

DECISION MEMO
for
HORSE CANYON DAM REMOVAL PROJECT

Santa Lucia Ranger District
Los Padres National Forest
USDA Forest Service
Santa Barbara County, California

INTRODUCTION

Site-specific environmental review has been completed and is documented in a project case file for the Horse Canyon Dam Removal Project. This Decision Memo documents the determination that no extraordinary circumstances exist and my decision to proceed with removal of the Horse Canyon Dam.

DECISION

It is my decision to remove a concrete dam from National Forest System (NFS) lands on Horse Canyon 846 feet upstream of the Sisquoc River. The project is located about 24 miles east of the town of Santa Maria at the following legal location: T9N, R30W, Section 23 (see attached map).

Based on field review by several resource specialists and California Department of Fish and Game, it was agreed that the dam will be removed using explosives to break the structure into pieces small enough to be moved downstream by normal water flows. Implementation is planned for fall of 2006 prior to winter rains. Project implementation is expected to take about 2 days to complete. Gas powered drills will be used to bore vertical holes about four feet deep into the dam. Explosives will be placed into drill holes and detonated by California Department of Fish and Game (CDFG) explosive experts. After detonation, any exposed rebar will be cut with a gas powered saw and removed from the site. Associated actions at the site include removal of a gauging station and barbed wire fencing. One small willow tree will be cut from the top of the dam using chainsaw.

Post treatment monitoring will be carried out by CDFG and Forest Service personnel to assess sediment mobilization, channel configuration changes, and fish passage effectiveness. No future maintenance at this site is anticipated.

The following project design features will be implemented as part of this decision:

- Equipment used for project implementation will be packed in by project personnel from the end of the road on private land about 650 feet to the project site. There will be no motorized access into NFS lands for project implementation.
- Project implementation will occur in the fall or winter of 2006 when fire danger is low and water flow in Horse Creek is low to nonexistent to minimize immediate impacts to Threatened, Endangered, Proposed, Candidate, and Sensitive (TEPCS) species, particularly California red-legged frogs which might leave the site if it is dry.

- Overnight camping by project personnel will be allowed in a grove of oaks near the end of the road on the ranch, outside of the riparian area.
- Pets will not be allowed to accompany project personnel to the site.
- Vehicles and equipment will be checked for weed seeds and boots will be disinfected to reduce the introduction of noxious weeds, pests, and diseases from other areas.
- A safety plan covering all hazardous operations will be written and reviewed by all personnel at the worksite before work begins.
- Personnel will also be briefed about TEPCS species that could be in the area, how to avoid disturbing them, and what to do if one is encountered.
- Just prior to blasting, a Forest Service biologist will conduct stream surveys from the dam downstream to the Sisquoc River and upstream about 350 feet to check for presence of trout, arroyo chub, California red-legged frogs, and arroyo toads.
- Any red-legged frogs (and arroyo toads if present) found within the anticipated impact area (as directed by CDFG explosive experts on site) will be temporarily collected and released back in the approximate location following blast. Any handling of TEPCS species will be restricted to certified biologists as approved by the US Fish and Wildlife Service (USFWS).
- The three access points will be closed and monitored to ensure public safety during blasting.
- A qualified archaeologist will provide project personnel with information regarding proper etiquette regarding adjacent heritage resources site.
- Any large woody material found in the creek following the blast will be left in place for stream structure.
- If noxious weeds are observed in the project area, they will be pulled up and removed from the site.
- All garbage will be removed from the site upon leaving.
- Equipment fueling will be conducted outside riparian zones.

REASONS FOR DECISION

BACKGROUND

The Horse Canyon dam was built following the Wellman fire in the mid 1960s, by Santa Barbara County Flood Control. The dam spans 62 feet. It was constructed of bags of concrete stacked onto a footing 1.5 feet high (see Figures 1 and 2). The structure is reinforced with re-bar. The pond behind the dam is completely filled-in with sediment and no longer serves its intended purpose. This occurred prior to or during the 1969 flood season. There is substantial scour below the dam undermining the footing, which is now about 5.5 feet above the lower stream level. As a result, the dam crest is nearly nine feet above the downstream channel bed.



Figure 1 Horse Canyon Dam, August 2006

Horse Creek is believed to have historically served as spawning and rearing habitat for southern steelhead, an anadromous form of rainbow trout listed as endangered under the Federal Endangered Species Act. This abandoned concrete dam on Horse Creek is blocking steelhead access to suitable breeding habitat upstream (Stoecker 2003).

