

# APPENDIX K: WILD AND SCENIC RIVERS ACT ANALYSIS INCLUDING SECTION 7(A) DETERMINATION

## Background

The *National Wild and Scenic Rivers Act of 1968* (WSRA; 16 USC § 1271 et seq.) establishes the national wild and scenic rivers systems to preserve and protect selected rivers, or segments of rivers, in their free-flowing condition. Section 1(b) of the WSRA states that “certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.”

Of the major watersheds within Sequoia and Kings Canyon National Parks (SEKI or parks) – the North Fork of the Kern River (28.9 miles) and the Middle and South Forks of the Kings River (53.6 miles) are designated as “wild,” which means rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. A short segment of the South Fork of the Kings River (7.6 miles) is designated as “recreational,” which means rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

The 2007 *Final General Management Plan/Final Environmental Impact Statement* (GMP) for SEKI establishes a vision for what the parks should be, including broadly defined desired future conditions for natural and cultural resources and visitor experiences, and includes a comprehensive river management plan for rivers within SEKI that have been designated by Congress as components of the national wild and scenic rivers system. The GMP reiterated the goals and objectives of the 1999 *Natural and Cultural Resources Plan* (RMP).

The GMP broadly established desired conditions for various natural resources. Many desired conditions are relevant to this *Restoration of Native Species in High Elevation Aquatic Ecosystems Plan / Final Environmental Impact Statement* (Restoration Plan/FEIS), including:

Populations of native plant and animal species function in as natural a condition as possible except where special management considerations are warranted.

Native species populations that have been severely reduced or extirpated from the park are restored where feasible and sustainable.

The National Park Service (NPS) will strive to protect the full range of genetic types (genotypes) of native plant and animal populations in the parks by perpetuating natural evolutionary processes and minimizing human interference with evolving genetic diversity.

Exotic species will not be introduced into the parks (except under special circumstances).

The management of populations of exotic plant and animal species, up to and including eradication, will be undertaken whenever such species threaten park resources or public health and wherever control is prudent and feasible.

The NPS will maintain all the components and processes of naturally evolving park ecosystems.

The NPS will re-establish natural functions and processes in human-disturbed natural systems in the parks unless otherwise directed by Congress. The NPS will restore the biological and physical components of human-disturbed systems as necessary, accelerating both their recovery and the

recovery of landscape and community structure and function. The NPS will seek to return human-disturbed areas to conditions and processes representing the ecological zone in which the damaged resources are situated.

The NPS will, within park boundaries, identify, conserve, and attempt to recover all federally listed threatened, endangered, or special-concern species and their essential habitats. As necessary, the NPS will control visitor access to and use of essential habitats, and may close such areas to entry for other than official purposes. Active management programs (such as monitoring, surveying populations, restorations, exotic species control) will be conducted as necessary to perpetuate, to the extent possible, the natural distribution and abundance of threatened or endangered species, and the ecosystems upon which they depend. Ongoing consultation related to threatened or endangered species will occur with the U.S. Fish and Wildlife Service (FWS) should any actions take place in the habitat of such species.

The NPS will identify all state and locally listed threatened, endangered, rare, declining, sensitive, or special concern species and their essential habitats that are native to and present in the parks. These species and their essential habitats will be considered in NPS planning and management activities.

The natural and beneficial values of wetlands are preserved and enhanced.

The NPS will avoid, whenever possible, the pollution of park waters by human activities occurring within and outside parks.

NPS and NPS-permitted programs and facilities are maintained and operated to avoid pollution of surface and ground waters.

Protection of stream features will primarily be accomplished by avoiding impacts to watershed and riparian vegetation, and by allowing natural fluvial processes to proceed unimpeded.

### **Wild and Scenic Rivers within Sequoia and Kings Canyon National Parks**

Most of the parks' major watersheds include sections of river designated or eligible for designation under the WSRA. The goal of designating a river as wild and scenic is to preserve its free-flowing condition, water quality, and outstandingly remarkable values for the benefit and enjoyment of present and future generations. Outstandingly remarkable values may include scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values and individual segments may be designated as wild, scenic, or recreational. The classification of a river segment indicates the level of development on the shorelines, the level of development in the watershed, and the accessibility by road or trail. Wild river areas are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America. Scenic river areas are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. Recreational river areas are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

On November 3, 1987, the entire park segments of the Middle Fork and South Fork of the Kings River (61 mi) were added to the wild and scenic river system, with 53.6 miles classified as wild and the lowest 7.6 miles of the South Fork Kings River within the park classified as recreational. The entire park segment of the North Fork of the Kern River (29 mi) was added to the wild and scenic river system and was classified as wild on November 24, 1987.

**Table K-1. Designated and Eligible Wild and Scenic Rivers with SEKI**

<b>River</b>	<b>Designation</b>	<b>Mileage</b>
North Fork of the Kern River	Wild	28.9 miles
Middle Fork of the Kings River	Wild	29.5 miles
South Fork of the Kings River – Upper Segment	Wild	24.1 miles
South Fork of the Kings River – Lower Segment	Recreational	7.6 miles
South Fork of the San Joaquin River	Eligible - Wild	11.4 miles
East Fork of the Kaweah – Upper Segment	Eligible – Wild	1.0 mile
East Fork of the Kaweah – Middle Segment	Eligible – Recreational	5.2 miles
East Fork of the Kaweah – Lower Segment	Eligible – Wild	8.0 miles
Marble Fork of the Kaweah – Upper Segment	Eligible - Wild	4.1 miles
Marble Fork of the Kaweah – Lower Segment	Eligible – Recreational	11.2 miles
Middle Fork of the Kaweah – Upper Segment	Eligible - Wild	10.9 miles
Middle Fork of the Kaweah – Lower Segment	Eligible - Recreational	7.6 miles
South Fork of the Kaweah	Eligible – Wild	11.4 miles

**Designated or Eligible Wild and Scenic Rivers Potentially Affected by Proposed Project Work**

While none of the proposed project work would be conducted directly in the corridor / river bed of a designated or proposed wild and scenic river, actions are proposed in tributaries to a Wild and Scenic River corridor. Proposed fish eradication basins that are watersheds and/or tributaries feeding Wild and Scenic rivers include:

- Dusy, Rambaud, Barrett, Amphitheater, Horseshoe, Slide, and Swamp for the *Middle Fork of the Kings River*.

