

Wild and Scenic Rivers

For reader convenience, all wild and scenic study documents are compiled here, including duplicate sections that are also found in the Final Environmental Impact Statement, Appendix E Wild and Scenic Rivers.

Wild and Scenic Rivers Background and Study Process

Background

Congress enacted the Wild and Scenic Rivers Act (WSRA) in 1968 to preserve select river's free-flowing condition, water quality and outstandingly remarkable values. The most important provision of the WSRA is protecting rivers from the harmful effects of water resources projects. To protect free-flowing character, the Federal Energy Regulatory Commission (which licenses nonfederal hydropower projects) is not allowed to license construction of dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works on or directly affecting wild and scenic rivers (WSRs). Other federal agencies may not assist by loan, grant, and license or otherwise any water resources project that would have a direct and adverse effect on the values for which a river was designated.

The WSRA also directs that each river in the National Wild and Scenic Rivers System (National System) be administered in a manner to protect and enhance a river's outstanding natural and cultural values. It allows existing uses of a river to continue and future uses to be considered, so long as existing or proposed use does not conflict with protecting river values. The WSRA also directs building partnerships among landowners, river users, tribal nations, and all levels of government.

Beyond the immediate protection afforded to the eight rivers in the enabling legislation, the WSRA established a process for building a legacy of protected rivers. Rivers may be identified for study by an act of Congress under Section 5(a), or through federal agency-initiated study under Section 5(d)(1). By the end of 2002, Congress had authorized 138 rivers for study. Section 5(d)(1) directs federal agencies to consider the potential of WSRs in their planning processes, and its application has resulted in numerous individual river designations, and state and area-specific legislation.

Both Sections 5(a) and 5(d)(1) studies require determinations to be made regarding a river's eligibility, classification and suitability. Eligibility and classification represent an inventory of existing conditions. *Eligibility* is an evaluation of whether a river is free-flowing and possesses one or more outstandingly remarkable values (ORVs) including scenery, recreation, geology, fish and wildlife, history, cultural (prehistoric), or similar values. If found eligible, a river is analyzed as to its current level of development (water resources projects, shoreline development, and accessibility) and a recommendation is made that it be placed into one or more of three classes—wild, scenic or recreational.

The final procedural step, *suitability*, provides the basis for determining whether to recommend a river as part of the National System. A suitability analysis is designed to answer the following questions:

- Should the river's free-flowing character, water quality, and ORVs be protected, or are one or more other uses important enough to warrant doing otherwise?
- Will the river's free-flowing character, water quality, and ORVs be protected through designation? Is it the best method for protecting the river corridor? In answering these questions, the benefits and impacts of WSR designation must be evaluated and alternative protection methods considered.
- Is there a demonstrated commitment to protect the river by any non-federal entities that may be partially responsible for implementing protective management?

Rivers authorized for study by Congress are protected under the WSRA; specifically, Sections 7(b)—prevents the harmful effects of water resources projects; 8(b)—withdraws public lands from disposition under public land laws; 9(b)—withdraws locatable minerals from appropriation under mining laws; and 12(a)—directs actions of other federal agencies to protect river values. These protections last through the study process, including a three-year period following transmittal of the final study report by the President to Congress. The integrity of the identified classification must also be maintained during the protection period.

The identification of a river for study through the forest planning process does not trigger any protections under the WSRA. To manage the river for its potential inclusion into the National System, the forest plan should provide direction using other authorities to protect its free-flowing character, water quality, ORVs, and preliminary or recommended classification. The only exception is that if Congress designates river for further study, a minerals withdrawal goes into effect while eligibility and suitability are determined.

The Forest Service does not designate rivers. Rivers are added to the National System by act of Congress or by the Secretary of the Interior. Secretarial designation requires that a river be a part of a state river protection system and the state governor to make application to the Secretary. Therefore, for those rivers undergoing suitability studies, the decision to be made in the final forest plan and EIS is whether to recommend each of these study rivers to Congress for designation as a wild and scenic river.

Study Process in southern California

Wild and scenic river planning for the southern California national forests began during the development of their original land management plans. Three rivers located within the Los Padres National Forest were designated as a result of that effort.

Big Sur River

Designation: June 19, 1992

Reach: From the confluence of the South and North Forks downstream to the boundary of the Ventana Wilderness. The South Fork and the North Fork from their headwaters to their confluence.

Classification/Mileage: Wild -- 19.5 miles; Total -- 19.5 miles.

Located in the Ventana Wilderness, this river offers outstanding opportunities for hiking, camping, swimming and fishing. It is one of the longest coastal California streams lined with redwoods.

Sespe Creek

Designation: June 19, 1992

Reach: The main stem from its confluence with Rock Creek and Howard Creek downstream to where it leaves section 26, T5N, R20W.

Classification/Mileage: Wild -- 27.5 miles; Scenic -- 4.0 miles; Total -- 31.5 miles.

Interesting geologic formations, unusual gorges, and rich riparian vegetation provide excellent scenic diversity and recreation opportunities. This stream is considered an outstanding rainbow trout fishery and provides critical habitat for the endangered California condor.

Sisquoc River

Designation: June 19, 1992

Reach: From its origin downstream to the Los Padres National Forest boundary.

Classification/Mileage: Wild -- 33.0 miles; Total -- 33.0 miles.

Most of this river lies within the San Rafael Wilderness. It offers excellent opportunities for solitude, wilderness-oriented activities, and appreciation of the outstanding scenery.

Source: <http://www.nps.gov/rivers/wildriverslist.html#ca>

To date, no other rivers in the southern California national forests have been designated as WSRs. In addition, the original Los Padres National Forest plan found a 14-mile segment of Piru Creek eligible for WSR status. However, due to the close proximity of Sespe Creek with its high values and the potential for safety problems resulting from sudden water releases, the creek was not recommended for WSR designation. The Angeles and Cleveland National Forests determined no rivers as eligible for designation in their original land management plans. The San Bernardino National Forest determined several rivers as eligible for designation in their original land management plan as follows:

Santa Ana River

Segment above South Fork: Recreational

South Fork within the San Geronio Wilderness: Wild

Segment between Filaree Flats and Bear Creek: Wild

Bear Creek: Wild

Whitewater River

North Fork: Wild

Middle Fork: Wild

Segments of South/East Fork: Wild

Deep Creek

Segment between Running Springs and the T-6 Road crossing: Scenic

Segment between Splinter's Cabin and Devil's Hole: Scenic

Segment between Devil's Hole and the Mojave River: Scenic

Segment above Running Springs: Recreational

Segment between the T-6 Road crossing and Splinter's Cabin: Recreational

Lytle Creek

Middle Fork within the Cucamonga Wilderness: Scenic

South Fork: Scenic

An amendment to the land management plan stated that the North Fork of the San Jacinto River and a segment of Holcomb Creek below National Forest System Road 3N16 would be re-evaluated for eligibility.

Public Law 102-301 mandated that five rivers within the Los Padres National Forest (Piru Creek – 49 miles, Little Sur – 23 miles, Matilija Creek – 16 miles, Lopez Creek – 11 miles, and Sespe Creek – 10.5

miles) be studied for eligibility and suitability. Those studies began in 1998 and are completed in this land management plan revision.

Eligibility Inventory

As a part of this land management plan revision, free-flowing streams with outstandingly remarkable values were identified in an eligibility inventory, the first phase of a two-phase study process of all rivers within the Angeles, Cleveland, Los Padres and San Bernardino National Forests. In all, 47 rivers were studied for wild and scenic river eligibility on the four southern California national forests.

In accordance with national direction and law, in order to be eligible for wild and scenic river status a river must be free-flowing and possess one or more outstandingly remarkable values (ORVs). Thus, the eligibility analysis consists of an examination of the river's hydrology, including any man-made alternations, and an inventory of its natural, cultural and recreational resources. The corridor width for study (and designated) rivers is usually ¼ mile on either side of the river, though final boundaries can and do vary from this average guideline. The determination that a river area contains ORVs was a professional judgment on the part of the interdisciplinary study teams on the four national forests of southern California based on objective, scientific analysis, and relying on direction from the Act, the interagency guidelines, and Forest Service direction.

First, each national forest broadly screened all the rivers within its boundaries to identify the level of significance as local, regional, or national, based on geographic information system (GIS) resource mapping and specialist review. At initial public meetings, the Forest Service presented this information along with wild and scenic river background information and mapping, and asked the public: if they had additional resource information that should be considered for evaluation of river eligibility for wild and scenic designation; which value(s) should be considered "outstandingly remarkable"; how should wild and scenic rivers be managed; and what areas should be recommended for wild and scenic river designation? This resulted in identification of 47 wild and scenic river candidates either by the public or by the four southern California national forests.

Next, based on interdisciplinary study and review of each of the 47 rivers (including multiple forks and segments), all rivers found to be free-flowing and to possess one or more ORVs were determined to be eligible. Each river found eligible was then reviewed for potential classification as a wild, scenic, or recreational river. These eligibility inventories are based on Forest Service resource information or on information shared by members of the public having knowledge of individual rivers.

Using criteria in accordance with the *Wild & Scenic River Assessment Process*, National direction letter of 11/21/96, the interdisciplinary teams evaluated the resource value status of each candidate river and determined if the river had one or more outstandingly remarkable values. The direction allows criteria for additional river-related values to be developed. Accordingly, the four national forests of southern California opted to add evaluation of botanical resources and created eligibility criterion for botany modeled after criteria for wildlife. In order to be assessed as outstandingly remarkable, a river-related

value must be a unique, rare or exemplary feature that is significant at a comparative regional or national scale. The criteria detailed below apply to all candidate rivers but will not be repeated in each river summary information document for the sake of brevity.

1. Scenery

Criterion: The landscape elements of landform, vegetation, water, color and related factors result in notable or exemplary visual features and/or attractions. When analyzing scenic values, additional factors such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segment.

2. Recreation

Criterion: Recreation opportunities are, or have the potential to be, unique enough to attract visitors from outside of the region of comparison. Visitors are willing to travel long distances to use the river resources for recreation purposes. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, hunting, and boating/rafting. Interpretive opportunities may be exceptional and attract or have the potential to attract visitors from outside the region of comparison. The river may provide or have the potential to provide settings for national or regional usage or competitive events.

3. Geology

Criterion: The river or the area within the river corridor contains an example(s) of a geological feature, process, or phenomena that is rare, unusual, or unique to the region of comparison. The feature(s) may be in an unusually active stage of development, represent a "textbook" example and/or represent a unique or rare combination of geologic features (erosional, volcanic, glacial and other geological structures).

4. Fish and Wildlife

Criterion (fish): Fish values may be judged on the relative merits of either fish populations or habitat—or a combination of these river-related conditions.

Populations: The river is nationally or regionally an important producer of resident and/or anadromous fish species. Of particular significance is the presence of wild stocks and/or federal or state listed or candidate threatened, endangered and sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Habitat: The river provides exceptionally high quality habitat for fish species indigenous to the region of comparison. Of particular significance is habitat for wild stocks and/or federal or state listed or

candidate threatened, endangered and sensitive species. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

The study team will consider the habitat and population of each river in the context of comparison to the known populations or habitats of the team's other study rivers and apply the following additional criterion. To be outstandingly remarkable, the segment will either have the wild/heritage trout waters designation by California State Fish and Game or have the presence of threatened, endangered and sensitive fish species of regional or national significance and at least one of the following factors: 1) the largest number of mating pairs locally or regionally, or the only mating pair; or 2) multiple populations of a threatened, endangered and sensitive species; or 3) the largest or most robust populations; or 4) high diversity of rare or not rare fish species or habitats present. Known or historically occupied habitat that is still suitable is to be considered, but modeled habitat is not to be considered.

Criterion (wildlife): Wildlife values may be judged on the relative merits of either wildlife populations or habitat—or a combination of these conditions.

Populations: The river or area within the river corridor contains nationally or regionally important populations of indigenous wildlife species. Of particular significance are species considered to be unique or populations of federal or state listed or candidate threatened, endangered and sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Habitat: The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for federal or state listed or candidate threatened, endangered and sensitive species. Contiguous habitat conditions are such that the biological needs of the species are met. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

The study team will consider the habitat and population of each river in the context of comparison to the known populations or habitats of the team's other study rivers and apply the following additional criterion. To be outstandingly remarkable, the river will have both the presence of threatened, endangered and sensitive wildlife species or habitat of regional or national significance and at least one of the following factors: 1) the largest number of mating pairs locally or regionally, or the only mating pair; or 2) multiple populations of a threatened, endangered and sensitive species; or 3) the largest or most robust populations; or 4) high diversity of rare or not rare wildlife species or habitats present. Known or historically occupied habitat that is still suitable will be considered, but modeled habitat will not be considered.

5. Heritage resources (Cultural)

Criterion: The river or area within the river corridor contains a site(s) where there is evidence of

occupation or use by Native Americans. Sites must have rare or unusual characteristics or exceptional human interest value(s). Sites may have national or regional importance for interpreting prehistory; may be rare and represent an area where a culture or cultural period was first identified and described; may have been used concurrently by two or more cultural groups; or may have been used by cultural groups for rare or sacred purposes.

6. Heritage resources (Historic)

Criterion: The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare, unusual or one-of-a-kind in the region. A historic site(s) and/or feature(s) in most cases are 50 years old or older.

7. Other (Botany)

Criterion: Botanical values may be judged on the relative merits of either plant populations or habitat—or a combination of these conditions.

Populations: The river or area within the river corridor contains nationally or regionally important populations of indigenous plant species. Of particular significance are species considered to be unique or populations of federal or state listed or candidate threatened, endangered and sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Habitat: The river or area within the river corridor provides exceptionally high quality habitat for plants of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for federal or state listed or candidate threatened, endangered and sensitive species. Contiguous habitat conditions are such that the biological needs of the species are met. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

The study team will consider the habitat and population of each river in the context of comparison to the known populations or habitats of the team's other study rivers and apply the following additional criterion. To be outstandingly remarkable, the river will have both the presence of threatened, endangered and sensitive plants or habitat of regional or national significance and at least one of the following factors: 1) community type examples rare in Southern California (i.e., large portions of threatened, endangered and sensitive occupied montane, wet meadow habitat); or 2) multiple populations of a threatened, endangered and sensitive species; or 3) the largest or most robust populations; or 4) high diversity of rare or not rare plant species or habitats present; or 5) unique situations (i.e., rare plants in bottom reaches of river dependent upon scouring of river for seed germination). Known or historically occupied habitat that is still suitable will be considered, but modeled habitat will not be considered.

Classification

The Act and Interagency Guidelines provide the following direction for establishing preliminary classifications for eligible rivers:

Wild Rivers: 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 Rivers: 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 Rivers: 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.

Study rivers were given a preliminary classification based on its condition and current level of development, in accordance with the table on the next page. Where levels of human activity vary within the study area, the study reach may be segmented into more than one class. Congress sometimes classifies the river at the time of designation based upon the study agency's report, but in cases where Congress does not do this, the responsible federal agency establishes the designated river's classification (s) when promulgating its boundaries.

Attribute	Wild	Scenic	Recreational
Water Resources Development	Free of impoundment.	Free of impoundment.	Some existing impoundment diversion. The existence of low dams, diversions, or other modifications of the waterway is acceptable, provided the waterway remains generally natural and riverine in appearance.

Shoreline Development	Essentially primitive. Little or no evidence of human activity. The presence of a few inconspicuous structures (particularly those of historic or cultural value) is acceptable. A limited amount of domestic livestock grazing or hay production is acceptable. Little or no evidence of past timber harvest. No ongoing timber harvest.	Largely primitive and undeveloped. No substantial evidence of human activity. The presence of small communities or dispersed dwellings or farm structures is acceptable. The presence of grazing, hay production, or row crops is acceptable. Evidence of past or ongoing timber harvest is acceptable, provided the national forest appears natural from the riverbank.	Some development. Substantial evidence of human activity. The presence of extensive residential development and a few commercial structures is acceptable. Lands may have been developed for the full range of agricultural and forestry uses. May show evidence of past and ongoing timber harvest.
Accessibility	Generally inaccessible except by trail. No roads, railroads or other provision for vehicular travel within the river area. A few existing roads leading to the boundary of the river area is acceptable.	Accessible in places by road. Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.	Readily accessible by road or railroad. The existence of parallel roads or railroads on one or both banks as well as bridge crossings and other river access points is acceptable.
Water Quality	Meets or exceeds federal criteria or federally approved state standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the river, and for primary contact recreation (swimming), except where exceeded	No criteria prescribed by the Act. The Federal Water Pollution Control Act Amendments of 1972 have made it a national goal that all waters of the United States be made fishable and swimmable. Therefore, rivers will not be precluded from scenic classification because of poor water quality at the time of their study,	No criteria prescribed by the Act. The Federal Water Pollution Control Act Amendments of 1972 have made it a national goal that all waters of the United States be made fishable and swimmable. Therefore, rivers will not be precluded from recreational classification because of poor water quality at the time of their study,

	by natural conditions.	provided a water quality improvement plan exists or is developed in compliance with applicable federal and state laws.	provided a water quality improvement plan exists or is developed in compliance with applicable federal and state laws.
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Twenty-six rivers were determined to be free flowing and to have one or more outstandingly remarkable value and thus be eligible for addition to the National Wild and Scenic Rivers System. The following tables displays the rivers found eligible in whole or part along with mileage by potential classification:

- Table 355: [Candidate Wild and Scenic Rivers - Angeles National Forest](#)
- Table 356: [Candidate Wild and Scenic Rivers - Cleveland National Forest](#)
- Table 357: [Candidate Wild and Scenic Rivers - Los Padres National Forest](#)
- Table 358: [Candidate Wild and Scenic Rivers - San Bernardino National Forest](#)

Only those rivers found eligible will proceed to the suitability study phase.

Suitability

The final phase of study addresses the suitability of a river for inclusion in the National Wild and Scenic Rivers System. The Los Padres National Forest prepared suitability studies for seven rivers determined eligible on that national forest, including evaluation for suitability under the alternatives developed for this forest plan revision. The seven rivers studied are all or portions of the Arroyo Seco River, Indian Creek, Little Sur River, Mono Creek, upper Piru Creek, San Antonio River, and upper Sespe Creek. Only the lower segments of the Piru Creek remain to be studied for suitability. This appendix contains comparative detail by river, classification and alternative (see [Recommended Wild and Scenic Rivers by Alternative](#)).

A description of the alternatives by classification and miles recommended may be found in Chapter 2 of the DEIS (see table 336, [Recommended Wild and Scenic River Mileage by Classification and Alternative \(Los Padres NF\)](#)). In addition, the effects of designation of the rivers recommended to Congress under each alternative are described and analyzed in the applicable sections in Chapter 3 of the DEIS.

The suitability study phase will be initiated at a later date for the 20 eligible rivers on the Angeles, Cleveland, Los Padres, and San Bernardino National Forests. However, the forest plan will provide management direction to protect the free-flowing character, potential classification, and outstandingly remarkable values of eligible rivers until a suitability study is completed and final recommendation to Congress regarding river designation is made.

Wild and Scenic River Study Documentation

Each of the 47 candidate rivers evaluated has a Summary Information Document that provides a synopsis of the pertinent information related to eligibility, classification and/or suitability (as applicable). All Summary Information Documents are available in the Reading Room on the forest websites, www.fs.fed.us/r5/angeles/projects/lmp, www.fs.fed.us/r5/cleveland/projects/lmp, www.fs.fed.us/r5/lospadres/projects/lmp, or www.fs.fed.us/r5/sanbernardino/projects/lmp.

This Environmental Impact Statement appendix includes the Summary Information Documents for the suitability studies undertaken by the Los Padres National Forest and the summary tables for all the candidate rivers. Due to budget constraints, not all the Summary Information Documents are published in the print version.

Wild and Scenic Rivers	Summary of Wild and Scenic River Eligibility Inventory by Forest
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Table 355. Candidate Wild and Scenic Rivers - Angeles National Forest

Name	Total Study Miles	Total Eligible Miles	Potential Wild Class Miles	Potential Scenic Class Miles	Potential Recreational Class Miles
Little Rock Creek	18.4	18.4		18.4	
Piru River*	3.7	0			
San Francisquito Creek	13.0	13.0			13.0
San Antonio Creek	7.6	3.6			3.6
San Gabriel River	35.9	19.9	8.4		11.5
Total	78.6	54.9	8.4	18.4	28.1

* *segment 5 only*

Table 356. Candidate Wild and Scenic Rivers - Cleveland National Forest

Name	Total Study Miles	Total Eligible Miles	Potential Wild Class Miles	Potential Scenic Class Miles	Potential Recreational Class Miles
Cottonwood Creek	26.0	11.9			11.9
San Luis Rey	14.1	3.4			3.4
San Mateo Creek	15.3	15.3	15.3		
Totals	55.4	30.6	15.3	0.0	15.3

Table 357. Candidate Wild and Scenic Rivers - Los Padres National Forest

Name	Total Study Miles	Total Eligible Miles	Potential Wild Class Miles	Potential Scenic Class Miles	Potential Recreational Class Miles
Arroyo Seco River	18.4	18.4	2.5	10.5	5.4
Little Sur River	24.8	8.2	4.9		3.3
San Antonio River	8.6	8.6	7.6	1.0	
Piru River*	53.6	38.5	10.5	28.0	
Upper Sespe Creek	21.3	11.5		2.0	9.5
Indian Creek	14.7	14.7	14.7		
Mono Creek	24.2	24.2	4.5	19.7	
Totals	165.6	124.1	44.7	61.2	18.2

* segments 1-4, 6, 7

Table 358. Candidate Wild and Scenic Rivers - San Bernardino National Forest

Name	Total Study Miles	Total Eligible Miles	Potential Wild Class Miles	Potential Scenic Class Miles	Potential Recreational Class Miles
Lytle Creek	23.6	2.4		2.4	
Whitewater River	26.1	25.6	25.6		
Bear Creek	9.3	8.9		8.9	
Deep Creek	21.4	19.7	9.0	10.7	
Fish Creek	5.2	3.6	3.6		
Holcomb Creek	15.1	15.1	5.8		9.3
Santa Ana River	30.6	19.8	2.4	3.5	13.9
Siberia Creek	3.0	3.0		3.0	
Bautista Creek	13.4	13.4			13.4
Fuller Mill Creek	3.4	3.4			3.4
Palm Canyon	13.1	8.1	8.1		
San Jacinto River	12.6	11.4	2.3		9.1
Totals	176.8	134.4	56.8	28.5	49.1

Table 336. Recommended Wild and Scenic River Mileage by Classification and Alternative (Los Padres NF)

Classification	Miles Eligible by Potential Classification	Alt 1	Alt 2	Alt 3	Alt 4 and 4a	Alt 5	Alt 6
Wild	44.7	0.0	27.1	37.1	13.0	0.0	44.7
Scenic	61.2	0.0	65.3	60.2	40.5	0.0	61.2
Recreational	18.2	0.0	9.5	18.2	14.9	0.0	18.2
Total Miles	124.1	0.0	101.9	115.5	68.4	0.0	124.1

Summary of Wild and Scenic River Eligibility Inventory by Forest

The following tables summarize the key data and findings of the eligibility inventories completed on the four forests.

Table 164. Eligibility Inventory Summary for Candidate Wild and Scenic Rivers, ANF

Name	Total Study Miles	Fork	Segment No.	Segment Miles	Total Eligible Miles	Eligible Mileage by Land Owner			Potential Class	Outstandingly Remarkable Values	Free flow
						Private	Other	NFS			
Mojave/Santa Clarita Rivers Ranger District											
Elizabeth Lake Creek	14.2		1	14.2	0.0	0.0	0.0	0.0	N/A	N/A	N
Little Rock Creek	18.4	Main	1	15.8	15.8	0.0	0.0	15.8	S	Fish&Wildlife	Y
		Cooper	2	2.6	2.6	0.0	0.0	2.6	W	Fish&Wildlife	Y
Piru Creek	3.7		5	3.7	3.7	0.0	0.0	3.7	R	Geology	Y
San Francisquito Creek	13.0	Upper	1	8.4	8.4	2.5	0.0	5.9	R	Fish&Wildlife	Y
		Lower	2	4.6	4.6	1.3	0.0	3.3	R	Geology, Fish&Wildlife, Historic	Y
San Gabriel River Ranger District											
San Antonio Creek	7.6	Upper	1	3.6	3.6	0.1	0.0	3.5	R	Scenery, Recreation	Y
		Lower	2	4.0	0.0	0.0	0.0	0.0	N/A	N/A	N
San Gabriel River	4.2	North	1	4.2	4.2	0.0	0.0	4.2	R	Fish&Wildlife	Y
	15.7	East	1	8.4	8.4	0.3	0.0	8.1	W	Scenery, Recreation, Fish&Wildlife, Historic	Y
			2	7.3	7.3	1.3	0.0	6.0	R	Fish&Wildlife, Historic	Y
	16.0	West	1	8.6	8.6	0.0	0.0	8.6	R	Fish&Wildlife, Recreation	Y
			2	7.4	7.4	0.0	0.0	7.4	R	Recreation	Y
Los Angeles River Ranger District											
Arroyo	14.4	Upper	1	8.2	0.0	0.0	0.0	0.0	N/A	None	Y
		Lbear	2	2.0	0.0	0.0	0.0	0.0	N/A	None	Y

Seco Creek		Bear	3	2.7	0.0	0.0	0.0	0.0	N/A	None	Y
		Lower	4	1.5	0.0	0.0	0.0	0.0	N/A	None	Y
Big Santa Anita Creek	9.8	Main	1	3.5	0.0	0.0	0.0	0.0	N/A	None	Y
		North	2	0.7	0.0	0.0	0.0	0.0	N/A	None	Y
		East	3	2.6	0.0	0.0	0.0	0.0	N/A	None	Y
		Winter	4	3.0	0.0	0.0	0.0	0.0	N/A	None	Y
Big Tujunga River	33.6	Upper	1	13.9	0.0	0.0	0.0	0.0	N/A	N/A	N
		Fox	2	7.3	0.0	0.0	0.0	0.0	N/A	None	Y
		Lower	3	8.0	0.0	0.0	0.0	0.0	N/A	N/A	N
		Trail	4	4.4	0.0	0.0	0.0	0.0	N/A	None	Y
Totals	150.6			150.6	74.6	5.5	0.0	69.1			

W = Wild class,
S = Scenic class,
R = Recreation class

Table 165. Eligibility Inventory Summary for Candidate Wild and Scenic Rivers, CNF

Name	Total Study Miles	Fork	Segment No.	Segment Miles	Total Eligible Miles	Eligible Mileage by Land Owner			Potential Class	Outstandingly Remarkable Values	Free flow
						Private	Other	NFS			
Descanso Ranger District											
Boulder Creek	9.2		1	9.2	0.0	0.0	0.0	0.0	N/A	N/A	N
Cedar Creek	12.5		1	12.5	0.0	0.0	0.0	0.0	N/A	None	Y
Cottonwood Creek	26.0		1	11.9	11.9	6.1	0.0	5.8	R	Cultural	Y
			2	14.1	0.0	0.0	0.0	0.0	N/A	None	Y
Noble Canyon Creek	4.8		1	4.8	0.0	0.0	0.0	0.0	N/A	None	Y
Pine Valley Creek	24.8		1	24.8	0.0	0.0	0.0	0.0	N/A	None	Y
San Diego River	11.1		1	11.1	0.0	0.0	0.0	0.0	N/A	None	Y
Palomar Ranger District											
Main San Luis Rey River	3.4	Main	1	3.4	3.4	2.0	0.0	1.4	R	Fish&Wildlife	Y
Upper San Luis Rey River	3.3	Upper	1	3.3	0.0	0.0	0.0	0.0	N/A	None	Y

West San Luis Rey River	7.4	West	1	7.4	0.0	0.0	0.0	0.0	N/A	None	Y
Trabuco Ranger District											
San Juan Creek	6.6		1	6.6	0.0	0.0	0.0	0.0	N/A	None	Y
San Mateo Creek and Devil Canyon	15.3	Main	1	11.9	11.9	0.0	0.3	11.6	W	Fish&Wildlife, Botany	Y
		Devil	2	3.4	3.4	0.0	0.7	2.7	W	Fish&Wildlife, Botany	Y
Trabuco Creek	5.5		1	2.1	0.0	0.0	0.0	0.0	N/A	None	Y
			2	3.4	0.0	0.0	0.0	0.0	N/A	None	Y
Totals	129.9			129.9	30.6	8.1	1.0	21.5			

W = Wild class, S = Scenic class, R = Recreation class

Table 166. Eligibility Inventory Summary for Candidate Wild and Scenic Rivers, LPNF

Name	Total Study Miles	Fork	Segment No.	Segment Miles	Total Eligible Miles	Eligible Mileage by Land Owner			Potential Class	Outstandingly Remarkable Values	Free Flow
						Private	Other	NFS			
Monterey Ranger District											
Arroyo Seco River	18.4		1	2.5	2.5	0.0	0.0	2.5	W	Scenery, Recreation, Geology, Fish&Wildlife	Y
			2	0.5	0.5	0.0	0.0	0.5	R	Scenery, Recreation, Geology, Fish&Wildlife	Y
			3	10.5	10.5	0.0	0.0	10.5	S	Scenery, Recreation, Geology, Fish&Wildlife	Y
			4	4.9	4.9	1.3	0.0	3.6	R	Scenery, Recreation, Geology, Fish&Wildlife	Y
Carmel River	9.2		1	9.2	0.0	0.0	0.0	0.0	N/A	None	Y
Little		North	1	4.9	4.9	0.0	0.0	4.9	W	Botany	Y
			2	3.3	3.3	2.1	0.0	1.2	R	Botany	Y

Sur River	24.8		3	4.2	0.0	0.0	0.0	0.0	N/A	None	Y
		South	4	10.4	0.0	0.0	0.0	0.0	N/A	None	Y
		Main	5	2.0	0.0	0.0	0.0	0.0	N/A	None	Y
San Antonio River	8.6		1	7.6	7.6	0.0	0.0	7.6	W	Scenery, Cultural, Historic	Y
			2	1.0	1.0	0.0	0.0	1.0	S	Scenery, Cultural, Historic	Y
Tassajara Creek	10.4		1	5.4	0.0	0.0	0.0	0.0	N/A	None	Y
			2	0.8	0.0	0.0	0.0	0.0	N/A	None	Y
			3	4.2	0.0	0.0	0.0	0.0	N/A	None	Y
Mount Pinos Ranger District											
Piru Creek	53.6		1	5.8	5.8	0.0	0.0	5.8	W	Recreation, Geology, Fish&Wildlife, Cultural	Y
			2	20.4	20.4	1.8	0.0	18.6	S	Recreation, Geology, Fish&Wildlife, Cultural	Y
			3	4.7	4.7	0.0	0.0	4.7	W	Recreation, Geology, Fish&Wildlife, Cultural	Y
			4	7.6	7.6	0.8	0.0	6.8	S	Recreation, Geology, Fish&Wildlife, Cultural	Y
			6	12.7	12.7	0.0	0.0	12.7	W	Geology	Y
			7	2.4	2.4	1.0	0.0	1.4	R	Geology	Y
Ojai Ranger District											
Matilija Creek	17.9		1	9.1	0.0	0.0	0.0	0.0	N/A	None	Y
			2	1.7	0.0	0.0	0.0	0.0	N/A	None	Y
		North	3	7.1	0.0	0.0	0.0	0.0	N/A	None	Y
Santa Paula Creek	12.1		1	6.3	0.0	0.0	0.0	0.0	N/A	None	Y
			2	2.7	0.0	0.0	0.0	0.0	N/A	None	Y
		East	3	3.1	0.0	0.0	0.0	0.0	N/A	None	Y
Upper Sespe	21.3		1	9.8	0.0	0.0	0.0	0.0	N/A	None	Y
			2	9.5	9.5	1.1	0.0	8.4	R	Scenery, Recreation, Fish&Wildlife	Y

Creek			3	2.0	2.0	0.0	0.0	2.0	S	Scenery, Recreation, Fish&Wildlife	Y
Santa Barbara Ranger District											
Indian Creek	14.7		1	9.6	9.6	0.0	0.0	9.6	W	Geology, Fish&Wildlife, Cultural	Y
			2	5.1	5.1	0.0	0.1	5.0	W	Geology, Fish&Wildlife	Y
Mono Creek	24.2		1	4.5	4.5	0.0	0.0	4.5	W	Fish&Wildlife	Y
			2	19.7	19.7	0.6	0.0	19.1	S	Fish&Wildlife	Y
Santa Cruz Creek	15.0	East	1	7.1	0.0	0.0	0.0	0.0	N/A	None	Y
		West	2	4.7	0.0	0.0	0.0	0.0	N/A	None	Y
			3	3.2	0.0	0.0	0.0	0.0	N/A	None	Y
Santa Ynez River	26.1		1	3.2	0.0	0.0	0.0	0.0	N/A	None	Y
			2	11.8	0.0	0.0	0.0	0.0	N/A	N/A	N
			3	11.1	0.0	0.0	0.0	0.0	N/A	N/A	N
Santa Lucia Ranger District											
La Brea Creek	29.0	North	1	12.3	0.0	0.0	0.0	0.0	N/A	None	Y
		South	2	13.1	0.0	0.0	0.0	0.0	N/A	None	Y
			3	3.6	0.0	0.0	0.0	0.0	N/A	None	Y
Lopez Creek	11.5		1	6.7	0.0	0.0	0.0	0.0	N/A	None	Y
			2	1.1	0.0	0.0	0.0	0.0	N/A	None	Y
			3	3.7	0.0	0.0	0.0	0.0	N/A	None	Y
Manzana Creek	18.4		1	18.4	0.0	0.0	0.0	0.0	N/A	None	Y
Sisquoc River	4.2	South	1	4.2	0.0	0.0	0.0	0.0	N/A	None	Y
Totals	319.4			319.4	139.2	8.7	0.1	130.4			

W = Wild class, S = Scenic class, R = Recreation class

Table 167. Eligibility Inventory Summary for Candidate Wild and Scenic Rivers, SBNF

Name	Total Study Miles	Fork	Segment No.	Segment Miles	Total Eligible Miles	Eligible Mileage by Land Owner			Potential Class	Outstandingly Remarkable Values	Free flow
						Private	Other	NFS			
Front Country Ranger District											
	11.4	North	1a	9.7	0.0	0.0	0.0	0.0	N/A	None	Y
			1b	1.7	0.0	0.0	0.0	0.0	N/A	N/A	N
			1	1.4	0.0	0.0	0.0	0.0	N/A	None	Y

Lytle Creek	7.3	Mid	2	2.4	2.4	0.0	0.0	2.4	S	Fish&Wildlife	Y
			3a	2.9	0.0	0.0	0.0	0.0	N/A	None	Y
			3b	0.6	0.0	0.0	0.0	0.0	N/A	N/A	N
	4.9	South	1	4.9	0.0	0.0	0.0	0.0	N/A	None	Y
Whitewater River	5.8	North	1	5.8	5.8	0.0	0.0	5.8	W	Scenery, Fish&Wildlife	Y
	5.3	Mid	1	5.3	5.3	1.5	0.0	3.8	W	Scenery, Fish&Wildlife	Y
	15.0	South	1	2.8	2.8	0.0	0.0	2.8	W	Scenery, Fish&Wildlife	Y
			2	0.3	0.0	0.0	0.0	0.0	N/A	N/A	N
			3	8.0	8.0	2.2	0.0	5.8	W	Scenery, Fish&Wildlife	Y
		E of S	4	2.3	2.3	0.0	0.0	2.3	W	Scenery, Fish&Wildlife	Y
			5	0.2	0.0	0.0	0.0	0.0	N/A	N/A	N
			6	1.4	1.4	0.0	0.0	1.4	W	Scenery, Fish&Wildlife	Y
Mountaintop Ranger District											
Bear Creek	9.3		1	8.9	8.9	0.0	0.0	8.9	S	Recreation, Fish&Wildlife	Y
			2	0.4	0.0	0.0	0.0	0.0	N/A	None	Y
Deep Creek	21.4		1a	1.4	0.0	0.0	0.0	0.0	N/A	None	Y
			1b	0.3	0.0	0.0	0.0	0.0	N/A	N/A	N
			2	10.7	10.7	0.0	0.0	10.7	S	Scenery, Recreation, Fish&Wildlife, Cultural, Botany	Y
			3	9.0	9.0	0.0	0.0	9.0	W	Scenery, Recreation, Geology, Fish&Wildlife, Cultural, Botany	Y
Fish Creek	5.2		1	3.6	3.6	0.0	0.0	3.6	W	Botany	Y
			2	1.6	0.0	0.0	0.0	0.0	N/A	None	Y
Holcomb Creek	15.1		1	9.3	9.3	0.0	0.0	9.3	R	Scenery, Fish&Wildlife, Botany	Y

			2	5.8	5.8	0.0	0.0	5.8	W	Scenery, Fish&Wildlife, Botany	Y
Santa Ana River	30.6	South	1	2.4	2.4	0.0	0.0	2.4	W	Scenery, Recreation, Fish&Wildlife, Botany	Y
			2	2.3	0.0	0.0	0.0	0.0	N/A	N/A	N
		Main	3	13.9	13.9	1.8	0.0	12.1	R	Scenery, Recreation, Fish&Wildlife, Historic, Botany	Y
			4	3.5	3.5	0.4	0.0	3.1	S	Scenery, Recreation, Fish&Wildlife, Historic, Botany	Y
			5	8.5	0.0	0.0	0.0	0.0	N/A	N/A	N
Siberia Creek	3.0		1	3.0	3.0	0.0	0.0	3.0	S	Botany	Y
San Jacinto Ranger District											
Bautista Creek	13.4		1	13.4	13.4	1.7	1.3	10.4	R	Fish&Wildlife, Heritage, Cultural, Botany	Y
Fuller Mill Creek	3.4		1	3.4	3.4	1.1	0.4	1.9	R	Fish&Wildlife	Y
Palm Canyon Creek	13.1		1	5.0	0.0	0.0	0.0	0.0	N/A	None	Y
			2	8.1	8.1	0.5	0.0	7.6	W	Scenery, Cultural, Botany	Y
San Jacinto River	12.6	North	1	2.3	2.3	0.0	2.3	0.0	W	Scenery, Fish&Wildlife	Y
			2	9.1	9.1	1.6	0.0	7.5	R	Scenery, Fish&Wildlife	Y
			3	1.2	0.0	0.0	0.0	0.0	N/A	N/A	N
Totals	176.8			176.8	134.4	10.8	4.0	119.6			

W = Wild class, S = Scenic class, R = Recreation class

Recommended Wild and Scenic Rivers by Alternative

As a part of this analysis, the Los Padres National Forest prepared suitability studies for the seven rivers found eligible for wild and scenic river designation on that national forest. This appendix contains the Suitability Report, which describes in detail the anticipated effects of designation or non-designation of each river with respect to the six suitability factors referred to in Section 4 of the Wild and Scenic Rivers Act. If the management alternative selected recommends a river for WSR designation, that river would be protected at its recommended classification pending Congressional decision.

Whether a river (or selected river segments) is recommended for designation in a given alternative is a reflection of the alternative theme and evaluation of the suitability factors, recognizing other possible combinations for a particular river may exist. Given the theme of the alternatives, Alternatives 1 and 5 recommend designation of no new wild and scenic rivers. Alternative 2 recommends for designation key wild and scenic rivers and classifications that provide a balance of recreation and scenery values in order to protect and enhance the free-flowing character, water quality and outstandingly remarkable values while minimizing conflicts and loss of other uses. Alternative 3 recommends for designation a significant number of wild and scenic rivers, emphasizing botany, fisheries and wildlife outstandingly remarkable values. Classifications balance the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values with the conservation of a wide range of wildlife and plant species (especially threatened, endangered and sensitive species) and habitats, biodiversity, linkages and corridors. Alternative 4 recommends for designation a few wild and scenic rivers, emphasizing recreation and/or scenery as outstandingly remarkable values. Classifications recognize the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values. Alternative 6 recommends for designation a significant number of wild and scenic rivers that contain outstandingly remarkable values that protect and enhance a wide range of values and features, including species conservation, biodiversity, open space, natural beauty, recreation and research. The seven rivers each have multiple river segments and three possible classifications, thus presenting several possibilities for structuring alternatives at the land management plan level. A stream might be shown with a wild river classification in one alternative, a scenic river classification in another alternative, and may not be included in another alternative.

Alternative 1 recommends designation of no new miles.

Alternative 2 recommends designation of segments of Arroyo Seco River, Piru Creek, Upper Sespe Creek, Indian Creek, and Mono Creek, for a total of 101.9 miles.

Alternative 3 recommends designation of all eligible segments of Arroyo Seco River, Little Sur River,

Piru Creek, Upper Sespe Creek, Indian Creek, and Mono Creek, for a total of 115.5 miles.

Alternative 4 recommends designation of all eligible segments of Arroyo Seco River, Piru Creek, and Upper Sespe Creek, for a total of 68.4 miles.

Alternative 4a recommends the same designations as Alternative 4.

Alternative 5 recommends designation of no new miles.

Alternative 6 recommends designation of all eligible segments of Arroyo Seco River, Little Sur River, San Antonio River, Piru Creek, Upper Sespe Creek, Indian Creek, and Mono Creek, for a total of 124.1 miles.

Table 103. Suitability Study Summary for Candidate Wild and Scenic Rivers, LPNF - Miles Recommended by Alt and Classification

River Name	Eligible Miles	Segment No.	Alt 1	Alt 2		Alt 3		Alt 4 and 4a		Alt 5	Alt 6	
Arroyo Seco River	18.4	1	0.0	2.5	W	2.5	W	2.5	W	0.0	2.5	W
		2	0.0	0.0		0.5	R	0.5	R	0.0	0.5	R
		3	0.0	10.5	S	10.5	S	10.5	S	0.0	10.5	S
		4	0.0	0.0		4.9	R	4.9	R	0.0	4.9	R
Indian Creek	14.7	1	0.0	9.6	W	9.6	W	0.0		0.0	9.6	W
		2	0.0	5.1	S	5.1	W	0.0		0.0	5.1	W
Little Sur River	8.2	1	0.0	0.0		4.9	W	0.0		0.0	4.9	W
		2	0.0	0.0		3.3	R	0.0		0.0	3.3	R
Mono Creek	24.2	1	0.0	4.5	W	4.5	W	0.0		0.0	4.5	W
		2	0.0	19.7	S	19.7	S	0.0		0.0	19.7	S
Piru Creek	38.5	1	0.0	5.8	W	5.8	W	5.8	W	0.0	5.8	W
		2	0.0	20.4	S	20.4	S	20.4	S	0.0	20.4	S
		3	0.0	4.7	W	4.7	W	4.7	W	0.0	4.7	W
		4	0.0	7.6	S	7.6	S	7.6	S	0.0	7.6	S
San Antonio River	8.6	1	0.0	0.0		0.0		0.0		0.0	7.6	W
		2	0.0	0.0		0.0		0.0		0.0	1.0	S
U. Sespe Creek	11.5	2	0.0	9.5	R	9.5	R	9.5	R	0.0	9.5	R
		3	0.0	2.0	S	2.0	S	2.0	S	0.0	2.0	S

Total Miles	124.1		0.0	101.9		115.5		68.4		0.0	124.1	
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W=Wild river; S=Scenic river; R=Recreational river

Any management activities within a river corridor must be consistent with the protection and enhancement of the river’s free flow and outstandingly remarkable values in order for the river to maintain its eligibility. The types and amounts of activities and changes acceptable within a river corridor depend on whether it is recommended as a wild, scenic, or recreational river. Because effects of land management plan alternatives are not site specific, it is not possible to describe precisely how an individual stream may be affected by future projects, since the exact locations and designs of those projects are not yet determined; however, it is possible to analyze the environmental consequences of the alternatives based on the differences in recommended mileage and classification, along with consideration of the protection measures and general restrictions on management activities associated with each class of WSR.

The effects of the designation of recommended wild and scenic river mileage in each alternative are described in Chapter 3 of the FEIS in the section of the resource being affected.

Angeles National Forest

Elizabeth Lake Creek

Study Area Summary

Name of River: Elizabeth Lake Creek

Location: State of California, Los Angeles County, Angeles National Forest

The segment of Elizabeth Lake Creek studied for eligibility begins at the confluence with Hiatt Canyon (SW ¼, SE ¼, Sec 27, T7N, R15W, SBBM) and runs southwesterly 14.2 miles to its impoundment at Castaic Lake (NE ¼, SW ¼, Sec 34, T6N, R16W, SBBM). See attached map.

River Mileage:

Studied: 14.2 miles

Eligible: 0.0 miles

Eligibility Inventory

Determination of Free flow:

The stream in Elizabeth Lake Canyon does not flow freely through the studied reach to the impoundment at Castaic Lake. Flow is also intermittent. The owners of several parcels of private land along the creek pump water out of the alluvium, which causes the creek to go dry by the end of summer. To protect the road, the County has placed extensive riprap along the stream bank whenever the outside bend of the creek is below the road. The County has also built grade control structures in the channel in the lower canyon to protect road fills. Only in very wet winters does enough precipitation fall in the upper drainage to allow water to flow over the sill on the south side of the San Andres Fault zone and spill into Elizabeth Lake Canyon. Nearly all water that flows down the canyon below the sill comes from rainfall runoff. The small volume of precipitation that does fall in this watershed is not enough to produce above-ground summer flows upstream of the Clearwater Fault. Below the Clearwater Fault, water will surface in the lower three miles where it flows over gneissic bedrock.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The Lake Hughes/Elizabeth Canyon Road (NFSR 7N09) runs parallel with Elizabeth Lake

Creek the entire length of the study corridor. The canyon bottom has some high quality riparian and aquatic habitat with pockets of hardwood and chaparral vegetation. The cultural landscape is one of intensive human use. Commuters use the road to access Interstate 5 from the high desert. Power lines and an off highway vehicle (OHV) route cross the drainage at Ruby Canyon near Warm Springs Mountain.

Determination: The vegetation, water features and topography of Elizabeth Lake Creek are very typical for riparian areas in the Santa Clara Canyons Place. The roadway that parallels the stream and the power lines and OHV route that cross the stream are obvious intrusions. Scenic value is not considered to be outstandingly remarkable.

2. Recreation

Description: The upper segment of Elizabeth Lake Creek, downstream to the area near Prospect Campground, is classified roaded natural. Downstream from that point, to its impoundment in Castaic Lake, the stream is mostly semi-primitive motorized with some roaded natural on the west side of the corridor. Visitors are attracted to the creek because of easy access to the streambank from NFSR7N09 that parallels it for approximately 10 miles. The Pacific Crest Trail crosses the north end of the watershed. There are two developed campgrounds along the stream, Cottonwood and Prospect, each containing 22 sites. Recreation activities consist of riverside picnicking and dispersed water-play. A high power transmission line and a parallel OHV route cut across the drainage near the south end of the reach, in the proximity of Warm Springs Mountain. Most of the recreation visitors are from the local area. Commuters from the Lancaster area use the road for travel to the Los Angeles basin.

Determination: Recreation and interpretive opportunities for Elizabeth Lake Creek are limited and attract visitors from the local area only. Recreation value is considered to be locally important, but not outstandingly remarkable.

3. Geology

Description: Lake Hughes, upstream from Elizabeth Lake, is within the San Andreas fault zone. Drainage from the fault zone crosses over a shallow sill in the quartz diorite basement where the water enters into Elizabeth Lake Canyon. The stream below Elizabeth Lake enters the Kleine fault and follows it for eight miles. The stream flows on a small bed of alluvium deposited along the fault. It leaves the Kleine fault and crosses over the Clearwater fault where Warm Springs Canyon and Ruby Canyon enter the main stream. The southernmost three miles of Elizabeth Lake Creek flow in a canyon of resistant gneiss of Mesozoic age before it reaches Castaic Reservoir. The channel in this section has little alluvium.

Determination: Geologic value is typical for the Santa Clara Canyons Place and is not considered to be outstandingly remarkable for Elizabeth Lake Creek.

4. Fish and Wildlife

Description: There is potentially suitable habitat for the unarmored three-spine stickleback (federally listed endangered species) along the entire reach below Deer Canyon, although this fish is not known to occur here. There is suitable habitat for the arroyo chub (Forest Service Sensitive) in Elizabeth Lake Creek. This species has been observed in lower Warm Springs Canyon. This creek normally flows throughout the year, but generally will not support a recreational fishery.

There is historic habitat for mountain yellow-legged frog (federally listed endangered species) in Elizabeth Lake Canyon. There is also potentially suitable habitat for the California red-legged frog (federally listed threatened species), southwestern willow flycatcher (federally listed endangered species), and least Bell's vireo (federally listed endangered species) along all the reaches of this stream.

Determination: No significant wild stocks of threatened, endangered or sensitive species are known to exist in Elizabeth Lake Creek. Fishery values are of local significance, and therefore not considered outstandingly remarkable.

Wildlife values for Elizabeth Lake Creek are of local significance, and therefore not considered outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Elizabeth Lake Creek runs through an area that has significant Native American occupation sites. Major village sites have been reported in the area of Lake Hughes and in the area now occupied by Castaic Lake. Major Native American trails were located throughout the canyon, but the construction of Castaic Lake and subsequent transportation routes has minimized the evidence of these routes.

Determination: Although of local interest, cultural/pre-historic value for Elizabeth Lake Creek is not rare or unusual for the Santa Clara Canyons Place and is not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: At the time of historic contact, Elizabeth Lake Creek appears to have been occupied by the Tataviam people. The creek corridor has been used as a major travel route between Los Angeles and the high desert. Subsequent road construction, modern activities and flooding events have minimized the evidence of these routes within the creek corridor. A Civilian Conservation Corps camp, mines, and homestead patents are located within the canyon.

Determination: No event, person or activity of the past is unusual or noteworthy enough to be significant beyond the local level. Historic value is not considered to be outstandingly remarkable for Elizabeth Lake Creek.

7. Other (Botany)

Description: Elizabeth Lake Creek has no significant botanical values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, no outstandingly remarkable values exist for Elizabeth Lake Creek.

Classification

No segment of Elizabeth Lake Creek is eligible for classification as a wild, scenic, or recreational river because it is not free-flowing.

Little Rock Creek

Study Area Summary

Name of River: Little Rock Creek

Location: State of California, Los Angeles County, Angeles National Forest

The headwaters of the main stem of Little Rock Creek begin near Eagle’s Roost on the southwest slopes of Mount Williamson (NE ¼, NE ¼ Sec 12, T3N, R10W, SBBM) and flow northwesterly approximately 15.8 miles to the impoundment of Little Rock Reservoir (NE ¼, NW ¼, Sec. 3, T4N, R11W, SBBM). Cooper Canyon Creek is tributary to the upper reaches of Little Rock Creek. This short stream begins near State Highway 2 (SW ¼, NE ¼, Sec 16, T3N, R10W, SBBM) and continues downstream approximately 2.6 miles to its confluence with Little Rock Creek (SE ¼, NW ¼, Sec 11, T3N, R10W, SBBM. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1 Lower portion	15.8	15.8
2 Cooper Canyon Tributary	2.6	2.6

Studied: 18.4 miles

Eligible: 18.4 miles

Eligibility Inventory

Determination of Free flow:

Little Rock Creek is free flowing from the upper reaches of its watershed to Little Rock Reservoir. The Cooper Canyon segment flows freely from its headwaters near State Highway 2 to its confluence with Little Rock Creek. Flows are intermittent, except during extremely high rainfall years. The runoff from snowmelt can help extend stream flows in spring. Still, many sections of the stream will dry up at the end of summer. The drainage faces the Mojave side of the forest and receives occasional summer thunderstorms, which can drop significant rainfall in a short period of time.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The area from the headwaters of Little Rock Creek and Cooper Canyon Creek to FR 5N04, near the South Fork of Little Rock Creek, is generally undisturbed and in primitive condition. Steep slopes with sharp to rounded summits and small alpine valleys are the dominant landforms of this landscape. The upper elevations are forested and there are pockets of hardwood trees growing along the stream, including cottonwood and alder. Panoramic vistas of the desert landscape to the north are visible in the upper reaches of the stream. The canyon is very rugged, transitioning from mountains to desert. The higher reaches of the slopes are barren and show evidence of fractured rock and landslides. Cooper Canyon Falls, near the main stem of Little Rock Creek near the confluence with Cooper Canyon Creek, is a popular scenic attraction accessible by trail from the Angeles Crest Scenic Byway. The cultural landscape is generally semi-primitive and natural appearing.

The lower portion of Little Rock Creek functions as year-round, low elevation open space for Mojave Basin residents and serves as the backdrop for the Antelope Valley. Steep slopes with sharply rounded summits and narrow canyons characterize the northern aspect of the landscape. Little Rock Canyon is very steep, rocky and covered with large boulders. Vegetation types and water availability are affected in this desert interface by the rain-shadow from the San Gabriel Mountains. It is a transition zone from timber to high desert. Desert scrub and pines are the most dominant plant communities. At higher elevations, pines are present as scattered individuals or tight clumps. Pinyon and Joshua trees are present at the lowest elevations. Sycamore and cottonwood are present in the drainage and shaded side canyons. The cultural landscape is one of intensive human use and is most apparent in the developed and dispersed recreation facilities near the dam and reservoir.

Determination: The landforms, streams, and diversity of vegetation result in distinctive scenery. Although scenic value is high and natural appearing, especially in the upper reaches of Little Rock Creek and in Cooper Canyon Creek, it is primarily of local significance and therefore not outstandingly remarkable.

2. Recreation

Description: The demand for low elevation recreation opportunities along riparian areas for high-desert dwellers is intense. Visitors are attracted to the waters of Little Rock Creek and its tributary Cooper Canyon Creek. Most of the recreation visitors are locals, but some travel as much as two hours to this location. The heaviest recreational use occurs during the warm weather months from mid-spring to late fall. Below the study segment, Little Rock Reservoir offers a variety of recreation opportunities including camping, picnicking, and boating. At the north end of the study segment, adjacent to the creek, are two campgrounds, one picnic area and an off highway vehicle (OHV) trailhead that are distributed about 3/4 miles upstream from the reservoir. A majority of the watershed is currently closed between the Rocky Point Campground and Sulphur Springs. Prior to this closure, visitors were allowed to camp outside of developed areas. Parts of NFSR5N04 intertwine with a segment of the Back Country Discovery OHV Route that crosses Little Rock Creek in several locations. Approximately 5 miles of

NFSR5N04 parallels the creek in this lower portion between Little Rock Reservoir and the confluence with the South Fork of Little Rock Creek. There are no roads above this point. Activities that occur along the creek include fly-fishing, water play, bird watching and some equestrian use. In addition, Little Rock Creek is a rare, southern California Class IV-V whitewater kayak stream, when there is enough water. The Pacific Crest Trail (PCT) traverses the watershed between Cooper Canyon and Eagle's Roost. Cooper Canyon Falls is a popular site for picnickers walking in from the Angeles Crest Scenic Byway or from Cooper Canyon Camp. The falls are also a destination for hikers using Burkhart and Rattlesnake Trails, as well as the PCT. The recreation setting for Little Rock Creek is mostly semi-primitive motorized in the upper reach and roaded natural below the South Fork. Most of the area along the creek below the South Fork is under a five year Forest Closure Order to protect the arroyo toad. Some of the lower reach is closed by fence.

Determination: Recreation use of the corridor only occurs on the lower five miles where NFSR5N04 runs adjacent to the stream. The remainder of the corridor is temporarily closed to human uses. Little Rock Creek and its tributary Cooper Canyon Creek may have the potential to provide settings and recreational opportunities that will attract visitors in the future, but it is unlikely there would be enough attraction to prompt visitors to drive beyond the area of consideration to enjoy those river resources. Recreation values in the stream corridor are considered locally important, but not outstandingly remarkable.

3. Geology

Description: Basement geology is mainly composed of plutonic rocks at higher elevations. The basement there is leucocratic granite of Cretaceous age (Dibblee 1955). The basement at lower elevations is composed of Lowe granodiorite and a hornblende diorite of Triassic age. Sandy alluvial sediments derived from the granite basement are found along the main stem of Little Rock Creek starting ½ mile upstream of the junction with the South Fork and continuing downstream to the reservoir. Bedrock is granitic near Buckhorn Campground in the Cooper Canyon segment.

Determination: Geology of the Little Rock watershed is very common for the area; therefore, geologic values are not considered to be outstandingly remarkable for either segment.

4. Fish and Wildlife

Description: The partially armored stickleback (Forest Service Sensitive) occupies habitat within the lower reaches of Little Rock Creek. This species is native to the region. Portions of this stream have good quality habitat for this native fish, as well as rainbow and brown trout, which can be found in the mid to upper reaches of this stream. Cooper Canyon Creek is an intermittent stream and does not support fisheries, except near its confluence with Little Rock Creek.

The federally endangered arroyo toad occupies habitat from the South Fork of Little Rock Creek downstream to Joshua Tree Campground. The U.S. Fish and Wildlife Service designated the area from

the confluence with South Fork of Little Rock Creek to the forest boundary as critical habitat in February 2001. This designation was then retracted in 2002 due to a court-ordered mandate. The area is now being reevaluated for listing as critical habitat. The Little Rock arroyo toad population is one of three known populations on the Angeles National Forest, and one of only three populations found on desert slopes of the San Gabriel Mountains. The other two occur on the San Bernardino National Forest. The California red-legged frog, a federally listed threatened species, has potentially suitable habitat from upstream of the confluence with the South Fork of Little Rock Creek to Little Rock Reservoir. The mountain yellow-legged frog, a federally listed endangered species, occupies habitat in the upper reaches of Little Rock Creek near Mt. Williamson. This is one of six populations on the Angeles National Forest. The two-striped garter snake, a Forest Service Sensitive species, occupies habitat throughout this stream. The stream is considered to be a significant biological area on the forest and has regional significance due to the presence of the arroyo toad and mountain yellow-legged frog. The quality of the habitat and size of the populations is also significant. The Cooper Canyon segment is part of a significant biological zone for the mountain yellow-legged frog. Cooper Canyon Creek also provides habitat for the California spotted owl, which is a Forest Service Sensitive species.

Determination: Neither fish populations, nor habitat, are considered to be outstandingly remarkable for Little Rock Creek and Cooper Canyon Creek.

The presence of regionally important populations of indigenous wildlife including federally listed endangered species, along with the quality of the habitat and size of the populations for this part of southern California, indicates that the Little Rock/Cooper Canyon corridors contain outstandingly remarkable wildlife values.

5. Heritage resources (Cultural)

Description: Little Rock Creek and its tributary Cooper Canyon Creek run through an area that has extensive evidence of Native American use. A majority of the sites represent occupation or habitations sites while others represent specialized activities such as food processing areas. The major occupation occurred within the last two thousand years, and some of the earliest evidence of occupation (8,000 years before present) for the San Gabriel Mountains is documented within the watershed.

Determination: Cultural/pre-historic values for Little Rock Creek and its tributary Cooper Canyon Creek are not considered to be rare or unusual and are only of local significance, therefore not outstandingly remarkable.

6. Heritage resources (Historic)

Description: At the time of historic contact, Little Rock Creek appears to have been utilized by the Serrano people. During the historic period of 1850-1890, the most important activities along Little Rock Creek were mining, squatting/homesteading, transportation and stock grazing. Water distribution became a focus in the early twentieth century with the construction of the Little Rock Dam in 1923-

1924. Evidence of some of the work camps associated with the dam construction and historic trails are found within the corridor, while the dam structure itself is outside of the arroyo toad closure. Little Rock Dam, listed on the National Register of Historic Places, is important in the context of the National Forest's influence on water distribution in the development of local communities and agriculture. Prior to 1920, the upper Little Rock Creek watershed area was used principally for recreational game hunting. The heyday of hunting trips to Buckhorn Flats and Cooper Canyon vicinity lasted from about 1890 through World War I. Temporary hunting camps at Cooper Canyon and Buckhorn Flats were among the most remote in the range and considered particularly good for big game such as mule deer. The latter encampment was later renamed for Ike and Tom Cooper of San Gabriel who used the locality as a hunting base camp during the 1890s and later.

Determination: Historic values of Little Rock Creek and its tributary Cooper Canyon Creek are fairly typical of the area, and do not include sites or features associated with any important persons, activities or events of the past. Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Little Rock Creek and its tributary, Cooper Canyon Creek, have no significant botany values.

Determination: The reaches possess no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Fish and Wildlife

The entire reaches of Little Rock Creek and Cooper Canyon Creek studied for eligibility sustain indigenous wildlife populations including federally listed endangered species. These reaches are considered significant biological zones with regionally important wildlife habitat. Wildlife values are outstandingly remarkable.

Classification

The potential classification for the main fork of Little Rock Creek is Scenic while its tributary Cooper Canyon Creek is Recreational. Both streams have outstandingly remarkable wildlife values and are free of impoundments. Overall the stream courses are largely primitive and undeveloped, and present a natural appearance. The river corridor is readily accessible in its lower reaches by road. Although the road is conspicuous near the reservoir, it is largely inconspicuous for the rest of its distance to the South Fork. Human activity is not readily apparent upstream of the developed sites near the reservoir until the

uppermost stretch where the river corridor extends into a ski area with existing infrastructure. The ski area's development and substantial evidence of human activity is the basis for the recreational classification of Cooper Canyon Creek.

Piru Creek

Study Area Summary

Name of River: Piru Creek

Location: State of California, Ventura and Los Angeles County, Angeles National Forest (Segment 5)

The Angeles National Forest administers segment 5 while the Los Padres National Forest administers segments 1-4 and 6-7. Study mileage in the EIS tables is listed under the forest that administers the segment. However, for the convenience of the reader, the following report includes all river segments.

The study for Piru Creek includes the main stem from its origin downstream to the maximum pool of Pyramid Lake and from 300 feet below the dam at Pyramid Lake downstream to the maximum pool at Lake Piru. For the purposes of this study, Piru Creek has been divided into seven segments. Segments 1 through 4 are located referred to as upper Piru and segments 5 through 7 are referred to as lower Piru.

Upper Piru

Segment 1: Piru Creek is considered to be free flowing below a point in the Sespe Wilderness in the southwest corner of T6N, R22W, Sec 3. Segment 1 includes the main stem from its source within the Sespe Wilderness to the wilderness boundary along the eastern edge of T7N, R21W, Sec 31, SBBM.

Segment 2: From the Sespe Wilderness boundary to one-quarter mile below Gold Hill crossing (T7N, R19W, Sec 18, SBBM).

Segment 3: From one-quarter mile below Gold Hill crossing downstream to the Castaic Mine located on private land in T7N, R19W, Sec 22, SBBM.

Segment 4: Downstream from Castaic Mine to the maximum pool of Pyramid Lake.

Lower Piru

Segment 5: Starts 300 feet below Pyramid Lake Dam and continues downstream to the Sespe Wilderness boundary in southwest corner of T6N, R18 W, Sec 14, SBBM.

Segment 6: Starts at the Sespe Wilderness boundary and ends where Piru Creek leaves the Sespe Wilderness in T5N, R18N, Sec 4, SBBM.

Segment 7: Starts at the Sespe Wilderness boundary and continues downstream to the maximum pool of Lake Piru.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	5.8	5.8
2	20.4	20.4
3	4.7	4.7
4	7.6	7.6
5	3.7	3.7
6	12.7	12.7
7	2.4	2.4

Studied: 57.3 miles (3.7 on Angeles National Forest)

Eligible: 57.3 miles (3.7 on Angeles National Forest)

Eligibility Inventory

Free-flow Determination:

There are no impoundments.

Dams at Pyramid Lake and Lake Piru impound Piru Creek. California Department of Water Resources controls releases from Pyramid Lake. In the 1990's, sporadic releases were made that caused radical, rapid fluctuations in water levels. Complaints were lodged from numerous river users caught unaware of the sudden water level changes. The releases have been somewhat tempered lately. The reason is not certain, but it may be due to the complaints and to wildlife values downstream that depend on flows more closely mimicking natural flow regimes prior to the installation of the impoundments.

As stated on page 15 of the Q&A Section of the Wild and Scenic River Reference Guide, "...any section of river with flowing water meets the technical definition of free flowing, even if impounded upstream." Thus, segments 5, 6, and 7 are considered free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Approximately 80% of Piru Creek is scenic attractiveness class "A" landscape, within the

Southwest Mountain and Valley Character type. It is distinctive not only because of the presence of water, but also because of the mix of landform, color and vegetation that offer a variety that is distinctive.

Upper Piru Creek

The headwaters of Piru Creek show little presence of water. The character is one of openness with great color contrasts of buff and white against the deep greens of tall pines. Near Thorn Meadows, there is a sense of enclosure as the land flattens and human encounters are more prevalent in the intermittent pools. Piles of rocks in a forested setting are mixed with the pools. The creek moves through narrow and broader spaces among the vertical trees and creates a remarkable setting.

From Lockwood Flat, the river proceeds through a canyon gorge that is very rocky and has steep slopes with sparse vegetation on the south slopes. The distinct riparian zone is nearly 100 feet wide as Piru Creek is seasonally fast moving and turbulent as canyon wall springs add water to the flow. The creek then widens out as it approaches the Goldhill area.

After Goldhill, the canyon again tightens to only 50 to 60 feet wide. The flow proceeds over steeper landscapes with many boulders and sharp rock outcrops. Although the vegetation is sparse, the chaparral clings to the canyon walls and the horizontal lines of the bluffs and dramatic whites and buff colors are dominant. Beyond Snowy Creek, the creek twists and turns and creates a sense of coming out of the mountains as it enters a landscape more typical of the character type. This landscape only serves as a contrast to the drama of the other sections.

At Buck Creek, Piru Creek enters a new gorge creating strong enclosure within the steep walls. The rich colors of the riparian vegetation have openings to views of chaparral covered and barren slopes. Soils and rock outcrops turn brick red, creating contrasts with the perennial water and the sounds moving quickly past large boulders and moisture in the air as the creek flows into Pyramid Lake.

Lower Piru Creek

Below Pyramid Lake, the vegetation is less dramatic, and the river has many twists and turns. At Ruby Canyon, there are rock outcrops, steep slopes, and strong side canyon drainages. The riparian vegetation is less dramatic with limited variation as the creek widens and straightens out its course. Views are of a savannah, chaparral landscape.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description:

Upper Piru Creek

The upper portion of Piru Creek above Pyramid Lake offers visitors from southern California a chance to recreate in and around a stream corridor with a year-round stream. Visitors are allowed access into a variety of settings including steep canyon walls as well as open stretches with panoramic views of the creek and surrounding countryside. Access varies from hiking and horseback to off highway vehicle routes and forest development roads. There are a variety of camping opportunities along the stream channel.

Segment 1: The headwaters of Piru Creek lie within the Sespe Wilderness. Within the Wilderness, there exists the opportunity for hiking and horseback riding along trails, which parallel and cross portions of both the main stem and the South Fork of Piru Creek. Several small campgrounds (1 to 4 units) as well as the opportunity for general forest camping are available. There are opportunities for solitude along the stream; however, spring and early summer weekends often find popular areas such as the Fishbowls mildly congested with users who have come to fish or just soak in the pools.

Segment 2: The section between Thorn Meadows and Halfmoon Campground has a graded dirt road paralleling and crossing the creek with the road rarely being more than 200 yards distant. This portion sees moderate to heavy use from users driving for pleasure or using the road to link off highway vehicle routes in the area. This portion is popular with woodcutters in the summer and fall, and with hunters during the fall deer season.

Between Halfmoon and Goldhill Campgrounds, the stream corridor is utilized primarily by off highway vehicle users along the Piru Off Highway Vehicle Route. The first three miles downstream from Halfmoon Campground is open to motorized vehicles. From that point downstream, the route is open only to motorcycles. Most of the use is day use; however, some users take the opportunity to camp along this section. This area also sees some hunters during the deer season. The off highway vehicle route along the stream corridor provides an unusual experience for users since portions of the route are within the stream channel. This provides a challenging and different experience than is not readily available in southern California.

The Goldhill area is a popular camping area and day use destination. An improved road accesses the area and crosses Piru Creek as it continues on to Alamo Mountain. In addition to camping, many visitors use Goldhill as a staging area for off highway vehicle rides on routes in the surrounding area and use the opportunity to soak in the creek.

Segment 3: From Goldhill to Snowy Off Highway Vehicle Routes, access for the general public is only available by scrambling cross-country or often down the stream itself. The occasional hunter, fisherman and adventurous hiker can find solitude and a landscape showing little evidence of man's presence. The private landowner has a four-wheel drive access road to the Castaic Mine, which is in this segment of the creek.

Segment 4: The junction of Snowy Off Highway Vehicle Route and Piru Creek provides motorcyclists an opportunity to cool down either before or after they have traversed one of the more difficult motorcycle routes on the Mount Pinos District. This challenging route is well known throughout the southern California off highway vehicle community.

Between Snowy Crossing and Hardluck Campground, access is once again limited to the hiker scrambling down the stream channel. The opportunities for solitude exist; however, this segment lacks the spectacular scenery of the gorge below Goldhill.

Hardluck Campground is accessed by an improved road and provides 24 campsites on the stream terrace above Piru Creek. The campsites on the stream terrace above Piru Creek are popular. The area has been popular with recreationists for the water play opportunities. Presently there is a seasonal access and public use Forest Closure Order in and around Hardluck Campground for preventing adverse impacts to the arroyo toad (*Bufo californicus*), an endangered species. The area also receives moderate hunting use during deer season. Hardluck Campground serves as a trailhead to access the Buck Creek area of the Sespe Wilderness. An old roadbed serves as the trail along Piru Creek to the junction of Buck Creek where Forest Trail 18W01 begins climbing along Buck Creek and on into the Wilderness where it is closed to motorized access by the general public.

Below Buck Creek, there is an opportunity to scramble along the creek through another gorge. Solitude is once again available; however, as you approach Pyramid Lake, the chance of meeting boaters on a short hike up Piru Creek increases.

Lower Piru Creek

Segment 5: Below Pyramid Lake, Piru Creek has intensive amounts of recreation use. On a typical summer weekend, several thousand users will converge on a one-mile stretch through Frenchman's Flat, mostly for picnicking and water play. There are also five dispersed campsites. Anglers try to catch rainbow trout that are stocked there as part of a catch and release program. Although the area is popular, most users tend to be from the local area (Los Angeles and Orange Counties), demonstrating that its popularity is not well known within the region or beyond. While actual use statistics are not available, an estimated 90% of all users of this creek are from this local area. The remaining 10% (in order of importance) come from various areas within California, other states, and even other countries. Visitors are not willing to travel long distances to use the river resources for recreational purposes.

Segment 6: Piru Creek offers primitive recreation opportunities within the Sespe Wilderness. There are no trails to allow access to this segment. Due to this factor, use is fairly light, as users must rock-hop up or down the stream inside a steep, narrow canyon. The result is a high degree of solitude and self-reliance. Fishing is the main attraction to many users; others come for the natural setting and to hike.

Segment 7: Downstream from the Sespe Wilderness to Lake Piru, the corridor contains dirt roads, several parcels of private property, and Blue Point Campground. Blue Point Campground is currently

closed due to wildlife concerns. The campground offered 43 units and was a popular destination due to its streamside location and proximity to Los Angeles. Due to the closure, the campground and adjacent Piru Creek are deserted except for an occasional angler or hiker trekking through to go upstream.

Determination: Above Pyramid Lake, the opportunity to recreate in and along a year-round stream is a limited opportunity in Southern California and is considered to be outstandingly remarkable. The segment of Piru Creek from Halfmoon to Goldhill is unique in that it provides opportunities for off highway vehicles in and adjacent to the stream channel. The section between the Goldhill and Snowy Off Highway Vehicle Routes, especially above Castaic Mine, provides an outstanding opportunity for solitude in a very scenic gorge. The opportunity for panning and sluicing at Hardluck and Goldhill Crossings is something that is not readily available to southern Californians.

The recreation values between Pyramid Lake and Lake Piru are not considered to be outstandingly remarkable, particularly in comparison with similar recreation attributes found within Sespe Creek.

3. Geology

Description: The east-west trending Transverse Ranges include California's highest peaks south of the central Sierra Nevada and the only Precambrian rocks in the coastal mountains of the United States. The Transverse Ranges are a unique geomorphic, stratigraphic, petrologic, and structural belt 400 km long and 100 km wide that is offset by a few tens of kilometers right laterally by the northwest trending San Andreas fault system. The prominent east-west trend of the Transverse Ranges is unique among the rest of the northwest-southeast trending coastal ranges in California. It has been proposed that they have rotated significantly from their original position. Along the entire mapped length of the San Andreas Fault Zone, from northern California to Mexico, no other such diverse belt of rocks, structure, and geomorphology similar to the Transverse Range Province crosses the zone. In addition, despite their comparatively small area, the Transverse Ranges seem to incorporate a greater spectrum of rock types and structure than any other province in the state. The Transverse Ranges may be the result of compressional forces along the Big Bend in the San Andreas Fault that itself is a unique geologic feature in North America if not the world.

