United States Department of Agriculture
Forest Service
Southwestern Region 3
Carson National Forest
Camino Real Ranger District
P. O. Box 68
Penasco, New Mexico 87553
(575) 587-2255
FAX (575) 758-6236

File Code: 1950
Date:

Dear Forest User:

We are pleased to send you a proposal to construct a fish barrier along Alamitos Creek, on the Camino Real Ranger District, Carson National Forest near Tres Ritos. We would like to hear if you have any specific comments or concerns related to this proposed action.[1] We encourage your involvement in this scoping process and are especially interested in new information we may have overlooked. While opinions are also welcome, providing tangible and verifiable information is the most helpful way in making a good, informed decision. Comments will be most effective if received by April 27, 2009. A final decision is hoped for by early summer. Please send written comments to:

Alyssa Radcliff
Camino Real Ranger District
PO Box 68
Penasco, NM 87553

FAX: 575.758.6236

Electronic comments can be submitted, but must be in a format such as an email message, plain text (.txt), rich text format (.rtf), MS-Word (.doc) or Adobe Acrobat (.pdf) to UUUUcomments-southwestern-carson-caminoreal@fs.fed.us. Please put "Alamitos Fish Barrier" in the subject line of the e-mail.

Sincerely,

JOHN P. MIERA
Camino Real District Ranger

[1] In compliance with the Freedom of Information Act, please be aware written comments received on this proposal, including names and addresses, will be considered part of the public record and will be available for public inspection.

Proposed Alamitos Fish Barrier

Camino Real Ranger District, Carson National Forest

Need for the Proposed Action

The Rio Grande cutthroat trout (RGCT) is a subspecies of cutthroat trout, endemic to the Rio Grande, Pecos, and possibly the Canadian River Basins in New Mexico and Colorado. In general, it is assumed RGCT occupied all streams capable of supporting trout in the Rio Grande and Pecos basins. The historic range of RGCT has been greatly reduced over the last 150 years. Many populations have been lost or impacted by water diversions, dams, habitat degradation, changes in hydrology, hybridization with rainbow trout, or competition with brown or brook trout. Pure populations of Rio Grande cutthroat trout are currently restricted to just 5-7% of their historic range within New Mexico.[2]

Even though existing Rio Grande cutthroat trout populations in the Rio Grande Basin contribute to the overall security of the range-wide population, many of these populations are hybrids, some populations have an extremely low number of individuals, and some have been invaded by nonnative trout (e.g., rainbow and brown trout) that either hybridize or compete with RGCT. These factors can make individual RGCT populations more vulnerable to extirpation and limit the likelihood of their long-term persistence. Conservation actions can remove or reduce these threats.

A population of RGCT is not considered secure if non-native trout are present. The presence of rainbow trout in RGCT populations would pose a risk to a pure strain of RGCT because of hybridization. Since brook trout and brown trout are fall spawners (RGCT spawn in spring), they do not hybridize with RGCT. However, they are competitors for food and space, and there have been both historic and recent examples of population extirpation due to nonnative introductions and predation.

Alamitos Creek is a tributary of the Rio Pueblo on the Carson National Forest, approximately 15 miles southeast of the mountain village of Peñasco, New Mexico. Alamitos Creek supports 7 miles of quality cutthroat habitat. The RGCT population in the creek is considered a “core conservation population,” which is defined as a population with greater than 99% genetic purity.[3] Currently Alamitos Creek has no barrier to upstream migration of nonnative trout. In the past, the water diversions for the Sierra and Cañoncito/Encinal ditches have minimized the risk of nonnative trout traveling upstream from the Rio Pueblo and inhabiting Alamitos Creek. However, the threat of hybridization to the RGCT population in Alamitos Creek still exists and unless conservation actions are taken soon, the purity of the population will be compromised. There is a need for preventing upstream migration of nonnative trout in Alamitos Creek, with the minimum amount of ecological disturbance.

Proposed Action

In order to meet this need, the Camino Real Ranger District, Carson National Forest is proposing to construct a fish barrier (artificial waterfall) on Alamitos Creek (Figures 1 and 2) at the current location of the Cañoncito/Encinal acequia diversion. The structure would prevent upstream migration of exotic trout and also serve as a means of diverting water into the Cañoncito/Encinal acequia. Construction would take place in September, when the water level is at its lowest and the temperatures are not too cold to allow proper curing of the concrete. Construction would be expected to take a month to complete. The proposed action would:

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[2] Rinne, J.N. 1995. Rio Grande cutthroat trout. Pages 24-27 *in* M.K. Young, editor. Conservation Assessment for Inland Cutthroat Trout. USDA Forest Service, Intermountain Region, Ogden, UT.

[3] New Mexico Department of Game and Fish. 2002. Long range plan for the management of Rio Grande cutthroat trout in New Mexico. Santa Fe, NM.

- Upgrade approximately 3,000 feet (1 acre) of level I access road from the intersection with FR 161 to the construction site. This work entails maintenance blading of the existing roadbed, clearing of vegetation encroaching on the roadbed, minor straightening of the road prism to improve alignment, and installing a temporary culvert across the lower creek crossing, where a defective bridge was removed. This work will facilitate concrete delivery trucks and construction equipment and supplies to the construction site.
- Temporarily divert the flow of Alamitos Creek around the construction site, by redirecting it into an old natural channel or pumping the flow around the work area, during implementation. Placement of a temporary culvert from the ditch into an old channel would be necessary to protect the existing ditch embankment from erosion. This temporary structure would be approximately 30 feet long.
- Build a concrete structure with a vertical drop of at least 5 feet. Gabion rock walls would ensure water flow is directed into the structure. The entire length of the structure would be 28 feet long x 22 feet wide. Construction would include excavating for the concrete structure, erecting wood forms, adding steel for reinforcement, and pouring concrete. Maximum disturbance to the area from construction would not exceed one acre.
- Remove the temporary diversion once construction is complete, to allow the water back into the main channel. Ground disturbed by construction activities in and around the diversion site would be returned to its natural state.
- Remove any temporary culverts used to upgrade the administrative road and all residual construction debris from construction site, once construction is complete.

Mitigation Measures

Construction would take place in the late-summer to early-fall, when water levels are low. Implementation during this time of year would reduce the amount of sediment flushed downstream and avoid impacts to RGCT spawning, which spawn in the spring. Sediment fencing would be installed where appropriate, to reduce sediment input to the creek from construction. Fall construction also avoids disturbance to potential nesting and mating terrestrial wildlife.

The proposed site was selected because 1) the existing water diversion has created a steep gradient (approximately 10%), which is needed for a minimum 5 foot vertical drop; 2) the site has already been disturbed; 3) the site has an existing access from Forest Road 161 for heavy equipment; and 4) the topography (no side channels) is better suited for a structure, such as the proposed fish barrier.

Forest Plan Consistency

The proposed action is consistent with the Carson National Forest's Land and Resource Management Plan (forest plan). Forest plan direction for managing RGCT specifically states,

> *Continue activities to improve Rio Grande cutthroat habitat with the objective of securing the species. Develop Rio Grande cutthroat trout fisheries within selected areas identified in conjunction with the New Mexico Department of Game and Fish (chapter C. Forest-wide Prescriptions, Wildlife and Fisheries, Rio Grande Cutthroat).*