Dusy, Rambaud, Barrett, Swamp, and Slide basins would utilize only physical treatment methods, and Horseshoe would utilize physical followed by piscicide methods. Amphitheater would utilize piscicide methods.

- Sixty Lake, Brewer, Vidette, and Upper Bubbs Creek for the *South Fork of the Kings River*

Sixty Lake would utilize piscicide methods and Upper Bubbs Creek would utilize physical followed by piscicide methods. Vidette would utilize only physical methods.

- Upper Kern, East Wright, Milestone, Laurel, and Crytes for the *North Fork of the Kern River*.

The Upper Kern would utilize physical methods and may also use piscicide methods if a fish barrier is confirmed downstream of the treatment area. East Wright and Milestone would utilize physical methods only, and Crytes would utilize physical methods followed by piscicide use. Laurel would utilize piscicide methods.

None of the proposed restoration sites are within the designated segments of these rivers, and all of the treatment sites except one are at least 1 mile from the listed river. None of the restoration activities would occur within the designated segments of any wild and scenic rivers.

One site proposed for piscicide treatment is near the headwaters of the North Fork of the Kern River, with the downstream edge of the treatment area approximately 650 feet from the designated wild and scenic river. Therefore, this evaluation was completed to address this treatment area and its potential effects on the North Fork of the Kern River.

### Wild and Scenic Rivers Section 7(a) Evaluations

When Congress enacted the WSRA in 1968, it sought to prevent decades of damming, dredging, and diversion from spreading to some of the nation's most spectacular waterways. Section 7(a) of the act specifies restrictions on hydro and water resource development projects and directs the managing agency to specify a process that will be followed in determining whether or not a proposed water resources project is appropriate.

#### Why is Free Flow Important to a River System?



- Free-flowing rivers disperse valuable nutrients in adjacent meadows and stream habitats during flood events.
- Aquatic species require varied habitat created by a dynamic river system.
- Constriction and hardening of river channels, as caused by levees, riprap, and bridges, can alter the river's energy and natural course, causing it to erode its banks and damage valuable habitat, particularly during flood events.

Examples of water resources projects include, but are not limited to, dams, water diversion projects, fisheries habitat and watershed restoration/enhancement projects, bridge and other roadway construction/reconstruction projects, bank stabilization projects, channelization projects, levee construction, recreation facilities such as boat ramps and fishing piers, and activities that require a section 404 permit from the U.S. Army Corps of Engineers (USACE). The Restoration Plan/FEIS includes projects with the purpose of habitat restoration and/ or enhancing a particular outstandingly remarkable value.

#### Standards

The need for a section 7(a) review is determined by the standards shown in Figure K-1.

**Figure K-1. Standards to determine the need for a WSRA Section 7(a) analysis.**

<p style="text-align: center;"><b>IF</b></p> <p>The project is proposed in the <i>bed or banks</i> of a designated river or congressionally authorized study river</p> <p style="text-align: center;"><b>AND</b></p> <p>The project is proposed by a federal agency or it requires some type of federal assistance such as a permit, license, grant, or loan</p> <p style="text-align: center;"><b>THEN</b></p> <p style="text-align: center;"></p> <p>When both of the above conditions exist, a determination is required under section 7.</p>	<p style="text-align: center;"><b>IF</b></p> <p>The project is proposed in the <i>bed or banks of a river below, above, or on a stream tributary</i> to a designated river or congressionally authorized study river</p> <p style="text-align: center;"><b>AND</b></p> <p>The project is proposed by a federal agency or it requires some type of federal assistance such as a permit, license, grant, or loan</p> <p style="text-align: center;"><b>AND</b></p> <p>The project is likely to result in effects within a designated river or congressionally authorized study river</p> <p style="text-align: center;"><b>THEN</b></p> <p style="text-align: center;"></p> <p>When all of the above conditions exist, a determination is required under section 7.</p>
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### Federally Assisted Projects on Wild and Scenic Rivers

The law prohibits any federally assisted water resources project that would have a “direct and adverse effect” on the values for which a river was added to the wild and scenic rivers system. For actions described in the Restoration Plan/FEIS, the NPS is responsible for making the final determination as to whether a proposed water resources project would have a direct and adverse impact on river values. The agency coordinates its evaluation process with other agencies that are required to review and comment on the project. Depending on the type and location of the project, such agencies might include the FWS, the U.S. Environmental Protection Agency, the U.S. Forest Service, the Bureau of Land Management, and the USACE. Review of WSRA section 7(a) projects are also coordinated with other environmental review processes, such as those required by the National Environmental Policy Act (NEPA) and the National Historic Preservation Act, as appropriate. Potential water resources projects that are found to have a direct and adverse effect on the values of a designated river must be either redesigned and resubmitted for a subsequent section 7(a) determination, abandoned, or reported to the Secretary of the Interior and the United States Congress, in accordance with the act. Since the proposed project does not involve construction, and none of the proposed or alternative work elements would occur within the bed or banks of a wild and scenic river, there would be no direct effects on the values present in the wild and scenic river.

### Federally Assisted Projects Below, Above, or on Tributaries of a Wild and Scenic River

For federally assisted projects below, above, or on tributaries of a wild and scenic river, the river-administering agency evaluates non-hydroelectric project proposals under an ‘invade the area or unreasonably diminish’ standard. Typical projects that meet this definition are water resources projects visible from the designated river, such as dams, and upstream diversion structures because they have the potential to affect scenic, recreational, and fish and wildlife values in the designated river.