Upper Piru Creek

Piru Creek first flows through Tertiary sedimentary rocks (Matilija Sandstone and Juncal Formation interbedded sandstones and shales) from its headwaters to near Halfmoon Campground. From Halfmoon Campground to Buck Creek, the creek flows northeast through Precambrian basement rocks of granite and gneiss. From about the junction with Smith Fork, Tertiary sedimentary rocks form one or both sides of the creek down to Pyramid Lake. From Lockwood Flat to just west of Gold Hill, a thrust fault juxtaposes Precambrian rocks (gneiss and augen gneiss) over Tertiary rocks (Hungry Valley Formation – terrestrial sandstones) on the north side of the creek. From Smith Fork to Buck Creek, Piru Creek is aligned with the San Gabriel Fault. As Upper Piru Creek passes through alternately erosive and resistant rock types, the result is a distinct variation in landforms ranging from broad alluvial sub-basins

to rugged gorges with steep rock cliffs and exposures. This variation adds to the scenic quality and geologic interest. Piru Creek Gorge cuts through a unique outcropping of the “Violin Breccia”, a geologically significant recreational-educational resource.

Following is an excerpt from the environmental Impact Survey Report for the Piru Creek Project, a study in 1972 evaluating a proposed new dam in Piru Creek, one mile above Pyramid Reservoir:

“Perhaps one of the most critical considerations regarding the geology of the gorge is its uniqueness. The Violin Breccia has a stratigraphic thickness of 27,000 feet. The entire stratigraphic thickness of the Ridge Basin group, of which the Violin Breccia is a unit, is about 33,000 feet, one of the thickest known sections of upper Miocene and Pliocene rocks in the world (Crowell, 1953). The Violin Breccia represents a short steep alluvial fan deposit of incredible thickness, accumulated at the toe of the rising San Gabriel Fault Block.

“There is no other formation in the western United States exhibiting this extreme thickness, yet covering such a small area. The exposure in the Piru Gorge is even more unique in providing a section, as it were, right through the center of the formation. Add to this the interesting arch formation, and springline, plus the overall scenic effect, and here is an area rivaling many National Parks and monuments in both uniqueness and beauty...it is the features of this gorge which provide much of the recreational value here...” Also unique is the anomalous course of upper Piru Creek which flows southeast across many structural trends and against the predominant northwest dip of the rocks.

Piru Creek is an historic mining district and was a popular location in southern California for panning sluicing, and dredging for gold. The creek is closed to dredging by the California Department of Fish and Game. The Castaic Mine is a patented mining claim that was developed for gold. Placer mining along Piru Creek began in 1841 by Andrew Castillero and gold from the district was shipped to the U.S. Mint in Philadelphia in 1842. Small-scale placer mining continued intermittently through the 1880’s and there was some work again in the 1920’s and 1930’s. Among lode gold mines, the principal operation was the Castaic mine, which had an estimated output valued at \$160,000. The placer deposits are in and adjacent to the upper part of Piru Creek, chiefly in the vicinity of its junction with Lockwood Creek and to the east of Gold Hill. Based on the amount of exploration, which has taken place in the area over the last 150 years, and recent assessments of gold potential; it is not likely that an economic mining operation could be conducted on Piru Creek, although there is still interest in panning and sluicing from a recreational standpoint.

Lower Piru Creek

Piru Creek, below Pyramid Reservoir, flows through scenic tilted layers of sedimentary rocks of the Ridge Basin Group, an inter-montane basin exposing the interrelationships of tectonics and sedimentation, and often the subject of geology field trips by academic and casual interest groups. It then turns back to the west and crosses the San Gabriel Fault zone into Precambrian gneiss (metamorphic) and Mesozoic to Precambrian granitic (igneous) and gneissic rocks, then turns south and

crosses the Pine Mountain Fault into a thick sequence of Tertiary marine and non-marine sedimentary rocks. Piru Creek winds its way through tight bends in 1500 to 2000 ft. deep canyons, displaying active debris slides on canyon walls and deep pools and carved granitic boulders in its upper reaches. In the lower half, the creek cuts gentler curves in shales, sandstones and conglomerates, and exhibits broadly folded and steeply dipping (some overturned) sedimentary rock types, fault contacts, and numerous massive old landslides near the creek and up side canyons. The most spectacular is a bedding plane landslide up Agua Blanca Creek at Devils Potrero, covering almost a square mile, which blocked a drainage to form the closed basin called The Pothole, just above the scenic Devil's Gateway. Fossils are common in some of the marine sedimentary rocks.

The San Gabriel and other nearby faults are interpreted by Dr. John C. Crowell, Professor Emeritus of the University of California, as strands of the San Andreas Fault system within this splintery boundary region between two giant tectonic plates, the North American Plate to the northeast and the Pacific Plate to the west. Where the San Gabriel Fault crosses lower Piru Creek, it separates 4 to 5 million year old (young) terrestrial sedimentary rocks from +/- 600 million year old Precambrian metamorphosed gneiss, exposing a dramatic change in rock type and geomorphic form. Further downstream, Piru Creek flows through progressively younger igneous and sedimentary rocks that have been carved into spectacular gorges and exposures.

Some of the first gold discovered in California, as well as oil and gas developments, occurred in tributaries of the lower reaches of Piru Creek. Some of the Miocene age strata along the lower portion of Piru Creek are productive in oil fields to the south. Granitic rock from Whitaker Peak provides much of the gravel and boulders in Piru Creek.

Determination:

Upper Piru Creek

The basement rocks that outcrop along Piru Creek from Halfmoon Campground to Buck Creek are considered to be outstandingly remarkable. These rocks are banded gneisses and migmatites. Geologically these rocks are important because exposures of basement rocks provide important clues to this less well-understood portion of North America's tectonic history.

The sedimentary rocks of the Ridge Basin group, which outcrop from Smith Fork to Pyramid Lake, are considered to be outstandingly remarkable. Along Piru Creek, both Peace Valley and Hungry Valley formations outcrop in low cliffs. These rocks include conglomerates with cobbles of the basement rocks and are important to the study of the development of the Ridge Basin that coincided with movement on the San Gabriel Fault. These rocks provide critical information about the tectonic history of the unique Transverse Ranges.

The San Gabriel Fault is one of several important structural features in southern California. From Smith Fork to Buck Creek, it follows Piru Creek and splinters into two sections that form a sliver of Tertiary

rocks. This feature may provide important information regarding the history of movement along this fault and is considered to be outstandingly remarkable.

Lower Piru Creek

The basement rocks that outcrop in the upper portion of Lower Piru Creek are considered to be outstandingly remarkable. These rocks are gneisses and migmatites that are banded and form scenic outcrops and boulders along and in the creek. Geologically these rocks are important because exposures of basement rocks provide important clues to this less well-understood portion of North America's tectonic history.

The sedimentary rocks found in lower Piru Creek display a thick sequence of sedimentary rocks covering a long span of the Tertiary Period, from the Eocene through the Holocene Epochs. These rocks include both marine and terrestrial sediments and are important to the study of the development of the Ridge Basin that coincided with movement on the San Gabriel Fault. These rocks provide critical information about the movement history of the unique Transverse Ranges and are considered to be outstandingly remarkable.

The active San Gabriel Fault is one of several important structural features greatly influencing the geologic exposures and geomorphic landforms in southern California and is considered to be outstandingly remarkable.

4. Fish and Wildlife

Description:

Upper Piru Creek

Piru Creek has current, historic, and potential populations of threatened, endangered and sensitive species in the riparian corridor from Fish Bowl Campground to Pyramid Lake. Wildlife observations in the watershed of Upper Piru Creek include three federally endangered species: arroyo toad (*Bufo californicus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and California condor (*Gymnogyps californianus*). Also, Forest Service designated sensitive species were also observed: Northern goshawk (*Accipiter gentilis*), California spotted owl (*Strix occidentalis occidentalis*), willow flycatcher (*Empidonax traillii*), and southwestern pond turtle (*Clemmys marmorata pallida*).

Piru Creek has about 4.5 miles of critical habitat for arroyo toads in those sections that are below 3600 feet in elevation.

The southwestern form of willow flycatcher is a federally endangered subspecies, the northern subspecies of willow flycatcher is considered a Forest Service sensitive and a California endangered species. Critical habitat for southwestern willow flycatcher was designated in 1997; however, pending

settlement of a lawsuit, the designation may be revoked during 2002. Suitable habitat was documented in Upper Piru Creek. In 2001, occupancy surveys in Upper Piru noted three southwestern willow flycatchers during the breeding season and two presumed migratory northern willow flycatchers.

Upper Piru Creek is within the Critical Habitat boundaries for California condor. Historic nest sites are located near Hardluck Campground.

Northern goshawks were observed nesting in 2000 and were also observed in 2001 in the vicinity of Half Moon Campground. Surveyors found California spotted owls in Piru Creek and Buck Creek. In general, surveyors found spotted owls in riparian zones within mixed-conifer forests. The two-striped garter snake and southwestern pond turtle have been observed along upper Piru Creek and Lockwood Creek where they are considered somewhat common.

The low water crossing near Hardluck Campground has recently been improved; however, since its initial construction the crossing has acted as a barrier to upstream movement of exotic fish such as brown trout, green sunfish and small-mouth bass. These exotics can be quite predatory or otherwise detrimental to native aquatic and semi-aquatic wildlife, especially fish and amphibians. The native amphibian fauna above the crossing include California and pacific chorus frogs and western and arroyo toads. The latter is a federally endangered species. As such, that section of Piru Creek above Hardluck Crossing can be considered a refugium for native aquatic and semi-aquatic wildlife species.

Lower Piru Creek

Lower Piru Creek contains suitable habitat for several designated threatened, endangered, and sensitive wildlife species. Wildlife observations in the watershed of lower Piru Creek include the federally threatened California red-legged frogs, *Rana aurora draytonji*, and three federally endangered species: arroyo toad, *Bufo californicus*; least Bell's vireo, *Vireo bellii pusillus*; and California condor, *Gymnogyps californianus*. Also, Forest Service sensitive species were also observed: two striped garter snake, *Thamnophis hamondi*, and southwestern pond turtle, *Clemmys marmorata pallida*. Native fish species such as the rainbow trout and the arroyo chub also inhabit the Lower Piru.

Piru Gorge is relatively narrow with steep canyon walls bordering either side of the creek. The narrow riparian habitat corridor consists mostly of scattered stands of valley oak and sycamore with thickets of arroyo willow and mulefat bordering the stream margins.

Pyramid Dam has modified lower Piru Creek itself and consequential water releases from Pyramid to Lake Piru. The natural dynamics of stream flow and sediment transport within the channel have been modified significantly. Natural stream flows that historically dried out in late summer have been replaced by a year-round artificial flow created by water releases from Pyramid. Not only have the water releases sustained a year-round flow, but have also introduced several non-native species from the state water project to the detriment of native species. Non-native species include but are not limited to bullfrog, small and large-mouth bass, black bullhead and green sunfish.

Remnant populations of arroyo toad occur in lower Piru Creek. Cattle grazing on private lands, recreation, and the introduction of exotic fish and bullfrogs from Lake Piru and Lake Pyramid are currently affecting these populations. The populations of arroyo toad have declined since the mid-1990's. Most of the arroyo toad observations have been in the lower half of the drainage. Most of the impacts to toads occur on the lower three miles of stream.

Lower Piru Creek contains critical habitat for the federally endangered California condor including several historic roost and nest sites. Least Bell's vireo habitat exists within the drainage. Potential habitat is found for the peregrine falcon, *Falco peregrinus anatum* (Forest Service sensitive).

Recent surveys suggest the California red-legged frog has been extirpated from the main stem of Piru Creek.

Determination: The segment above Hardluck Crossing is unique in that it acts as a refugium for native California amphibians and other native aquatic and semi-aquatic species that may occur. This assemblage of native species includes the endangered arroyo toad as well as several Forest Service sensitive species. This attribute can be considered an outstanding and remarkable value of the segment, especially since other such areas are extremely rare on the Forest and in southern California in general.

The population of arroyo toads in the Blue Point area and potential habitat areas for least Bell's vireo and southwestern willow flycatcher near Lake Piru are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components, particularly with those in other eligible Wild and Scenic Rivers (upper Piru Creek, Sespe, Indian, and Mono).

5. Heritage resources (Cultural)

Description: Sizeable portions of the Piru Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is good with many sites known. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade documenting contact between the inhabitants of the corridor and other groups as well as the everyday life of the Native American inhabitants of the corridor. Sites in the area attest to the use of the area by the Chumash. What is unique is the abundance of time-sensitive artifacts that offer information on the land-use patterns and how they evolved over time. The abundance of such material in the Upper Piru Creek segments (Segments 1-4) is unique and as such, has the potential for national or regional importance for interpreting prehistory. The sites and features recorded within the lower corridor segments (Segments 5-7) are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are considered to be outstandingly remarkable for Segments 1-4 but are not considered outstandingly remarkable for Segments 5-7.

6. Heritage resources (Historic)

Description: Portions of the Piru Creek corridor have been surveyed for heritage resources. The knowledge of the span and complexity of historic use of the corridor is good and many sites are known to be located within the corridor. There are multiple known resources that are associated with mining activities, which addressed together as a whole, would probably merit significance at the local level. Without further research, the sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The botanical resources of Piru Creek are fairly well known due to the creek's proximity to roads and trails and the inclusion of the study corridor in other project analyses; however, no systematic effort has been made to inventory the botanical resources found in the study corridor. There are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Piru Creek. There are a number of occurrences of sensitive plant species in the Piru Creek watershed but these populations all occur more than one-half mile from the creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Recreation

The upper portion of Piru Creek provides an outstandingly remarkable opportunity to recreate in and along a year-round stream.

Geology

The faults, folds and rock formations along Piru Creek include important features crucial to the understanding of the very complex structural and geomorphic evolution of the west coast of North America. Along both the upper and lower portions of Piru Creek, exposures of the oldest basement rocks in the coastal mountains of the western U.S, composed of gneisses and migmatites, as well as sedimentary rocks of the Ridge Basin Group, and structural features of the San Gabriel Fault are considered to be outstandingly remarkable.

Wildlife

In the upper portion of Piru Creek, the protected aquatic habitats above the Hardluck Crossing and the

population of arroyo toads at Hardluck Crossing are considered to be outstandingly remarkable.

Cultural

The scientific and interpretive values offered by several of the prehistoric/ethnographic sites constitute outstandingly remarkable values in the upper segments of Piru Creek.

Potential Classification

Table 441. Piru Creek - Potential Classification by River Segment

	Segment 1	Segment 2	Segment 3	Segment 4
WILD RIVER				
Free of impoundments	Yes	Yes	Yes	Yes
Generally inaccessible except by trail	Yes	No	Yes	No
Watersheds or shorelines essentially primitive	Yes	No	Yes	No
Waters unpolluted	Yes	Yes	Yes	Yes
SCENIC RIVER				
Free of impoundments		Yes		Yes
Accessible in places by roads		Yes		Yes
Watershed largely primitive and undeveloped		Yes		Yes
RECREATIONAL RIVER				
Some impoundments or diversions in past				
Readily accessible by road or railroad				
Some development along shoreline				
Eligibility Status	Wild	Scenic	Wild	Scenic

San Francisquito Creek

Study Area Summary

Name of River: San Francisquito Creek

Location: State of California, Los Angeles County, Angeles National Forest

The upper segment of San Francisquito Creek begins in Green Valley, just south of Andrade Corner (NE 1/4, NW 1/4, Section 13, T6N, R15W, SBBM) at the forest boundary and flows southwesterly to the site of the St. Francis Dam disaster (NE 1/4, SW 1/4, Sec 1, T5N, R16W, SBBM).

The lower segment of San Francisquito Creek begins at the site of the St. Francis Dam disaster (NE 1/4, SW 1/4, Sec 1, T5N, R16W, SBBM) and ends in Seco Canyon at the forest boundary (SE 1/4, NE 1/4, Sec 22, T5N, R16W, SBBM). See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	8.4	8.4
2	4.6	4.6

Studied: 13.0 miles

Eligible: 13.0 miles

Eligibility Inventory

Determination of Free flow:

Although heavily influenced by water improvements, San Francisquito Creek is a free-flowing stream with sufficient flow to support the river’s fish values. The community of Green Valley in the upper area is totally dependent on wells and as result they have lowered the ground water to the extent that any springs that may have supported pools in the creek are gone. Small volumes of water are released near Powerhouse 1 and enter San Francisquito Creek, which supports flows in the creek. The flow of the creek at the St. Francis Dam site is most likely the result of the old dam’s foundations forcing underground flow to the surface. Without the foundations, the creek would probably go dry during the

summer in dry years. At Powerhouse 2, there is a small check dam at which water can be removed from San Francisquito Creek. At Drink Water Canyon, water is released from the aqueduct for ground water recharge, supporting a small flow out of the canyon.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: San Francisquito Canyon Road runs parallel with the stream and is visible from the stream most of its length. The canyon bottom has high quality riparian and aquatic habitats with pockets of hardwood and chaparral vegetation. Canyon and coast live oaks are present in dense woodlands along the shaded slopes of the canyon. Chaparral-covered hills dominate the surrounding mountains and foothills. Several power lines and off highway vehicle (OHV) routes run parallel to and cut across the drainage in several places. California Water Project pipelines cross the stream near Powerhouse 1.

Determination: The landforms and vegetation surrounding San Francisquito Creek are typical of riparian corridors in the Santa Clara Canyons Place. The water diversion features, as well as, the road, transmission lines and OHV routes that parallel the stream are highly intrusive and render the scenic value not outstandingly remarkable for either segment.

2. Recreation

Description: The recreation setting for San Francisquito Creek is rural from the headwaters to about Bee Canyon. Downstream, it is a combination of roaded natural, rural and some semi-primitive motorized on the lower western side of the drainage. No developed recreation facilities are in the stream corridor, however, there is a managed shooting range (A Place to Shoot) near where NFSR 5N27 intersects San Francisquito Road. Commuters use the San Francisquito Road to travel from Lancaster to Los Angeles. The St. Francis State Historic Landmark marks the site of the St. Francis Dam disaster. Historic interpretive opportunities are exceptional and have the potential to attract visitors to the site for its engineering, historic and hydrological significance. The Pacific Crest Trail traverses the upper part of the watershed. Recreationists from nearby OHV routes use turnouts along the stream for parking and streamside activities.

Determination: Residents of the Antelope Valley are the primary users of the recreation opportunities in San Francisquito Canyon. Interpretive opportunities for the St. Francis Dam have the potential to attract a far wider audience, but no facilities exist now. Recreation values for the canyon are not considered outstandingly remarkable.

3. Geology

Description: The basement under the San Francisquito watershed is of three lithologies. The northernmost part of the watershed is underlain by quartz diorite and gneiss of Mesozoic age. Basement

under the central area is composed of sandstones and conglomerates of the Paleocene Vasquez Formation. The Pelona schist of Mesozoic age forms the basement in the southern area. The different basement lithologies are separated from each other by major faults. The Clearwater Fault, which runs east and west from Bouquet Reservoir, separates the northern quartz diorite and gneiss from the sandstones and conglomerates of the Vasquez Formation. The Clearwater Fault controls the drainages of Clearwater Creek and Cherry Creek. The San Francisquito Fault runs southwest from Bouquet Reservoir, and separates the Vasquez formation from the Pelona Schist. Bee Creek and the lower sections of San Francisquito Creek follow the San Francisquito Fault. Geology students from campuses of the California State College and University system, and regional community colleges come to study geologic phenomenon related to the San Francisquito Dam disaster in the early part of the 20th century.

Determination: Within the State of California, the geologic values associated with San Francisquito Creek are considered to be exemplary as evidenced by the number of tourists and students who come to view and study the land processes related to the canyon. It has become a textbook example for its combination of history and tectonics and is consequently an area that is geologically outstandingly remarkable.

4. Fish and Wildlife

Description: The unarmored three-spine stickleback (UTS), a federally listed endangered species, occupies habitat along the entire reach downstream from Powerhouse 1, and the entire reach below Green Valley is potentially suitable habitat. Historically widespread and abundant in the Los Angeles Basin, it is now restricted to three areas in the upper Santa Clara River watershed including this portion of upper San Francisquito Canyon. Current management includes arrundo removal to increase available surface water and improve habitat. The Santa Ana sucker, a federally threatened species, was recently observed in an unnamed tributary to San Francisquito Creek. The lower portion of the upper segment and upper section of the lower segment of San Francisquito Creek are part of a critical biological unit, providing habitat for several threatened and endangered fish species.

The southwestern pond turtle (Forest Service Sensitive) occupies habitat along the entire stream. There is potentially suitable habitat for the federally listed endangered arroyo toad along the entire stream reach excluding the vicinity of Powerhouse 1. A recent court decision rescinded the critical habitat designation for arroyo toad and California red-legged frog in the study area; reconsideration is underway. The federally listed threatened California red-legged frog occupies habitat 400 meters above and 400 meters below the St. Francis Dam location and there is potentially suitable habitat scattered along the other reaches. This is the largest and most significant California red-legged frog population south of Ventura County. Prior to the Cooper Fire, which burned a majority of the watershed in May 2002, suitable habitat existed for the southwestern willow flycatcher (federally listed endangered species) and least Bell's vireo (federally listed endangered species) near the old St. Francis Dam site. This habitat is expected to recover in seven to ten years.

Determination: A part of both upper and lower segments are part of a critical biological unit, providing

habitat for several threatened and endangered fish species. Based on the biological significance of the habitat and the rarity of the UTS presence in this creek, fish values are considered to be outstandingly remarkable.

The California red-legged frog population in San Francisquito Creek is the largest population south of Ventura County and has regional significance. Due to development and other human-induced impacts, this population may become the only remaining occurrence south of Ventura County. Both wildlife and fish values are considered outstandingly remarkable.

5. Heritage resources (Cultural)

Description: All of San Francisquito Creek runs through an area that has Native American occupation sites. Major Native American trails were located throughout the creek corridor but flood events and subsequent transportation routes have minimized the evidence of these routes.

Determination: The cultural/prehistoric values present are not considered rare or unusual for the Santa Clara Canyons Place and are only locally significant. Cultural and prehistoric values are not considered to be outstandingly remarkable for either segment.

6. Heritage resources (Historic)

Description: At the time of historic contact, the entire study area of San Francisquito Creek appears to have been occupied by the Tataviam people. It was utilized as a major travel route between Los Angeles and the high desert. Subsequent road construction, modern activities and flooding events have minimized the evidence of these routes within the creek corridor, although some portions of the Butterfield Stage Route are still visible and accessible.

In the segment below the site of St. Francis Dam, the Los Angeles Aqueduct and associated features are visible from the creek corridor. A State Historic Landmark marks the location of a major disaster. In 1928, the dam burst and resulted in the most loss of life in the state except for the fire that followed the San Francisco Earthquake of 1906. Attention has been focused on the area because of William Mulholland's role in the development of the dam and the eventual expansion of Los Angeles from a small city to the largest city in the USA. The catastrophe of 1928, the water development, and the importance of Mulholland all play critical roles in the creation of the Los Angeles Urban Area. The movie "Chinatown" draws a fictional characterization of Mulholland from real-life events, but has made the story accessible to many people from all parts of the world. Mines and homestead features are also located within the creek corridor.

Determination: No significant persons, events, or activities are associated with the upper segment of the canyon, so historic value for that portion is not considered to be outstandingly remarkable.

In the lower segment, the catastrophic event, the water development and the significance of William

Mulholland, are exemplary and unique historic values, both regionally and nationally. There is a unique opportunity to interpret the history and geology of San Francisquito Canyon. Historic values are considered to be outstandingly remarkable in the lower segment of the creek.

7. Other (Botany)

Description: San Francisquito Creek has no significant botany values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Geology

The basement of the San Francisquito watershed consists of three lithologies. Geology students from universities around the State come to this canyon to study the geologic phenomenon of these lithologies and their relationship to the St. Francis Dam disaster. The geologic values of this creek are outstandingly remarkable.

Fish and Wildlife

Both reaches of San Francisquito Creek studied for eligibility sustain indigenous wildlife populations including federally listed threatened and endangered species. These reaches are considered regionally important fish and wildlife habitat with outstandingly remarkable values.

Heritage Resources (Historic)

The lower segment of San Francisquito Creek includes a State Historic Landmark commemorating the 1928 St. Francis Dam disaster. William Mulholland played a critical role in the development of the dam and the eventual expansion of the City of Los Angeles. Mulholland is considered a regionally and nationally significant person, and the chain of events and activities that took place in this reach of San Francisquito Creek contributes to the outstandingly remarkable historic values in the corridor.

Classification

The potential classification of the entire 13.0 miles of San Francisquito Creek studied is Recreational. The stream has outstandingly remarkable fish and wildlife values in both reaches, outstandingly remarkable geologic and historic values in the lower reach, and is free of impoundments in both reaches.

Both reaches of the stream are readily accessible by San Francisquito Canyon Road, which is visible from the stream for most of its length. In addition, several powerlines and OHV routes run parallel to and cross the drainage in several places.

Eligibility Inventory	Study Area Summary
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San Antonio Creek

Study Area Summary

Name of River: San Antonio Creek

Location: State of California, Los Angeles and San Bernardino Counties, Angeles National Forest

The upper segment of San Antonio Creek begins at the headwaters of the stream located approximately 1 mile above San Antonio Falls in the San Bernardino National Forest (SW ¼, SW ¼, Sec 5, T2N, R7W, SBBM). It continues its course downstream approximately 3.6 miles through the Gold Hill mineral inholding, down San Antonio Falls, and ending at the bridge near the northern border of Mt Baldy Village (SE ¼, SW ¼, Sec 19, T2N, R7W, SBBM).

The lower segment begins downstream of Mt. Baldy Village, below the gauging station at the confluence with Cascade Canyon (SW ¼, NE ¼, Sec 36, T2N, R8W, SBBM) and continues approximately 4.0 miles to its terminus at the forest boundary and the dam holding area (southern boundary of Sec 13, T1N, R8W, SBBM). See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1 Upper	3.6	3.6
2 Lower	4.0	0.0

Studied: 7.6

Eligible: 3.6

Eligibility Inventory

Determination of Free flow:

The segment of San Antonio Creek above Mt. Baldy Village is considered free flowing as recreation residences are now connected to the Snowcrest Heights Improvement Association water system.

The segment of San Antonio Creek downstream of Mt. Baldy Village does not flow freely because of diversion of water that is used to generate electric power. This diversion removes large volumes of water from the creek. This water is then returned to the stream at the bottom of the canyon.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Narrow canyons, conifer and riparian woodland forests, and remoteness characterize the first mile of the river from its headwaters. Large conifers are in the majority of the watershed. Alpine conditions that are rare for this part of California define the scenic values of this segment. Evidence of hydroelectric power development, old roads, and very heavy recreation use is visible from the stream corridor. There are also private inholdings, and recreation residences. Scenery from Mt. Baldy and other peaks at the head of the river is spectacular. Catalina Island can be seen on clear days from the upper parts of the canyon. The High Desert and the course of the San Andreas Fault can also be seen from the notch at the top of the canyon and the upper peaks. San Antonio Falls is a three-tiered waterfall about a mile below the headwaters, with easy access from the county road. It generally flows year-round, except in the driest years. It is a scenic attraction for hikers who come from the Los Angeles basin to enjoy the sense of naturalness. Nelson bighorn sheep are often seen from many parts of this segment of the stream.

The segment below Mt. Baldy Village includes recreation residences and private inholdings. Recreational use of the stream is obvious for the entire stretch. Evidence of the hydroelectric power development, mining activity and pipelines is visible from the corridor. Old Mt. Baldy Road winds through the corridor and other old roads can also be seen from the stream area. Glimpses of Mt. Baldy are observable along parts of the lower segment.

Determination: Scenic values of the upper segment of San Antonio Creek corridor are locally and regionally important attractions that are unique to this canyon. This segment of the stream is considered to have outstandingly remarkable scenery.

Scenery in the lower segment is typical of the lower elevations of the San Gabriel Mountains and is not considered outstandingly remarkable.

2. Recreation

Description: There are many improvements in the upper portion of the drainage including developed and dispersed recreation sites, and over 100 special-use permits for summer recreation residences, both outside of and within the community of Mt. Baldy Village. Access to these recreation opportunities is from the Old Mt. Baldy Road, which is adjacent to much of the stream, except the headwaters. Dispersed recreation use is very heavy and activities include water play, fishing, and picnicking. Several developed areas such as Manker Flats Campground, recreation residence tracts, Snowcrest Resort, Mt. Baldy Village, and an organization camp are within ¼ mile of the stream in most areas, except the headwaters. In the winter, snow play and skiing is very popular in the upper elevations. Recreationists come from throughout southern California to use San Antonio Canyon's resources, and are willing to travel several hours, especially for winter sports activities.

There is very heavy dispersed recreational use of the segment of the river below Mt. Baldy Village, primarily water play, fishing, and picnicking. The canyon offers many hiking opportunities into both the Sheep Mountain and Cucamonga Wilderness Areas. The historic Mt. Baldy Visitor Center attracts thousand of visitors and students each year. Many come from as far away as the urban areas of Los Angeles and other parts of southern California. Environmental education programs highlight the unique diversity of the habitats found in this small area. More interpretive opportunities exist and there is the potential to attract even more visitors with expanded services.

Determination: Recreationists come from throughout southern California and are willing to travel several hours to enjoy San Antonio Canyon's resources. These activities are unique locally and regionally because of the seasonal attraction of the stream, which is a limited resource in southern California. The river corridor possesses outstandingly remarkable recreation values.

3. Geology

Description: The entire watershed under study is underlain by granite and granodiorite. The canyon walls are lined with a number of large landslides. The San Antonio Fault runs down the canyon and is visible from the Falls area. It starts near Mt. Baldy Village, runs south and then turns towards Claremont at the mouth of the canyon. The alluvium fills the canyon bottom to a width of 500 feet. Some of the greatest relief in the Angeles National Forest exists in this watershed. Mountains in the Cucamonga Wilderness are over 8,000 feet, but only two and one-half miles away the elevation at the bottom of the canyon is only 2,238 feet.

Determination: This geology type is not rare, unique, or exemplary; therefore, it is not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The arroyo chub (Forest Service Sensitive) is the only native fish known to inhabit the stream.

In the upper segment of the stream there is potentially suitable habitat for federally listed endangered mountain yellow-legged frog between Manker Flats and Glacier. There is potentially suitable habitat for southwestern willow flycatcher (federally listed endangered species) scattered near the confluence with Icehouse Canyon. In the lower segment of the stream corridor, there is potentially suitable habitat for mountain yellow-legged frog, California red-legged frog (federally listed threatened species), southwestern willow flycatcher, and least Bell's vireo (federally listed endangered species).

Determination: Both fish and wildlife values are of local significance and therefore, are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Portions of the San Antonio River drainage have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited but several sites are known to be located within the corridor. The Native American sites recorded represent activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and earliest contact between the Salinan and mission-era explorers and colonizing cultures. These sites attest to the use of the area by ancestral Salinians. This corridor passes through a proposed Special Interest Area whose designation is based on cultural values. The sites known represent a significance on a regional level as they represent early contact with the Spanish colonizers as well as post-secularization Native American communities that have allowed researchers to interpret Salinan cultural history on a whole.

Determination: Cultural values are considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Portions of the San Antonio River corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is documented with examples of mission-era sites, travelways to the coast, and homesteading and ranching activities. These sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: San Antonio Creek has no significant botany values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

Alpine conditions that are rare for this part of California characterize the scenic values of the upper segment of San Antonio Creek. Expansive views as far as Catalina Island are possible on a clear day, as well as the closer views of San Antonio Falls. The highly scenic qualities of this segment of San Antonio Creek are regionally important attractions that are unique to this canyon. This segment of the stream has outstandingly remarkable scenery.

Recreation

Recreationists come from throughout southern California to use San Antonio Canyon's resources, and are willing to travel several hours, especially for winter sports activities. The high elevations and seasonal flowing waters of San Antonio Creek offer recreational opportunities that are unique for southern California residents. Whether used as a winter snow play area or a summer getaway from the heat and smog of the valley, the recreation resources of San Antonio Creek are outstandingly remarkable.

Classification

The potential classification of the upper segment of San Antonio Creek is Recreational. A small portion of the stream has outstandingly remarkable scenery and recreation values in this reach and is free of impoundments. The upper reach of the stream is readily accessible by Old Mt. Baldy Road. In addition, several recreation residences are conspicuous within the corridor. The lower river segment is not free flowing and therefore is ineligible.

San Gabriel River (North Fork)

Study Area Summary

Name of River: North Fork San Gabriel River

Location: State of California, Los Angeles County, Angeles National Forest

The study area for the North Fork of the San Gabriel River begins at the confluence of Soldier Creek and Coldbrook Creek, near Coldbrook Campground (SE ¼, NE ¼, Sec 5, T2N, R9W, SBBM) and flows approximately 4.2 miles south until it reaches the confluence with the West Fork of the San Gabriel River (SW ¼, SW ¼, Sec 19, T2N, R9W, SBBM). See attached map.

River Mileage:

Studied: 4.2 miles

Eligible: 4.2 miles

Eligibility Inventory

Determination of Free flow:

This segment flows freely through wide canyons of hardwoods until it reaches the confluence with the West Fork of the San Gabriel River.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Steep canyons, burnt conifer trees, chaparral and riparian woodland forests characterize the first one and one-half miles of the river. Evidence of Coldbrook Campground and many special use recreation residences that were burnt in the Curve Fire in September of 2002 can be seen from the river corridor. Below Bichota Creek junction, there are signs of very heavy recreation use of the river until it reaches the confluence with the West Fork.

Determination: Scenery in the river corridor is typical of the San Gabriel Mountains and is not considered outstandingly remarkable.

2. Recreation

Description: Recreational use of the river is very heavy. Dispersed use includes water play and picnicking. In addition, Coldbrook Campground, West Fork Day-use and Trailhead, and State Highway 39 are all within 75 yards of the river. Some of the remaining recreation special use residences are within the river corridor.

Determination: Although some recreationists come from throughout the Los Angeles Basin to enjoy the North Fork San Gabriel River's resources, the majority are from the San Gabriel Valley . These activities are unique locally because of the attraction of year round flowing water, which is a limited resource in southern California. The river corridor is not considered to have outstandingly remarkable recreation values.

3. Geology

Description: The basement underlying the watershed is composed of plutonic granodiorite and granite. The Crystal Lake Recreational Area, north of the study area, is located on the top of a large landslide block that has moved down slope several thousand feet. Gravel from the slide has formed the large gravel plain in the lower sections of the San Gabriel North Fork. The Bichota Fault is a secondary fault that connects with the North San Gabriel Fault and cuts across the southern part of the study reach.

Determination: This geology type is not rare, unique, or exemplary; therefore, it is not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The Santa Ana sucker, a federally threatened species, occupies habitat for the entire reach below NFSR 2N15, just south of the confluence with Maple Canyon. Arroyo chub and Santa Ana speckled dace, both Forest Service Sensitive species, occupy habitat along the entire reach under consideration for this stream. These native fish represent the best assemblage on the forest and are considered to be regionally and nationally significant. This fork, along with the other forks of the San Gabriel River, represents the best habitat and populations of Santa Ana sucker known to exist.

There is potentially suitable habitat for the federally listed endangered mountain yellow-legged frog along the entire reach, and historic locations near Soldier Creek and Coldbrook Creeks. Arroyo toad (federally listed endangered species), California red-legged frog (federally listed threatened species), and California gnatcatcher (federally listed threatened species) have potentially suitable habitat scattered downstream of Bichota Mesa. The least Bell's vireo (federally listed endangered species) has limited potentially suitable habitat in the lower reaches of this fork.

Determination: Fish values are considered to be outstandingly remarkable because these native fish

represent the best assemblage on the forest and are regionally significant. Moreover, the San Gabriel river system provides the primary refuge left for the Santa Ana sucker.

Wildlife values are primarily of local significance and therefore, not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: This section of the North Fork of the San Gabriel River has a limited record of Native American sites. Major Native American trails were located throughout the river corridor, but flood events and the construction of modern travel-ways along the route have minimized their evidence. A rock art site is located within the river corridor.

Determination: Cultural/prehistoric value is considered locally significant and therefore not outstandingly remarkable.

6. Heritage resources (Historic)

Description: This segment of the North Fork of the San Gabriel River was utilized as a major travel route between portions of Los Angeles and the high desert, usually following older Native American trails. A major focus of historic activity was the resort development associated with the Great Hiking Era and homesteading. Gold mining was also important. A flume dating from 1874 was exposed as a result of the Curve Fire in September 2002. A Civilian Conservation Camp was located at the location of Coldbrook Campground. Recreation residences are other examples of recreation activity with historic associations located within the river corridor.

Determination: Historic value is considered locally and regionally significant but not to the degree that historic values are considered outstandingly remarkable.

7. Other (Botany)

Description: North Fork San Gabriel River has no significant botany values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Fish and Wildlife

The assemblage of native fishes, including the presence of the Santa Ana sucker, a federally threatened species, give the North Fork San Gabriel River a regional and national significance for fish resources. The three Forks of the San Gabriel River provide the best habitat and support the best population of this very rare fish. Fish values are considered outstandingly remarkable.

Classification

The potential classification of the entire 4.2-mile segment of North Fork San Gabriel River is Recreational. The river has outstandingly remarkable fish and wildlife values. This segment is free flowing. The existing road that parallels the river is conspicuous and visible from the stream for most of its length.

Eligibility Inventory	Study Area Summary
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San Gabriel River (East Fork)

Study Area Summary

Name of River: East Fork San Gabriel River

Location: State of California, Los Angeles County, Angeles National Forest

The wilderness segment begins at the confluence of Vincent Gulch and Prairie Fork (NW ¼, SW ¼, Sec 16, T3N, R8W, SBBM) and flows to the south through narrow canyons of hardwoods and firs, and ends near the wilderness boundary at the confluence with Laurel Gulch (NW ¼, SW ¼, Sec 17, T2N, R8W, SBBM).

The lower segment begins near the wilderness boundary at the confluence with Laurel Gulch (NW ¼, SW ¼, Sec 17, T2N, R8W, SBBM) and flows southwesterly through canyons of hardwoods until the confluence with Cattle Canyon. The river then flows west from there, through a wider canyon of hardwoods, very heavily used developed and dispersed recreation areas, and private inholdings until it reaches the edge of the San Gabriel Reservoir at the confluence with Minero Canyon (SE ¼, SW ¼, Sec 21, T2N, R9W, SBBM). See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1 Upper	8.4	8.4
2 Lower	7.3	7.3

Studied: 15.7 miles

Eligible: 15.7 miles

Eligibility Inventory

Determination of Free flow:

The upper wilderness segment flows freely from its headwaters to the Sheep Mountain Wilderness boundary. The lower segment flows freely from the southern boundary of the wilderness to the river’s impoundment by the San Gabriel Reservoir.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Steep canyons, chaparral, riparian woodlands, bigcone Douglas-fir forests, large open flat areas, and remoteness characterize the scenery in the wilderness reach of the river. Mt. Baden Powell is visible from many parts of the corridor, as is Swan Rock, a large intruded rock face. Grassy Hollow Visitor Center and Inspiration Point have views of the wilderness reach of the river. The East Fork San Gabriel River is one of the liveliest and most remote streams in the San Gabriel Mountains, and its Narrows area is the deepest gorge in southern California. There are waterfalls during the spring season and seasonal variations in the vegetation. The Bridge to Nowhere is a destination for hikers, photographers and viewers, because of its anomalous presence.

Steep canyons, conifer and riparian woodland forests, and remoteness characterize the first one and one-half miles of the river downstream from the wilderness boundary. From that area on down, there are signs of very heavy recreational use of the river until it reaches the San Gabriel Reservoir.

Determination: The variety of landscape elements as well as seasonal variations along this segment of the river is a regionally important attraction. Scenic value in the wilderness segment of the East Fork San Gabriel River is outstandingly remarkable.

Scenery in the lower reach of the East Fork San Gabriel River is typical of lower elevations of the San Gabriel Mountains and not outstandingly remarkable.

2. Recreation

Description: The entire upper segment of the river is within the Sheep Mountain Wilderness, offering opportunities for solitude in a natural setting. There are several trails below Airplane Flat. Many of these activities are unique because of the peace and solitude found in the wilderness area as well as the attraction of the river, specifically year-round flowing water, which is limited in many areas of southern California. Also in this segment within the wilderness is the Bridge to Nowhere, an attraction on private land that offers the unusual recreational activity of bungee jumping.

The portion of the river below the wilderness boundary receives very heavy dispersed recreational use, primarily water play and riverside picnicking. There is a large parking area and a Forest Service Fire Station at the trailhead into the Sheep Mountain Wilderness. The Oaks developed picnic area, and the East Fork County Road are within 50 yards of the river. Camp Williams and Follows Camp are private campgrounds on the banks of this segment of the San Gabriel. Two other private campgrounds, Shady Oaks Camp and Camp Oak Grove, are also nearby. They all receive extremely heavy use during the hot summer weekends between Memorial Day and Labor Day. The Julius Klein Correctional Facility (County Camp 14) is also in this stretch of the river. The entrance to the Burro Shooting area is just beyond the confluence of this segment with the San Gabriel Reservoir. The historic mining, activities and communities of Eldoradoville and Hudson's Bay Camp provide significant opportunities to interpret

these historic themes to the public. These activities are unique locally because of the attraction of the river, specifically year-round flowing water, which is limited in many areas of southern California. Recreation opportunities in this lower segment of East Fork San Gabriel River are tremendously popular to large local populations.

Determination: Recreation values for the wilderness portion of the River are considered to be outstandingly remarkable, but the segment below the wilderness boundary is not considered to be outstandingly remarkable.

3. Geology

Description: The basement of the upper segment of the East Fork San Gabriel River is composed of Paleozoic Pelona schist at the higher elevations and of granodiorite in the lower elevations. The stream flows within a narrow canyon containing little alluvium until it reaches the Bridge to Nowhere. At this point, the channel widens and alluvial terraces line the channel. These terraces can change shape during very high flows and originally they held significant amounts of gold.

The basement in the lower segment of East Fork San Gabriel River is a plutonic quartz diorite and granite of Mesozoic age. This segment flows along the San Gabriel Fault Zone. Motion across the fault is both right lateral and vertical with the basement on the south side being lifted vertically creating steep north facing slopes. The valley is wide enough to hold the channel and fairly wide gravel terraces. These terraces can be moved around during high flows and originally held significant amounts of gold. There is evidence of suction dredging for gold transported from the upper East Fork.

Determination: This geology type is not rare, unique, or exemplary; therefore, it is not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The arroyo chub and the Santa Ana speckled dace, both Forest Service Sensitive species, occupy key habitat along the entire reach of East Fork San Gabriel River. The Santa Ana sucker, a federally threatened fish species, occupies habitat for the entire reach below Airplane Flat. The Santa Ana sucker is known to occur in only three places, all in southern California. This Fork along with the other Forks of the San Gabriel River represent the best habitat and populations of Santa Ana sucker known to exist, and the best assemblage of native fish on the forest.

The upper segment of the East Fork San Gabriel River contains occupied and potentially suitable habitat for several important wildlife species. The mountain yellow-legged frog, a federally listed endangered species, occupies habitat between Vincent Gulch and Prairie Fork and between Alder Gulch and Iron Fork. There is also potentially suitable habitat between Prairie Fork and Alder Gulch, and along the entire reach below Airplane Flat. Nelson bighorn sheep (Forest Service Sensitive) occupy habitat within the ¼ mile corridor, as well as much of the Sheep Mountain Wilderness. There is potentially suitable

habitat for southwestern willow flycatcher (federally listed endangered species) scattered below Alder Gulch and for least Bell's vireo (federally listed endangered species) along the entire reach below Airplane Flat.

The lower segment of the East Fork San Gabriel River also contains occupied and potentially suitable habitat for several important wildlife species. There is potentially suitable habitat for arroyo toad (federally listed endangered species), California gnatcatcher (federally listed threatened species), and least Bell's vireo along the entire reach from the confluence with Shoemaker Canyon to the reservoir. The California red-legged frog, a federally listed threatened species, has potentially suitable habitat between East Fork Station and Follows Camp, which is on private land. Mountain yellow-legged frog has potentially suitable habitat between East Fork Station and Camp Williams, also on private land. The bald eagle (federally listed threatened species) has potentially suitable habitat along the entire reach below Oaks Picnic Area. The southwestern willow flycatcher has potentially suitable habitat from the wilderness boundary to Follows Camp, which is on private land. The two-striped garter snake (Forest Service Sensitive), yellow-blotched ensatina (Forest Service Sensitive), and coast horned lizard (Forest Service Sensitive) all occupy habitat along the entire reach of this stream.

Determination: The assemblage of native fish and the rarity of the Santa Ana sucker lend a national significance to the fish values of East Fork San Gabriel River. Fish values are considered outstandingly remarkable.

Wildlife values for both segments of the East Fork San Gabriel River are primarily of local significance and therefore, not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: The upper segment of the East Fork of the San Gabriel River has a limited record of Native American sites. Major Native American trails were located throughout the river corridor, but flood events have minimized the evidence of these routes.

The lower segment of the East Fork of the San Gabriel River has a limited record of Native American sites. A rock art site, rare for the forest, has been documented along this stretch but, probably due to flood events, is no longer locatable. Major Native American trails were located throughout the river corridor, but flood events have minimized the evidence of these routes.

Determination: Cultural/prehistoric value is considered locally significant and therefore not outstandingly remarkable.

6. Heritage resources (Historic)

Description: At the time of historic contact, both the upper and lower segments of the East Fork of the San Gabriel River appears to have been occupied by the Gabrielino people. There are many historic

mining sites along the whole length of this river segment. Examples of placer and hard rock mining are represented. Historic accounts indicate early mining activity done by Indians working for the Spanish padres. The mining continued to the time of the Depression, with panning and sluicing still occurring today in the river.

In the upper segment, the mining activity provided a large impetus for the exploration and settlement of the San Gabriel Mountains. The historic activity and communities provide significant opportunities to interpret these historic themes to the public.

In the lower segment, remnants of the historic mining communities of Eldoradoville, Williams Camp and Camp Follows still exist along the river. Scars from hydraulic mining are very visible. The mining activity provided a large impetus for the exploration and settlement of the San Gabriel Mountains. More recently, Shoemaker Road was designed as an exit road from the valley below in case of nuclear attack. Most of the road was destroyed in the flood of 1969 leaving remnants of the past.

Determination: The presence of significant historic mining sites in both segments of the East Fork of the San Gabriel River leads to a determination that historic values are considered outstandingly remarkable.

7. Other (Botany)

Description: East Fork San Gabriel River has no significant botany values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

From majestic peaks to large flat meadows, the diversity of landscapes in the wilderness segment of East Fork San Gabriel River characterizes its scenic values. The variety of landscape elements and seasonal variations along this segment of the river are regionally important attractions. The wilderness segment of East Fork San Gabriel River has outstandingly remarkable scenery.

Recreation

The year-round flowing waters of the wilderness segment of East Fork San Gabriel River offer recreational opportunities that are unique for southern California residents. The peace, solitude and undeveloped setting found in the wilderness segment draw local and regional attention. Recreation values for the wilderness reach of the San Gabriel River are considered outstandingly remarkable.

Fish and Wildlife

The assemblage of native fishes, including the presence of the Santa Ana sucker, a federally listed threatened species, gives both segments of East Fork San Gabriel River a regional and national significance for fish resources. The three Forks of the San Gabriel River provide the best habitat and support the best population of this very rare fish. Fish values are considered outstandingly remarkable in the East Fork San Gabriel River.

Heritage Resources (Historic)

The presence of significant historic mining sites in both segments of the East Fork of the San Gabriel River leads to a determination that historic values are considered outstandingly remarkable.

Classification

The potential classification of the entire 8.4-mile wilderness segment of East Fork San Gabriel River is Wild. This segment of the river has outstandingly remarkable scenery, recreation, fish and wildlife, and historic values. The river is free-flowing the entire segment and is essentially primitive with little visible evidence of human interference. The entire segment flows through the Sheep Mountain Wilderness and the only access is by the trail that only goes as far as Falls Gulch.

The potential classification of the entire 7.3 mile lower segment of East Fork San Gabriel River is Recreational. This segment of the river has outstandingly remarkable fish and wildlife, and historic values. The river is free flowing the entire segment. The East Fork Road that parallels the river is conspicuous, as are the various developed public and private recreation facilities along the reach.

San Gabriel River (West Fork)

Study Area Summary

Name of River: West Fork San Gabriel River

Location: State of California, Los Angeles County, Angeles National Forest

The upper segment of the West Fork San Gabriel River begins at the headwaters just below Red Box Station (SE ¼, NE ¼, Sec 14, T2N, R12W, SBBM), and flows easterly until its impoundment at Cogswell Reservoir and the confluence with Lobo Canyon (NE ¼, SW ¼, Sec 24, T2N, R11W, SBBM).

The lower segment of the West Fork San Gabriel River begins at the gauging station at the eastern edge of the pool below the spillway of Cogswell Dam, (NE 1/4, SE ¼, Section 19, T2N, R10W, SBBM) and continues to the confluence with the North Fork San Gabriel River (SW ¼, SW ¼, Sec 19, T2N, R9W, SBBM). See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1 Upper	8.6	8.6
2 Lower	7.4	7.4

Studied: 16.0 miles

Eligible: 16.0 miles

Eligibility Inventory

Determination of Free flow:

Cogswell Reservoir is the dividing point for the upper and lower segments of the West Fork. Winter rainfall and resulting runoff dominates most of the flow of the upper segment of the West Fork San Gabriel River. During the summer dry period, small springs along the canyon walls support flows in this section of river. At the end of the summer, sections of the channel can go completely dry, in dry years, except for a few isolated pools. Nevertheless, this segment is free flowing.

The lower segment of the West Fork San Gabriel River is regulated by the release of water from Cogswell Reservoir. The regulated flows are not similar to the natural flow regime. Under natural flow

conditions this section of stream would nearly go dry except for isolated pools. Cogswell Reservoir captures most of the sediments coming from the upper watershed. As a result, this segment of channel tends to be sediment starved. Cogswell Reservoir rarely spills, but can after very intense winter rainfall in the upper watershed. When this happens the downstream riparian vegetation can be greatly damaged and altered. A road follows the creek up to Cogswell Dam. Wherever the creek flows next to the road, the bank below the road is protected with riprap. However, as stated on page 15 of the Q & A section of the Wild and Scenic River Reference Guide, "any section of river with flowing water meets the technical definition of free flowing, even if impounded upstream. Thus the lower segment is considered free flowing.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Alpine conditions that are rare for this part of California define the scenic values of the upper segment of the West Fork San Gabriel River. Steep canyons, conifer and riparian woodland forests, and a sense of remoteness prevail. There are waterfalls during the spring season and seasonal variations in the vegetation. The canyon has essentially primitive vistas. Broad, sweeping vistas of the valley below can be seen from the parking area at Red Box. Majestic views of Mt. Wilson on the south and Mt. Vetter to the north can be seen from many parts of the corridor, as well as Mt. Wilson Observatory and a vast array of communication towers. There is a primary transmission line that traverses the corridor about a mile east of Devore Organization Camp.

Steep canyons, conifer and riparian woodland forests, and remoteness also characterize the scenery in the lower segment of the West Fork San Gabriel River. There are many small waterfalls and springs in the canyon walls during the spring season and seasonal variations in the vegetation. Pools dot the course of the river. The steep cliffs are a dramatic backdrop and are reflected in the foreground. Because of the steepness of the canyons, background views are practically non-existent, although the edge of the San Gabriel Wilderness that parallels this segment of the river on its northern edge is visible along its entire length. Riprap sprayed with Gunnite to guard against erosion of the roadbed disrupts the natural appearance of the scenery along the south side of the river.

Determination: Scenery in both reaches of the West Fork San Gabriel River is typical of the San Gabriel Mountains and not considered outstandingly remarkable.

2. Recreation

Description: At the headwaters of the upper segment of West Fork San Gabriel River lie Red Box Station and Picnic Area, and a fairly large parking lot on the Angeles Crest Scenic Highway. Camp Hi Hill organizational camp is just downstream from the headwaters. There are several undeveloped campgrounds along this segment beginning with Valley Forge near the west end, West Fork Camp and Picnic Area to the east, and Devore Campground where the Gabrielino Trail crosses the river. The

Gabrielino National Recreation Trail parallels the river from Red Box to the Devore Organization Camp. The Silver Moccasin National Recreation Trail bisects the stream course near West Fork Campground where it continues up to Shortcut Station. There is an OHV permit route that cuts through the drainage at Devore that also ends up at Shortcut Station. For the final three miles downstream, the northern side of the watershed is the San Gabriel Wilderness. There are many sightseers that come to the area because of its proximity to Mt. Wilson, and its alpine setting. Many film permits are issued for the area due to those alpine characteristics.

The north side of the lower segment of West Fork San Gabriel River is the San Gabriel Wilderness Area. As one of only three native trout streams in southern California, this segment is a California state designated catch and release wild trout stream. Five fishing platforms are distributed along this segment to allow individuals who are physically challenged to have high quality fishing opportunities. Forest Service Road 2N25, which parallels this segment of the river, is designated as the West Fork National Scenic Bikeway Trail, which is designed to offer physically challenged recreationists different levels of activity. There is a hike-in, developed camping area at Glenn Campground used by individuals and small groups like Boy Scouts and Girl Scouts. Recreation residences can be found in this part of the canyon. Dispersed recreation use is very heavy in the first ½ mile west of the bridge on Highway 39. There is very little recreation use above that point. Bear Canyon Trail offers access into the San Gabriel Wilderness from a trailhead on the north side of the stream. Recreationists utilize the West Fork parking area and dirt shoulders along State Highway 39 for access to the West Fork. Baptisms are popular near the West Fork Bridge. On hot summer weekends, many visitors come up from the valley below to recreate on the banks of the San Gabriel River. Parking is at a premium and on the heaviest use weekends, many visitors are turned away due to the lack of parking.

Determination: Both segments support ample recreation opportunities and values including three National Recreation Trails, a catch and release trout stream with high quality fishing opportunities, access to the San Gabriel Wilderness and several campgrounds and group campgrounds. The National Recreation trails, year-round flowing water and state designated catch and release stream status make both segments attractive to both local and regional recreationists. Therefore, both segments of the West Fork San Gabriel River are considered to be outstandingly remarkable for recreation.

3. Geology

Description: The basement of both segments of the West Fork San Gabriel River is primarily of crystalline rock composed of quartz diorite, and granite of Mesozoic age. The West Fork flows along the North Branch of the San Gabriel Fault Zone. Motion across the fault is both right lateral and vertical, with the basement on the south side being lifted vertically creating a steep north facing timbered slope. The river flows in a narrow valley with channel alluvium of generally less than 200 feet width. The older alluvium of the south canyon wall has also been lifted vertically by several hundred feet.

Determination: This geology type is not rare, unique, or exemplary, therefore it is not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: There is potentially suitable habitat for Santa Ana sucker along the entire reach of the upper segment of West Fork San Gabriel River, below Valley Forge. The arroyo chub (Forest Service Sensitive) is known to occupy habitat within this reach.

The Santa Ana sucker, a federally threatened fish species, occupies habitat along the entire lower segment. The West Fork, along with the other Forks (East and North) is the prime habitat for this fish. This fish, once common to southern California rivers and streams, is now only found in the North, East and West forks of the San Gabriel River, Lower Big Tujunga Creek and the Santa Ana River. The Santa Ana speckled dace (Forest Service sensitive) and the arroyo chub both occupy habitat along the entire reach of this stream. This stream is one of only three streams managed as a wild trout stream in southern California.

There is potentially suitable habitat along the entire reach of the lower segment of West Fork San Gabriel River for arroyo toad (federally listed endangered species), California red-legged frog (federally listed threatened species), mountain yellow-legged frog (federally listed endangered species), and southwestern willow flycatcher (federally listed endangered species). There is potentially suitable habitat for bald eagle along the entire reach below West Fork Campground and for least Bell's vireo (federally listed endangered species) below Devore. California spotted owls, a Forest Service Sensitive species, are known to nest in this drainage.

The arroyo toad, California red-legged frog, bald eagle, southwestern willow flycatcher, and least Bell's vireo have potentially suitable habitat along the entire lower segment of West Fork San Gabriel River. Mountain yellow-legged frog has potentially suitable habitat along the entire reach below Phipps Canyon. The California gnatcatcher (federally listed threatened species) has potentially suitable habitat downstream of the confluence of Bear Canyon. Southwestern pond turtle (Forest Service Sensitive) and two-striped garter snake (Forest Service Sensitive) occupy habitat along the entire reach of the stream.

Determination: Fish are only of local significance and, therefore, fish values are not considered to be outstandingly remarkable in the upper segment of West Fork San Gabriel River.

The lower segment of West Fork San Gabriel River includes the best assemblage of native fish on the forest, and is considered to be regionally to nationally significant. The highly valued native fishery, in combination with wild trout stream designation, results in fish values being considered outstandingly remarkable in this segment.

Wildlife values for the upper segment of the West Fork San Gabriel River are primarily of local significance and therefore, not considered to be outstandingly remarkable. However, the lower segment possesses national and regional significance for fishery resources and is considered to be outstandingly remarkable in this respect.

5. Heritage resources (Cultural)

Description: Both segments of the West Fork San Gabriel River have a limited record of Native American sites. Major Native American trails were located throughout the river corridor, but flood events and the construction of modern travel-ways along the same route have minimized the evidence of them.

Determination: Cultural/prehistoric value is considered locally significant and therefore not outstandingly remarkable.

6. Heritage resources (Historic)

Description: At the time of historic contact, the upper segment of the West Fork San Gabriel River appears to have been occupied by the Gabrielino (or as they called themselves, Tongva) people. This upper segment was used as a major travel route, usually following older Native American trails, between portions of Los Angeles and the high desert. A major focus of historic activity was the resort development associated with the Great Hiking Era. Recreation Residences and Organizational Camps are other examples of recreation activity with historic associations located within the river corridor. Subsequent modern activities and flooding events have minimized the evidence of these sites. The West Fork cabin, rebuilt and moved to Chilao, was the first ranger station in California built with public funds.

At the time of historic contact, the lower section of the West Fork of the San Gabriel River appears to have been occupied by the Gabrielino (or Tongva) people. This segment was utilized as a major travel route, usually following older Native American trails, between portions of Los Angeles and the high desert. A major focus of historic activity was the resort development associated with the Great Hiking Era. The river corridor has long been known for its riparian habitat and trout fishing. Recreation Residences are other examples of recreation activity with historic associations located within the river corridor. The Pasadena Bait Club Cabin dates from the turn of the century. Subsequent modern activities and flooding events have minimized the evidence of these sites but foundations are present within the river corridor.

Determination: While of local interest, the historic values along both segments of West Fork San Gabriel River are not considered outstandingly remarkable.

7. Other (Botany)

Description: The upper segment of the West Fork San Gabriel River has no notable botany values.

The lower segment of the West Fork San Gabriel River has no notable botany values.

Determination: Neither of the segments possess outstandingly remarkable botany values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Recreation

Both segments support ample recreation opportunities and values including three National Recreation Trails, a catch and release trout stream with high quality fishing opportunities, access to the San Gabriel Wilderness and several campgrounds and group campgrounds. The National Recreation trails, year-round flowing water and state designated catch and release stream status make both segments attractive to both local and regional recreationists. Therefore, both segments of the West Fork San Gabriel River are considered to be outstandingly remarkable for recreation.

Fish and Wildlife

The assemblage of native fishes, including the presence of the Santa Ana sucker, a federally threatened species, along with the State of California Wild trout stream designation, gives the lower segment of West Fork San Gabriel River a regional and national significance for fish resources. The three Forks of the San Gabriel River provide the best habitat and support the best population of the very rare Santa Ana sucker. Fish values are considered outstandingly remarkable on the lower segment of West Fork San Gabriel River.

Classification

Due to the level of development and road access, both segments of the West Fork San Gabriel River are considered eligible for designation as a recreational river.

Arroyo Sco Creek

Study Area Summary

Name of River: Arroyo Seco Creek

Location: State of California, Los Angeles County, Angeles National Forest

The upper segment of the Arroyo Seco Creek begins north west of Red Box. It flows in a southwesterly direction to past the Switzer picnic areas, below which two main tributaries, Little Bear Canyon and Bear Canyon, enter into the Arroyo Seco. The upper segment ends at the debris dam located in SE1/4, SW1/4, Sec 19, T2N, R12W, SBBM.

Little Bear segment starts on the northwest side of Mt. Disappointment in the NW1/4, SE1/4, Sec 15, T2N, R12W, SBBM, and flows in a westerly direction until it joins the Arroyo Seco SW1/4, SW1/4 Sec 16, T2N, R12W, SBBM.

Bear segment starts south west of Mt. Disappointment SE1/4, SE1/4, Sec 22, T2N, R12W, SBBM, and flows in a north westerly direction until it joins the Arroyo Sec Creek very near the mouth of Little Bear in SW1/4, SW1/4 Sec 16, T2N, R12W, SBBM.

The lower segment of the Arroyo Seco begins below the debris dam in SE1/4, SW1/4, Sec 19, T2N, R12W, SBBM and flows in a southerly direction until it ends in the SW1/4, SW1/4, Sec 32, T2N, R12W, SBBM. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	8.2	0.0
2	2.0	0.0
3	2.7	0.0
4	1.5	0.0

Studied: 14.4 miles

Eligible: 0.0 miles

Eligibility Inventory

Determination of Free flow:

All segments of the Arroyo Seco Creek are considered free flowing. In the main stem segment winter rainfall and resulting runoff dominates most of the flow. This segment has a very a narrow canyon below Switzers where ground water and surface water from the highest parts of the watershed is forced to the surface as seepage. This seepage provides a low summer flow.

Little Bear Canyon is a short canyon with a very steep stream channel that enters the Arroyo Seco less than a mile below Switzers. Winter rainfall and resulting runoff dominates most of the flow in this segment. Some water comes to the surface as seeps in the lower portions of the segment.

Bear Canyon creek flows in a narrow canyon and enters the Arroyo Seco less than a mile below Switzers. Winter rainfall and resulting runoff dominates most of the flow in this segment. Some water comes to the surface as seeps in the lower portions of the segment.

The lower segment of the Arroyo Seco, which is below the debris dam, has most of its flow diverted for domestic use before it leaves this segment. There is a road following the creek for much of the distance to the debris dam and there are several road crossings of the creek.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Covered by pine and fir, north-facing slopes give variety to the upper segment of the Arroyo Seco watershed. Steep canyons, conifer and riparian woodland forests, and a sense of remoteness prevail. In this upper segment as well as in Bear and Little Bear Canyons, there are waterfalls and rapids during the spring season and seasonal variations in the vegetation. Within the canyons, the views are typically short and are essentially primitive vistas. Broad vistas of the valley below can be seen from the area near Red Box. The Angeles Crest Highway cuts across the side slopes of the watershed above the upper Arroyo Seco. Access to the stream can be gained in the far upper end and at Switzers. Power lines are visible near the lower part of the upper segment.

Both Little Bear Canyon and Bear Canyon flow in a narrow canyon where they enter the Arroyo Seco. Rapids and resulting runoff dominates most of the flow in these segments. In Bear Canyon, bigcone Douglas-fir is found on the lower hillsides. Pools and very low flow exists during the summer dry season.

The lower segment of the Arroyo Seco is located below the debris dam. A rough road follows the creek to Gould Mesa. From that point, a well-developed trail follows the creek to the debris dam. There is a good riparian area along portions of the creek that provides visual interest. The scenery includes long chaparral-covered slopes. In the waterway below Gould, there are many large boulders, some with banding, that are prominent in the creek bottom. Rock outcrops in the steep canyon sides are also quite

dramatic. There are several fenced-off abandoned bridges that recreationists may view along this segment of the river. Foundations from abandoned structures also line this part of the river and are obvious to the average user. A chain link fence with "No Trespassing" signs separates the stream from the road from just below Teddy's Outpost to the forest boundary. The Angeles Crest Highway is visible from the bottom of the canyon as are several power lines.

Determination: The canyon, along with its vegetation, waterfalls/rapids and topography are the main features of this landscape. The area is very scenic but not unique to the forest and the region, and likewise not considered to be outstandingly remarkable.

2. Recreation

Description: In the upper section of the Arroyo Seco the Gabrieleno Trail starts at Red Box and follows the Arroyo Seco down to Switzers, below which it goes along the side slope and then returns to the creek about one half mile above Oakwilde. From there, it follows the creek down to the sediment behind the debris dam. Being close to Highway 2 and a large population area, this trail is used heavily by day users.

Little Bear Canyon enters the Arroyo Seco a short distance downstream of Switzers. Due to the ease of access from Switzers, there is a lot of dispersed recreation along the creek.

Bear Canyon flows in a narrow canyon where it enters the Arroyo Seco a short distance downstream from Switzers. The Bear Canyon Trail leaves the Gabrieleno Trail near Switzers and connects with a road that takes off from the Mt. Wilson road. This is a popular one-way day trip.

In the lower segment of the Arroyo Seco, a rough road follows the creek to Gould Mesa. From that point, the Gabrieleno Trail follows the creek to the debris dam. The road is used for administrative purposes and has little vehicular traffic. The road itself is heavily used for hiking, bicycle riding, horse back riding and general recreation. People continue on up the canyon on the Gabrieleno Trail. The Gould Mesa, Nino and Little Paul picnic areas have a rural atmosphere. There is a small community of Forest Service housing next to the Pasadena Water Companies facilities. Outside the compound, there is a Forest Service bulletin board and a drinking fountain for recreationists, dogs and horses.

Determination: All segments of the Arroyo Seco are very popular and heavily used recreational areas. The area is not unique to the forest and the region. Recreation values in this canyon are of local interest but would not be considered to be outstandingly remarkable.

3. Geology

Description: The watershed of the upper section of the Arroyo Seco has bedrock composed of granodiorite of Mesozoic age. The main branch of the active San Gabriel Fault cuts through this bedrock in a nearly east-west direction. The Arroyo Seco's headwaters start in Red Box Gap, which is within the

fault zone. Arroyo Seco Creek follows the fault zone down to Switzer picnic area. The stream turns south and leaves the fault zone at the Switzer Picnic Areas. Motion across the fault is both right lateral and vertical, with the basement on the south side having been uplifted slightly relative to the north side of the fault.

Arroyo Seco Creek has been cutting vertically downward forming the narrow canyon as the basement rock is uplifted. Both Bear and Little Bear Canyon segments enter the Arroyo Seco Creek a short distance downstream of Switzers. The bedrock is of granodiorite composition. The deep narrow canyon cut by the Arroyo Seco has caused the gradient of the narrow tributary Bear and Little Bear Canyons to be very steep.

Where the Arroyo Seco leaves the narrow canyon it flows out into a wider canyon as it flows to the debris dam. The South Branch of the San Gabriel Fault crosses Arroyo Seco Creek in a northwesterly direction about ½ mile north of the debris dam. Rocks north of the South Branch are partially to completely metamorphosed and show banding and augen gneiss features of interest to geologists. Rocks southwest of the South Branch are un-metamorphosed, fine to medium grained, light to dark colored granitic rocks, ranging in composition from quartz monzonite to diorite.

The lower segment of the Arroyo Seco, below the debris dam, has a basement composed of a combination of gneiss and granite. The gneiss has produced some interesting banding noticeable to the casual observer. The canyon walls of the lower Arroyo Seco completely confine the creek in a few areas. At other locations, the canyon bottom widens. During very high flows, the creek has deposited boulders and gravel to produce a gravel terrace up to about 400 feet wide from canyon wall to canyon wall.

Determination: Several other canyons like the Arroyo Seco are present within the region. The basement geology is very common rock type. Therefore, it is not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Rainbow trout occupy habitat along the entire reach (all four segments) of the Arroyo Seco Creek. Historically, and prior to the construction of Devils Gate Dam, steelhead trout occupied these study segments as well. This stream appears to be void of native freshwater fishes.

Little information is available on wildlife within the Little Bear and Bear Canyon segments of Arroyo Seco Creek. However, these segments probably support potentially suitable habitat for the mountain yellow-legged frog (federally listed endangered species) and California spotted owl (Forest Service Sensitive).

Historically, the lower segment of the main stem of Arroyo Seco Creek supported the federally listed threatened California red-legged frog. This segment has potentially suitable habitat for a number of federally listed and Forest Service Sensitive wildlife species, including the Santa Ana sucker, mountain yellow-legged frog, California red-legged frog, arroyo toad, southwestern willow flycatcher and least

Bell's vireo. None of these species, however, have been recently detected within this study area.

Determination: The fishery values within all four segments of Arroyo Seco Creek do not appear to be outstandingly remarkable.

Wildlife values within all four segments of Arroyo Seco Creek do not appear to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: The knowledge of the span and complexity of Native American use of the Arroyo Seco River corridor is good and several sites are known to be located within the corridor. The Native American sites recorded represent a diversity of site types that have the potential to contribute information regarding such topics as manufacturing techniques, food processing, diet, and trade as well as the everyday life of the Native American inhabitants of the corridor. Sites in the area attest to the use of the area by the Esselen and Salinan people with many of the sites known in ethnographic times. One site has been listed on the National Register of Historic Places for local and regional significance (but the integrity of the site has been severely compromised by looting and scientific excavation). But on a whole, the sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The Arroyo Seco River has had an important span of historic use. The Arroyo Seco Guard Compound represents a good example of Forest Service Administrative History. Also known for the area are the remains associated with the Civilian Conservation Corps, hunting and fishing, and youth recreation camps. These sites, as well as other historic sites expected to occur, are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Arroyo Seco Creek has no significant botanical values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values exist for Arroyo Seco Creek.

Classification

No segment of Arroyo Seco Creek is eligible for classification as a wild, scenic, or recreational river.

Big Santa Anita Creek

Study Area Summary

Name of River: Big Santa Anita Creek

Location: State of California, Los Angeles County, Angeles National Forest

The main stem of Big Santa Anita Creek (NE ¼, NE ¼, Sec 33, T2N, R11W, SBBM)(SW ¼, NE ¼, Sec 10, T1N, R11W, SBBM) begins its course on the east side of Mount Wilson and flows in an easterly direction until its confluence with the North Fork (NW ¼, NE ¼, Sec 34, T2N, R11W, SBBM)(NW ¼, SE ¼, Sec 34, T2N, R11W, SBBM) just east of Mount Zion. From there, the main stem flows south past Chantry Flat, down to the Big Santa Anita Dam. The main stem segment is approximately 3.5 miles, and the North Fork segment is approximately 0.7 miles.

The East Fork (SW ¼, SE ¼, Sec 36, T2N, R11W, SBBM)(NE ¼, NE ¼, Sec 3, T1N, R11W, SBBM) originates on the west side of Monrovia peak, and flows west to its confluence with the main stem, south of Sturtevant Falls. The East Fork segment is approximately 2.6 miles.

Winter Creek (SW ¼, NE ¼, Sec 32, T2N, R11W, SBBM)(NW ¼, SE ¼, Sec 3, T1N, R11W, SBBM) begins on the south side of Mount Wilson, and flows in a southeasterly direction until its confluence with the main stem of Big Santa Anita, just above the end of NFSR 2N40. The Winter Creek segment is approximately 3.0 miles.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	3.5	0.0
2	0.7	0.0
3	2.6	0.0
4	3.0	0.0

Studied: 9.8 miles

Eligible: 0.0 miles

Eligibility Inventory

Determination of Free flow:

All four segments are free flowing. Winter rainfall and resulting runoff dominate most of the flow in all four segments. During the summer, the stream is kept alive by seeps and springs. There are 84 recreation residences along the creek; about one-third take water from the creek. A number of rock recreational dams are present along the creek.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: All three creeks flow in canyons with steep sloping sides. The views up slope are primarily of chaparral-covered slopes with the north facing, higher slopes having bigcone Douglas-fir. Along the stream in the canyon bottom is riparian woodland. Sturtevant Falls is located on the main Santa Anita Canyon a short distance upstream of the junction with the East Fork and is a major destination for day use hikers.

Determination: The riparian areas along the Big Santa Anita are well represented on the forest and are not unique to these canyons. The scenery in these canyons would not be considered outstandingly remarkable.

2. Recreation

Description: The main stem of Big Santa Anita contains many recreation residences, portions of the Gabrielino National Recreation Trail, and two trail camps. The trail and recreational residences are in close proximity to each other within the same sections of riparian areas. This trail is heavily used by local hikers and goes through the headwaters of three drainages. Sturtevant Falls is a major destination for day use hikers but would not be considered a destination for people outside of the local region.

Winter Creek has recreational residences near Hoegee Trail Camp. The trail up Winter Creek watershed starts at Chantry Flat, well above the creeks. The trail traverses across the side slopes above Winter Creek and only touches the creek and riparian area at Hoegee Camp. The trail then goes up slope and is one of the main trails to Mt. Wilson. The main attraction of this trail is that it is a popular route up Mt. Wilson and has many vistas.

The East Fork of Santa Anita has several recreational residences near where it joins Santa Anita Creek. The creek is very steep. A trail starts at the confluence of East Creek and follows the creek for a short distance and then climbs a side slope onto a ridge that connects with Red Box Rincon Road.