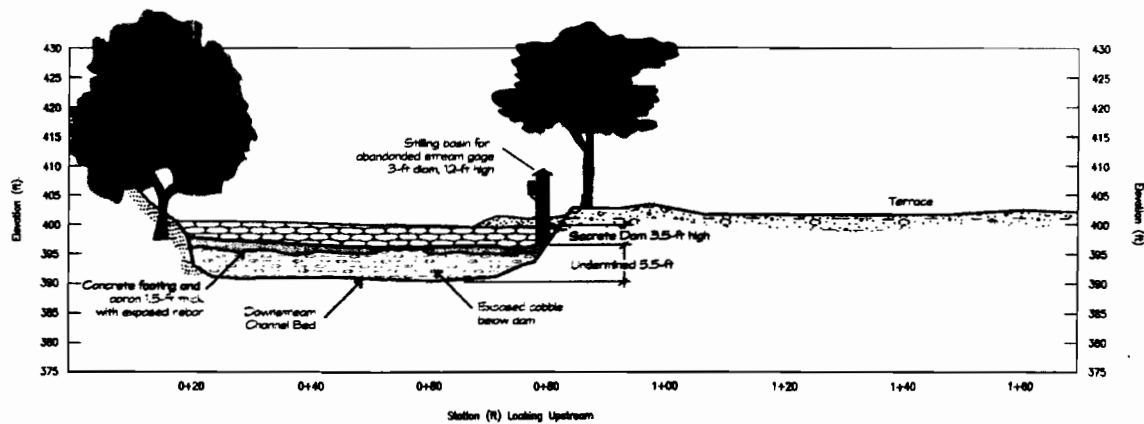
REASONS FOR THE DECISION

Removal of the Horse Canyon dam will allow unobstructed migration of steelhead to the entire Horse Creek drainage and access to approximately five miles

of upstream habitat. Removal of the dam will restore watershed functions at the dam site. The stream channel, currently buried under deposited sediment behind the dam, will be restored and surface flows improved. Existing downstream bank erosion and scour caused by the dam will likely be reduced as the stream channel returns to a “stable” state.

This project has been designed in cooperation with researchers and CDFG. The USFWS and National Marine Fisheries Service have also expressed support. This project will meet several Forest Land Management Plan goals and objectives for maintaining and improving habitat for fish and wildlife as well as restoration of natural watershed functions. Removal of the dam, just outside the San Rafael Wilderness area, will enhance upstream wilderness habitat values. This dam is within the Wild and Scenic Sisquoc River corridor and removal was identified as a restoration opportunity in the Comprehensive River Management Plan for the Sisquoc River (2003). Since the dam is full of sediment, does not currently serve a purpose, and is in very poor condition, there is no reason to retain it.

Figure 2 Cross Section of Horse Canyon Dam (Love 2005)



REASONS FOR CATEGORICAL EXCLUSION

Based on the following information, it is my determination that this activity will be of limited size, duration, and degree of disturbance. The environmental impacts of the proposed action are minimal. All practicable means to avoid or minimize environmental harm have been adopted. Beneficial effects to fish and wildlife habitats are expected.

I find the proposed action qualifies under the provisions of FSH 1909.15, 31.2 - Categories of Actions for Which a Project File or Case File and Decision Memo are Required, Category 6: *Timber stand and/or wildlife habitat improvement activities.*

A Forest Service interdisciplinary team (IDT) consisting of: archaeologist, fisheries biologists, wildlife biologists, and botanist, designed and evaluated the project. Past experience and environmental review reveal that no extraordinary circumstances exist that might cause the action to have significant effects upon the human environment. This proposed action is therefore excluded from further documentation in either an environmental assessment or environmental impact statement. The following conditions were considered in determining whether extraordinary circumstances exist.

FEDERALLY LISTED THREATENED OR ENDANGERED SPECIES OR DESIGNATED CRITICAL HABITAT, SPECIES PROPOSED FOR FEDERAL LISTING OR PROPOSED CRITICAL HABITAT, OR FOREST SERVICE SENSITIVE SPECIES.