Because actions are proposed under the Restoration Plan/FEIS that are above or on the tributaries of wild and scenic rivers, a determination needs to be made if the scenic, recreational, and fish and wildlife values in the designated rivers would be affected.

### **The Purpose of the Section 7(a) Determination**

The purpose of this determination is to evaluate the potential of the actions described in the Restoration Plan/FEIS to either invade or diminish the scenic, recreational, fish, or wildlife values of the wild and scenic river.

### Authority

The authority for this determination is found in section 7(a) of the WSRA. Section 7(a) states that:

No department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration. Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or unreasonably diminish the scenic, recreation, and fish and wildlife values present in the area on the date of designation of a river as a component of the national wild and scenic rivers system.

While the WSRA does not prohibit development along a river corridor, it does prohibit activities that would interfere with the free-flowing condition of the river or degrade the values for which it was designated wild and scenic. The WSRA specifies guidelines for the determination of appropriate actions in the bed and banks of the river and either below, above, or on a tributary to a wild and scenic river.

As the designated river manager for the wild and scenic river segments located within the boundaries of SEKI, the NPS must carry out a determination of effects on all proposed water resources projects.

#### Section 7(a) Determination Process

The description of the WSRA section 7(a) determination process contained in this section is adapted from a technical report by the Interagency Council (IWSRCC 2004). In conformance with the guidance contained in that report, the NPS will undertake the following steps as part of its section 7(a) determination process for nonemergency projects:

- Describe the purpose and need of the proposed project and its location, duration, magnitude, and relationship to past and future management activities.
- Analyze the potential impacts of the proposed project on the values for which the river was designated wild and scenic. This analysis will follow the guidelines provided by the Wild and Scenic Rivers Act, section 7(a) Technical Report of the Interagency Council (2004), and other applicable guidance.
- Define the likely duration of the projected impacts.
- Assess the effects of the projected impacts on the achievement or timing of achievement of the management objectives of the Restoration Plan/FEIS (based on WSRA).
- Use this analysis to make a WSRA section 7(a) determination. This determination will document the effects of the proposed activity, including any direct and adverse effects on the values for which the river was designated as wild and scenic.
- Redesign and resubmit any water resources projects found to have a direct and adverse effect on the values of this designated river for a subsequent section 7(a) determination. In the event that a project cannot be redesigned to avoid direct and adverse effects on the values for which the river was designated, the NPS will either abandon the project or advise the Secretary of the Interior in writing and report to Congress in writing in accordance with section 7(a) of the act.
- Follow WSRA section 7(a) procedures to determine if projects above or below the designated river or on its tributary streams would invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the designated corridor.

#### **The Purpose of the Proposed Project**

The purpose of the Restoration Plan/FEIS is to guide management actions by the NPS to restore and conserve native species diversity and ecological function to selected high elevation aquatic ecosystems that have been adversely impacted by human activities including the introduction of nonnative fish, and to increase the resistance and resilience of these species and ecosystems to human induced environmental modifications such as disease and unprecedented climate change. The overall goal of the Restoration Plan/FEIS is to restore clusters of waterbodies to a fishless state in strategic locations across SEKI to create high elevation ecosystems having more favorable habitat conditions for the persistence of native species and ecosystem processes.

The Restoration Plan/FEIS presents a range of alternative management actions to restore and conserve native species diversity and ecological function to selected high elevation aquatic ecosystems in SEKI that have been disturbed by human activities, particularly the stocking of nonnative trout. The Restoration Plan/FEIS describes the no action alternative and three action alternatives that are being considered during this planning effort, and presents an analysis of the impacts of the alternatives on the natural, cultural and physical resources in SEKI. The alternatives represent a range of reasonable and feasible options for addressing the goals and objectives of the plan and the issues and concerns raised by parks staff, other government agencies, and members of the public during the plan's scoping process. Upon

conclusion of the Restoration Plan/FEIS planning effort, one of the four alternatives would become the Restoration of Native Species in High Elevation Aquatic Ecosystems Plan and guide future restoration management actions for a period of 25 to 35 years, with an internal evaluation of management effectiveness scheduled every 5 to 10 years.

### **Description of the Proposed Actions and Alternatives**

The four management alternatives are summarized below. Alternative B is the management preferred alternative.

#### Alternative A: No Action

Under the “No Action” alternative, the existing high elevation aquatic ecosystem restoration effort for 25 waterbodies would be completed, maintained and monitored, but no new fish eradication activities would be initiated. Native species and ecological processes in high elevation aquatic ecosystems would continue to be monitored. Research on native species, ecological processes and their stressors would continue in accordance with NPS policy. After all treatments are completed, self-sustaining nonnative trout populations would continue to exist in 550 waterbodies (252 lakes, 235 ponds, 63 marshes) and hundreds of miles of stream.

#### Alternative B: Prescription Treatment (Physical and Piscicide) Preceding Restoration

Under this alternative, a prescription (detailed plan of action) for restoration would be developed for each proposed restoration area based on the criteria for basin selection, pre-treatment surveys, habitat size, basin topography, wilderness values, visitor use and field crew safety. Prescriptions would consider the actual distribution of fish, results of amphibian surveys and whether any unique habitats were detected (such as springs). Physical treatment (gill netting, electrofishing, disturbing redds and/or temporarily covering redds with boulders) would be utilized. Piscicide treatment methods would be considered for waterbodies determined infeasible for physical treatment.

Based on current knowledge of the proposed fish eradication sites, physical treatment would be applied in 52 waterbodies (27 lakes, 24 ponds, 1 marsh; total of 492 ac/199 ha) and approximately 15 miles (25 km) of streams in 17 basins, and piscicide treatment would be applied in 33 waterbodies (4 lakes, 25 ponds, and 4 marshes; total of 142 ac/57 ha) and approximately 16 miles (25 km) of streams in 9 basins. In addition, any unsurveyed habitat adjacent to treated lakes, ponds, marshes and streams found to contain nonnative fish would also require treatment in order to eradicate fish from the geographic area. Although the total acreage requiring treatment may change slightly based on site-specific survey information and prescription development, the number of waterbodies and stream miles identified for treatment represents the maximum number of waterbodies to be treated in this alternative. After all treatments are completed, self-sustaining nonnative trout populations would continue to exist in 465 waterbodies (221 lakes, 186 ponds, 58 marshes) and hundreds of miles of stream.

