APPENDIX E: PUBLIC SCOPING MATERIALS 2007 AND 2009

The following scoping notice and press release were produced and used during public scoping activities conducted for this project in 2007 and 2009.

SCOPING NOTICE Restoration of Mountain Yellow-legged Frogs and High Elevation Lakes and Streams Environmental Analysis



National Park Service – Sequoia and Kings Canyon National Parks January 2007

SCOPING NOTICE

The National Park Service is conducting an environmental analysis for proposed restoration of mountain yellow-legged frogs and high elevation lakes and streams at several areas within Sequoia and Kings Canyon National Parks in California. If you would like more information than is presented in this notice, please contact Wendy Koelfgen, NEPA Specialist, at wendy_koelfgen@nps.gov or (559) 565-3102.

BACKGROUND

The mountain yellow-legged frog (MYLF) is a species that only occurs in the high Sierra Nevada and the mountains of southern California (Fig 1). It is an important species whose presence or absence affects the natural ecology of Sierra Nevada lakes and associated shoreline environments.

Bad News – The frog has disappeared from about 92% of its historic sites in the Sierra Nevada and is a candidate for federal listing as "endangered" under the Endangered Species Act. The frog's existence is threatened by cumulative impacts from trout populations that were introduced to naturally fishless habitats, and a new pathogen, chytrid fungus. The MYLF is declining rapidly and could become extinct within a decade.

Good News – Hope is not lost. Scientists in Sequoia & Kings Canyon National Parks (SEKI) have seen significant frog population expansions after experimentally removing troat in six lakes beginning in 2001 (Fig. 2). Although chytrid fungus could impact these populations, there is some evidence of chytrid resistance emerging in sites that had large frog populations prior to infection.

Within the MYLF range, only a few other restoration efforts are in progress. The California Department of Fish and Game has a program restoring about a dozen lakes, and Yosemite National Park is considering restoration of a few lakes in the future. A park-wide restoration program in Sequoia and Kings Canyon National Parks may be very important for recovery of the species.

WE NEED YOUR HELP

Over the next several months, a National Park Service (NPS) interdisciplinary planning team will conduct the environmental analysis for a long-term project to restore MYLFs and high elevation lakes and streams in SEKI, based on the successful experimental work over the last several years.

As part of the NEPA process, the NPS would like to hear from you. Do you have any comments, recommendations, issues, or concerns about the project? Your participation is important for our success and the future of the MYLF and high elevation lakes and streams.



Figure 1. Adult and larval mountain yellow-legged frogs.



Figure 2. Change from 2001 to 2006 in average density of mountain yellow-legged tadpoles and frogs measured per survey per lake in six restoration lakes in Sequoia and Kings Canyon National Parks in which introduced trout were removed beginning in 2001.

NPS MANAGEMENT POLICIES

The environmental analysis will adhere to guidance provided in the National Environmental Policy Act (NEPA) and NPS Management Policies 2006. The latter document provides guidance for management of all aspects of NPS units, including general principles for managing biological resources (section 4.4.1). In this section, it states that "the NPS will maintain as parts of the natural ecosystems of parks all plants and animals native to park ecosystems" and "will successfully maintain native plants and animals by:

 preserving and restoring the natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations and the communities and ecosystems in which they occur;

 restoring native plant and animal populations in parks when they have been extirpated (gone locally extinct) by past human-caused actions; and

3) minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them."

In addition, NPS Management Policies 2006 states in section 4.4.1.1 that the NPS will:

"prevent the introduction of exotic species into units of the national park system, and remove, when possible, or otherwise contain individuals or populations of these species that have already become established in parks."

PURPOSE AND NEED

The purpose of this project is to preserve and restore populations of MYLFs and other native animals in high elevation lakes and streams at select sites in SEKI. This project will enhance protection for these native animal populations from the direct and indirect effects caused by the presence of introduced trout in naturally fishless habitats.

Introduced trout occur in approximately 570 lakes and ponds in SEKI. Their presence compromises reproduction by MYLFs, eliminates large aquatic invertebrates and zooplankton, and reduces the food available to other wildlife. In turn, the presence of introduced trout in lakes and streams across SEKI's landscape has fragmented the remaining MYLF populations and drastically reduced the frog's ability to re-establish populations that go extinct.

This project will create clusters of fishless habitat in several areas across SEKI. This will create more favorable conditions for the persistence of MYLFs, native animal populations, and natural ecosystem processes. This also will create new opportunities for visitors to experience the wildlife of pristine wilderness lakes and streams, while continuing to provide ample opportunities for recreational fishing,

The need for this project is to:

- Prevent further loss of ecological function provided by MYLFs;
- Prevent further loss of genetic diversity in MYLFs;
- Help maintain geographic distribution of MYLFs;
- Restore naturally functioning aquatic ecosystems within restoration areas.