Determination: All three of the segments have many recreational residences in them. Most trails follow the creeks and also pass through recreational residence tracts. This takes away from the wilderness character of the trail. When the trails leave the riparian areas, they also leave the location of the recreational residences. These trails are heavily used by hikers, equestrians and mountain bikers from

the local Los Angeles area. The recreational values are not outstandingly remarkable and do not attract people from outside the local area.

3. Geology

Description: The entire watershed under study is underlain by granite and granodiorite. The river flows in a narrow valley with very little channel alluvium. The width of the canyon at the bottom is usually less than 400 feet.

Determination: The basement geology is very common on the forest. There are several narrow canyons cut into bedrock like this one on the forest. The geology is not outstandingly remarkable.

4. Fish and Wildlife

Description: Historically, both rainbow and brown trout were planted within the Big Santa Anita drainage and its main tributaries, including the main stem, North Fork, East Fork, and Winter Creek. This practice no longer occurs. The rainbow trout population appears to be self-sustaining, although small in number and unevenly dispersed within the drainage. It is not currently known if brown trout still exist within the drainage. This stream appears to be void of native freshwater fishes.

The Main Stem, North Fork, East Fork, and Winter Creek segments potentially have suitable habitat for a number of federally listed and Forest Service Sensitive wildlife, including the mountain yellow-legged frog, California red-legged frog, arroyo toad, southwestern willow flycatcher, and least Bell's vireo. None of these species, however, have been recently detected within this study area. The study segment has suitable habitat for the California spotted owl, and this species is known to occur here.

Determination: Fishery and wildlife values within all segments of Big Santa Anita Creek do not appear to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: All four segments of Big Santa Anita Creek have a limited record of Native American sites. Major Native American trails were located throughout the stream corridor, but flood events and the construction of modern improvements along the same routes have minimized the evidence of them.

Determination: Cultural/prehistoric value is considered locally significant but not outstandingly remarkable.

6. Heritage resources (Historic)

Description: At the time of historic contact, all segments of Big Santa Anita Creek appear to have been occupied by the Gabrielino (or as they called themselves, Tongva) people. A major focus of historic

activity was the resort development and other activities associated with the Great Hiking Era. Recreation residences and organizational camps are other examples of recreation activities with historic associations located within the stream corridor. Subsequent modern activities and flooding events have minimized the evidence of these sites.

Determination: No event, person or activity of the past is unusual or noteworthy enough to be significant beyond the local level. Historic value is not considered to be outstandingly remarkable for any segment of Big Santa Anita Creek.

7. Other (Botany)

Description: Big Santa Anita Creek has no significant botanical values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values exist for Big Santa Anita Creek.

Classification

No segment of Big Santa Anita Creek is eligible for classification as a wild, scenic, or recreational river.

Big Tujunga River

Study Area Summary

Name of River: Big Tujunga River

Location: State of California, Los Angeles County, Angeles National Forest

The upper segment of Big Tujunga River begins in the Charlton Flats area (NW ¼,SE ¼, Section 2, T2N, R11W, SBBM) and continues approximately 13.9 miles in a westerly direction through mixed conifer stands, alder/mixed hardwood riparian vegetation, and rocky gorges to the Big Tujunga Reservoir impoundment (NE ¼, SE ¼, Section 31, T3N, R12W, SBBM).

The Fox Creek segment begins on the southern flanks of Mt. Gleason (SE ¼, SW ¼, Sec 6, T3N, R12W, SBBM) and trends south approximately 7.3 miles until its terminus in the Big Tujunga Reservoir (SW ¼, NE ¼, Sec 31, T3N, R12W, SBBM).

The lower segment of Big Tujunga River begins at the spillway of Big Tujunga Dam (NE ¼, NE ¼, Section 1, T2N, R13W, SBBM) and trends in a south, southeasterly direction approximately 8.0 miles through riparian woodland and heavily developed recreation sites and private land to the forest boundary near Tujunga at Mt. Gleason Avenue (SW ¼, SE ¼, Section 1, T2N, R14W, SBBM).

The Trail Canyon segment begins near Tom Lucas Camp (SE ¼, NW ¼, Sec 22, T3N, R13W, SBBM) and trends south approximately 4.4 miles until its confluence with the lower segment of Big Tujunga River below the dam (NE ¼, SE ¼, Sec 32, T3N, R13W, SBBM). See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	13.9	0.0
2	7.3	0.0
3	8.0	0.0
4	4.4	0.0

Studied: 33.6 miles

Eligible: 0.0 miles

Eligibility Inventory

Determination of Free flow:

The upper segment of Big Tujunga River has a small flood control dam between Chilao and the Big Tujunga Reservoir, in the vicinity of Wickiup. It is not free flowing.

The Fox Creek segment flows freely its entire course. The upper area flows intermittently and is perennial in the lower area.

The lower segment of Big Tujunga River is not free flowing since the flow timing and amount is strictly controlled by the County for flood control and the need for ground water recharge at spreading grounds below Hansen Dam in the San Fernando Valley. There is also a small weir dam one mile below the larger dam that has a stream flow gauging station.

The Trail Canyon segment is free flowing, though intermittently in its upper reaches. In heavy rain years, it may run perennially in the lower reaches.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Rocky gorges, conifers, and mixed hardwood riparian vegetation characterize the scenery in the upper segment of Big Tujunga River. Roads cross the upper stream segment at various locations and there are views of tree plantations along its upper length. Typical views of chaparral are unbroken except for the prominence of Strawberry Peak. The lower canyon, about 3 miles from the dam, has rock canyon walls that are very steep with deep pools in the drainage.

Scenery in the Fox Creek segment is characterized by a very narrow, natural appearing drainage that is less than 10 feet wide in some places. Its slopes are steep and rocky. There is a small waterfall near the Creek's terminus at Big Tujunga Reservoir.

A county road, recreation development and private housing parallel most of the lower segment of Big Tujunga River. Two scenic vistas are located along the road, but the views are mostly of steep chaparral-covered slopes with occasional conifer stringers and plantations at mid-slope. The riparian area appears very degraded.

The Trail Canyon segment is characterized by a narrow canyon with extremely steep, rugged slopes covered in chaparral to the water's edge. Several cabins are visible near the lower end of the segment. Above the cabins, Trail Canyon Falls can be viewed when water is running in winter and early spring.

Determination: The vegetation, water features and topography of all segments of Big Tujunga River are

very typical for riparian areas in the San Gabriel Mountains. The roadways, recreation developments, and private housing near the river segments are obvious intrusions. The cultural landscape is one of intensive human use. Scenic value is not considered to be outstandingly remarkable.

2. Recreation

Description: The Silver Mocassin National Recreational Trail crosses near the headwaters of the upper segment of Big Tujunga River, and several other trails cross the stream in other locations. At the headwaters is a large recreation complex (Charlton Flat Picnic Area) that is used year round; however, use there is not associated with the stream because runoff lasts only 1 to 2 days after a storm. Dispersed camping and picnicking continue to take place along the stream although activities are greatly restricted now due to the closure for the arroyo toad. Stream fishing was popular until three years ago when the Fish and Game Commission quit stocking the stream, in response to the Forest Service request for threatened and endangered species protection. The stream dries up in early summer and recreational use drops considerably soon afterward.

The Fox Creek segment offers primitive recreation opportunities but it receives little use because there is no trail and it is steep, rocky, and very inaccessible.

There is heavy recreational use within the lower segment of Big Tujunga River in spring and early summer when there has been sufficient rainfall. Use consists of water play, hiking and picnicking. Closures are necessary to control crowds during holiday weekends when the stream is flowing. Close proximity to the city and opportunities for water play make it attractive to local city dwellers. Private land developed for full time residences is interspersed with a recreation residence tract containing 55 cabins between Wildwood and Stonyvale.

Within the Trail Canyon segment is a popular route for hikers to view the waterfalls.

Determination: Recreation opportunities for all segments of Big Tujunga River are limited and attract visitors from the local area only. Recreation value is considered to be locally important, but not outstandingly remarkable.

3. Geology

Description: The majority of the basement in the upper segment of Big Tujunga River is composed of granite and granodiorite of Mesozoic age. Major alluvial terraces along the main channel are found just upstream of where Short Cut Road crosses the channel. Alluvium lines the channel all the way down to the Colby Ranch Road crossing. Below the Colby crossing, the creek enters a narrow canyon that is very difficult to enter. There is little alluvium in the narrow canyon as it continues down to the Big Tujunga Reservoir.

The basement of Fox Creek segment of Big Tujunga River is granitic bedrock and is not unusual for this

area.

The basement geology of the lower segment of Big Tujunga River is heavily fractured granite. Big Tujunga crosses or flows down three major faults in this reach. Just below Big Tujunga Dam, the stream crosses the Maple Canyon Fault. The stream then crosses the North Branch of the San Gabriel Fault where the Clear Creek tributary flows into Big Tujunga. The creek continues to flow southeasterly and enters the rift zone of the South Branch of the San Gabriel Fault. This rift zone valley is a quarter mile wide with alluvium covering most of the bottom. Big Tujunga leaves the fault zone near the Forest Service information sign in Section 32, T3N, R13W. It then flows through a granite bedrock canyon on its way off the National Forest.

The Trail Canyon segment of Big Tujunga River has a granitic basement, which is not unusual for this area.

Determination: Geologic value is typical for the San Gabriel Mountains and is not considered to be outstandingly remarkable for Big Tujunga River.

4. Fish and Wildlife

Description: The upper segment of Big Tujunga River includes potential fish habitat for Santa Ana sucker (federally listed threatened species) below Alder Creek. The Fox Creek and Trail Canyon segments include potentially suitable habitat for the Santa Ana sucker within its lower reach. Information on the presence or absence of other native fish is unknown. However, based on the status of native fisheries within Upper Big Tujunga Creek, the potential for occurrence, and the intermittent nature of the stream, the ability of Fox Creek to support a fishery is very low. The lower segment of Big Tujunga River includes key habitat for Santa Ana sucker and occupied habitat for arroyo chub (Forest Service Sensitive).

In both the upper and lower segments of Big Tujunga River, critical habitat for the federally listed endangered arroyo toad was recently vacated by court order, but there is still critical habitat for the federally listed threatened California red-legged frog. The arroyo toad population here is one of the smaller populations on the forest and of local significance only. Fox Creek is critical habitat for the California red-legged frog, although there are no known or historical occurrences of this species within this drainage. This river corridor also includes key or occupied habitat for southwestern willow flycatcher (federally listed endangered species) and peregrine falcon (Forest Service Sensitive), but no nesting has been detected.

Determination: Fisheries and wildlife values within Fox Creek and Trail Canyon are not considered outstandingly remarkable. Fisheries values within the lower segments of the Big Tujunga River are considered outstandingly remarkable due to the presence of Santa Ana sucker species and key habitat, and occupied habitat for arroyo chub (FS sensitive). Although Big Tujunga River includes species that are outstanding according to their definition as threatened, endangered or sensitive, the habitat and

wildlife resources are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. Heritage resources (Cultural)

Description: The upper segment and the Trail Canyon segment of the Big Tujunga River contain evidence of occupation or use by Native. The sites fall into one of three functional categories: production, camps/villages, and ceremonial. The Fox Creek segment and the lower segment of Big Tujunga River have a limited record of Native American occupation. Major Native American trails were located throughout the river corridor but flood events and the construction of modern travel-ways along the same route have minimized the evidence of them.

Determination: Cultural/pre-historic value is considered locally significant but not outstandingly remarkable.

6. Heritage resources (Historic)

Description: At the time of historic contact, all four segments of Big Tujunga River appear to have been occupied by the Fernandeno/Gabrielino group. Big Tujunga Canyon was a favorite grizzly bear hunting area for mission vaqueros. Historic use of the Upper Big Tujunga Canyon remained focused on hunting and mining. Travel from the Los Angeles basin to the desert, following older Native American trails was also a historic use. The famous bandito, Tiburcio Vasquez was known to have been in portions of this drainage. Intense historic use of this drainage was related to the homesteads and Great Hiking Era between 1880 and 1940. Sites within the river corridor can be categorized as follows: trails, cabin sites, dump/refuse deposits, mines, and homesteads.

Determination: No event, person or activity of the past is unusual or noteworthy enough to be significant beyond the local level. Historic value is not considered to be outstandingly remarkable for any segment of Big Tujunga River.

7. Other (Botany)

Description: Big Tujunga River has no significant botanical values.

Determination: The reach possesses no outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Fish and Wildlife

Fisheries values within the lower segments of the Big Tujunga River are considered outstandingly remarkable due to the presence of Santa Ana sucker species and key habitat, and occupied habitat for arroyo chub (Forest Service sensitive).

Classification

Despite the fact that fish values were determined to be outstandingly remarkable in the lower segment, the Big Tujunga River is not eligible for designation as a wild, scenic, or recreational river because it was not determined to be free flowing. The Fox and Trail segment are ineligible as well due to no outstandingly remarkable values.

Cleveland National Forest

Boulder Creek

Study Area Summary

Name of River: Boulder Creek

Location: State of California, San Diego County, Cleveland National Forest

Boulder Creek, a tributary to the San Diego River, originates from the dam at Cuyamaca Lake (UTM 11/538695/3650025) near the Cuyamaca Rancho State Park boundary, and flows across state park lands and private land for approximately 2.5 miles before entering the Cleveland National Forest. The study segment starts at the forest boundary in the NW1/4 of the NE1/4 of Section 1, T14S, R3E, SBB&M and ends at the forest boundary with Capitan Grande Indian Reservation in the NW1/4 of the NW1/4 of Section 12, T14S, R2E, SBB&M. Between Mineral Hill and Devil's Punchbowl, Boulder Creek meanders between two irregularly shaped private land parcels. Just beyond the reservation boundary, the creek empties into the San Diego River. Sill Hill and Eagle Peak Inventoried Roadless Areas surround Boulder Creek.

River Mileage:

Studied: 9.2 miles

Eligible: 0.0 miles

Eligibility Inventory

Determination of Free flow:

Boulder Creek is not free flowing and therefore is not considered eligible for Wild and Scenic River status.

The following factors were considered in this determination: water flow is controlled at Cuyamaca Dam, operates with gate closings which result in zero base flow, and spring releases ranging from 30 to 40 CFS. Boulder Creek is dry most of the time. There have been no releases in the past few years. Since the late 1930s, the annual releases from the dam average 2,500 acre-feet per year. Water is held through winter and most excess is released downstream to El Capitan Reservoir in spring, in accordance with agreements between the Helix Water District and the City of San Diego. Generally releases are finished by mid-May and water flows from the dam are reduced to zero (Helix Water District 2003). Boulder Creek has been proposed for inclusion on the California Water Quality Control Board, San Diego

Region, Section 303(d) "Watch List" due to hydrologic modification (scour from reservoir release) and exotic vegetation species including Tamarisk (State of California, Water Quality Control Board 2003).

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Boulder Creek flows through a rugged canyon with undeveloped segments. Between Devil's Punchbowl and the reservation boundary the canyon is steep and narrow, rising from 1,600 feet to over 3,200 feet at Eagle Peak. Due to dramatic landforms, including Devil's Punchbowl, Eagle Peak, and Boulder Canyon, this area contains a large block of land mapped as Scenic Attractiveness Class "A" (Distinctive) in the Cleveland Forest visual resource inventory. Views from the river corridor, however, are generally enclosed and limited to the foreground immediately adjacent to the creek. Peak seasonal flows and storm events occasionally create a triple set of cascading waterfalls near Devil's Punchbowl (Section 8), however the canyon is frequently dry. Brown has noted that the falls create an impressive display of white water on smooth granite. While the landforms are noteworthy for the Cleveland Forest, Boulder Creek shares many of the scenic attributes of Cedar Creek to the north; several other river canyons on the Cleveland National Forest (i.e. San Diego, Pine Creek, and Hauser Canyons) have more dramatic scenic attributes (U.S. Department of Agriculture, Forest Service 1986a).

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: Boulder Creek is sandwiched between Cuyamaca Rancho State Park and the Capitan Grand Indian Reservation. Boulder Creek Road (13S08) is the only road in the area open to the public. The lack of access and infrastructure severely restricts opportunities for river-related recreation. The road crosses Boulder Creek in the north part of Section 15. Here the surrounding land is privately owned and there is no public access to recreation opportunities. The road through Capitan Grande Indian Reservation (FS13S06) is not open to the public. There is no public trail access to the river. There is a triple set of waterfalls in Boulder Creek called the "Three Sisters." After storm events, the falls attract local recreationists, however the dam at Cuyamaca Reservoir restricts the flow over the falls. During late summer and early fall, the creek is often dry. A primitive route cut by hikers leads to the creek some distance from the falls (Schad 1999, p.162, 163). The climb to the falls is difficult and dangerous. The only other trail that accesses the river originates on private land and is closed to the general public. No development or interpretive opportunities are associated with the river. Boulder Creek does not attract visitors from throughout or beyond the region of comparison and most visitors do not travel long distances to use the river for recreational purposes (Kocis and others 2002, p.8).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Boulder Creek is located in the Palomar–Cuyamaca Peak subsection of the Southern California Mountains and Valleys Ecological section and ends in the Western Granitic Foothills subsection at the confluence with the San Diego River. These subsections comprise the higher mountains of the Peninsular Ranges from the Agua Tibia Mountain southeastward to the Mexican border and the mountains and hills at intermediate elevations on the coastal side of the ranges. The geomorphology associated with Boulder Creek is typical of these subsections. Boulder Creek originates in a broad valley surrounded by the Cuyamaca Mountains and descends through a narrow canyon into the San Diego River. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes. The subsections through which Boulder Creek flows contain mostly Mesozoic granitic rocks. Soil associations are generally sandy loams on steep slopes. In general soils are well drained and soil moisture regimes are xeric (U.S. Department of Agriculture, Soil Conservation Service 1973, map no.47, 48). The lithology, stratigraphy, geomorphology, and soils associated with Boulder Creek are analogous to other subsections in the Southern California Mountain and Valley section (Miles and Goudey 1997, p.13-1 to 13-16).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: California gnatcatchers (*Polioptila californica*) occur in upland areas but do not owe their location or existence to the presence of the river. Riparian species include Coast Range newt (*Taricha torosa torosa*), southwestern pond turtle (*Clemmys marmorata pallida*), arroyo toad (*Bufo californicus*), and yellow warbler (*Dendroica petechia brewsteri*) (Stephenson and Calcarone 1999, p.335-337). The populations of these species are relatively small with the exception of the Coast Range newts. Coast Range newt populations are locally significant, but not nationally or regionally important.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Though information of Native American use of the corridor is limited, what is known indicates the use to be focused, with sites representing a small seasonal camp or plant processing (bedrock mortar). These types of sites are not rare or unusual in character for the area. Due to the steepness of adjacent landforms, the potential for prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Though information of historic use of the corridor is limited, what is known indicates the

use to be focused on mining with several historic mines present. There are no other known historic sites within the river corridor, and no significant events or activities associated with the creek. The river corridor has not been surveyed for historic resources. Due to the steepness of the river canyon, the area was probably not occupied in historic times. The presence of a one-of-a-kind site or feature is unlikely.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The dominant vegetation type adjacent to the river corridor is coastal sage scrub, which is a relatively uncommon vegetation type on the forest. These populations do not owe their location or existence to the presence of the river. Orcutt's brodiaea (*Brodiaea orcuttii*), a Forest Service Sensitive species associated with clay soils in flat terrain near spring ponds is located near the headwaters of Boulder Creek (Stephenson and Calcarone 1999, p.259, 260). These populations are located on state and/or private lands outside of the forest boundary.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for Boulder Creek.

Classification

This stream has been determined to be ineligible.

Cedar Creek

Study Area Summary

Name of River: Cedar Creek

Location: State of California, San Diego County, Cleveland National Forest

Cedar Creek, a tributary to the San Diego River, originates in the northern part of the Cuyamaca Mountains, just east of William Heise County Park. The study segment starts at the forest boundary in the NE1/4 Section 16, 13S, R4E, SBB&M and flows to the southwest and ends at the forest boundary with Helix Water District land, in the N1/2 of Section 1, T14S, R2E, SBB&M. The length of the segment studied is approximately 12.5 miles, nearly half of which is on county, private, and tribal lands. From its origins, Cedar Creek flows southwest across county, private, and tribal land before entering forest lands in the W1/2 of Section 26, T13S, R3E, SBB&M. Cedar Creek empties into the San Diego River about $\frac{3}{4}$ miles west of the forest boundary. The section of Cedar Creek below Cedar Creek Road is within the Eagle Peak Inventoried Roadless Area.

River Mileage:

Studied: 12.5 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

Cedar Creek is free flowing. Flow patterns reflect southern California's climate of dry summers and short, wet winters. Flows peak in the winter and early spring and decline dramatically in the summer months, where in many cases they would dry up in the uppermost and lowermost reaches (Stephenson and Calcarone 1999, p.76).

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The upper reaches of Cedar Creek flow across relatively flat land within an area of mixed rural development. Cultural modifications, such as roads, are characteristic of the upper reaches of the

drainage. Beyond the Inaja Indian Reservation, Cedar Creek flows through a rugged canyon with undeveloped segments. Between Cedar Creek Road and the San Diego River Canyon, Cedar Creek runs through a steep and narrow canyon that rises from 1,000 feet at Cedar Creek Falls to over 3,200 feet at Eagle Peak. Due to dramatic landforms, Eagle Peak, Cedar Creek Falls, and San Diego River Canyon, this area contains a large block of land mapped as Scenic Attractiveness Class "A" (Distinctive) in the Cleveland Forest scenery management inventory. Seasonal flows and storm events occasionally create an impressive 100-foot waterfall $\frac{3}{4}$ mile east of the San Diego River confluence. Cedar Creek Falls has been described as a place of "almost overwhelming natural beauty" (Schad 1999 p.162). Most of the year however, Cedar Creek is dry or reduced to a trickle. Views from the river corridor are generally enclosed and limited to the foreground, immediately adjacent to the creek. While the falls are a popular local destination and the landforms are noteworthy for the Cleveland Forest, the landscape elements are not notable or exemplary from a regional or national perspective (U.S. Department of Agriculture, Forest Service 1986a).

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: Cedar Creek Falls has been a favorite day trip for generations of San Diegans. Before the Helix Water District built El Capitan reservoir in the 1930s, people used to be able to drive to the falls (Doll 1997, p.233). Cedar Creek Falls is one of the most visited waterfalls in San Diego County and Schad considers the falls to be one of the San Diego County's hidden treasures in the region (Schad 1999, p.161). During the wet season and after storm events, visitors access the falls on foot via Eagle Peak Road (13S06) or on a non-system trail from the west side of the San Diego River Canyon. These routes are not maintained and no infrastructure has been developed. The Helix Water District owns the land below the 995-foot elevation within the San Diego River corridor, including the drainage leading to Cedar Creek Falls (Section NW1/4, Section 1, T14S, R2E, SBB&M). Public access is not formally authorized. While Cedar Creek is an increasingly popular local destination, it does not attract visitors from throughout or beyond the region of comparison and most visitors do not travel long distances to use the river for recreational purposes (Kocis and others 2002, p.8). The lack of access and infrastructure restricts opportunities for safe and healthy river-related recreation. No interpretive opportunities are associated with the river.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Cedar Creek originates in the Palomar–Cuyamaca Peak subsection of the Southern California Mountains and Valleys Ecological section and ends in the Western Granitic Foothills subsection at the confluence with the San Diego River. These subsections comprise the higher mountains of the Peninsular Ranges from the Agua Tibia Mountain southeastward to the Mexican border and the mountains and hills at intermediate elevations on the coastal side of the ranges. The

geomorphology associated with Cedar Creek is typical of these subsections. Cedar Creek originates at the northern end of the Cuyamaca Mountains and descends into the San Diego River. The canyon narrows as it approaches the San Diego River. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes. The subsections through which Cedar Creek flows contain mostly Mesozoic granitic rocks. Soil associations are generally sandy loams on steep slopes. In general, soils are well drained and soil moisture regimes are xeric (U.S. Department of Agriculture, Soil Conservation Service 1973, map no. 47, 48). The lithology, stratigraphy, geomorphology, and soils associated with Cedar Creek are analogous to other subsections in the Southern California Mountain and Valley section (Miles and Goudey 1997, p.13-12, 13-13). There are no known notable geologic features on the Cleveland National Forest (U.S. Department of Agriculture, Forest Service 1986b, p. 3-11).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Riparian species include Coast Range newt (*Taricha torosa torosa*), southwestern pond turtle (*Clemmys marmorata pallida*), arroyo toad (*Bufo californicus*), and yellow warbler (*Dendroica petechia brewsteri*) (SCCS Inventory, 3/13/01 CNF) (Stephenson and Calcarone 1999, p.335-337). The populations of these species are all relatively small with the exception of the Coast Range newts, and although the Coast Range newt populations are large enough to be important locally, they are not nationally or regionally significant. California gnatcatchers (*Polioptila californica*) occur in upland areas but do not owe their location or existence to the presence of the river.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Cedar Creek runs through an area that has extensive evidence of Native American occupation. Milling features, resource processing sites and small encampments are common in this area. These sites do not have unusual characteristics and do not have exceptional human-interest value. The river corridor has not been surveyed for cultural resources; however, due to the steepness of adjacent landforms the potential for prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Little is known about the historic use of Cedar Creek as the river corridor has not been surveyed for cultural resources. However, due to the steepness of the river canyon, the area was probably not occupied in historic times. Cedar Creek is not associated with a significant event or important person. The presence of a one-of-a-kind site or feature is unlikely.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The river or area within the river corridor does not contain nationally or regionally important populations of indigenous plant species. The river or area within the river corridor does not provide exceptionally high quality habitat for plants of national or regional significance, or unique habitat or a critical link in habitat conditions for federal or state listed or candidate threatened, endangered, and sensitive species.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for Cedar Creek.

Classification

This stream has been determined to be ineligible.

Cottonwood Creek

Study Area Summary

Name of River: Cottonwood Creek

Location: State of California, San Diego County, Cleveland National Forest

Cottonwood Creek originates from three tributaries that drain Crouch Meadows, a parcel of private land in the Laguna Mountains (Section 21, T15S, R5E, SBB&M). The study segment starts at Crouch Meadows and flows to the southwest across numerous parcels of private land, under Interstate 8, through Lake Morena County Park, into both Morena Reservoir and Barrett Lake, and ends at the forest boundary below Barrett Dam in the SE1/4, Section 21, T17S, R3E, SBB&M. A segment of Cottonwood Creek delineates the southern boundary of the Hauser Wilderness and is within the Hauser Inventoried Roadless Area. The length of the segment studied is approximately 26 miles. Nearly 15 miles is on county or private lands or makes up Morena Reservoir or Barrett Lake. Below Barrett Lake, Cottonwood Creek terminates at the Tijuana River. Segment 1 extends from Crouch Ranch to Morena Reservoir; segment 2 extends from Morena Dam to the south forest boundary.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	11.9	11.9
2	14.1	0.0

Studied: 26.0 miles

Eligible: 11.9 miles

Eligibility Inventory

Determination of Free flow:

Cottonwood Creek is free flowing. Flow patterns reflect southern California’s climate of dry summers and short, wet winters. Flows peak in the winter and early spring and decline dramatically in the summer months, where in many cases they would dry up in the uppermost and lowermost reaches (Stephenson and Calcarone 1999, p.76). Normally flows into Morena Reservoir do not persist through spring.

Streamflows on the lower reaches of Cottonwood Creek are regulated by the dam at Morena Reservoir.

Water from Cottonwood Creek is captured and held in Morena Reservoir in the winter and most excess is released downstream to Barrett Reservoir, when space is available in Barrett Lake. When releases are made, they range from 30 to 50 cfs and generally last three to six months during the late winter and spring season. Over the past ten years, only three releases occurred. Since 1993, the three releases from the dam have averaged 10,000 acre-feet per year. During normal to dry local years, there are no releases (i.e. water is not transferred down to Barrett) and the only flows in the creek results from natural runoff and the minimal leak through the dam (usually less than 0.5 cfs, although up to 11 cfs escapes through the dam when the reservoir is full) (City of San Diego Water Department 2003). Several large tributaries feed Cottonwood Creek below Lake Morena Dam. As a result of leak from Morena Dam, winter releases, and the retention of sediments, the water table above Barrett Lake is unnaturally high and abnormal vegetation and substrate characterize the lower segment of Cottonwood Creek.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The upper reaches of Cottonwood Creek flow from the Crouch Meadow complex. At the confluence of the tributaries, Cottonwood Creek crosses onto forest lands and begins its way south, down a steep narrow canyon for just over two miles. At Un Gallo Flat, above Glenclyff Fire Station, the stream corridor broadens. Below Un Gallo Flat, Cottonwood Creek parallels Interstate 8 for a short distance before entering Cottonwood Valley. Cottonwood Valley is broad, open, riparian oak woodland. Cottonwood Creek crosses under Buckman Springs Road before entering Morena Reservoir.

The Creek leaves Morena Reservoir in Section 23, T17S, R4E, SBB&M and travels down a narrow, winding canyon before entering Hauser Canyon. Hauser Canyon is characterized by steep slopes and narrowing of the stream corridor. The Interstate 8 Corridor, Morena Reservoir, and Barrett Lake are significant cultural modifications within the river corridor, however nearly the entire stream corridor and much of the surrounding area is mapped as Scenic Attractiveness Class "A" (Distinctive) in the Cleveland Forest scenery management inventory. The presence of large bodies of water in a relatively arid landscape heightens scenic attractiveness. Narrow parts of the stream corridor are characterized by sandy, riparian woodlands with oaks and sycamores, and rock outcrops (U.S. Department of Agriculture, Forest Service 1986a). While these qualities make the Cottonwood Creek drainage among the most attractive on the Cleveland Forest, the landscape elements are not notable or exemplary from a regional or national perspective.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: North of Interstate 8 there is limited opportunities for public access for recreation due to patterns of land ownership. Above Un Gallo Flat, Cottonwood Creek falls are "a one mile downhill walk" east of the Sunrise National Scenic Byway (County Road S1) but not visible from the road

corridor. Schad describes Cottonwood Creek Falls as "one of many secret beauty spots tucked away in the Southern California's mountainous folds" (Schad 1999, p.209). Brown and Stienstra describe Cottonwood Creek Falls as "many small waterfalls and big pools" with "several cascades, each about 12 feet high" (Stienstra and Brown 2001, p.795). The trail is unsigned, undeveloped, and appears overgrown. Morena Reservoir lies in the middle of a 3,250-acre park owned and managed by San Diego County. The newly renovated park features camping, picnicking, hiking, boating, and fishing opportunities.

Only hikers, undocumented immigrants, and Border Patrol agents visit Cottonwood Creek within Hauser Canyon. Cottonwood Creek is adjacent to and forms the southern boundary of Hauser Wilderness. "Years ago the public could descend into Hauser Canyon by way of a dirt road from Lake Morena Drive and reach a Forest Service campground" (Schad, 1999, p.222). There are currently no developed facilities in the Canyon. Cottonwood Creek is reached via Hauser Creek Trail. "Hauser Trail follows Hauser Canyon for four miles just outside of the southern boundary. No other trail exists, and the rest of the area is seldom used by humans" (Tilton 1996, p.177). Operated by San Diego County and located at the confluence of Cottonwood and Pine Valley Creek, access to Barrett has been offered on a limited basis by reservation only since 1994. It operates under highly restrictive regulations designed to protect both the fishery and the quality of the fishing experience. No private boats are allowed at Barrett. There are no concession facilities or drinking water available. Due to the fact that the entrance road passes through private property, all parties must be escorted on and off the premises. Cottonwood Creek does not attract visitors from throughout or beyond the region of comparison and most visitors do not travel long distances to use the river for recreational purposes (Kocis and others 2002, p.8).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Cottonwood Creek is located on the western side of the Peninsular Ranges Batholith, in the Palomar-Cuyamaca Peak subsection of the Southern California Mountains and Valleys Ecological section and flows through the Western Granitic Foothills subsection. These subsections comprise the higher mountains of the Peninsular Ranges from the Agua Tibia Mountain southeastward to the Mexican border and the mountains and hills at intermediate elevations on the coastal side of the ranges. Steep mountains with rounded summits, narrow to broad canyons, some broad valleys, and rolling plateaus characterize the area. Cottonwood Creek originates in the Laguna Mountains and eventually drains into the Tijuana River in Mexico. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes. The subsections contain mostly Mesozoic granitic rocks. Soil associations are generally sandy loams on steep slopes and sandy sediments in valleys and on alluvial fans. Rock outcrops comprise approximately 10% of this area. In general, soils are well drained and soil moisture regimes are xeric (Miles and Goudey 1997, p.13-12 to 13-13, U.S. Department of Agriculture; Soil Conservation Service 1973, p.66, 77, 79). There are no known notable geologic features on the Cleveland National Forest (U.S. Department of Agriculture, Forest Service 1986b, p.3-11).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Riparian species above Lake Morena include the southwestern pond turtle (*Clemmys marmorata pallida*), arroyo toad (*Bufo californicus*), and yellow warbler (*Dendroica petechia brewsteri*) (kw 11/02). Historically there has been a few least Bell's vireo (*Vireo bellii pusillus*). Most of these populations are relatively small with the exception of the arroyo toad. These populations are not nationally or regionally important.

Riparian species below Lake Morena include the southwestern pond turtle, yellow warbler (*Dendroica petechia brewsteri*), and least Bell's vireos. Bald eagles (*Haliaeetus leucocephalus*) occasionally visit Lake Morena and Barrett Lake during the winter. The least Bell's vireo population on Cottonwood Creek is the largest on the forest (Stephenson and Calcarone 1999, p.337) but it is very small in a local context (about six pairs). There are a couple golden eagle (*Aquila chrysaetos*) nests in Hauser Canyon. The populations of these species are also relatively small. These populations are locally significant, but not nationally or regionally important.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Most of the Cottonwood Creek corridor has been surveyed for heritage resources, and several sites eligible for the National Register of Historic Places have been recorded within the corridor. Sites documented include resource collection and processing centers (include milling features, lithic scatters, and evidence of rock walls) as well as rock shelters, numerous ceramic scatters, and midden. Large village sites, determined eligible for inclusion within the National Register of Historic Places, have been located within the corridor. Some of the sites within the Cottonwood Creek corridor represent a significant Late Prehistoric complex. Other sites show evidence of contact between the local inhabitants and the Hohokam pueblo builders of Arizona (rare in California). The heritage sites within this corridor represent a significant scientific resource that are of local, regional, and even national importance (e.g., assist in the interpretation of Hohokam influences in the region). These sites are rare and have unusual characteristics and exceptional human-interest value.

Determination: Cultural values are considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Locations favored by prehistoric groups were also used in historic times, as there is evidence of historic occupation occurring at the same locations that had been previously used by the Native Americans. Boulder Oaks was once the site of a popular resort. Within Hauser Canyon there is a memorial constructed to honor nine fallen U.S. Marine Corps fire fighters who died in the 14,481 acre

"Hauser Creek" fire in October 1943. Remnants of the Cottonwood Flume are also located in Hauser Canyon. The Cottonwood Flume has not been evaluated, but may be unique in that it connects two reservoirs. It was likely a part of the San Diego Flume Company flumes built at the turn of the 20th Century to make the City of San Diego water self-sufficient. The historic features found within the corridor are unique for the local area but not one-of-a-kind in the region or nation.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The river or area within the river corridor does not contain nationally or regionally important populations of indigenous plant species. The river or area within the river corridor does not provide exceptionally high quality habitat for plants of national or regional significance, or unique habitat or a critical link in habitat conditions for federal or state listed or candidate threatened, endangered, and sensitive species. A population of San Bernardino Bluegrass (*Poa atropurpurea*), a federally listed plant species, occurs in Bear Valley between Interstate 8 and Morena Reservoir (Stephenson and Calcarone 1999, p.283-285). This population is noteworthy but not outstandingly remarkable.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary, and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Cultural: Values associated with Cottonwood Creek are determined to be outstandingly remarkable due to the presence of sites that can assist in the interpretation of Hohokam influences in the region.

Classification

Based on the condition of the creek and the condition of adjacent lands as they currently exist, the potential classification of the upper segment of Cottonwood Creek (Crouch Meadow to Morena Reservoir) is Recreational.

Noble Canyon Creek

Study Area Summary

Name of River: Noble Canyon Creek

Location: State of California, San Diego County, Cleveland National Forest

Noble Canyon Creek, a tributary to Pine Valley Creek, originates from a spring on private land in the NW1/4 of Section 4, T15S, R5E, SBB&M, just east of Laguna Meadows. The creek flows south and west into Noble Canyon and terminates at its confluence with Pine Valley Creek on private land in the SE1/4, T15S, R4E, SBB&M.

River Mileage:

Studied: 4.8 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow

Noble Canyon Creek is free flowing.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Noble Canyon Creek originates just below a high mountain meadow and flows south and west a short distance to its confluence with Pine Valley Creek. The area where Noble Canyon Creek originates, Noble Canyon and the area near the confluence with Pine Valley Creek have been mapped as Scenic Attractiveness Class "A" (Distinctive) in the Cleveland Forest visual resource inventory (U.S. Department of Agriculture, Forest Service 1986a). Noble Canyon Trail crosses the creek a number of times and parallels the creek for about four miles, crossing from sunlit openings to sheltered, shady areas. Vegetation along the trail is varied and includes pines, black oaks, and live oaks. Willows, sycamores, and dense thickets often obscure views of the creek. Spring color at the headwaters and fall colors within the canyon have been noted (Schad 1999, p.210, 211). Remnants of structures associated with historic mining (cabin sites, arrastras, and the remains of an historic flume), and prehistoric features

(bedrock mortars and grinding basins), are recognized for their scenic attributes. While the combination of visual elements is noteworthy for the Cleveland Forest, they are not unique or exemplary attractions with regional or national importance.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: Noble Canyon Creek is accessed by Noble Canyon Trail, a National Recreation Trail dedicated in 1982. The trail is an extension and reworking of a trail used by miners and ranchers in the late 1800s. The trail was reworked in the 1930s by the Civilian Conservation Corps and reconstructed and relocated to avoid private land in 1980. Since its completion in 1982, the trail has proven very popular among hikers, equestrians, and more recently mountain bikers (Schad 1999, p.210, 211). A variety of vegetation and historic and prehistoric features along the trail have interpretive potential. Remnants of an old flume and arrastras (ore grinding mills) can be seen along the trail. Seasonal color displays, spring wildflowers, and fall color provide unique opportunities for sightseeing, photography, and interpretation. Other than the trail, there are no improvements along the creek. The trailheads that serve Noble Canyon Trail are some distance from the creek. There is no other trail or public access to the creek. Motorized vehicles are prohibited (Noble Canyon National Recreation Trail Visitor Handout, CNF). Although Noble Canyon Trail is one of the busiest in the area and the popularity of the trail (especially for mountain biking) has increased, most visitors to Noble Canyon Creek are southern California residents (Chavez and Olson 2003, p.33). While the recreation opportunities are notable for the Cleveland National Forest, other similar experiences are possible elsewhere in southern California. The trail does not generally attract visitors from throughout or beyond the region of comparison (Kocis and others 2002, p.8).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: "Noble Canyon Creek is within a basin that extends from the tops of the Lagunas (over 6000' in elevation at the highest points) to Barrett Lake (approximately 1600')," on the western side of the southern California Peninsular Ranges Batholith. The basin consists of metamorphic rocks that formed as a result of uplift and compression that occurred as the Pacific Plate began subduction beneath the Continental Plate about 150 million years ago. During this time a magma chamber also developed that was exposed between 90 and 120 million years ago. "The Peninsular Ranges Batholith is deeply weathered and the clays transported with large amounts of fragmented sediments form the loamy soils that comprise a large portion of the soils in the basin." "...Rock outcrops comprise a significant portion of this area...approximately ten percent is classified as Acid Igneous Rock Land." "The upper sections of the Lagunas are broad gently rolling hills. From the edge of these mountain mesas the land descends rapidly to Pine Valley, which is at an elevation of 3700'. The land is fairly steep with average slopes ranging from 9 to 60%" (Bearmar, Michelle L.H. 2001, p.1-3). The geomorphology associated with

Noble Canyon Creek is typical of the Palomar-Cuyamaca Peak Ecological subsection. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes (Miles and Goudey 1997, p.13-13 to 13-14). Noble Canyon Creek is just southeast of the Deer Park area, a minor gold mining district (Walawender 2003). Evidence of gold mining activities can still be seen along Noble Canyon Creek. There are two patented mining claims in Noble Canyon, but it is questionable that there was ever any valuable ore found (U.S. Department of Agriculture, Forest Service.1978. p.8). There are no known notable geologic features on the Cleveland National Forest (U.S. Department of Agriculture, Forest Service 1986b).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Riparian species include arroyo toad (*Bufo californicus*) (SCCS inventory 3/15/01), and southwestern pond turtle (*Clemmys marmorata pallida*); potential habitat for California red-legged frog (*Rana aurora draytonii*) (Stephenson and Calcarone 1999, p.402) is found in the vicinity of the confluence with Pine Valley Creek (SCCS inventory 2001, 2002). These populations are relatively small. There are a few California spotted owl (*Strix occidentalis occidentalis*) territories in the upper part of the watershed (Stephenson and Calcarone 1999, p.198, 190). These populations are important locally, but do not have regional or national significance.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description:

There is good information about the Native American use of the Noble Canyon Creek corridor as it has been completely inventoried for heritage resources. The entire corridor goes through an area that is rich in cultural and archaeological resources. This area served as a meeting place or an interface between the Coast and Desert Indians, as well as an abundant food-gathering place for the indigenous tribes. A prevalence of plant resources such as pine (pine nuts), oaks (acorns), and forbs (edible seeds) as well as wild game, made the Laguna Mountain Area a place used from summer to late fall. So abundant was the food source that it attracted tribes from as far away as the desert. There is evidence that the local tribes defended their food supplies against the invading tribes (U.S. Department of Agriculture, Forest Service, Cleveland National Forest 1978, p.12). Noble Canyon Creek may have been a travel route to the resource rich areas in the area as well as a major trade route between the coast and the desert. The sites known reflect features that are typical for food collection and processing centers in California, and include things such as grinding stations, grinding slicks and bedrock mortars. There is also evidence of small village or *rancherías* with indications of house pits. While there are archaeological features within the creek corridor, these types of sites are not rare, unique, or exemplary within the State, physiographic province, or ecoregion.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: The Noble Canyon Creek corridor has been completely surveyed for heritage resources. Grazing and mining played an important part in the history of the Noble Canyon Creek corridor. Cattle and sheepmen followed the canyon route to their summer pastures in the higher mountain meadows (FS Trail Data Sheet for National Recreation Trail consideration 02/02/89). During the 1870's, Noble Canyon was the site of gold-mining activity with the Creek serving as a vital water source for the miner's operations (U.S. Department of Agriculture, Pacific Southwest Region, 2003). Evidence of early mining activity still exists in the canyon as evidenced by the presence of remnants of a water control feature, claim markers, structure foundations, cabin sites, and an historic rock *arrastra*. A minor gold mining district, Deer Park, is located just to the northwest of Noble Canyon (Walawender 2003). Although these features are notable for the Cleveland National Forest, they are not rare or one-of-a-kind in the region.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: There are populations of San Bernardino Bluegrass (*Poa atropurpurea*) and Cuyamaca meadowfoam (*Limnanthes gracilis* ssp.*parishii*) within Laguna Meadow. These populations do not owe their location or existence to the presence of Noble Canyon Creek and are not within the immediate shorelands of the creek. California bay trees, scattered incense cedars, sycamores, thickets of brush, and many wildflower species are located within the creek corridor. In exposed areas, live oaks, black oaks, Jeffrey pines, and chaparral thrive (Schad 1999, 210, 211). These are not nationally or regionally important species or populations.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for Noble Canyon Creek.

Classification

This stream has been determined to be ineligible.

Pine Valley Creek

Study Area Summary

Name of River: Pine Valley Creek

Location: State of California, San Diego County, Cleveland National Forest

Pine Valley Creek originates from tributaries that join in Section 30, T14S, R5E, SBB&M in the basin between the Cuyamaca Mountains and Laguna Mountains. The creek flows southwest for approximately 24.8 miles and terminates at Barrett Lake (Section 10, T17S, R3E, SBB&M). The last approximately 9.5 miles of Pine Valley Creek are within the Pine Valley Wilderness.

River Mileage:

Studied: 24.8 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

Pine Valley Creek is free flowing. Pine Valley Creek is undammed and is one of the longest free-flowing, low elevation streams in the California Mountains and Foothills assessment area (Stephenson and Calcarone 1999, p. 337). "...The lower portions of Pine Valley Creek and its major confluences are intermittent streams which run water for part of the year after the onset of the rainy season" (Bearmar 2001, p.12). In winter and early spring, Pine Valley Creek brims with runoff from the creek's headwaters in the Laguna Mountains (Schad 199, p.217). Due to pollution from grazing-related sources, concentrated animal feeding and transient encampments, Pine Valley Creek (between the 3800' contour upstream of Noble Canyon and the confluence with Scove Canyon) has been included on the California Water Quality Control Board, San Diego Region, Clean Water Act, Section 303(d) 2002 List of Water Quality Limited Segments (Morrill 2003).

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The entire length of Pine Valley Creek corridor from Deer Park down to and including

Barrett Lake has been inventoried as Scenic Attractiveness Class "A" (Distinctive) in the Cleveland Forest visual management inventory. Like nearly all of the river and stream corridors on the Cleveland Forest, the juxtaposition of water, diverse riparian vegetation, rock outcrops, and canyon landforms creates high scenic values (U.S. Department of Agriculture, Forest Service 1986b). Within the wilderness, Schad describes a picturesque jumble of car-sized boulders and several mini-waterfalls (Schad 1999, p.217). Interstate 8 bridges the Pine Creek Valley and allows expansive views of the wilderness and the Pine Valley Creek drainage. "Motorists eastbound on Interstate 8 can catch a fleeting glimpse of this impressive gorge when crossing the Pine Valley Bridge, the highest bridge in the Interstate Highway System" (Schad 1999, p.213). While the combination of visual elements is noteworthy for the Cleveland National Forest, they are not unique or exemplary attractions with regional or national importance.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: The upper portion of Pine Valley Creek is a popular recreation area. "A recreation residence tract occurs along Pine Valley Creek as do several popular trails and trailhead facilities. These are popular areas for mountain bike and horseback riding" (Stephenson and Calcarone 1999, p.337). The United States Congress designated the Pine Creek Wilderness Area in 1984 and it now has a total of 13,480 acres. Within the Pine Creek Wilderness "several trails provide access, and receive only light human use. The Horsethief Trail on the west side switchbacks down into Horsethief Canyon and takes you to ... Pine Creek" (Tilton 1996). Starting about two miles north of the wilderness boundary and Interstate 8, Secret Canyon Trail follows Pine Valley Creek for approximately two miles. The trail leaves the creek corridor and follows a historic flume bed, crosses several canyon tributaries and winds its way back across Pine Valley Creek several times before the junction with Horsethief and Espinosa Trails. From Pine Valley Creek hikers can continue east on the Espinosa trail or continue up stream. There is no developed trail in the creek corridor although boulder hopping is sometimes possible. The canyon bottom is dry most of the year, but small waterfalls and pools are sometimes formed, depending on the season and rainfall (Schad 1999, p. 217-220).

These recreational opportunities are not popular enough to attract visitors from throughout or beyond the region of comparison and are not unique or rare within the region. Visitors do not travel long distances to use the river resources for recreational purposes (Chavez and Olson, 2003; Kocis and others 2002, p.8). "Eighty percent of the Forest's recreation visitors are from population centers within a one hour drive from their destination" (U.S. Department of Agriculture, Forest Service 1986b, p.3-53).

Pine Valley Creek has been affected by a dramatic increase in migrant foot traffic from Mexico into the United States. Safety issues may be of special concern to recreationists (Schad 1999, 213-220).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: "Pine Valley Creek is in a basin that extends from the tops of the Lagunas (over 6000' in elevation at the highest points) to Barrett Lake (approximately 1600')," on the western side of the southern California Peninsular Ranges Batholith. The basin consists of metamorphic rocks that formed as a result of uplift and compression that occurred as the Pacific Plate began subduction beneath the Continental Plate about 150 million years ago. During this time a magma chamber also developed that was exposed between 90 and 120 million years ago. "The Peninsular Ranges Batholith is deeply weathered and the clays transported with large amounts of fragmented sediments form the loamy soils that comprise a large portion of the soils in the basin." "...Rock outcrops comprise a significant portion of this area...approximately ten percent is classified as Acid Igneous Rock Land." "The upper portions of the basin comprise sections of the Cuyumaca Mountains to the west and the Laguna Mountains to the East. The upper sections of the Lagunas as well as parts of the Cuyamacas are broad gently rolling hills. From the edge of these mountain mesas, the land descends rapidly to Pine Valley which is at an elevation of 3700'. The land is fairly steep with average slopes ranging from 9 to 60% (Bearmar 2001, p. 1-3). The geomorphology associated with Pine Valley Creek is typical of the Palomar-Cuyamaca Peak Ecological subsection. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes (Miles and Goudey 1997, p.13-12 to 13-13). Pine Valley Creek originates near Deer Park, a minor gold mining district (Walawender 2003). There are currently no known notable geologic features on the forest (U.S. Department of Agriculture, Forest Service 1986b, p.3-11).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Pine Valley Creek has "high-quality riparian habitat and significant populations of arroyo toads (*Bufo californicus*) and pond turtles (*Clemmys marmorata pallida*)" (Stephenson and Calcarone 1999, p.337). The arroyo toad population on upper Pine Valley Creek is probably the largest aggregation of this species on the Cleveland National Forest. While these populations are notable for their size, larger known populations occur elsewhere in the region. There are also a few California Spotted Owl (*Strix occidentalis occidentalis*) territories in the upper part of the watershed. These populations are important locally, but do not have regional or national significance.

The lower reach of Pine Valley Creek also supports arroyo toad and southwestern pond turtle populations. "The pond turtle population on Pine Valley Creek is one of the largest remaining in southern California" (Stephenson and Calcarone 1999, p.337). While these populations are notable for their size, larger known populations occur elsewhere within the region of comparison. Historically there have been a few least Bell's vireos. The historic Quino checkerspot butterfly (*Euphydryas editha quino*) locations at Pine Valley and Barrett Lake are about 30 years old with no recent records. These populations are not nationally or regionally significant.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. *Heritage resources (Cultural)*

Description: The upper reaches of Pine Valley Creek have been inventoried for heritage resources. Prehistoric and proto-historic food processing areas with bedrock milling features have been located throughout the corridor. Other site types include lithic and ceramic scatters, middens, and occupation sites with evidences of house pits. Pine Valley may have been a travel route to the resource rich areas in and around Laguna. While there are numerous cultural features within the creek corridor, they are not rare, unique, or exemplary within the State, physiographic province, or ecoregion nor do they have unusual characteristics or exceptional human interest value(s).

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: A minor historic gold mining district was located at the headwaters of Pine Valley Creek (Walwender 2003). Evidence of the historic mining that occurred within the Pine Valley Creek watershed include an *arrastra* (used by miners during the 1870s to crush rocks) and an historic flume ditch with a drylaid stone wall and earthen berm. The flume has been evaluated for historic significance, and was found to be eligible for the National Register of Historic Properties for the distinctiveness of its masonry construction, and for the involvement of Chinese and African American laborers in the construction. Although these features are notable for the Cleveland National Forest, they are not rare or one-of-a-kind in the region and are not associated with a significant event or person.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The vegetation types commonly found along stream channels in the area are typical of riparian oak woodlands/riparian woodlands. Species include interior live oak, black, black oak, fremont cottonwood, willow and white alder (Stockenberg 1996, p.11). Within the Pine Creek wilderness, "chaparral and scrub oak entirely dominate the vegetation, with some riparian and oak woodlands emerging from the stream bottoms" (Tilton 1996, p.208). These vegetation communities do not have national or regional significance. There are populations of San Bernardino Bluegrass (*Poa atropurpurea*) and Cuyamaca meadowfoam (*Limnanthes gracilis ssp.parishii*) within Laguna Meadow. These populations do not owe their existence or location to the presence of Pine Valley Creek and are not in the river or its immediate shorelands.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for Pine Valley Creek.

Classification

This stream has been determined to be ineligible.

San Diego River

Study Area Summary

Name of River: San Diego River

Location: State of California, San Diego County, Cleveland National Forest

The San Diego River originates from a tributary that starts north of the Cleveland National Forest boundary at the foot of Volcan Mountain in the Santa Ysabel Valley (UTM 11/532543/3664140). The study segment begins at the forest boundary in Section 27, T12S, R3E, SBB&M, near the confluence with Coleman Creek, and ends at the boundary with Capitan Grande Indian Reservation in the NE1/4, Section 11, T14S, R2E, SBB&M including land owned by the Helix Water District, beginning at the 995-foot elevation in the NE1/4, Section 36, T13S, R2E, SBB&M. Beyond the forest boundary, the river continues southwest across tribal lands and land owned by the City of San Diego, before it forms El Capitan Lake. The terminus of the San Diego River is at Mission Bay, on the north side of Ocean Beach, California.

River Mileage:

Studied: 11.1 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

The segment studied is free flowing. Flow patterns reflect southern California's climate of dry summers and short, wet winters. Flows "peak in the winter and early spring and decline dramatically in the summer months, where in many cases they would dry up in the uppermost and lowermost reaches" (Stephenson and Calcarone 1999, p.76) (Miles and Goudey 1997, p.13-14).

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The study segment possesses scenic values that are distinctive for the local area. The river flows through a deep, linear canyon. Dye Mountain parallels the river along the northwest. The canyon

landform is steep and narrow, commonly rising from 1,000 to as much as 1,500 feet in less than a mile. The canyon slopes and the vegetation limits views from the river corridor to the immediate foreground; however, there are several popular viewpoints above the river corridor that offer expansive views into the river canyon. These vistas have developed over time along the canyon rim and attract nearby homeowners and local hikers. No Forest Service facilities are provided. Winter storm runoff occasionally fills the streambed and several tall, intermittent waterfalls add to the scenic diversity. Wildflowers and fall color have been noted (Schad 1999, p. 159). The appearance of the vegetation (color and texture) is typical of riparian corridors in the southwestern United States. The presence of water, canyon landform, and the remote, undeveloped character of the landscape are rare for the local area but not exemplary for the region of comparison or the nation (Horning 2003; Vogt 2003). Several other river canyons on the Cleveland National Forest (i.e. Pine Creek and Hauser Canyons) have similar scenic attributes (U.S. Department of Agriculture, Forest Service 1986a).

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: The San Diego River flows through a rugged, undeveloped canyon in close proximity to rapidly urbanizing communities. Due to the lack of access, the river corridor retains a remote quality and primitive recreation values. Opportunities for solitude, risk, and challenge are high. The Forest Service maintains one unimproved trailhead on the east side of the canyon at Saddleback, which can be reached via Eagle Peak Road. A trail leads into the river canyon, but the canyon bottom and river corridor are privately owned and formal access for recreation use has not been obtained. Another non-system trail allows access to the area from the neighborhoods on the west side of the canyon. There are no developed trails within the canyon, but seasonal waterfalls draw local recreationists, especially after storm events and during periods of high run-off. Occasionally, hikers, backpackers, and hunters make their way down the river canyon from Inaja Picnic Area. The river corridor is steep, rocky, and covered with thick brush. After storms, crossing the river is difficult and dangerous (Schad 1999, p159). The Inaja Picnic Area and a self-guided nature trail were constructed in 1962 and the trail was designated a National Recreation Trail in 1980. "From the trail you can look down a long way into the steep canyon of the San Diego River...The trail's highlights are the view of both the Santa Ysabel Valley and the Volcan Mountains near Julian"(Stienstra and Brown 2001, p.788). The picnic area and trail are located on a hilltop immediately adjacent to the river canyon. There are no facilities within the river corridor and the setting does not attract visitors from throughout or beyond the region of comparison.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: San Diego River and its tributaries are located in the Western Granitic Foothills subsection of the Southern California Mountains and Valleys Ecological section. This section includes mountains, hills, and valleys of the Transverse Ranges and the Peninsular Ranges that are near the Pacific Ocean,

but not bordering it. The subsection comprises the mountains and hills at intermediate elevations on the southwest side of the Peninsular Ranges and extends from the Santa Ana Mountains southeastward to the Mexican border. The region contains mostly Mesozoic granitic rocks. The narrow canyon that the San Diego River flows through and the steep mountains that surround it are common to the subsections within the Transverse and Peninsular Ranges. The linear quality of the river suggests that the San Diego River canyon may be part of an ancient fault system (Walawender 2003). As in many other subsections, mass wasting and fluvial erosion are the main geomorphic processes. In general, soils are well drained and soil moisture regimes are xeric. Within most of the upper part of the corridor, soils are shallow fine sandy loams that formed in material weathered from schist and gneiss. In the lower part of corridor, soils are riverwash (sandy, gravelly, or cobbly), excessively drained, and rapidly permeable (U.S. Department of Agriculture, Soil Conservation Service 1973, Part I, p.73, 77). There are no known notable geologic features on the Cleveland National Forest (U.S. Department of Agriculture, Forest Service 1986b, p.3-11).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Riparian species found within the San Diego River corridor include Coast Range newt (*Taricha torosa torosa*), southwestern pond turtle *Clemmys marmorata pallida*), two-striped garter snake (*Thamnophis hammondi*), arroyo toad (*Bufo californicus*), and yellow warbler (*Dendroica petechia brewsteri*). These populations are important locally but do not have regional or national significance. California gnatcatchers (*Polioptila californica*) and other upland species of interest including coastal rosy boa (*Lichanura trivirgata roseofusca*), coast horned lizards (*Phrynosoma coronatum*), and orange-throated whiptails (*Cnemidophorus hyperythrus*) occur in upland areas but do not owe their location or existence to the presence of the river.

Determination: Wildlife and fish values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: With only a portion of the corridor inventoried for heritage resources, it is evident that the San Diego River corridor goes through an area that shows evidence of frequent use by Native Americans for hundreds of years (Schad 1999, p.159). As long as 2,000 years ago, Yuman-speaking people from the Colorado River region, who were the ancestors of the current Kumeyaay people, began migrating to southern California, representing what is called the late prehistoric period (Baksh 1995, p.5). There are sites (milling, lithic and artifact scatters, and seasonal campsites) located within the corridor that are associated with this period. The sites known in the corridor do not have rare or unusual characteristics that would be of national or regional importance.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Little is known about the historic use of San Diego River, as only a portion of the river corridor has been surveyed for cultural resources. A memorial was constructed at the Inaja Picnic Area to honor the eleven local fire fighters that died fighting the 1956 Inaja Fire in the upper San Diego River. The historic features found within the corridor are not rare, unusual or one-of-a-kind in the region or nation.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: There are "several stretches of high-quality riparian woodland and populations of arroyo toad and southwestern pond turtle" in the San Diego River canyon (Stephenson and Calcarone 1999, p.337). The dominant vegetation in this general area is coastal sage scrub, which is relatively uncommon on the Cleveland National Forest. A population (20 to 30 pairs) of California gnatcatchers (*Polioptila californica*) occurs on the slopes of the canyon, and the area downstream of confluence of Iron Spring Canyon is being evaluated for Research Natural Area designation. Coastal sage scrub is an upland vegetation type and is common elsewhere in the region. The California gnatcatchers are found in the upland areas and do not owe their location or existence to the presence of the river. The river or area within the river corridor provides high quality habitat for plants of local importance, but not for nationally or regionally important plant populations.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for San Diego River.

Classification

This stream has been determined to be ineligible.

Main San Luis Rey River

Study Area Summary

Name of River: San Luis Rey River

Location: State of California, San Diego County, Cleveland National Forest

The main stem of the San Luis Rey River originates from the spillway at Lake Henshaw Dam on land owned by the Vista Irrigation District. The study segment begins at the forest boundary approximately 200 feet below the spillway (SW1/2, Section 3, T11S, R2E, SBB&M) where the river flows across a corner of the Cleveland National Forest for a short distance (approximately 700 feet). The river assumes a southwesterly flow across land outside the forest boundary for approximately 2000 feet before it crosses the Congressional boundary again in the NE1/4, Section 9, T11S, R2E, SBB&M. The study segment ends at the La Jolla Indian Reservation boundary in the N1/2, Section 31, T10S, R2E, SBB&M. The watershed drains to the Pacific Ocean to the west and terminates near the city of Oceanside. The total length of the segment studied is approximately four miles, of which three miles are privately owned.

River Mileage:

Studied: 3.4 miles

Eligible: 3.4 miles

Eligibility Inventory

Determination of Free flow:

The main stem of the San Luis Rey River is free flowing. The following factors were considered in this determination: water flows into this segment of the river are regulated at Lake Henshaw Dam. Water that is either produced or stored in Lake Henshaw is released at various times of the year. (A number of wells supplement the surface flow into Lake Henshaw). On average this segment of the river will have released flows ranging from 25-55 cfs from late spring through early fall. Over the past four years, the well-field has been the only source of water in Lake Henshaw due to the extended drought. On average (normal wet years) Vista Irrigation District releases about 15,000 acre-feet from the developed or stored waters. This amount is reduced in dry years when the water comes exclusively from the well-field; released amounts may only total 5,000-8,000 acre-feet. Repairs are made each year from mid-October through December, and other than rain-induced flows, no waters are released. The dam has had two periods (in 1983 and 1993) when the lake filled to its current capacity and spilled flows peaked at 350

and 1,000 cfs respectively (Dorey 2003). Flows are highly augmented most of the year resulting in abnormal conditions below the dam in terms of both vegetation and substrate.

Determination of Outstandingly Remarkable Values:

1. Scenery:

Description: This segment of the river corridor is inventoried as Scenic Attractiveness Class A, "Distinctive" in the Cleveland National Forest Land planning visual resource analysis (U.S. Department of Agriculture, Forest Service 1986a). Within the river corridor, the combination of water and riparian woodlands contrasts with the surrounding landscape. Inge describes the southwest bank of Lake Henshaw as "a desert lake with treeless shores that only a fisherman could love"(Inge 1995, p.14). Highway 76 runs parallel to the river along the north slope of the drainage about 50 or 60 feet above the river. Generally, thick brush and oak woodlands obscure views of the river. Although riparian features are unique for the high desert area, they do not result in exemplary scenery that attracts (or has the potential to attract) visitors from outside the region.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: One developed recreation site, the San Luis Rey Day Use Area and Picnic Grounds, is located along the river corridor. The picnic area offers 17 picnic sites and is open year round. It is a popular waystop, fishing, and birdwatching area. State Highway 76 is within the river corridor and parallels the stream course for the entire length of this study segment. Recreational opportunities do not attract visitors from throughout or beyond the region of comparison and are not unique or rare within the region (Chavez and Olson 2003, p.37, 38; Kocis and others 2002, p.8).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: San Luis Rey River is located in the Palomar-Cuyamaca Peak subsection of the Peninsular Range. This subsection contains mostly Mesozoic granitic rocks with some Pre-Cenozoic metamorphic and some Mesozoic plutonic rocks as well as sediment and alluvium. Streams in this subsection drain from steep mountains with rounded summits. "The streams run southwestward toward the ocean, but San Luis Rey River initially runs parallel to the trend of the Peninsular Ranges and takes a 90 degree turn before running to the ocean." This area contains the Elsinore Fault, which parallels Highway 76 and the San Luis Rey River. Broad valleys, such as San Jose Del Valle, and rolling plateaus are also typical in this subsection. Mass wasting and fluvial erosion are the main geomorphic processes (Miles and Goudey 1997, p.13-13, 13-14). Soils within the river and the immediate shorelands are riverwash. The remainder of the stream corridor consists of coarse sand and coarse sandy loam soils with rocks. In some

areas, 10% of the surface is covered with rock outcrops and large boulders cover 20-25% of the area (U. S. Department of Agriculture, Soil Conservation Service and Forest Service 1973. Part I, p.58, 73, 80. Map sheet no.15, 26). These geologic features are not unique or rare within the region of comparison.

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The largest southwestern willow flycatcher (*Empidonax traillii extimus* [a federally listed endangered species]) population in California is located immediately below Lake Henshaw Dam on lands outside the Cleveland National Forest Congressional boundary (Stephenson and Calcarone 1999, p.147-150). About 1/3 of this population is on the Cleveland National Forest. The amount and character of flow is sufficient to sustain these values even though water levels are artificially controlled and water flow is heavily regulated—resulting in abnormal vegetation and substrate below the dam. There is also a large population of yellow warblers (*Dendroica petechia brewsteri*), a California State species of Special Concern. Several bald eagles overwinter at Lake Henshaw. A few least Bell's vireos (*Vireo bellii pusillus*) are seen each year (State listed and federally listed endangered). A red-sided garter snake (*Thamnophis sirtalis concinnus*) was observed here. The southwestern willow flycatcher population has statewide significance. The habitat below the dam supports an important source population for the southwestern willow flycatcher.

Determination: Fish and wildlife values are considered to be outstandingly remarkable due to the population of southwestern willow flycatcher.

5. Heritage resources (Cultural)

Description: Portions of the corridor have been inventoried for heritage resources with evidence of milling or food processing found (bedrock mortars). The sites are probably associated with other sites located outside the San Juan River corridor. These sites and features are not rare or unusual for the region or California, and do not possess exceptional human-interest value.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Portions of the corridor have been inventoried for heritage resources, and there is evidence of watershed erosion control features (stone catchment basins) associated with the Civilian Conservation Corps (CCC) or inmate crews. The features date from the 1920s-1930s. CCC-era improvements on National Forest Lands can be found throughout the United States. These features are not rare, unusual, or one-of-a-kind in the region.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: "Vegetation is mainly chamise, ceanothus, sumac, scrub oak, red shank, and annual grasses. A few scattered oaks occur on north-facing slopes and along drainageways. Scattered sycamores and coast live oaks grow along the banks. Sparse shrubs and forbs occur in patches" (U.S. Department of Agriculture, Soil Conservation Service and Forest Service, Part I .1973. p.58, 73, 80). In the area just downstream, willows, sycamores, cottonwoods, and live oaks are sustained by releases of water from Lake Henshaw (Schad 1999, p.140). A population of Orcutt's brodiaea (*Brodiaea orcuttii* [a Forest Service Sensitive species]) associated with clay soils in flat terrain near spring ponds is located immediately downstream of Lake Henshaw. These populations do not have regional or national significance.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary, and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Fish and Wildlife: Fish and Wildlife values are considered to be outstandingly remarkable due to the presence of the largest population of southwestern willow flycatcher (*Empidonax traillii extimus*) in California.

Classification

Based on the condition of the river and the condition of adjacent lands as they currently exist, the potential classification for this segment of the San Luis Rey River is Recreational.

Upper San Luis Rey River

Study Area Summary

Name of River: Upper San Luis Rey River

Location: State of California, San Diego County, Cleveland National Forest

The upper part of the San Luis Rey River (east fork) originates in the Chihuahua Valley north of the Cleveland National Forest boundary. The study segment begins at the forest boundary in Section 27, T9S, R3E, SBB&M and ends at the south forest boundary just over three miles to the southwest in the NE1/4, Section 5, T10S, R3E, SBB&M in the vicinity of Puerta La Cruz Conservation Camp. The upper San Luis Rey River drains into Lake Henshaw.

River Mileage:

Studied: 3.3 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

The entire length of the segment studied is free flowing, however, surface water runoff in the ecological subsection is rapid. All but the larger streams are dry through the summer (Miles and Goudey 1997, p.13-14).

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The majority of this segment of the river corridor is inventoried as Scenic Attractiveness Class B, "Common" or Class C, "Undistinguished" in the Cleveland National Forest variety class mapping for visual resources. The landscape has little change in form, line, color, or texture, and tends to be common for the area. With the exception of a small area within Indian Flats Campground, the corridor is not characterized by outstanding visual quality. Indian Flats Campground has been inventoried as Scenic Attractiveness Class A "Distinctive" due to the combination of light colored rock outcrops, boulders, scattered oaks, and riparian vegetation (U.S. Department of Agriculture, Forest

Service 1986a). This combination is unique for the area (the surrounding landscape is almost entirely Class C), however, it does not result in an exemplary visual attraction that attracts (or has the potential to attract) visitors from outside the region.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: One developed recreation site is located along the river corridor. Indian Flats Campground accommodates camping and group camping. Scattered oaks provide shade for the seventeen camp units in this high desert area. Visitors can explore the interesting rock formations in the area and take a side trip to hike nearby portions of the Pacific Crest Trail (1.5 miles southeast). Wildlife viewing, stargazing, and quail and deer hunting are popular activities. Indian Flats Road accesses the campground and is the only road access to this segment of the river. North of Indian Flats Campground, Indian Flats Road runs parallel to and often within ¼ mile of the river corridor. Recreational opportunities do not attract visitors from throughout or beyond the region of comparison and are not unique or rare within the region (Kocis and others 2002, p.8).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: San Luis Rey River and its tributaries are located in the Palomar-Cuyamaca Peak subsection of the Peninsular Range. This subsection contains mostly Mesozoic granitic rocks with some Pre-Cenozoic metamorphic and some Mesozoic plutonic rocks as well as sediment and alluvium. Streams in this subsection drain from steep mountains with rounded summits. Broad valleys, such as San Jose Del Valle, and rolling plateaus are typical in this subsection. Mass wasting and fluvial erosion are the main geomorphic processes (Miles and Goudey 1997, p.13-13, 13-14). Over half of the study corridor crosses acid igneous rock land. Large boulders and rock outcrops cover 50 to 90% of this area. The soils are very shallow, loamy, coarse sands over decomposed granite or basic igneous rock. The remainder of the stream segment consists of rocky and coarse sandy loam soils. In this area about 10% of the surface is covered with rock outcrops and large boulders cover 20-25% of the area (U.S. Department of Agriculture, Soil Conservation Service and Forest Service, Part I 1973. p.18, 79, 80. map sheet 16). These geologic features are not unique or rare within the region of comparison.

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The Upper San Luis Rey River supports arroyo chub (*Gila orcutti*), arroyo toads (*Bufo californicus*) and southwestern pond turtle (*Clemmys marmorata pallida*). These populations are of local interest but do not have national or regional significance.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. *Heritage resources (Cultural)*

Description: Portions of the Upper San Luis Rey River corridor have been inventoried for heritage resources. A number of milling features and possible rock shelters have been recorded within the corridor, and are probably associated with the ancestors of today's Luiseño people. Occupation of these sites probably dates to circa A.D.1500 to 1800. Evidence of intensive seasonal food processing and lithic tool manufacturing is seen with a large central site and associated smaller seasonal food processing centers documented within the drainage. Though there are archaeological features present within the River corridor, they are not rare or unique and do not have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Portions of the Upper San Luis Rey River corridor have been inventoried for historic resources. Areas favored by prehistoric groups were also used in historic times. There is evidence for mining dating from the 1920s and 1930s within the corridor. Minor prospecting occurred throughout California during this time period, and these features are not rare or one-of-a-kind for the region of comparison.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: Vegetation is mainly sparse but varies according to elevation and aspect. Chamise and ceanothus, along with manzanita, red shank, and scrub oak are the most common species (U.S. Department of Agriculture, Soil Conservation Service and Forest Service, Part I 1973. p.18, 79, 80. map sheet 16). Scattered oaks line the river corridor. There is a population of Orcutt's brodiaea (*Brodiaea orcuttii* [a Forest Service Sensitive Species]) at the upper end of the watershed. This population is not nationally or regionally important.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for Upper San Luis Rey River.

Classification

This stream has been determined to be ineligible.



West San Luis Rey River

Study Area Summary

Name of River: West Fork San Luis Rey River

Location: State of California, San Diego County, Cleveland National Forest

The West Fork of the San Luis Rey River originates from the confluence of Fry Creek and Iron Spring Creek at the foot of Palomar Mountain in the Mendenhall Valley (E1/2, Section 3, T10S, R1E, SBB&M). The study segment ends approximately seven miles to the southeast at the SE1/4, Section 16, T10S, R2E, SBB&M. The west fork drains into Lake Henshaw and eventually terminates at the Pacific Ocean near the city of Oceanside. Of the total length of the segment studied, approximately 2 miles flow through privately owned land including the Mendenhall Valley. This segment of the river flows through the Barker Valley Inventoried Roadless Area. The West Fork of the San Luis Rey River (86 acres) was established as a Special Interest Area for wild trout fisheries in 1986 (U.S. Department of Agriculture, Forest Service 1986b, 3-22, 4-13).