#### Alternative C: Physical Treatment Preceding Restoration

Alternative C would use physical treatment methods only to eradicate nonnative fish by gill netting, electrofishing, disturbing and/or covering redds, and blasting rock to create vertical fish barriers. In comparison to alternative B, excluded from the list of proposed restoration waterbodies are long reaches of stream, several large lakes, and interconnected lake complexes that are too large for effective physical treatment. Under this alternative, a prescription for restoration would be developed for each proposed restoration area based on the criteria for basin selection, pre-treatment surveys, habitat size, basin topography, wilderness values, visitor use, field crew safety, and the actual distribution of fish and amphibians.

Physical treatment methods would be applied in 52 waterbodies (27 lakes, 24 ponds, and 1 marsh; total of 492 ac/199 ha) and approximately 15 miles (25 km) of streams contained in 17 basins. In addition, any unsurveyed habitat adjacent to treated lakes, ponds, marshes and streams found to contain nonnative fish would be treated to eradicate fish from the entire scope of the restoration area. Although the total acreage requiring treatment may change slightly based on site-specific survey information and prescription development, the number of waterbodies and stream miles identified for treatment represents the maximum number of waterbodies to be treated in this alternative. After all treatments are completed, self-sustaining nonnative trout populations would continue to exist in 498 waterbodies (225 lakes, 211 ponds, 62 marshes) and hundreds of miles of stream.

#### Alternative D: Piscicide Treatment Preceding Restoration

Alternative D emphasizes speed in recovering habitat because mountain yellow-legged frogs (MYLF; *Rana muscosa* and *Rana sierrae*) populations are declining rapidly. To achieve this speed, only piscicide treatment would be used for nonnative fish eradication. Properly applied, piscicides can eliminate fish from targeted waterbodies in 1 to 3 years, in contrast to physical treatment methods which can take up to 6 years for lakes and up to 10 years for streams. A prescription for treatment would be developed as described in alternative B. Based on initial examination of maps, staff familiarity with the park, and discussions with scientists, piscicide treatment would be used for 85 waterbodies (31 lakes, 49 ponds, and 5 marshes; total of 634 ac/257 ha), approximately 31 miles (50 km) of streams, and connected fish-containing habitat as necessary. Although the total acreage requiring treatment may change slightly based on site-specific survey information and prescription development, the number of waterbodies and stream miles identified for treatment represents the maximum number of waterbodies to be treated in this alternative. After all treatments are completed, self-sustaining nonnative trout populations would continue to exist in 465 waterbodies (221 lakes, 186 ponds, 58 marshes) and hundreds of miles of stream.

In addition, there are a number of activities described as common to all action alternatives. These include the development of criteria for the selection of basins for restoration; the development of criteria for selection of crew camp locations; ecosystem restoration and management, including protection and rebuilding extant populations of MYLFs where opportunities still exist and reintroducing MYLFs to locations where populations have recently gone extinct; monitoring restoration work and ecosystem responses; continuing research; and fish disposal methods.

#### **Methodology for Analyzing Impacts**

The impact analysis evaluates how each alternative would affect outstandingly remarkable values for designated wild and scenic rivers within or near the proposed project areas and determines if the project would “invade the area or unreasonably diminish” the standards for which the wild and scenic river was designated.

The initial question to be addressed is whether or not the proposed project invades the designated river. The term ‘invade’ is defined as “encroachment or intrusion upon.” If the proposed project does not invade the designated river, the next question to be answered, relative to the standard in section 7(a), is whether or not the proposed project would “unreasonably diminish” any of the specified values. Given that the standard implies that some diminution of values may be determined reasonable, there are two questions to consider:

1. Does the proposed project cause diminution of the scenic, recreation, and fish and wildlife values of the designated river as present at the date of designation?
2. If there is diminution, is it unreasonable? This would suggest an evaluation of the magnitude of the loss. Factors to be considered include:



- whether the value contributed to the designation of the river (i.e., an outstandingly remarkable value)
- the current condition and trends of the resource (If diminution is determined unreasonable, measures might be recommended to reduce adverse effects to within acceptable levels.)

Since no project work would occur directly in any wild and scenic river segment, there would be no direct encroachment or intrusion upon the river. Therefore, the evaluation is based on project work proposed in tributaries or watersheds that could potentially feed wild and scenic rivers (either designated or suitable). The rivers that could be affected by one or more of the alternatives include the Middle Fork and South Fork of the Kings River, and the North Fork of the Kern River (Figure K-2).

### **Description of Designated River Segments and Outstandingly Remarkable Values for Potentially Affected Wild and Scenic Rivers**

#### Outstandingly Remarkable Values

Outstandingly remarkable values are the river-related and dependent values that make the river segment unique and worthy of special protection, and they form the basis for the river's designation as part of the wild and scenic rivers system. The values include scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values or features. A feature must be judged to be unique, rare, or exemplary to the extent that it stands out as among the best on a regional or national basis. River and affiliated land management practices are to concentrate on protecting these values.

