

by Randi Thompson

Why all the Fuss Over a Frog?

Scientists have known for years that frogs can tell us a lot about the health of aquatic ecosystems. Because frogs are very sensitive to changes in air and water quality, a decline in their population indicates possible problems with the health of their aquatic environment. If the water in their neighborhood is deteriorating, that can affect many other species, including humans. The important role that frogs play in indicating the health of their environment has convinced the State of Nevada, Nye County, and two federal agencies to create a conservation agreement for two subpopulations of the Columbia spotted frog (*Rana luteiventris*).

The conservation agreement establishes actions that federal and state agencies and Nye County will take to reduce threats, improve degraded habitat, and restore natural functions associated with riparian systems. These actions will also benefit pygmy rabbits (*Brachylagus idahoensis*) and sage

grouse (*Centrocercus urophasianus*) that use the area as rearing habitat. Improving hydrological functions also has indirect impacts such as reduced downstream flooding, enhanced ranching and haying operations, and expanded recreational opportunities in this remote area not far from Las Vegas.

It is these indirect benefits, and the potential to make listing the frog as endangered unnecessary, that got the attention of Nye County and convinced it to become a partner in the agreement. One way the county will benefit is by the data collected in the annual frog surveys. By knowing where frog habitat is, and incorporating that information into land use planning, the county can avoid potential conflicts.

Farmers and ranchers in Nye County will see benefits without having to make improvements on their land. Most of the frogs currently found are on lands managed by the Forest Service, so work will be done primarily on federal lands.



A winter view of Columbia spotted frog habitat in Nye County's Indian Valley.
USFWS photo

Stabilizing river banks, restoring springs, and other actions also will increase the amount of water that flows down to grazing pastures and hay fields.

The agreement creates a Spotted Frog Technical Team that is responsible for developing the specific actions. The team includes representatives from the Fish and Wildlife Service, Forest Service, Bureau of Land Management, Nevada Department of Wildlife, Nevada Natural Heritage, and Nye County. Dr. James Marble, Director of Natural Resources for Nye County, is the team leader for the Toiyabe subpopulation.

Having a Nye County representative as leader of a team with federal partners is not something you would expect if you know the history of Nye County. In 1994, the United States filed suit against Nye County after the County challenged the control and management of federal land. The previous year, the Nye County Commissioners approved a resolution that claimed the State of Nevada, not the United States, owned national forests and other federal lands. Under this claim, Nye County would have the authority to manage the lands, roads, and trails within the county boundaries that are under federal management.

A closed road on land managed by the Forest Service was the start of this protest. When County Commissioner Dick Carver drove his tractor across national forest land to reopen a weather-damaged road, he and his supporters rekindled the 1970's "Sagebrush Rebellion" movement. In October of 1995, his story made the cover of Time Magazine.

The fact that Nye County signed this spotted frog conservation agreement is a testament as to how far the County and the Fish and Wildlife Service have both come to developing partnerships out of challenging relationships.

Dick Carver's widow, Roberta, attended the signing ceremony in Reno as Nye County's representative. She called the spotted frog conservation agreement an example of cooperation

among the local, state, and federal levels of government. "It will be much more flexible, most assuredly will enjoy greater local support, and it will have far fewer undesirable effects on local residents than a listing would."

Nye County was willing to sign the spotted frog agreement in 2002 partly because of the favorable experience it had with an earlier conservation agreement. In 2000, Nye County signed the Amargosa Toad Conservation Agreement with federal and state partners and The Nature Conservancy (TNC). The Amargosa toad's total range is limited to a 12-mile (20-kilometer) stretch of the Amargosa River in Nye County's Oasis Valley. TNC purchased over 800 acres (325 hectares) of toad habitat from two willing ranchers and worked with Nye County, the University of Nevada at Reno, the town of Beatty, and the federal and state partners to restore the habitat and protect the toad. The conservation efforts have helped the toad and may also provide recreational and economic development for the community. The town of Beatty is proposing to acquire a long-term lease for public lands in the area that will allow limited public use while enhancing toad habitat.

At the spotted frog agreement signing, Dr. Marble said, "The conservation agreement gives Nye County the opportunity to play a leading role in a proactive conservation program, and shows that communities are willing and able to be leaders on species conservation."

That attitude promises a future of cooperation and partnership. If landowners, local governments, and federal agencies can work together to find a balance between economic development and species protection in Nye County, Nevada, it can happen anywhere.

Randi Thompson was a public affairs specialist in the Service's Reno, Nevada, Fish and Wildlife Office until recently leaving to pursue other interests.



Spotted frog
Photo by Anita Cook



Amargosa toad
Photo by Glen Clemmer