

GIS expansion helps Cow Creek Band of Umpqua Tribe of Indians' environmental projects



Indian Environmental General Assistance Program Success Story

The Cow Creek Band of Umpqua Tribe of Indians used their GAP grant in 2011 to fund a full-time staff person to expand GIS (Geographic Information Systems) applications into their programs. The use of GIS allows them to create and analyze computerized maps essential to their strategic growth.

Enhanced GIS capabilities have been an asset to all their environmental and natural resources programs such as pinpointing water quality monitoring sites, identifying locations of noxious weeds, characterizing riparian buffer zones in forestry, and by sharing data in collaborative projects with federal agencies.

Location of Cow Creek Band's ancestral territory



Huckleberry Patch Management Area

1939 – 28 acres
2011 – 4 acres

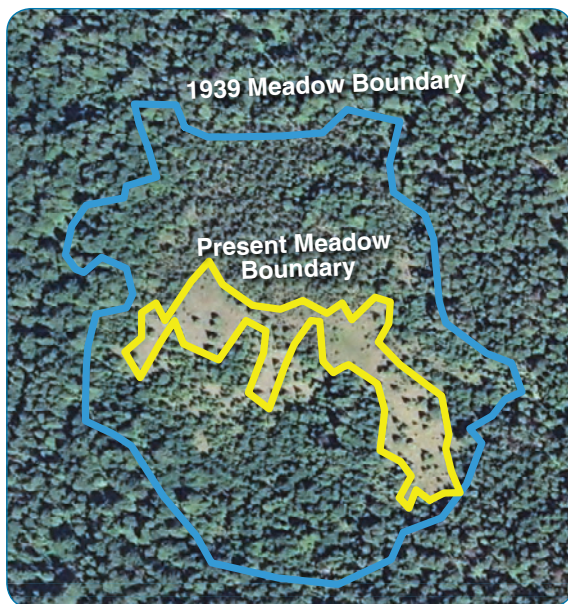


Image: courtesy of Brian Mladenich – Cow Creek GIS Operations Manager

One such collaboration is to preserve the tribe's huckleberry patch management area. This traditional gathering area used since time immemorial received a special interest area designation by the Umpqua and Rogue River National Forests.

Berry sorting



Traditionally, huckleberries were the most significant of all berries. Today, they are used to make pies, jams, or freeze for later use.

GIS was used to map historic and present day meadows to examine past and present habitat, revealing decreases in size from tree growth. To preserve the meadows for traditional, recreational and other uses, a partnership formed between the tribe and US Forest Service to develop plans to improve habitat and protect the meadows.

Jason Robison, the tribe's Natural Resource Director said, "If we hadn't had the GIS technology, we may not be where we are today in regards to understanding the huckleberry management area. The data will be used in future planning with the US Forest Service."

GIS has also helped the tribe in its Pacific Lamprey restoration project. Pacific lamprey used to be a significant food source for tribal members. With funding from the US Fish & Wildlife Service, staff gathered data on the historical range and distribution of lamprey in the Umpqua Basin. The tribe's GIS proficiency was instrumental in developing a database integrating lamprey data from the US Forest Service, Bureau of Land Management, Oregon Department of Fish and Game, and other state agencies and local landowners. That database is now used as a guide for agencies collecting fish count data during migration season.