#### Middle Fork and South Fork of the Kings River

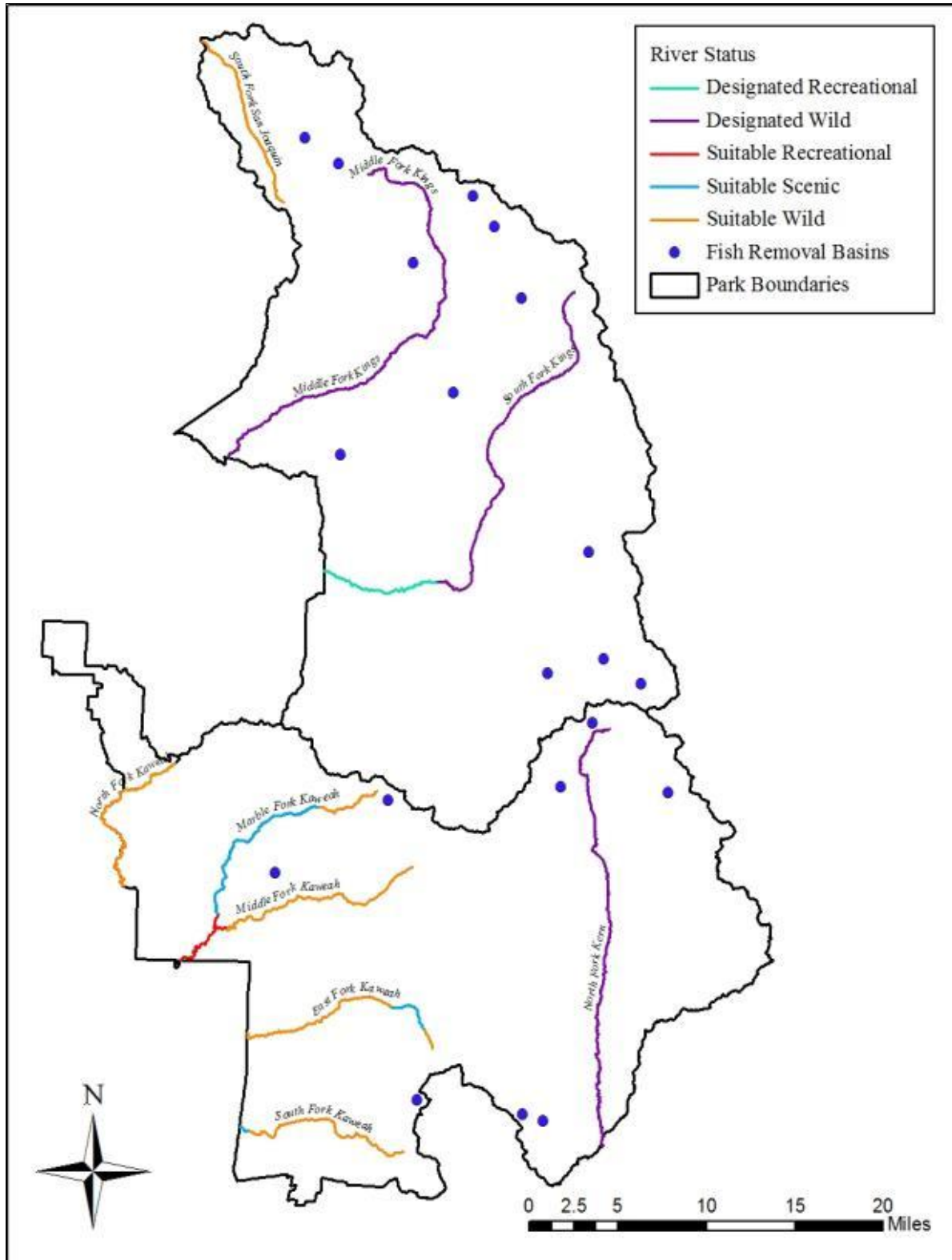
The Kings River is the largest free-flowing river in the Sierra Nevada. Approximately 88.8 river miles of the Middle Fork, South Fork, and main stem of the Kings River were added to the national wild and scenic rivers system on November 3, 1987 (PL 100-150). The designated reaches include:

- the Middle Fork from its headwaters at Lake Helen between Muir Pass and Black Giant Mountain to its confluence with the main stem (29.5 miles)
- the South Fork from its headwaters at Lake 11599 to its confluence with the main stem (31.7 miles)
- the main stem of the Kings River from the confluence of the Middle Fork and the South Fork to the point at elevation 1,595 feet above mean sea level (this portion is outside the park and is managed by the U.S. Forest Service)

These reaches encompass the entire Middle and South Forks, which are largely in Kings Canyon National Park. The NPS manages the 61.2 miles of the Middle and South Forks within Kings Canyon National Park and the U.S. Forest Service the remaining 27.6 miles. The portions of the Middle and South Forks managed by the NPS begin in glacial lakes above timberline and flow through deep, steep-sided canyons, over falls and cataracts, and eventually become an outstanding whitewater rafting river in Sequoia National Forest. Both the Middle and South Forks flow through extensive and spectacular glacial canyons. All of the Middle Fork is within designated wilderness, as is the upper portion (24.1 miles) of the South Fork.

The lower 7.6-mile portion of the South Fork canyon is known as the Kings Canyon, giving the park its name. The Kings Canyon, including the Cedar Grove developed area, is the only segment of the Kings River accessible by motor vehicle.

**Figure K-2 Locations of proposed fish eradication basins in relation to Designated and Suitable Wild and Scenic Rivers in SEKI.**



*Outstandingly Remarkable Values for the Middle and South Fork of the Kings River:*

- Middle Fork of the Kings River (29.5 miles within Kings Canyon National Park) — Wild. This free-flowing river segment is wholly in designated wilderness. It is accessible only by trail and is primitive in nature, qualifying it for wild classification.
- South Fork of the Kings River (the upper 24.1 miles within Kings Canyon National Park) — Wild. This free-flowing river segment is wholly in designated wilderness. It is accessible only by trail and is primitive in nature, qualifying it for wild classification.
- South Fork of the Kings River (the lower 7.6 miles within Kings Canyon National Park) — Recreational. Lodging, campgrounds, and other amenities for park visitors are located in or near the river corridor. The river corridor also contains a road that runs parallel to the river, and three road bridges cross the river, thus qualifying it for recreational classification.