PROPOSED ACTION

The NPS proposes to remove introduced trout populations from additional lakes and adjacent streams in Sequoia & Kings Canyon National Parks (SEKI). The restoration areas will be chosen using the best available scientific studies.

There are approximately 570 lakes and ponds that contain introduced trout in these parks, and SEKI is considering removing introduced trout from 5-15% of these sites. This equates to roughly 30-85 lakes and ponds in which introduced trout would be removed to restore MYLFs and aquatic ecosystems. Looking at this from another perspective, 85-95% of introduced trout populations would remain in these parks and continue to allow for recreational fishing opportunities in approximately 485-540 lakes and ponds.

Managers estimate that restoration of 30-85 lakes and ponds would take approximately 15-30 years and would:

- Create small clusters of connected fishless lakes and streams in several areas in SEK1;
- Allow MYLF and other native animal populations to expand;
- Improve connectivity between remaining MYLF populations;
- Preserve genetic diversity in MYLFs;
- Continue to provide ample opportunities for recreational fishing across SEKI.

The current methodology of physically removing fish using gill nets and electrofishers takes one crew about five seasons to fully remove trout from three lakes. This works out to an average of less than one lake restored per crew per year. To increase the rate of restoration in both lakes and streams, SEKI is evaluating alternatives that remove introduced trout using both physical and chemical means.

PRELIMINARY ALTERNATIVES

An internal scoping was conducted to develop preliminary alternatives. All possible alternatives are being considered and analyzed to determine whether they meet the project purpose and need. The following preliminary alternatives are being considered for evaluation by the NEPA process:

Alternative 1 - No Removal of Introduced Trout to Restore MYLFs (No Action Alternative) This alternative involves no removal of introduced trout to restore MYLFs and high elevation lakes and streams. Negative effects by introduced trout on MYLF and other native animal populations would continue to occur at their current level, with the MYLF remaining in jeopardy of going extinct.

 Alternative 2 – Integrated Physical and Chemical Treatment (Proposed Action)

This alternative involves physically removing introduced trout using gill nets and electrofishers from sites where this method is feasible, and chemically removing introduced trout using piscicides from sites where physical removal is not feasible. It also includes reintroducing MYLFs to sites where they have been extirpated using the closest genetic forms available, and continuing to encourage research on MYLFs, chytrid fungus and its management, and the ecological functioning of high mountain lakes and streams.

- Alternative 3 Physical Treatment Only This alternative involves physically removing introduced trout using gill nets and electrofishers from sites where this method is feasible, and no chemical removal of introduced trout. It includes reintroducing MYLFs to sites where they have been extirpated and encouraging the research described above. This alternative reduces the amount of habitat that can be restored but eliminates impacts from fish piscicides. Restoration of large deep lakes and sites with extensive stream systems would not be possible with this alternative.
- Alternative 4 Chemical Treatment Only This alternative involves chemically removing introduced trout using piscicides from selected sites, and no physical removal of introduced trout. It includes reintroducing MYLFs to sites where they have been extirpated and encouraging the research described above. This alternative maximizes the amount of habitat that can be restored annually but the piscicides cause temporary environmental impacts of their own, particularly to stream invertebrates. This alternative is being considered only because the MYLF is declining rapidly.





ALTERNATIVES CONSIDERED BUT REJECTED

<u>Biological Treatments</u> – Use of sterile predatory fish to remove introduced trout populations is not acceptable due to high risks of 1) introducing exotic species to national parks and 2) unlimited feeding by these predatory fish on MYLFs and other native animals. This action also would involve excessive cost and complex regulatory permitting.

Captive Breeding & Reintroduction of MYLFs -

Remove MYLFs from some populations to breed them in captivity, and then reintroduce individuals back into SEKI lakes and ponds. This action was dismissed due to the failure of existing efforts to successfully breed MYLFs in captivity in southerm California, and due to the excessive costs needed to 1) develop facilities, 2) transport animals in and out of high elevation Wilderness, and 3) research and resolve the complex issues associated with captive breeding of sensitive amphibian species.