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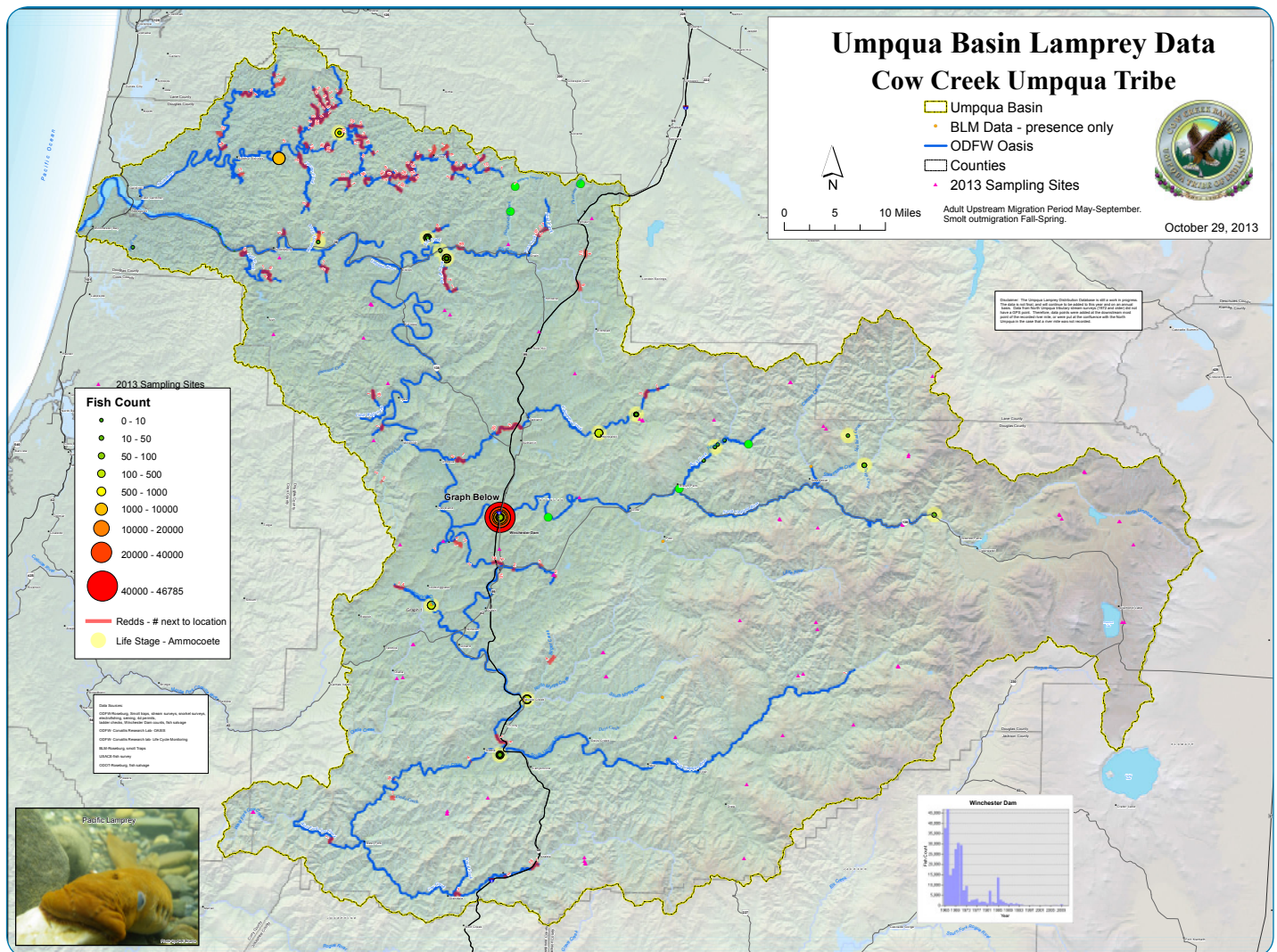
When asked what advice he has for other tribes, Jason Robison said “To take GIS to another level, you really need someone who is focused just on GIS, who can bring the full range of implementation and monitoring to the table.” He recommends tribes get an agreement with BIA (Bureau of Indian Affairs) for their basic GIS service and use GAP funds to keep staff trained on the latest software and analysis tools.

The tribe is working on developing GIS applications to allow staff and tribal members to access GIS data on computers and smartphones – giving them the ability to view land ownership and other information on mobile devices and capture data in the field.

In addition to GAP, The Cow Creek Band of Umpqua Tribe of Indians receives the following EPA grants:

- ▶ Clean Water Act Section 106 – Water Pollution Control grant
- ▶ Clean Water Act Section 319 – Nonpoint Source Management base grant
- ▶ Clean Water Act Section 319– Nonpoint Source Management competitive grant
- ▶ Wetland Program Development grant

GIS map of Pacific Lamprey



The above image received first prize in the 2013 National Tribal GIS Conference poster contest.

Courtesy of Brian Mladenich – GIS Operations Manager

Community Profile:

Cow Creek Band of Umpqua Tribe of Indians

Population: 1,400

Culture: Tribal members lived a subsistence lifestyle. Subsistence practices have persisted since the 1850's, but have been reduced due to limitations in land use.

Location: Tribal members live primarily in seven counties in southwest Oregon, with some others scattered across the Pacific Northwest. The Tribal government's main office located in Roseburg. The tribe owns over 10,000 acres used for commercial, agriculture, housing, utilities, and forestry.

Partners & Support

Bureau of Indian Affairs

GIS software and training

<http://bia.gov/WhatWeDo/ServiceOverview/Geospatial>

National Tribal Geographic Information Support Center

National Tribal GIS Conference and training

<http://www.tribalgis.com>

Natural Resource Conservation Service

GIS funding

<http://go.usa.gov/cBC2T>

USDA – Rogue River National Forest

Huckleberry Patch Special Interest Area partner

<http://www.fs.usda.gov/rogue-siskiyou>

USDA - Umpqua National Forest

Huckleberry Patch Special Interest Area partner

<http://www.fs.usda.gov/umpqua>

US Fish & Wildlife Service

Tribal Wildlife Grant and partnership in Pacific

Lamprey project • <http://go.usa.gov/cBfdx>

EPA Region 10's Commitment to Federally Recognized Tribes

EPA Region 10 is committed to helping tribes strengthen their abilities to manage environmental programs in Indian country, and to ensure that tribes have a voice in decisions that affect their land, air and water. Region 10 serves 271 federally recognized tribes in Alaska, Idaho, Oregon, and Washington.

The goal of the EPA IGAP grant program is to assist tribes and intertribal consortia in developing the capacity to manage their own environmental protection programs, and to develop and implement solid and hazardous waste programs in accordance with individual tribal needs and applicable federal laws and regulations.

For more information, visit:

<http://www2.epa.gov/tribal/region-10-tribal-program>

<http://www2.epa.gov/tribal/indian-environmental-general-assistance-program-gap>

For More Information

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EPA Grant: Indian General Assistance Program (GAP)

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