Proposed fish eradication basins that contain portions of these rivers or are watersheds feeding these rivers include:

- Dusy, Rambaud, Barrett, Amphitheater, Horseshoe, Slide and Swamp for the *Middle Fork of the Kings River*;
- Sixty Lake, Brewer, Vidette and Upper Bubbs Creek for the *South Fork of the Kings River*.

North Fork of the Kern River

The North Fork of the Kern River was added to the national wild and scenic rivers system on November 24, 1987 (PL 100-174). This 78.5-mile segment extends from its headwaters at the 12,000-foot contour just south of Harrison Pass Lake below the Kings-Kern Divide and off the west slopes of Mount Whitney in Sequoia National Park to the Tulare-Kern county line. The NPS manages the upper 28.9 miles of the North Fork within Sequoia National Park, and the U.S. Forest Service manages the remainder of the river, which flows almost entirely through national forest land, including the Golden Trout Wilderness. The upper river portion is free flowing for over 61 miles, the longest stretch of free-flowing river in the Sierra Nevada, and it is classified as wild. The lower 17.5-mile stretch managed by the U.S. Forest Service is classified as recreational due to road accessibility and minor impoundments.

*Outstandingly Remarkable Values for the North Fork of the Kern River:*

- North Fork of the Kern River (the entire 28.9 miles within Sequoia National Park) — Wild. This free-flowing river segment is wholly in designated wilderness. It is accessible only by trail and is primitive in nature, qualifying it for wild classification.

Proposed fish eradication basins that contain portions of these rivers or are watersheds feeding these rivers include:

- Upper Kern, East Wright, Milestone, Laurel, and Crytes for the *North Fork of the Kern River*.

**Does the Proposed Project “Invade” the Wild and Scenic Rivers?**

None of the proposed restoration sites are within the designated segments of these rivers. All of the sites proposed for piscicide use, except one, are far from designated wild and scenic rivers or river segments. The site in Upper Kern basin is proposed for piscicide treatment and is near the headwaters of the North Fork of the Kern River, which is designated as “Wild” under the WSRA. The furthest downstream points in the two streams proposed for piscicide treatment are approximately 200 meters and 250 meters upstream of the wild and scenic river boundary. While no work would occur directly within designated sections of these rivers, proposed fish eradication basins would be located within the watersheds feeding these rivers.

None of the alternatives would affect the free-flowing character of any designated wild and scenic river. Outstandingly remarkable values which could be affected by project activities include scenic, recreational

fish, and wildlife. Impacts are evaluated in general terms of whether they would be beneficial or adverse to these outstandingly remarkable values. Beneficial impacts would result from actions that protect and enhance these values, while adverse impacts would result from actions that reduce those values. The duration of the impact considers whether the impact would be temporary and/or associated with transitional types of activities or if the impact would occur over a longer period and alter the outstandingly remarkable river values.

Because none of the project work would occur within a wild and scenic river corridor, the flow chart in Figure K-3 was used to determine if a section 7(a) determination is warranted. Because the project has the potential to affect recreation, fish, and wildlife values present in the wild and scenic river, a section 7(a) determination is included using the following methodologies in Table K-2.

**Table K-2. Wild and Scenic Rivers Impact and Intensity Descriptions**

Impact Intensity	Intensity Description
Negligible	Impacts would not be detectable to most visitors and would have no discernible effect on a river's outstandingly remarkable values.
Minor	Impacts would be slightly detectable to some visitors but are not expected to have an overall effect on a river's outstandingly remarkable values.
Moderate	Impacts would be clearly detectable by many visitors and could have an appreciable effect on a river's outstandingly remarkable values.
Major	Impacts would have a substantial and noticeable effect to most visitors or the river's outstandingly remarkable values.

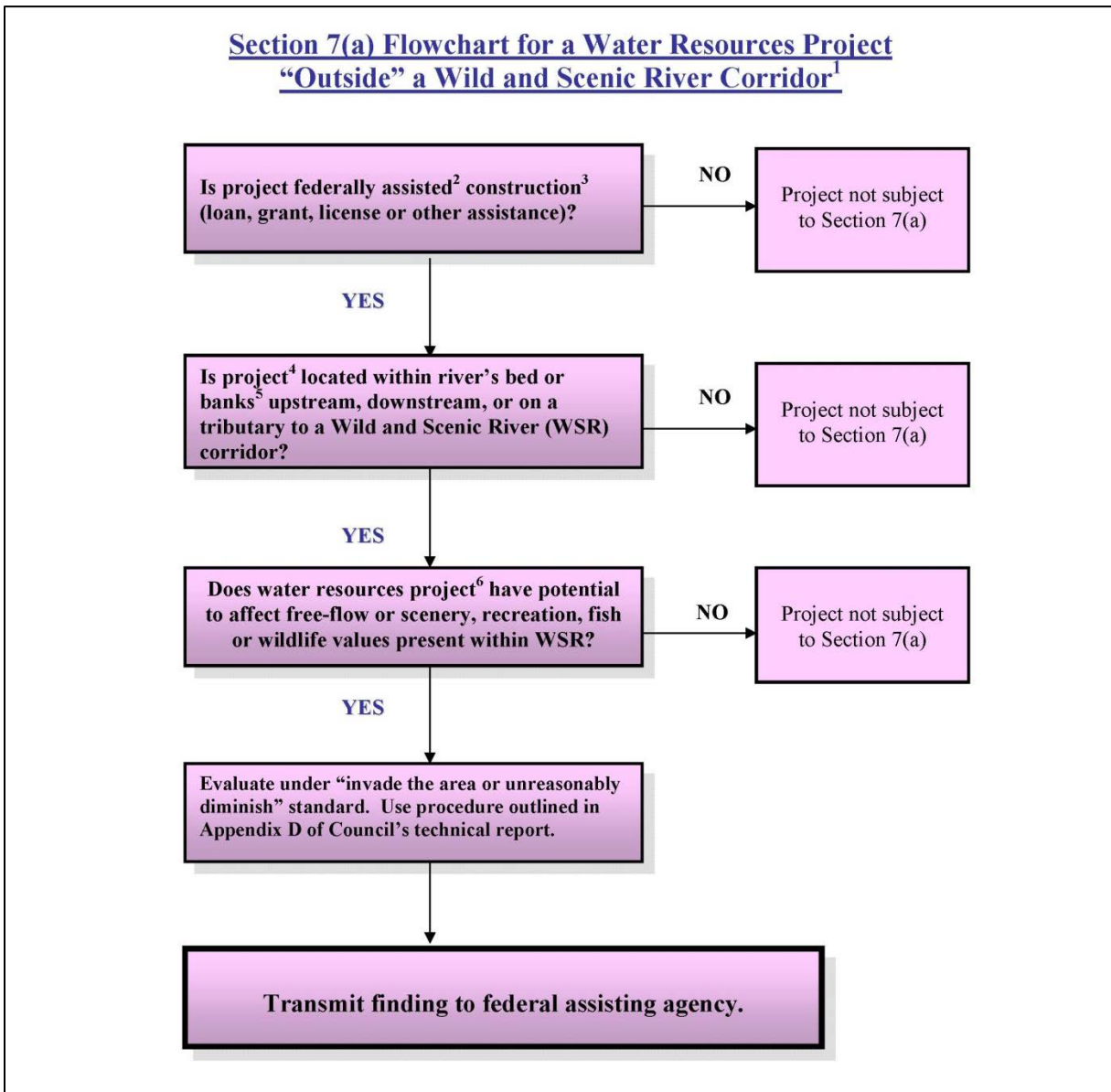
Short-term—Impacts occur during project work; Long-term—Impacts are ongoing after project work is completed.