PRELIMINARY RESOURCE CONSIDERATIONS

Resource considerations which will be evaluated for each alternative include:

- + Wildlife
- + Vegetation
- + Air quality
- + Water Quality
- + Geologic Resources
- + Wilderness
- + Health and Safety
- + Scenic Resources
- + Natural Soundscapes
- + Recreation
- + Archeological Resources

NEPA PROCESS AND TIMELINE

The overall planning process is anticipated to extend over a period of approximately 8 months. Project milestones include:

٠	Project Initiation:	Oct 2006
٠	Public Scoping:	Jan 2007
٠	Analysis & Consultation:	Feb 2007
٠	Document Preparation:	Mar 2007
٠	Public Review:	Apr 2007
٠	Final Decision Document:	Jun 2007

PUBLIC PARTICIPATION

We want your comments! Anyone interested in this planning effort is encouraged to visit: http://parkplanning.nps.gov/parkHome.cfm?parkId=342 which will contain information on current project activities.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. Anonymous comments may not be considered. Comments can be emailed to:

SEKI_Superintendent@nps.gov, or you may return the attached comment form to:

National Park Service Sequoia and Kings Canyon National Parks 47050 Generals Highway Three Rivers, California 93271 Attn: Compliance Office

WHAT'S NEXT?

Once we have received and reviewed the scoping comments, we will begin revising and analyzing the alternatives. The next step will be writing the analysis, available for review in spring 2007.

Thank you for your interest in Sequoia and Kings Canyon National Parks and your participation in the restoration of mountain yellow-legged frogs and high elevation lakes and streams.





Sequoia and Kings Restoration of Mountain Yellow-leg	Canyon N ged Frogs	nent Form ational Parks, California s and High Elevation Lakes and Streams Analysis
	ame, mailin	orm by February 6, 2007. You may attach g address and email address (if applicable) in the Sequoia and Kings Canyon National Parks' Aquati
comment, you should be aware that your entire c made publicly available at any time. While you	omment – in can ask us i	ess, or other personal identifying information in you cluding your personal identifying information – may b in your comment to withhold your personal identifyin vill be able to do so. Anonymous comments may not b
What issues would you like to see addressed?	- <u>1</u> - 1 - 1	
	· · · · ·	
What alternatives or restoration strategies would	d you like to	see addressed?
	13 (c 10)	
Do you have additional information, concerns, o	or other com	ments about the proposal?
	- 10 - 00 - 00 - 00 - 00 - 00 - 00 - 00	
Please check the box if you would like to r concerning this proposal.	emain on tl	ne mailing list to receive additional information
Name:	E-Mail:	
Street/Box #:		
City, State, Zip Code:		
Mail To:	OR	Email To:
		SEKI_Superintendent@nps.gov

SEQUOIA AND ICINGS CANTON INTIONAL PARCE Attos: Compliance Office Attos: Compliance Office Attos: California 93271

Fold along line and tape closed



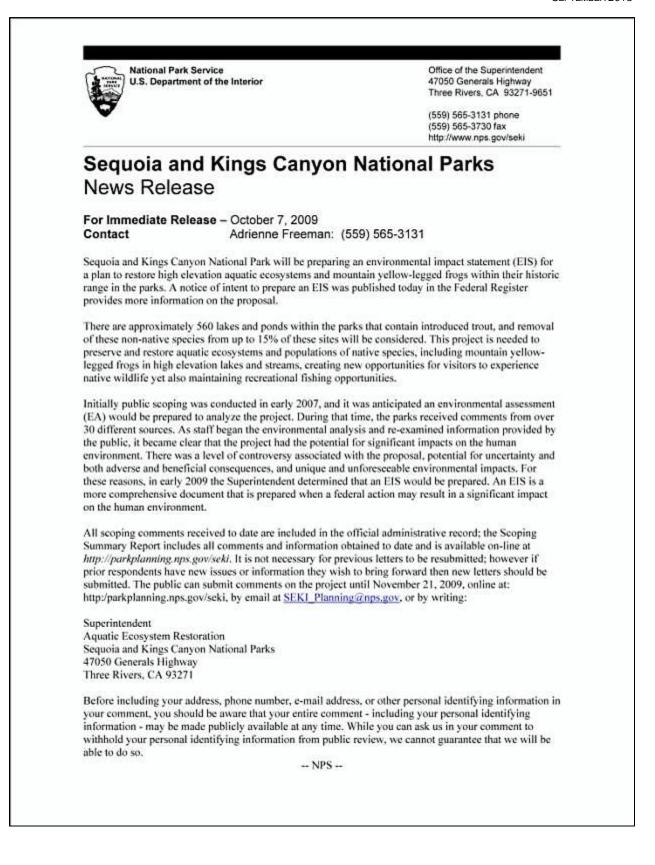
Restoration of Mountain Yellowlegged Frogs and High Elevation Lakes and Streams Environmental Analysis

SEQUOIA AND KINGS CANYON NATIONAL PARKS California

Fold along line and tape closed

Place I^{rt} Class Postage Here

SEQUOIA AND KINGS CANYON NATIONAL PARKS Attn: Compliance Office 47050 Generals Highway Three Rivers, California 93271



This page intentionally left blank.