assessment and subsequent development of restoration strategy, with PNW researchers serving some type of role, as needed. The assessment would document current management and ecological issues surrounding culturally important plant species (including edibles, medicinals, and wild-crating species). The project could have a participatory and educational component that brings together tribal elders and youth in the discovery of knowledge and development of solutions to issues surrounding culturally important plants. For instance, youth (meaning anyone who is not an elder) could interview elders to better understand some of the issues and concerns about culturally important plants on tribal lands and adjacent federal lands. This could include field visits where elders would identify problems and issues and together with the youth members would document the issues. Suggested approaches to solving management issues, using traditional ecological knowledge, could be documented. One potential role the PNW social scientists could play would be to assist in the synthesis of the documented evidence and collaborate in the preparation of an assessment report for the tribes and federal land managers.

Based on the assessment, a restoration strategy could be developed for key species. This could also have an educational and participatory component involving elders sharing knowledge with youth to further contribute to the goal of increasing awareness and use of culturally important species. The restoration strategy could include experimentation with management techniques that enhance health and vitality of key species. A variety of approaches that use traditional ecological knowledge and/or western science could be applied to a range of field sites. PNW scientists and Forest Service managers could be involved in a collaborative arrangement to implement treatments, as needed.

An assessment of culturally important plant species and their management issues, as well as the development of a restoration strategy would involve a number of steps. Below is a brief list of some of the steps that a project of this type might include. We identify some steps suggested by Anderson & Barbour (2003) and offer additional suggestions in parentheses:

* An inventory of native plant species gathered historically (and currently) by a tribe, their uses, and relevant harvesting variables associated with these species;
* Document the vegetation management practices that have been employed by the tribe historically (and currently) for each species, and the cultural objectives for specific management practices;
* (Document the vegetation management practices on federal lands affecting the same set of plant species.)
* Recording what the cultural parameters are that are needed to make the plant material useful for preparing or manufacturing products, assessing whether these specifications are met by the raw plant materials available from places not currently being managed (or being managed for other objectives), and identifying what management practices are needed to produce those characteristics;
* Documenting elders’ perceptions of why culturally important plants are disappearing (or are otherwise changing in their abundance, healthy, and distribution), and what they recall their former abundance and distribution to be (comparing that to their current abundance and distribution); and
* Develop estimates of the quantities of managed native plants/plant parts that are needed to make various items (and ascertain the extent of restoration needed)
* (Identifying what areas tribes would like to see managed to produce certain products)
* (Develop restoration strategy)

**2 – Inventory of management and restoration activities for plant species of importance to the Warm Springs in which tribes and federal land managers are collaborating elsewhere in the Northwest, and assessment of tribal-federal natural resource management collaborative models**

At the September 2007 meeting between the Warm Springs Tribes and the PNW Research Station, lack of information about what needs to be done to manage for and enhance culturally-important plant species was identified as a major barrier to moving forward and addressing first foods issues. The inventory idea proposed here would help address this information gap by providing “how to” information by learning from collaborative management and restoration activities for the species of interest currently taking place elsewhere in the Northwest.

There are several national forests in the Northwest (ie Olympic, Gifford-Pinchot, Mt. Baker-Snoqualmie, Klamath, Six Rivers) where federal land managers, scientists, and tribes are working together to manage for and restore culturally-important plant species. The same is likely occurring on reservation lands. These projects integrate traditional ecological knowledge with western scientific knowledge to conduct management activities and experiments and see what kinds of treatments are optimal for enhancing particular plant species of concern, and monitoring the results. It would be useful to conduct an inventory of such projects that focus on species of primary concern to the Warm Springs Tribes. By talking with land managers, scientists, and tribal members involved in these efforts, we could see what the management goals are – ie. what are the desired conditions they are managing for that provide the best habitat characteristics and conditions for enhancing growth of desired species to make them most useful; the management practices they are implementing to achieve these desired conditions; what the outcomes are; and what the lessons learned are. This information could provide a foundation to work from in developing management and restoration activities on the Warm Springs reservation and on national forests and BLM lands in Washington, Oregon, and Idaho where the tribes have treaty rights.

Thus, one component of this project would be to inventory, document, and identify the ecological/management lessons to be learned from collaborative projects elsewhere that focus on the same species of interest to the Warm Springs Tribes, in order to potentially apply similar techniques in the Warm Springs case. It would be important to involve tribal members from Warm Springs who have traditional and western scientific ecological knowledge about the species of concern who would be willing to assess the lessons learned from elsewhere and how they might be adapted and applied locally. It would also be important to identify tribal members who would be willing to work collaboratively with federal and tribal land managers and share their ecological knowledge in designing management and restoration strategies on the reservation and federal lands where they have treaty rights.

The inventory of management and restoration activities could be organized by species, or by management technique employed. Some management actions (ie., cool burning) benefit a number of species of value to tribes. A focus on management technique might lead to a more holistic approach to restoration than a species-by-species approach.

The inventory could include talking with federal land managers on national forests and BLM lands where the tribes have treaty rights, and tribal resource users, to identify challenges, barriers, and issues of concern associated with managing for and restoring culturally-important plants on federal lands. These are issues that could constrain the implementation of collaborative natural resource management activities, and that might need to be addressed separately.

Currently, a workshop is planned for June 2008 that will bring together tribal members, scientists, and land managers to discuss huckleberry management and restoration, with people from the Northwest who have been involved in huckleberry projects as key participants. This workshop may be a useful model for knowledge sharing that could help shape shared learning activities for other species of concern.

In addition to identifying ecological knowledge, management techniques, and implementation strategies that could be beneficial in the Warm Springs case, it is also important to identify ways that tribal members and federal land managers can best work together to share knowledge and collaboratively implement projects. There are several existing models for tribal-federal collaboration in land management from around the U.S. PNW scientists could offer consultation (and/or produce a product) to identify the types of formal and informal arrangements used around the U.S. that bring together American Indian Tribes and federal resource management agencies in collaborative natural resource management. This work could help the Warm Springs Tribes and nearby national forests identify what might be the best institutional arrangement to pursue for collaboratively managing and restoring plant species in their specific case.

Institutional arrangements for collaboration that are currently being used by tribes and agencies range from contracts, to partnership agreements, to memoranda of understanding, and more. Each type of collaborative arrangement has a unique process and structure. Some involve transfer of funds; some have a degree of shared decision-making; some involve Tribes implementing on-the-ground restoration projects. Recognizing the mutual benefits of pooling knowledge, skills, and resources to address a resource management issue is at the core of these types of collaborative arrangements. If it would be useful, PNW scientists could share recent findings from work characterizing collaboration between tribes and land managers, and could assist in developing collaborative arrangements between the Warms Springs Tribes and adjacent National Forests for assessing and restoring culturally important plants.