River Mileage:

Studied: 7.4 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

The West Fork of the San Luis Rey River is free flowing. Several earthen impoundments (ponds) are located at river's headwaters, on private land in the Mendenhall Valley. These impoundments substantially reduce the water flow of the West Fork San Luis Rey River (Wells 2003). Flows are sufficient to sustain important plant and animal populations.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Like nearly all of the river corridors on the Cleveland National Forest, the West Fork San Luis Rey, as well as its tributaries Barker Valley and Mendenhall Valley, is inventoried as Scenic

Attractiveness Class A, "Distinctive" in the Cleveland National Forest visual resource inventory (U.S. Department of Agriculture, Forest Service 1986a). The West Fork San Luis Rey originates from tributaries and meadows high on Palomar Mountain. According to Schad, "the rolling high country of Palomar Mountain contains San Diego County's most picture-perfect mountain scenery. Palomar's uplands, covered with thick forests of pine, oak, fir and cedar, and its gentle valley, laced with sparkling streams, bring to mind landscape more commonly seen in mountain ranges far to the north." On the dry and warm south and east slopes of Palomar Mountain and Aguanga Mountain, elfin forests of chaparral and park-like oak woodlands predominate. The trail offers some great views of Dyche, Will, and Mendenhall Valleys (Schad 1999, p. 131). Although the setting of the headwaters and river corridor are notable for San Diego County, they are not exemplary for California or the United States.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: No developed recreation sites are located within this segment of the river corridor. The area offers opportunities for backpacking, mountain biking, remote camping, deer, turkey, and pigeon hunting, and fishing. From Highway 79, eight miles of dirt road take to you the Barker Valley Spur trailhead. The river corridor is a three-mile hike along an old roadbed and trail. The trail descends the west side of the drainage and ends in a large meadow on the north side of the west fork of the San Luis Rey River. A spring exists at the riverside of the meadow. The meadow area provides good camping. Another trail leads to the river corridor from Deer Flats. There is no road access to Barker Valley. Other features of interest in the area are a set of falls in the San Luis Rey River canyon to the southeast of the meadow. Schad describes Barker Valley as an "oak-dotted swale, caressed by the San Luis Rey River's West Fork...perhaps the most isolated nonwilderness area in San Diego County" (Schad 1999, p.131, 143, 144). There is a set of waterfalls and pools southeast of the meadow but there is no developed trail access. The Barker Valley hike is hot and steep in summer months. Holiday weekends can draw half a dozen cars to the trailhead. Many hikers do not make it down to the first falls and very few make the steep trip over a loose trail to the lower fall. The headwaters of the West Fork San Luis Rey are located on private land in the Mendenhall Valley. Recreational opportunities do not attract visitors from throughout or beyond the region of comparison (Kocis and others 2002, p.8) and are not unique or rare for California or the United States.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The West Fork of the San Luis Rey River is in "the middle of three distinctively named promontories forming the 25-mile long range often known as Palomar. Agua Tibia Mountain anchors the range to the northwest, while Aguanga Mountain stretches to the southeast. Several faults pass through the area, including the Elsinore Fault which parallels Highway 76 and the San Luis Rey River" (Schad, p.131). The West Fork of the San Luis Rey River drains 12 square miles on the leeward

side of Palomar Mountain where annual precipitation is around 20 inches. The drainage is in the Palomar-Cuyamaca Peak subsection of the Peninsular Range. This subsection contains mostly Mesozoic granitic rocks with some Pre-Cenozoic metamorphic and some Mesozoic plutonic rocks as well as sediment and alluvium. Streams in this subsection drain from steep mountains with rounded summits (Miles and Goudey 1997, p.13-13, 13-14). Soils within the river and the immediate shorelands are riverwash. The remainder of the stream corridor consists of coarse sandy loam soils with rocks with small alluvial fans. In some areas, 10% of the surface is covered with rock outcrops and large boulders cover 20-25% of the area. The Mendenhall Valley is characterized by loamy alluvial soils. These areas were formerly wet meadows that are now drained by headcutting and gullies (U.S. Department of Agriculture, Soil Conservation Service and Forest Service 1973, Part I, p.64, 66, 73, 80, map sheet 15). These geologic features are not unique or rare within the region of comparison.

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The West Fork San Luis Rey drainage is a Special Interest Area for native trout. This segment of the river supports a land-locked population of native trout, Santo Domingo Trout (*Oncorhynchus mykiss subspecies*). The waters of the West Fork of the San Luis Rey have not been designated as wild trout waters under the California Department of Fish and Game Heritage Trout Program or Wild Trout Program (California Department of Fish and Game 2002, Appendix F. p.32, 33). This population is unique for southern California. The river also supports arroyo chub (*Gila orcutti*), arroyo toads (*Bufo californicus*), and southwestern pond turtle (*Clemmys marmorata pallida*) (Stephenson and Calcarone 1999, p.335). These populations are important locally but do not have regional or national significance.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Only a portion of the West Fork San Luis Rey River drainage has been surveyed for heritage resources . Several sites have been recorded within the corridor. The Native American sites recorded represent food and tool processing with milling and lithic manufacturing features present. These sites date from about A.D. 1500 to 1800, and attest to the use of the area by ancestors of today's Luiseño. Generally, Native American use of the river corridor was for hunting, resource collection and processing. The sites and features recorded are common throughout California.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Only a portion of the West Fork San Luis Rey River drainage has been surveyed for

heritage resources. Several sites have been recorded within the corridor. There is evidence of a historic homestead probably related to ranching activities. An old stone weir and gauging station has also been reported (Schad, p.144). These historic features are not uncommon in California.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: "Vegetation is mainly chamise, scrub oak, and annual grasses. A few scattered oaks occur on north-facing slopes and along drainageways. Scattered sycamores and coast live oaks grow along the banks. Sparse shrubs and forbs occur in patches." Mendenhall Valley is a wet meadow range site (U.S. Department of Agriculture, Soil Conservation Service and Forest Service 1973, Part I p.64, 66, 73, 80). Black oak, coastal live oak, and cottonwood are also found. These populations do not have regional or national significance.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for the West Fork San Luis Rey River.

Classification

This stream has been determined to be ineligible.

San Juan Creek

Study Area Summary

Name of River: San Juan Creek

Location: State of California, Riverside County and Orange County, Cleveland National Forest

San Juan Creek originates in Section 29, T6S, R5W, SBB&M, where tributaries from Decker Canyon and Morrell Canyon meet. The Creek flows to the west and south to the western forest boundary near San Juan Hot Springs (N1/2, Section 4, T7S, R6W, SBB&M). The terminus of San Juan Creek is south of San Juan Capistrano, California. The north side of the San Juan Creek drainage is within the Trabuco roadless area.

River Mileage:

Studied: 6.6 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

The entire length of the segment studied is free flowing. In this ecological subsection "all but the larger streams are dry through the summer" (Miles and Goudey 1997, p.13-7).

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The inland and lower elevation mountains of southern California often do not receive enough rainfall to support trees. The summers are long and dry. Generally this area is covered by a variety of gnarled and drought-tolerant shrubs; frequently evergreens with little scenic diversity. However, there are riparian enclaves where the scenery is totally different. Small segments of the San Juan Creek corridor have been mapped as Scenic Attractiveness Class A "Distinctive" in the visual resource inventory for the 1986 Cleveland Forest Land and Resource Management Plan. At four points along the river corridor, side canyons join the main stem of the Creek. At these points there is variation in the canyon landforms and pockets of vegetation that enhance scenic values. The remainder of the

corridor is mapped as Scenic Attractiveness Class B "common" (U.S. Department of Agriculture, Forest Service 1986a). State Highway 74, the Ortega Highway, is immediately adjacent to the creek corridor, although in many areas the creek corridor is below the highway and not visible to motorists. The Ortega Highway is a major transportation corridor between Orange and Riverside Counties. The river corridor contrasts with urban areas that surround this portion of the forest. Scenic resources are not highly diverse and do not attract visitors from outside the region of comparison.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description: Motorists can enjoy the passing scenery "as the Ortega Highway makes its way up to the pines of Cleveland National Forest." Inge states, "Regulars on this road like to break up the drive with a picnic along the hidden creek at the leafy Lower San Juan Picnic Area," however this site has recently been closed to protect endangered wildlife (Inge 1995, p.28). Upper San Juan Campground and the San Juan Loop trail are located along the upper reaches of the creek. The San Juan Loop Trail features a waterfall along the creek and large coast live oaks. The Upper San Juan Campground features 18 shaded sites, and borders the southern edge of the trail. There are five recreation residences near the western forest boundary in the vicinity of San Juan Hot Springs within the river corridor. San Juan Creek is not popular enough to attract visitors from throughout or beyond the region of comparison. The average visitor travels a short distance (travel time averages from < 1 hour to 1.5 hours) to recreate at day-use sites on the Cleveland National Forest, including Ortega Falls dispersed trails. The average visitor to the Cleveland National Forest resides in a nearby community. Only 3% of forest visitors come from another country and one out-of-state visitor was surveyed at Ortega Falls (Chavez and Olson, 2003; Kocis and others 2002, p.8, 12).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: San Juan Creek and its tributaries are located in the Santa Ana Mountain subsection of the Southern California Mountains and Valleys Ecological section. This section includes mountains, hills and valleys of the Transverse Ranges and the Peninsular Ranges that are near the Pacific Ocean, but not bordering it. The Santa Ana Mountain subsection contains mostly Jurassic sedimentary, volcanic rocks and Mesozoic granitic rocks. The narrow canyon that San Juan Creek flows through and the steep mountains that surround it are typical in all the mountain subsections within the Transverse and Peninsular Ranges. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes. In general, the soils around San Juan Creek are sandy loams weathered from granitic rocks. In some places the soils contain a high percentage of rock outcrops and boulders. Around the lower part of the stream segment, soils are weathered from metasedimentary rock and consist of fine, sandy loams on steep slopes. A small percentage of this soil type is a very gravelly sandy loam. Riverwash soils, consisting of unconsolidated alluvium, recently distributed by intermittent streams, are

common within the river corridor. These sandy, gravelly, cobbly, and bouldery deposits support little or no vegetation (U.S. Department of Agriculture, Soil Conservation Service and Forest Service 1978, p. 21, 22, 26, 42). The lithology, stratigraphy, geomorphology, and soils associated with San Juan Creek are analogous to other mountain subsections in the Southern California Mountain and Valley section (Miles and Goudey 1997, p.13-6, 13-7).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Arroyo toads (*Bufo californicus* [federally listed endangered and State Species of Special Concern]), coast range newts (*Taricha torosa torosa* [State Species of Special Concern]), and orange-throated whiptails (*Cnemidophorus hyperythrus* [Federal and State Species of Concern]), are present in several areas within the creek corridor. Historically, San Juan Creek supported California gnatcatcher (*Polioptila californica* [federally listed threatened and State Species of Special Concern]) and southern steelhead (*Oncorhynchus mykiss sp.* [federally listed endangered and State Species of Concern]). There is minimal potential for coastal cactus wren (*Campylorhynchus brunneicapillus* [Forest Service Sensitive List and State Species of Special Concern]) near the forest boundary. There is also a large bat population (several species) inhabiting the historic bridge where Highway 74 crosses San Juan Creek. Larger, more robust populations of these species are located elsewhere in California. The wildlife and fish resources described are locally important, but not nationally or regionally significant.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Portions San Juan Creek have been inventoried for heritage resources. The corridor shows evidence of use of the area by the ancestors of today's Luiseño and/or Juaneño people. The steep river corridor limited the opportunity for use, which resulted in use that usually was focused or specialized (food or resource gathering and processing sites or sites with ceremonial associations) and scattered throughout the corridor. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Portions San Juan Creek have been inventoried for heritage resources. Use of the San Juan River corridor is limited by the hot, dry climate, lack of water, and steep topography. Known historic resources are found within the San Juan River corridor but features within the river canyon may have been buried by sediments or scoured away by seasonal floodwaters. An historic bridge built in the 1927 crosses San Juan Creek near the San Juan Fire Station but it has been determined not eligible for the

National Register of Historic Properties (Hope 2003). Due to the steepness of the corridor in places, the presence of a one-of-a-kind site or feature is unlikely, and the historic features present are not rare, unusual, or one-of-a-kind in the region.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The dominant vegetation along the lower part of the reach is coastal sage scrub, which is a relatively uncommon vegetation type on the forest. There is a very large population of sticky dudleya (*Dudleya viscida*) along San Juan Creek. These populations are locally important but not nationally or regionally significant. Other more robust populations exist elsewhere in California. (Chiquito Spring, a proposed Special Interest Area, is in the upper part of this watershed but outside the river corridor. There is a large population of San Miguel Savory (*Satureja chandleri* [Forest Sensitive species]) in the Chiquito Spring area. This is an important population but it is not a riparian dependent species).

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values

No outstandingly remarkable values were identified for San Juan Creek.

Classification

This stream has been determined to be ineligible.

San Mateo Creek

Study Area Summary

Name of River: San Mateo Creek and Devil Canyon

Location: State of California, Riverside County and San Diego County, Cleveland National Forest

A number of small tributaries join in the southern Santa Ana Mountains, east of Sitton Peak near the southern boundary between Stewart Ranch (private land) and the San Mateo Canyon Wilderness. San Mateo Creek originates below the reservoir at Stewart Ranch near the boundary in the SE1/4, of the SE1/4 of Section 4, T7S, R5W, SBB&M, at approximately 2,260 feet. It flows uninterrupted south and southwest through the wilderness for approximately 11.9 miles to the Cleveland National Forest boundary with Camp Pendleton Marine Corps Base. San Mateo Creek leaves the forest briefly starting in the SE1/4 of the SW1/4 of Section 12, T8S, R6W, and traverses the Marine Base for approximately 1,200 feet before crossing back into the wilderness. The creek then follows the wilderness/Camp Pendleton boundary in Section 13(B) until it exits the forest in Section 14 at approximately 400 feet. Beyond the forest boundary, San Mateo Creek continues across the Marine Corps Base to its terminus at San Onofre State Beach, just below San Mateo Point. The total length of San Mateo Creek from its source to the Pacific Ocean is 27 miles. The study segment begins at the wilderness boundary with Stewart Ranch and ends at the forest boundary with Camp Pendleton. It includes a 3.4-mile segment of the Devil Canyon tributary. With the exception of 1,200 feet in Section 24, T8S, R6W, the entire study area is located within the San Mateo Canyon Wilderness (The section lines in this Township and Range are irregular).

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	11.9	11.9
2	3.4	3.4

Studied: 15.3 miles

Eligible: 15.3 miles

Eligibility Inventory

Determination of Free flow:

The entire length of the segment studied is free flowing.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: "San Mateo Creek is probably the most pristine coastal stream south of the Santa Monica Mountains" (Stephenson and Calcarone 1999, p.338). It flows through a remote and rugged canyon. Elevations along the length of the river corridor range from 2,200 feet at the Stewart Ranch boundary to 400 feet at the southern Camp Pendleton Boundary. The canyon landform is steep and narrow, and frequently rises 1,500 feet in less than a mile. Just north of Camp Pendleton there is a steep-walled gorge with 50-100 foot cliffs of colorful granite rock and many deep pools. Views are generally enclosed and limited to the foreground, immediately adjacent to the creek. The lower portion of the stream before it reaches Camp Pendleton (about the last 3 miles) is a steep-walled gorge with 50-100 foot cliffs of colorful granite rock and many deep pools. The canyon walls and the vegetation limit views of the landscape. Views of "Tenaja Falls are the most interesting feature in the San Mateo Canyon Wilderness" (Shad 1988, p.104). Tenaja Falls are considered "magnificent when flowing full, which is only after a period of rain, usually between December and March" (Stienstra and Brown 2001, p. 740). The appearance of the vegetation (color and texture) is typical of riparian corridors in the southwestern United States. The presence of water, canyon landform, and the remote, undeveloped character of the landscape are rare for the local area but several other river canyons on the Cleveland National Forest (i. e. San Diego, Pine Creek, and Hauser Canyons) have similar scenic values (U.S. Department of Agriculture, Forest Service 1986a). The scenery is not notable or exemplary from a statewide or national perspective (Horning 2003; Vogt 2003).

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: San Mateo Creek is located in the San Mateo Canyon Wilderness. Tenaja Falls Trail and San Mateo Trail (5W02), which cover the majority of the stream length, are the only recreation improvements located within the river corridor. Day-use hiking/walking is the primary recreation activity, although some equestrian use also occurs. Less than 10% of the visitors to the wilderness participate in horseback riding. In fiscal year 2001, the average length of stay in wilderness areas on the Cleveland National Forest was 2.2 hours. For San Mateo Canyon users and forest users in general, participation in viewing wildlife (fish, birds, etc.) and natural features (scenery, flowers, etc.), and relaxing (escaping noise and heat, etc.) is high. In general, San Mateo Creek does not attract visitors from throughout or beyond the region of comparison and most visitors do not travel long distances to use the river for recreational purposes (Kocis and others 2002, p.8, 12). For fiscal year 2001, the average wilderness visitor to the Cleveland National Forest came from a nearby community such as Lake Elsinore, Wildomar, Huntington Beach, San Juan Capistrano, Laguna Miguel, or Corona. All of the wilderness users and nearly all of the forest users participating in the surveys were from counties in

southern California (Chavez 1993a, 1993b).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: San Mateo Creek and its tributaries are located in the Santa Ana Mountain subsection of the Southern California Mountains and Valleys Ecological section. This section includes mountains, hills, and valleys of the Transverse Ranges and the Peninsular Ranges that are near the Pacific Ocean, but not bordering it. The section extends from the Sisquoc River in the north to Baja, California. The Santa Ana Mountain subsection contains mostly Jurassic sedimentary, volcanic and Mesozoic granitic rocks. The narrow canyon that San Mateo Creek flows through and the steep mountains that surround it are typical in all the mountain subsections within the Transverse and Peninsular Ranges. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes. In general, soils are well drained and soil moisture regimes are xeric. Within most of the corridor, soils are cobbly, loamy sand on slopes up to 15%. A small percentage of this soil type is a very gravelly sandy loam. Riverwash soils, consisting of unconsolidated alluvium, recently distributed by intermittent streams, are also common. The sandy, gravelly, cobbly and bouldery deposits support little or no vegetation (U.S. Department of Agriculture, Soil Conservation Service and Forest Service 1978, p. 42, 43). Some of the oldest soils on the forest are located adjacent to the river corridor (Walawender 2003). The lithology, stratigraphy, geomorphology, and soils associated with San Mateo Canyon are analogous to other mountain subsections in the Southern California Mountain and Valley section (Miles and Goudey 1997, p.13-6, 13-7).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: This watershed supports the southernmost population of southern steelhead trout (*Oncorhynchus mykiss sp.*) known to exist. In 1999, juvenile southern steelheads were documented in San Mateo Creek (Stephenson and Calcarone 1999, p.338). These populations are located on the lower reaches of the San Mateo Creek corridor and in lower stretches of Devil Canyon. San Mateo Creek is one of only three or four remaining streams south of Los Angeles that is not dammed, and it is mostly on federal lands so it has retained a pristine character. San Mateo Creek has exceptionally high habitat quality for aquatic species. Within the south coast region, San Mateo Creek and the Santa Margarita River are the only two streams that have the ability to support steelhead trout. In the same locations, southwestern pond turtles (*Clemmys marmorata pallida* [Forest Service Sensitive species]); two-striped garter snakes (*Thamnophis hammondi*); arroyo toads (*Bufo californicus* [federally endangered species]); and Coast Range newts (*Taricha torosa torosa* [Forest Service Sensitive species]) are also present, including some very large newt populations. Arroyo toad habitats also extend into the upper reaches of Los Alamos Creek.

Determination: Fish and wildlife values are considered to be outstandingly remarkable due to the presence of the southernmost steelhead trout population known to exist.

5. *Heritage resources (Cultural)*

Description: Very little is known about the corridor, as the river corridor and adjacent areas has not been inventoried for heritage resources. Known archaeological evidence of the Native American use of the corridor includes a site with a stone structure and wall, and a small lithic scatter. While not common, similar structures have been recorded elsewhere in southern California and are usually associated with the Luiseño people. The Luiseño have been in the area for the last 2,000 years. The river corridor was probably used by local Native American populations for resource collection. As such, the known sites, as well as the sites that would be expected to be present, do not have rare or unusual characteristics or exceptional human-interest values. There is no documented national or regional importance for Native American use within the corridor.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Very little is known about the corridor, as the river corridor and adjacent areas has not been inventoried for heritage resources. No historic sites or features are known to exist within the river corridor. The river corridor was probably used in historic times for cattle grazing; and other historic resources may be present in association with the Creek. As such, the sites that would be expected to be present, based on areas with other similar natural features and documented history, would not be considered rare, unusual or one-of-a-kind in the region.

Determination: Historic values are not considered to be outstandingly remarkable

7. *Other (Botany)*

Description: Dominant vegetation along the lower part of reach is coastal sage scrub, which is a relatively uncommon vegetation type on the Cleveland National Forest. The largest known population in the species range (approximately 10,000 plants) of sticky dudleya (*Dudleya viscida*), a Forest Service Species of Concern/Sensitive Species, is located along San Mateo Creek in the lower reaches of the study area, in Devil Canyon, and at the confluence of Devil Canyon and San Mateo Creek (Devil's Gorge) approximately 1/2 mile south of the forest boundary with Camp Pendleton. This species is restricted to north San Diego/south Orange County. In addition, there is also an occurrence of the Federally Listed Encinitas baccharis, (*Baccharis vanessae*), near the forest boundary with Camp Pendleton Marine Corps Base. The watershed also supports the largest known population of Orcutt's brodiaea/thread-leaved brodiaea (*Brodiaea orcuttii*), a Forest Service Species of Concern/Sensitive Species. These populations are located at Miller Mountain, in the upper reaches of Devil Canyon. Many of the populations of this species in San Diego County have been lost or damaged due to development.

Determination: Botanical values are considered to be outstandingly remarkable due to the presence of large populations of *Dudleya viscida*, sticky dudleya. This population is the largest known to exist anywhere.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Fish and Wildlife

Fish and wildlife values are considered to be outstandingly remarkable due to the presence of the southernmost steelhead trout (*Oncorhynchus mykiss sp.*) population.

Other (Botany)

Botanical values are considered to be outstandingly remarkable. Populations of sticky dudleya (*Dudleya viscida*) are the largest populations known to exist anywhere.

Classification

Based on the condition of the creek and the condition of adjacent lands as they currently exist, the potential classification of San Mateo Creek is Wild.

Trabuco Creek

Study Area Summary

Name of River: Trabuco Creek

Location: State of California, Riverside County and Orange County, Cleveland National Forest

Trabuco Creek originates in the NE1/4, of Section 2, T6S, R6W, SBB&M, where two tributaries meet at the head of Trabuco Canyon. The creek flows west to the forest boundary and exits the forest in the western half of Section 6, T6S, R6W, SBB&M. Trabuco Creek crosses onto private land about 3,000 feet from the forest boundary. It flows across private land for about 800 feet, and crosses back onto forest land for about 1,200 feet before returning to private land for a final 1,000 feet before exiting the forest. The length of the segment studied is approximately 5.5 miles. The terminus of Trabuco Creek is north of Doheny State Beach, south of Dana Point, California.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	2.1	0.0
2	3.4	0.0

Studied: 5.5 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow: The entire length of the segment studied is free flowing. In this ecological subsection "all but the larger streams are dry through the summer" (Miles and Goudey 1997, p.13-7). In the 1930s, a series of stone check dams were installed in Trabuco Creek. Since then the dams have been breached and the creek is considered free-flowing, although some pooling still occurs.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The inland and lower elevation mountains of southern California often do not receive enough rainfall to support trees. The summers are long and dry. Generally this area is covered by a

variety of gnarled and drought-tolerant shrubs; frequently evergreens with little scenic diversity. However, there are riparian enclaves where the scenery is totally different. The Trabuco Creek corridor has been mapped as Scenic Attractiveness Class A "Distinctive" in the visual resource inventory for the 1986 Cleveland Forest Land and Resource Management Plan (U.S. Department of Agriculture, Forest Service 1986b). Trabuco Canyon Road (6S13) parallels Trabuco Creek for approximately six miles and is immediately adjacent to the creek. Forest Service recreation residences and associated rural elements are also located in the river corridor and the immediate foreground of the road. Scenic features include varied and colorful vegetation, deciduous trees, wildflowers, and steep canyons. Fall colors in the canyon attract local visitors. Scenic resources are seasonally attractive although the amount of development in the canyon impairs scenic values. Trabuco Canyon does not

attract visitors from outside the region of comparison (Horning 2003; Vogt 2003).

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: Motorists can enjoy the passing scenery as Trabuco Canyon Road makes its way up the Canyon. At the terminus of Trabuco Canyon Road, Trabuco Trail (6W04) leads to some of the most idyllic spots in the Santa Anas. The Canyon shelters some of Orange County's biggest alder groves, specimen oaks, bay laurel, and maple, as well as a variety of spring wildflowers. There is a small turnaround with parking for a few cars. There is also a loop route that circles the head of Trabuco Canyon. According to Schad, the hike around the uppermost reaches of Trabuco Canyon is one of the most varied and interesting hikes in Orange County although the overgrowth of vegetation can make trail-finding difficult (Schad 1988, p.81, 82). There are 49 recreation residences in Trabuco Canyon. Trabuco Creek is not popular enough to attract visitors from throughout or beyond the region of comparison. The average visitor travels a short distance (travel time averages from < 1 hour to 1.5 hours) to recreate at day-use sites on the Cleveland National Forest. The average visitor to the Cleveland National Forest resides in a nearby community (Chavez and Olson 2003; Kocis and others 2002, p.8, 12).

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Trabuco Creek and its tributaries are located in the Santa Ana Mountain subsection of the Southern California Mountains and Valleys Ecological section. This section includes mountains, hills, and valleys of the Transverse Ranges and the Peninsular Ranges that are near the Pacific Ocean, but not bordering it. The Santa Ana Mountain subsection contains mostly Jurassic sedimentary, volcanic rocks and Mesozoic granitic rocks. The narrow canyon that Trabuco Creek flows through and the steep mountains that surround it are typical in all the mountain subsections within the Transverse and Peninsular Ranges. As in the other mountain subsections, mass wasting and fluvial erosion are the main geomorphic processes. In general, the soils around Trabuco Creek are fine sandy loams. Riverwash

soils, consisting of unconsolidated alluvium, recently distributed by intermittent streams, are common within the river corridor. These sandy, gravelly, cobbly, and bouldery deposits support little or no vegetation (U.S. Department of Agriculture, Soil Conservation Service and Forest Service 1978, p. 26, 42, 44, map sheet 13). At higher elevations, light colored granitic boulders and soil replaces the dark-brown, crumbly metasedimentary rocks seen in the canyon. Although the younger granitic rock does not crop out below, there are granitic boulders in the creek bed. These resistant blocks, originally weathered out of the granitic mass above, are swept downhill during flash floods (Schad 1988, p. 82). The lithology, stratigraphy, geomorphology, and soils associated with San Juan Creek are analogous to other mountain subsections in the Southern California Mountain and Valley section (Miles and Goudey 1997, p.13-6, 13-7).

Determination: Geological values are not considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: Wildlife populations and habitats associated with Trabuco Creek have been thoroughly surveyed and no sensitive, threatened, or endangered species have been identified on forest lands within the river corridor. A small population of arroyo toads (*Bufo californicus* [federally listed endangered species]) is located on private land near the western forest boundary. The creek also supports numerous species that are common to streams and riparian woodlands in California. None of these populations are nationally or regionally significant.

Determination: Fish and wildlife values are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Part of the river corridor area was surveyed for the presence of cultural resources (ARR 0502-TR-35, 68, 69, 74). The creek may have served as a boundary or borderland between the Juaneño/Luiseño and the Gabrieliño. Evidence of prehistoric land-use is generally milling features and/or tool and flake scatters. The steep canyon and side slopes along the corridor limit the likelihood of prehistoric use. The configuration of the canyon likely limits the types and densities of sites. These sites are not rare or unique for California and do not have exceptional human interest values and are not rare or unusual for southern California.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Part of the river corridor area was surveyed for the presence of cultural resources (ARR 0502-TR-35, 68, 69, 74). One site, the Trabuco Tin Mine was recorded. The site consists of the ruins of a historic tin mine, which the California State Historic Preservation Office has determined ineligible for the National Register, and the County of Orange has designated it as local historic site. The history of

Trabuco Canyon reveals varied uses since early mission days when the canyon and foothills were grazed by cattle and sheep. These sites include: mining claims, fishing, Surprise City, Holy Jim Trail, check dams for fishing, recreation residential tracts, and Forest Service guard stations and campgrounds. These uses are consistent for the entire area of the Santa Ana Mountains.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Upper Trabuco Canyon may be home to the largest alder grove in Orange County, as well as specimen bigleaf maple, California bay and a small population of madrone (Schad 1988, p. 6, 81). These species are found in riparian woodlands throughout California. Trabuco Creek has been thoroughly surveyed and no sensitive, threatened, or endangered plant species have been located here.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

No outstandingly remarkable values were identified for Trabuco Creek.

Classification

This stream has been determined to be ineligible.

Los Padres National Forest

Arroyo Seco River

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying the Arroyo Seco River for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Arroyo Seco River

Location: State of California, Monterey County, Los Padres National Forest

The Arroyo Seco River is considered to be free flowing below a point in the Ventana Wilderness along the east flank of the Santa Lucia Range (southeastern one-quarter of T21S, R4E, Sec 14, MDBM) and flows in a northerly direction leaving the Los Padres National Forest at the southeastern boundary of T19S, R5E, Sec 31. For the purposes of this study, the Arroyo Seco River was divided into four segments.

Segment 1: This segment includes the Arroyo Seco River from its headwaters to the Sportsman's Lodge for a total distance of 2.5 miles of which 2.5 miles are eligible. This segment is within the Ventana Wilderness Area.

Segment 2: A length of river 0.25 miles upstream and downstream of the impoundment at the Sportsman's Lodge located in T21S, R5E, Sec 7, of this 0.5 miles are eligible. This segment is outside of the Ventana Wilderness Area.

Segment 3: Beginning 0.25 miles downstream of the impoundment at the Sportsman's Lodge to the wilderness boundary located in T20S, R4E, Sec 2. This segment is 10.5 miles in length of which 10.5 miles are eligible.

Segment 4: Beginning at the wilderness boundary to the administrative boundary located along the eastern boundary of T19S, R5E, Sec 31. This segment is 4.9 miles in length of which 4.9 miles are eligible.

River Mileage

Studied: 18.4 miles

Eligible: 18.4 miles

Eligibility Inventory

Determination of Free flow:

There are no impoundments in segments 1, 3 and 4; the river is free flowing in these segments. In segment 2 there is a run of the river impoundment adjacent to the Sportsman's Lodge. The structure consists of a concrete foundation with slats to seasonally impound the river (the current use of the structure is unknown). Segment 2 is also considered to be free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Approximately 80% of the Arroyo Seco River is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character Type. It is distinctive primarily because of the presence of water, although many sections contain remarkable examples of landform, rocks and riparian vegetation.

The headwaters to Forks Camp offer undisturbed views of the Pacific Ocean and Sierra Peak. There is little presence of water and views of steep landscapes and hardwoods. At Forks Camp, the land flattens with views of meadows and many tributaries into the stream. Here you begin to hear the river, pools form among large granite boulders. Hardwoods line the river, but views are of slopes covered with chaparral. As the river flows further, there are abundant trees and tall ferns. The vegetation and deep pools are the features of this section, with seasonal color adding variety to the experience. At Lost Valley Trail, the boulders are smaller but many, and the river becomes a fifty foot channel with deep gorges. The gorges are 500 to 600 feet deep with nearly vertical walls. The drama is like being in a grand canyon. Some pools in this section are 300 feet deep.

At the horse bridge, the gorges open up and large boulders are scattered through the river. Grass slopes are visible through riparian vegetation as the bridge arches over the river. The next section of the river is punctuated with rapids, 50-foot gorges, small beaches and a multitude of twists and turns. The views from the river are of steep slopes with some rock outcrops. Next appears an 800-foot gorge with steep walls of limestone and red colors in horizontal lines. The river finally opens wide into the recreation area and is more like a park in appearance.

Most noteworthy throughout the river is the overall ruggedness, combination of oaks, sycamores and riparian vegetation, especially around deep pools. Overall, the rugged appearance leaves a feeling of the power of the river.

Determination: The scenic features of Arroyo Seco River are considered to be outstandingly remarkable because of the combination of steep canyon walls, gorges, rock outcrops, and jumbles of boulders that

create pools, and dramatic sounds within a dynamic scenic setting.

2. Recreation:

Description: Recreation use is heavy in the Arroyo Seco River corridor, especially in the Arroyo Seco Recreation Area. Near its source the river is a rushing stream that slices through dry, brush-covered mountains. Narrow gorges hide cool, dark pools. Waterfalls spill down flume like channels in sandstone.

The extreme change in elevation creates much of the scenic beauty that recreationists enjoy. From Junipero Serra Peak to the Arroyo Seco canyon bottom is more than a 5,000-foot elevation change.

Although there is no trail that follows the entire stretch of the Arroyo Seco River, there are many well-used access points via the Arroyo Seco/Indians Road. At one end of the Arroyo Seco/ Indians Road, the Arroyo Seco Trail follows the upper reaches of the river, intersecting at the Coast Ridge Trail. The Lost Valley Trail starts at the Escondido Campground.

Marble Peak Trailhead is located at the horse bridge near the confluence of Tassajara Creek and the Arroyo Seco River. There are large pools both upstream and downstream from this point. It is common on weekends to have 30 vehicles parked at the Marble Peak Trailhead. At least 50% of these vehicles are associated with Forest visitors who come for day use type of activities along the river.

The Arroyo Seco Gorge area is very popular for sunbathing and swimming. Many visitors find relative isolation from administrative controls in the gorge area, and they use the area as an alternative location to recreate with a minimum of regulatory interferences. There is no designated trail leading to the gorge at this time. The attraction of the river is so strong that forest visitors will travel cross-country down steep, unstable slopes to reach the river.

The most popular access point for recreation is at the Arroyo Seco day use area. Once again the main attraction is the Arroyo Seco River not only for the day use site but also for forest visitors who camp in the overnight campground. The most common recreation activities are picnicking, swimming and sunbathing on the sandy beaches. The managed use season is year-round and use has averaged 50,000 Recreation Visitor Days (RVDs) per year since 1982. The area had a history of use of over 1,000 people per weekend. The day use area has recently been rehabilitated and provides for 900 people at one time (PAOT). An estimated 70% of the visitors are from Monterey County and an additional 20% are from surrounding counties within a 150-mile radius.

Determination: The recreation opportunities are considered to be outstandingly remarkable. The environmental space is inspiring, and the scale and contrast offer a feeling of insignificance. This is especially true in many sections of the gorge area and the many deep pools upstream. Steep cliffs and deep pools for swimming are unusual in a predominantly chaparral landscape.

3. *Geology*

Description: The Monterey District of the Los Padres National Forest is in the southern Coast Ranges of California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block) and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments. The majority of the Monterey District is part of the Salinian Block. The Arroyo Seco, Carmel, Little Sur and San Antonio Rivers, and Tassajara Creek primarily flow through the basement rocks of this block.

Arroyo Seco River first flows generally northeast and perpendicular to beds of Cretaceous and Tertiary marine sedimentary rocks. It then bends to flow northwest, apparently controlled by the contact between the Tertiary Reliz Canyon Formation and Rincon Shale. Further downstream along this trend it flows through exposed Salinian Block basement rocks (granite and Mesozoic or older metasedimentary rocks) and Franciscan Complex rocks. A landslide is located adjacent to the stream in the southwest one-quarter of the Junipero Serra Peak quad. This feature is in an area with abundant shale units (Church Creek Formation, Rincon Shale and the Lucia Shale member of the Reliz Canyon Formation) and the highly fractured Franciscan Complex. Beyond this, the river flows northwest and then north into mostly Mesozoic or older metasedimentary rocks and granite in the Tassajara Hot Springs quad. A fault deflects the course of the river into a northeast trend (in the Junipero Serra Peak quad) through the metasedimentary rocks. From the area near The Lakes to the forest boundary it flows east through steeply dipping Tertiary sedimentary rocks (Vaqueros Sandstone and the Mint Canyon, Monterey and Berry formations).

Determination: The river corridor possesses outstandingly remarkable geologic values. The Salinian Block is unique because it appears to have been displaced 200 kilometers northwestward along the San Andreas Fault from its original position between the Sierra Nevada and the Peninsular Ranges. Rocks in the Salinian Block have been structurally deformed by en echelon faults and folds as a result of transform (strikeslip) faulting. The Salinian Block also has anomalous seismic properties that show in a marked decrease in seismic amplitudes. One possible explanation is that the Franciscan Complex underlies the block. The Salinian Block is significant at the central and southern California geographic level.

4. *Fish and Wildlife*

Description: The Arroyo Seco flows year-round through large areas of open oak woodlands separated by low ridges mostly covered in chaparral. Along the river course, habitat types primarily consist of riparian and mixed hardwoods, such as white alder, live oak, sycamore, and California laurel.

The Arroyo Seco is the first major spawning tributary that California South-Central Coast steelhead (*Oncorhynchus mykiss*), a federally threatened species, can access as they move up the Salinas drainage

from the Pacific Ocean. The Arroyo Seco (excluding its tributaries) provides 4.5 miles of steelhead habitat on the Los Padres National Forest, from the forest boundary upstream to an identified fish barrier one and one half mile upstream from the confluence with Willow Creek. This habitat is within study segment 4. Steelhead have access to high quality spawning areas in Santa Lucia Creek, Tassajara Creek, and Willow Creek, all of which are tributaries to the Arroyo Seco below the identified barrier. The Arroyo Seco upstream of the barrier, as well as tributaries to this upper reach (Segments 1 and 2), provide excellent trout habitat, but are not accessible to steelhead.

Downstream of the Los Padres National Forest boundary, steelhead habitat has been severely degraded by water diversions, road crossings, groundwater pumping for agricultural uses (especially newly created, large vineyards) and housing, and pesticide contamination. River corridor conditions on the Los Padres are relatively pristine, and represent some of the last remaining intact steelhead habitat in the larger Salinas River Drainage.

The riparian corridor along the Arroyo Seco River provides habitat for the California spotted owl (*Strix occidentalis occidentalis*), a Forest Service sensitive species, for foraging and nesting. In 1993, a pair of owls was found within the gorge area of the Arroyo Seco River.

Southwestern pond turtles (*Clemmys marmorata pallida*), a Forest Service sensitive species, are found in suitable habitats within the upper tributaries of the Arroyo Seco River around Memorial Campground. Suitable habitat for this species occurs throughout the Arroyo Seco River from Memorial Park to the boundary of the Los Padres National Forest.

Determination: The habitat for federally threatened steelhead is considered to be outstandingly remarkable. The Arroyo Seco River is the middle link of an anadromous fishery continuum between the Tassajara Creek, Salinas River and Pacific Ocean.

5. *Heritage resources (Cultural)*

Description: The Arroyo Seco River has been an important resource prehistorically. Archaeological remnants of Salinan and Esselen occupations, including bedrock mortars and rockshelters, dot the river along its entire course. Ethnographic studies conducted in the early 1900s provided Salinan place names for areas along the Arroyo Seco, suggesting the ongoing importance of this area in Salinan culture.

Within the relevant portion of the stream corridor, bedrock mortars are the most common known prehistoric and/or ethnographic site type. Bedrock mortars are common in California, but seldom receive subsurface testing, so that their potential significance is usually not fully examined. Any cases in which plant remains have been preserved and can be conceptually associated with the mortars could tell us much about prehistoric food processing.

Also present is a rockshelter (site 51-100) that is listed on the National Register of Historic Places. Excavation has revealed exceptionally well-preserved material remains; these remains are also diverse

and abundant, and may represent a long span of use. This site and the associated artifacts offer an exceptional quantity of information regarding past activities within the drainage, and the practices of the relevant cultural group(s). The site is thus significant at the local and regional levels. Further, this site offers potential for on-site interpretation of local and regional prehistory. (Since excavation and, unfortunately, looting are believed to have removed most of the cultural materials, calling attention to the site should not increase the potential for looting).

Based on the current level of knowledge of the stream corridor, none of these features or characteristics is recommended as outstandingly remarkable; however, the informational and interpretive potential of site 51-100 warrants future attention.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The Arroyo Seco River has been an important resource historically. Historic sites include the Arroyo Seco Guard Station complex (1931). This complex includes a historic Forest Service building that still retains distinctive characteristics of the era. Based on the current level of knowledge of the stream corridor, none of these features or characteristics is recommended as outstandingly remarkable.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Riparian vegetation consists of alder, sycamore, and various species of willow and oak. The 1977 Marble Cone Fire affected all of this vegetation and 1,600 acres were burned during a 1985 incident. Not all of the riparian plants were burned during these fire events and much of it is relatively mature in age with moderately well developed vertical and horizontal diversity.

The *Arroyo Seco Watershed Analysis* (2000) identified five sensitive plant species as being present in the Arroyo Seco watershed. None of these five have been found to occur within one-quarter mile of Arroyo Seco River and none of these five are associated with riparian habitats.

No systematic efforts have been made to inventory the botanical resources of the Arroyo Seco River. Surveys for fuels management have been focused on areas immediately adjacent to Arroyo Seco Road and have not included the riparian corridor and its adjoining uplands.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Scenery

The scenic features of Arroyo Seco River are considered to be outstandingly remarkable because of the combination of steep canyon walls, gorges, rock outcrops, and jumbles of boulders that create pools, and dramatic sounds within a dynamic scenic setting.

Recreation

The recreation opportunities are considered to be outstandingly remarkable. The environmental space is inspiring, and the scale and contrast offer a feeling of insignificance. This is especially true in many sections of the gorge area and the many deep pools upstream. Steep cliffs and deep pools for swimming are unusual in a predominantly chaparral landscape.

Geology

The Salinian Block metasedimentary and plutonic rocks exposed by the Arroyo Seco River are outstandingly remarkable. The Arroyo Seco River cuts through a complex geological cross-section in the Coast Ranges. The river exposes the relationship of rocks and geologic structural features in the Salinian Block that are important as research areas to aid in understanding important tectonic and seismic processes along the California continental margin. Abundant vegetation and steep terrain often obscures these rocks in other locations.

Fish

The habitat for federally threatened steelhead of is considered to be outstandingly remarkable. The Arroyo Seco River is the middle link of an anadromous fishery continuum between the Tassajara Creek, Salinas River and Pacific Ocean.

Potential Classification by River Segment (based on Interagency Guidelines criteria)

Segment 1 - Wild

Segment 2 - Recreation

Segment 3 - Scenic

Segment 4 - Recreation

Table 436. Arroyo Seco River - Potential Classification by River Segment

	Segment 1	Segment 2	Segment 3	Segment 4
WILD RIVER				
Free of impoundments	Yes	No	Yes	Yes
Generally inaccessible except by trail	Yes	No	No	No
Watersheds or shorelines essentially primitive	Yes	No	Yes	No
Waters unpolluted	Yes	Yes	Yes	Yes
SCENIC RIVER				
Free of impoundments		No	Yes	Yes
Accessible in places by roads		Yes	Yes	Yes
Watershed largely primitive and undeveloped		Yes	Yes	No
RECREATIONAL RIVER				
Some impoundments or diversions in past		Yes		No
Readily accessible by road or railroad		Yes		Yes
Some development along shoreline		Yes		Yes
Eligibility Status	Wild	Recreation	Scenic	Recreation

Suitability Report

Description

Landownership and Land Uses

Segment 1: This segment includes the Arroyo Seco River from its headwaters to the Sportsman's Lodge for a total distance of 2.5 miles (781 acres). Segment 1 is totally within the Ventana Wilderness.

Segment 2: A length of river 0.25 miles upstream and downstream of the impoundment at the Sportsman's Lodge located in Township 21 S., Range 5 E., Section 7 (149 acres). Segment 2 lies within the administrative boundary of the Los Padres National Forest and is outside of the Ventana Wilderness. The Sportsman's Lodge is under special use permit from the Los Padres National Forest.

Segment 3: Beginning 0.25 miles downstream of the impoundment at the Sportsman's Lodge to the Ventana Wilderness boundary approximately one-quarter mile above the confluence with Tassajara Creek for a total distance of 10.5 miles (2965 acres). There are several non-federal parcels in the last mile within the administrative boundary of the Los Padres National Forest.

Segment 4: Segment 4 begins at Ventana Wilderness boundary approximately one-quarter mile above

the confluence with Tassajara Creek and extends to the administrative boundary of the Los Padres National Forest along the eastern boundary of Township 19 S., Range 5 E., Section 31.

The river mile location is from the source.

Table 437. Arroyo Seco River - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
1	0 - 2.5	Headwaters to Sportsman's Lodge	NFS (781 acres)	Wilderness
2	2.5 - 3.0	Sportsman's Lodge permit area	NFS (149 acres)	NFS: Organization Camp permit
3	3.0 - 13.5	Sportsman's Lodge to Wilderness boundary	NFS (2965 acres)	Wilderness; dispersed recreation.
4	13.5- 18.4	Wilderness boundary to NF boundary	NFS (1063 Acres) and non-federal (344 acres)	NFS: developed and dispersed recreation. Non-federal: rural and residential

Mineral and Energy Resource Activities

There is no history of locatable minerals. Potential for mineral, oil or gas development within the corridor is low. There is a sand and gravel operation downstream from the National Forest boundary.

Water Resources Development

There are no known plans for hydroelectric or other water development.

Transportation, Facilities and Other Developments

The Arroyo Seco/Indians Road (19S09) is within the river corridor from the forest boundary at Arroyo Seco Station to the Marble Peak trailhead (approximately 3 miles). From Marble Peak trailhead to Escondido Campground, the road is outside the river corridor but parallels the river. From Escondido Campground to the Sportsman's Lodge, the road is within the river corridor (approximately 3 miles). The road corridor is outside of the Ventana Wilderness.

The south end of the road from Memorial Campground to Escondido Campground is seasonally open (May-November). The remainder of road is temporarily closed to motorized vehicles pending an environmental assessment to address potential impacts of removing the existing slide material from the road above the Arroyo Seco Campground to Escondido Campground. There have been periodic landslides on this road.

From the Sportsman's Lodge, the river corridor is accessed by the Arroyo Seco Trail (4E10) and at this point enters the Ventana Wilderness. The trail is located within the river corridor to its boundary south of Madrone Camp. Other trails that access the river corridor are the Rocky Creek Trail (E04), Marble Peak (4E07), Santa Lucia Trail (5E03), and Lost Valley trail (4E08). Two trails cross the river, Marble Peak at Horse Bridge and Lost Valley trail approximately one mile west of Escondido Campground. Approximately seven miles of trail exist within the river corridor. Two backcountry trail camps exist within the river corridor (Forks and Madrone).

Developed recreation facilities within the river corridor include:

Arroyo Seco Campground – 49 units, newly remodeled with showers, flush toilets.

Escondido Campground – 9 units, no potable water, vault toilets.

Memorial Campground – 8 units, no potable water, vault toilets.

These campgrounds are not visible from the river itself. The Arroyo Seco Day Use Area is visible from the river, near the boundary by Arroyo Seco Station.

Recreation Activities

Recreation use is concentrated from the Arroyo Seco Recreation Area to just upstream of Horse Bridge. Use in this area consists primarily of hiking, backpacking, picnicking, and swimming. From this point heading upstream to Escondido, use of the river is constrained by very limited access. Use is moderate from Escondido Campground to the headwaters. Use in this area consists primarily of hiking, backpacking and picnicking. The day use area and campground at the Arroyo Seco Recreation Area has a history of use by over 1,000 people per weekend. This area has recently been rehabilitated and has a capacity for 900 people.

Other Resource Activities

Prescribed burning is planned within the river corridor between Escondido and Memorial Campgrounds. Vegetation management including brush cutting and pile burning occurs in the vicinity of the Arroyo Seco Recreation Area.

Special Designations

Segment 1 is within the Ventana Wilderness. Segment 2 is on National Forest System lands with no special designation. Segment 3 is now within the Ventana Wilderness from one-quarter mile downstream from the Sportsman's Lodge impoundment (i.e., downstream from boundary of segment 2) to approximately 0.25 miles upstream from the confluence with Tassajara Creek. Segment 4 downstream of this point has no special designation.

Socio-Economic Environment

Located within 12 miles, Greenfield (population ~10,000) is the closest town. Fort Hunter Liggett is approximately 15 miles from the river corridor. The Salinas Valley is a heavily developed agricultural area. New housing developments are increasing along the river outside of the administrative boundary of the Los Padres National Forest. There is a high migrant population in the Salinas Valley. The population in the Salinas Valley is rapidly increasing with the associated urbanization from San Jose.

There is a small housing development on the Arroyo Seco Road just east of the administrative boundary of the Los Padres. There are about 50 houses with most being full time residences. About two miles east of the administrative boundary is a restaurant/bar and mobile home park known as Millers Lodge.

Designation of the Arroyo Seco River as a Wild and Scenic River would have a negligible effect on the local economy. Use patterns within the Ventana Wilderness area would be unchanged. Designation as a recreational or scenic river would not affect use patterns in the Arroyo Seco Recreation Area. A scenic designation could limit recreational developments downstream of the Ventana Wilderness.

Current Administration and Funding Needs if Designated

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration *	\$27,300	\$23,700
Development of River Management Plan	\$0	\$100,000
Development Costs	\$0	\$5,000
Operation and Maintenance Costs	\$136,500	\$13,500
Total Cost First Five Years	\$163,800	\$265,900

* General administration and operation and maintenance costs are estimated to continue at \$30,000 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Worthy: The habitat for federally threatened steelhead is considered to be outstandingly remarkable. The Arroyo Seco River is the middle link of an anadromous fishery continuum between the Tassajara Creek, Salinas River and Pacific Ocean. Designation would support efforts to maintain and improve habitat.

The scenic features of Arroyo Seco River are considered to be outstandingly remarkable because of the combination of steep canyon walls, gorges, rock outcrops, and jumbles of boulders that create pools, dramatic sounds within a dynamic scenic setting. Designation would help preserve the scenic values.

The recreation opportunities are considered to be outstandingly remarkable. The environmental space is inspiring, and the scale and contrast offer a feeling of insignificance. This is especially true in many sections of the gorge area and the many deep pools upstream. Steep cliffs and deep pools for swimming are unusual in a predominantly chaparral landscape. Designation as a recreational river would allow for development of high standard recreation facilities, where appropriate, within the river corridor. This is important in segment 4 where developed facilities already exist.

Not worthy: The Salinian Block metasedimentary and plutonic rocks exposed by the Arroyo Seco River are outstandingly remarkable. The Arroyo Seco River cuts through a complex geological cross-section in the Coast Ranges. However, these features are already protected by wilderness designation.

2. The current status of land ownership and use in the area.

The facilities at the Sportsman's Lodge include an access road, main cabin, covered pavilion, and utility infrastructure. The parcel in the north one half of T20S, R4E, 1/2 of Sec 1 contains no improvements within the study corridor. The non-federal lands within T19S, R4E, Sec 31 and the northeast corner of T20S, R4E Sec 6 contain numerous small residential parcels within the study corridor.

If designated, the values of the river corridor would be protected through the administration of the Sportsman's Lodge permit. No improvements are anticipated on the parcel in Section 1. The residential development near the terminus of the study corridor is well established and plans for future developments are unknown.

The Nature Conservancy is actively acquiring property downstream of the administrative boundary of the forest.

3. The reasonable foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

Potential dams and other water developments would be curtailed but there are no current proposals for this kind of development. All of segment 1 and most of segment 3 are within the Ventana Wilderness. This precluded any uses that do not meet wilderness use criteria. This includes dams, developed recreation facilities, and anything that detracts from wilderness character.

The continued use of the Arroyo Seco – Indians road may be curtailed by designation. The two ends of this road would be within the river corridor and designation as a wild river prohibits roads within the river corridor. This road is part of the forest transportation system and is a connector between the Arroyo Seco road and Fort Hunter-Liggett. The road is also critical for access to the Ventana Wilderness for wildland firefighting. It has been used for access to the Ventana Wilderness on every major wildfire in the east side of the wilderness. Designation could also influence future development of recreational facilities at the Arroyo Seco Recreation Area.

Monterey County has a special use permit to pump water from the Arroyo Seco River into Lower Abbott Lake. This lake is an impoundment adjacent to the Arroyo Seco Recreation Area. It has been a popular fishing spot for people using the recreation area. Water has not been pumped for several years, but the Monterey County Fish and Game Commission has expressed interest in restarting the pumps. The pumps are located within the proposed corridor (segment 4), so designation could affect this pumping operation.

4. The federal agency that will administer the area, should it be added to the System.

USDA Forest Service.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

No proposal to share costs exists. Arroyo Seco-Indians road is maintained by Monterey County Public Works.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

This area is not prioritized for land acquisition since there is only one small private parcel within the corridor. The cost to purchase this parcel is unknown.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

Participation not expected.

8. State and/or Local government's ability to manage and protect the outstandingly remarkable values on non-federal lands.

There is continuing development outside the forest boundary including a residential subdivision and grape vineyards. This development is a concern for non-governmental land/resource protection agencies as well as state resource management agencies. The Monterey County General Plan zones the areas downstream from the National Forest boundary as "rural" and "resource" lands. Resource lands are to be used for agricultural purposes, mining and resource conservation. Rural lands are primarily used for grazing and very low-density residences.

9. The consistency of designation with other agency plans, programs or policies.

Designation of these segments would be consistent with the Los Padres National Forest Land and Resource Management Plan. It would also be consistent with the county General Plan.

10. Support or opposition to designation.

There is both strong support and strong opposition to additional river protection designations. Environmental groups support the designation of the segments listed in this study. There is opposition to designation from local ranchers/farmers as they see this as a precursor for designation of downstream segments.

A citizens group has been formed to advocate for designation of the portion of the river downstream from the National Forest as a Wild and Scenic River. Local farmers/ranchers along the river are opposed to designation because of potential for restrictions on uses of private land.

11. Potential for water resources development.

There are no known plans for water development in these segments. Water developments are no longer allowed in segment 1 and 3 due to designation as wilderness.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No segments recommended for designation.

Alternative 2: Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segment 3 is recommended for scenic river designation to allow for limited maintenance on

the Arroyo Seco Indians Road and trailheads. No designation recommended for all of segment 2 and 4. No designation through segment 2 would allow for future use and development of the Sportsmen's Lodge permit area. Segment 4 contains several private parcels and is a highly used, developed recreation area. No designation would minimize conflicts with private landowners. The recommended designations provide the best balance of recreation and scenery values with the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values.

Alternative 3: The Arroyo Seco River has fisheries as an ORV. Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segments 2 and 4 are recommended for recreational river designation. This designation would provide additional protection for the free-flowing character and ORVs while still allowing for recreational development. Segment 3 is recommended for scenic river designation to allow for limited maintenance on the Arroyo Seco Indians Road and trailheads. The recommended designations balance the need to protect and enhance the free-flowing character, water quality, and outstandingly remarkable fish habitat and habitat linkages.

Alternative 4: The Arroyo Seco River has recreation and scenery as ORVs. Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segments 2 and 4 are recommended for recreational river designation. This designation would provide additional protection for the free-flowing character and ORVs while still allowing for recreational development. Segment 3 is recommended for scenic river designation to allow for limited maintenance on the Arroyo Seco Indians Road and trailheads.

Alternative 5: No segments are recommended for designation.

Alternative 6: Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segments 2 and 4 are recommended for recreational river designation. This designation would provide additional protection for the free-flowing character and ORVs while still allowing for recreational development. Segment 3 is recommended for scenic river designation to allow for limited maintenance on the Arroyo Seco Indians Road and trailheads. The recommended designations protects and enhances outstandingly remarkable scenery, recreation, geology, and fishery values and features, including species conservation, biodiversity, open space, natural beauty, recreation and research.

Suitability Determination for the Preferred Alternative

Describe the rationale for the suitability determination of the preferred alternative:

Segment 1 is recommended for wild river designation. Segment 2 and 4 are recommended for recreational river designation. Segment 3 recommended for scenic river designation. Recommending segment 1 for wild river designation would be compatible with existing wilderness management. Segment 2 contains the Monterey County Sportsman's Lodge. This organization camp has been under special use permit since the 1920s and is very popular with local sportsmen. Designation would allow for the perpetuation of this use and would provide a continuous wild and scenic river corridor.

Designation of segment 3 as a scenic river within the wilderness would protect outstandingly remarkable values and allow for the continued use and maintenance of the Arroyo Seco – Indians Road. A scenic river designation would allow for continued public access, fire prevention, fire suppression, watershed improvement projects and provide a full range of recreation opportunities. The portion of the Arroyo Seco River corridor downstream from Horse Bridge is the most popular recreation area on the Monterey Ranger District. The high degree of private development in Sections 31 and 6, within the corridor and immediately adjacent to the river, would frustrate Wild and Scenic River management at a high classification; therefore, in order to provide protection for the free-flowing character and ORVs while still allowing for development, recreational designation is recommended.

Carmel River

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying the Carmel River for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Carmel River

Location: State of California, Monterey County, Los Padres National Forest

The studied portion of the Carmel River begins in Pine Valley below a spring located in the northeast corner of T19S, R3E, Sec 10, MDBM. The Carmel River initially flows in a northwesterly direction for approximately five miles, then turns northeasterly near Hiding Canyon Wilderness Camp and continues to the Ventana Wilderness boundary along the northern edge of T18S, R3E, Sec 21, MDBM. The entire length of the Carmel River lies within the Ventana Wilderness.

River Mileage:

Studied: 9.2 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow: The entire study segment is a perennial, free-flowing river. The Los Padres Dam impounds the river approximately 1.25 miles north of the Los Padres National Forest boundary. No impoundments or diversions exist within the study segment. The Carmel River is determined to be free-flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The views down Church Creek are of a multitude of ridges and strong rock elements. Distinctive sandstone and very large rock boulders mixed with Ponderosa Pine create dramatic Pine Valley views. A waterfall of 200 feet into a large pool in a narrow canyon signals the water feature start of this river. Large granite boulders extend the length of the river. At Round Rock Camp, massive

granite boulders the size of trailers add scale to the river at the bottom of a small canyon. A 50-acre meadow is seen from the river, which is already 30 feet wide at this point. The drop from Round Rock Camp to Hiding Canyon Camp is mostly woodland, riparian vegetation with large ferns, reeds, and undergrowth in a tight canyon with several rapids. The traveler then enters a large granite gorge, dark in the mornings, with moss and ferns along the edges. Many of the pools contain fish. Mesa Creek creates a 150 to 200 foot fall into the river, with a constant mist over the landscape. At Hiding Canyon, the land flattens and retains a tree canopy. The water is calmer as the river widens to 75 to 100 feet and a small meadow is seen from the shore. The trail crosses the river up to 27 times.

The river narrows and opens in several places as the landscape mellows and calm prevails, including wide deep pools. At Buckskin Flat Camp, brush starts to mix with the trees along the river. A few gorges and smaller pools intermix with the grand displays of golden fall colors of sycamores and maples.

At Bluff Camp, the landform opens and temperatures increase as much as 20 degrees. This change also brings a change in the landscape. The vegetation is typical of the character type and a mellow mood prevails.

Determination: The scenic values are not considered to be outstandingly remarkable. Although the scenic values are distinctive landscapes, there are better examples of these scenic features along the Arroyo Seco River.

2. Recreation

Description: The entire portion of the Carmel River being considered as part of the eligibility process exists within the Ventana Wilderness. The majority of the recreational activities along this river are supported by the Carmel River Trail, which is one of the most popular trails in the Ventana Wilderness. The Carmel River Trail follows the Carmel River from the headwaters in Pine Valley to the Los Padres Reservoir just beyond the Los Padres National Forest boundary.

The river and trail continue into Hiding Canyon, a narrow scenic gorge. The runoff from the massive granite wall has created swift streams which carve deep channels down to the Carmel River. The trail crosses the river over two dozen times through rich riparian woodland with a lush under story. Bigleaf maple, black oak, western sycamore, and alder trees create this woodland. Giant chain ferns six feet tall hide dark pools, and horsetail rushes grow in spongy clumps beneath elk clover and thimbleberry branches.

The river attracts many recreationists who enjoy many activities: backpacking, horse packing, fishing, bird watching, scenery viewing, camping, swimming, nature study, and photography. This river and riparian area, which support these activities, is unique to southern California. The river is also popular with local fishermen. An estimated 70% of the visitors are from Monterey County and an additional 20% are from surrounding counties within a 150-mile radius.

Determination: The recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The Monterey District of the Los Padres National Forest is in the southern Coast Ranges of California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments. The majority of the Monterey District is part of the Salinian Block. The Arroyo Seco, Carmel, Little Sur and San Antonio Rivers, and Tassajara Creek primarily flow through the basement rocks of this block.

The Carmel River flows westward from Pine Valley through the Tertiary Junipero Sandstone, Mesozoic (or older) metasedimentary rocks, and a Mesozoic hornblende gabbro complex (mafic intrusive rocks). Pine Falls is located entirely within the hornblende gabbro complex. From Round Rock Camp to Hiding Canyon Camp, the river follows the northwest-trending trace of an inferred fault arm of the Church Creek Fault. The Tertiary Vaqueros Sandstone is on the west side of the fault and Mesozoic hornblende gabbro is on the east side of the fault. At Hiding Canyon Camp, the Carmel River bends northeast and flows through mafic intrusive and metasedimentary basement rocks. At Sulphur Springs Camp, the river crosses the Miller Creek Fault and bends to flow east and then north through granitic rocks.

The Salinian Block is unique because it appears to have been displaced 200 kilometers northwestward along the San Andreas Fault from its original position between the Sierra Nevada and the Peninsular Ranges. Rocks in the Salinian Block have been structurally deformed by en echelon faults and folds as a result of transform (strikeslip) faulting. The Salinian Block also has anomalous seismic properties that show in a marked decrease in seismic amplitudes. One possible explanation is that the Franciscan Complex underlies the block. The Salinian Block is significant at the central and southern California geographic level.

Determination: The Salinian Block metasedimentary and plutonic rocks exposed by the Carmel River are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province.

4. Fish and Wildlife

Description: The Carmel River canyon bottoms are covered with riparian vegetation consisting of white alder, red willow, live oak, sycamores, and California laurel, and support diverse wildlife species.

The upper portion of the riparian zone is used by California spotted owls, (*Strix occidentalis occidentalis*), a Forest Service sensitive species, for foraging and nesting. Four pairs of spotted owls have been recorded along this study segment.

California red-legged frogs (*Rana aurora draytonii*), which are federally listed as threatened, have historically and recently been found in the Miller Fork of the Carmel River northwest of China Camp, and within the adjoining reaches of Bruce, Danish, and the Miller Fork of the Carmel River. These tributaries are located upstream of the Los Padres Dam inundation zone, and therefore are isolated from bullfrogs (*Rana catesbiana*), a predator of red-legged frogs.

Southwestern pond turtles (*Clemmys marmorata pallida*), a Forest Service sensitive species, are found in suitable habitats throughout the Carmel River system and most of its tributaries.

The upper reaches of the Carmel River above the Los Padres Reservoir contain approximately 12 miles of historic habitat for California South-Central Coast evolutionary significant unit steelhead (*Oncorhynchus mykiss*), a federally threatened species. The majority of rearing habitat in the upper main-stem of the Carmel River is within the Ventana Wilderness Area above the Los Padres Reservoir. Here river flow is unregulated and without roads or other significant anthropogenic sediment sources. The gradient is steep (320 ft/mile), and bedrock outcrops control the course of the channel. Deep pools, separated by short shallow glides, long cobble/boulder riffles, and runs, are common. Currently, adult steelhead, which are trapped at the base of the Los Padres Reservoir on their upstream migration, are captured and transported over the dam, and released into the reservoir where they then move upstream to spawn. Unfortunately, there is 100% mortality of smolts as they pass back over the spillway on their way back to the ocean. The proposed renovation of the 24,000 acre-feet new Los Padres Dam and Reservoir would inundate more of the upstream spawning habitat, but also aims to mitigate impacts to all stages of the steelhead's lifecycle.

Determination: Although the species mentioned above are outstanding according to their definition as threatened, endangered, sensitive, or rare, the habitat and wildlife resources within the Carmel River drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. *Heritage resources (Cultural)*

Description: The knowledge of the span and complexity of Native American use of the corridor is good and several sites are known to be located within the corridor. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and everyday life of the Native American inhabitants of the corridor. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: The knowledge of the span and complexity of historic use of the corridor is limited with little known about the remains of the historic use within the corridor. Research indicates that use of the corridor may be associated with homesteading activities. Sites for that activity identified, as well as other site types that could be expected to be located in the corridor, are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Riparian vegetation consists of alder, sycamore, and various species of willow. Much of this vegetation was burned during the Kirk Incident in 1998. Thus, the riparian plant community is young in age and relatively simple in structure. Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-half mile of the Carmel River. Two rare plants are found in the Carmel watershed but both (*Galium californicum* ssp. *luciense* and *Carlquistia muirii*) are found on ridge tops high above the riparian corridor.

The botanical resources of the Carmel River are not well known due to the area's isolation. No systematic efforts have been made to inventory the botanical resources of the Carmel River.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment Process* (National direction letter of 11/21/96). Accordingly, the Carmel River is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of Carmel River is eligible for classification as a wild, scenic, or recreational river.

Little Sur River

Study Area Summary

The California Protected Waterways Plan (Initial Elements), prepared in 1971 pursuant to the Protected Waterways Act of 1969, recognized the Little Sur River as a Class III (Important) Steelhead Trout Stream and as possessing a Class III (Important) Lagoon (Wildlife Waterway) serving waterfowl, shorebirds, and other water-associated birds. The Class III designation indicates waterways that are usually of countywide interest and importance.

In response to this finding, Monterey County prepared the ‘Little Sur Protected Waterway Management Plan’ in 1983. The North and South Forks of the Little Sur River were classified under guidelines in the California Protected Waterways Plan (Initial Elements) as ‘natural waterway’ and appear to satisfy the state criteria (California Wild and Scenic River Act, 1972) for classification as a ‘wild’ or ‘scenic’ river. The main stem below the confluence of the North and South Forks was classified as ‘pastoral’ and appear not to meet the state criteria as a wild or scenic river. The primary goal of the Little Sur Protected Waterway Management Plan is ‘To protect and enhance the outstanding natural values of the Little Sur River and its watershed as prime fish and wildlife habitat and for scenic and passive outdoor recreation and to support continued ranching use and those visitor-serving uses and limited resource-dependent uses which are compatible with protection of these natural values.’ The plan did not recommend the Little Sur River for State or National Wild and Scenic River status.

The “Los Padres Condor Range and River Protection Act” (PL 102-301) directed that the Little Sur River be studied for potential addition to the National Wild and Scenic River System. On March 4, 2002, a letter was sent to Monterey County to seek their interest in participating in a study of the Little Sur River. No response was received. The eligibility determination below combines the findings of the Little Sur Protected Waterway Management Plan with other available information about the Little Sur River downstream of the administrative boundary of the Los Padres National Forest.

Name of River: Little Sur River

Location: State of California, Monterey County, Los Padres National Forest

The Little Sur River study area includes both the main stem and the South Fork. The main stem is considered to be free flowing below a point in the Ventana Wilderness northwest of the Ventana Double Cone in the southeastern quarter of T18S, R2E, Sec 34, MDBM. The South Fork is considered to be free flowing below a point within the Ventana Wilderness west of the Ventana Double Cone in the northeast quarter of T19S, R2E, Sec 9, MDBM. The main stem and South Fork flow in a westerly direction to join at the western tip of Dani Ridge in the northwest quarter of T18S, R1E, Sec 34, MDBM. The main stem of the Little Sur River then continues to flow westerly to the Pacific Ocean.

For the purposes of this study, the Little Sur River was divided into five segments.

Segment 1: This segment includes the main stem (North Fork) of the Little Sur River from the headwaters to the boundary of the Ventana Wilderness in the northwest corner of T18S, R2E, Sec 32.

Segment 2: This segment originates at the Ventana Wilderness boundary near Jackson Camp and continues to the administrative boundary of the Los Padres National Forest along the western boundary of T18S, R1E, Sec 25, MDBM. Total length is approximately 3.3 miles and only about 1.2 mile of this segment flows within National Forest System lands. This segment also encompasses a 0.5-mile length of the Pico Blanco Boy Scout Camp. In addition to several buildings, the developments include a cement impoundment on the river to create a recreational pond.

Segment 3: This segment originates at the administrative boundary of the Los Padres National Forest along the western boundary of T18S, R1E, Sec 25, MDBM, and ends at the confluence with the South Fork of the Little Sur River. All lands within this study segment are privately owned and outside of the forest boundary.

Segment 4: The South Fork of the Little Sur River from the headwaters to the confluence with the main stem. The total length is approximately 10.4 miles. Roughly 6.5 miles are within the administrative boundary of the Los Padres National Forest and four miles are entirely within the Ventana Wilderness and two miles border the recent addition. Approximately 1.5 miles are within Andrew Molera State Park and approximately three miles flow across private lands.

Segment 5: The main stem of the Little Sur River from the confluence with the South Fork to the Pacific Ocean. All lands within this study segment are privately owned and outside the forest boundary.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	4.9	4.9
2	3.3	3.3
3	4.2	0.0
4	10.4	0.0
5	2.0	0.0

Studied: 24.8 miles

Eligible: 8.2 miles

Eligibility Inventory

Determination of Free-flow:

The main stem of the Little Sur River has an impoundment associated with the Pico Blanco Boy Scout Camp (T18S, R2E, Sec 30). The impoundment is used to create a recreational pond. No other current impoundments are known to exist. Past impoundments associated with logging and ranching may have existed but are not evident today. The Little Sur River is considered to be free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The headwaters of the Little Sur have no evidence of water but offer dramatic views to the ocean on the west and the entire Ventana Wilderness. The vegetation is chaparral, scrub oak and pine along very steep slopes. As the land flattens, water becomes evident and a hardwood canopy creates more enclosure. The river zigzags within this canopy.

At Fox Camp smells change, moss on the rocks, redwoods and ferns mix with alders and sycamores to offer a rich diversity of vegetation. The river is 20 to 25 feet wide with a few scattered boulders, although the vegetation is the main feature.

The vegetation shifts to a mix of oaks and massive redwoods, waterfalls, and landforms of granite and white marble adding color to the landscape. Views of the ocean become more evident.

The land becomes even steeper, with lots of waterfalls among a mix of hardwoods and redwoods as the river flows into Pico Blanco Camp. The feature here is a large waterfall with a 150-foot drop, deep pools and prolific ferns. The vegetation changes to all redwoods as the river widens to 40 feet. The land gets real steep at Little Sur Camp and then opens to a wide valley. Now the river slows with a lush jungle like undergrowth.

As the river enters private land, alders and willows prevail. The valley is broader as the river winds through grassy cattle land. There is a lot more evidence of humans with fences and buildings dominating the landscape.

Determination: Scenic values are not considered to be outstandingly remarkable. Although the scenic values are distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Big Sur River.

2. Recreation

Description: The Little Sur River is on the west slope of the Santa Lucia Mountains. The Little Sur River comprises two branches, the main stem and the South Fork, both of which flow westward to join about two miles from the ocean.

The main stem arises on the northwest slopes of Ventana Double Cone and picks up Puerto Suello, Comings and Skinner Creeks on its north side and Jackson Creek on the south side. The South Fork drains only the south central portion of the watershed.

Relief is pronounced, the upper main stem above Pico Blanco Boy Scout Camp ranging chiefly from 1,000 to 4,800 ft. elevation. The South Fork originates around 4,500 ft. near the west slopes of Ventana Double Cone and drops precipitously to the forks at around 100 ft. elevation. From thence, the river flows on its floodplain west to the ocean, forming a lagoon at its mouth.

Within National Forest System lands, the current uses of the Little Sur River corridor include hiking, backpacking, rock climbing, boys' camps, sunbathing, nature study, bird watching, fishing and hunting. Those portions of the river corridor on private lands are not open to the public. An estimated 70% of the visitors are from Monterey County and an additional 20% are from surrounding counties within a 150-mile radius.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The Monterey District of the Los Padres National Forest is in the southern Coast Ranges of California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block) and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments. The majority of the Monterey District is part of the Salinian Block. The Arroyo Seco, Carmel, Little Sur and San Antonio Rivers, and Tassajara Creek primarily flow through the basement rocks of this block.

The Little Sur River flows first through northwest trending bands of steeply dipping metasedimentary rocks (schist) and some granitic intrusive rocks. Some of these bands are separated by faults. Several landslides are adjacent to the river where it passes through the metasedimentary rocks. In the vicinity of the Pico Blanco Boy Scout Camp, the Palo Colorado Fault controls the river. This fault is likely responsible for the well known feature called Botcher's Gap, that from the topography map should be visible from the river. At Old Coast Road the river crosses the Sierra Hill Fault and Sur Thrust. Between these two faults are Cretaceous unnamed marine sedimentary rocks. West of the Sur Thrust, the river flows through the Franciscan Complex and overlying folded Tertiary marine sediments. Near the mouth of the river there is a band of serpentine, a rock type that is derived from a deep source and has distinct tectonic implications with regard to the evolution of California's coast.