Fish: A *Biological Assessment for the Effects Upon Steelhead, Southern California Distinct Population Segments (DPSs) from the Horse Creek Canyon Dam Removal* (Fisheries BA, USDA 2006a) was completed for Federally listed Threatened and Endangered fish species with potential for effects from this project and is on file. Written concurrence with determinations documented in the Fisheries BA will be obtained from National Marine Fisheries Service (50 CFR §402.13) prior to project implementation.

Endangered Species Act (ESA) determinations are that the Horse Canyon Dam Removal Project may affect, but is not likely to adversely affect southern California steelhead trout or its designated critical habitat. Although there is potential for effects to southern California steelhead, IDT review resulted in finding of no extraordinary circumstances in relation to federally listed fisheries for the following reasons:

- Presence of steelhead is unlikely. No steelhead has been seen in the area in recent surveys (USDA 2006a, Page 18). The project would be implemented during low stream flow when steelhead is even less likely to be present.
- Sedimentation associated with the project would be limited to a small portion of the Sisquoc River and Horse Creek.
- The area of impact is limited in size (less than one acre) and the project would be of short duration (2-5 days).
- Dam removal will benefit steelhead by opening up approximately five miles of additional habitat.

Wildlife: A *Biological Assessment, Horse Creek Dam Removal* (Wildlife BA, USDA 2006b) was completed for all Federally listed Threatened and Endangered wildlife species with potential for effects from this project and is on file. Written concurrence with determinations documented in the Wildlife BA will be obtained from USFWS (50 CFR §402.13) prior to project implementation.

ESA determinations are that the Horse Canyon Dam Removal Project may affect, but is not likely to adversely affect California red-legged frogs and arroyo toads. There would be no effect to critical habitats or other threatened, endangered, proposed, and candidate wildlife species. Although there is potential for effects to California red-legged frogs and arroyo toad, IDT review resulted in finding of no extraordinary circumstances in relation to federally listed wildlife for the following reasons:

- Surveys will be conducted prior to project implementation. Any frogs found within the area will be removed from the site and replaced following detonation.
- The project is expected to improve habitat conditions for red-legged frogs long-term as the stream is restored to proper functioning condition.
- Presence of arroyo toads is unlikely. Steep slopes associated with the dam and banks of the Sisquoc River in the area of Horse Creek make it unlikely that arroyo toads would disperse above the dam, and they are not suspected to occur below the dam.
- Sedimentation associated with dam removal and stream regrade are estimated to be 4-6% of the normal sediment levels typical of the Sisquoc River system. Sedimentation is naturally high in this watershed (limited human-caused contribution due to 44% of watershed in wilderness designation) and is a process that maintains suitable habitat for these species.

ESA determinations are based on the probable occurrence of an adverse effect on any listed individual, no matter how minor or severe the effect, no matter how small or great the probability. NEPA extraordinary circumstances on the other hand, are based on the context and intensity of the effect. A species population as a whole is usually taken into account. Potential effects of this project on TEPS species are not likely and if they do occur, they would be minor or minimal and associated with individuals and not with populations as a whole.

A *Biological Evaluation of Sensitive Wildlife Species* (Wildlife BE) (USDA 2006c) was completed and is on file. It addresses potential effects of this project on Forest Service Region 5 Sensitive wildlife species. Some of these species have been observed within or near the project area. IDT review resulted in finding of no extraordinary circumstances in relation to sensitive wildlife species because these species are either well distributed outside the project area; utilize habitats that will not be impacted; have habits that will protect them from short-term project effects; or are mobile and can temporarily move to other nearby suitable habitats.

Plants: The project area was reviewed for TEPCS Plant species (USDA 2006d). None were found in the area that would be affected by this project. There would also be no effect on or extraordinary circumstances relative to TEPCS Plant species.

FLOOD PLAINS, WETLANDS, OR MUNICIPAL WATERSHEDS

Water quality and stream habitats will be affected short-term with a small increase in sediment. The IDT does not anticipate any project-generated impacts outside of acceptable limits for maintaining the integrity of the riparian system. Long-term benefits to the riparian system are expected. With enhancement of riparian conditions long-term, IDT review resulted in finding of no extraordinary circumstances relative to streams and watersheds.

CONGRESSIONALLY DESIGNATED AREAS

As described previously under *Reasons for Decision*, the project will enhance upstream watershed values in the nearby San Rafael Wilderness. Although inside the Wild and Scenic Sisquoc River corridor, removal of the dam was identified as a restoration opportunity in the Comprehensive River Management Plan for the Sisquoc River (2003). IDT review determined that Wilderness and Wild and Scenic River values will be enhanced by this project and that dam removal will not lead to extraordinary circumstances for congressionally designated areas.