### **Impact Analysis of Outstandingly Remarkable Values Under Each Alternative**

#### Impacts of Elements Common to All Alternatives

*Impacts on Outstandingly Remarkable Values (Scenic, Recreational, Fish and Wildlife):* Crew camps, helicopter use, restoration of mountain yellow-legged frogs, monitoring, research, and fish disposal would have no direct effects on designated ORV because none of these activities would occur within designated river segments. Stock use would pass through river corridors. These trips would be minimal but sometimes would involve overnight stays. In upper basin areas upstream from wild and scenic rivers, there would be no on scenic values because crews working and camping in project areas would not be visible from a wild and scenic river or its banks. Recreational, fish, and wildlife values in areas of upstream of wild and scenic river segments would be changed as ecosystems are restored, primarily due to an increase in opportunities to view native wildlife; and these changes would have the potential to spread into the designated wild and scenic river segments in the future. This would result in beneficial effects to the recreation, fish, and wildlife ORV.

**Figure K-3 Flowchart for a water resources project “outside” a wild and scenic river corridor.**



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<sup>1</sup> **A wild and scenic river (WSR)** means a river and the adjacent area within the boundaries of a component of the National Wild and Scenic Rivers System pursuant to section 3(a) or 2(a)(ii) of the Wild and Scenic Rivers Act (WSRA). **Outside** the corridor means a project located upstream, downstream or on a tributary to a WSR.

<sup>2</sup> **Assistance** means loan, grant, license, or other assistance in the construction of any water resources project.

<sup>3</sup> **Construction** means any action carried on with Federal assistance affecting the free-flowing characteristics of a WSR.

<sup>4</sup> **Water resources project** means any federally assisted construction that would affect free-flowing characteristic, as defined in Section 16(b) of the WSRA (see footnote 5), or affect the scenic, recreational, fish or wildlife values within the WSR. Projects that typically meet this definition are dams, diversion structures and projects that can be seen from the WSR because they have the potential to affect these characteristics and values in the WSR. This definition also includes licenses and exemptions of hydropower projects under Part I of the Federal Power Act, as amended (41 Stat. 1063; 16 U.S.C. 791a et seq.), assuming a nexus as describe in footnote 6.

<sup>5</sup> **Bed or banks** is an interpretation of Section 16(b) of the WSRA, which defines free-flowing, in part, as “existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway.” Generally the applicability of Section 7(a) is limited to the area within the ordinary high water mark (OHWM) of the river. OHWM is defined in 33 CFR Part 328.3(e) as “...that line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”

<sup>6</sup> Requires a **nexus** between the proposed upstream, downstream or tributary project and the WSR or such project is not a water resources project for purposes of a Section 7(a) determination. Projects that have the potential to affect *free-flow, or scenery, recreation, fish or wildlife values* of the WSR are dams, upstream diversion structures and projects that can be seen from the WSR as they have the potential to affect these characteristics and values in the WSR.

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### Impacts of Alternative A: No action

*Impacts on Outstandingly Remarkable Values:* The impacts associated with the current program are the physical removal of nonnative fish prior to restoration. There would be no work within the designated segments of wild and scenic rivers and therefore no direct effects resulting from this alternative on the outstandingly remarkable river values. However, continuing the ongoing restoration program would result in some changes to seven basins which feed, wholly or partially, the three rivers designated under the WSRA. There would be long-term beneficial effects on native fish and wildlife populations (see the following sections in the Restoration Plan/FEIS: Impacts to Special Status Species, Wildlife, and Visitor Experience and Recreational Opportunities). These effects, such as increased chances of wildlife viewing, could cascade down the basins, indirectly enhancing certain attributes of the recreation, fish, and wildlife ORV inside designated sections of the wild and scenic rivers.

*Cumulative Effects:* The 2007 GMP established a vision for the management of wild and scenic rivers within SEKI, and identified river protection measures that are employed for projects within the river boundaries (extending 0.25 mile on each side of the designated river sections), tributaries and the overall watershed. This project meets the goals established by the GMP and adheres to the river protection measures. The project areas are remote and the outstandingly remarkable values are protected in parks' wilderness areas. No past, ongoing, and future proposed actions are degrading the outstandingly remarkable values of designated wild and scenic rivers within the parks, thus there are no cumulative effects.