The Salinian Block is unique because it appears to have been displaced 200 kilometers northwestward along the San Andreas Fault from its original position between the Sierra Nevada and the Peninsular

Ranges. Rocks in the Salinian Block have been structurally deformed by en echelon faults and folds as a result of transform (strikeslip) faulting. The Salinian Block also has anomalous seismic properties that show in a marked decrease in seismic amplitudes. One possible explanation is that the Franciscan Complex underlies the block. The Salinian Block is significant at the central and southern California geographic level.

The Sur Thrust marks the boundary between the Salinian Block and the Franciscan Complex and is thus a major structural feature. The Sur Thrust is significant at the central and southern California geographic level.

The band of serpentine near the mouth of the river is significant at a regional level with regard to the tectonic evolution of the Coast Ranges.

Determination: The Salinian Block metasedimentary and plutonic rocks and the Sur Thrust exposed by the Little Sur River are not considered to be outstandingly remarkable in comparison with similar features located along the designated Wild and Scenic Big Sur River and elsewhere in this geologic province.

4. Fish and Wildlife

Description: The Little Sur River watershed drains west to the Pacific from a large, bowl shaped watershed on the coast range. Riparian vegetation along this river consists of alder and willows species growing intermittently among redwoods and riparian hardwoods. The river mouth supports one of the more extensive willow thickets in Big Sur. The north-facing slopes and riparian areas of the Little Sur support a magnificent redwood forest.

A pair of spotted owls (*Strix occidentalis occidentalis*), which are a Forest Service sensitive species, were found in 1990 off National Forest System lands near the Pico Blanco Boy Scout camp.

The Little Sur River is considered an anadromous stream and supports the California South-Central Steelhead evolutionary significant unit, (*Oncorhynchus mykiss*), a federally threatened species. Approximately six miles of steelhead waters within the Little Sur drainage exist on the Los Padres National Forest. This habitat is within the Ventana Wilderness and is nearly pristine.

Determination: Although the above mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within Little Sur River drainage are not considered to be outstandingly remarkable amongst other drainages with similar TES habitat and species components.

5. Heritage resources (Cultural)

Description: With much of the corridor passing through private property, only a portion of the Little Sur

River corridor has been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited but several sites are known to be located within the corridor. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and everyday life of the Native American inhabitants of the corridor. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Only a portion of the Little Sur River drainage has been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is limited but several sites are known for the area. These known resources are associated with homesteading and ranching activities as well as possible recreation use. The sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: Riparian vegetation consists of alder and various species of willow as well as small to large groves of coastal redwood.

Dudley's lousewort (*Pedicularis dudleyi*), a Forest Service sensitive plant species, occurs at scattered locations along the main stem of the Little Sur River for a distance of about 4 miles. These known populations occur west of the administrative boundary of the Los Padres National Forest eastward to the confluence with Jackson Creek. About 1,100 plants are estimated to occur within one-quarter mile of the river based on records from the 1980s. No recent or systematic efforts have been made to determine the exact distribution and abundance of this species in the watershed.

Dudley's lousewort is found in undisturbed redwood forests canyons, sometimes on slightly disturbed locations, and in loose soil. Dudley's lousewort is listed as Rare by the State of California and is listed by the California Native Plant Society (2001) as 1B (plants rare, threatened, or endangered in California and elsewhere). Trampling by hikers and equestrians, and trail maintenance has been identified as threats to the plants found in the Little Sur River watershed.

This population is considered special at the scale of the central coastal region of California and at the Forest scale. Other populations of Dudley's lousewort are found in San Luis Obispo County, Santa Cruz County, and San Mateo County. Statewide, there are fewer than 10 known locations for this species.

Determination: Dudley’s lousewort is an outstandingly remarkable botanical value due to its local dependence on redwood forests and associated riparian habitat. The population of Dudley’s lousewort found in the Little Sur River is not unique; however, the cluster of colonies present in the watershed collectively constitute the largest known population and together there are more plants here than in all the other populations combined. Due to the fact that Dudley’s lousewort is found only on the central coast of California and nowhere else in the world and given that the largest and most robust population is found on the Little Sur River.

Summary of Outstandingly Remarkable Values:

Botany

The cluster of colonies of Dudley’s lousewort found on the main stem of the Little Sur River collectively constitute the largest known population found anywhere in the world.

Potential Classification

Table 439. Little Sur River - Potential Classification by River Segment

	Segment 1	Segment 2
WILD RIVER		
Free of impoundments	Yes	No
Generally inaccessible except by trail	Yes	No
Watersheds or shorelines essentially primitive	Yes	No
Waters unpolluted	Yes	Yes
SCENIC RIVER		
Free of impoundments		No
Accessible in places by roads		Yes
Watershed largely primitive and undeveloped		Yes
RECREATIONAL RIVER		
Some impoundments or diversions in past		Yes
Readily accessible by road or railroad		Yes
Some development along shoreline		Yes
Eligibility Status	Wild	Recreation

Suitability Report

Description

Landownership and Land Uses

Segment 1: This segment includes the main stem of the Little Sur River from the headwaters to the boundary of the Ventana Wilderness in the west one-half of T18S, R2E, Sec 31. The total length is approximately 4.9 miles.

Segment 2: This segment originates at the Ventana Wilderness boundary at the boundary with private land in Section 31 and continues to the administrative boundary of the Los Padres National Forest along the western boundary of T18S, R1E, Sec 25. The 3.3-mile total length is composed of about 1.2 miles of National Forest System (NFS) land and 2.1 miles on private lands. The forest segment also encompasses a 0.5-mile length of the Pico Blanco Boy Scout Camp. In addition to several buildings, the developments include a cement impoundment on the river to create a recreational pond.

All private lands within these river segments are designated in the Monterey County General Plan as “Rural”. These lands are zoned primarily for grazing and very low-density residential housing.

The river mile location is from the source.

Table 446. Little Sur River - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
1	0 - 4.9	Headwaters North Fork to Wilderness Boundary	NFS (1362 acres)	Wilderness
2	4.9 - 8.2	Wilderness boundary to Forest boundary	NFS (276 acres) and non-federal (614 acres)	NFS: dispersed recreation. Non-federal: Rural, includes organization camp and potential mining

Mineral and Energy Resource Activities

Granite Rock Corporation has a perfected claim and plans to develop the limestone deposits on Pico Blanco. During public meetings for the Los Padres Land and Resource Management Plan Revision, representatives of Grant Rock emphasized that the company still intends to develop this claim. The timing of this development is unknown.

Water Resources Development

The Pico Blanco Boy Scout Camp has a cement impoundment on the river to create a recreational pond within segment 2. There are no known Federal Energy Regulatory Commission applications or permits.

Transportation, Facilities and Other Developments

Recreation facilities in the river area are:

Jackson Camp primitive campsite within Ventana Wilderness near western boundary of the wilderness.

Little Sur primitive campsite, Section 25, T18S, R2E, outside of wilderness.

Trail access crosses one parcel of NFS land surrounded by private land to Pico Blanco camp.

One mile of the Little Sur Trail (1E03) from Pico Blanco to the primitive Jackson Camp within the Ventana Wilderness.

Trail from road to Little Sur primitive campsite and river.

A road parallels the river through non-federal land for approximately one mile before terminating at Pico Blanco camp.

Several buildings and structures are associated with Pico Blanco Boy Scout Camp in segment 2.

A locked gate prohibits access to the private land outside of the Ventana Wilderness and restricts vehicular access to the Little Sur River. Trail access is limited.

Recreation Activities

Current uses include hiking, backpacking, rock climbing, boys' camps, sunbathing, nature study, bird watching, fishing and hunting.

Other Resource Activities

There is grazing on private land in segment 1. Timber harvesting may occur on private land in segment 2. Prescribed burning is planned along road and trail corridors to protect existing developments from wildfire.

Special Designations

Segment 1 is within the Ventana Wilderness.

Socio-Economic Environment

Big Sur is an unincorporated area of Monterey County with dispersed rural housing and communities. Monterey is approximately 20 miles north from the mouth of the river. Real estate values are high in this area and economic development is primarily limited to tourism. This is an international destination to visitors with renowned scenery. Designation as a Wild and Scenic River would have a negligible impact on the local economy. Recreation use patterns would not be affected.

Current Administration and Funding Needs if Designated

The USDA Forest Service administers all NFS land. The Little Sur Protected Waterways Management Plan, which is part of the Monterey County Local Coastal Program, protects that portion of the river on private or State land.

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration *	\$2,050	\$31,950
Development of River Management Plan	\$0	\$150,000
Development Costs	\$0	\$5,000
Operation and Maintenance Costs	\$10,250	\$4,750
Total Cost First Five Years	\$12,300	\$191,700

* General administration and operation and maintenance costs are estimated to continue at \$3,000 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Not worthy: Botany is the only outstandingly remarkable value for the Little Sur River. Dudley's lousewort (*Pedicularis dudleyi*), a Forest Service sensitive plant species, occurs at scattered locations along the main stem of the Little Sur River for a distance of about four miles. Dudley's lousewort is

also found in other locations including San Luis Obispo County and is currently protected through Forest Service sensitive species guidelines.

2. The current status of land ownership and use in the area.

Granite Rock Company owns a mining claim on Pico Blanco Mountain. This claim contains a limestone deposit that is the largest mass of chemical quality, uniform grade white-grinding limestone in the western United States. Granite Rock Company fully intends to mine this deposit.

The local Boy Scout Council owns Pico Blanco Boy Scout Camp. The camp is used year-round; however, the primary use season is during the summer. There are several structures within the river corridor. A seasonal impoundment is used during the summer months to create a swimming hole.

3. The reasonable foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

There are no current proposals for water development. Voluntary compliance with the Wild and Scenic Rivers Act would be emphasized with private landowners within the river corridor.

4. The federal agency that will administer the area, should it be added to the System.

USDA Forest Service.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

No proposal to share costs exists.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

The costs of acquiring private land within the corridor are estimated to be several million dollars. Acquisition of private land would be on a willing seller basis only.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

Participation is unexpected.

8. State and/or Local government's ability to manage and protect the outstandingly remarkable values on non-federal lands.

Private land within the river corridor in segment 2 is currently managed under the Little Sur River Protected Waterway Management Plan.

9. Support or opposition to designation.

In a letter dated April 15, 1994, attorneys representing Mr. James Hill III of the El Sur Ranch note that they oppose candidacy for Wild and Scenic River status based on already existing protection via the Little Sur River Protected Waterway Management Plan; roads, houses and other improvements which border with the north and south forks of the river as well as the main body of the river; and on concern that designation would result in increase of human visitation in the remote areas of the Ranch or in activities which might create a potential for increasing trespass on the Ranch property.

10. Contribution to river system or basin integrity.

The length of the river within the Ventana Wilderness boundary is already protected by designation as wilderness.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No designation is recommended for either segment.

Alternative 2: No designation is recommended for either segment. The only identified ORV is botany. Designation would not promote a balance between recreation and scenery values with the need to protect botanical values.

Alternative 3: Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segment 2 is recommended for recreation river designation due to the presence of roads and developments on private land. The North Fork of the Little Sur River has botany as an ORV. The recommended designation balances the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable botanical values with the conservation of a wide range of wildlife and plant species (especially TES) and habitats, biodiversity, linkages and corridors.

Alternative 4: No designation recommended for either segment. The ORVs do not include recreation or scenery.

Alternative 5: No designation recommended for either segment.

Alternative 6: Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segment 2 is recommended for recreation river designation due to the presence of roads and

developments on private land. The recommended designation protects and enhances a wide range of values and features, including species conservation, biodiversity, open space, natural beauty, recreation and research.

Suitability Determination for the Preferred Alternative

Describe the rationale for the suitability determination of the preferred alternative:

Neither segment 1 or 2 is recommended for designation. The outstandingly remarkable value (ORV) for the river is a sensitive plant species. The NFS land in segment 1 is designated as wilderness and this designation protects the area from impacts from human use of the wilderness. This should be adequate protection for this plant. The plant can be monitored and if change in populations or habitat are occurring, then appropriate measures can be taken to protect the plant.

The ORV can be protected on NFS lands in segment 2 in the same manner. On private land, protection would be done under the existing Little Sur River Protected Waterway Management Plan.

San Antonio River

Study Area Summary

The San Antonio River was considered for study based on input from Los Padres National Forest personnel.

Name of River: San Antonio River

Location: State of California, Monterey County, Los Padres National Forest

The San Antonio River is considered to be free flowing below a point in the Ventana Wilderness along the east flank of the Santa Lucia Range approximately two miles southeast of Cone Peak in the southern one-half of T21S, R4E, Sec 35, MDBM. The study segment of the San Antonio River flows in an easterly direction to the administrative boundary of the Los Padres National Forest (eastern edge of T21S, R5E, Sec 35, MDBM), a distance of approximately eight miles. The first 3.5 miles lie within the Ventana Wilderness. A private inholding exists immediately north of the river, east of and contiguous to the wilderness boundary. For the purposes of this study, the San Antonio River was divided into two segments.

Segment 1: Includes the headwaters of the main stem of the San Antonio River from its headwaters to the Ventana Wilderness boundary located in the southwestern one-quarter of T21S, R5E, Sec 35. The potential wild and scenic river corridor may encompass a portion of the private parcel located in T21S, R5E, Sec 33.

Segment 2: The main stem of the San Antonio River from the Ventana Wilderness boundary (southwestern one-quarter of T21S, R5E, Sec 35) to the administrative boundary of the Los Padres National Forest (eastern edge of T21S, R5E, Sec 35).

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	7.6	7.6
2	1.0	1.0

Studied: 8.6 miles

Eligible: 8.6 miles

Eligibility Inventory

Determination of Free flow:

The river is free flowing in segment 1. Adjacent to a barn at the Merle Ranch, segment 2 has a river impoundment that has not been used for 10 years. The structure consists of a concrete foundation with slats to seasonally impound the river. A small water supply diversion exists approximately one mile upstream from the main structures at the Merle Ranch. A 1.5'' pipe from this diversion parallels the river for approximately one mile. The San Antonio River is determined to be free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Seasonal variations in riparian vegetation consisting of alder, sycamore, and various species of willow and oak are not unique in regards to other riparian areas on the district.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description: The upper portions of the river within segment 1 lie within the Ventana Wilderness. The San Antonio Trail parallels the river throughout this segment, providing access to Fresno and San Antonio Camps. In recent years, public access from the eastern end of the San Antonio Trail has been denied from a private landowner. The Merle Ranch area is closed to public entry, limiting access to segment 2 and the eastern portion of segment 1. Segments 1 and 2 provide good fishing opportunities. The San Antonio River is one of the few streams open to fishing on the district.

Determination: Recreational values are not considered to be outstandingly remarkable.

3. Geology

Description: The Monterey District of the Los Padres National Forest is in the southern Coast Ranges of California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block) and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments. The majority of the Monterey District is part of the Salinian Block. The Arroyo Seco, Carmel, Little Sur and San Antonio Rivers, and Tassajara Creek primarily flow through the basement rocks of this block.

The San Antonio River is structurally controlled by a linear system of folds and faults. It first flows

southeast through metasedimentary rocks parallel to and sometimes within bands of marble. This course also parallels a nearby fault separating the basement metasedimentary rocks from Cretaceous marine sediments. The river bends to the northeast where it crosses the fault and then flows mostly through folded Cretaceous and Tertiary marine sediments to the Forest boundary.

Determination: The Salinian Block metasedimentary and plutonic rocks exposed by the San Antonio River are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province.

4. Fish and Wildlife

Description: The upper reaches of San Antonio Creek are relatively unaffected by human use, and contain excellent riparian habitat. Some trout inhabit this branch of San Antonio Creek, but a large population of introduced Sacramento squawfish and sucker compete with trout here. The San Antonio reservoir blocks passage of steelhead from the Salinas drainage into all of San Antonio Creek.

The arroyo toad (*Bufo californicus*), a federally endangered species, exists on Fort Hunter Liggett downstream of the study river area.

A pair of California spotted owls (*Strix occidentalis occidentalis*), a Forest Service sensitive species, was found in 1990 on the main fork of San Antonio Creek near Fresno Camp.

Introduced bullfrogs are common within this drainage, and may be keeping the California red-legged frog out of the drainage. Southwestern pond turtles are found within the San Antonio drainage.

Determination: Although the above mentioned species are outstanding according to their definition as threatened, endangered, sensitive (TES), or rare, the habitat and wildlife resources within the San Antonio River drainage are not considered to be outstandingly remarkable amongst other drainages with similar TES habitat and species components.

5. Heritage resources (Cultural)

Description: Portions of the San Antonio River drainage have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited but several sites are known to be located within the corridor. The Native American sites recorded represent activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and earliest contact between the Salinan and mission-era explorers and colonizing cultures. These sites attest to the use of the area by ancestral Salinians. This corridor passes through a proposed Special Interest Area whose designation is based on cultural values. The sites known represent a significance on a regional level as they represent early contact with the Spanish colonizers as well as post-secularization Native American communities that have allowed researchers to interpret Salinan cultural history on a whole.

Determination: Cultural values are considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Portions of the San Antonio River corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is documented with examples of mission-era sites, travelways to the coast, and homesteading and ranching activities. These sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: Riparian vegetation consists of alder, sycamore, and various species of willow and oak. There is one rare plant occurrence within one-quarter mile of the San Antonio River.

The botanical resources of the San Antonio River watershed are not well known due to the area’s isolation and rough terrain. No systematic efforts have been made to inventory the botanical resources of San Antonio River.

Based on the literature, there are no known unique, outstanding, distinctive, or unusual botanical features or characteristics in the San Antonio River watershed. Although there is a sensitive plant occurrence within the study corridor, it is not considered to be a unique, outstanding, distinctive, or unusual botanical feature because of the small size of the population, the association of the species with upland habitat types, and the presence of larger, more vigorous populations in the adjoining watersheds.

Determination: The botanical resources are not considered outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Cultural and Historic

The density and variety of the sites in the Merle Ranch area, and the time span—probably encompassing thousands of years--that they collectively represent, taken with the prehistoric and historic interpretive potential of the site, constitute outstandingly remarkable values for both historic and prehistoric heritage resources.

Potential Classification

Table 443. San Antonio River - Potential Classification by River Segment

	Segment 1	Segment 2	Segment 3	Segment 4
WILD RIVER				
Free of impoundments	Yes	No		
Generally inaccessible except by trail	Yes	No		
Watersheds or shorelines essentially primitive	Yes	No		
Waters unpolluted	Yes	Yes		
SCENIC RIVER				
Free of impoundments		No		
Accessible in places by roads		Yes		
Watershed largely primitive and undeveloped		Yes		
RECREATIONAL RIVER				
Some impoundments or diversions in past		Yes		
Readily accessible by road or railroad		Yes		
Some development along shoreline		Yes		
Eligibility Status	Wild	Scenic		

Suitability Report

Description

Landownership and Land Uses

Segment 1: Segment 1 is within the Ventana Wilderness. A portion (about 45 acres) of the 120-acre private parcel in Section 33 falls within the study corridor.

Segment 2: Segment 2 includes the Merle Ranch, an acquired property. The northern one-half of the study corridor is in the Ventana Wilderness. The Merle Ranch is currently used as an administrative pasture. Improvements include two small cabins, outbuildings, and a small impoundment. The area is closed to the public.

River mile location is from the source.

Table 449. San Antonio River - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
1	0 - 7.6	Headwaters North Fork to Wilderness Boundary	NFS (2288 acres) and non-federal (45 acres)	Wilderness
2	7.6 - 8.6	Wilderness boundary to Forest boundary	NFS (270 acres)	NFS: Wilderness and acquired property, closed to the public

Mineral and Energy Resource Activities

There are no known deposits of locatable or leasable minerals within the study corridor.

Water Resources Development

The river is free flowing in segment 1. In segment 2 there is a run of the river impoundment at the Merle Ranch. The structure consists of a concrete foundation with slats to seasonally impound the river (this impoundment has not been used for 10 years). A small water supply diversion exists approximately one mile upstream from the main structures at the Merle Ranch. A small diameter pipe from this diversion parallels the river for approximately one mile. There are no known Federal Energy Regulatory Commission applications or permits.

Transportation, Facilities and Other Developments

The San Antonio Trail (5E04) borders the river between Fresno and San Antonio Camps. The San Antonio Trail, which passes through the private land in section 33, has been closed to the public due to the private ownership. A Forest Service administrative site known as the Merle Ranch is located within segment 2. There are several structures and at least two roads within the river corridor at the Merle Ranch.

Recreation Activities

Moderate levels of day hiking, backpacking, and fishing occurs along the San Antonio Trail. Public access to the Merle Ranch is currently prohibited and restricts access to segment 2. Historic and prehistoric resources at the Merle Ranch lend themselves to development of interpretive facilities on the

ranch. Fishing opportunities on and near the ranch could be enhanced by trail development.

Other Resource Activities

Forest Service pack stock grazes within segment 2 at the Merle Ranch. Prescribed burning is planned around the perimeter of the ranch and also along the San Antonio Trail corridor. Livestock grazes the non-federal land in section 33.

Special Designations

All of segment 1and portions of segment 2 are within the Ventana Wilderness.

Socio-Economic Environment

Located within 8 miles of the river corridor, Fort Hunter Liggett and its facilities comprise the closest community. The historic San Antonio Mission and ‘The Hacienda’, part of the former Hearst Ranch, are both found at the Fort and attract international visitors. The closest full service community is King City (18 miles). Designation of the San Antonio River as a Wild and Scenic River would have a negligible impact on the local economy. Use patterns would be unaffected.

Current Administration and Funding Needs if Designated

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration	\$10,100	\$34,300
Development of River Management Plan	\$0	\$150,000
Development Costs	\$0	\$10,000
Operation and Maintenance Costs	\$50,500	\$11,500
Total Cost First Five Years	\$303,000	\$205,800

* General administration and operation and maintenance costs are estimated to continue at \$ 12,400 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Worthy: Abundant, varied historic and prehistoric sites are present within and near the river corridor,

and probably represent an occupation sequence spanning thousands of years. Sites both in and near the river corridor can be argued to be linked not only to each other but to the river corridor as a means of connection to the ocean and thus to the larger world.

This corridor could, based upon the heritage resources, be considered a worthy addition to the National System if the interpretive potential of this location is realized. Doing so would require carefully planned and diligently implemented measures to protect sensitive heritage resources. Such measures may be needed in any case if existing recreational opportunities are enhanced or if new recreational opportunities are developed in this area.

Not Worthy: The private parcel in segment 1 has existing houses and other developments. This land would be difficult to acquire. If it remains in private ownership, this would detract from designation. All of segment 1 is within the Ventana Wilderness. The most appropriate designation for National Forest System lands would be a wild river. The developments on the private parcel and the road accessing this parcel do not meet the criteria for this designation.

2. The current status of land ownership and use in the area.

All land in segment 1 is within the administrative boundary of the Los Padres National Forest. Approximately 45 acres of private land (Section 33) is within the river corridor in segment 1. Forest Service pack stock graze within segment 2 at the Merle Ranch. Prescribed burning is planned around the perimeter of the ranch and also along the San Antonio Trail corridor. Livestock grazing occurs on the private land in Section 33.

3. The reasonable foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

Potential dams/water development would be curtailed, but there are no current proposals for this kind of development.

4. The federal agency that will administer the area, should it be added to the System.

USDA Forest Service.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

There are no proposals to share costs.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

The landowner of the private parcel in Section 33 has not expressed a willingness to convey the property to federal government. The Forest Service is required to acquire properties based on fair market value. The market value of this parcel has not been established.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

Participation is unexpected.

8. Support or opposition to designation.

Local environmental groups support designation of Wild and Scenic Rivers in general, but there has been no support for the San Antonio River specifically. Local hunting and fishing groups may oppose designation. The Monterey Ranger District is 92% Wilderness and these groups are very concerned about special designations on National Forest System lands restricting their use of these public lands.

9. Contribution to river system or basin integrity.

The watershed of the San Antonio River upstream from these segments is almost entirely within the Ventana Wilderness. The designation as a Wild and Scenic River would not add significant additional protection of the watershed than that already provided by wilderness designation.

10. Potential for water resources development.

No known proposals or existing licenses exist.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No designation recommended for either segment.

Alternative 2: No designation recommended for either segment. No designation would protect the outstandingly remarkable heritage values by not highlighting their existence within the river corridor

Alternative 3: No designation recommended for either segment. The ORVs do not include wildlife or fisheries.

Alternative 4: No designation recommended for either segment. The ORVs do not include recreation or scenery.

Alternative 5: No designation recommended for either segment.

Alternative 6: Segment 1 would be recommended for wild designation, consistent with the existing wilderness. Segment 2 would be recommended for scenic designation due to the impoundment and improvements at Merle Ranch. The Merle Ranch area provides an opportunity for interpretation and research of the heritage resource.

Suitability Determination for the Preferred Alternative

Describe the rationale for the suitability determination of the preferred alternative:

No designation recommended for either segment. While there are outstandingly remarkable values in these segments, they can be protected by other means. The Merle Ranch has significant historic and prehistoric resources. Other avenues to protect the cultural resources should be explored and could offer better protection than designation as a Wild and Scenic River. Designation does not add any additional budget for management of the river so the protection of the cultural resources is not assured.

The ranch is also an administrative site where Forest Service pack stock are pastured. The designation of the river could have a negative impact on the use of the ranch as an administrative site. It could also restrict potential future uses of the ranch.

Tassajara Creek

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying Tassajara Creek for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Tassajara Creek

Location: State of California, Monterey County, Los Padres National Forest

Tassajara Creek is considered to be free-flowing below a point in the Ventana Wilderness along the east flank of the South Ventana Cone in the northeast quarter of T19S, R3E, Sec 22, MDBM. Tassajara Creek flows in a southeasterly direction to its confluence with the Arroyo Seco River in T20S, R4E, Sec 2, MDBM. For the purposes of this study, Tassajara Creek was divided into three segments.

Segment 1: Tassajara Creek from its headwaters to the privately owned lands operated as the Zen Mountain Center (Tassajara Hot Springs) in T19S, R4E, Sec 32, MDBM.

Segment 2: A length of Tassajara Creek encompassing the developments associated with the Zen Mountain Center inholding.

Segment 3: Beginning after the development of the Zen Mountain Center and continuing downstream to the confluence with the Arroyo Seco River.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	5.4	0
2	0.8	0
3	4.2	0

Studied: 10.4 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

Tassajara Creek headwaters stem from South Ventana Cone Peak and flow through the steep canyons southeast into Arroyo Seco River. The upper mileage from the headwaters to Tassajara Hot Springs is very isolated and inaccessible, providing sanctuary for fish and wildlife species. Intermittent flows support an 80 to 150 foot wide riparian corridor of alder and sycamore trees; these flows also provide a watering area for wildlife throughout the year. Riparian areas contain high species diversity for both plant and animal life because of their high biological productivity and contrast to adjacent uplands of oak and chaparral. The majority of threatened, endangered, and sensitive wildlife species within the Los Padres National Forest occurs within or is dependent upon these riparian areas for all or part of their life cycles.

Segments 1 and 3 are free-flowing. There are diversions on the private land in segment 2. Tassajara Creek is determined to be free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The headwaters of Tassajara Creek show no presence of water, are covered with chaparral vegetation typical of the character type and views like those of other high points of land in the area. One mile downstream, intermittent evidence of water and sparse riparian vegetation occur within very steep terrain.

As the creek reaches Tassajara Hot Springs, water is added to the flow and an oak canopy mixed with sycamore becomes more evident. The strong winds are the biggest feature through the area, but are not distinctive.

Willow Creek joins the main water flow and the land, vegetation, and water begin to take on some character: small gorges, an over story, boulders, jumbles of rock, and small rapids.

Overall, the character of the land, vegetation and water form are not distinctive or varied.

Determination: The scenic values are not considered to be outstandingly remarkable. Although the scenic values are distinctive landscapes, there are better examples of these scenic features along the Arroyo Seco River.

2. Recreation

Description: The entire length of Tassajara Creek is within the Ventana Wilderness. Forest visitors may access the creek by either the Marble Peak Trail or the Church Creek Trail.

The Marble Peak Trail follows the river for roughly three miles. The Church Creek Trail may be accessed at the end of the Jamesburg-Tassajara Road, which ends at the Tassajara Zen Center and Hot Springs. The Tassajara Zen Center is privately owned property within the one-quarter mile corridor of Tassajara Creek and provides a unique hot springs experience. There are some unique hiking and horse packing opportunities along Tassajara Creek on the Marble Peak Trail. Just below the hot springs, a small gorge known as "the narrows" has been cut through very hard crystalline rock. Some uplifted river terraces also occur along lower Tassajara Creek that are covered with specious valley oaks and buckeye. This part of the trail is especially rich in riparian and woodland birds, including nesting acorn woodpeckers and colorful western tanagers.

Church Creek is a tributary of Tassajara Creek and contains many scenic geologic features.

Determination: The recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The Monterey District of the Los Padres National Forest is in the southern Coast Ranges of California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block) and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments. The majority of the Monterey District is part of the Salinian Block. The Arroyo Seco, Carmel, Little Sur and San Antonio Rivers, and Tassajara Creek primarily flow through the basement rocks of this block. Beginning at the headwaters, Tassajara Creek flows southeast along the trace of a fault that controls the course of the creek for approximately three miles. This fault is mostly within the hornblende gabbro complex. The creek continues to flow southeast through granite and metasedimentary rocks until it reaches the Palo Colorado Fault at the confluence with Willow Creek. This fault causes Tassajara Creek to bend at a right angle and flow northeast along the fault trace from this junction down to the Arroyo Seco River. Also in this vicinity, the creek is bordered by Marble Peak. This peak is probably composed of marble although not shown specifically on Dibblee's maps.

The Salinian Block is unique because it appears to have been displaced 200 kilometers northwestward along the San Andreas Fault from its original position between the Sierra Nevada and the Peninsular Ranges. Rocks in the Salinian Block have been structurally deformed by en echelon faults and folds as a result of transform (strikeslip) faulting. The Salinian Block also has anomalous seismic properties that show in a marked decrease in seismic amplitudes. One possible explanation is that the Franciscan Complex underlies the block.

Determination: The Salinian Block metasedimentary and plutonic rocks exposed by the Tassajara Creek are not considered to be outstandingly remarkable in comparison with similar features found within the Arroyo Seco River corridor.

4. Fish and Wildlife

Description: Tassajara Creek historically contains eight miles of habitat for California South-Central Coast steelhead (*Oncorhynchus mykiss*), a federally listed threatened species, from Tassajara Hot Springs to the confluence with the Arroyo Seco River. This creek is a link in a chain of rivers that possess an anadromous fishery (Arroyo Seco and Salinas Rivers). Foothill yellow-legged frogs, Forest Service Sensitive Species, have been seen in Tassajara Creek in 1999. Sightings of the foothill yellow-legged frog, *Rana boyle*, are very rare in the Central California Coastal Range.

Determination: Although the above mentioned species are outstanding according to their definition as threatened, endangered, sensitive, or rare, the habitat and wildlife resources within the Tassajara Creek drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. Heritage resources (Cultural)

Description: The knowledge of the span and complexity of Native American use of the Tassajara Creek corridor is limited. However, the corridor has a confluence with the Arroyo Seco River corridor which has several sites present. The sites known for the Tassajara Creek, as well as those that would be expected within the corridor, are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the corridor is focused on a hot springs location on private land where a hotel and other developments associated with a hot springs “spa” were developed. The historic features identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Riparian vegetation consists of alder, sycamore, and various species of willow and oak. There is one rare plant occurrence within one-quarter mile of Tassajara Creek, a small population of *Sidalcea hickmanii* ssp. *hickmanii* (T19S, R4S, Sec 32). This subspecies is a Forest Service Sensitive Species and a candidate for listing under the Endangered Species Act. Endemic to the Santa Lucia Mountains, *Sidalcea hickmanii* ssp. *hickmanii* is known from seven other locations including Arroyo Seco Road, Junipero Serra Peak, and Bear Mountain. No other rare plants are known to occur within one-

quarter mile of Tassajara Creek but additional occurrences of *Sidalcea hickmanii* ssp. *hickmanii* (Hickman's checkerbloom) may be present in the watershed. Talus fritillary (*Fritillaria falcata*) occurs in the Tassajara watershed but not within one-quarter mile of the creek. As its common name implies, talus slopes provide habitat for this plant and known occurrences are found in upland sites near ridge tops.

The botanical resources of the Tassajara Creek watershed are not well known due to the area's isolation and rough terrain. No systematic efforts have been made to inventory the botanical resources of Tassajara Creek. However, residents and visitors to Tassajara Hot Springs have walked much of the stream corridor and these efforts have yet to discover any threatened, endangered, or proposed plant species.

Based on the literature, there are no known unique, outstanding, distinctive, or unusual botanical features or characteristics in the San Antonio River watershed.

Determination: Botanical values are not considered to be outstandingly remarkable, however there is one rare plant occurrence within one-quarter mile of the Tassajara Creek. This subspecies is a Forest Service Sensitive Species and a candidate for listing under the Endangered Species Act. Endemic to the Santa Lucia Mountains, this plant is known from seven other locations.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment Process* (National direction letter of 11/21/96). Accordingly, Tassajara Creek is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of Tassajara River is eligible for classification as a wild, scenic, or recreational river.

Piru Creek

Study Area Summary

Name of River: Piru Creek

Location: State of California, Ventura and Los Angeles County, Los Padres National Forest (Segments 1-4 and 6-7)

The Los Padres National Forest administers segments 1-4 and 6-7 while the Angeles National Forest administers segment 5. Study mileage in the EIS tables is listed under the forest that administers the segment. However, for the convenience of the reader the following report includes all river segments.

The study for Piru Creek includes the main stem from its origin downstream to the maximum pool of Pyramid Lake and from 300 feet below the dam at Pyramid Lake downstream to the maximum pool at Lake Piru. For the purposes of this study, Piru Creek has been divided into seven segments. Segments 1 through 4 are located referred to as upper Piru and segments 5 through 7 are referred to as lower Piru.

Upper Piru

Segment 1: Piru Creek is considered to be free flowing below a point in the Sespe Wilderness in the southwest corner of T6N, R22W, Sec 3. Segment 1 includes the main stem from its source within the Sespe Wilderness to the wilderness boundary along the eastern edge of T7N, R21W, Sec 31, SBBM.

Segment 2: From the Sespe Wilderness boundary to one-quarter mile below Gold Hill crossing (T7N, R19W, Sec 18, SBBM).

Segment 3: From one-quarter mile below Gold Hill crossing downstream to the Castaic Mine located on private land in T7N, R19W, Sec 22, SBBM.

Segment 4: Downstream from Castaic Mine to the maximum pool of Pyramid Lake.

Lower Piru

Segment 5: Starts 300 feet below Pyramid Lake Dam and continues downstream to the Sespe Wilderness boundary in southwest corner of T6N, R18 W, Sec 14, SBBM.

Segment 6: Starts at the Sespe Wilderness boundary and ends where Piru Creek leaves the Sespe Wilderness in T5N, R18N, Sec 4, SBBM.

Segment 7: Starts at the Sespe Wilderness boundary and continues downstream to the maximum pool of Lake Piru.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	5.8	5.8
2	20.4	20.4
3	4.7	4.7
4	7.6	7.6
5	3.7	3.7
6	12.7	12.7
7	2.4	2.4

Studied: 57.3 miles (53.6 on Los Padres National Forest)

Eligible: 57.3 miles (53.6 on Los Padres National Forest)

Eligibility Inventory

Free-flow Determination:

There are no impoundments.

Dams at Pyramid Lake and Lake Piru impound Piru Creek. California Department of Water Resources controls releases from Pyramid Lake. In the 1990's, sporadic releases were made that caused radical, rapid fluctuations in water levels. Complaints were lodged from numerous river users caught unaware of the sudden water level changes. The releases have been somewhat tempered lately. The reason is not certain, but it may be due to the complaints and to wildlife values downstream that depend on flows more closely mimicking natural flow regimes prior to the installation of the impoundments.

As stated on page 15 of the Q&A Section of the Wild and Scenic River Reference Guide, "...any section of river with flowing water meets the technical definition of free flowing, even if impounded upstream." Thus, segments 5, 6, and 7 are considered free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Approximately 80% of Piru Creek is scenic attractiveness class "A" landscape, within the

Southwest Mountain and Valley Character type. It is distinctive not only because of the presence of water, but also because of the mix of landform, color and vegetation that offer a variety that is distinctive.

Upper Piru Creek

The headwaters of Piru Creek show little presence of water. The character is one of openness with great color contrasts of buff and white against the deep greens of tall pines. Near Thorn Meadows, there is a sense of enclosure as the land flattens and human encounters are more prevalent in the intermittent pools. Piles of rocks in a forested setting are mixed with the pools. The creek moves through narrow and broader spaces among the vertical trees and creates a remarkable setting.

From Lockwood Flat, the river proceeds through a canyon gorge that is very rocky and has steep slopes with sparse vegetation on the south slopes. The distinct riparian zone is nearly 100 feet wide as Piru Creek is seasonally fast moving and turbulent as canyon wall springs add water to the flow. The creek then widens out as it approaches the Goldhill area.

After Goldhill, the canyon again tightens to only 50 to 60 feet wide. The flow proceeds over steeper landscapes with many boulders and sharp rock outcrops. Although the vegetation is sparse, the chaparral clings to the canyon walls and the horizontal lines of the bluffs and dramatic whites and buff colors are dominant. Beyond Snowy Creek, the creek twists and turns and creates a sense of coming out of the mountains as it enters a landscape more typical of the character type. This landscape only serves as a contrast to the drama of the other sections.

At Buck Creek, Piru Creek enters a new gorge creating strong enclosure within the steep walls. The rich colors of the riparian vegetation have openings to views of chaparral covered and barren slopes. Soils and rock outcrops turn brick red, creating contrasts with the perennial water and the sounds moving quickly past large boulders and moisture in the air as the creek flows into Pyramid Lake.

Lower Piru Creek

Below Pyramid Lake, the vegetation is less dramatic, and the river has many twists and turns. At Ruby Canyon, there are rock outcrops, steep slopes, and strong side canyon drainages. The riparian vegetation is less dramatic with limited variation as the creek widens and straightens out its course. Views are of a savannah, chaparral landscape.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description:

Upper Piru Creek

The upper portion of Piru Creek above Pyramid Lake offers visitors from southern California a chance to recreate in and around a stream corridor with a year-round stream. Visitors are allowed access into a variety of settings including steep canyon walls as well as open stretches with panoramic views of the creek and surrounding countryside. Access varies from hiking and horseback to off highway vehicle routes and forest development roads. There are a variety of camping opportunities along the stream channel.

Segment 1: The headwaters of Piru Creek lie within the Sespe Wilderness. Within the Wilderness, there exists the opportunity for hiking and horseback riding along trails, which parallel and cross portions of both the main stem and the South Fork of Piru Creek. Several small campgrounds (1 to 4 units) as well as the opportunity for general forest camping are available. There are opportunities for solitude along the stream; however, spring and early summer weekends often find popular areas such as the Fishbowls mildly congested with users who have come to fish or just soak in the pools.

Segment 2: The section between Thorn Meadows and Halfmoon Campground has a graded dirt road paralleling and crossing the creek with the road rarely being more than 200 yards distant. This portion sees moderate to heavy use from users driving for pleasure or using the road to link off highway vehicle routes in the area. This portion is popular with woodcutters in the summer and fall, and with hunters during the fall deer season.

Between Halfmoon and Goldhill Campgrounds, the stream corridor is utilized primarily by off highway vehicle users along the Piru Off Highway Vehicle Route. The first three miles downstream from Halfmoon Campground is open to motorized vehicles. From that point downstream, the route is open only to motorcycles. Most of the use is day use; however, some users take the opportunity to camp along this section. This area also sees some hunters during the deer season. The off highway vehicle route along the stream corridor provides an unusual experience for users since portions of the route are within the stream channel. This provides a challenging and different experience than is not readily available in southern California.

The Goldhill area is a popular camping area and day use destination. An improved road accesses the area and crosses Piru Creek as it continues on to Alamo Mountain. In addition to camping, many visitors use Goldhill as a staging area for off highway vehicle rides on routes in the surrounding area and use the opportunity to soak in the creek.

Segment 3: From Goldhill to Snowy Off Highway Vehicle Routes, access for the general public is only available by scrambling cross-country or often down the stream itself. The occasional hunter, fisherman and adventurous hiker can find solitude and a landscape showing little evidence of man's presence. The private landowner has a four-wheel drive access road to the Castaic Mine, which is in this segment of the creek.

Segment 4: The junction of Snowy Off Highway Vehicle Route and Piru Creek provides motorcyclists an opportunity to cool down either before or after they have traversed one of the more difficult motorcycle routes on the Mount Pinos District. This challenging route is well known throughout the southern California off highway vehicle community.

Between Snowy Crossing and Hardluck Campground, access is once again limited to the hiker scrambling down the stream channel. The opportunities for solitude exist; however, this segment lacks the spectacular scenery of the gorge below Goldhill.

Hardluck Campground is accessed by an improved road and provides 24 campsites on the stream terrace above Piru Creek. The campsites on the stream terrace above Piru Creek are popular. The area has been popular with recreationists for the water play opportunities. Presently there is a seasonal access and public use Forest Closure Order in and around Hardluck Campground for preventing adverse impacts to the arroyo toad (*Bufo californicus*), an endangered species. The area also receives moderate hunting use during deer season. Hardluck Campground serves as a trailhead to access the Buck Creek area of the Sespe Wilderness. An old roadbed serves as the trail along Piru Creek to the junction of Buck Creek where Forest Trail 18W01 begins climbing along Buck Creek and on into the Wilderness where it is closed to motorized access by the general public.

Below Buck Creek, there is an opportunity to scramble along the creek through another gorge. Solitude is once again available; however, as you approach Pyramid Lake, the chance of meeting boaters on a short hike up Piru Creek increases.

Lower Piru Creek

Segment 5: Below Pyramid Lake, Piru Creek has intensive amounts of recreation use. On a typical summer weekend, several thousand users will converge on a one-mile stretch through Frenchman's Flat, mostly for picnicking and water play. There are also five dispersed campsites. Anglers try to catch rainbow trout that are stocked there as part of a catch and release program. Although the area is popular, most users tend to be from the local area (Los Angeles and Orange Counties), demonstrating that its popularity is not well known within the region or beyond. While actual use statistics are not available, an estimated 90% of all users of this creek are from this local area. The remaining 10% (in order of importance) come from various areas within California, other states, and even other countries. Visitors are not willing to travel long distances to use the river resources for recreational purposes.

Segment 6: Piru Creek offers primitive recreation opportunities within the Sespe Wilderness. There are no trails to allow access to this segment. Due to this factor, use is fairly light, as users must rock-hop up or down the stream inside a steep, narrow canyon. The result is a high degree of solitude and self-reliance. Fishing is the main attraction to many users; others come for the natural setting and to hike.

Segment 7: Downstream from the Sespe Wilderness to Lake Piru, the corridor contains dirt roads, several parcels of private property, and Blue Point Campground. Blue Point Campground is currently

closed due to wildlife concerns. The campground offered 43 units and was a popular destination due to its streamside location and proximity to Los Angeles. Due to the closure, the campground and adjacent Piru Creek are deserted except for an occasional angler or hiker trekking through to go upstream.

Determination: Above Pyramid Lake, the opportunity to recreate in and along a year-round stream is a limited opportunity in Southern California and is considered to be outstandingly remarkable. The segment of Piru Creek from Halfmoon to Goldhill is unique in that it provides opportunities for off highway vehicles in and adjacent to the stream channel. The section between the Goldhill and Snowy Off Highway Vehicle Routes, especially above Castaic Mine, provides an outstanding opportunity for solitude in a very scenic gorge. The opportunity for panning and sluicing at Hardluck and Goldhill Crossings is something that is not readily available to southern Californians.

The recreation values between Pyramid Lake and Lake Piru are not considered to be outstandingly remarkable, particularly in comparison with similar recreation attributes found within Sespe Creek.

3. Geology

Description: The east-west trending Transverse Ranges include California's highest peaks south of the central Sierra Nevada and the only Precambrian rocks in the coastal mountains of the United States. The Transverse Ranges are a unique geomorphic, stratigraphic, petrologic, and structural belt 400 km long and 100 km wide that is offset by a few tens of kilometers right laterally by the northwest trending San Andreas fault system. The prominent east-west trend of the Transverse Ranges is unique among the rest of the northwest-southeast trending coastal ranges in California. It has been proposed that they have rotated significantly from their original position. Along the entire mapped length of the San Andreas Fault Zone, from northern California to Mexico, no other such diverse belt of rocks, structure, and geomorphology similar to the Transverse Range Province crosses the zone. In addition, despite their comparatively small area, the Transverse Ranges seem to incorporate a greater spectrum of rock types and structure than any other province in the state. The Transverse Ranges may be the result of compressional forces along the Big Bend in the San Andreas Fault that itself is a unique geologic feature in North America if not the world.

Upper Piru Creek

Piru Creek first flows through Tertiary sedimentary rocks (Matilija Sandstone and Juncal Formation interbedded sandstones and shales) from its headwaters to near Halfmoon Campground. From Halfmoon Campground to Buck Creek, the creek flows northeast through Precambrian basement rocks of granite and gneiss. From about the junction with Smith Fork, Tertiary sedimentary rocks form one or both sides of the creek down to Pyramid Lake. From Lockwood Flat to just west of Gold Hill, a thrust fault juxtaposes Precambrian rocks (gneiss and augen gneiss) over Tertiary rocks (Hungry Valley Formation – terrestrial sandstones) on the north side of the creek. From Smith Fork to Buck Creek, Piru Creek is aligned with the San Gabriel Fault. As Upper Piru Creek passes through alternately erosive and resistant rock types, the result is a distinct variation in landforms ranging from broad alluvial sub-basins

to rugged gorges with steep rock cliffs and exposures. This variation adds to the scenic quality and geologic interest. Piru Creek Gorge cuts through a unique outcropping of the “Violin Breccia”, a geologically significant recreational-educational resource.

Following is an excerpt from the environmental Impact Survey Report for the Piru Creek Project, a study in 1972 evaluating a proposed new dam in Piru Creek, one mile above Pyramid Reservoir:

“Perhaps one of the most critical considerations regarding the geology of the gorge is its uniqueness. The Violin Breccia has a stratigraphic thickness of 27,000 feet. The entire stratigraphic thickness of the Ridge Basin group, of which the Violin Breccia is a unit, is about 33,000 feet, one of the thickest known sections of upper Miocene and Pliocene rocks in the world (Crowell, 1953). The Violin Breccia represents a short steep alluvial fan deposit of incredible thickness, accumulated at the toe of the rising San Gabriel Fault Block.

“There is no other formation in the western United States exhibiting this extreme thickness, yet covering such a small area. The exposure in the Piru Gorge is even more unique in providing a section, as it were, right through the center of the formation. Add to this the interesting arch formation, and springline, plus the overall scenic effect, and here is an area rivaling many National Parks and monuments in both uniqueness and beauty...it is the features of this gorge which provide much of the recreational value here...” Also unique is the anomalous course of upper Piru Creek which flows southeast across many structural trends and against the predominant northwest dip of the rocks.

Piru Creek is an historic mining district and was a popular location in southern California for panning sluicing, and dredging for gold. The creek is closed to dredging by the California Department of Fish and Game. The Castaic Mine is a patented mining claim that was developed for gold. Placer mining along Piru Creek began in 1841 by Andrew Castillero and gold from the district was shipped to the U.S. Mint in Philadelphia in 1842. Small-scale placer mining continued intermittently through the 1880’s and there was some work again in the 1920’s and 1930’s. Among lode gold mines, the principal operation was the Castaic mine, which had an estimated output valued at \$160,000. The placer deposits are in and adjacent to the upper part of Piru Creek, chiefly in the vicinity of its junction with Lockwood Creek and to the east of Gold Hill. Based on the amount of exploration, which has taken place in the area over the last 150 years, and recent assessments of gold potential; it is not likely that an economic mining operation could be conducted on Piru Creek, although there is still interest in panning and sluicing from a recreational standpoint.

Lower Piru Creek

Piru Creek, below Pyramid Reservoir, flows through scenic tilted layers of sedimentary rocks of the Ridge Basin Group, an inter-montane basin exposing the interrelationships of tectonics and sedimentation, and often the subject of geology field trips by academic and casual interest groups. It then turns back to the west and crosses the San Gabriel Fault zone into Precambrian gneiss (metamorphic) and Mesozoic to Precambrian granitic (igneous) and gneissic rocks, then turns south and

crosses the Pine Mountain Fault into a thick sequence of Tertiary marine and non-marine sedimentary rocks. Piru Creek winds its way through tight bends in 1500 to 2000 ft. deep canyons, displaying active debris slides on canyon walls and deep pools and carved granitic boulders in its upper reaches. In the lower half, the creek cuts gentler curves in shales, sandstones and conglomerates, and exhibits broadly folded and steeply dipping (some overturned) sedimentary rock types, fault contacts, and numerous massive old landslides near the creek and up side canyons. The most spectacular is a bedding plane landslide up Agua Blanca Creek at Devils Potrero, covering almost a square mile, which blocked a drainage to form the closed basin called The Pothole, just above the scenic Devil's Gateway. Fossils are common in some of the marine sedimentary rocks.

The San Gabriel and other nearby faults are interpreted by Dr. John C. Crowell, Professor Emeritus of the University of California, as strands of the San Andreas Fault system within this splintery boundary region between two giant tectonic plates, the North American Plate to the northeast and the Pacific Plate to the west. Where the San Gabriel Fault crosses lower Piru Creek, it separates 4 to 5 million year old (young) terrestrial sedimentary rocks from +/- 600 million year old Precambrian metamorphosed gneiss, exposing a dramatic change in rock type and geomorphic form. Further downstream, Piru Creek flows through progressively younger igneous and sedimentary rocks that have been carved into spectacular gorges and exposures.

Some of the first gold discovered in California, as well as oil and gas developments, occurred in tributaries of the lower reaches of Piru Creek. Some of the Miocene age strata along the lower portion of Piru Creek are productive in oil fields to the south. Granitic rock from Whitaker Peak provides much of the gravel and boulders in Piru Creek.

Determination:

Upper Piru Creek

The basement rocks that outcrop along Piru Creek from Halfmoon Campground to Buck Creek are considered to be outstandingly remarkable. These rocks are banded gneisses and migmatites. Geologically these rocks are important because exposures of basement rocks provide important clues to this less well-understood portion of North America's tectonic history.

The sedimentary rocks of the Ridge Basin group, which outcrop from Smith Fork to Pyramid Lake, are considered to be outstandingly remarkable. Along Piru Creek, both Peace Valley and Hungry Valley formations outcrop in low cliffs. These rocks include conglomerates with cobbles of the basement rocks and are important to the study of the development of the Ridge Basin that coincided with movement on the San Gabriel Fault. These rocks provide critical information about the tectonic history of the unique Transverse Ranges.

The San Gabriel Fault is one of several important structural features in southern California. From Smith Fork to Buck Creek, it follows Piru Creek and splinters into two sections that form a sliver of Tertiary

rocks. This feature may provide important information regarding the history of movement along this fault and is considered to be outstandingly remarkable.

Lower Piru Creek

The basement rocks that outcrop in the upper portion of Lower Piru Creek are considered to be outstandingly remarkable. These rocks are gneisses and migmatites that are banded and form scenic outcrops and boulders along and in the creek. Geologically these rocks are important because exposures of basement rocks provide important clues to this less well-understood portion of North America's tectonic history.

The sedimentary rocks found in lower Piru Creek display a thick sequence of sedimentary rocks covering a long span of the Tertiary Period, from the Eocene through the Holocene Epochs. These rocks include both marine and terrestrial sediments and are important to the study of the development of the Ridge Basin that coincided with movement on the San Gabriel Fault. These rocks provide critical information about the movement history of the unique Transverse Ranges and are considered to be outstandingly remarkable.

The active San Gabriel Fault is one of several important structural features greatly influencing the geologic exposures and geomorphic landforms in southern California and is considered to be outstandingly remarkable.

4. Fish and Wildlife

Description:

Upper Piru Creek

Piru Creek has current, historic, and potential populations of threatened, endangered and sensitive species in the riparian corridor from Fish Bowl Campground to Pyramid Lake. Wildlife observations in the watershed of Upper Piru Creek include three federally endangered species: arroyo toad (*Bufo californicus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and California condor (*Gymnogyps californianus*). Also, Forest Service designated sensitive species were also observed: Northern goshawk (*Accipiter gentilis*), California spotted owl (*Strix occidentalis occidentalis*), willow flycatcher (*Empidonax traillii*), and southwestern pond turtle (*Clemmys marmorata pallida*).

Piru Creek has about 4.5 miles of critical habitat for arroyo toads in those sections that are below 3600 feet in elevation.

The southwestern form of willow flycatcher is a federally endangered subspecies, the northern subspecies of willow flycatcher is considered a Forest Service sensitive and a California endangered species. Critical habitat for southwestern willow flycatcher was designated in 1997; however, pending

settlement of a lawsuit, the designation may be revoked during 2002. Suitable habitat was documented in Upper Piru Creek. In 2001, occupancy surveys in Upper Piru noted three southwestern willow flycatchers during the breeding season and two presumed migratory northern willow flycatchers.

Upper Piru Creek is within the Critical Habitat boundaries for California condor. Historic nest sites are located near Hardluck Campground.

Northern goshawks were observed nesting in 2000 and were also observed in 2001 in the vicinity of Half Moon Campground. Surveyors found California spotted owls in Piru Creek and Buck Creek. In general, surveyors found spotted owls in riparian zones within mixed-conifer forests. The two-striped garter snake and southwestern pond turtle have been observed along upper Piru Creek and Lockwood Creek where they are considered somewhat common.

The low water crossing near Hardluck Campground has recently been improved; however, since its initial construction the crossing has acted as a barrier to upstream movement of exotic fish such as brown trout, green sunfish and small-mouth bass. These exotics can be quite predatory or otherwise detrimental to native aquatic and semi-aquatic wildlife, especially fish and amphibians. The native amphibian fauna above the crossing include California and pacific chorus frogs and western and arroyo toads. The latter is a federally endangered species. As such, that section of Piru Creek above Hardluck Crossing can be considered a refugium for native aquatic and semi-aquatic wildlife species.

Lower Piru Creek

Lower Piru Creek contains suitable habitat for several designated threatened, endangered, and sensitive wildlife species. Wildlife observations in the watershed of lower Piru Creek include the federally threatened California red-legged frogs, *Rana aurora draytonji*, and three federally endangered species: arroyo toad, *Bufo californicus*; least Bell's vireo, *Vireo bellii pusillus*; and California condor, *Gymnogyps californianus*. Also, Forest Service sensitive species were also observed: two striped garter snake, *Thamnophis hamondi*, and southwestern pond turtle, *Clemmys marmorata pallida*. Native fish species such as the rainbow trout and the arroyo chub also inhabit the Lower Piru.

Piru Gorge is relatively narrow with steep canyon walls bordering either side of the creek. The narrow riparian habitat corridor consists mostly of scattered stands of valley oak and sycamore with thickets of arroyo willow and mulefat bordering the stream margins.

Pyramid Dam has modified lower Piru Creek itself and consequential water releases from Pyramid to Lake Piru. The natural dynamics of stream flow and sediment transport within the channel have been modified significantly. Natural stream flows that historically dried out in late summer have been replaced by a year-round artificial flow created by water releases from Pyramid. Not only have the water releases sustained a year-round flow, but have also introduced several non-native species from the state water project to the detriment of native species. Non-native species include but are not limited to bullfrog, small and large-mouth bass, black bullhead and green sunfish.

Remnant populations of arroyo toad occur in lower Piru Creek. Cattle grazing on private lands, recreation, and the introduction of exotic fish and bullfrogs from Lake Piru and Lake Pyramid are currently affecting these populations. The populations of arroyo toad have declined since the mid-1990's. Most of the arroyo toad observations have been in the lower half of the drainage. Most of the impacts to toads occur on the lower three miles of stream.

Lower Piru Creek contains critical habitat for the federally endangered California condor including several historic roost and nest sites. Least Bell's vireo habitat exists within the drainage. Potential habitat is found for the peregrine falcon, *Falco peregrinus anatum* (Forest Service sensitive).

Recent surveys suggest the California red-legged frog has been extirpated from the main stem of Piru Creek.

Determination: The segment above Hardluck Crossing is unique in that it acts as a refugium for native California amphibians and other native aquatic and semi-aquatic species that may occur. This assemblage of native species includes the endangered arroyo toad as well as several Forest Service sensitive species. This attribute can be considered an outstanding and remarkable value of the segment, especially since other such areas are extremely rare on the Forest and in southern California in general.

The population of arroyo toads in the Blue Point area and potential habitat areas for least Bell's vireo and southwestern willow flycatcher near Lake Piru are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components, particularly with those in other eligible Wild and Scenic Rivers (upper Piru Creek, Sespe, Indian, and Mono).

5. Heritage resources (Cultural)

Description: Sizeable portions of the Piru Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is good with many sites known. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade documenting contact between the inhabitants of the corridor and other groups as well as the everyday life of the Native American inhabitants of the corridor. Sites in the area attest to the use of the area by the Chumash. What is unique is the abundance of time-sensitive artifacts that offer information on the land-use patterns and how they evolved over time. The abundance of such material in the Upper Piru Creek segments (Segments 1-4) is unique and as such, has the potential for national or regional importance for interpreting prehistory. The sites and features recorded within the lower corridor segments (Segments 5-7) are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are considered to be outstandingly remarkable for Segments 1-4 but are not considered outstandingly remarkable for Segments 5-7.

6. Heritage resources (Historic)

Description: Portions of the Piru Creek corridor have been surveyed for heritage resources. The knowledge of the span and complexity of historic use of the corridor is good and many sites are known to be located within the corridor. There are multiple known resources that are associated with mining activities, which addressed together as a whole, would probably merit significance at the local level. Without further research, the sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The botanical resources of Piru Creek are fairly well known due to the creek's proximity to roads and trails and the inclusion of the study corridor in other project analyses; however, no systematic effort has been made to inventory the botanical resources found in the study corridor. There are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Piru Creek. There are a number of occurrences of sensitive plant species in the Piru Creek watershed but these populations all occur more than one-half mile from the creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Recreation

The upper portion of Piru Creek provides an outstandingly remarkable opportunity to recreate in and along a year-round stream.

Geology

The faults, folds and rock formations along Piru Creek include important features crucial to the understanding of the very complex structural and geomorphic evolution of the west coast of North America. Along both the upper and lower portions of Piru Creek, exposures of the oldest basement rocks in the coastal mountains of the western U.S, composed of gneisses and migmatites, as well as sedimentary rocks of the Ridge Basin Group, and structural features of the San Gabriel Fault are considered to be outstandingly remarkable.

Wildlife

In the upper portion of Piru Creek, the protected aquatic habitats above the Hardluck Crossing and the

population of arroyo toads at Hardluck Crossing are considered to be outstandingly remarkable.

Cultural

The scientific and interpretive values offered by several of the prehistoric/ethnographic sites constitute outstandingly remarkable values in the upper segments of Piru Creek.

Potential Classification

Table 441. Piru Creek - Potential Classification by River Segment

	Segment 1	Segment 2	Segment 3	Segment 4
WILD RIVER				
Free of impoundments	Yes	Yes	Yes	Yes
Generally inaccessible except by trail	Yes	No	Yes	No
Watersheds or shorelines essentially primitive	Yes	No	Yes	No
Waters unpolluted	Yes	Yes	Yes	Yes
SCENIC RIVER				
Free of impoundments		Yes		Yes
Accessible in places by roads		Yes		Yes
Watershed largely primitive and undeveloped		Yes		Yes
RECREATIONAL RIVER				
Some impoundments or diversions in past				
Readily accessible by road or railroad				
Some development along shoreline				
Eligibility Status	Wild	Scenic	Wild	Scenic

Suitability Report

Segments 1-4 are studied in the following suitability report. Study of segment 5 on the Angeles NF and 6 and 7 on the Los Padres NF is deferred. Until such time as the suitability studies are completed, eligible segments will be managed to protect their outstandingly remarkable values and potential classification (see Angeles and Los Padres Land Management Plans).

Description

Landownership and Land Uses

Segment 1: Piru Creek is considered to be free flowing below a point in the Sespe Wilderness in the southwest corner of T6N, R22W, Sec 3. Segment 1 includes the main stem from its source within the Sespe Wilderness to the wilderness boundary along the eastern edge of T7N, R21W, Sec 31.

Segment 2: From the Sespe Wilderness boundary to one-quarter mile below Gold Hill crossing (T7N, R19W, Sec 18).

Segment 3: From one-quarter mile below Gold Hill crossing downstream to the Castaic Mine located on private land in T7N, R19W, Sec 22.

Segment 4: Downstream from Castaic Mine to the maximum pool of Pyramid Lake.

River mile location is from the source.

Table 448. Piru Creek - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
1	0 - 5.8	Headwaters to Sespe Wilderness Area boundary	NFS (1622 acres)	Wilderness
2	5.8 - 26.2	Sespe Wilderness Area boundary to ¼ mile below Gold Hill crossing	NFS (5432 acres) and non-federal (275 acres)	NFS: motorized and non-motorized recreation, grazing. Non-federal: rural/agriculture.
3	26.2 - 30.9	¼ mile below Gold Hill crossing to/ including Castaic Mine	NFS (1259 acres) and non-federal (169 acres)	NFS: watershed improvement, dispersed recreation. Non-federal: inactive mining claim.

4	30.9 - 38.5	Castaic Mine to maximum pool of Pyramid Lake	NFS (2054 acres) and non-federal (169 acres)	Watershed improvement, dispersed recreation.
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Mineral and Energy Resource Activities

Piru Creek is an historic mining district and was a popular location in southern California for panning sluicing, and dredging for gold. The creek is closed to dredging by the California Department of Fish and Game. The Castaic Mine is a patented mining claim that was developed for gold. Placer mining along Piru Creek began in 1841 by Andrew Castillero and gold from the district was shipped to the U.S. Mint in Philadelphia in 1842. Small-scale placer mining continued intermittently through the 1880's and there was some work again in the 1920's and 1930's. Among lode gold mines, the principal operation was the Castaic mine, which had an estimated output valued at \$160,000. The placer deposits are in and adjacent to the upper part of Piru Creek, chiefly in the vicinity of its junction with Lockwood Creek and to the east of Gold Hill. Based on the amount of exploration, which has taken place in the area over the last 150 years, and recent assessments of gold potential; it is not likely that an economic mining operation could be conducted on Piru Creek, although there is still interest in panning and sluicing. Entire length of upper Piru Creek should be withdrawn from mineral entry due to threatened and endangered species and heritage resource concerns. It is unlikely that the Castaic Mine will have future operations due to threatened and endangered species concerns.

Water Resources Development

A dam at Pyramid Lake operated by the California Department of Water Resources impounds Piru Creek. The California Department of Water Resources rejected a proposal for construction of another dam in segment 4 on upper Piru Creek based on an Environmental Impact Report in 1972. Portions of segments 2, 3, and 4 and located within a former power withdrawal identified as Federal Power Commission Order for Power Project 64 on August 24, 1921. Most of the power withdrawal was rescinded in 1986. None of the upper Piru Creek is presently within a power withdrawal. Future water resource development is unlikely due to threatened and endangered species concerns.

Transportation, Facilities and Other Developments

Segment 1 contains several small campgrounds (1 to 4 units) as well as the opportunity for general forest camping are available. There are opportunities for solitude along the stream; however, spring and early summer weekends often find popular areas such as the Fishbowls mildly congested with users who have come to fish or just soak in the pools.

Segment 2, between Fishbowls Trailhead and Halfmoon Campground, has a graded dirt road paralleling and crossing the creek with the road rarely being more than 200 yards distant. Between Halfmoon and Goldhill Campgrounds, the stream corridor is utilized primarily by off highway vehicle users along the Piru Off Highway Vehicle Route. The first three miles downstream from Halfmoon Campground are open to motorized vehicles. From that point downstream, the route is open only to motorcycles. An improved road accesses the area and crosses Piru Creek as it continues on to Alamo Mountain.

In segment 3 between Goldhill and Snowy Off Highway Vehicle Routes, access for the general public is only available by scrambling cross-country or often down the stream itself. The private landowner has a four-wheel drive access road to the Castaic Mine, which is in this section of the creek.

In segment 4, the Snowy Off Highway Vehicle Route accesses Piru Creek; the route is well known throughout the southern California off highway vehicle community. Hardluck Campground is accessed by an improved road and provides 24 campsites on the stream terrace above Piru Creek. Hardluck Campground serves as a trailhead to access the Buck Creek area of the Sespe Wilderness. An old roadbed serves as the trail along Piru Creek to the junction of Buck Creek where Forest Trail 18W01 begins climbing along Buck Creek and on into the Wilderness where it is closed to motorized access by the general public.

Recreation Activities

The upper portion of Piru Creek above Pyramid Lake offers visitors from southern California a chance to recreate in and around a stream corridor with year-round flows. Visitors are allowed access into a variety of settings including steep canyon walls as well as open stretches with panoramic views of the creek and surrounding countryside. Access varies from hiking and horseback to off highway vehicle routes and forest development roads. There are a variety of camping opportunities along the stream channel.

The headwaters of Piru Creek lie within the Sespe Wilderness. Within segment 1, there exists the opportunity for hiking and horseback riding along trails, which parallel and cross portions of both the main stem and the South Fork of Piru Creek.

Segment 2 sees moderate to heavy use from users driving for pleasure or using the road to link off highway vehicle routes in the area. This portion is popular with woodcutters in the summer and fall and with hunters during the fall deer season. Between Halfmoon and Goldhill Campgrounds, most of the use is day use; however, some users take the opportunity to camp along this section. This area also sees some hunters during the deer season. The off highway vehicle route along the stream corridor provides an unusual experience for users since portions of the route are within the stream channel. This provides a challenging and different experience that is not readily available in southern California. The Goldhill area is a popular camping area and day use destination. In addition to camping, many visitors use Goldhill as a staging area for off highway vehicle rides on routes in the surrounding area and use the opportunity to soak in the creek.

In segment 3, the hunter, angler, or adventurous hiker can find solitude within a landscape showing little evidence of human presence.

The junction of Snowy Off Highway Vehicle Route and Piru Creek provides motorcyclists an opportunity to cool down either before or after they have traversed one of the more difficult motorcycle routes on the Mount Pinos District. This challenging route is well known throughout the southern California off highway vehicle community.

Between Snowy Crossing and Hardluck Campground, access is once again limited to the hiker scrambling down the stream channel. The opportunities for solitude exist; however, this section lacks the spectacular scenery of the gorge below Goldhill.

Hardluck Campground has been popular with recreationists for the campsites on the stream terrace above Piru Creek and water play opportunities. Presently there is a seasonal access and public use Forest Closure Order in and around Hardluck Campground for preventing adverse impacts to the arroyo toad (*Bufo californicus*), an endangered species. The area also receives moderate hunting use during deer season.

Below Buck Creek, there is an opportunity to scramble along the creek through another gorge. Solitude is once again available; however, as you approach Pyramid Lake, the chance of meeting boaters on a short hike up Piru Creek increases.

Other Resource Activities

Dead and down fuel wood harvesting occurs with possibilities of forest health thinnings to support other resource values in segment 2. One grazing allotment exists in segments 1 and 2, from the headwaters to about 20 miles downstream. Active and planned prescribed burns are adjacent to segments 2 and 3 on Alamo Mountain. Threatened and endangered species (arroyo toad and southwestern willow flycatcher) monitoring occurs in all segments.

Special Designations

Segment 1 occurs within the Sespe Wilderness from the headwaters to about five miles downstream. Piru Creek has been designated a Wild Trout Stream by the California Department of Fish and Game. These designations are complimentary to, and do not conflict with, inclusion of upper Piru Creek into the Wild and Scenic River System.

Socio-Economic Environment

The mountain communities in the Frazier Park area (approximately 10,000) are the closest population centers to Piru Creek. Much of the recreational use comes from the population centers of Los Angeles,

Ventura and Kern Counties. Approximately 25 miles away from segments 3 and 4, Tejon Ranch has proposed a 23,000 home community to be called Centennial. Planned development is to start in three to five years. Designation as a Wild and Scenic River would have minimal impact on use patterns, except potentially to encourage use from more geographically distant visitors.

The Los Padres National Forest administers all of Piru Creek except the few private parcels listed above. The private land is within Ventura County.

Current Administration and Funding Needs if Designated

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration*	\$60,000	\$33,000
Development of River Management Plan	\$0	\$150,000
Development Costs	\$750,000	\$10,000
Operation and Maintenance Costs	\$100,000	\$5,000
Total Cost First Five Years	\$910,000	\$198,000

* General administration and operation and maintenance costs are estimated to continue at \$ 20,000 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Worthy: The recreational, heritage, wildlife and geological characteristics make it a worthy addition for all segments. Piru Creek offers year round streamside recreation in an area where few streams exist adjacent to large populations. The creek offers scientific and interpretive values for historic and prehistoric/ethnographic sites. Two endangered species are located along the creek. Along the upper portions of Piru Creek, exposures of the oldest basement rocks in the coastal mountains along with structural features of the San Gabriel fault, offer an outstanding scientific and interpretive resource.

Unworthy: Due to low water flows, opportunities for boating/floating activities such as rafting and kayaking do not exist.

2. The current status of land ownership and use in the area.

The private parcel in segment 2 is used to support livestock grazing operations. The Castaic Mine (approximately 58 acres at the break between segments 3 and 4) is inactive with no plans of mining at this time. The owner of the mine has expressed an interest in a land exchange with the National Forest. The rest of the land is in the National Forest System.

3. The reasonable foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

If the corridor were permanently withdrawn from mineral entry, a reduction in small-scale placer mining operations would occur. This would reduce the negative effects of mining on threatened and endangered species; heritage resources; and watershed impacts. The mineral report from 1994 concluded that an economic mining operation could not be conducted on upper Piru Creek. Other uses would remain about the same if above segments are adopted.

4. The federal agency that will administer the area, should it be added to the System.

USDA Forest Service.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

No proposals exist to share costs with State or local agencies.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

No acquisitions are necessary at this time. The owner of the Castaic mine has expressed an interest in a land exchange with the Forest Service. The owner of the 160-acre private parcel has not to date express any interest in a land exchange. Both parcels are habitat to endangered species.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

The California Department of Fish and Game will continue to enforce restrictions on dredging.

8. State and/or Local government's ability to manage and protect the outstandingly remarkable values on non-federal lands.

State and local governments will be responsible for regulation and enforcement of threatened and endangered species protection.

9. Support or opposition to designation.

Opposition from mining, off highway vehicle, and other use groups is anticipated. Support is expected from environmental groups.

10. Potential for water resources development.

The California Department of Water Resources rejected a proposal for construction of another dam in segment 4 on upper Piru Creek based on an Environmental Impact Report in 1972. Portions of segments 2, 3 and 4 are located within a former power withdrawal identified as Federal Power Commission Order for Power Project 64 on August 24, 1921. Most of the power withdrawal was rescinded in 1986. None of the upper Piru Creek is presently within a power withdrawal.

11. Contribution to other regional objectives/needs.

Protection of endangered species habitat would help meet objectives of the U.S. Fish and Wildlife Service, California Department of Fish and Game, and the USDA Forest Service.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No segments are recommended for designation.

Alternative 2: Segments 1 and 3 are recommended for wild river designations. Segments 2 and 4 are recommended for scenic river designations. A wild designation in segment 1 is consistent with the existing wilderness. There are no roads or other improvements in segment 3; a wild designation would maintain the primitive character of this segment. Segments 2 and 4 encompass improved dirt roads and motorized trails. Scenic designations would allow for the continued use and maintenance of these routes balanced with the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values.

Alternative 3: Wildlife is identified as an ORV all segments. Segments 1 and 3 are recommended for wild river designations. Segments 2 and 4 are recommended for scenic river designations. A wild designation in segment 1 is consistent with the existing wilderness. There are no roads or other improvements in segment 3; a wild designation would maintain the primitive character of this segment. Segments 2 and 4 encompass improved dirt roads and motorized trails. Scenic designations would allow for the continued use and maintenance of these routes. The recommended designations balance the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable recreation, wildlife, geology and cultural values with the conservation of a wide range of wildlife and plant species (especially TES) and habitats, biodiversity, linkages and corridors.

Alternative 4: Recreation is identified as an ORV in all segments. Segments 1 and 3 are recommended for wild river designations. Segments 2 and 4 are recommended for scenic river designations. A wild designation in segment 1 is consistent with the existing wilderness. There are no roads or other improvements in segment 3; a wild designation would maintain the primitive character of this segment. Segments 2 and 4 encompass improved dirt roads and motorized trails. Scenic designations would allow

for the continued use and maintenance of these routes.

Alternative 4a: Same as alternative 4.

Alternative 5: No segments are recommended for designation.