AMERICAN INDIANS AND ALASKA NATIVE RELIGIOUS OR CULTURAL SITES, ARCHAEOLOGICAL SITES, OR HISTORICAL PROPERTIES OR AREAS.

The project area was surveyed for cultural and historic resources and findings were documented in the *Programmatic Agreement Project Implementation Tracking Form* (USDA 2005a), on file. Requirements for consultation and compliance with Section 106 of the *National Historic Preservation Act* have been satisfied through inventory, assessment, and protection of known sites. There would be no effect on or extraordinary circumstances relative to American Indian cultural sites, archaeological sites, or historical properties or areas.

CONSIDERATION OF OTHER EXTRAORDINARY CIRCUMSTANCES

There are no research natural areas or inventoried roadless areas that would be affected by this project.

CONSISTENCY WITH OTHER LAWS AND REGULATIONS

This project is consistent with programmatic management direction provided by the *Los Padres Land and Resource Management Plan (Forest Plan)* (USDA 2005b). The Forest Plan was prepared according to the requirements of the National Forest Management Act and the National Environmental Policy Act, and other laws and regulations (Forest Plan, Part 3, Appendix A). This project is right on the border between the Colson and Figueroa – Santa Ynez Places. It will help progress these places towards desired conditions of increased habitat for TEPCS species.

Consultation requirements under the *Endangered Species Act* have been satisfied through concurrence from NOAA Fisheries for determinations presented in the Fisheries BA and from USFWS for determinations presented in the Wildlife BA.

A *Project Level Assessment of Management Indicator Species (MIS)* (USDA 2006e) was completed and is on file. This project is expected to have beneficial effects to MIS.

A *Project Level Analysis of "High Priority" Birds with regards to the Migratory Bird Treaty Act* (USDA 2006f) was completed and is on file. This project is in compliance with the Migratory Bird Treaty Act because these species would not be affected by the project.

This project meets water quality objectives provided by the Regional Water Quality Control Plan for protection of beneficial uses by implementation of BMPs (USDA-FS 2000a). BMPs were developed in compliance with Section 208 of the *Federal Clean Water Act* of 1972 and were certified by the State Water Quality Resources Control Board and approved by the Environmental Protection Agency. Applicable BMPs for this project are listed in **Appendix A**.

In compliance with *Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, this decision will not disproportionately affect minority and/or low-income populations.

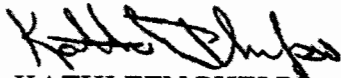
ADMINISTRATIVE REVIEW AND IMPLEMENTATION DATE

This decision is not subject to administrative appeal pursuant to 36 CFR 215.12(f) and the Earth Island Institute v. Ruthenbeck ruling of October 19, 2005.

Implementation of this proposal may take place immediately upon my issuance of this decision.

CONTACT PERSON

For further information contact Kevin Cooper at the Santa Lucia Ranger District, 1616 N. Carloti Drive, Santa Maria, CA 93454; (805) 925-9538.



KATHLEEN PHELPS

District Ranger

October 5, 2006

DATE

APPENDIX A

BEST MANAGEMENT PRACTICES

Forest Management and associated road building in the rugged terrain of Forest Service lands has long been recognized as sources of non-point water pollution. Non-point pollution is controlled by containing the pollutant at its source, and thus, precluding delivery to surface water. Working cooperatively with the California State Water Quality Board, the Forest Service has developed and documented non-point pollution control measures applicable to National Forest System Lands. These measures were termed "Best Management Practices" (BMPs). The following is a list of the BMP's planned for application in the assessment area and how they will be implemented for the Horse Dam Removal Project.

BMP 1.4 Use of Project Map for Designating Water Quality Protection Needs

A map will be provided showing camp location and resources to be protected.

BMP 1.19 Stream course and Aquatic Protection

Activities within the RCA will be conducted in a manner that maintains or improves riparian and aquatic values. Exposed rebar and other metals will be removed from the site. No heavy machinery will be present in Horse Creek or its riparian area. All project generated debris will be removed, except pieces of concrete which will be left to be moved and broken down by natural water movement. Any available large-sized woody material will be left in the stream channel as directed by the biologist on-site.