*Conclusion:* There would be long-term beneficial effects on recreation, fish, and wildlife ORV.

### Impacts of Alternative B: Prescription Treatment Preceding Restoration (Preferred Alternative)

*Impacts on Outstandingly Remarkable Values:* The impacts associated with physical treatment would be the same as alternative A only expanded to include additional sites in Dusy, Rambaud, Barrett, Amphitheater, Horseshoe, Slide and Swamp, which are upstream from the Middle Fork of the Kings River; Sixty Lake, Brewer, Vidette and Upper Bubbs Basins, which are upstream from the South Fork of the Kings River; and Upper Kern, Milestone, East Wright, Laurel and Crytes, which are upstream from the North Fork of the Kern River. All of these treatment sites are outside the designated portions of these wild and scenic rivers. In addition, this alternative involves the proposed use of piscicides in selected treatment sites. All of the sites proposed for piscicide use, except one, are far from designated wild and scenic rivers or river segments. The site in Upper Kern basin is proposed for piscicide treatment and is near the headwaters of the North Fork of the Kern River, which is designated as Wild under the WSRA. The furthest downstream points in the two streams proposed for piscicide treatment are approximately 650 ft and 820 ft (200 m and 250 m) upstream of the wild and scenic river boundary.

The treatment with piscicides could result in short-term adverse effects to the recreation, fish and wildlife ORV. However, because the furthest downstream treatment site is 650 ft (200 m) upstream of the wild and scenic river boundary, these effects are unlikely to occur. Yearly treatments would involve less than 3 miles (4.8 km) of stream and generally no more than three lakes. Some years there may be no piscicide treatments in this area. Piscicides would cause mortality to all gill breathing organisms in the treatment site, which would have major adverse effects to the fish and gill-breathing wildlife upstream of the designated wild and scenic river segment. However, this effect would be short-term as native wildlife populations are expected to recover, based on similar work at other areas (see Restoration Plan/FEIS for citations).

Given the mobility of some wildlife species benefitting from aquatic restoration, the beneficial effects of this alternative are likely to extend within the designated wild and scenic river boundaries – and be

beneficial for the recreation, fish, and wildlife ORV. Effects of piscicide use on water quality are discussed in the water quality impact topic in chapter 4.

*Cumulative Effects:* In the long-term, outstandingly remarkable values would continue to be protected in the parks' wild and scenic rivers. The project areas are remote and the outstandingly remarkable values are protected in parks' wilderness areas. No past, ongoing, and future proposed actions are degrading the outstandingly remarkable values of designated wild and scenic rivers within the parks, thus there are no cumulative effects.

*Conclusion:* There would be long-term beneficial effects on the recreation, fish, and wildlife ORV.

#### Impacts of Alternative C: Physical Treatment Preceding Restoration

*Impacts on Outstandingly Remarkable Values:* The impacts associated with physical treatment would be the same as alternative B. In upper basin areas upstream of designated wild and scenic river segments, there would be decreased angling opportunities in the short and long term, and increased recreational opportunities associated with viewing native wildlife in the long-term. Within the designated wild and scenic river segments, there would be long-term beneficial effects to the recreation, fish, and wildlife ORV as native wildlife is restored by implementing this alternative.

*Cumulative Effects:* The cumulative effects would be the same as alternative B.

*Conclusion:* In the long-term there would be beneficial effects to recreational values associated with native wildlife viewing, and beneficial effects to wildlife within and adjacent to wild and scenic rivers.

#### Impacts of Alternative D: Piscicide Treatment Preceding Restoration

*Impacts on Outstandingly Remarkable Values:* This alternative would be similar to alternative B, only more areas would be treated with piscicides and work would occur over a shorter period of time. All of the sites except one are far from designated wild and scenic rivers or river segments. One site (Upper Kern Basin) proposed for piscicide treatment is near the headwaters of the North Fork of the Kern River. The furthest downstream points in the two streams proposed for piscicide treatment are approximately 650 ft and 820 ft (200 m and 250 m) upstream of the wild and scenic river boundary. The North Fork of the Kern River is designated as Wild under the WSRA. As explained in alternative B, there would be long-term adverse effects on recreational opportunities related to decreased recreation (fishing) in upper basin areas upstream of the designated wild and scenic rivers, and long-term beneficial effects on the recreation, fish, and wildlife ORV within the designated wild and scenic river segments.

*Cumulative Effects:* The cumulative effects to outstandingly remarkable values would be the same as alternative B.

*Conclusion:* There would be long-term beneficial effects on native wildlife populations. The cumulative effects would be short-term, negligible and adverse and would occur outside of the designated wild and scenic river boundaries, but long-term and beneficial cumulative effects would occur within the designated wild and scenic river boundaries.

#### **Does the proposed project unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area as of the date of designation?**

The Restoration Plan/FEIS includes actions to improve native wildlife habitat within the watershed and/or tributaries of the Middle and South Fork of the Kings River, and the North Fork of the Kern River. The proposed actions would remove nonnative trout from lakes, streams, and marshes that are upstream of the designated river corridors using a variety of methods, including physical removal methods and piscicides.



There would be no direct effects to the wild and scenic river corridors. In addition, the proposed project would enhance the other recreation, fish, and wildlife values present in the area due to the restoration of native species that would occur as a result of the project work.

### **Section 7(a) Determination**

Using the Restoration Plan/FEIS as the basis for the section 7(a) determination and implementing specific mitigation measures outlined in Chapter 2 of the plan, the NPS has determined that the proposed projects would not invade the Wild and Scenic Middle and South Forks of the Kings River, and the North Fork of the Kern River, or unreasonably diminish the scenic, recreational, fish, and wildlife values present in the area as of the date of designation.

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Recommended by Woody Smeck, SEKI Superintendent

Date

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Approved by Laura Joss, NPS Pacific West Regional Director

Date

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