Alternative 6: Segments 1 and 3 are recommended for wild river designations. Segments 2 and 4 are recommended for scenic river designations. A wild designation in segment 1 is consistent with the existing wilderness. There are no roads or other improvements in segment 3; a wild designation would maintain the primitive character of this segment. Segments 2 and 4 encompass improved dirt roads and motorized trails. Scenic designations would allow for the continued use and maintenance of these routes. The recommended designations would protect and enhance a wide range of values and features, including species conservation, biodiversity, open space, natural beauty, recreation and research.

Suitability Determination for the Selected Alternative

Describe the rationale for the suitability determination of the selected alternative 4a:

Because of the outstanding and remarkable values Upper Piru Creek offers southern California, inclusion into the Wild and Scenic River System is recommended. Segments 1 and 3 are recommended for wild river and segment 2 and 4 for scenic river designations. In addition, all scenic river segments should be withdrawn from mineral entry to protect the habitat for threatened and endangered species and heritage resource values.

Matilija Creek

Study Area Summary

The "Los Padres Condor Range and River Protection Act" (PL 102-301) designated Matilija Creek for study as a potential addition to the National Wild and Scenic River System.

Name of River: Matilija Creek

Location: State of California, Santa Barbara and Ventura Counties, Los Padres National Forest

Both the main stem and the Upper North Fork of Matilija Creek were studied. For the purposes of this study, the main stem was divided into two segments and the Upper North Fork was included as a third segment.

Segment 1: Matilija Creek is considered to be free-flowing below a point within the Matilija Wilderness in the southeast corner of T6N, R25W, Sec 13, SBBM, and flows in a generally southeasterly direction. Segment 1 ends at the Matilija Wilderness boundary in T5N, R24W, Sec 16, SBBM. Approximately 1.1 miles are on private land.

Segment 2: Segment 2 flows from the Matilija Wilderness boundary, primarily through private lands for about 1.2 miles, and ends at the confluence with Murietta Canyon in T5N, R24W, Sec 22, SBBM.

Segment 3: The Upper North Fork of Matilija Creek is considered to be free-flowing below a point in the Matilija Wilderness in the northeast corner of T6N, R24W, Sec 36, SBBM, and flows to the south to its confluence with the main stem in southwestern corner of T5N, R24W, Sec 15, SBBM.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	9.1	0
2	1.7	0
3	7.1	0

Studied: 17.9 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

There are neither past nor current diversions or impoundments within the studied portions of Matilija Creek. Matilija Creek is impounded approximately five miles downstream from the terminus of the study area. Within the study area, Matilija Creek is considered to be free-flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The entire length of the Matilija Creek is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character type. It is distinctive not only for the dramatic presence of water but because of the variety of views, rock outcroppings, and riparian vegetation within its influence.

The upper Matilija is narrow with steep canyon walls, bluffs, jumbles of rocks, perennial water flows, pools, waterfalls, and small rapids. The vegetation is typical riparian with alder and vibrant displays of wildflowers under the tree canopy. Further downstream there are more rock outcrops in a broader canyon with steep slopes rather than noticeable bluffs. The riparian zone shifts to more chaparral with openings of grass or barren openings. From the trail, the tree cover frames the foreground and middle ground views of the canyon.

At the confluence of the North Fork of the Matilija there are lots of pools, sandy, gravelly beaches, and a much wider landscape is viewed. The riparian vegetation is sparser here because of the human influence, however gigantic rock formations are viewed from the pools in the creek.

The creek then widens and becomes more like a riverbed, with more chaparral vegetation. Water remains the dominant feature despite the presence of many barns and houses. The steep walls and rock outcrops create a dramatic landform.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description: Recreation opportunities along these portions of Matilija Creek are outstanding. The area is popular for day hiking, backpacking, swimming and wading, wildlife viewing, fishing, and photography. The area offers the solitude and peace recreationists are seeking, set in a highly desirable and unique water-oriented environment. Although the area is popular, most users tend to be from the local area (Ventura and Santa Barbara Counties), demonstrating that its popularity is not well known within the region or beyond. While actual use statistics are not available, an estimated 95% of all users of this creek are from this local area. The remaining 5% (in order of importance) come from various areas within

California, other states, and even other countries. Visitors are not willing to travel long distances to use the river resources for recreational purposes. While interpretive opportunities are excellent, they would not be expected to attract visitors from outside the region. The river segments are predominantly inside wilderness, where competitive events are prohibited. Thus, there is little potential for such use.

Access for users on the main stem of Matilija Creek is via hiking a dirt road (National Forest System Road (NFSR) 5N13) from a developed parking area and then through the private land leading up to the wilderness boundary. From that point on, an unmaintained trail leads upriver for approximately one mile. Beyond that, users must "rock-hop" up the stream course to explore the waterfalls and natural pools in the area.

Access for users on the Upper North Fork is through a maintained trail branching off the same dirt road approximately half a mile from the developed parking area. The trail leads up canyon through the Matilija Wilderness for approximately 8 miles. There are numerous dispersed campsites along the trail as well as various natural pools. This trail is popular with day hikers and backpackers and occasionally equestrians. The trail ends at Cherry Canyon Road (NFSR 6N01) at the north end of the watershed.

The pattern of use is that the first one to two miles of each of these drainages are most heavily used, with use tapering off as one goes in a northerly direction further from the trailhead. Use is especially heavy during the spring and fall months, tapering off during the hot summer months, and maintaining very light use during the rainy winter months. The feature that attracts users to the creek is the year-round water flow and scenery that contrasts stark chaparral with lush riparian vegetation, all in an unusual geologic setting.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The east-west trending Transverse Ranges include California's highest peaks south of the central Sierra Nevada and the only Precambrian rocks in the coastal mountains of the United States. The Transverse Ranges are a unique geomorphic, stratigraphic, petrologic, and structural belt 400 km long and 100 km wide that are offset by a few tens of kilometers right laterally by the northwest trending San Andreas fault system. Along the entire mapped length of the San Andreas Fault Zone, from northern California to Mexico, no other belt of rocks, structure, and geomorphology similar to the Transverse Range Province crosses the zone. In addition, despite their comparatively small area, the Transverse Ranges seem to incorporate a greater spectrum of rock types and structure than any other province in the state. The Transverse Ranges may be the result of compressional forces along the Big Bend in the San Andreas Fault that itself is a unique geologic feature in North America if not the world.

Matilija Creek and its Upper North Fork flow through folded rocks of the Juncal Formation, Matilija Sandstone and Cozy Dell Shale. The creek crosses several anticlinal and synclinal folds. Most of the rocks are shale and some landslides have occurred adjacent to the creek. Matilija Creek crosses two

faults, first the Tule Creek Fault and then the Old Man Fault. It follows the trace of the Tule Creek Fault for a distance of about 4,800 feet. There are some falls within Matilija Creek roughly four miles above its confluence with the Upper North Fork of Matilija. The falls occur where there is a more resistant sandstone unit above a shale unit in the Juncal Formation.

The Upper North Fork of Matilija also crosses the Tule Creek Fault and a smaller unnamed fault before it flows into Matilija Creek. This branch of the creek also crosses a syncline that exhibits a classical outcrop pattern for a fold of this type.

Determination: The sedimentary rock formations and structural features of the Transverse Ranges, particularly the Juncal and Cozy Dell formations, and outcrops showing the Tule and Munson Creek Faults and the synclinal folds in the Matilija Sandstone, are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province, particularly in comparison with Indian Creek.

4. Fish and Wildlife

Description: The riparian vegetation of Matilija Creek consists mostly of coast live oak, white alder, willow, and sycamore that are characteristic of many of the drainages within southern California.

Matilija Creek contains very suitable fish habitat that supports an abundant population of native rainbow trout. Historically, Matilija Creek supported runs of anadromous southern steelhead (evolutionarily significant unit *Oncorhynchus mykiss*), a federally listed threatened species, but with the construction of Matilija Dam, the runs have been non-existent. It was believed that some steelhead were landlocked behind the dam and still exist in the main Matilija and North Forks. With the present proposed removal efforts of the dam, the steelhead may again have access to the upper reaches of Matilija Creek.

Matilija Creek contains suitable nesting habitat for neo-tropical migratory birds. Critical habitat for the California condor exists within each section of creek under consideration for Wild and Scenic River status.

A historic endangered California condor nest site exists within the corridor along the main stem of Matilija Creek. The main and Upper North Forks of Matilija Creek are within federally designated critical habitat for the species.

Approximately 15 total miles of habitat for the federally designated California red-legged frog (*Rana aurora draytonji*), a federally listed threatened species, occurs on the main stem and the Upper North Fork of Matilija Creek. No records exist for these species on Matilija Creek within the Los Padres National Forest. Approximately 15 total miles of historic steelhead (Southern California evolutionarily significant unit) habitat exists on the main stem and the Upper North Fork of Matilija Creek. Southwestern pond turtle (*Clemmy marmorata pallida*), federally listed rare and Forest Service Sensitive, has historically been present within the drainage. Recent sightings have been reported and

suitable habitat does exist.

Two-striped garter snake (*Thamnophis hammondi*), a Forest Service Sensitive Species, is also found scattered throughout the creek corridor. One recent sighting was in the Upper North Fork.

Determination: Although the above-mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within Matilija Creek drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. *Heritage resources (Cultural)*

Description: Only a portion of the Matilija Creek drainage has been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited but several sites are known to be located within the corridor. The Native American sites recorded represent food and tool processing activity areas with shell and bone and lithic manufacturing artifacts present. These sites attest to the use of the area by ancestral Ventureño Chumash. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Only a portion of the Matilija Creek drainage has been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is limited but several sites are known to be located within the corridor. The known resources are associated with homesteading and ranching activities. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The botanical resources of Matilija Creek are not well known. No systematic effort has been made to inventory the botanical resources found in the study corridor.

Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Matilija Creek. There are a number of occurrences of sensitive plant species in the Matilija Creek watershed but these populations all occur more than one mile from the creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment Process* (National direction letter of 11/21/96). Accordingly, Matilija Creek is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of Matilija Creek is eligible for classification as a wild, scenic, or recreational river.

Santa Paula Creek

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying Santa Paula Creek for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Santa Paula Creek

Location: State of California, Ventura County, Los Padres National Forest

Both the main stem and the East Fork of Santa Paula Creek were studied. For the purpose of this study, the main stem was divided into two segments and the East Fork was included as a third segment.

Segment 1: Santa Paula Creek is considered to be free flowing below a point within the Sespe Wilderness in the northeast corner of T5N, R21W, Sec 20, SBBM, and flows in a generally southeasterly direction to Section 26, where the flow direction is then southerly. Segment 1 ends at the wilderness boundary in T4N, R21W, Sec 2, SBBM.

Segment 2: Segment 2 extends from the Sespe Wilderness boundary to the administrative boundary of the Los Padres National Forest along the southern edge of T4N, R21W, Sec 9, SBBM. Segment 2 includes about 1.6 miles of private lands.

Segment 3: The East Fork of Santa Paula Creek (Segment 3) is considered to be free-flowing at its source in T4N, R20W, Sec 7, SBBM, and flows westerly to its confluence with the main stem in the northwestern corner of T4N, R21W, Sec 11, SBBM.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	6.3	0
2	2.7	0
3	3.1	0

Studied: 12.1 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

Santa Paula Creek has neither past nor current diversions or impoundments within the study portion of the creek.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Approximately 80% of Santa Paula Creek is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character type. It is distinctive not only because of the presence of water, but also because of the variety of landform, color, and vegetation.

From the headwaters to the falls, steep cliffs, sandstone rocks, and clusters of rocks characterize the land. The vegetation is primarily dense oak cover and a few alders and maples with sage cover to the east. There is year-round presence of water, native trout, and a continual sound of the water.

The waterfalls at Jackson Falls are about 160 feet high with water constantly falling over the sheer face of the sandstone cliff. Mineral deposits add extra color to the rocks and cliff face. Although flat just above the falls, steep cliffs of white sandstone offer contrasts of color to the vegetation as small drainages join the flow of the creek. Last Chance Trail (Forest Trail 21W09) is well above the creek through this section. As the trail approaches the creek near Cross Camp, there are more oaks and rounded rocks. The water is slower to Jackson Hole.

At Jackson Hole, the first fall is about 35 feet into a pool. The bedrock consists of shale and the trail is alongside the creek. The second waterfall is about a 20-foot drop. There are steep shale slopes covered with sage at the bottom. The views are limited to the immediate area; colors are of the reddish rock mixed with the grays of vegetation and sandy colored soils. There are more sycamores here. Steep cliffs tower 300 feet on both sides of a narrow 70-foot gap. The landscape opens at the Punchbowl. The land remains open at Cross Camp where sycamores prevail and large rocks and boulders cover the landscape.

The East Fork of Santa Paula Creek has a lot more clay coloration and drops 1,500 feet in two miles. Large boulders, natural springs, giant ferns, and steep sides describe this watercourse.

Big Cone Camp has both bigleaf maples and bigcone Douglas-fir. It offers the best locations for camping with quick access to pools and water attractions. The landscape widens more and more as the creek approaches and passes through private land. More alders and boulders scatter throughout this area. It is the most heavily used section of trail.

Determination: Scenic values are not considered to be outstandingly remarkable. Although the scenic

values are distinctive landscapes, there are better examples of these scenic features along the designated Sespe Wild and Scenic River.

2. Recreation

Description: Visitors are attracted to Santa Paula Creek for its scenic qualities. All segments provide unique opportunities for solitude and for primitive and unconfined types of recreation with an emphasis on swimming. Six miles of Santa Paula Creek are in the Sespe Wilderness. Most users are from Ventura, Santa Barbara and Los Angeles Counties.

Due to its year-round nature, the creek supports an abundance of wildlife, which makes wildlife viewing possible.

Use is heaviest in the spring due to the high water, but many also hike in to enjoy the cool water on a hot summer day or in the fall. During periods of heavy use, weekends are typically the busiest, while those seeking the solitude the area offers can visit during midweek. Winter storms bring use to a virtual standstill, as creek crossings on the Santa Paula Canyon Trail (Forest Trail 21W11) are treacherous with raging waters, often brown from high silt content.

Segment 1 is accessed by an unmaintained trail. Although it receives only light use, it contains waterfalls framed by rugged canyon walls.

Segment 2 is heavily used and popular due to abundant swimming and wading opportunities. The access trail from two parking areas along Highway 150 is often crowded with users hiking three to four miles on Santa Paula Canyon Trail to experience large natural pools formed by water-polished rocks and interconnected by waterfalls. The most popular swimming area starts at the confluence of the main stem and East Fork and continues north up the main stem for half a mile. Although this area is famous locally and receives heavy use, it does not attract users from outside the region. Some fishing also occurs. While the preponderance of use is day use, some users backpack in and enjoy camping in several rustic trail camps. Equestrian use is only possible in Segment 2, and it is quite rare. This segment, which is outside the Sespe Wilderness, receives a small amount of mountain bike use. Other uses on Segment 2 include picnicking, nature study/wildlife viewing, and photography.

Segment 3 is the East Fork of Santa Paula Creek. Use on this segment is predominantly at or near the confluence with the main stem. An unmaintained trail is the only point of access to go further east (up canyon); it is currently in poor condition and almost unusable due to landslides. It gets a slight amount of use by "peak baggers" and others to access Santa Paula Peak as well as Bluff and Cienega Camps.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The east-west trending Transverse Ranges include California's highest peaks south of the central Sierra Nevada and the only Precambrian rocks in the coastal mountains of the United States. The Transverse Ranges are a unique geomorphic, stratigraphic, petrologic, and structural belt 400 km long and 100 km wide that is offset by a few tens of kilometers right laterally by the northwest trending San Andreas fault system. Along the entire mapped length of the San Andreas Fault Zone, from northern California to Mexico, no other belt of rocks, structure, and geomorphology similar to the Transverse Range Province crosses the zone. In addition, despite their comparatively small area, the Transverse Ranges seem to incorporate a greater spectrum of rock types and structure than any other province in the state. The Transverse Ranges may be the result of compressional forces along the Big Bend in the San Andreas Fault that itself is a unique geologic feature in North America if not the world.

Santa Paula Creek flows through folded sedimentary rocks of the Juncal Formation, Matilija Sandstone, and Cozy Dell Shale. It crosses nearly perpendicular to synclinal and anticlinal fold axes. Landslides in the shale units are located adjacent to the creek at many locations. On the east side of the creek, there is a steep ledge formed by the Matilija Sandstone where it overlays a shale unit.

Determination: The sedimentary rock formations and structural features of the Transverse Ranges, particularly the synclinal folds in the Matilija Sandstone, are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province.

4. Fish and Wildlife

Description: Santa Paula Creek contains habitat for several important wildlife, fish, and plant species. Santa Paula is a perennial stream, evident during the drought years of the late 1980s and early 1990s, which historically supported large runs of anadromous fish. Southern California steelhead and pacific lamprey historically made their annual migration from the ocean to the Santa Clara River and eventually up to suitable spawning grounds in Santa Paula Creek.

Santa Paula Creek is bordered on either side by a relatively mature riparian forest consisting primarily of alders, sycamores, and coast live oaks, with large scrub oaks defining the transition from riparian to mixed chaparral. In a dry region such as southern California, Santa Paula Creek serves as a vital habitat component for fish and wildlife. Santa Paula Creek serves as a migration corridor for wildlife, provides nesting and resting areas for migratory waterfowl using the pacific flyway, and provides habitat for native trout, amphibians, and reptiles.

Santa Paula Creek is one of many tributaries to the Santa Clara River. Historically, the Santa Clara River supported substantial runs of steelhead (southern California evolutionarily significant unit) with Santa Paula Creek contributing approximately 10% of the spawning habitat. Oil wells, agriculture, grazing, and water diversions have affected the lower half of Santa Paula Creek, downstream of the proposed Wild and Scenic River corridor. Hatchery fish are regularly stocked by the Department of Fish and Game from Steckel Park upstream to Ferndale Ranch.

The lower main stem of Santa Paula Creek flows through a series of rapid boulder-dominated cascades interspersed with moderate gradient boulder pocket water runs. Stream banks are well vegetated with an average riparian width of 30 feet. Recurrent storm events (1978, for example) have washed out much of the vegetation only to have it re-grow prior to the next event. High flows also re-arrange boulder and debris dams which may block fish passage through the canyon below the confluence of the East Fork at Big Cone Camp.

Above Big Cone Camp, waterfalls and boulder cascades impede upstream fish movements into the upper drainage. However, the reach from Big Cone Camp to Jackson Falls is excellent resident trout habitat, with good pool habitat and adequate spawning areas. Inflowing springs and seeps provide cooler summer water temperatures. Steep canyon walls and dense canopy cover also ensure good over-summering trout habitat. Large sized trout (18") have been observed within this section (USFS 1979), possibly indicating a remnant steelhead run.

Above Jackson Falls, trout habitat is poor due to a lack of shading and wide unstable channels. Water flow and temperatures may limit fish production. Resident trout are found in the lower gradient section upstream from a second unnamed waterfall located around the 3,600-foot elevation. Numerous springs around 4,000 feet moderate summer water temperatures and maintain adequate flows. Above 4,200 feet and up to the headwaters, the channel is wide, intermittent, and overgrown with vegetation.

The east fork is a high-gradient, boulder-bedrock dominated channel with less vegetative canopy than the main stem. Spring water inputs may not be adequate to maintain summer flows and water temperatures to support a year-round fishery. During surveys (1979 and 1993), no trout were captured. Canyon walls are unstable with mass wasting events contributing substantial sediment loads to the lower drainage. In summary, Santa Paula Creek is not particularly unique to the Santa Clara drainage, but it does offer some good quality resident trout habitat which could feasibly be opened up to steelhead. Restoration efforts would entail blasting or other means of removing boulder barriers within the lower main stem sections as well as modification of activities below National Forest System lands. Man-made structures were once a barrier to fish passage, but a fish ladder was recently installed north of the City of Santa Paula to allow fish passage.

Santa Paula Creek contains suitable habitat for several other federally listed endangered, threatened, rare or Forest Service Sensitive Species. Critical habitat for the endangered California condor (*Gymnogyps californians*), including historic roost and nest sites, is found here. The creek also contains historical nesting and foraging habitat for the peregrine falcon (*Falco peregrinus anatum*), a Forest Service Sensitive Species, and habitat for the California spotted owl (*Strix occidentalis occidentalis*), a Forest Service Sensitive and federally listed rare species.

The southwestern pond turtle (*Clemmy marmorata pallida*), a federally listed rare and Forest Service Sensitive Species, has been found scattered throughout the drainage. Santa Paula Creek contains habitat for the California red-legged frog (*Rana aurora draytonji*), a federally listed threatened species, but is not federally designated critical habitat for the species and no recent recorded occurrences for the

species exist.

Determination: Due to the current inaccessibility of habitat and the transient nature of boulder and debris dams that may block fish passage, the potential steelhead habitat in Santa Paula Creek is not considered outstandingly remarkable, particularly in comparison with existing habitat found in nearby Sespe Creek.

Although the other species mentioned above may be outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within the Santa Paula Creek drainage are not outstandingly remarkable amongst other drainages with similar habitat and species components.

5. Heritage resources (Cultural)

Description: Limited portions of the Santa Paula Creek drainage have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited. However, the presence of hot springs as well as the fact that Santa Paula Canyon is ascribed as part of the traditional Chumash hunting ground should mean there was use of the corridor by the local Native Americans. The Native American sites expected would represent activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and everyday life of the Native American inhabitants of the corridor. The sites known, as well as those that would be expected within the corridor, are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Limited portions of the Santa Paula Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is limited with only a few features indicating historic use within the corridor. Located in Santa Paula Canyon but outside the study area are resources associated with the use of the Canyon as health spa and social center. The historic features identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The botanical resources of Santa Paula Creek are not well known. No systematic effort has been made to inventory the botanical resources found in the study corridor.

Based on a review of existing literature, there are no known occurrences of endangered, threatened,

proposed, candidate, or sensitive plant species within one-quarter mile of Santa Paula Creek. There are a number of occurrences of sensitive plant species in the Santa Paula Creek watershed but these populations all occur more than one mile from the creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment Process* (National direction letter of 11/21/96). Accordingly, Santa Paula Creek is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of Santa Paula Creek is eligible for classification as a wild, scenic, or recreational river.

Upper Sespe Creek

Study Area Summary

Name of River: Upper Sespe Creek

Location: State of California, Ventura County, Los Padres National Forest

Upper Sespe Creek originates in the south one-half of T6N, R24W, Sec 4, SBBM and flows in a generally easterly direction. For the purpose of this study, the Sespe Creek was divided into three segments.

Segment 1: Sespe Creek is considered to be free flowing below a point in the northeast one quarter of T6N, R24W, Sec 4, SBBM, and ends at the confluence of Chorro Grande Canyon in T6N, R23W, Sec 21, SBBM. Approximately 2.8 miles of this segment flow through privately owned lands.

Segment 2: Extends from the confluence of Chorro Grande Canyon to the section line dividing T5N, R23W, Sec 1 and T5N, R22W, Sec 6, SBBM. Approximately 1.1 miles of this segment flows through privately owned lands.

Segment 3: Extends from this section line to the confluence of Rock Creek in the northwest ¼ of T5N, R22W, Sec 5, SBBM.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	9.8	0.0
2	9.5	9.5
3	2.0	2.0

Studied: 21.3 miles

Eligible: 11.5 miles

Eligibility Inventory

Determination of Free-flow:

The upper portion of Sespe Creek has neither past nor current diversions or impoundments.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Much of the length of the Sespe is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character type. It is distinctive not only for the presence of water, but because of the variety of landform, color, and vegetation. Most of the river flows adjacent to State Highway 33, a national Scenic Byway and California Scenic Highway.

From Chorro Grande to Sespe Gorge, Pine Mountain stands out as a dominant peak among a mix of steep slopes and broader plains. The entire area appears to be covered with a mix of chaparral. The Piedra Blanca rock outcrops dominate all views with the high color contrasts and massive scale. Water is sometimes underground and meanders through the landscape.

The gorge creates distinctive straight canyon walls, with overhanging pines as a focal point. Pools exist year-round among clusters of rock. Dramatic spring and fall colors are created in the riparian zone accentuated by the cottonwoods. The river then opens to views once again of Pine Mountain ridge and the high contrasts of the rock outcrops.

As Sespe Creek twists and turns, it acquires a wash appearance with evidence of human disturbances, vegetation more typical of the area, and a very open feel to the land. As it approaches Beaver Campground, it becomes sandier, chaparral-enclosed, and has a lasting presence of water. As it parallels the Middle Sespe Trail (Forest Trail 22W04), the wash appearance and sandy shores become evident. Finally, the river broadens again and winds through a chaparral-covered landscape.

State Scenic Highway 33 between Ozena and Ojai was designated the Jacinto Reyes National Forest Scenic Byway in 1992. The scenic designation was based on "...an amazing diversity of landscapes and habitats in a short distance. Spectacular vistas occur along the entire route yet the traveler is also treated to close encounters with beautiful cliffs, rock formations, and lush riparian areas."

Determination: The scenic values between Chorro Grande Canyon and Rock Creek (Segments 2 and 3) are considered to be outstandingly remarkable. The distinctive and unique variety of landforms and variations of colors and the massive scale of the Piedra Blanca formations in relationship to the soft mounding chaparral stand out in high contrast to areas with similar settings. Scenic values within Segment 1 are not considered to be outstandingly remarkable.

2. Recreation:

Description: Recreation opportunities along Sespe Creek are excellent and cover a broad spectrum. Above Chorro Grande Canyon, Sespe Creek mainly runs underground and thus affords limited

opportunities. Cherry Canyon Road (National Forest System Road (NFSR) 6N01) crosses this segment about midway, offering access for hiking, shooting, and four wheel driving. Access for users of the headwater portion of Sespe Creek is from the Potrero Seco Road (NFSR 6N03) along the ridge rimming the northern headwater. Private lands without any public easement block any access from Highway 33 going upstream to the headwaters. Access downstream of this road would be from the shoulder of State Highway 33.

Recreation activities below Chorro Grande Canyon include swimming and wading, picnicking, backpacking, hiking, horseback riding, bicycling, rock climbing, hunting, fishing, photography, and driving for pleasure with outstanding visual experiences. All but two miles of this segment is near State Highway 33. As a California Scenic Highway and National Forest Scenic Byway, State Highway 33 has the potential to draw visitors from throughout California and the nation. Most users are from southern California. While actual use statistics are not available, an estimated 75% of all users of this creek are from this local area. The remaining 25% (in order of importance) come from other parts of California, other states, and even other countries.

Visitors can choose among a variety of dispersed recreation opportunities as listed above. As recreation use increases on the highway, it demonstrates the willingness of visitors to travel long distances to use the river resources for recreational purposes. Interpretive exhibits are planned along the highway, and have the potential to attract visitors from outside the region. River access would be mostly from the shoulder of State Highway 33. The one exception to this would be Segment 3, which is the last two miles from Beaver Campground east where access is limited to Middle Sespe Trail and Howard Creek Road (NFSR 5N05). The Middle Sespe Trail gets light use from hikers, mountain bikers, and horseback riders.

Use is generally heaviest in the spring corresponding with high flows in the Sespe, followed by summer and fall getting about equal use. In these seasons, driving for pleasure, picnicking, and swimming are key activities along the river. Fall colors in the riparian vegetation are also important to visitors.

Determination: The recreation values above Chorro Grande Canyon (Segment 1) are not considered to be outstandingly remarkable.

Below Chorro Grande Canyon, the recreation values are considered to be outstandingly remarkable. Segments 2 and 3 offer excellent opportunities for many dispersed forms of recreation, including fishing, swimming, hiking, and horseback riding. Twelve miles of Sespe Creek are visible from the National Scenic Byway (State Highway 33). The view corridors and scenic vistas of the river canyon set amidst the stark chaparral provide unique and lively contrasts for the casual weekend drive in the mountains.

3. Geology

Description: The east-west trending Transverse Ranges include California's highest peaks south of the

central Sierra Nevada and the only Precambrian rocks in the coastal mountains of the United States. The Transverse Ranges are a unique geomorphic, stratigraphic, petrologic, and structural belt 400 km long and 100 km wide that is offset by a few tens of kilometers right laterally by the northwest trending San Andreas fault system. The prominent east-west trend of the Transverse Ranges is unique among the rest of the northwest-southeast trending coastal ranges in California. It has been proposed that they have rotated significantly from their original position. Along the entire mapped length of the San Andreas Fault Zone, from northern California to Mexico, no other belt of rocks, structure, and geomorphology similar to the Transverse Range Province crosses the zone. In addition, despite their comparatively small area, the Transverse Ranges seem to incorporate a greater spectrum of rock types and structure than any other province in the state. The Transverse Ranges may be the result of compressional forces along the Big Bend in the San Andreas Fault that itself is a unique geologic feature in North America if not the world.

Upper Sespe Creek occupies an east-west trending valley in the Transverse Ranges. The valley was formed by downfaulting along the Pine Mountain Fault and this has allowed a good sequence of Tertiary, Oligocene, and Miocene rocks to be preserved. Upper Sespe Creek cuts through Tertiary sedimentary rocks of the Cozy Dell Shale, Matilija Sandstone, and the Juncal Shale before cutting across Munson Creek Fault. This fault is a high-angle reverse fault with several thousand feet of displacement. The south side has been displaced up relative to the north side. The creek then continues in Tertiary sedimentary rocks of the Juncal and Matilija formations. Where the creek passes through the Matilija Sandstone, it forms a steep-walled narrow canyon called Sespe Gorge. The Matilija Formation is folded in a syncline through this gorge. Downstream, the creek passes through an arkosic member of the Cozy Dell formation, the Coldwater Sandstone and shale. The creek also crosses the Tule Creek Fault near Hartman Ranch. This fault also displays several thousand feet of vertical displacement with the south side up relative to the north side. Both the Munson Creek and Tule Creek Faults are between two major faults of the Transverse Ranges: the Santa Ynez and Pine Mountain Faults. At Tule Creek, upper Sespe Creek makes a right angle turn to the east and follows the trace of Tule Creek Fault for approximately 1.5 miles. The creek primarily follows the fault through the Cozy Dell formation to the confluence of Piedra Blanca Creek.

Determination: The sedimentary rock formations and structural features associated with the Tule and Munson Creek Faults and the synclinal folds in the Matilija Sandstone are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province.

4. Fish and Wildlife

Description: Sespe Creek contains suitable habitat for several federally listed endangered, threatened, rare or Forest Service sensitive species. Species that inhabit Sespe Creek include arroyo toad (*Bufo californicus*), California condor (*Gymnogyps californians*), southwestern pond turtle (*Clemmys marmorata pallida*), and two-striped garter snake (*Thamnophis hammondi*).

Sespe Creek historically supported anadromous runs of the endangered California southern steelhead (evolutionary significant unit *Oncorhynchus mykiss*), and currently provides habitat to native stocks of rainbow trout, arroyo chub, and three-spined sticklebacks. Non-native fish species have recently invaded and occupied Sespe Creek. These species include the green sunfish, bass, and black bullhead catfish.

The riparian corridor of Sespe Creek provides habitat for a variety of neo-tropical migratory birds and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*). It may contain potential habitat for the federally listed endangered least Bell's vireo (*Vireo bellii pusillu*).

Small numbers of steelhead trout still utilize Sespe Creek for spawning and rearing habitat within the Los Padres National Forest and within the designated segments of the stream.

A minor amount of recreational impacts occur from hiking, fishing and equestrian uses along the Middle Sespe Trail. With the exception is its crossing of Sespe Creek at Beaver Campground, most of this trail is located on higher ground well north of Sespe Creek.

Arroyo toads, a federally listed endangered species, are found within this portion of Sespe Creek in scattered habitat downstream from Tule Creek. The creek includes approximately 25 miles of modeled and suitable habitat for the species. Impacts occur to toads at Lion Campground from recreational uses. This site has been seasonally closed over the past six years and closed virtually year round the past two years in response to Section 7 requirements. This site is downstream of the study river.

The California red-legged frog (*Rana aurora draytonji*), a federally listed threatened species, historically occurred along Sespe Creek but appear to have been extirpated by predation of exotic bullfrogs and warm water fish species. The entire length of river lies within designated critical habitat.

Modeled habitat for least Bell's vireo and southwestern willow flycatcher, both federally listed as endangered, exists along Sespe Creek; however, no recent occupancy of least Bell's vireo has been documented. There have been several sightings of the more common willow flycatcher, a Forest Service sensitive species. Sespe Creek contains potential cliffside nesting habitat for the peregrine falcon (*Falco peregrinus*), a Forest Service sensitive species.

The southwestern pond turtle, a federally listed rare and Forest Service sensitive species, and the two-striped garter snake, a Forest Service sensitive species, are found scattered throughout the drainage.

Determination: Sespe Creek includes approximately 25 miles of suitable habitat for arroyo toads. The resident population of arroyo toads in segments 1 and 2 is one of the largest within one hundred miles, and since the geographical range of this meta-population contains gaps, this is outstandingly remarkable. Sespe Creek contains steelhead trout spawning habitat important for the recovery and propagation of the federally endangered southern California evolutionarily significant unit. Approximately 36 miles of potential habitat exists. There have been several southwestern willow flycatcher sightings (Forest

Service sensitive) within the drainage. Intact habitat for southern steelhead and southwestern willow flycatcher habitat is also outstandingly remarkable, because samples of this intact habitat are very rare on the Los Padres National Forest and in the southern California Province.

5. *Heritage resources (Cultural)*

Description: Only a portion of the Upper Sespe corridor has been inventoried for heritage resources. Nevertheless, there are numerous sites known for this study area. The Native American sites known for the area represent occupation areas with a variety of cultural materials, food processing and tool manufacture. It is felt these sites may be associated with significant rock art sites located outside the corridor. These sites attest to the use of the area by ancestral Ventureño Chumash. At this time, the sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory. Scientific research in the future may indicate that these sites may possess significant associations beyond the local level.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Only a portion of the Upper Sespe corridor has been inventoried for heritage resources. The knowledge of the span and complexity of historic use of the corridor is limited but several sites are known to be located within the corridor. The known resources are associated with homesteading and ranching activities that date from the 1880s-1890s (Ortega Adobe and Potrero Seco Adobe). The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The botanical resources of the Upper Sespe Creek are fairly well known due to the creek's proximity to road and trail; however, no systematic effort has been made to inventory the botanical resources found in the study corridor.

Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of the upper Sespe Creek. There are a number of occurrences of sensitive plant species in the upper Sespe Creek watershed but these populations all occur more than one mile from the creek.

Determination: Although there is a sensitive plant occurrence within the study corridor, it is not considered to be an outstandingly remarkable botanical feature because of the small proportion of the

plant population within the study corridor and the association of the species with upland habitat types.

Summary of Outstandingly Remarkable Values:

Scenery

Sespe Creek in segments 2 and 3 has notable and exemplary visual features that include contrasts created by large rock outcroppings and seasonal colors in combination with water that attracts regional and national attention. This is supported by the National Forest Scenic Byway designation.

Recreation

Below Chorro Grande Canyon, Sespe Creek has outstandingly remarkable recreation values. It offers excellent dispersed recreation opportunities including driving for pleasure and viewing scenery on the adjacent Scenic Byway. Much of the recreation occurring is water-oriented along Sespe Creek. The recreation experiences are accentuated by the natural scenic surroundings.

Fish and Wildlife

The resident population of arroyo toads in the segments 1 and 2 of Sespe Creek is one of the largest within one hundred miles, and since the geographical range of this meta-population contains gaps, this is outstandingly remarkable. Intact habitat for southern steelhead and southwestern willow flycatcher habitat is also outstandingly remarkable, because samples of this intact habitat are very rare on the Los Padres National Forest and in the southern California National Forests.

Potential Classification

Table 444. Upper Sespe Creek - Potential Classification by River Segment

	Segment 1	Segment 2	Segment 3
WILD RIVER			
Free of impoundments		Yes	Yes
Generally inaccessible except by trail		No	Yes
Watersheds or shorelines essentially primitive		No	No
Waters unpolluted		Yes	Yes
SCENIC RIVER			
Free of impoundments		Yes	Yes

Accessible in places by roads		Yes	Yes
Watershed largely primitive and undeveloped		No	Yes
RECREATIONAL RIVER			
Some impoundments or diversions in past		Yes	
Readily accessible by road or railroad		Yes	
Some development along shoreline		Yes	
Eligibility Status	Ineligible	Recreation	Scenic

Suitability Report

Description

Landownership and Land Uses

Segment 2: Extends from the confluence of Chorro Grande Canyon to the western boundary of T5N, R22W, Sec 6 (approximately one-half mile east of Beaver Camp). Approximately 1.1 miles of this segment flows through non-federal lands.

Segment 3: Extends from this section line to the confluence of Rock Creek in the northwest ¼ of T5N, R22W, Sec 5.

River mile location is from the source.

Table 450. Upper Sespe Creek - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
2	9.8-19.3	Chorro Grande to ½ mile east of Beaver Camp	NFS (2580 acres); non-federal (225 acres)	NFS: Scenic Byway; Non-federal: Rural-low intensity, weekend cabins, private residence

3	19.3-21.3	½ mi. east of Beaver Camp to Howard Creek	NFS (616 acres)	Dispersed non-motorized recreation
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The land use on the private parcels is unlikely to change from the current rural atmosphere. This is due in part to the fact that these properties are not part of the southern California electricity grid. The closest urban utilities are 20 miles away.

Mineral and Energy Resource Activities

There are no existing mineral uses or potential for future mineral development in the vicinity of the river corridor. Minor evidence of exploratory mining that occurred up to the 1960's can still be seen in Potrero John Canyon and Tule Creek; mining activity in the corridor has been absent since that time.

Water Resources Development

There is no potential for the river to be used for either hydropower or water diversion in this reach. In the 1970's, dam construction was proposed near Howard Creek. This proposal was never realized. If proposed today, it would not be approved due to the fact that a water transmission pipeline would not be allowed through the Sespe Wilderness or by tunneling through the mountains to Ojai. The management of the numerous endangered species in this area would preclude the possibility of diverting creek water.

Transportation, Facilities and Other Developments

The upper portion of segment 2 meanders through private property for approximately one mile. The entire segment parallels State Highway 33 for the remaining eight miles to the boundary between segments 2 and 3. State Highway 33 is designated as a National Forest Scenic Byway with numerous turnouts that provide vistas of the Sespe Creek corridor. Highway 33 was constructed in the 1930's to provide an important link for commerce and recreation between the San Joaquin Valley and the south-central coast of California. It continues today to provide this same important link. This currently includes semi-trucks hauling gravel from inland valleys to the coastal urban areas.

Potrero John Trailhead (for Forest Trail 23W06) is located along State Highway 33 between Chorro Grande and Sespe Gorge. The trail traverses the corridor in a northerly direction and crosses Potrero John Creek several times in its 1.6-mile length.

The Middle Sespe Trailhead is in the lower portion of segment 2 at Beaver Campground along State Highway 33. The Middle Sespe Trail (Forest Trail 22W04) crosses the creek once and then parallels the creek on the north bank within the corridor for 4 miles. Several social trails to swimming holes are evident.

The northern terminus of the Howard Creek Road (NFSR 5N05) is located in segment 3 of the river corridor. There is a five-acre private parcel that is mostly within the designated Wild and Scenic River corridor. The western portion of this parcel is within the southeastern boundary of the study river corridor. This road is gated south of the corridor. This keeps public vehicle traffic out of the corridor. The public is allowed access beyond the gate on foot, horseback, or mountain bike. The property owners have special use permits authorizing the following on National Forest System land: water transmission pipeline, driveway, and gate. The owners provide maintenance on the entire length of Howard Creek Road through an agreement with the Forest Service. Howard Creek Campground was located at the end of Howard Creek Road. It was closed in 1978 after heavy winter flooding damaged the campground beyond repair.

Recreation Activities

Recreation opportunities along Sespe Creek are excellent and cover a broad spectrum. Recreation activities below Chorro Grande Canyon include swimming and wading, picnicking, backpacking, hiking, horseback riding, bicycling, rock climbing, hunting, photography, and driving for pleasure with outstanding visual experiences. All but two miles of this segment are near State Highway 33. As a California Scenic Highway and National Forest Scenic Byway, State Highway 33 has the potential to draw visitors from throughout California and the nation. Most users are from southern California. While actual use statistics are not available, an estimated 75% of all users of this creek are from this local area. The remaining 25% (in order of importance) come from other parts of California, other states, and even other countries.

Visitors can choose among a variety of dispersed recreation opportunities as listed above. As recreation use increases on the highway, it demonstrates the willingness of visitors to travel long distances to use the creek's resources for recreational purposes. Interpretive exhibits are planned along the highway, and have the potential to attract visitors from outside the region. Creek access is mostly from the shoulder of State Highway 33. The one exception to this would be segment 3, which is the last two miles from Beaver Campground east where access is limited to Middle Sespe Trail and Howard Creek Road. The Middle Sespe Trail gets light use from hikers, mountain bikers, and horseback riders. Beaver Campground is the only existing campground in the corridor; it has 11 campsites. The campground is an acceptable use within the classification criteria for a recreation river segment. However, it is currently being evaluated for user conflicts with endangered species.

Use is generally heaviest in the spring corresponding with high flows in Sespe Creek, followed by summer and fall getting about equal use. In these seasons, driving for pleasure, picnicking, and swimming are key activities along the creek. Fall colors in the riparian vegetation are an aesthetically pleasing attribute along segments 2 and 3 of the river corridor.

Other Resource Activities

Other than the small family gardens found on the private parcels, there is very little potential for this

portion of the Sespe Creek corridor to have uses other than recreation in the foreseeable future. A stream gauge designed to measure the flow of the river during flood events is located in the Sespe Gorge area. This structure is permitted to the U.S. Geological Survey and operated by the Ventura County Watershed Protection District. It is likely that the use of this gauge may be phased out in the near future. There is no timber harvesting or livestock grazing occurring along these segments. There is a minimal amount of livestock grazing occurring on a few private parcels upstream. Due to its remoteness, the area is not on the southern California electricity grid; this currently tends to limit the types of activities for other resources.

Special Designations

The Sespe Wilderness borders the north side of the corridor near Howard Creek and also near Potrero John Trail. The intent of enabling legislation is to protect these lands in their primitive condition, and to allow no development or motorized/mechanized access. This same legislation designated the downstream portion of Sespe Creek as a Wild and Scenic River starting at Howard Creek.

Highway 33 is designated as a National Forest Scenic Byway. This designation is given to deserving routes in the National Forest that exhibit outstanding scenery. A management plan is currently being developed for this Scenic Byway.

All of these designations are complimentary to, and do not conflict with, studying the suitability of Sespe Creek for inclusion in the Wild and Scenic River system.

Socio-Economic Environment

Ojai (population 8000) is the closest town (25 miles). The economy of Ojai Valley is based on agriculture and tourism. The immediate area is not growing rapidly due to open space zoning. The Highway 33 corridor receives steady year-round use. The majority of the traffic is passing through the Forest. Use in segment 2 is limited to non-motorized access. Designation as a Wild and Scenic River would have a minimal impact on use patterns. If segment 1 is included in any designation, there is a potential small-scale impact due to acquisition of private parcels if willing sellers exist. This would create a minimum impact on the county property tax base.

Current Administration and Funding Needs if Designated

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration*	\$15,000	\$13,400
Development of River Management Plan	\$0	\$60,000
Development Costs	\$0	\$2,000
Operation and Maintenance Costs	\$75,000	\$5,000

Total Cost First Five Years	\$90,000	\$80,400
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*General administration and operation and maintenance costs are estimated to continue at \$16,000 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Worthy: Characteristics that make it a worthy addition include its predominantly undeveloped character in a rural setting and the fact that it flows unimpeded to the ocean. It is also steelhead habitat and contains other riparian threatened, endangered, and sensitive species, making it rich in biodiversity. For approximately 8 miles in segment 2, the Sespe Creek parallels State Highway 33, which is both a National Forest Scenic Byway and State Scenic Highway. The presence of Sespe Creek played a key role in these two designations. This proposed addition would also be contiguous with the existing segment of Sespe Creek that is already designated as a scenic river.

Not worthy: Characteristics that make it not a worthy addition include moderate amounts of large semi-truck traffic, principally on weekdays. Also, the large landslide along Highway 33 near Tule Creek represents a source for sedimentation into Sespe Creek as well as a visual scar. However, this does represent a prime spot for geologic interpretation. The slide face is being revegetated both naturally and through plantings by CalTrans. Finally, the developments on private land inholdings at Faser Cold Springs downstream of the landslide and between Munson and Chorro Grande Creeks are detractions. Although no large structures are present, these lands are in contrast with the generally undeveloped nature of the creek.

2. The current status of land ownership and use in the area.

With few exceptions, lands in the area are National Forest System lands. On the private land parcels, there is a limited amount of agriculture occurring. There is also the potential of artificial riprap being swept away down river from the riparian area of private land at Faser Cold Springs. California Department of Transportation (CalTrans) has a special use permit for Highway 33 that is 132 feet wide. A separate permit allows them to use and maintain the ‘sand shed’ above Tule Creek for storage of sand and gravel for spreading on the highway during the winter. Collectively, these uses can be managed in accordance with management of Sespe Creek under the Wild and Scenic Rivers Act.

3. The reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

Portions of the river are under two federal power withdrawal projects. The Federal Energy Regulatory Commission (FERC) has recommended that projects (#64 and 414) be terminated. They are currently involved in the litigation brought by the National Wildlife Federation. Due to the surrounding

wilderness area and the multiple species listed as threatened, endangered, or sensitive, it is unlikely that any project proposed in the future would be approved.

4. The federal agency that will administer the area, should it be added to the System.

The USDA Forest Service would be the federal agency that will administer the area, should it be added to the System. Sespe Creek is in the Los Padres National Forest on National Forest System lands.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

As Highway 33 is immediately adjacent to Sespe Creek, management of the highway in essence becomes management of the creek in most locations. The Forest Service plans to apply for ISTEA grant funding through CalTrans. If funded, these proposals would include development of brochures, signs, and other interpretive material along the Scenic Byway/Wild and Scenic River corridor. In addition, there is coordination and planning involved with CalTrans over their management of Highway 33 alongside Sespe Creek.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

The best parcel to acquire is Faser Cold Springs as an administrative site. Acquisition costs would be an estimated \$500,000. In addition, operation and maintenance costs would be contingent upon its future use.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

As the river corridor is in a remote area, it is expected that the State of California and Ventura County would participate to a very slight degree in the preservation and administration of the river, should it be proposed for inclusion in the System. However, it is also expected that the State of California would welcome the inclusion, as it is complimentary to the State Scenic Highway designation for Highway 33. Any participation by State or county agencies would be done as economically as possible in light of current budget constraints.

8. State and/or Local government's ability to manage and protect the outstandingly remarkable values on non-federal lands.

CalTrans manages State Highway 33 on National Forest System lands under permit from the USDA Forest Service. On the several parcels of private land, CalTrans holds easements for Highway 33. As these easements are old, they likely do not contain language specifically related to protection of outstandingly remarkable values on these non-federal lands. However, CalTrans has operating policies

and procedures that would amount to protection of these values.

Ventura County would be able to protect outstandingly remarkable values by retaining the existing zoning regulations in the area. These laws have set a “tone” of lightly developed, rustic private parcels interspersed within the National Forest System lands.

9. The consistency of designation with other agency plans, programs or policies.

Designation of Sespe Creek would be consistent with other plans and activities. It would be consistent with the current Los Padres Land and Resource Management Plan. It is consistent with Cal Trans’ plans for highway maintenance. There are no known plans by Ventura County, U.S. Fish and Wildlife Service, or any other agency that are inconsistent with this possible designation. The one exception to this is a proposal by CalTrans to add a communication site along Highway 33 to assist their radio communication system.

10. Support or opposition to designation.

Support for designation is from Keep the Sespe Wild Committee and Friends of the River. Opposition would be anticipated from a large segment of forest users who have expressed an opposition to special land use designations. It would appear that the results of our public meetings for Forest Plan Revision indicate a majority of users like the status quo.

11. Contribution to river system or basin integrity.

Designation of the proposed segments of Sespe Creek would protect an additional long segment of steelhead habitat as well as adding to the basin integrity already afforded by the existing designation of 31.5 miles of Sespe Creek immediately downstream of the study segment. This is modeled steelhead habitat that may be a contributor to species recovery. These segments of Sespe Creek are entirely outside the wilderness and may add an additional level of habitat protection for steelhead. Designation would add to river basin integrity by adding a significant segment that would result in protections along Sespe Creek from its upper reaches to near its confluence with Santa Clara River that leads to the Pacific Ocean.

12. Potential for water resources development.

Historically, Sespe Creek has been studied for water resources development. This issue became one of the reasons that the Sespe Wilderness was created. For many years, United Water Conservation District studied Sespe Creek for possible construction of water impoundments. There were also projects No. 64 and No. 414 done by FERC. At this time and into the foreseeable future, any requests for water resources development would be denied based either on effects on Sespe Wilderness or endangered species.

13. Contribution to other regional objectives/needs.

An interagency consortium has a long-term regional objective of the improvement of steelhead and arroyo toad habitat. Designation of Sespe Creek would aid in this important project. Agencies included are California Department of Fish and Game, U.S. Fish and Wildlife Service, NOAA Fish, and USDA Forest Service.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No segments are recommended for designation.

Alternative 2: Segment 2 is recommended for recreational river designation. Segment 3 is recommended for scenic river designation. Segments 2 and 3 have scenery and recreation as ORVs. Due to the presence of State Highway 33 within the river corridor, segment 2 is classified as recreation. Segment 3 contains an improved dirt road and a private parcel with improvements and is classified as scenic.

Alternative 3: Segment 2 is recommended for recreational river designation. Segment 3 is recommended for scenic river designation. Upper Sespe Creek has wildlife and fisheries as ORVs. Due to the presence of State Highway 33 within the river corridor, segment 2 is classified as recreation. Segment 3 contains an improved dirt road and a private parcel with improvements and is classified as scenic. This recommendation balances the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values with the conservation of a wide range of wildlife and plant species (especially TES) and habitats, biodiversity, linkages and corridors.

Alternative 4: Segment 2 is recommended for recreational river designation. Segment 3 is recommended for scenic river designation. Segments 2 and 3 have scenery and recreation as ORVs. Recommended rivers have recreation and/or scenery as outstandingly remarkable values. Due to the presence of State Highway 33 within the river corridor, segment 2 is classified as recreation. Segment 3 contains an improved dirt road and a private parcel with improvements and is classified as scenic.

Alternative 5: No segments are recommended for designation.

Alternative 6: Segment 2 is recommended for recreational river designation. Segment 3 is recommended for scenic river designation. Due to the presence of State Highway 33 within the river corridor, segment 2 is classified as recreation. Segment 3 contains an improved dirt road and a private parcel with improvements and is classified as scenic. This recommendation protects and enhances a wide range of values and features, including species conservation, biodiversity, open space, natural beauty, recreation and research.

Suitability Determination for the Preferred Alternative

Describe the rationale for the suitability determination of the preferred alternative:

Segment 2 is recommended for recreational river designation. Segment 3 is recommended for scenic river designation. This recommendation best meets the intent of the Wild and Scenic Rivers Act and best protects the outstandingly remarkable values identified in these segments. The two river segments are worthy of designation in the Wild and Scenic River System. They have scenery, recreation, and wildlife as outstandingly remarkable values. This recommendation also adds a little more emphasis to riparian and endangered species protection in addition to what already exists. Finally, this recommendation adds to a unique remaining ecosystem in southern California.

This alternative represents a shorter portion of Sespe Creek being potentially designated. The character of the excluded creek channel changes from Munson Creek up to Chorro Grande, in that it is more open and less impressive visually. The additional factor for selecting this alternative is that the excluded segment contains several private parcels of land that contain structures and are potentially non-conforming. Funding for acquiring these parcels (if the seller were willing) is a low priority compared with areas near the Ventura River that are closer to Ojai and have the greatest potential for development. In contrast, the parcels on the Sespe have no electricity and are primitive, making them a low priority for development and acquisition funding.

This alternative also shares a common boundary with an existing long segment of designated Wild and Scenic River on Sespe Creek. The lengthening of the Wild and Scenic River designation represented by this alternative and existing segment is a quality addition to the Wild and Scenic River System.

Indian Creek

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying Indian Creek for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Indian Creek

Location: State of California, Santa Barbara County, Los Padres National Forest

For the purposes of this study, Indian Creek was divided into two segments.

Segment 1: Indian Creek is considered to be free flowing below a point in the Dick Smith Wilderness near Bluff Camp (T7N, R26W, Sec 19, SBBM) and then flows in a southerly direction. Segment 1 continues downstream from the source to where Indian Creek leaves the Dick Smith Wilderness in T6N, R26W, Sec 19, SBBM.

Segment 2: Segment 2 goes from the Dick Smith Wilderness boundary to the upstream extent of the Mono Debris Basin in the northeast corner of T5N, R26W, Sec 6, SBBM.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	9.6	9.6
2	5.1	5.1

Studied: 14.7 miles

Eligible: 14.7 miles

Eligibility Inventory

Determination of Free-flow:

A weir, approximately six feet in height, exists within one-quarter mile of the lower boundary of the study segment. The weir was built in the 1940s and the area behind the weir is completely silted in. Indian Creek above Mono Debris Basin is considered to be free flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The majority of the Indian Creek corridor is scenic attractiveness class "A" landscape. Scenic attractiveness class "A" landscapes are distinctive within the Southwest Mountain and Valley Character type. Indian Creek is distinctive not only because of the presence of water, but also because of the mix of landform, color, and vegetation.

From the Bluff camp to Poplar camp, there are steep canyon walls creating a strong sense of enclosure after the first one-quarter mile. Of note is the occasional spruce tree along the corridor. There is also a mix of sage and chaparral cover with distinctive groves of alders. There is the yearlong presence of water and many small pools. The slopes offer a contrast of black and gray shale and vegetated canyon walls. By the time you reach Poplar Camp, you feel that you have really entered down into the creek canyons.

From Poplar camp to Pens camp, the landscape opens up with the strong evidence of oak grassland with the mix of some sycamores. In the stretch from Pens camp to Indian Narrows, the landform gets real narrow with high vertical walls and distinctive caves. The dramatic sheer bare walls and dark sandstone color provides for a vivid contrast as the canyon sweeps into the Narrows. Bigcone Douglas-fir can be seen from the creek.

The Narrows are very distinctive with large limestone formations, smooth polished surfaces, and steep crossings. Pools, rushing water sounds, the narrow channel, and white, luminous, polished rock make the area unique. There are views of the canyon below, including deep pools and many waterfalls.

The distance from Indian Canyon camp to the termini just beyond Mono camp is similar but not nearly as dramatic. The landscape is wider and there is more of a riparian zone with grass and oak grassland. The water is intermittent in this section and the vegetation is more typical of the character type as it empties into a pool at the end.

Determination: Scenic values are not considered to be outstandingly remarkable. Although the scenic values are distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Sisquoc River.

2. Recreation:

Description: From Bluff Camp to Poplar Camp, Indian Creek is perennial and available for public recreational use in a setting with remarkable rock formations, cultural sites, and biodiversity. Indian Creek is popular for hiking. It is unique within California for the mix of cultural and biologically diverse qualities. From Pens Camp, the walls of the sandstone canyon become deeper and narrower.

The trail has been abandoned, but hiking access is possible along the creek bottom until the visitor reconnects with Forest Trail 26W08 that begins again at Indian Creek Camp. In the dramatic "Narrows" area, water passes over a luminescent, polished, white sandstone formation creating deep pools and falls, including one spectacular pool area with a waterfall in a setting of large boulders.

The stretch of Indian Creek from Indian Creek Camp begins to show more signs of visitor use. The trail follows along the creek, with some large pools with cattails, finally to reach the intersection with Camuesa Off Highway Vehicle Route (National Forest System Road (NFSR) 5N15) and the Buckhorn/Indian Creek Trailhead.

Indian Creek and the adjacent trail provide opportunities for extended dispersed camping, backpacking, and hiking in a wilderness setting. From the headwaters near Bluff Camp to Lower Buckhorn Camp, the Indian Creek drainage is within the Dick Smith Wilderness. The lower segment of this creek and the Buckhorn Trail is a multi-use trail used by hikers, mountain bicyclists, and equestrians. Fishing for native rainbow trout is a main attraction. Use is estimated to be 500 visitor days per year with approximately 95% of the use coming from Santa Barbara and Ventura Counties. A portion of the remaining 5% includes out of state and international visitors.

Determination: Recreation values are locally significant but not considered to be outstandingly remarkable.

3. Geology

Description: Indian Creek is located in the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

The headwaters of Indian Creek are in the Cachuma Formation. The creek crosses the Big Pine Fault that deflects the stream as it passes into the Juncal Formation (shale unit). It then crosses a syncline cored by the Monterey Formation. The course of Indian Creek cuts across six mapped northwest trending faults and is nearly perpendicular to numerous fold axes.

Near Narrows Campground in the Big Pine Mountain quad, a band of resistant Sierra Blanca Limestone overlying the Mono Shale member of the Cachuma Formation forms the narrows. Sandstone units from the Juncal and Cachuma Formation and the Sierra Blanca Limestone form the resistant bluffs along the creek.

Determination: The Big Pine Fault is one of California's major left-slip faults. The fault and its related structures provide critical information for a better understanding of the development of the west coast of

North America. Much study is occurring to determine the structural activity that defines the relationship of these mountains to the tectonic development of southern and central California, from San Diego to the Central Valley. This is significant at a regional level and is considered to be outstandingly remarkable.

4. Fish and Wildlife

Description: The lower segment of Indian Creek provides habitat typical of southern California third order streams. However, due to its rather pristine nature and its juxtaposition with the Santa Ynez River, it provides for a very unique assemblage of threatened, endangered and sensitive species. These species include: arroyo toad, California red-legged frog, southwestern pond turtle and, and two-striped garter snake. This stream is currently devoid of any exotic aquatic species such as bullfrog, green sunfish, bullhead, bass and flathead minnow, all of which inhabit many of the other similar stream systems on the forest. Habitat exists to support the least Bell's vireo, southwestern willow flycatcher, California condor (one historic nest site in the upper reaches of the drainage), and California spotted owl.

This ecosystem is approximately 15 miles long, providing habitat for wider ranging animals such as mountain lion and black bear, as well as an area for adequate genetic interchange between species that require this ecosystem to breed in.

Indian Creek is home for one of the largest populations of the federally designated endangered arroyo toad (*Bufo californicus*), on the Los Padres National Forest and includes five miles of federally designated critical habitat for this species.

Portions of Indian Creek also contain federally designated critical habitat for the federally and state listed endangered least Bell's vireo (*Vireo bellii pusillus*). No recent sightings have been reported on Indian Creek but they have been reported in the adjacent Mono Creek.

Habitat exists within Indian Creek for willow flycatcher (*Empidonax trillii*), a Forest Service sensitive species.

California red-legged frog (*Rana aurora draytonji*), a federally listed threatened species, is found in suitable habitat within the Indian Creek drainage. The creek supports five miles of federally designated critical habitat for this species.

Southwestern pond turtle (*Clemmy marmorata pallida*), a federally listed rare and Forest Service sensitive species, is found in suitable habitat throughout the drainage.

Two-striped garter snake (*Thamnophis hammondi*), a Forest Service sensitive species is also found scattered throughout the creek corridor.

The upper headwaters of Indian Creek also provide habitat for the California spotted owl (*Strix occidentalis occidentalis*), a Forest Service sensitive and federally listed rare species, and an historic nest

site of the federally endangered California condor (*Gymnogyps californianus*). Upper reaches of Indian Creek are within federally designated critical habitat for the California condor.

Determination: The resident population of arroyo toads in Indian Creek is one of the largest within one hundred miles, and since the geographical range of this meta-population contains gaps, this is outstandingly remarkable. Although the other species mentioned above are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within Indian Creek drainage are not outstandingly remarkable amongst other drainages with similar habitat and species components (see criterion for habitat and population).

5. *Heritage resources (Cultural)*

Description: Only a portion of the Indian Creek corridor has been inventoried for heritage resources. Nevertheless, there are over twenty-five sites known for this study area. The Native American sites known for the area represent occupation areas with a variety of cultural materials, food processing and tool manufacture. Until a representative evaluation of the known sites occurs, it is difficult to fully assess the full importance of these sites. A rock art site exists that is very distinctive and has been published in a nationally recognized book on rock art. This site, given the level of interest in Chumash rock art, has national or international significance, and was used by the Chumash for sacred purposes.

Determination: Cultural values, primarily the rock art site, are considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Only a portion of the Indian Creek corridor has been surveyed for heritage resources. The knowledge of the span and complexity of historic use of the corridor is limited but several sites are known to be located within the corridor. The known resources are reflective of more recent history and activities associated with mining (limestone) and the Forest Service administration of the area (Bluff Camp Guard Station). The sites and features recorded within the corridor are common in the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered outstandingly remarkable.

7. *Other (Botany)*

Description: The botanical resources of the Indian Creek are not well known. No systematic effort has been made to inventory the botanical resources found in the study corridor.

Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Indian Creek. There are a

number of occurrences of sensitive plant species on the ridge tops of the San Rafael Mountains but these populations all occur more than one mile from the creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Geology

The Big Pine faults and the sedimentary rock formations found within Indian Creek include important features crucial to the understanding of the very complex structural and geomorphic evolution of the west coast of North America. Indian Creek cuts through these formations and structures exposing beautiful outcrops and making them accessible for study.

Wildlife

The resident population of arroyo toads in Indian Creek is one of the largest within one hundred miles, and since the geographical range of this meta-population contains gaps, this is outstandingly remarkable.

Cultural

The Chumash rock art site is considered to be outstandingly remarkable.

Potential Classification

Table 438. Indian Creek - Potential Classification by River Segment

	Segment 1	Segment 2
WILD RIVER		
Free of impoundments	Yes	Yes
Generally inaccessible except by trail	Yes	Yes
Watersheds or shorelines essentially primitive	Yes	Yes
Waters unpolluted	Yes	Yes
SCENIC RIVER		
Free of impoundments		
Accessible in places by roads		
Watershed largely primitive and undeveloped		

RECREATIONAL RIVER		
Some impoundments or diversions in past		
Readily accessible by road or railroad		
Some development along shoreline		
Eligibility Status	Wild	Wild

Suitability Report

Description

Landownership and Land Uses

With the exception of part of the quarter mile buffer at the lower end, the Indian Creek corridor is within National Forest System lands. The upper extent of the Mono Debris Basin, owned by the City of Santa Barbara, is immediately below segment 2.

The river mile location is from the source.

Table 445. Indian Creek - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
1	0 - 9.6	Source to wilderness boundary	NFS (2864 acres)	Wilderness
2	9.6 - 14.7	Wilderness boundary to Mono debris basin	NFS (1310 acres) and non-federal (22 acres)	Dispersed motorized and non-motorized use

Mineral and Energy Resource Activities

There is no known potential for mineral and energy development.

Water Resources Development

A weir, approximately six feet in height, exists within one-quarter mile of the lower boundary of the study segment. The weir was built in the 1940s and the area behind the weir is completely silted in.

Transportation, Facilities and Other Developments

Forest Trail 26W08 (Indian Creek Trail) parallels Indian Creek corridor from Bluff Camp to Pens Camp. The trail has been abandoned south of Pens Camp, but hiking is possible along the bottom of the creek until reconnecting with Forest Trail 26W08 at Indian Creek Camp and continuing south to NFSR 5N15, the Camuesa Off Highway Vehicle Route.

Recreation Activities

Trail 26W08 begins at Bluff Camp and follows Indian Creek to the junction with NFSR 5N15 (an OHV route). Opportunities for extended dispersed camping, backpacking and hiking are available in a wilderness setting on segment 1. Segment 2 is used by a varied group of recreationists including hikers, mountain bicyclists and equestrians. Fishing for native rainbow trout and viewing the dramatic rock formations and waterfalls are the main attractions.

Other Resource Activities

Ridge top fuelbreaks are maintained through vegetation removal and prescribed fire. Trail maintenance is performed on the Forest Service system trails described above to minimize resource damage. The populations and habitats of arroyo toads, red-legged frogs, least Bell's vireo, and southwest willow flycatcher are intensively monitored within the Indian Creek drainage. Vandalism of important cultural sites does occur; these sites are monitored for any damage.

Special Designations

All of segment 1 is in the congressionally designated Dick Smith Wilderness.

Socio-Economic Environment

The Santa Barbara front is the closest urban area and is within eight miles of Indian Creek. The Santa Ynez Valley contains the communities of Buellton, Santa Ynez, Solvang, and Los Olivos. Vehicular access to Indian Creek is limited by seasonal closures and long drive times over low standard roads. Use in the Indian Creek corridor is limited to non-motorized activities. Designation as a Wild and Scenic River would not change the existing use patterns. Existing use would not threaten the outstandingly remarkable values.

Current Administration and Funding Needs if Designated

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration *	\$4,000	\$33,000
Development of River Management Plan	\$ 0	\$150,000
Development Costs	\$0	\$10,000
Operation and Maintenance Costs	\$20,000	\$5,000
Total Cost First Five Years	\$24,400	\$198,000

*General administration and operation and maintenance costs of designated river are estimated to continue at \$5,000 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Worthy: The resident population of arroyo toads, a federally endangered species, is one of the largest within one hundred miles. Since the geographical range of this meta-population contains gaps, this is outstandingly remarkable. There are also historic condor roosts and nesting in nearby canyons. Designation as a Wild and Scenic River would support efforts to maintain and improve habitat.

Not worthy: The Chumash rock art site is considered to be outstandingly remarkable. Designation as a Wild and Scenic River would add little protection to these resources and may increase vandalism.

2. The current status of land ownership and use in the area.

All of the corridor is in federal ownership and provides wildland recreational opportunities.

3. The reasonable foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

Indian Creek is within a section of Los Padres National Forest referred to as Mono Basin, which also includes a section of the middle Santa Ynez River, and all of Aqua Caliente and Mono Creeks. Past surveys have shown that the varied habitats in Mono Basin support a rich diversity of species, including several federally threatened and endangered species. For this reason, the area is being considered for a special interest area designation in the revised Los Padres Land and Resource Management Plan, where wildlife research, viewing and interpretation will be emphasized. Designation of Indian Creek as a Wild and Scenic River will not curtail these activities.

4. The federal agency that will administer the area, should it be added to the System.

USDA Forest Service.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

No proposals to share costs with State and local agencies exist.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

No lands to be acquired.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

Not significant to the State or other entities.

8. The consistency of designation with other agency plans, programs or policies.

A consideration in this revision is the creation of the Mono Basin Special Interest Area to highlight the unique assemblage of threatened, endangered, and sensitive species and their habitat. The designation of Indian Creek as a Wild and Scenic River would be consistent with the creation of a special interest area.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No segments are recommended for designation.

Alternative 2: Segment 1 is recommended for wild river designation, consistent with the existing wilderness. Segment 2 is recommended for scenic river designation. A scenic designation will allow for continued road access and for heritage interpretation. The recommended designations provide the best balance of recreation and scenery values with the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values.

Alternative 3: Segments 1 and 2 are recommended for wild river designation. Reduce trail access to the corridor. Indian Creek has wildlife and ORV. This recommendation balances the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable wildlife values with the conservation of a wide range of wildlife and plant species (especially TES) and habitats, biodiversity,

linkages, and corridors

Alternative 4: No segments are recommended. The ORVs do not include recreation or scenery.

Alternative 5: No segments are recommended.

Alternative 6: Segments 1 and 2 are recommended for wild river designation. No additional development. The recommended designation protects and enhances a wide range of values and features, including species conservation, biodiversity, open space, natural beauty, recreation and research.

Suitability Determination for the Preferred Alternative

Describe the rationale for the suitability determination of the preferred alternative:

Recommend against designation. Segment 1 is already in congressionally designated wilderness and segment 2 is in a wildland setting that is recommended for the Mono Wildlife Special Interest Area.

Mono Creek

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying Mono Creek for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Mono Creek

Location: State of California, Santa Barbara County, Los Padres National Forest

Mono Creek is considered to be free flowing below a point in the Dick Smith Wilderness in Don Victor Canyon within the southeastern corner of T7N, R26W, Sec 1, SBBM) and then flows in a generally southern direction. For the purposes of this study, Mono Creek was divided into two segments.

Segment 1: Segment 1 continues downstream from the source to where Mono Creek leaves the Dick Smith Wilderness in Township 7 N., Range 25 W., Section 28, SBBM.

Segment 2: From the Dick Smith Wilderness boundary to the upper extent of the Mono Debris Basin in the northeast corner of Township 5 N., Range 26 W., Section 5, SBBM. Private lands encompass approximately one-half mile of segment 2.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	4.5	4.5
2	19.7	19.7

Studied: 24.2 miles

Eligible: 24.2 miles

Eligibility Inventory

Determination of Free-flow:

Mono Creek has neither past or current diversions nor impoundments above Mono Debris Basin.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The length of Mono Creek offers a mixture of scenic attractiveness class "A" and "B" landscapes. Scenic attractiveness class "A" landscapes are distinctive within the Southwest Mountain and Valley Character type. Mono Creek is partially distinctive not only because of the presence of water, but also because of the mix of landform, color and vegetation.

From the headwaters to Don Victor Valley, the water is intermittent with the landforms showing some color contrasts with the shale and sandstone. The vegetation includes some bigcone Douglas-fir on the north slopes but overall is a scenic attractiveness class "B" landscape. At Don Victor, the landscape opens with grass, juniper, and rabbit brush dominating the vegetation types. This area has the feel of the high dessert. The water meanders through the length.

Through the confluence with Roblar Canyon to the Narrows, chaparral, oaks, some willows, and sycamores dominate with small pools of water and a still intermittent stream. At the Narrows, the landform is extremely steep with sandstone benches offering dramatic color contrasts. There are large deep pools, slides, and small waterfalls. The area features very narrow canyons, big rocks, and water from wall to wall. Access through this section is only by swimming the watercourse. The creek winds its way through the rock, with scenery including bigcone Douglas-fir in the side canyons, many bare rock slopes, and 10 to 15 foot waterfalls. This area is seldom visited because of the limited access.

At Ogilvy Ranch, there are terraces with a grass savannah look and only intermittent water. This area has a narrow riparian belt with chaparral dominating the vegetation. This section offers views of Hildreth Peak and other vistas. South of Ogilvy Ranch, the landscape opens even more with deep pools and cattails. A concrete crossing is evident where Mono Creek reaches Camuesa Road (National Forest System Road (NFSR) 5N15) and the impacts of humans become more noticeable resulting in class "B" landscape.

Determination: Scenic values are not considered to be outstandingly remarkable. Although there are some distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Sisquoc River.

2. Recreation:

Description: From the headwaters through Don Victor Canyon, flows are intermittent with limited recreational opportunities. Only partially accessible by primitive trail, the deep canyon offers no vistas.

On entering valley between Don Victor Canyon and the Narrows, vistas open to oak-savannah flats with some desert characteristics. Water flows are intermittent and underground most of year providing little recreation opportunity. A little used primitive trail follows Mono Creek downstream from Roblar

Canyon.

At the Narrows, Mono Creek is dramatic and provides a unique recreation opportunity with large, deep pools, sandstone benches, large rock formations, and waterfalls. Bigcone Douglas-fir in side canyons adds to the uniqueness. Swimming is the only access. A primitive trail along the bottom intersects the Mono/Alamar Trail (Forest Trail 26W07). The unique character of rocky, isolated canyons with sandstone formations and deep pools in dramatic settings.

Below the privately owned Ogilvy Ranch, the trail turns into abandoned jeepway. There are many deep pools available for swimming lined by sandy beaches with cattails. Vistas of Hildreth Peak and San Rafael Range are available.

Ogilvy Ranch is a developed homestead with multiple structures, orchards, and an airstrip. This area is more accessible to the average hiker and to shorter equestrians rides of one to three days. Cottonwoods and willows form a unique riparian forest, which offers visitors an opportunity to experience a diverse ecosystem with views of wilderness backcountry.

Although Mono Creek does provide many of the same dispersed and wilderness recreational opportunities as the adjacent Indian Creek drainage, foot, hoof, and wheel access is not heavily apparent because of reduced trail access. Recent abandonment of portions of the Victor/Loma jeepway (NFSR 7N05) in the lower reaches on Mono Creek and to the north in Don Victor Valley has greatly reduced public access. Use is estimated to be 150 visitor days per year with approximately 95% of the use coming from Santa Barbara and Ventura Counties. A portion of the remaining 5% includes out of state and international visitors.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Mono Creek is located in the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

The trend of upper Mono Creek is subparallel to the fold axis of a syncline. As the creek flows south, it crosses the Big Pine Fault and flows through the Matilija Sandstone and Cozy Dell Shale. Mono Creek primarily follows the outcrop pattern of the Matilija Sandstone as it bends around the nose of an anticlinal fold. It follows a westerly trend as it goes through more shale units and then takes a more southwesterly bend as it begins to encounter more resistant sandstone units that are interbedded with the shale. Towards the lower end of its reach, Mono Creek flows almost perpendicular through more

anticlinal and synclinal folds involving the Monterey, Espada, and Cachuma Formations. Landslides occur adjacent to the stream in the Espada Formation.