BMP 2.3 Timing of Construction Activities

Sudden sediment movement and disturbance to aquatic species will be minimized by conducting operations during the fall or winter, a minimal runoff and channel flow period. This will allow climate processes to move the sediments in whatever manner would naturally occur throughout the drainage system at times that local species would be expecting such processes.

BMP 2.12 Servicing and Refueling of Equipment

Equipment used in the stream channel or riparian areas will be refueled outside of the floodplain to prevent pollution to the channel and riparian species.

BMP 4.5 Control of Solid Waste Disposal

All garbage will be hauled away from the work site and camp area and disposed of properly.

BMP 4.9 Protection of Water Quality within Developed and Dispersed Recreation Areas

Human and animal wastes, petroleum products, and other hazardous substances will be kept out of the stream channel and riparian areas.

BMP 7.1 Watershed Restoration

Objective to repair degraded watershed conditions would be met by removal of dam to restore watershed connectivity.

BMP 7.3 Protection of Wetlands

Wetland values will be enhanced by removal of dam. Hydrologic function and riparian habitats will be restored.

BMP 7.4 Forest and Hazardous Substance Spill Prevention Control and Countermeasure Plan

Use of hazardous substances would be limited to gasoline for motorized drill and saws. Refueling would be conducted outside riparian zones.

BMP 7.6 Water Quality Monitoring

Water quality monitoring will be conducted to determine effectiveness of dam removal.

BMP 7.8 Cumulative Off-Site Watershed Effects

Potential for cumulative effects have been assessed. Project is expected to have beneficial cumulative off-site watershed effects.

LITERATURE CITED

On File: The project file with correspondence, Wildlife BA/BE, MIS Report, Analysis of "High Priority" Bird Report, and Heritage Tracking Form are incorporated in this decision by reference and are available for review at the Santa Lucia District Office.

Love. 2005. Stream Channel Assessment for the Horse Creek Dam Removal Project. Completed by Michael Love & Associates. September 2005.

Stoecker. 2005. Horse Creek Dam Removal Project Salmonid Habitat Survey. Prepared by Matt W. Stoecker PO Box 2062, Santa Barbara, CA 93120 for the Community Environmental Council 930 Miramonte Dr., Santa Barbara, CA 93109. September 15, 2005.

USDA Forest Service. 2000. Water Quality Management for Forest System Lands in California, Best Management Practices. USDA Forest Service, Pacific Southwest Region. September 2000.

USDA Forest Service. 2003. Comprehensive River Management Plan, Sisquoc River. Los Padres National Forest. R5-MB-039, November 2003.

_____. **2005a.** Section 106 of the National Historic Preservation Act of 1966 Programmatic Agreement Project Implementation Tracking Form. Completed by Brenda Reed, Santa Lucia Ranger District, Los Padres National Forest. December 7, 2005.

_____. **2005b.** Los Padres National Forest Land Management Plan, Pacific Southwest Region, Los Padres National Forest, Goleta CA. September 2005.

_____. **2006b** Biological Assessment for the Effects Upon Steelhead, Southern California DPS from the Horse Creek Dam Removal. Los Padres National Forest, Santa Lucia Ranger District. Completed by Valerie Hubbart August 29, 2006.

_____. **2006b** Wildlife Biological Assessment, Horse Creek Dam Removal. Los Padres National Forest, Santa Lucia Ranger District. Completed by Brigitta VanDerRaay August 2006.

_____. **2006c** Biological Evaluation for Sensitive Wildlife Species by Brigitta VanDerRaay, Santa Lucia Ranger District, Los Padres National Forest. September 2006.

_____. **2006d** Memo describing negative finding of Threatened, Endangered, Proposed, Candidate or Sensitive Plant Species for the Horse Canyon Dam Removal Project, Los Padres National Forest, Santa Lucia Ranger District. Completed by Tom Murphey September 2006.

_____. **2006e** Project Level Assessment of Management Indicator Species by Brigitta VanDerRaay, Santa Barbara Ranger District, Los Padres National Forest. November 2005.

_____. **2006f** Project Level Analysis of "High Priority" Birds with regards to the Migratory Bird Treaty Act by Brigitta VanDerRaay. Santa Barbara Ranger District, Los Padres National Forest. March 2005.

Horse Canyon Dam Removal Project

Los Padres National Forest
Santa Lucia Ranger District
15-September-2006
Scale = 1 : 7,000