Determination: The sedimentary rock formations and structural features of the Coast Ranges found in the Mono Creek drainage are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province, particularly Indian Creek.

4. Fish and Wildlife

Description: The Mono Creek study area provides habitat typical of southern California third order streams; however, due to its rather pristine nature and its juxtaposition with the Santa Ynez River, it provides for a very unique assemblage of threatened, endangered, and sensitive species. With the exception of a small and marginal population of bullfrog (a few individuals), the section upstream of the Mono Debris Dam is currently devoid of exotic aquatic species such as green sunfish, small-mouth bass and flathead minnow. These and many other exotic fishes inhabit many other similar stream systems on the forest. This stream has received unacceptable impacts from off highway vehicle trespass associated with an access road leading to private property in Mono Creek. This access road, with over 18 stream crossings, has been abandoned as an access route due to its impacts on the arroyo toad, federally listed as endangered; California red-legged frog, threatened; southwestern pond turtle, state listed rare and Forest Service sensitive; and two-striped garter snake, Forest Service sensitive. Habitat also exists to support the federally listed as endangered least Bell's vireo and southwest willow flycatcher. The upper headwaters area of Mono Creek also provide habitat for the California spotted owl and an historic nest site of the California condor.

This ecosystem is approximately 12 miles long, providing habitat for wide ranging animals (large territories) such as mountain lion and black bear. The area also provides for adequate genetic interchange between species that require this ecosystem for reproductive purposes.

The Mono Creek study area provides habitat for a highly diverse assemblage of aquatic and riparian species, which make this one of the most unique streams in southern California. Because Mono Debris Dam acts essentially as a barrier to upstream fish movement, the section above can be considered a refugium for native fishes and to some extent amphibians. There are very few streams on the Los Padres National Forest that share this feature.

Mono Creek is home for one of the largest populations of arroyo toad, (*Bufo californicus*), a federally listed endangered species, on the Los Padres National Forest and the largest in the northern half of its range in southern California and Baja California. The creek includes nine miles of federally designated critical habitat for the species.

Portions of Mono Creek contain two miles of federally designated critical habitat for least Bell's vireo (*Vireo bellii pusillus*), a federally and state listed endangered species. About three-quarter of a mile of habitat exists above the debris dam within the study area. The remaining 1.25 miles are along Mono

Creek below the dam and are outside the study area. The vireo is known to nest in the critical habitat below the debris dam. In addition, there are recent reports of southwestern willow flycatcher (*Empidonax traillii extimus*), a federal and state listed endangered species in the same area during late spring, which suggests the possibility of nesting.

Suitable habitat for least Bell's vireo and southwestern willow flycatcher, consisting of large patches of mature willow/cottonwood riparian with relatively dense understory shrub/willow components, is rare along the rivers of the four southern California National Forests. Known nesting populations are small and widely separated. There are patches of suitable habitat for both species scattered for about one mile above the debris dam and for about one mile below. This two-mile segment encompasses the critical habitat for the vireo mentioned earlier. Although vireos are not yet known to nest in the study segment of Mono Creek, there is a reasonable expectation that future surveys will find nest sites. The largest known nesting population of vireo on the Los Padres National Forest and north of San Diego County is located along Mono Creek and the Santa Ynez River below the Mono Debris Basin. It is also reasonable to expect surveys will confirm nesting by the flycatcher in this area. If nesting by the vireo is confirmed in the study segment, the newly discovered territories can be considered an expansion of the current known nesting population, and the discovery of nesting flycatchers in the segment would represent only the third such occurrence on the Forest.

California red-legged frog (*Rana aurora draytonji*), a federally listed threatened species, is found in suitable habitat along the entire length Mono Creek. Mono Creek includes six miles of federally designated critical habitat for this species. Southwestern pond turtle (*Clemmys marmorata pallida*), a state listed rare and Forest Service sensitive species, and two-striped garter snake (*Thamnophis hammondi*), a Forest Service sensitive species are found in suitable habitat throughout the drainage.

The upper headwaters area of the Mono Creek watershed provides habitat for the California spotted owl (*Strix occidentalis occidentalis*), a Forest Service sensitive and State listed rare species, and a historic nest site of the endangered California condor, (*Gymnogyps californianus*), exists on one of the large cliff faces that frame the upper terminal basin of the watershed. The upper reaches of the Mono Creek watershed are within federally designated critical habitat for the California condor.

Determination: The study segment of Mono Creek supports a number of unique biotic features. When considered together they represent an outstandingly remarkable value. These features include: the presence of a relatively high number of secure populations of threatened, endangered, and sensitive species; a population of endangered arroyo toads; evidence that two species of endangered birds probably nest; lack of exotic aquatic species; and largely unaltered riparian and aquatic habitats along with the high species diversity they support.

5. Heritage resources (Cultural)

Description: Portions of the Mono Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is good with many

sites known to be located within the watershed. The Native American sites recorded represent a diversity of site types that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade as well as the everyday life of the Native American inhabitants of the corridor. Sites in the area attest to the use of the area by the Chumash with many of the sites were known in ethnographic times. The sites and features recorded within the corridor are common in the local area and region, and while significant on a local level, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Portions of the Mono Creek corridor have been surveyed for heritage resources. The knowledge of the span and complexity of historic use of the corridor is good and several sites are known to be located within the corridor. The known resources are associated with homesteading and ranching activities (Ogilvy Ranch Adobe, and Jones Adobe). The sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The botanical resources of the Mono Creek are poorly known to the rough terrain and isolation of this study river segment. Riparian vegetation consists of various species of willow and oak. Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Mono Creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Wildlife

The presence of a relatively high number of secure populations of threatened, endangered, and sensitive species; a population of endangered arroyo toads; evidence that two species of endangered birds probably nest; lack of exotic aquatic species; and largely unaltered riparian and aquatic habitats along with the high species diversity they support.

Potential Classification

Eligibility Inventory

Determination of Free-flow:

Mono Creek has neither past or current diversions nor impoundments above Mono Debris Basin.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The length of Mono Creek offers a mixture of scenic attractiveness class "A" and "B" landscapes. Scenic attractiveness class "A" landscapes are distinctive within the Southwest Mountain and Valley Character type. Mono Creek is partially distinctive not only because of the presence of water, but also because of the mix of landform, color and vegetation.

From the headwaters to Don Victor Valley, the water is intermittent with the landforms showing some color contrasts with the shale and sandstone. The vegetation includes some bigcone Douglas-fir on the north slopes but overall is a scenic attractiveness class "B" landscape. At Don Victor, the landscape opens with grass, juniper, and rabbit brush dominating the vegetation types. This area has the feel of the high dessert. The water meanders through the length.

Through the confluence with Roblar Canyon to the Narrows, chaparral, oaks, some willows, and sycamores dominate with small pools of water and a still intermittent stream. At the Narrows, the landform is extremely steep with sandstone benches offering dramatic color contrasts. There are large deep pools, slides, and small waterfalls. The area features very narrow canyons, big rocks, and water from wall to wall. Access through this section is only by swimming the watercourse. The creek winds its way through the rock, with scenery including bigcone Douglas-fir in the side canyons, many bare rock slopes, and 10 to 15 foot waterfalls. This area is seldom visited because of the limited access.

At Ogilvy Ranch, there are terraces with a grass savannah look and only intermittent water. This area has a narrow riparian belt with chaparral dominating the vegetation. This section offers views of Hildreth Peak and other vistas. South of Ogilvy Ranch, the landscape opens even more with deep pools and cattails. A concrete crossing is evident where Mono Creek reaches Camuesa Road (National Forest System Road (NFSR) 5N15) and the impacts of humans become more noticeable resulting in class "B" landscape.

Determination: Scenic values are not considered to be outstandingly remarkable. Although there are some distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Sisquoc River.

2. Recreation:

Description: From the headwaters through Don Victor Canyon, flows are intermittent with limited recreational opportunities. Only partially accessible by primitive trail, the deep canyon offers no vistas.

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Description: Mono Creek is located in the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

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primarily follows the outcrop pattern of the Matilija Sandstone as it bends around the nose of an anticlinal fold. It follows a westerly trend as it goes through more shale units and then takes a more southwesterly bend as it begins to encounter more resistant sandstone units that are interbedded with the shale. Towards the lower end of its reach, Mono Creek flows almost perpendicular through more anticlinal and synclinal folds involving the Monterey, Espada, and Cachuma Formations. Landslides occur adjacent to the stream in the Espada Formation.

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Description: The Mono Creek study area provides habitat typical of southern California third order streams; however, due to its rather pristine nature and its juxtaposition with the Santa Ynez River, it provides for a very unique assemblage of threatened, endangered, and sensitive species. With the exception of a small and marginal population of bullfrog (a few individuals), the section upstream of the Mono Debris Dam is currently devoid of exotic aquatic species such as green sunfish, small-mouth bass and flathead minnow. These and many other exotic fishes inhabit many other similar stream systems on the forest. This stream has received unacceptable impacts from off highway vehicle trespass associated with an access road leading to private property in Mono Creek. This access road, with over 18 stream crossings, has been abandoned as an access route due to its impacts on the arroyo toad, federally listed as endangered; California red-legged frog, threatened; southwestern pond turtle, state listed rare and Forest Service sensitive; and two-striped garter snake, Forest Service sensitive. Habitat also exists to support the federally listed as endangered least Bell's vireo and southwest willow flycatcher. The upper headwaters area of Mono Creek also provide habitat for the California spotted owl and an historic nest site of the California condor.

This ecosystem is approximately 12 miles long, providing habitat for wide ranging animals (large territories) such as mountain lion and black bear. The area also provides for adequate genetic interchange between species that require this ecosystem for reproductive purposes.

The Mono Creek study area provides habitat for a highly diverse assemblage of aquatic and riparian species, which make this one of the most unique streams in southern California. Because Mono Debris Dam acts essentially as a barrier to upstream fish movement, the section above can be considered a refugium for native fishes and to some extent amphibians. There are very few streams on the Los Padres National Forest that share this feature.

Mono Creek is home for one of the largest populations of arroyo toad, (*Bufo californicus*), a federally listed endangered species, on the Los Padres National Forest and the largest in the northern half of its range in southern California and Baja California. The creek includes nine miles of federally designated critical habitat for the species.

Portions of Mono Creek contain two miles of federally designated critical habitat for least Bell's vireo (*Vireo bellii pusillus*), a federally and state listed endangered species. About three-quarter of a mile of habitat exists above the debris dam within the study area. The remaining 1.25 miles are along Mono Creek below the dam and are outside the study area. The vireo is known to nest in the critical habitat below the debris dam. In addition, there are recent reports of southwestern willow flycatcher (*Empidonax traillii extimus*), a federal and state listed endangered species in the same area during late spring, which suggests the possibility of nesting.

Suitable habitat for least Bell's vireo and southwestern willow flycatcher, consisting of large patches of mature willow/cottonwood riparian with relatively dense understory shrub/willow components, is rare along the rivers of the four southern California National Forests. Known nesting populations are small and widely separated. There are patches of suitable habitat for both species scattered for about one mile above the debris dam and for about one mile below. This two-mile segment encompasses the critical habitat for the vireo mentioned earlier. Although vireos are not yet known to nest in the study segment of Mono Creek, there is a reasonable expectation that future surveys will find nest sites. The largest known nesting population of vireo on the Los Padres National Forest and north of San Diego County is located along Mono Creek and the Santa Ynez River below the Mono Debris Basin. It is also reasonable to expect surveys will confirm nesting by the flycatcher in this area. If nesting by the vireo is confirmed in the study segment, the newly discovered territories can be considered an expansion of the current known nesting population, and the discovery of nesting flycatchers in the segment would represent only the third such occurrence on the Forest.

California red-legged frog (*Rana aurora draytonji*), a federally listed threatened species, is found in suitable habitat along the entire length Mono Creek. Mono Creek includes six miles of federally designated critical habitat for this species. Southwestern pond turtle (*Clemmys marmorata pallida*), a state listed rare and Forest Service sensitive species, and two-striped garter snake (*Thamnophis hammondi*), a Forest Service sensitive species are found in suitable habitat throughout the drainage.

The upper headwaters area of the Mono Creek watershed provides habitat for the California spotted owl (*Strix occidentalis occidentalis*), a Forest Service sensitive and State listed rare species, and a historic nest site of the endangered California condor, (*Gymnogyps californianus*), exists on one of the large cliff faces that frame the upper terminal basin of the watershed. The upper reaches of the Mono Creek watershed are within federally designated critical habitat for the California condor.

Determination: The study segment of Mono Creek supports a number of unique biotic features. When considered together they represent an outstandingly remarkable value. These features include: the presence of a relatively high number of secure populations of threatened, endangered, and sensitive species; a population of endangered arroyo toads; evidence that two species of endangered birds probably nest; lack of exotic aquatic species; and largely unaltered riparian and aquatic habitats along with the high species diversity they support.

5. Heritage resources (Cultural)

Description: Portions of the Mono Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is good with many sites known to be located within the watershed. The Native American sites recorded represent a diversity of site types that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade as well as the everyday life of the Native American inhabitants of the corridor. Sites in the area attest to the use of the area by the Chumash with many of the sites were known in ethnographic times. The sites and features recorded within the corridor are common in the local area and region, and while significant on a local level, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Portions of the Mono Creek corridor have been surveyed for heritage resources. The knowledge of the span and complexity of historic use of the corridor is good and several sites are known to be located within the corridor. The known resources are associated with homesteading and ranching activities (Ogilvy Ranch Adobe, and Jones Adobe). The sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The botanical resources of the Mono Creek are poorly known to the rough terrain and isolation of this study river segment. Riparian vegetation consists of various species of willow and oak. Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Mono Creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Wildlife

The presence of a relatively high number of secure populations of threatened, endangered, and sensitive species; a population of endangered arroyo toads; evidence that two species of endangered birds probably nest; lack of exotic aquatic species; and largely unaltered riparian and aquatic habitats along with the high species diversity they support.

Potential Classification

Table 440. Mono Creek - Potential Classification by River Segment

	Segment 1	Segment 2
WILD RIVER		
Free of impoundments	Yes	Yes
Generally inaccessible except by trail	Yes	No
Watersheds or shorelines essentially primitive	Yes	No
Waters unpolluted	Yes	Yes
SCENIC RIVER		
Free of impoundments		Yes
Accessible in places by roads		Yes
Watershed largely primitive and undeveloped		Yes
RECREATIONAL RIVER		
Some impoundments or diversions in past		
Readily accessible by road or railroad		
Some development along shoreline		
Eligibility Status	Wild	Scenic

Suitability Report

Description

Landownership and Land Uses

There are approximately 146 acres in private ownership within the corridor of Mono Creek in T6N, R26W, Sec 22. This parcel is locally known as the Ogilvy Ranch. It is occasionally used for private recreational purposes. The lower reach of Mono Creek flows over a debris dam owned by the City of Santa Barbara prior to emptying into the Santa Ynez River. The remainder of the corridor is in federal ownership.

River mile location is from the source (see table below).

Table 447. Mono Creek - Segment Description

River Segment	Miles	Boundaries	Ownership	Zoning/Land Use
1	0 - 4.5	Headwaters to wilderness boundary	NFS (1418 acres)	Wilderness
2	4.5 - 24.2	Wilderness boundary to Mono Debris Basin	NFS (4952 acres) and non-federal land (146 acres)	NFS: dispersed non-motorized recreation, pre-suppression fire activities. Non-federal: Rural, occasional recreation use

Mineral and Energy Resource Activities

There is no known potential for mineral and energy development.

Water Resources Development

There are no known plans for hydroelectric or other water development.

Transportation, Facilities and Other Developments

Forest Trail 25W03 parallels the Mono Creek corridor in segment 1 (Don Victor Canyon). This trail is not currently maintained. Trail 26W07 (Mono/Alamar) parallels the southern portion of segment 2 to Ogilvy Ranch. At Ogilvy Ranch, the trail becomes an abandoned jeepway that joins NFSR 5N15 near Mono Campground.

Recreation Activities

Minimal recreational opportunities exist because of limited and primitive access. There is a swimming hole at the Narrows, accessed by a primitive trail that connects to the Mono/Alamar Trail (Forest Trail 26W07). The Mono/Alamar Trail becomes an abandoned jeep way below Ogilvy Ranch and south to NFSR 5N15. The jeepway is used for access to the Ogilvy Ranch.

Other Resource Activities

The abandoned jeepway between Ogilvy Ranch and NFSR 5N15 is used by the landowner for access and by the Forest Service for administrative needs. The property owner way maintains the travel annually. Ridge top fuelbreaks are maintained through vegetation removal and prescribed fire. Trail maintenance is performed on the Forest Service system trails described above to minimize resource damage. The populations and habitats of arroyo toads, red-legged frogs, least Bell’s vireo, and southwest willow flycatcher are intensively monitored within the Indian Creek drainage.

Special Designations

The headwaters and all of segment 1 of Mono Creek are in the congressionally designated Dick Smith Wilderness.

Socio-Economic Environment

The Santa Barbara front is the closest urban area is within eight miles of Mono Creek. The Santa Ynez Valley contains the communities of Buellton, Santa Ynez, Solvang, and Los Olivos. Vehicular access to Mono Creek is limited by seasonal closures and long drive times over low standard roads. Use in the Mono Creek corridor is limited to non-motorized activities. The landowner occasionally accesses the Ogilvy Ranch. Designation as a Wild and Scenic River would not change the existing use patterns. Existing use would not threaten the outstandingly remarkable values.

Current Administration and Funding Needs if Designated

	Expenses Independent of Designation	Additional Expenses with Designation
General Administration *	\$3000	\$31,000
Development of River Management Plan	\$0	\$150,000
Development Costs	\$0	\$0
Operation and Maintenance Costs	\$15,000	\$5,000
Total Cost First Five Years	\$18,000	\$186,000

*General administration and operation and maintenance costs of designated river are estimated to continue at \$4,000 annually.

Suitability Factor Assessment:

1. Characteristics that do or do not make the area a worthy addition to the National System.

Worthy: Even without considering the pristine nature of the river corridor, the presence of a number of

secure populations of federally threatened, endangered, and sensitive wildlife including the California red-legged frog and arroyo toad, and evidence that two species of endangered birds (least Bell's vireo and southwestern willow flycatcher) might nest here are important. However, the most remarkable feature of Mono Creek is these populations are especially secure because the habitats are mostly unaltered and there is a general lack of exotic aquatic competitor species, which are known to adversely affect populations of native wildlife. Designation would as a Wild and Scenic River would support efforts to maintain and improve habitat.

2. The current status of land ownership and use in the area.

The Ogilvy Ranch Historic Adobe with additional outbuildings is on a private inholding. This Ranch is an occasional recreational retreat for its owners. There are 146 acres of the Mono Creek corridor on private land.

3. The reasonable foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the System.

Mono Creek is within a section of Los Padres National Forest referred to as Mono Basin, which includes a section of the middle Santa Ynez River and all of Indian and Aqua Caliente Creeks. Past surveys have shown that the varied habitats in Mono Basin support an unusually rich diversity of species, several of which are federally protected. For this reason, Mono Basin is being considered for a special interest area designation in the revised Los Padres Land and Resource Management Plan, where wildlife research, viewing and interpretation would be emphasized. Designation of Mono Creek as Scenic or Wild would not curtail these activities.

4. The federal agency that will administer the area, should it be added to the System.

USDA Forest Service.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, be shared by State and local agencies.

No proposals to share costs with State and local agencies exist.

6. The estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

The Ogilvy Ranch has been listed for sale at a price that exceeds \$1,000,000 and has not yet sold. The Forest Service has the authority to purchase at fair market value and that value has not been established.

7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the System.

Not significant to the State or other entities.

8. The consistency of designation with other agency plans, programs or policies.

A consideration in this revision is the creation of the Mono Basin Special Interest Area to highlight the unique assemblage of threatened, endangered, and sensitive species and their habitat. The designation of Mono Creek as a Wild and Scenic River would be consistent with the creation of a special interest area.

Forest Plan Alternatives

Briefly describe how a particular river was treated in each of the Forest Plan alternatives:

Alternative 1: No segments are recommended for designation.

Alternative 2: Segments 1 and the portion of segment 2 above Ogilvy Ranch are recommended for wild river designation. The portion including and below Ogilvy Ranch is recommended for scenic designation. Administrative jeep trails from P-Bar to and across Mono Creek (6N17, 6N30, 6N24) provide access to Ogilvy Ranch and on the boundary of the Dick Smith Wilderness. A scenic designation would allow for continued road and trail maintenance and access, and for heritage interpretation. This recommended designation provides the best balance of recreation and scenery values with the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values.

Alternative 3: Segments 1 and the portion of segment 2 above Ogilvy Ranch are recommended for wild river designation. The portion below and including Ogilvy Ranch is recommended for scenic designation. Administrative jeep trails from P-Bar to and across Mono Creek (6N17, 6N30, 6N24) provide access to Ogilvy Ranch and on the boundary of the Dick Smith Wilderness. A scenic designation would allow for continued road and trail maintenance and access, and for heritage interpretation. The recommended designation balances the need to protect and enhance the free-flowing character, water quality and outstandingly remarkable values with the conservation of a wide range of wildlife and plant species (especially TES) and habitats, biodiversity, linkages and corridors.

Alternative 4: No segments are recommended for designation. The ORVs do not include recreation or scenery.

Alternative 5: No segments are recommended for designation.

Alternative 6: Segments 1 and the portion of segment 2 above Ogilvy Ranch are recommended for wild river designation. The portion below and including Ogilvy Ranch is recommended for scenic designation. Administrative jeep trails from P-Bar to and across Mono Creek (6N17, 6N30, 6N24) provide access to Ogilvy Ranch and on the boundary of the Dick Smith Wilderness. A scenic

designation would allow for continued road and trail maintenance and access, and for heritage interpretation. The recommended designation would protect and enhance a wide range of values and features, including species conservation, biodiversity, open space, natural beauty, recreation, and research.

Suitability Determination for the Preferred Alternative

Describe the rationale for the suitability determination of the preferred alternative:

Recommend against designation. Segment 1 is already in congressionally designated wilderness and segment 2 is in a wildland setting that is recommended for the Mono Wildlife Special Interest Area.

Santa Cruz Creek

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying Santa Cruz Creek for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Santa Cruz Creek

Location: State of California, Santa Barbara County, Los Padres National Forest

The studied portion of Santa Cruz Creek includes the main stem and both the East and West Forks. For the purposes of this study, Santa Cruz Creek was divided into three segments.

Segment 1: Includes the East Fork of Santa Cruz Creek, which is considered to be free-flowing below a point in the San Rafael Wilderness approximately one mile west of West Big Pine Mountain in the southeastern corner of T7N, R27W, Sec 14. The East Fork then flows in a generally southwesterly direction to the confluence with the West Fork. Segment 1 also includes less than half a mile of the main stem of Santa Cruz Creek within the San Rafael Wilderness before it exits the wilderness in T7N, R27W, Sec 32.

Segment 2: Includes the West Fork of Santa Cruz Creek, which is considered to be free-flowing below a point in the San Rafael Wilderness approximately two miles east of San Rafael Mountain in the northwestern corner of T7N, R28W, Sec 13. The West Fork flows in a generally southeasterly direction to the confluence with the East Fork.

Segment 3: The East and West Forks join to form the main stem. Segment 3 consists of the main stem from the San Rafael Wilderness boundary to the Los Padres National Forest administrative boundary in T6N, R28W, Sec 1.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	7.1	0
2	4.7	0
3	3.2	0

Studied: 15.0 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

Santa Cruz Creek has neither past or current diversions nor impoundments.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The majority of the Santa Cruz Creek corridor is scenic attractiveness class "A" landscape. Scenic attractiveness class "A" landscapes are distinctive within the Southwest Mountain and Valley Character type. Santa Cruz Creek is distinctive not only because of the presence of water, but also because of the mix of landform, color, and vegetation that offer a variety that is distinctive.

From the headwaters of the West Fork to Flores Flat Camp, there are contrasting sandstone colors, steep on one side and more open on the northeast side. There is only intermittent water and medium size pools. The potreros in this area are distinctive with gentle slopes and grassy flats. Sycamore, alder, and willows define the riparian zone.

From Flores Flat Camp to the East Fork of Santa Cruz Creek, the vegetation is an oak savannah type and the landforms are a little steeper with even more pools of water. There is a stronger sense of enclosure within a walled canyon, as the land is steep and terraced. Dramatic boulders are scattered throughout the area and the force of the river is overwhelming. Jumbles of rock and pools of water dominate this stretch of river.

Along the East Fork of Santa Cruz Creek, the drama of looking up the cliffs is dominant. There are big vertical walls and a strong sense of enclosure. There are shale and sandstone outcrops to add contrast to the color scheme. There are some sections with large boulders and large pools. This section gets very limited use.

At the confluence of the East and West Forks of Santa Cruz Creek, there is a 30-foot waterfall and the vegetation changes to more chaparral. The wildflowers in this section are lovely. The mix of alders creates a canopy where Douglas-fir and cedar mix with oaks. As you approach the Santa Cruz Guard Station, the human environment becomes more dominant in the meadow with as many as 100 people staying here at one time.

From the Guard Station to the forest boundary, the landform remains dominant with deep pools, rocky steep sidewalls, and a mix of alder, sycamore, and willow. There is a pleasant sound of rushing water

over many rocks and boulders. Doty's cabin and a small water diversion are the only major visual disturbances in this area.

Determination: Scenic values are not considered to be outstandingly remarkable. Although the scenic values are distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Sisquoc River.

2. Recreation:

Description: The headwaters of the West Fork of Santa Cruz Creek are extremely remote; there is little indication of human contact above the Coche Creek confluence. Water flows are probably intermittent. The Flores Flat Camp area has a large potrero with grassy slopes and oaks mixed with sycamore, willows, and some stands of alder. Outstanding displays of California wildflowers are seen in season, which are somewhat variable related to rainfall. A popular backcountry area exists from the large potrero downstream to Santa Cruz Guard Station. Santa Cruz Guard Station has barns and a cabin, nine campsites, and a jeepway located in a broad bench with oak woodlands. There are grassy potrerros visible in the distance.

Massive vertical walls and cliffs characterize the headwaters of the East Fork of Santa Cruz Creek. The Grapevine Trail (Forest Trail 27W10) is evident for less than a mile. Aside from Grapevine Trail, there is no tangible evidence of human visitation. A 30-foot high waterfall with numerous pools below exists at the confluence of the East and West Forks of Santa Cruz Creek. Beyond Santa Cruz Guard Station, the canyon narrows with deep perennial pools popular for fishing. Doty's Cabin is visible in this lower section. The recreational experience of a perennial stream with deep pools and a sense of isolation in wilderness is considered rare for southern California.

Public trail access to portions of Santa Cruz Creek are limited to three short trail segments that touch upon this watercourse for only short distances. Visitor use is centered around the Santa Cruz Guard Station and adjacent rustic camps. Access to this area is along the Santa Cruz National Recreation Trail (27W09) and provides recreational opportunities for hikers, mountain bicyclists, and equestrians. Use is estimated to be 500 visitor days per year with approximately 95% of the use coming from Santa Barbara and Ventura Counties. A portion of the remaining 5% includes out of state and international visitors.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Santa Cruz Creek is located in the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-

marine sediments.

Santa Cruz Creek flows through marine sedimentary rocks of the Cachuma and Monterey Formations. Distinct bends in the course of the creek are often controlled by faults. In the headwaters of the west fork, there is a relatively large outcrop of the Mono Shale Member of the Cachuma Formation. Landslides are located adjacent to the creek in this unit and in the Monterey Formation. The west fork also crosses the Big Pine Fault, a reverse fault with the north side up.

The creek flows across a synclinal fold with Cachuma Formation on either side. The core of the syncline along the west fork is the Monterey Formation and the core of the syncline on the east fork is the Juncal Formation. The west fork also crosses three small outcrops of Tertiary volcanic basalt. These are located on the north and south contacts of the Monterey Formation and in the central portion of its outcrop along the creek.

The outcrop pattern of rocks in this area suggests a complicated crustal movement history. It is in an area where the local fabric is generally east to west but the dominant regional fabric is northwest-southeast.

Determination: The sedimentary rock formations and structural features of the Coast Ranges found in Santa Cruz Creek are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province, particularly those found in Indian Creek.

4. Fish and Wildlife

Description: Santa Cruz Creek provides habitat typical of southern California chaparral and riparian habitat types. Populations of southwestern pond turtles and two-striped garter snakes are also present with potential habitat for the California red-legged frog. The upper reaches of Santa Cruz Creek also tie into a highly dense assemblage of nest sites of the California spotted owl which continues over into the adjacent drainages of Grapevine and Coche Creeks.

A pair of California spotted owl (*Strix occidentalis occidentalis*), a federally listed rare and Forest Service Sensitive Species, were found in 1990 and 1991 in the upper reaches of the North Fork Santa Cruz. The upper reaches of the North Fork of Santa Cruz Creek are within federally designated critical habitat for the endangered California condor (*Gymnogyps californianus*).

Santa Cruz Creek is not an anadromous stream, since the Lake Cachuma spillway blocks steelhead passage to the sea. Historic records exist for foothill yellow-legged frog (*Rana boyle*), near the Santa Cruz Guard Station but none have been seen since 1978.

Santa Cruz Creek contains populations of southwestern pond turtle (*Clemmy marmorata pallida*), a state listed rare and Forest Service Sensitive Species; two-striped garter snake (*Thamnophis hammondi*), a Forest Service Sensitive Species; and possible populations of California red-legged frog (*Rana aurora*

draytonji), a federally listed threatened species.

Santa Cruz Creek contains suitable cliff nesting sites for prairie falcons (*Falco mexicanus*) and peregrine falcons (*Falco peregrinus*).

Determination: Although the above-mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within Santa Cruz Creek are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components, particularly the combination of Indian and Mono Creeks.

5. *Heritage resources (Cultural)*

Description: Very little of the Santa Cruz Creek corridor has been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited but several sites are known to be located within the corridor. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade documenting contact between the Native American inhabitants of the corridor and other groups. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Very little of the Santa Cruz Creek corridor has been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is limited but several sites are known to be located within the corridor. The known resources are associated with homesteading and ranching, and hunting activities as well as early Forest Service administration. The sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The botanical resources of the Santa Cruz Creek are not well known except for short reaches where the Santa Cruz Trail parallels the creek. No systematic effort has been made to inventory the botanical resources found in the study corridor.

Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of Santa Cruz Creek. There are a number of occurrences of sensitive plant species on the ridge tops of the San Rafael Mountains, but

these populations all occur more than one mile from the creek.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values exist for Santa Cruz Creek.

Classification

No segment of Santa Cruz Creek is eligible for classification as a wild, scenic, or recreational river.

Santa Ynez River

Study Area Summary

Name of River: Santa Ynez River

Location: State of California, Santa Barbara County, Los Padres National Forest

For the purposes of this study, the Santa Ynez River was divided into three segments.

Segment 1: The Santa Ynez River is considered to be free-flowing at a point near Murietta Divide in T5N, R24W, Sec 30, SBBM. From its origin, the Santa Ynez River flows in a westerly direction. Segment 1 consists of the portion above the maximum pool of Jameson Lake. The land around Jameson Lake and Juncal Dam are owned and operated by the Montecito Water District.

Segment 2: Segment 2 begins at the private land boundary below Juncal Dam and continues downstream to the maximum pool of Gibraltar Reservoir. Private lands encompass approximately 1.9 miles of Segment 2 and the remainder is in the Upper Santa Ynez Recreation Area (USYRA). The lands immediately around some of the Gibraltar Reservoir and Gibraltar Dam are owned and operated by the City of Santa Barbara.

Segment 3: Segment 3 begins at the private land boundary below Gibraltar Dam and continues to the Los Padres National Forest boundary. This segment lies entirely within the Lower Santa Ynez Recreation Area (LSYRA) but does not include developed facilities until Red Rock parking lot and access road.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	3.2	0
2	11.8	0
3	11.1	0

Studied: 26.1 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

The Santa Ynez River is influenced by several impoundments. The main stem of the Santa Ynez River currently has three major dams: Juncal (Jameson Lake), Gibraltar (Gibraltar reservoir), and Bradbury (Cachuma Lake). In addition, Mono Debris Basin impounds Indian and Mono Creeks, two major tributaries to the Santa Ynez River. Gibraltar Dam, owned and operated by the City of Santa Barbara, controls releases into the LSYRA, although extreme weather events still cause flood-related infrastructure and resource damage periodically. This dam's life is not expected to extend beyond the next strategic planning cycle (15 years) due to sedimentation. Juncal Dam and Gibraltar Dam are used exclusively for storage of domestic water and not for flood control. They do not spill every year. Gibraltar has a legal requirement (1921-24 Jin Chow court decree) to annually release up to a total of 616 acre-feet during the period of June through November at a rate of 25 acre-feet per day. No water was released in 2002 because there was insufficient inflow due to the lack of rainfall.

Juncal Dam is also under the Jin Chow order, but is limited to an annual removal of a maximum of 2,000 acre-feet for all purposes. Flows within the Santa Ynez River do not mimic those occurring naturally prior to the impoundments. Segments 2 and 3 of the Santa Ynez River are not considered to be free-flowing.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Over 50% of the area from the headwaters of the Santa Ynez River to Juncal Lake is seldom seen and shows a complete lack of human influence. It also lacks dramatic features, vistas, and drama. The scenic values are similar to the headwaters of most rivers in this character type. Below Juncal Dam, the river has a perennial flow and hot springs feed the river.

Determination: Scenic values are not considered to be outstandingly remarkable. Although there are some distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Sisquoc River.

2. Recreation:

Description: The Santa Ynez River offers unique river-related opportunities for sightseeing, wildlife observation, hiking, fishing, photography, hunting, kayaking, tubing, canoeing, and occasional rafting when waters are at higher levels. Parallel roads cross the river with all-weather crossings at nine locations, making this river one of the largest sections of river open to public vehicle access in southern and south-central California.

The headwaters of the Santa Ynez River above Jameson Lake have a backcountry appearance and receive little use.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The east-west trending Transverse Ranges include California's highest peaks south of the central Sierra Nevada and the only Precambrian rocks in the coastal mountains of the United States. The Transverse Ranges are a unique geomorphic, stratigraphic, petrologic, and structural belt 400 km long and 100 km wide that are offset by a few tens of kilometers right laterally by the northwest trending San Andreas fault system. Along the entire mapped length of the San Andreas Fault Zone, from northern California to Mexico, no other belt of rocks, structures, and geomorphology are similar to the Transverse Range Province. In addition, despite their comparatively small area, the Transverse Ranges seem to incorporate a greater spectrum of rock types and structures than any other province in the state. The Transverse Ranges may be the result of compressional forces along the Big Bend in the San Andreas Fault that itself is a unique geologic feature in North America, if not the world.

The Santa Ynez River flows through Tertiary formations of the Transverse Ranges. Parts of the river are strongly controlled by the orientation of folded rocks and faults. One of these, the Santa Ynez Fault, is a major active fault system with a mostly vertical component (south side up), as well as a left lateral component. The river is coincident with the fault for most of its length. In this area, the Santa Ynez Fault marks the boundary between the southern Coast Ranges and the western Transverse Ranges. The Santa Ynez Mountains have been uplifted primarily by this fault.

Landslides are in the Juncal Formation shale member and in the Franciscan Complex. There are abundant river gravels in the channel indicating an aggrading river system.

Determination: The sedimentary rock formations and structural features of the Coast and Transverse Ranges within the Santa Ynez River drainage are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province.

4. Fish and Wildlife

Description: Segment 1 provides habitat typical of steeper gradient streams on the Los Padres National Forest with little if any evidence of man's activities above the sediment basin at the upper end of Jameson Lake. It provides suitable habitat for Forest Service Sensitive, federal candidate, and listed threatened and endangered species. The upper Santa Ynez River contains habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*), a federally listed endangered species, and California red-legged frog (*Rana aurora draytonii*), a federally threatened species. Populations of southwestern pond turtles (*Clemmy marmorata pallida*), a Forest Service Sensitive and federal candidate species, are found. Records of California spotted owls (*Strix occidentalis occidentalis*), a Forest Service Sensitive and federal candidate species, exist from Alder Creek, which is a tributary to the Santa Ynez River. The river and side tributaries also contain landlocked populations of steelhead and resident trout that are

genetically unique populations.

Determination: Although the above-mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within the Santa Ynez River drainage are not considered to be remarkable amongst other drainages with similar habitat and species components, particularly the combination of Indian and Mono Creeks.

5. Heritage resources (Cultural)

Description: The knowledge of the span and complexity of Native American use of the Santa Ynez corridor is good with many sites known to be located within the watershed. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and everyday life of the Native American inhabitants of the corridor. Several sites have the potential to be of a level of significance to be eligible for inclusion within the National Register of Historic Places. The corridor, and watershed in general, has importance to the current Native Americans as a place where traditional uses still occur as well as sites of cultural and religious significance. The reservation for the Santa Ynez Band of Chumash Indians is located within the watershed. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the corridor is good with many examples of the historic use within the corridor remaining. The known resources are associated with early 20th century dam and associated railroad, hunting and fishing, and mercury mining. The sites known, as well as other site types that could be expected to be located in the corridor, are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The botanical resources of the Santa Ynez River are fairly well known due to the river's proximity to roads and campgrounds.

Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of the Santa Ynez River. There are a number of occurrences of sensitive plant species on the ridge tops of the Santa Ynez Mountains but these populations all occur more than one mile from the river.

Determination: The botanical resources are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values exist for Santa Ynez River.

Classification

No segment of the Santa Ynez River is eligible for classification as a wild, scenic, or recreational river.

La Brea Creek

Study Area Summary

Name of River: La Brea Creek

Location: State of California, Santa Barbara County, Los Padres National Forest

For the purposes of this study, La Brea Creek was divided into three segments.

Segment 1: The North Fork of La Brea Creek is considered to be free-flowing below a point in the northwest quarter of T10N, R30W, Sec 4, SBBM. Segment 1 ends where it joins the South Fork of La Brea Creek, just above the administrative boundary of the Los Padres National Forest (T9N, R31W, Sec 3, SBBM). Approximately 2.4 miles of the creek flows through private property. National Forest System Road (NFSR) 11N04 goes along and through North Fork La Brea Creek for five of the 11 miles of the stream, crossing the stream 31 times. There is an off-highway vehicle trail (NFSR 30W02) along an additional two miles of stream. There are four campgrounds within the corridor. There are three cabins/houses on private land parcels within the corridor.

Segment 2: The South Fork of La Brea Creek is considered to be free-flowing below a point within the San Rafael Wilderness, along the ridgeline of the Sierra Madre Ridge (T10N, R29W, Sec 10, SBBM), and goes to the wilderness boundary (T10N, R31W Sec 35, SBBM) for a length of approximately nine miles. A road goes along and through South Fork La Brea Creek for one of the nine miles of the river corridor. For about the next four miles, the road is abandoned and converts back to a trail (Forest Trail 31W09). The first mile of this road is used to access private property with motorized vehicles. One campsite exists. This segment is not accessible by the general public due to private land blocking access.

Segment 3: This segment begins where the South Fork of La Brea Creek leaves the San Rafael Wilderness and continues approximately three miles to the administrative boundary of the Los Padres National Forest in the southwest corner of T9N, R31W, Sec 3, SBBM. The first one half mile below the wilderness boundary is on National Forest System lands before flowing through about 2.1 miles of private lands. A road goes along and through the South Fork of La Brea Creek corridor for the entire length of this segment. There are four cabin/house private land parcels within the corridor. The final one half mile is on National Forest System lands.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	12.3	0

2	13.1	0
3	3.6	0

Studied: 29.0 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

The North and South Forks and the main stem of La Brea Creek have neither past nor current diversions or impoundments.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The headwaters of La Brea Creek show only intermittent evidence of water, and are covered with chaparral vegetation typical of the character type and views like those of other landscapes of the area. The landform, vegetation, and water are typical scenic attractiveness class "B" landscape.

The remainder of the watercourse remains common landscape with occasional oaks, alders, and sycamores. The water remains intermittent and flows more like a brook, with occasional pools at times. Even these pools lack much character or distinction from other landscapes.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation:

Description: The North Fork of the La Brea (Segment 1) lies along and within the newly established San Rafael Wilderness expansion. This area has three developed campsites and NFSR 11N04 crosses the creek 31 times. Approximately three miles of the creek cross through private property. Motorized recreationists heavily use the canyon. There is very limited access to the San Rafael Wilderness on the Roque Trail (Forest Trail 30W03) from Lazy Camp. On average to high rainfall years, the creek flows from January through June. Recreational opportunities include camping (low to moderate use), hunting (deer and quail), equestrian activities, and off-highway vehicle use. Due to the creek's limited season of flow, there are no fishing opportunities.

The South Fork of the La Brea (Segments 2 and 3) begins along the ridgeline of the Sierra Madre Ridge. Its approximate length is 12 miles. Traveling upstream, the first two miles go through the La Brea Ranch

property. The remaining ten miles are within the San Rafael Wilderness. Short segments of the creek run year-round with no fishing opportunities. One campsite does exist within the wilderness, but no public access to the campsite is available due to private property boundaries.

Nearly all the visitors to the North and South Forks reside in Santa Barbara and San Luis Obispo Counties.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: La Brea Creek is located in the Santa Lucia Range, part of the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

The North Fork of La Brea Creek flows through Cachuma Formation marine sandstones and shales of the Great Valley Sequence. The headwaters of the North Fork flow through mostly shale. Landslides have occurred in the shale areas and where the creek crosses two faults. Continuing downstream the creek flows through a long stretch of Cachuma Formation sandstone, which is at the center of an anticlinal fold. At the confluence with the South Fork of La Brea, the North Fork down cuts through the Monterey Formation. Landslides are relatively abundant in the Monterey Formation.

The South Fork of La Brea traverses a similar route with the exception that it also crosses a conglomerate member of the Cachuma Formation. The course of the South Fork follows a more westerly trend that is controlled by the orientation of folded rocks.

Determination: The sedimentary rock formations and structural features of the Coast Ranges found in the La Brea Creek drainage are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province, particularly in comparison with the designated Wild and Scenic Sisquoc River.

4. Fish and Wildlife

Description: Water within the North Fork of the La Brea Creek is seasonal, and the riparian vegetation is moderately developed compared to other riparian zones locally. This area is of high importance to riparian dependent species such as the California red-legged frog, least Bell's vireo, and southwestern willow flycatcher. Cattle grazing occurs throughout the drainage. National Forest System Road 11N04 may be closed during the sensitive breeding season for red-legged frogs and is normally closed during wet periods to protect the road surface. Maintenance of the road is deferred until the road crossings are

dry to protect the red-legged frog egg masses from siltation damage.

The South Fork of La Brea is within the San Rafael Wilderness and is difficult to access. The waters are seasonal with some perennial sections. Most of the riparian zone is protected from cattle grazing. This area is a very important ecosystem for riparian dependent flora and fauna. It is quite representative of most riparian areas locally, except for its lack of disturbance, which truly sets it aside for research options and biodiversity.

Several riparian dependent threatened and endangered species live within La Brea Creek. The southwestern pond turtle (*Clemmys marmorata pallida*) and two-striped garter snake (*Thamnophis hammondi*), both Forest Service Sensitive Species, are common throughout the drainage. La Brea Creek supports one of the largest populations of California red-legged frogs (*Rana aurora draytonii*), a federally threatened species, on the Los Padres National Forest. This drainage is free of introduced bullfrogs, green sunfish, and black bullhead, all predators of California red-legged frogs.

Historic habitat for southern steelhead (evolutionary significant unit *Oncorhynchus mykiss*), a federal threatened species, is found in the drainage. The deeper pools that supported steelhead have filled in with sediment after the large wildfires of the 1920s, and according to local residents, they have not seen adult steelhead in the last 40 years, at least. Steelhead swim up the Sisquoc River (La Brea Creek flows into the Sisquoc River) during wet winters.

About 1.5 miles of habitat for the least Bell's vireo (*Empidonax traillii*), a federally listed endangered species, exists in the North Fork of La Brea, and there is one record of a least Bell's vireo at Wagon Flat in 1993. About two miles of habitat for the southwestern willow flycatcher (*Empidonax trillii extimus*), a federally listed endangered species, also exists in the North Fork of La Brea. No sightings have been reported.

Determination: Although the species mentioned above are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within La Brea drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. Heritage resources (Cultural)

Description: Sizeable portions of the La Brea Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is good and several sites are known to be located within the corridor. The Native American sites recorded represent occupation sites and activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade documenting contact between the Native American inhabitants of the corridor and other groups. Sites in the area attest to the use of the area by the Chumash. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting

prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Sizeable portions of the La Brea Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is good and several sites are known to be located within the corridor. The known resources are associated with homesteading activities. The sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of La Brea Creek. The botanical resources of the La Brea Creek watershed are moderately well known due to recent work conducted in support of watershed analysis and planning efforts for fuels and range projects. Riparian vegetation consists of alder, sycamore, cottonwood, and various species of willow and oak.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary, and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values exist for La Brea Creek.

Classification

No segment of La Brea Creek is eligible for classification as a wild, scenic, or recreational river.

Lopez Creek

Study Area Summary

The "Los Padres Condor Range and River Protection Act" (PL 102-301) directed that Lopez Creek be studied for potential addition to the National Wild and Scenic River System.

Name of River: Lopez Creek

Location: State of California, San Luis Obispo County, Los Padres National Forest

Lopez Creek originates within the Santa Lucia Wilderness in the southeast corner of T30S, R13E, Sec 27, MDBM, within Lopez Canyon. Initially, Lopez Creek flows northwesterly for approximately three miles and then reverses direction around Lopez Mountain to flow southeasterly. For the purposes of this study, Lopez Creek was divided into three segments.

Segment 1: Begins at the point where Lopez Creek is considered to be free-flowing and ends at the San Rafael Wilderness boundary in the southwest corner of T30S, R13E, Sec 25, MDBM.

Segment 2: Starts at the San Rafael Wilderness boundary and ends at Big Falls Trailhead located in Township 31 S., Range 14 E., Section 6, MDBM. This segment is on private land.

Segment 3: Extends from Big Falls Trailhead to the high water pool of Lopez Lake in Township 31 S., Range 14 E., Section 16, MDBM. This segment is on private land.

The total length of the study area is 11.5 miles. Approximately the first six miles are within the Santa Lucia Wilderness Area, Los Padres National Forest, and the remaining miles flow through private lands. The potential boundaries of the Wild and Scenic River corridor would include these private lands and adjacent National Forest System lands.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	6.7	0
2	1.1	0
3	3.7	0

Studied: 11.5 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

Lopez Creek has neither past or current diversions nor impoundments.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: The entire length of Lopez Creek is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character type.

From the headwaters through the first one-third of the stream, the view from the river and Forest Trail 15E03 is of natural forestlands with vistas of the entire Lopez Canyon. Extremely steep slopes create a dramatic effect in combination with vegetation that gets more and more lush as the visitor proceeds downstream.

The vegetation for the next section of the waterway creates a thick riparian over-story with ferns and perennial water flows. There are several openings with views of grasslands. The creek flows through gravel and cuts through bedrock. The canyon walls create a sense of enclosure and Little Falls and Big Falls are unique features.

The final section is broader and flowing along the deep canyon bottom. This portion of the creek has repeated road crossings and much more evidence of human activity.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description: Opportunities for solitude or a primitive and unconfined type of recreation are readily available within the upper portion of Lopez Creek (Segment 1), which lies within the Santa Lucia Wilderness. Recreation use is typical of Wilderness and includes hiking, camping, riding, hunting, and viewing scenery. The canyon contains a single lightly used trail (Forest Trail 15E03), which parallels and crosses Lopez Creek for roughly five miles. The remainder of the river corridor has no trail access.

The lower portion of Lopez Creek (Segments 2 and 3) is bounded by private property. The first approximately 2.5 miles of creek beyond the Wilderness boundary (Segment 2) is intersected numerous times by a county maintained dirt road (National Forest System Road 31S06). The road has not been

maintained for some years, and has deteriorated into a four-wheel drive track. The County of San Luis Obispo is currently taking steps to abandon the section, while maintaining public access to the wilderness. No other improvements exist in this portion of the riparian corridor. Recreational opportunities are the same as in Segment 1, with the addition of four-wheel drive, motorcycle, and bicycle use. The final approximately 3.5 miles of Lopez Creek (Segment 3) have a great deal of recreational activity, despite being bounded by private property. The features that attract users to the creek are its year-round water flow, access to the Santa Lucia Wilderness trails, and the lush riparian vegetation. Common activities include swimming and wading, fishing, picnicking, hiking, hunting, riding, biking, camping, sightseeing, and four-wheel driving. The area is also a popular "party spot," which creates problems with local residents. This final portion of Lopez Creek is also the most highly developed. There are approximately 12 private residences constructed within the one-quarter mile corridor, including a church camp. There is evidence of agricultural activity and a low concrete crosswalk crosses the creek at the church camp. Public use of private property adjoining the creek has been an ongoing source of conflict.

For both the upper and lower creek segments, approximately 95% of the visitors are from San Luis Obispo and Santa Barbara Counties.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Lopez Canyon is located in the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

Lopez Canyon cuts through the Tertiary Monterey Formation along its entire length from its headwaters on Piney Ridge to Lopez Reservoir. The creek first flows northwest then goes through a bend that takes it to a southeast flow, 180 degrees from its initial orientation. Sulphur Pots is located along the northeast segment of the canyon. Lopez Canyon is positioned between the East and West Huasna Faults. The Huasna Syncline fold axis runs just west of the canyon and crosses it in the large bend in the canyon. The northwest trending Huasna Syncline extends from the Cuyama River to and beyond Lopez Canyon.

The Huasna Syncline is a large fold that has its long axis running approximately the length of the Santa Lucia Ranger District. Rocks get progressively younger toward the center of the fold. The outcrop pattern of the fold indicates that the fold axis is oriented northwest to southeast and is plunging ("dipping") towards the southeast. This prominent syncline has an anomalous trend relative to the West and East Huasna Faults and is among the Plio-Pleistocene folds in the southern Coast Ranges that lack the orientation predicted by the type of motion (wrench tectonics) that the faults have undergone.

The Monterey Formation in the Lopez Canyon area is 5,500 feet thick and is composed of fine-grained siliceous siltstones and thin-bedded shales. It is highly folded and faulted, typically forming cliffs with spectacular geologic features. This formation is also prone to landslides. The Monterey Formation is widespread in central and southern California and is important as a source rock, reservoir rock, and for oil production. It is also mined for use as building stone and diatomaceous earth in the Santa Maria area.

Oil was produced from the very small Lopez Field in on the west side of the upper reaches of the Lopez arm of Lopez Lake. Production was from the Point Sal Formation at 2,500 feet depth. Oil was trapped by two faults. Limestone may have been quarried in Lopez Canyon.

Determination: The sedimentary rock formations and structural features of the Coast Ranges found in the Lopez Creek drainage are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province.

4. Fish and Wildlife

Description: Lopez Canyon flows for approximately 11 miles through a steep, narrow canyon cut 1,800 feet into the Santa Lucia Wilderness. Dense stands of Coast Live Oak grow in the river bottom and several hundred feet up the north-facing slope. Stands of chaparral intermixed with grasslands and Blue Oaks dominate the south-facing slope. A healthy riparian zone of willow, sycamore, cottonwood, and other mesic plant species exists along the entire length of this perennially flowing creek.

The upper reach of Lopez Creek (Segment 1) is impacted by a hiking trail following the riparian zone. The minimal width and low use of this trail mitigates impacts to wildlife and wildlife habitat here. The middle and lower reaches (Segments 2 and 3), on private land, have a county maintained four-wheel drive road in the floodplain, crossing the stream many times, and often following the stream course itself. There are also several private homes in the floodplain. Despite the impact to the riparian zone, Segments 2 and 3 still support good riparian wildlife habitat.

The Lopez Creek ecosystem attracts a diversity and abundance of wildlife. In 1990 to 1991, one territorial male and three pairs of California spotted owls (*Strix occidentalis occidentalis*), a Forest Service Sensitive Species, were located in the upper reaches of the canyon and up Big and Little Falls Canyons. The California red-legged frog (*Rana aurora dratonii*), a federally listed threatened species, has recently been sighted at two locations near the confluences of Little and Big Falls Canyon with Lopez Creek, and in 1995 one was recorded upstream of the confluence with Big Falls Canyon. The two-striped garter snake (*Thamnophis hamondii*), a Forest Service Sensitive Species, has been sighted near Big Falls Canyon. The southwestern pond turtle (*Clemmys marmorata pallida*), a Forest Service Sensitive Species, has recently been sighted near the confluences of Little and Big Falls Canyon with Lopez Creek. Because air temperatures under the canopy may strike 20 degrees less than on surrounding open areas, Lopez Creek waters stay cool enough to support a small population of rainbow trout which move up from Lopez Lake.

Determination: Although the above mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within Lopez drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. *Heritage resources (Cultural)*

Description: Portions of the Lopez Creek corridor has been surveyed for heritage resources. However, few sites are known to be located within the corridor. The Native American site recorded represents activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade documenting contact between the Native American inhabitants of the corridor and other groups. The known site, as well as sites that could be expected to occur within the corridor, are common in the local area and region, and as such, is not rare or unique or has national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: Portions of the Lopez Creek corridor has been surveyed for heritage resources. However, occurrences of historic activity are known to be located within the corridor. The known resources are associated with organizational recreation facilities. The resources identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: Willow, sycamore, cottonwood, and other mesic plant species grow the entire length of this perennially flowing creek. There is one rare plant, Santa Lucia manzanita (*Arctostaphylos luciana*), that occurs within one-quarter mile of Lopez Creek.

Santa Lucia manzanita is found only in San Luis Obispo County in the areas around Cuesta Pass, Cambria, and the Klau mining district west of Paso Robles. There are about three known occurrences, of which two occur on the Los Padres National Forest. The largest of the known occurrences is found in the Lopez Creek watershed and some plants occur within one-quarter mile of the creek. The vast majority of plants occur further upslope.

Santa Lucia manzanita is a chaparral species and is not typically associated with riparian areas.

Determination: Although there is a sensitive plant occurrence within the study corridor it is not considered to be an outstandingly remarkable botanical feature because of the small proportion of the

plant population within the study corridor and the association of the species with upland habitat types.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment Process* (National direction letter of 11/21/96). Accordingly, Lopez Creek is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of Lopez Creek is eligible for classification as a wild, scenic, or recreational river.

Manzana Creek

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying Manzana Creek for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: Manzana Creek

Location: State of California, Santa Barbara County, Los Padres National Forest

Approximately four miles of Manzana Creek lie right along the San Rafael Wilderness boundary (3.5 miles from the Sisquoc upstream and one-half mile at the Nira Campground); the remainder is within the San Rafael Wilderness. Manzana Creek originates on the slopes of McKinley Mountain in the northwest quarter of T7N, R28W, Sec 4, SBBM. The creek then runs northwest to join the Sisquoc River in Township 9 N., Range 30 W., Section 25, SBBM. Approximately 1.2 miles are on private land.

River Mileage:

Studied: 18.4 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

Manzana Creek has neither past or current diversions nor impoundments.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Approximately 90% of the Manzana Creek is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character type. It is distinctive not only because of the presence of water, but also because of the mix of landform, color, and vegetation which offer a variety that is distinctive.

From the headwaters to Big Cone Spruce Camp, the view is of the conifers above with chaparral and big-leaf maple in the foreground. Water runs even here, year-long. As you move towards the narrows, there are dramatic views of the white-layered sandstone of Hurricane Deck, with its color contrasts in the distance. The white-layered sandstone is in sharp contrast with the dark green chaparral. Jumbles of rocks and dark shaded sections produce a feeling of enclosure. Sycamores, alder, and bay trees predominate. The water is clear and cold. In rocky sections, the sound of the water is ever present as it rushes to pools below. Although the pools are small, there is solitude and a supply of native trout.

In the stretch from the Manzanita Narrows Camp to Manzanita Camp, the uplifted bedrock displays a variety of colors and adds contrast to the landform. The falls at the narrows and then the tight enclosure of the canyon walls force the waters through jumbles of rocks and make the sounds of water ever present. Although steep on the sides, there are pools, alders, and sometimes a mist in the air. The north side is barren; brush is found on the south sides. The main features are the sheer cliffs, jumbles of rock, and the sounds of rushing water.

At Manzanita Camp, the land spreads out, but picks up tributaries. There are bigger pools and more oaks and sycamores. The area is adjacent to meadows, wildflowers, and views of the chaparral-covered slopes. About a mile further, the landform flattens even more, the water dries in the summer, and there are no trees, creating a sharp contrast with other sections of the creek. This section is what is more typical of the landscape character type. Approaching Nira, there are wildflower flats, more trees, and color changes to golds and reds. Most years there is perennial water. The largest concentrations of day hikers use this area and play in the pools. The section from Nira Camp to Manzanita Schoolhouse Camp features wide flat meadows and the Forest Trail 30W13 crosses the creek many times. There is a canopy of trees, but no sense of enclosure. The overall sense is of a meandering wide creek, with lush but not overgrown vegetation. Castle Rock is viewed above and is the dominant focal point. The views are longer and more distant as you approach the historical Dabney Cabin.

Determination: Scenic values are not considered to be outstandingly remarkable. Although the scenic values are distinctive landscapes, there are better examples of these scenic features along the designated Wild and Scenic Sisquoc River.

2. Recreation

Description: Public vehicle access occurs at Nira Campground (where approximately half a mile of the river is outside the San Rafael Wilderness). Nira Campground is eight miles from the junction with the Sisquoc River. The only other vehicle access is in the first 2.5 miles of the river, upstream from the Sisquoc River. This access is private and there is Forest Service administrative access only. The road parallels the river in this section, where private land is intermixed with National Forest System lands. Forest Trail 30W13 follows the river until Big Cone Spruce Camp, near the headwaters.

The San Rafael Wilderness provides opportunities for solitude or a primitive and unconfined type of recreation. These opportunities are readily available within that portion of the Manzanita Creek corridor.

The enabling legislation also mentions the high-quality scenic values to be found in the Wilderness corridor.

The primary types of recreation that occur in the creek corridor include hiking, camping, riding, tubing, fishing, and hunting. The trail mileage within the Manzana Creek corridor is part of a 43-mile loop with two main trail connectors that lead to the Hurricane Deck Trail (Forest Trail 30W14). Nira Campground is located outside the wilderness boundary at the terminus of National Forest System Road 8N09 and serves as the only trailhead for the Manzana Trail. It provides overnight facilities for both livestock and vehicle camping. Above Nira Campground, Manzana Creek provides ample recreational opportunities featuring four campsites and a year-round water flow. Below Nira Campground, there are about eight miles of Forest Trail 30W13 with three campsites, two historical sites, and water available for most of the year. One mile of this section of the creek flows through private property.

Approximately 75% of the use is local coming from Santa Barbara and San Luis Obispo Counties. A portion of the remaining 25% include out of state and international visitors.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: Manzana Creek is located in the Santa Lucia Range, part of the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

Manzana Creek flows through Cachuma Formation sandstone and shale units as well as a less common conglomerate member that forms steeper slopes on the southwest side of the creek. Some large older landslides (up to 3,650 feet in length) are present in the shale in the headwaters. The northwest trend of the creek is strongly influenced by the contacts between different rock types and the pattern of folded rock units. At its lower extent, Manzana Creek passes beneath older Pleistocene alluvial deposits located approximately 200 feet above the creek. Two of the deposits have inferred faults mapped through them. As Manzana Creek continues downstream and passes from the Zaca Lake quadrangle into the Bald Mountain quadrangle, it crosses a synclinal fold axis in Tertiary sandstones and an anticlinal fold axis in Cretaceous and Tertiary sandstones.

Determination: The sedimentary rock formations and structural features of the Coast Ranges found in the Manzana Creek drainage are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province, particularly in comparison with the designated Wild and Scenic Sisquoc River.

4. Fish and Wildlife

Description: Manzana Creek supports a relatively undisturbed riparian area with at least intermittent above-ground water flow for 9 to 12 months a year, with a diversity of native riparian plants and associated fauna. Manzana Creek supports approximately 18 miles of potential habitat for the California South-Central Steelhead (evolutionary significant unit *Oncorhynchus mykiss*), a federally listed threatened species. This creek is a link in a chain of streams that possess an anadromous fishery (Sisquoc River and Santa Maria River). When the Sisquoc River breached the dunes at its mouth during the 1998 El Nino, sea-run steelhead migrated upstream and were found breeding in Manzana Creek. Steelhead fry survive long drought periods in the upper reaches of Manzana Creek, where water flows are cool and perennial.

The California spotted owl (*Strix occidentalis occidentalis*), a Forest Service Sensitive Species, resides in moist, old growth bigcone Douglas-fir stands in upper Manzana Creek. The southwestern pond turtle (*Clemmys marmorata pallid*) and two-striped garter snake (*Thamnophis hammondi*), both Forest Service Sensitive Species, are found scattered throughout the drainage. A significant population of California red-legged frogs (*Rana aurora draytonii*), a federally listed threatened species, has been found in Manzana Creek. There is one 1999 reported sighting of a willow flycatcher (*Empidonax traillii*), a Forest Service Sensitive Species, near Fish Camp on Manzana Creek.

Determination: Although the above mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within the Manzana Creek drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. Heritage resources (Cultural)

Description: Portions of the Manzana Creek corridor have been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is good with many sites are known to be located within the watershed. The Native American sites recorded represent a diversity of site types that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and trade as well as the everyday life of the Native American inhabitants of the corridor. Sites in the area attest to the use of the area by the Chumash with many of the sites were known in ethnographic times. The sites and features recorded within the corridor are common in the local area and region, and while significant on a local level, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Portions of the Manzana Creek corridor have been surveyed for heritage resources. The

knowledge of the span and complexity of historic use of the corridor is good and several sites are known to be located within the corridor. The known resources are associated with homesteading activities that, with an associated schoolhouse (Manzana Schoolhouse), were an effort to establish a functioning community in the isolated Manzana Creek area. The sites identified are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description:

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment Process* (National direction letter of 11/21/96). Accordingly, Manzana Creek is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of Manzana River is eligible for classification as a wild, scenic, or recreational river.

Sisquoc River

Study Area Summary

In November of 1993, the Los Padres National Forest published Amendment No. 2 to the Forest Land and Resource Management Plan identifying the South Fork of the Sisquoc River for eligibility and suitability evaluation as a potential addition to the National Wild and Scenic River System.

Name of River: South Fork of the Sisquoc River

Location: State of California, Santa Barbara County, Los Padres National Forest

The South Fork of the Sisquoc River lies entirely within the San Rafael Wilderness and is considered to be free flowing below a point in the south one half of T7N, R28W, Sec 2, SBBM, along the east flank of San Rafael Mountain. The South Fork of the Sisquoc River flows directly north until it joins with the main stem of the Sisquoc River near the South Fork Wilderness Camp in the north one half of T8N, R27W, Sec 28, SBBM.

River Mileage:

Studied: 4.2 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free-flow:

There are neither past nor current diversions or impoundments along the entire length of the South Fork of the Sisquoc River.

Determination of Outstandingly Remarkable Values (ORVs):

1. Scenery

Description: Approximately 80% of the S. Fork Sisquoc River is scenic attractiveness class "A" landscape, within the Southwest Mountain and Valley Character type. It is distinctive not only because of the presence of water, but also because of the mix of landform, color, and vegetation that offer a distinctive variety.

From the headwaters to Lonnie Davis Camp, steep cliffs, sandstone rocks, and clusters of rocks characterize the land. The narrow channel cutting through this area gives a real enclosed feel, dropping 4,000 feet in approximately four miles. The vegetation includes large incense cedar. The vegetation on the north-facing slope has very few openings but includes alder, sycamores, and live oak. Other areas include bigcone Douglas-fir and white fir. The river is fed from melting snow and traverses areas of large boulders and jumbles of rocks. A sizable water flow includes a 60-foot fall among many other smaller waterfalls. The overall sense created by the roaring sounds of rushing waters is one of being complete wildland and water. Some sections have seldom been seen due to very limited access to most of the river. Much of these sections are so inaccessible with extreme climbs that their remoteness is ever present and dominant.

Determination: Scenic values are not considered to be outstandingly remarkable.

2. Recreation

Description: The South Fork of the Sisquoc River lies in the heart of the San Rafael Wilderness. Its headwaters begin on the 6,593-foot San Rafael Mountain and descend rapidly over the next few miles to 2,500 feet. It offers some beautiful and spectacular sights. Within the river corridor, one can find terraced rock formations, overhanging cliffs, waterfalls, and large water holes that provide great swimming. Its remoteness allows access to the diehard hiker hoping to spot a California condor or to enjoy year-round rainbow trout fishing.

Although Forest Trail 30W12 follows the entire stretch of the Sisquoc River and provides access to the mouth of the South Fork, the poor trail conditions and remote trailheads make public use low.

For this area, approximately 75% of the visitors are from Santa Barbara and San Luis Obispo Counties.

Determination: Recreation values are not considered to be outstandingly remarkable.

3. Geology

Description: The South Fork of the Sisquoc River is located in the Coast Ranges of central California. This is a geologically young mountain range that was uplifted to its present height about 400,000 years ago. The range includes Mesozoic age rocks that represent a subduction zone complex (the Franciscan Complex), a magmatic arc (plutonic and metamorphic rocks of the Salinian Block), and forearc basin sediments (the Great Valley Sequence). It also includes younger Tertiary marine sediments and Quaternary largely non-marine sediments.

The South Fork of the Sisquoc River flows through mostly the sandstone member of the Cachuma Formation for most of its length. The Cachuma Formation bedding planes at this location are within the limb of a large syncline and parallel to the slope. The fold axis is nearly perpendicular to the creek and is

located near the confluence with the Sisquoc River. Closer to the confluence with the Sisquoc, the South Fork crosses interbedded Tertiary sandstone units belonging to an unnamed sandstone unit and the Miocene Mint Canyon Formation.

Determination: The sedimentary rock formations and structural features of the Coast Ranges found in the South Fork of the Sisquoc River drainage are not considered to be outstandingly remarkable in comparison with similar features located elsewhere in this geologic province, particularly in comparison with the designated Wild and Scenic Sisquoc River.

4. Fish and Wildlife

Description: This is a relatively undisturbed riparian area with above ground water flow for nine to 12 months a year. It contains a mixed population of native and stocked trout and several riparian dependent threatened, endangered, rare, or Forest Service Sensitive Species. Within the Los Padres National Forest, there are other streams that are similar, but within the Central California region, this type of stream is very unique. This zone contains a healthy representation of native plants and associated fauna.

California South-Central Coast steelhead (evolutionary significant unit *Oncorhynchus mykiss*), a federally listed threatened species, occur in the South Fork of the Sisquoc River. This north facing drainage is heavily shaded and so sustains water flow even during droughts, providing 1.5 miles of rearing habitat and refugia for adult rainbow trout even during times when much of the watershed has dried out. The South Fork of the Sisquoc is also a link in a chain of streams that possess an anadromous fishery (Sisquoc River, Manzana Creek, and the Santa Maria River). The California spotted owl (*Strix occidentalis occidentalis*), a Forest Service Sensitive Species, resides along the north slope of Big Pine Mountain, especially near riparian areas sustaining large trees.

The South Fork contains suitable habitat for California red-legged frogs (*Rana aurora draytonii*), a federally threatened species, and for two-striped garter snakes (*Thamnophis hammondi*) and southwestern pond turtles (*Clemmys marmorata pallida*), both Forest Service Sensitive Species, on the very lowest one-eighth mile where the flow gradients are diminished.

The Sisquoc Condor Sanctuary was established for the protection of condor bathing pools at the top of Sisquoc Falls on Falls Creek, about two miles east of the South Fork of the Sisquoc River. A portion of the South Fork of the Sisquoc lies within the Condor Sanctuary.

Determination: Although the above mentioned species are outstanding according to their definition as threatened, endangered, or sensitive, the habitat and wildlife resources within the South Fork of the Sisquoc drainage are not considered to be outstandingly remarkable amongst other drainages with similar habitat and species components.

5. Heritage resources (Cultural)

Description: Only a portion of the Sisquoc River drainage has been surveyed for heritage resources. As such, the knowledge of the span and complexity of Native American use of the corridor is limited but several sites are known to be located within the corridor. The Native American sites recorded represent activity areas that have the potential to contribute information regarding such topics as manufacturing techniques, diet, and contact between the Chumash and other cultures. These sites attest to the use of the area by ancestral Inland Chumash. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare or unique or have national or regional importance for interpreting prehistory.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: Only a portion of the Sisquoc drainage has been surveyed for heritage resources. As such, the knowledge of the span and complexity of historic use of the corridor is limited with only one historic site identified within the corridor. The known resource is associated with homesteading and ranching activities as well as early Forest Service administration. The site identified is not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Riparian vegetation consists of various species of willow and oak. An old growth stand of Jeffery pine, sugar pine, incense cedar, and bigcone Douglas-fir grows in the upper reaches of the South Fork of the Sisquoc River drainage outside of the study corridor. This habitat is unique to southern California, and only occurs on mountain top island refugia, which are remnants of a colder climate, and are typically found far to the north, in northern California or Oregon.

The botanical resources of the South Fork Sisquoc River are poorly known to the rough terrain and isolation of this study river segment. Based on a review of existing literature, there are no known occurrences of endangered, threatened, proposed, candidate, or sensitive plant species within one-quarter mile of the South Fork of the Sisquoc River.

Determination: Botanical values are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the river resource values identified above may have local or regional importance, they were not considered to be "outstandingly remarkable" under the guidelines in Step 3 of *The Wild & Scenic River Assessment*

Process (National direction letter of 11/21/96). Accordingly, the South Fork Sisquoc River is found not eligible for further study as a potential addition to the National Wild and Scenic River System.

Classification

No segment of South Fork Sisquoc River is eligible for classification as a wild, scenic, or recreational river.



San Bernardino National Forest

Lytle Creek (North Fork)

Study Area Summary

Name of River: North Fork of Lytle Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

The North Fork of Lytle Creek has its headwaters at 8,600 feet on the northeast flank of the ridge between Pine Mountain (9,648 feet) and Dawson Peak (9,575 feet); T3N, R7W, Sec 32, SBBM. The creek flows easterly through the Sheep Mountain Wilderness, and then leaves the wilderness at the confluence of Alpine Canyon and Dog Bone Canyon. It then intersects National Forest System Road (NFSR) 3N33 and flows southeast, paralleling NFSR 3N06, until it reaches the private land in the community of Lytle Creek. The creek continues through the community of Lytle Creek, mostly in private land and adjacent to the Lytle Creek Road, to the junction with the Middle Fork of Lytle Creek at 3,000 feet; T2N, R6W, Sec 22, SBBM. See attached map.

River Mileage:

Studied: 11.4 miles

Eligible: 0 miles

Eligibility Inventory

Determination of Free flow:

The North Fork of Lytle Creek is free flowing from its headwaters to the intersection with the community of Lytle Creek, a distance of 9.7 miles. The last 1.7 miles of the creek are not free flowing and do not contain any outstandingly remarkable values - it encounters numerous man-made diversions and impoundments, running past relatively dense residential and commercial development. The creek is also intermittent for much of its length above the community of Lytle Creek most of the year, except after heavy rains, and perennial below. A permitted flow measurement shaft for groundwater is located at the upper end of the former shooting area.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The headwaters of the North Fork of Lytle Creek is characterized by steep, highly dissected canyons, slopes and narrow ridges overlooked by the eastern flank of the San Gabriel Mountains. Pockets of mixed conifer quickly transition to green-gray chaparral covered hillsides and riparian vegetation as the elevation decreases down to the confluence with the Middle Fork of Lytle Creek. The creek itself is usually intermittent above the community of Lytle Creek and perennial below. The Scenic Integrity Objective is Very High within the wilderness, High outside the wilderness. Much of the landscape from the boundary of the Sheep Mountain Wilderness to the confluence has been heavily influenced and altered by man, with wildfire scars, roads, recreation infrastructure and significant urban development present. Seasonal variations are slight. The scenery here is not highly diverse.

Determination: This landscape is typical of much of the urban front of the San Gabriel and San Bernardino Mountains, and possesses no outstandingly remarkable visual values.

2. Recreation

Description: The North Fork of Lytle Creek begins its journey in the Sheep Mountain Wilderness, in Primitive Recreation Opportunity Spectrum (ROS) classification, but rapidly exits into Roaded Natural ROS for most of its length. It flows past several dispersed recreation sites, a major shooting range (Lytle Creek Firing Line, under Special Use Permit and open to the public), Applewhite Picnic Area and then into the community of Lytle Creek. There is little direct recreation use along the creek for most of its length, until it reaches Applewhite Picnic Area, where extremely heavy use is present, including water play, especially in the warm summer months, on weekends and holidays. Some fishing opportunities exist at the Picnic Area, which CDF&G occasionally stocks. No boating opportunities are present. Sightseeing, wildlife viewing and interpretive opportunities are present but underutilized. Most travel is motorized, in vehicles on roads that parallel the creek. Almost all of the recreation use along the North Fork of Lytle Creek is local in origin, mostly from the Inland Empire communities, not from outside the region.

Determination: The river corridor is a typical high recreation use, urban southern California canyon, and is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: The North Fork of Lytle Creek is part of the San Gabriel Mountains Ecological Subunit of California. As such, it contains mostly Mesozoic granitic rocks and Pre-Cambrian anorthosite. There is also some Pre-Cretaceous Pelona schist. The San Gabriels are very steep mountains, with an east-west trend. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons. The most notable local geologic feature is the San Andreas Fault, which is located, however, several miles outside of the river corridor to the northeast.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: The North Fork of Lytle Creek contains rainbow trout and is a regionally important producer of resident fish species that is supplemented by stocking. Most of the channel, beginning in the Lytle Creek community down to confluence with the other forks of Lytle Creek, has been heavily modified by man and is not a producer of exceptionally high quality and/or diverse habitat for fish species indigenous to the region.

The North Fork of Lytle Creek provides habitat for a number of Forest Service Sensitive species such as the San Gabriel Mountain slender salamander and numerous riparian dependent species. Potential habitat for the southwestern willow flycatcher, a federally endangered species, is present from the community of Lytle Creek downstream. The area is also modeled habitat for threatened and endangered species within the Lytle Creek watershed.

Determination: The fish values in the North Fork of Lytle Creek are important but are not considered to be outstandingly remarkable. The wildlife values on the North Fork of Lytle Creek are important but are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within Lytle Creek is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the Lytle Creek corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: A locally significant population of lemon lily occurs along the North Fork of Lytle Creek. The population of this Forest Service Sensitive species is important because it is one of the few populations that exist at the east end of the San Gabriel Mountains. A regionally significant occurrence of scalloped moonwort occurs in Coldwater Canyon, a tributary to the North Fork. There is a high potential for other Forest Service Sensitive species to occur but none are mapped at this time. A population of the federally endangered slender-horned spineflower occurs at the bottom of the Lytle Creek drainage. The population occurs just downstream of the NFS land boundary and was not included in this analysis as it does not occur within the stream/reach nominated.

Determination: The botanical values along the North Fork of Lytle Creek are important but are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values exist for the North Fork of Lytle Creek.

Classification

No segment of the North Fork of Lytle Creek is eligible for classification as a wild, scenic or recreational river.

Lytle Creek (Middle Fork)

Study Area Summary

Name of River: Middle Fork of Lytle Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

The Middle Fork of Lytle Creek has its headwaters at 8,600 feet on the northwest flank of Cucamonga Peak (8,859 feet); T2N, R7W, Sec 26, SBBM. The creek flows northeasterly through the Cucamonga Wilderness, and then leaves the wilderness just above Stone House Crossing. From there it flows east, paralleling National Forest System Road (NFSR) 2N58, until it reaches the private land in the community of Lytle Creek. Through the community of Lytle Creek, in private land and adjacent to the Middle Fork Road, takes the creek to the junction with the North Fork of Lytle Creek at 3,000 feet; T2N, R6W, Sec 22, SBBM. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	1.4	0
2	2.4	2.4
3a	2.9	0
3b	0.6	0

Studied: 7.3 miles

Eligible: 2.4 miles (between Commanche campsite and Middle Fork Trailhead)

Eligibility Inventory

Determination of Free Flow:

The Middle Fork of Lytle Creek is free flowing from its headwaters almost to the confluence with the North Fork, a distance of 6.7 miles. The last 0.6 miles are not free flowing and do not contain any outstandingly remarkable values, as it flows through the community of Lytle Creek and encounters some man-made diversions and impoundments in light residential development. The creek is perennial for much of its length below Stone House Crossing except during periods of extended drought.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Steep, highly dissected canyons, slopes and narrow ridges overlooked by the eastern flank of the San Gabriel Mountains characterize the headwaters of the Middle Fork of Lytle Creek. Pockets of mixed conifer quickly transition to green-gray chaparral covered hillsides and riparian vegetation as the elevation decreases down to the confluence with the North Fork of Lytle Creek. The creek itself is often perennial below Stone House Crossing, flowing through a wide, boulder-strewn flood plain. The Scenic Integrity Objective is Very High within the Cucamonga Wilderness, High outside the Wilderness. Much of the landscape from the boundary of the Cucamonga Wilderness to the confluence has been influenced and altered by man, with roads, recreation infrastructure and light urban development present. Seasonal variations are slight.

Determination: The scenery within the Cucamonga Wilderness portion of the creek is locally interesting but possesses no outstandingly remarkable values. There are even fewer scenic values below Stone House Crossing, where the landscape is typical of much of the urban front of the San Gabriel and San Bernardino Mountains.

2. Recreation:

Description: The Middle Fork of Lytle Creek begins its journey in the Cucamonga Wilderness, in a Primitive Recreation Opportunity Spectrum (ROS) classification, and then exits into Semi-Primitive Non-Motorized and Roaded Natural ROS for most of its length. It flows adjacent to a major hiking wilderness trail, 6W01, several dispersed camping sites, the Middle Fork Trailhead, and a mile or so of dispersed recreation, and finally into the community of Lytle Creek. There is some direct recreation use along the creek for most of its length, until it reaches the Middle Fork dispersed recreation area, where heavy use (including water play) is present in the warm summer months on weekends and holidays. Fishing (no boating) opportunities are present. Sightseeing and wildlife viewing opportunities are high within the wilderness. However, interpretive opportunities are scarce. Most travel is motorized outside the wilderness, in vehicles on a well-maintained NFSR 2N58, which parallels the creek. Almost all of the recreation use along the Middle Fork of Lytle Creek is local in origin, mostly from the Inland Empire communities, not from outside the region.

Determination: The river corridor is a typical high recreation use, urban southern California canyon, and is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: The Middle Fork of Lytle Creek is part of the San Gabriel Mountains Ecological Subunit of California. As such, it contains mostly Mesozoic granitic rocks and Pre-Cambrian anorthosite. There is also some Pre-Cretaceous Pelona schist. The San Gabriels are very steep mountains, with an east-west trend. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep

slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: A portion of the Middle Fork of Lytle Creek, from about the Commanche campsite to a point adjacent to the Middle Fork Trailhead (2.4 miles), sustains a naturally reproducing population of rainbow trout. Brown trout are also potentially present. Some individuals and groups have urged the California Department of Fish and Game (CDF&G) to designate this creek as a Wild Trout Stream. CDF&G recently surveyed the creek for designation, but no formal action has been proposed at this time. The lower quarter to half-mile section of Middle Fork is supplemented by stocking of rainbow trout.

The Middle Fork of Lytle Creek is home to several Forest Service Sensitive wildlife species. Populations of yellow warbler and Nelson's bighorn sheep are regionally significant. Cooper's hawk (California Rare, Forest Service Sensitive) and the San Gabriel Mountain slender salamander (Forest Service Sensitive) occur. There is potential habitat for southwestern willow flycatcher, which is locally significant.

Determination: The 2.4 mile segment of the Middle Fork of Lytle Creek that sustains a naturally reproducing population of rainbow trout (and has the potential to become a designated State Wild Trout Stream) is considered a regionally important resident fish stream with outstandingly remarkable values.

The wildlife values on the Middle Fork of Lytle Creek are important but are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within Lytle Creek is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the Lytle Creek corridor is

limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: A population of the federally endangered slender-horned spineflower occurs at the bottom of the Lytle Creek drainage. The population occurs just downstream of the National Forest System land boundary and was not included in this analysis as it does not occur within the stream/reach nominated.

Determination: The botanical values along the Middle Fork of Lytle Creek are important but are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Fish and Wildlife

A 2.4-mile segment of the Middle Fork of Lytle Creek (between Commanche campsite and the Middle Fork Trailhead) sustains a naturally reproducing population of rainbow trout and has the potential to become designated as a State Wild Trout Stream. It is considered a regionally important resident fish stream with outstandingly remarkable values.

Classification

The first 1.4 miles of the Middle Fork of Lytle Creek (from the headwaters to the Commanche campsite) has no outstandingly remarkable values and is not eligible for classification. The next 2.4 miles (between the Commanche campsite and near the Middle Fork Trailhead) of the Middle Fork of Lytle Creek is eligible for classification as a scenic river. It has outstandingly remarkable fisheries values, is free of impoundments, and is in a largely primitive watershed with an undeveloped shoreline and access from a nearby road and trail. The last 3.5 miles (from near the Middle Fork Trailhead to the confluence) has no outstandingly remarkable values or is not free flowing, and is not eligible for classification.

Lytle Creek (South Fork)

Study Area Summary

Name of River: South Fork of Lytle Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

The South Fork of Lytle Creek has its headwaters at 7,600 feet on the southwest flank of the ridge extending northeast from Cucamonga Peak (8,859 feet); T2N, R7W, Sec 25, SBBM. The creek flows southeasterly through the Cucamonga Wilderness, and then leaves the wilderness and flows northeast until it reaches the confluence of Lytle Creek at 3,000 feet; T2N, R6W, Sec 27, SBBM. See attached map.

River Mileage:

Studied: 4.9 miles

Eligible: -0- miles

Eligibility Inventory

Determination of Free Flow:

The South Fork of Lytle Creek is free flowing from its headwaters to the confluence of Lytle Creek, a distance of 4.9 miles. The creek is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The headwaters of the South Fork of Lytle Creek is characterized by steep, highly dissected canyons, slopes and narrow ridges overlooked by the eastern flank of the San Gabriel Mountains. Pockets of mixed conifer quickly transition to green-gray chaparral covered hillsides and riparian vegetation as the elevation decreases down to the confluence with Lytle Creek. The creek itself is often intermittent. Seasonal variations are slight. The Scenic Integrity Objective is Very High within the Cucamonga Wilderness, High outside the Wilderness.

Determination: The scenery along the length of the creek is locally interesting and diverse, with some steep canyon walls and several small intermittent waterfalls. However, it possesses no outstandingly remarkable values.

2. Recreation:

Description: The South Fork of Lytle Creek begins its journey in the Cucamonga Wilderness, in Primitive Recreation Opportunity Spectrum (ROS) classification, and then exits into Semi-Primitive Non-Motorized ROS. It flows near the Joe Buck Tree Memorial, into South Fork of Lytle Creek Canyon, past Bonita Falls and down to the confluence of Lytle Creek. The creek is essentially un-roaded and wild in nature, with little recreation use or interpretive opportunities.

Determination: The river corridor is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: The South Fork of Lytle Creek is part of the San Gabriel Mountains Ecological Subunit of California. As such, it contains mostly Mesozoic granitic rocks and Pre-Cambrian anorthosite. There is also some Pre-Cretaceous Pelona schist. The San Gabriels are very steep mountains, with an east-west trend. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons. Some placer and lode mining has taken place, as well as some recreational gold panning.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: The South Fork of Lytle Creek is home to three Forest Service Sensitive wildlife species. Small populations of Nelsons bighorn sheep, yellow warbler and golden eagle exist that are regionally significant, but they are not dependent upon the creek itself. The South Fork of Lytle Creek contains no known fish species.

Determination: Aquatic habitat along the South Fork of Lytle Creek is important but is not considered an outstandingly remarkable value.

The wildlife values on the South Fork of Lytle Creek are important but are not considered to be outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within the South Fork of Lytle Creek is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or

specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the South Fork of Lytle Creek corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: A population of the federally endangered slender-horned spineflower occurs at the bottom of the Lytle Creek drainage. The population occurs just downstream of the National Forest System land boundary and was not included in this analysis as it does not occur within the stream/reach nominated.

Determination: The botanical values along the South Fork of Lytle Creek are important but are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

No outstandingly remarkable values for the South Fork of Lytle Creek.

Classification

No segment of the South Fork of Lytle Creek is eligible for classification as a wild, scenic or recreational river.

Whitewater River (North Fork)

Study Area Summary

Name of River: North Fork of Whitewater River

Location: State of California, San Bernardino County, San Bernardino National Forest

The North Fork of the Whitewater River has its headwaters at 9,400 feet in the North Fork Meadows/ Mineshaft Flat area; T1S, R2E, Sec 6, SBBM. The river flows southeasterly through the San Gorgonio Wilderness to the confluence of the Middle Fork of the Whitewater River at 4,800 feet; T1S, R2E, Sec 23, SBBM. See attached map.

River Mileage:

Studied: 5.8 miles

Eligible: 5.8 miles (from headwaters to confluence)

Eligibility Inventory

Determination of Free Flow:

The North Fork of the Whitewater River is free flowing from its headwaters to the intersection with the Middle Fork of the Whitewater River, a distance of 5.8 miles. The river is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The North Fork of the Whitewater River is characterized by moderately steep high-elevation canyons, slopes and narrow ridges within the San Gorgonio Mountains. The river is shadowed to the northeast by Ten Thousand Foot Ridge, with spectacular views of montane meadow, and southern California alpine and subalpine forest. As elevation decreases, dark mixed conifer forest and green-gray colored chaparral can be observed blanketing the slopes and hillsides. At the lowest elevation near the confluence with the Middle Fork, stark high desert vegetation communities come into view. The lush, green, riparian vegetation consisting of willow scrub and scattered cottonwoods provide outstanding views throughout the river corridor. The river bottom is rocky with deep pools; however, portions of the river are occasionally intermittent. The lower reaches of the Whitewater River are sandy and boulder-

strewn flood plains. The Scenic Integrity Objective is Very High. None of the remote landscape is influenced nor altered by man. Seasonal variations are extreme at the higher elevations, moderate at lower elevations.

Determination: The scenery here is highly diverse and striking, with southern California regionally unique headwater springs and steep, textured canyon walls, possessing outstandingly remarkable values.

2. Recreation:

Description: The North Fork of the Whitewater River flows through the San Gorgonio Wilderness, a Primitive Recreation Opportunity Spectrum (ROS) classification. The river is completely unroaded and wild in nature, with little to no recreation use except at the headwaters, where Trail 1E05.3 leads to the Mine Shaft Flat and Big Tree wilderness campsites.

Determination: The river corridor is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: The North Fork of the Whitewater River is part of the San Gorgonio Mountains Ecological Subunit of California. As such, it contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rock. Also, there is some Paleozoic marine sedimentary rock and minor amounts of Pliocene non-marine sediments. Tertiary intrusive rock along the Santa Ana fault zone is present. The mountains are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quaternary non-marine sediments and recent alluvium are small but important components of this subunit. The San Gorgonios are very steep mountains, with an east-west transverse trend, locally significant. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: The North Fork of the Whitewater River contains naturally reproducing rainbow trout. It is a difficult area to reach by foot. The habitat and fish are in good condition, are locally significant, but possess no outstandingly remarkable values.

The upper watershed of the Whitewater River was identified as an area of high ecological significance in the Southern California Mountains and Foothill Assessment completed by the Forest Service in 1999. It was identified as being one of the most remote, unroaded areas within the four southern California National Forests. This pristine habitat is an important area for regionally significant populations of Nelson's bighorn sheep (California rare) and California spotted owl (Forest Service Sensitive, Federal candidate). It also contains important habitat for mule deer and black bear. The riparian habitat is

suitable for the southwestern willow flycatcher, a federally endangered species. This stream flows into important threatened and endangered species habitat at lower elevations, where the Bureau of Land Management administers it. The Bureau recently determined that portion of the Whitewater River under their jurisdiction to be eligible for wild and recreational river designations based on fish, wildlife and cultural values. Arroyo toad, least Bell's vireo (federally endangered) and summer tanager, yellow warbler, yellow-breasted chat, gray vireo and Crissal thrasher (Bureau of Land Management Sensitive and State Species of Concern) occur along Bureau portions of the Whitewater River.

Determination: Wildlife values along the North Fork of the Whitewater River are outstandingly remarkable. Fish values are not outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within the North Fork of Whitewater River is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the North Fork of Whitewater River corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Montane, wet meadows are present at the headwaters of the North Fork of the Whitewater River. This is a rare habitat type in the four southern California National Forests and several threatened, endangered and sensitive plant species are known to occur within this habitat type on the forest. Suitable habitat for two federally endangered plant species, the San Bernardino bluegrass and California taraxacum, occurs in North Fork Meadow. If present, occurrences would be nationally significant. Suitable habitat for Lemon lily and scalloped moonwort (both Forest Service Sensitive) is also present. The type locality for the federally endangered species, triple-ribbed milk-vetch, occurs at the lower

reaches of Whitewater Canyon. At this time, populations are not known on the forest, although potential habitat occurs in washes bordering the Coachella Valley. Lands where this plant is known to occur is managed by the Bureau of Land Management and the Nature Conservancy, and is quite a distance from this study river. The elevation gradient (9,200 to 5,000 feet) along the North Fork of the Whitewater River is too high for this plant; it typically occupies habitat between 1,500-2,600 feet elevation. The Little San Bernardino Mountains gilia, a Forest Service Sensitive species, is also known from outwash fans of the Whitewater River in sandy alluvial terraces. There is little potential for this species to occur within the proposal area, as the elevation gradient along the North Fork of the Whitewater River is too high for this plant; it typically occupies habitat between 3,000-3,500 feet elevation.

Determination: The botanical values for the North Fork of the Whitewater River are not considered to be outstandingly remarkable. This determination is based on 1) the absence of documented populations of extremely unique species of flora and 2) lack of floristic surveys along this creek.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery here is highly diverse, colorful and striking, with regionally unique headwater springs and steep, textured canyon walls, possessing outstandingly remarkable values.

Wildlife

The wildlife values along the North Fork of the Whitewater River have been determined to be outstandingly remarkable due to 1) identification of the upper watershed of the Whitewater River as an area of high ecological significance in the Southern California Mountains and Foothill Assessment completed by the Forest Service in 1999, 2) the quantity, quality (remote, pristine, designated wilderness) and diversity of habitat for regionally significant populations of Nelson's bighorn sheep (California rare), California spotted owl (Forest Service Sensitive, Federal candidate), mule deer and black bear, and 3) the habitat linkage this portion of the creek provides connecting the upper portion of the watershed to the lower reaches on Bureau of Land Management lands where numerous endangered and Bureau Sensitive species occur.

Classification The entire 5.8-mile length of the North Fork of the Whitewater River, from headwaters to confluence with the Middle Fork of the Whitewater River, is eligible for classification as a wild river. It has outstandingly remarkable scenery and wildlife values, is free of impoundments, inaccessible by road or trail, and in a primitive watershed with unpolluted waters.

Whitewater River (Middle Fork)

Study Area Summary

Name of River: Middle Fork of Whitewater River

Location: State of California, San Bernardino County, San Bernardino National Forest

The Middle Fork of the Whitewater River has its headwaters at 7,200 feet along the east side of the Middle Fork Jumpoff; T1S, R2E, Sec 20, SBBM. The river flows easterly through the San Gorgonio Wilderness to the confluence of the North Fork of the Whitewater River in Section 23, then through private land in Section 25 and the forest boundary at 4,000 feet; T1S, R2E, Sec 25, SBBM. See attached map.

River Mileage:

Studied: 5.3 miles

Eligible: 5.3 miles (from headwaters to forest boundary)

Eligibility Inventory

Determination of Free Flow:

The Middle Fork of the Whitewater River is free flowing from its headwaters to the intersection with the Forest boundary, a distance of 5.3 miles. The river is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Located within the San Gorgonio Mountains, the Middle Fork of the Whitewater River is characterized by very steep high-elevation canyons, slopes and narrow ridges. Views of subalpine and mixed conifer forest gradually transition to green-gray chaparral covered hillsides, and high desert vegetation as the elevation decreases down to the forest boundary. The lush, green, riparian vegetation consisting of willow scrub and scattered cottonwoods provide outstanding views throughout the river corridor. The river bottom is rocky and pools are present; however, portions of the creek are occasionally intermittent. The lower reaches of the Whitewater River are sandy and boulder-strewn

flood plains. The Scenic Integrity Objective is Very High. None of this remote landscape is influenced nor altered by man. Seasonal variations are extreme at the higher elevations, moderate at lower elevations.

Determination: The scenery here is highly diverse and striking, with steep, textured canyon walls, possessing outstandingly remarkable and unique values of regional southern California significance.

2. Recreation:

Description: The Middle Fork of the Whitewater River flows through the San Gorgonio Wilderness, a Primitive Recreation Opportunity Spectrum (ROS) classification. The river is completely un-roaded/un-trailed, difficult to access and wild in nature, with little to no recreation use.

Determination: The river corridor is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: The Middle Fork of the Whitewater River is part of the San Gorgonio Mountains Ecological Subunit of California. As such, it contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rock. Also, there is some Paleozoic marine sedimentary rock and minor amounts of Pliocene non-marine sediments. Tertiary intrusive rock along the Santa Ana fault zone is present. The mountains are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quaternary non-marine sediments and recent alluvium are small but important components of this subunit. The San Gorgonios are very steep mountains, with an east-west transverse trend that is locally significant. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: The Middle Fork of the Whitewater River may contain naturally reproducing rainbow trout but positive presence is unknown at this time. It is a difficult area to reach by foot. The stream habitat and fish are in good condition (because there are no system roads or trails here), locally significant, but possess no outstandingly remarkable values.

The upper watershed of the Whitewater River, which includes the Middle Fork, was identified as an area of high ecological significance in the Southern California Mountains and Foothill Assessment completed by the Forest Service for the southern California Province in 1999. It was identified as being one of the most remote, unroaded areas within the four southern California National Forests. This pristine habitat along the Middle Fork is an important area for regionally significant populations of Nelson's bighorn sheep and California spotted owl. It also contains important habitat for mule deer and black bear. The

riparian habitat is suitable habitat for the southwestern willow flycatcher, a federally endangered species. This stream flows into important threatened and endangered species habitat at lower elevations, where the Bureau of Land Management administers it. The Bureau recently determined that portion of the Whitewater River under their jurisdiction to be eligible for wild and recreational river designations based on fish, wildlife and cultural values. Arroyo toad, least Bell's vireo (federally endangered), summer tanager, yellow warbler, yellow-breasted chat, gray vireo and Crissal thrasher (Bureau Sensitive and State Species of Concern) occur along Bureau portions of the Whitewater River. The Whitewater River is also important as a source of sand for the Coachella Valley sand dunes, which support populations of the federally listed fringed toad lizard and the state protected flat tailed horned lizard.

Determination: Wildlife values along the Middle Fork of the Whitewater River are outstandingly remarkable. Fish values are not outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within the Middle Fork of Whitewater River is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the Middle Fork of Whitewater River corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: There is potential for lemon lily and scalloped moonwort (Forest Service Sensitive) to occur along the Middle fork of the Whitewater River. The type locality for the federally endangered triple-ribbed milk-vetch occurs at the lower reaches of Whitewater Canyon. At this time, populations are not known on the forest, although potential habitat occurs in washes bordering the Coachella Valley. Lands where this plant is known to occur is managed by the Bureau of Land Management and the

Nature Conservancy and is quite a distance from this study river. The elevation gradient (8,200-5,000 feet) along the Middle Fork of the Whitewater River is too high for this plant; it typically occupies habitat between 1,500-2,600 feet elevation. The Little San Bernardino Mountains gilia, a Forest Service Sensitive species, is also known from outwash fans of the Whitewater River in sandy alluvial terraces. There is little potential for this species to occur within the proposal area, as the elevation gradient along the Middle Fork of the Whitewater River is too high for this plant, which typically occupies habitat between 3,000-3,500 feet elevation.

Determination: The botanical values for the Middle Fork of the Whitewater River are not considered to be outstandingly remarkable. This determination is based on 1) the absence of documented populations of extremely unique taxa and 2) lack of floristic surveys along this creek.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery here is highly diverse and striking, with regionally unique steep, colorful, and textured canyon walls, possessing outstandingly remarkable values.

Wildlife

The wildlife values along the Middle Fork of the Whitewater River have been determined to be outstandingly remarkable due to 1) identification of the upper watershed of the Whitewater River as an area of high ecological significance in the Southern California Mountains and Foothill Assessment completed by the Forest Service in 1999, 2) the quantity, quality (remote, pristine, designated wilderness) and diversity of habitat for regionally significant populations of Nelson's bighorn sheep (California rare), California spotted owl (Forest Service Sensitive, Federal candidate), and 3) the habitat linkage this portion of the creek provides connecting the upper portion of the watershed to the lower reaches on Bureau of Land Management lands where numerous endangered and Bureau Sensitive species occur.

Classification

The entire 5.3-mile length of the Middle Fork of the Whitewater River, from headwaters down to the Forest boundary, is eligible for classification as a wild river. It has outstandingly remarkable scenery and wildlife values, is free of impoundments, inaccessible by road or trail, and in a primitive watershed with unpolluted waters.

Whitewater River (South Fork)

Study Area Summary

Name of River: South Fork of Whitewater River

Location: State of California, San Bernardino County, San Bernardino National Forest

The South Fork of the Whitewater River (Segments 1, 2 and 3) has its headwaters $\frac{1}{4}$ southeast of San Gorgonio Mountain at 10,400 feet; T1S, R1E, Sec 12, SBBM. The river flows southeasterly through the San Gorgonio Wilderness to the boundary of the wilderness and South Fork Cabin and Diversion Dam. The river continues through National Forest System lands and re-enters the wilderness in Section 32. It then enters private land in Section 33, re-enters National Forest wilderness, and then enters private land again in Section 35. The river completes its journey through National Forest wilderness to the forest boundary at 3,800 feet; T1S, R2E, Sec 36, SBBM.

The East Fork of the South Fork (Segments 4, 5 and 6) is also included in this analysis. It has its headwaters $\frac{1}{2}$ mile south of San Gorgonio Mountain at 10,200 feet; T1S, R1E, Sec 13, SBBM. The river flows southeasterly through the San Gorgonio Wilderness to the boundary of the wilderness and East Fork Cabin and Diversion Dam. The river continues through National Forest System lands and re-enters National Forest wilderness in Section 29. It then travels to the confluence with the South Fork of the Whitewater River at T1S, R2E, Sec 32, SBBM. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	2.8	2.8
2	0.3	0
3	8.0	8.0
4	2.3	2.3
5	0.2	0.0
6	1.4	1.4

Studied: 15.0 miles

Eligible: 14.5 miles (from headwaters to forest boundary, excluding diversion dam segments in both the South Fork and East Fork of South Fork that are not free flowing)

Eligibility Inventory

Determination of Free Flow:

The South Fork of the Whitewater River is free flowing from its headwaters to the South Fork Diversion Dam, at which point water is diverted by flume line through Raywood Flat and into Banning Canyon. The river is again free flowing from that point to the Forest boundary. The river is also intermittent for some of its length during the mid to late summer and fall.

The East Fork of the South Fork of the Whitewater River is free flowing from its headwaters to the East Fork Diversion Dam, at which point water is diverted by flume line to the South Fork, just below the South Fork Diversion Dam. The river is again free flowing below that point to its confluence with the South Fork. The river is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

All eligibility analysis below for the South Fork of the Whitewater River also includes the East Fork of the South Fork of the Whitewater River.

1. Scenery

Description: The South Fork of the Whitewater River is characterized by steep high-elevation canyons, slopes and narrow ridges within the San Gorgonio Mountains. Mixed conifer gradually transitions to green-gray chaparral covered hillsides, high desert and riparian vegetation as the elevation decreases down to the forest boundary. Silverwood Falls, on the East Fork of the South Fork, are superb, especially during the spring runoff. Portions of the creek are occasionally intermittent. The lower reaches of the Whitewater River are sandy and boulder-strewn flood plains. The Scenic Integrity Objective is Very High. None of this remote landscape is influenced nor altered by man. Seasonal variations are extreme at the higher elevations, moderate at lower elevations.

Determination: The scenery here is highly diverse and striking, with steep, textured canyon walls, possessing outstandingly remarkable and unique values of regional southern California significance.

2. Recreation:

Description: The South Fork of the Whitewater River flows through the San Gorgonio Wilderness, a Primitive Recreation Opportunity Spectrum (ROS) classification. The only motorized access to the river is by National Forest System Road 2S01, an administratively controlled access for the water company to reach the South Fork Cabin and Diversion Dam. Forest Trail 2E08 from the Bear Wallow Trailhead accesses the river at one point in Section 33 (private land). The rest of the river is completely unroaded with no trails and wild in nature, with little to no recreation use.

Determination: The river corridor is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: The South Fork of the Whitewater River is part of the San Gorgonio Mountains Ecological Subunit of California. As such, it contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rock. Also, there is some Paleozoic marine sedimentary rock and minor amounts of Pliocene non-marine sediments. Tertiary intrusive rock along the Santa Ana fault zone is present. The mountains are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quaternary non-marine sediments and recent alluvium are small but important components of this subunit. The San Gorgonios are very steep mountains, with an east-west transverse trend that is locally significant. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: The South Fork of the Whitewater River may contain naturally reproducing rainbow trout but positive presence is unknown at this time. It is a difficult area to reach by foot. The stream is mostly in good condition (because there are few system roads and trails), except below the diversion where it has been dewatered. The fish and habitat are in good shape, locally significant, but possess no outstandingly remarkable values.

The upper watershed of the Whitewater River, which includes the South Fork, was identified as an area of high ecological significance in the Southern California Mountains and Foothill Assessment completed by the Forest Service for the southern California Province in 1999. It was identified as being one of the most remote, unroaded areas within the four southern California National Forests. This pristine habitat is an important area for regionally significant populations of Nelson's bighorn sheep and California spotted owl. It also contains important habitat for mule deer and black bear. The riparian habitat is suitable for the southwestern willow flycatcher, a federally endangered species. This stream flows into important threatened and endangered species habitat at lower elevations, where the Bureau of Land Management administers it. The Bureau recently determined that portion of the Whitewater River under their jurisdiction to be eligible for wild and recreational river designations based on fish, wildlife and cultural values. Arroyo toad, least Bell's vireo (federally endangered), summer tanager, yellow warbler, yellow-breasted chat, gray vireo and Crissal thrasher (Bureau Sensitive and State Species of Concern) occur along Bureau portions of the Whitewater River. The Whitewater River is also important as a source of sand for the Coachella Valley sand dunes, which support populations of the federally listed fringed toad lizard and the State protected flat tailed horned lizard.

Determination: Wildlife values along the South Fork of the Whitewater River are outstandingly remarkable. Fish values are not outstandingly remarkable.

5. *Heritage resources (Cultural)*

Description: Information of Native American use within the South Fork of Whitewater River is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: The knowledge of the span and complexity of historic use of the South Fork of Whitewater River corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The South Fork of the Whitewater River supports locally significant populations of lemon lily, a Forest Service Sensitive plant species. There is potential for scalloped moonwort, a Forest Service Sensitive species to also occur. The type locality for the federally endangered species, triple-ribbed milk-vetch, occurs at the lower reaches of Whitewater Canyon. At this time, populations are not known on the Forest, although potential habitat occurs in washes bordering the Coachella Valley. Lands where this plant is known to occur are managed by the Bureau of Land Management and the Nature Conservancy and is quite a distance from this study river. The elevation gradient (8,200 to approximately 4,000 feet) along the South Fork of the Whitewater River is too high for this plant; it typically occupies habitat between 1,500-2,600 feet elevation. The Little San Bernardino Mountains gilia, a Forest Service Sensitive species, is also known from outwash fans of the Whitewater River in sandy alluvial terraces. There is little potential for this species to occur within the proposal area, as the elevation gradient along the South Fork of the Whitewater River is too high for this plant, which typically occupies habitat between 3,000-3,500 feet elevation.

Determination: The botanical values for the South Fork of the Whitewater River are important but are not considered to be outstandingly remarkable. This determination is based on: 1) the absence of documented populations of extremely unique taxa, other than the locally significant population of lemon lily; and 2) lack of floristic surveys along this creek.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery here is highly diverse and striking, with steep, textured canyon walls and waterfalls, possessing outstandingly remarkable and unique values of regional significance.

Wildlife

The wildlife values along the South Fork of the Whitewater River have been determined to be outstandingly remarkable due to 1) identification of the upper watershed of the Whitewater River as an area of high ecological significance in the Southern California Mountains and Foothill Assessment completed by the Forest Service in 1999, 2) the quantity, quality (remote, pristine, designated wilderness) and diversity of habitat for regionally significant populations of Nelson’s bighorn sheep (California rare), California spotted owl (Forest Service Sensitive, federal candidate), and 3) the habitat linkage this portion of the creek provides connecting the upper portion of the watershed to the lower reaches on Bureau of Land Management lands where numerous endangered and Bureau Sensitive species occur.

Classification

Four segments (14.5 miles) of the South Fork and East Fork of the South Fork of the Whitewater River are eligible for classification as a wild river as follows. They have outstandingly remarkable scenery and wildlife values, are free of impoundments, generally inaccessible by road or trail, and in a primitive watershed with unpolluted waters.

Segment	Description	Length (Miles)	Classification
1	Headwaters to Wilderness boundary/South Fork diversion dam and cabin	2.8	Wild
2	Wilderness boundary/South Fork diversion dam and cabin downstream	0.3	None
3	Downstream of dam/cabin to forest boundary	8.0	Wild
4	Headwaters to Wilderness boundary/ East Fork diversion dam and cabin	2.3	Wild
5	Wilderness boundary/East Fork diversion dam and cabin downstream	.2	None

6	Downstream of dam/cabin to confluence	1.4	Wild
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Bear Creek

Study Area Summary

Name of River: Bear Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

Bear Creek has its start at the outflow of Big Bear Lake Dam at 6,800 feet; T2N, R1W, Sec 22, SBBM. Most of the creek flows south through the National Forest. It then enters a private land parcel and flows to where it joins the Santa Ana River at 3,600 feet; T1N, R1W, S19, SBBM. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	8.9	8.9
2	0.4	0

Studied: 9.3 miles

Eligible: 8.9 miles (from Big Bear Dam to the private land)

Eligibility Inventory

Determination of Free Flow:

Bear Creek is free flowing from Big Bear Lake Dam to the diversion structure (which is operating under a recently approved FERC license to Southern California Edison) just above the confluence with the Santa Ana River, a distance of 9.3 miles. The creek runs year-round, with specific minimum flows (sufficient to protect creek outstandingly remarkable values) maintained by the Big Bear Municipal Water District, which owns and operates Big Bear Lake. This requirement is mandated under Order 95-4 from the State Water Resources Control Board.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Bear Creek is located within the San Bernardino Mountains, with scenery characterized by a deep, rugged canyon with steeply sloping walls, at times broadening out. Conifer forest, mixed oak woodlands, and chaparral-covered hillsides dominate the view. Lush, green riparian forest, of white

alder, cottonwood and willow species occur throughout the river corridor. The swiftly running creek flows year-round. The Scenic Integrity Objective is High. The landscape here has not been greatly influenced nor altered by man, except the dam at the beginning of the creek and the diversion structure at the confluence with the Santa Ana River. Seasonal variations are apparent when leaves and stems of black oaks, willows and native shrubs blanket the corridor with splashes of gold and red in the fall.

Determination: The scenery here is attractive and diverse from a local southern California standpoint but possesses no outstandingly remarkable visual values.

2. Recreation:

Description: Bear Creek is located almost entirely in a Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS). The popular Camp Creek National Recreation Trail (1W10), which leads from the nearby Snow Valley Ski Area down to Seven Pines, crosses Bear Creek. Access along the creek is by a network of non-motorized informal (social) trails, some starting from the terminus of National Forest System Road 1N64A and others starting from the terminus of the Glory Ridge Trail (1W02). Bear Creek also passes by the Siberia Creek Group Campground, a primitive, unique walk-in site for up to 40 visitors located adjacent to the creek. Premier fishing opportunities are present, and constitute most of the recreation use here. Bear Creek is a renowned regional freshwater fisheries resource, one of the finest on the forest and in southern California. It has been designated a State of California Wild Trout Program Stream, and adopted by the Fisheries Resource Volunteer Corps. Sightseeing and wildlife viewing opportunities abound. The recreation use along Bear Creek is regional in origin, from communities throughout southern California. It is a moderate use southern California multi-elevation backcountry canyon, and the creek corridor is generally characterized by outstandingly remarkable recreation values.

Determination: The creek corridor possesses outstandingly remarkable recreation values.

3. Geology

Description: Bear Creek lies within both the Upper San Gorgonio Mountains and the San Gorgonio Mountains Ecological Subunits of California. The Upper San Gorgonio Mountains portion is roughly the upper third of the canyon, with the San Gorgonio Mountains portion the lower two thirds. The Upper San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks. Also, there are some Pre-Cambrian gneiss and Paleozoic marine sedimentary rocks. The San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rocks. Also, there are some Paleozoic marine sedimentary rocks and minor amounts of Pliocene nonmarine sediments. These transverse range mountains, locally significant, are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quarternary non-marine sediments and recent alluvium are small but important components of the subunit. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons. The most prominent and visible geologic feature is "Slide Peak," which has a large diamond-shaped scar

resulting from an ancient landslide. However, this feature is more than ¼ mile outside the stream corridor, and no other outstandingly remarkable geologic values exist.

Determination: The river possesses no outstandingly remarkable geologic values.

4. Fish and Wildlife

Description: Bear Creek is designated as a Wild Trout Stream by California Department of Fish and Game and there is high quality habitat present. The creek has naturally reproducing populations of rainbow trout and brown trout, which are both regionally and nationally significant. Sculpin, a native fish, is also present. Exotic fish such as bass and sunfish area also occur due to their presence in Big Bear Lake.

Bear Creek is home to nationally significant populations of southwestern willow flycatcher where multiple and nesting pairs are known to exist. The river corridor serves as an important riparian linkage from the lower elevation riparian habitats to the Big Bear Basin where flycatchers also breed. Bear Creek also has several pairs of California spotted owls (Forest Service Sensitive, federal candidate) that nest in the canyon. San Bernardino flying squirrel and southern rubber boa, (both Forest Service Sensitive) also occur. A wildlife emphasis zone has been proposed along the southern third portion of Bear Creek for the land management plan revision.

Determination: Both fisheries and wildlife values in Bear Creek are recognized as being outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within Bear Creek is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: There has been some historic use of Bear Creek, including an early travel route (during the 1850s) from the San Bernardino Valley to the Big Bear Valley, rock water tunnels and some minor mining activity. The sites and features recorded within the corridor are common in the local area and region, and as such, they are not rare, unique or noteworthy enough to have significance beyond the

local.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Bear Creek has locally significant populations of lemon lily, a Forest Service Sensitive plant species. Laguna Mountain jewelflower (Forest Service Sensitive) is also reported to occur. A rare lichen species on the Forest Watch list is present on the rocks below the Bear Valley Dam. Potential is high for round leaved boykinia and southern Sierra woolly sunflower to occur, as good habitat is present. There is potential for Parish's checkerbloom, a candidate for federal listing, to occur in mesic openings along the river corridor and for two federally endangered meadow species to occur if stringer meadows are present along the creek.

Determination: Botanical values along Bear Creek are not recognized as outstandingly remarkable at this time. This determination is based on the absence of documented populations of, or documented habitat for extremely unique species of flora (except the lichen), and lack of information regarding the flora present along this creek.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Recreation

Bear Creek corridor possesses outstandingly remarkable recreation values. This determination is based on: a) a renowned regional freshwater fisheries resource, one of the finest on the forest and in southern California with a designation of a State of California Wild Trout Program Stream, b) the presence of numerous sightseeing and wildlife viewing opportunities, and c) regional recreational use of the area from communities throughout southern California.

Fish

Bear Creek has outstandingly remarkable fisheries value due to: 1) regionally and nationally significant populations of naturally reproducing wild rainbow and brown trout; and 2) the amount of high quality habitat present.

Wildlife

Bear Creek has outstandingly remarkable wildlife values due to: 1) the presence of multiple and nesting pairs of the federally endangered southwestern willow flycatcher; 2) the several pairs of California

spotted owls which nest in the canyon; and 3) the habitat linkage that Bear Creek provides from the Santa Ana River to the Big Bear Basin.

Classification

The 8.9 mile segment of Bear Creek, from the Big Bear Dam down to the private land at T1N, R1W, Sec 19, SBBM, is eligible for classification as a scenic river. It has outstandingly remarkable recreation, wildlife and fisheries values, is free of impoundments, has a largely primitive watershed and undeveloped shoreline, and is accessible in places by roads and trails.

Deep Creek

Study Area Summary

Name of River: Deep Creek

Location: State of California, San Bernardino County, San Bernardino National Forest.

Two tributaries of Deep Creek begin at Snow Valley Ski Area and Little Green Valley and join as the North Fork. Below this, Deep Creek begins at 6,300 feet; T2N, R2W, Sec 26, SBBM. It flows through the National Forest before entering private land at Section 34. It then crosses State Highway 18 at the junction of the Green Valley Road and is impounded at Deep Creek Lake. From that point it flows through the lake and private land in Section 33, then re-enters the National Forest, where an unnamed native surface road crosses it. From that road it flows to another parcel of private land in Section 32, then back into the National Forest and the crossing of Forest Trail 2W07 at Fisherman’s Group Campground. The stream then flows to the crossing of National Forest System Road (NFSR) 3N34 (T6 Crossing) and then to the crossing of NFSR 3N34D/Forest Trail 2W01 (Devil’s Hole). Deep Creek eventually reaches the high-water mark of the Mojave River Forks Reservoir at 3,100 feet; T3N, R3W, Sec 17, SBBM. See attached map. Deep Creek generally flows north-northwest. The reservoir straddles the northern forest boundary.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1a	1.4	0
1b	0.3	0
2	10.7	10.7
3	9.0	9.0

Studied: 21.4 miles

Eligible: 19.7 miles (see description of segments under "classification")

Eligibility Inventory

Determination of Free Flow:

Deep Creek is free flowing from its headwaters in Section 26 to Deep Creek Lake. From this impoundment to the high-water mark of the Mojave River Forks Reservoir in Section 17, the creek is free flowing again.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Deep Creek is located within the San Bernardino Mountains. It has scenery that ranges from an upper transitional life zone to a low desert; with deep, rugged, steeply sloping canyon walls that at times broaden out to encompass large views. Conifer, mixed oak, pinyon-juniper woodlands, chaparral and grassland, and desert-scrub covered hillsides dominate the views above the stream. Lush green riparian forests of cottonwood, white alder and willow can be seen through the stream corridor itself. Most portions of the creek flow year-round. The Scenic Integrity Objective is High. The landscape here has generally not been influenced nor altered by man, except the lake near the beginning of the creek and the reservoir at the terminus of Deep Creek at the forest boundary. Seasonal variations are apparent, especially at higher elevations. Most of the scenery here is unique, diverse and spectacular from a regional southern California standpoint.

Determination: This landscape is a remarkable life-zone journey of the San Bernardino Mountains, and possesses outstandingly remarkable visual values.

2. Recreation:

Description: Deep Creek is located in a mixture of Roaded Natural, Semi-Primitive Motorized, and Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS). The headwaters tributaries begin at Snow Valley Ski Area and Little Green Valley. The creek then crosses the Rim of the World Scenic Byway, State Highway 18. Nearby communities include Arrowbear Lake and Running Springs. Fishermans Group Campground is a few miles downstream from here, as is Splinter's Cabin day use area. Shortly below this point, the creek is shadowed by the Pacific Crest National Scenic Trail until it leaves the forest. The Trail crosses Deep Creek by two large, graceful suspension footbridges. The T6 crossing of Deep Creek is popular with four-wheel drive and OHV enthusiasts. Direct access up and down the creek is generally by non-motorized informal trails. Premier fishing opportunities abound throughout the Deep Creek drainage. Deep Creek is a renowned regional freshwater fisheries resource, one of the finest in the forest and southern California. It has been designated a State of California Wild Trout Program Stream, and adopted by the Fisheries Resource Volunteer Corps. Sightseeing, swimming, picnicking and wildlife viewing opportunities abound. The renowned Deep Creek Hot Springs, adjacent to Deep Creek, is a heavily used recreation site, accessed by non-motorized trails. The recreation use along Deep Creek is regional to national in origin, mostly from communities throughout southern California. It is a moderate to high use southern California multi-elevation backcountry canyon, and the creek corridor is generally characterized by outstandingly remarkable recreation values.

Determination: The creek corridor possesses outstandingly remarkable recreation values.

3. Geology

Description: Deep Creek lies within both the Upper San Gorgonio Mountains and the San Gorgonio Mountains Ecological Subunits of California. The Upper San Gorgonio Mountains portion comprises roughly the upper third of the canyon, while the San Gorgonio Mountains portion the lower two thirds. The Upper San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks. Also, there are some Pre-Cambrian gneiss and Paleozoic marine sedimentary rocks. The San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rocks. Also, there are some Paleozoic marine sedimentary rocks and minor amounts of Pliocene nonmarine sediments. These transverse range mountains, locally significant, are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quarternary nonmarine sediments and recent alluvium are small but important components of the subunit. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons. The most prominent geologic feature in Deep Creek is the thermal hot springs, which are regionally significant, thus giving this portion of the creek outstandingly remarkable geologic values.

Determination: The creek corridor possesses outstandingly remarkable geologic values.

4. Fish and Wildlife

Description: Deep Creek is designated as a "Wild Trout" stream by the California Department of Fish and Game. It has naturally reproducing populations of rainbow and brown trout, which are regionally and nationally significant. Other important native fishes are also present. The federally endangered Mojave tui chub were present in Deep Creek. These fish have now become hybridized with introduced Arroyo chub and are no longer considered a true Mojave tui chub population. The Arroyo chub is a California Species of Concern. The Pacific sculpin, a native fish species is also present. The black bullhead and green sunfish, both exotic fish species, occur. High quality aquatic habitat is present.

Deep Creek was identified as an area of high ecological significance in the 1999 Southern California Mountain and Foothill Assessment, a Forest Service analysis of habitat and species conservation issues across the four southern California National Forests. The high quality aquatic and riparian habitat occurring along this desert-flowing stream provides habitat for two federally listed wildlife species. Riparian forests of willow and cottonwood provide nationally significant habitat for the federally endangered, southwestern willow flycatcher. Nationally significant habitat is also present for populations of the federally endangered arroyo southwestern toad, which lives and breeds along the sandy shores of the streambed. The U.S. Fish and Wildlife Service has designated Deep Creek as critical habitat for recovery of the arroyo southwestern toad. Deep Creek also serves as a critical habitat linkage, connecting endangered species in desert riparian habitats in the Mojave River to endangered species habitats in the mountains.

Determination: Both fisheries and wildlife values in Deep Creek are recognized as being outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Evidence of Native American use of the Deep Creek Canyon, especially for the last two thousand years, is present in the proposed WSR. This evidence reflects all aspects of Native American life, and has exceptional human-interest value to the local Native American and Tribal community as well as scientific value. Ethnographic research has documented Native American place names for areas within the drainage. The Canyon meets standards for a Traditional Cultural Property as highly significant.

Determination: Deep Creek has had regionally significant pre-historic use, and possesses outstandingly remarkable values.

6. Heritage resources (Historic)

Description: The most important activities during the historic period began in the 1880s when efforts were made to build a flume to deliver water for agriculture in the vicinity of Hesperia. The Deep Creek Flume continued in operation until the 1920s. Any other sites or features located within the corridor are expected to be common in the local area and region, and as such, they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: The vegetation communities along the Deep Creek corridor are well known for their diversity. Montane riparian hardwood, montane conifer/hardwood, montane conifer, montane upland hardwood, mixed conifer, Jeffrey pine, riparian forest, riparian scrub, lower montane conifer/hardwood, pinyon/juniper woodlands, northern mixed chaparral, scrub oak chaparral, montane chaparral and interior/desert scrub communities are present along the Deep Creek corridor. Small isolated occurrences of tamarisk, a non-native invasive species occur in the lower reaches of the creek. Rare botanical resources are moderately well known. Occurrences of two locally significant, Forest Service Sensitive and Watch list plant species, lemon lily and Humboldt lily, occur at numerous locations along Deep Creek. A historic population of the Mojave tarplant is known from the southern portion of Deep Creek; this is also the type locality of this Forest Service Sensitive plant species. These occurrences of rare plants do not in itself qualify this river as having remarkable outstandingly values; however, Deep Creek is recognized as having outstandingly remarkable botanical values due to the number of vegetation communities (14) present within the corridor.

Determination: The creek corridor possesses outstandingly remarkable botanic values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the

previous section, the following values were determined to be outstandingly remarkable:

Scenery

Most of the scenery here is unique, diverse and spectacular from a regional southern California standpoint. This landscape is a remarkable life-zone journey of the San Bernardino Mountains, and possesses outstandingly remarkable visual values.

Recreation

The recreation use along Bear Creek is regional to national in origin, mostly from communities throughout southern California. It is a moderate to high use southern California multi-elevation backcountry canyon, and much of the creek corridor is characterized by outstandingly remarkable recreation values.

Geologic

The most prominent geologic feature in Deep Creek are the thermal hot springs, which are regionally significant, thus giving that portion of this creek outstandingly remarkable geologic values.

Fish

Deep Creek is considered to have outstandingly remarkable fish values based on 1) the regionally and nationally significant native trout, 2) the State designation of Deep Creek as a Wild Trout Stream, one of only two on the forest, and 3) the presence of high quality aquatic habitat that is ecologically significant across the four southern California National Forests.

Wildlife

Deep Creek is considered to have outstandingly remarkable wildlife values based on 1) the presence of nationally significant populations of the southwestern willow flycatcher and the arroyo southwestern toad, both federally endangered species, 2) the U.S. Fish and Wildlife Service designation of Deep Creek as Critical Habitat for arroyo southwestern toad, 3) recognition of this stream as an area of high ecological significance within the four southern California National Forests in the Mountain and Foothill Assessment, 4) the recognition that Deep Creek serves as an important wildlife habitat linkage connecting endangered species in desert riparian habitats in the Mojave River to endangered species habitats in the mountains, and, 5) recognition that Deep Creek supports the greatest diversity of wildlife habitats of any drainage on the San Bernardino National Forest.

Botany

Deep Creek is considered to have outstandingly remarkable botanical values because it represents some

of the greatest diversity of vegetation communities of any drainage on the San Bernardino National Forest. Fourteen vegetation communities representing transition zones from the mountains at 6,240 feet elevation, to the desert at 3,000 feet elevation, are present within the Deep Creek corridor. These vegetation communities also display a variety of successional stages that are both natural and human induced.

Prehistoric

Much of the Canyon meets the standards for a Traditional Cultural Property as highly significant. Deep Creek has had regionally significant pre-historic use, and possesses outstandingly remarkable values.

Classification

Two segments of Deep Creek are eligible for classification as a wild or scenic river as follows:

Segment	Description	Length (Miles)	Classification
1	Confluence of tributaries through Deep Creek Lake area	1.7	None
2	Below Deep Creek Lake area to below 2W01 crossing	10.7	Scenic
3	Below 2W01 crossing to Mojave Reservoir	9.0	Wild

Both classified segments have outstandingly remarkable values for scenery, recreation, fish, wildlife, botany and pre-history. The wild segment, below 2W01, has outstandingly remarkable values for geology, and is free of impoundments, inaccessible except by trail, and in a primitive watershed with unpolluted waters. The scenic segment of Deep Creek is free of impoundments, has a largely undeveloped shoreline, is accessible at several locations by road, and has less than pristine water quality. The first segment is not eligible due to lack of free-flow or no outstandingly remarkable values.

Fish Creek

Study Area Summary

Name of River: Fish Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

The small, spring-fed tributaries of Fish Creek begin at 8,800 feet; T1S, R2E, Sec 4, SBBM within the San Gorgonio Wilderness. They flow northward and become the Fish Creek Meadows. From there, Fish Creek arises and flows until it leaves the wilderness at Section 20. It then flows northward, crossing several small unnamed native surface roads in the vicinity of College Camp before joining the Santa Ana River at 6,400 feet; T1N, R2E, Sec 18, SBBM. See attached map. All of Fish Creek is on National Forest lands.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	3.6	3.6
2	1.6	0

Studied: 5.2 miles

Eligible: 3.6 miles (from headwaters to wilderness boundary)

Eligibility Inventory

Determination of Free Flow:

Fish Creek is free flowing throughout its entire length.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Fish Creek is located within the San Bernardino Mountains, and has yellow pine and high elevation subalpine life zone scenery. Wet, high elevation, montane meadows surrounded by subalpine forests and lush green riparian vegetation dominate the view. Most portions of the gently-running creek flow year-round. The Scenic Integrity Objective is High. The landscape here has not been influenced nor

altered by man. Seasonal variations are apparent, especially in fall when leaves of the southernmost California population of quaking aspen turn golden.

Determination: The scenery is beautiful from a local southern California standpoint but possesses no outstandingly remarkable visual values.

2. Recreation:

Description: Fish Creek is located in a Primitive Recreation Opportunity Spectrum (ROS) while in the San Geronio Wilderness and a Roaded Natural Recreation Opportunity Spectrum (ROS) outside the wilderness. One quarter of the study area occurs within the San Geronio Wilderness Area, and one half of the creek forms the northeastern wilderness boundary. The other quarter of the study area is outside of the wilderness. The Fish Creek Trail (1W07.4) passes through and around the Fish Creek Meadows on its way to the high country of the wilderness. The Aspen Grove Trail (7410) also passes over the creek. All of the of the stream corridor possesses a high level of scenic integrity, except for an abandoned organization camp (College Camp) located near the lower reaches of the creek. Rim of the World Scenic Byway, State Highway 38, is at the confluence of the creek and the Santa Ana River. The recreation use along Fish Creek is generally low use and local in origin.

Determination: The creek corridor is characterized by no outstandingly remarkable recreation values.

3. Geology

Description: Fish Creek lies within the Upper San Geronio Mountains Ecological Subunit of California. The Upper San Geronio Mountains subunit contains mostly Mesozoic granitic rocks. Also, there are some Pre-Cambrian gneiss and Paleozoic marine sedimentary rocks. These transverse range mountains, locally significant, are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quarternary nonmarine sediments and recent alluvium are small but important components of the subunit. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: There are no outstandingly remarkable geologic values.

4. Fish and Wildlife

Description: Fish Creek has populations of rainbow and brown trout that are regionally significant. The presence of other fish species is unknown. Although the habitat is considered good, the fisheries values of Fish Creek are not considered to be outstandingly remarkable.

Fish Creek is a locally diverse area, home to a regionally significant population of California spotted owl. Potential habitat for southwestern willow flycatcher, a federally endangered species occurs. San Bernardino flying squirrels and southern rubber boas are known to occur here, and from a wildlife

standpoint, it is important, but wildlife values along Fish Creek are not considered to be outstandingly remarkable.

Determination: The creek corridor possesses neither fish nor wildlife outstandingly remarkable values.

5. Heritage resources (Cultural)

Description: Information of Native American use within Fish Creek is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the corridor is limited. Research indicates that the historic use was associated with ranching and livestock raising. Fish Creek was used as a corridor to move cattle between Heart Bar Ranch and Mission Creek during the early part of the 19th century. Any sites or features located within the corridor would be common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Montane wet meadow, a rare community type on the four southern California National Forests, and riparian habitat are present within the stream corridor. Nationally significant populations of the federally endangered California taraxacum occur in Fish Creek Meadows, located at the headwaters of the creek. Felwort, a Forest Watch list species was located in the meadow in August 2002. The meadow is also potential habitat for the San Bernardino bluegrass, another federally endangered plant species and for the scalloped moonwort, a Forest Service Sensitive species. Several rare orchids on the Forest Service Sensitive plant list may also occur. Locally significant populations of Lemon lily, a Forest Service Sensitive species, are also known from Fish Creek. Quaking aspen is widespread across North America, but is distributed unevenly in California. In southern California it only occurs within two small groves in the San Bernardino Mountains. Of these two populations, the southernmost California population of quaking aspen occurs along Fish Creek. The Fish Creek aspen grove provides genetic material for the study of one of two remaining populations of these southern California relics

and is regionally significant.

Determination: Botanical values along Fish Creek have been determined to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Botany

The botanical values along Fish Creek are determined to be outstandingly remarkable based on 1) the presence of high altitude montane wet meadow habitat, identified as one of 12 rare communities in the Southern California Mountains and Foothills Assessment, 2) diversity of species including the presence of several populations of *Californica taraxacum*, a federally listed plant species of national significance, an occurrence of lemon lily, a Forest Service Sensitive species of local significance and presence of Felwort, a Watch list plant species in Fish Creek Meadow, at the headwaters of the creek and, 3) presence of the southernmost occurrence of quaking aspen in Fish Creek, and the regional significance of this occurrence as a California relic.

Classification

One 3.6-mile segment of Fish Creek, from the headwaters to the San Geronio Wilderness boundary, is eligible for classification as a wild river. It has outstandingly remarkable botanical values, and free of impoundments, generally inaccessible except by trail, within an essentially primitive watershed, and having unpolluted waters.

Holcomb Creek

Study Area Summary

Name of River: Holcomb Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

A number of small tributaries drain Holcomb Valley, and Holcomb Creek can be said to originate below the impoundment on the Hitchcock Ranch, at the intersection of National Forest System Road (NFSR) 3N16 and 3N12, at 7,200 feet; T3N, R1W, Sec 36, SBBM. It flows from there to the junction of NFSR 3N14 and then to the junction of NFSR 3N93. Then it flows to the junction with NFSR 3N16. Finally, Holcomb Creek reaches its confluence with Deep Creek at 4,400 feet; T2N, R2W, Sec 6, SBBM. See attached maps. All of Holcomb Creek is on National Forest lands. It generally flows west to southwest.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	9.3	9.3
2	5.8	5.8

Studied: 15.1 miles

Eligible: 15.1 miles (from Hitchcock Ranch impoundment to confluence with Deep Creek)

Eligibility Inventory

Determination of Free Flow:

Holcomb Creek is free flowing from the Hitchcock Ranch impoundment in Section 36 to the confluence with Deep Creek in Section 6. Much of the flow is intermittent.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Holcomb Creek is located within the San Bernardino Mountains, with scenery ranging from a midrange mixed conifer and meadow life zone to a low elevation rugged canyon with steeply sloping walls which at times broadening out to encompass large views. Conifer (at higher elevations), mixed oak

and pinyon-juniper woodlands (at middle elevations), and chaparral and grassland (at lower elevations) covered hillsides with lush green riparian vegetation dominate the view. Looking east from the origin of Holcomb Creek, visitors enjoy the breathtaking view of the 300 acre, montane, wet meadow on the Hitchcock Ranch, a private inholding. At this location, visitors can also view rare pebble plain and carbonate habitat, derived from ancient lake and inland sea beds. Throughout the remainder of the creek corridor, visitors enjoy views of lush, green, riparian forests containing willow, cottonwood and alders. On the slopes above the creek, conifer forest, mixed oak and chaparral communities dominate the views. Portions of the gently-running creek flow year-round. Almost all of the Scenic Integrity Objective is High. The landscape here has generally not been influenced nor altered by man, except the impoundment near the beginning of the creek and the forest roads that it crosses. Seasonal variations contribute to color changes seen throughout the hillsides and stream corridors, when the black oaks, willows and cottonwoods turn golden in the fall.

Determination: The scenery here is regionally impressive and possesses outstandingly remarkable visual values.

2. Recreation:

Description: Holcomb Creek is located in a mixture of Roaded Natural and Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS). The headwaters tributaries begin in Holcomb Valley, site of the Gold Fever Self-Guided Auto Tour of historic gold mining operations. The Pacific Crest National Scenic Trail joins the creek at the junction of NFSR 3N14 and runs adjacent to the creek for more than six miles, exiting the corridor near the junction of the Holcomb Crossing and Bench Camp Trail Camps. Little Bear Spring Trail Camp, Holcomb Crossing Group Camp and Bench Camp Group Camp are developed camping areas within the river corridor. National Forest System Road 3N93 crosses and runs close to the creek for three miles. Sightseeing, swimming, picnicking and wildlife viewing opportunities are present. The recreation use along Bear Creek is local to regional in origin. It is a low to moderate use backcountry area, but the creek corridor is characterized by no outstandingly remarkable recreation values.

Determination: The creek corridor possesses no outstandingly remarkable recreation values.

3. Geology

Description: Holcomb Creek lies within both the Upper San Gorgonio Mountains and the San Gorgonio Mountains Ecological Subunits of California. The Upper San Gorgonio Mountains portion is roughly the upper two third of the canyon, the San Gorgonio Mountains portion the lower third. The Upper San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks. Also, there are some Pre-Cambrian gneiss and Paleozoic marine sedimentary rocks. The San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rocks. Also, there are some Paleozoic marine sedimentary rocks and minor amounts of Pliocene nonmarine sediments. These transverse range mountains, locally significant, are a horst with faults and steep escarpments on

the south-southwest, east-northeast, and west-northwest sides. Quarternary nonmarine sediments and recent alluvium are small but important components of the subunit. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons. The most prominent geologic feature in Holcomb Creek is the locally significant low-grade gold placer/ore deposits in Holcomb Valley.

Determination: There are no outstandingly remarkable geologic values.

4. Fish and Wildlife

Description: Holcomb Creek supports regionally important populations of native rainbow trout, partially armored stickleback and sculpin. Good quality habitat is present.

The riparian habitat of Holcomb Creek is home to the southwestern willow flycatcher, a federally endangered bird species. The population is nationally significant because multiple, nesting pairs occur. Two other Forest Service Sensitive wildlife species, the San Bernardino flying squirrel and regionally significant pairs of California spotted owls are also known to utilize Holcomb Creek. Another federally endangered species, the mountain yellow-legged frog is known historically from Holcomb Creek; suitable habitat may still occur.

Determination: Wildlife values in Deep Creek are recognized as being outstandingly remarkable. The fisheries along Holcomb Creek are locally significant but are not considered to be outstandingly remarkable values.

5. Heritage resources (Cultural)

Description: Though information of Native American use of Holcomb Creek corridor is limited, what is known indicates the use to be focused, with sites representing a small seasonal camp or plant processing (bedrock milling features) activity areas. These types of sites are not rare or unusual in character for the area. The occurrence of sites with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is expected to be low.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the Holcomb Creek corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Montane, wet meadow, pebble plain and carbonate are rare plant habitat types that occur together within the Holcomb Creek corridor at the point of origin of this proposal. All three of these habitats are regionally and nationally significant and are discussed below, however only the montane, wet meadow habitat is riparian dependent. The montane meadow habitat at Hitchcock Ranch, adjacent to where the proposal originates is a combination of National Forest and private lands. Three species of federally listed plants occur within this meadow: the ash gray paintbrush, San Bernardino bluegrass, and California taraxacum. All occurrences of these three species are nationally significant. The habitat in Hitchcock meadow is similar to Belleville Meadow, located less than one mile to the east on NFS land, where an unusually large number of Forest Service Sensitive and Watch list plant species occur. Based on similar habitat conditions it is possible that the following species could occur in Hitchcock Meadow: scalloped moonwort, Palmer's mariposa lily, San Bernardino Mountain's owls-clover, Duran's rush, lemon lily, San Bernardino Mountains' monkeyflower, purple monkeyflower, Baja navarretia, Transverse Range phacelia, Bear Valley pyrrocoma, short sepaled lewisia, Parish's yampah, and San Bernardino ragwort. Several rare orchids on the Forest Watch list may also occur.

Pebble plain habitat is located adjacent to Holcomb Creek at the proposed point of origin. This habitat is derived from an ancient clay lakebed. This is occupied habitat for the southern mountain buckwheat, Bear Valley sandwort, and the ash gray paintbrush, also federally listed plant species endemic to the area and nationally significant. Four other Forest Service Sensitive and Watch list species occur in the pebble plain habitat in this location (Transverse Range phacelia, San Bernardino Mountain's dudleya, silver-haired ivesia, and Parish's rock cress).

Carbonate plant habitat is located adjacent to Holcomb Creek at the proposed point of origin. This habitat is derived from an ancient inland sea. The crested milkvetch and San Bernardino buckwheat, Forest Service Sensitive and Watch list plants occur within the carbonate habitat in this location.

Lemon lily, a Forest Service Sensitive plant species occurs in the tributaries to Holcomb Creek. Humboldt Lily, a Forest Watch list plant species occurs within Holcomb Creek. Both occurrences of these lilies are locally significant. Several other riparian dependent, Forest Service Sensitive species occur along the western portion of the Holcomb Creek within the stream corridor (San Bernardino ragwort, Mohave phacelia, Palmer's mariposa lily, and San Bernardino Mountain's owls-clover); these populations are regionally significant.

Determination: Holcomb Creek is recognized as having remarkable botanical values due to regionally significant montane, wet meadow habitat located at the point of origin of this proposal and the large number of endemic, federally listed and Forest Service Sensitive plants which also occur at this location and farther west along the creek. The regionally and nationally significant pebble plain and carbonate habitat present at the point of origin of this proposal are not riparian dependent habitats, thus were not

considered in the determination of outstandingly remarkable values. If this river does become designated as a wild scenic or recreational river, interpretation of the pebble plain and carbonate habitat will certainly add value to this designation.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery here is regionally impressive and possesses outstandingly remarkable visual values.

Wildlife

Holcomb Creek is considered to have outstandingly remarkable wildlife values based on the presence of multiple pairs of nesting willow flycatchers, a federally listed species and regionally significant pairs of California spotted owls, a federal candidate species.

Botany

Holcomb Creek is considered to have outstandingly remarkable botanical values based on 1) the regionally significant montane, wet meadow habitat located at the point of origin of this proposal, that has been identified as a rare habitat type on the four southern California National Forests, 2) the large number of endemic, federally listed and Forest Service Sensitive plants which also occur at this location and 3) the regionally significant populations of Forest Service Sensitive and Watch species present farther to the west along Holcomb Creek.

Classification

Segment	Description	Length (Miles)	Classification
1	From the Hitchcock Ranch impoundment to NFSR 3N16	9.3	Recreational
2	From NFSR 3N16 to the confluence with Deep Creek	5.8	Wild

Two segments of Holcomb Creek are eligible for classification as a wild or recreational river. The first segment, readily accessible by road and with some development, is eligible for classification as a recreational river. The second segment is eligible for classification as a wild river. It is free of impoundments, has a largely primitive shoreline, accessed only by a trail, with non-polluted waters.

Both segments have outstandingly remarkable values for scenery, wildlife, and botany.

Santa Ana River

Study Area Summary

Name of River: Santa Ana River

Location: State of California, San Bernardino County, San Bernardino National Forest

The South Fork of the Santa Ana River begins in the South Fork Meadows, 8,400 feet; T1N, R1E, Sec 35, SBBM in the San Gorgonio Wilderness. It flows north to the wilderness boundary at Section 23, then it flows past State Highway 38 to the confluence with the Santa Ana River at 6,300 feet; T1N, R1E, Sec 13, SBBM. The Santa Ana River begins in the Big Meadows area at the confluence of Coon Creek and Heart Bar Creek at 7,000 feet; T1N, R2E, Sec 21, SBBM. It generally flows west-southwest from there to the forest boundary through National Forest lands (except as noted) as follows:

first to the junction with State Highway 38;

then to the junction with National Forest System Road (NFSR) 1N45, the River Road;

then to the junction with NFSR 1N45, the River Road (again);

then to the junction with NFSR 1N45, the River Road (again);

then to the junction with the Radford Road;

then to the junction with the Seven Oaks Road;

then to the junction with the Seven Oaks private land parcel (in Section 12);

then through National Forest to the next private land parcel (in Section 14);

then through National Forest to the next private land parcel (also in Section 14);

then through National Forest to the next private land parcel (Filaree Flats, Section 15, currently proposed for acquisition);

then through National Forest to the next private land parcel (in Section 19) and confluence with Bear Creek;

then through National Forest to the next private land parcel (in Section 25);

then through National Forest to the high water mark of the Seven Oaks Dam flood zone at 2,200 feet; T1N, R2W, Sec 34, SBBM. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	2.4	2.4
2	2.3	0
3	13.9	13.9
4	3.5	3.5
5	8.5	0

Studied: 30.6 miles (includes the South Fork)

Eligible: 19.8 miles (includes the South Fork) (see description of segments in "classification")

Eligibility Inventory

Determination of Free Flow:

The South Fork of the Santa Ana River is free flowing from its headwaters in Section 35 to the San Gorgonio Wilderness boundary. There is a minor, seasonal diversion within the wilderness used to fill Jenks Lake in the spring of the year.

The South Fork of the Santa Ana River is not free flowing from the wilderness boundary to its confluence with the Santa Ana River. There is a year-round water diversion used to supply the Barton Flats Water System (for organization camps and campgrounds), located in Section 23. There is also a seasonal water diversion used to supply a water tank for the South Fork Campground, located in Section 13 at the junction with State Highway 38. This is a pump/generator that diverts well water from below the river.

The Santa Ana River is free flowing from its headwaters in Section 21 to the confluence with Bear Creek, where a water diversion exists. The river does not become intermittent until its lower reaches, where diversions continue.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The Santa Ana River is located within the San Bernardino Mountains, with scenery ranging from a high elevation subalpine forest to an upper Sonoran life zone. The rugged canyon has steeply sloping, solid rock walls, which at times broaden out to encompass large views. Subalpine conifer, and wet, montane meadows occur at the higher elevations. Mixed conifer and oak forests are present throughout most of the remaining river corridor and chaparral blankets the hillsides at the lower elevations. California juniper can also be seen from the lower reaches of the river. Lush, green, riparian forest, of white alder, Fremont and black cottonwood, California sycamore and willow species dominate the view along the river corridor. Visitors experience the natural, wild aromas of the flowers and fruits of wood rose, Nevada current and American dogwood, which also create colorful leaf displays in the fall. Most of the river flows year-round, with the exception of the lower reaches, where water diversions alter its flows. The Scenic Integrity Objectives range from High to Moderate to Low. The landscape here has generally been influenced and altered by man, with recreation infrastructure, recreation residences, organization camps, resorts, roads, and water diversion structures, except the South Fork segment within the San Gorgonio Wilderness and the segment between Filaree Flats and the confluence with Bear Creek. Seasonal variations are apparent, especially at higher elevations in fall when black oaks turn the hillsides golden.

Determination: The scenery of the South Fork of the Santa Ana River within the Wilderness is unique and diverse from a regional southern California standpoint and possesses outstandingly remarkable visual values. The scenery of the Santa Ana River itself is pleasant but possesses no outstandingly remarkable visual values.

2. Recreation:

Description: The Santa Ana River is located in a mixture of Primitive (South Fork), Roaded Natural, Semi-Primitive Non-Motorized, and Rural Recreation Opportunity Spectrum (ROS). A portion of the South Fork is located within the San Gorgonio Wilderness, and can be accessed by the South Fork Trail, 1E02.4. Numerous recreational facilities, including the Heart Bar Campground, Skyline Group Campground, and many recreation residences and special use organizational camps exist within the river corridor and the Barton Flat Recreational Complex. Hiking along the popular Santa Ana River Trail (about 40 miles of which are on the forest, leading from the crest of the mountains to the Pacific Ocean, although it is not fully constructed off-forest) is also a popular recreational activity. Non-motorized, informal trails provide direct access up and down the river and roads are also present. Good fishing opportunities are present. Sightseeing, waterplay, camping, picnicking and wildlife viewing opportunities abound. The recreation use along the Santa Ana River is regional in origin, from communities throughout southern California.

Determination: It is a moderate to high use southern California multi-elevation backcountry canyon, and the river corridor is characterized by outstandingly remarkable recreation values.

3. Geology

Description: The Santa Ana River lies within both the Upper San Gorgonio Mountains and the San Gorgonio Mountains Ecological Subunits of California. The Upper San Gorgonio Mountains portion is roughly the upper half of the river, the San Gorgonio Mountains portion the lower half. The Upper San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks. Also, there are some Pre-Cambrian gneiss and Paleozoic marine sedimentary rocks. The San Gorgonio Mountains subunit contains mostly Mesozoic granitic rocks and Pre-Cambrian igneous and metamorphic rocks. Also, there are some Paleozoic marine sedimentary rocks and minor amounts of Pliocene nonmarine sediments. These transverse range mountains, locally significant, are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quarternary nonmarine sediments and recent alluvium are small but important components of the subunit. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: There are no prominent geologic features along the Santa Ana River, and thus no outstandingly remarkable geologic values.

4. Fish and Wildlife

Description: The Santa Ana River has nationally and regionally significant populations of rainbow and brown trout. Some areas along the river corridor are supplemented through stocking. Historic populations of the Santa Ana sucker, a proposed federally threatened fish species, are known from the middle reaches of the river, and there is potential for this species to be reintroduced to unmodified portions of the river. Presence of other fish is unknown at this time. Most reaches have high quality habitat.

Portions of the Santa Ana River are home to a nationally significant nesting population of southwestern willow flycatcher, a federally endangered species. The habitat also supports regionally significant pairs of California spotted owl, a Forest Service Sensitive and federal candidate species. The river corridor serves as an important link from the coastal valley riparian areas to the highest riparian areas on the forest. The diversity of wildlife along the South Fork is also locally significant; approximately one half of the entire Santa Ana River corridor has been proposed as a wildlife emphasis zone for the land management plan revision. San Bernardino flying squirrel (Forest Service Sensitive) and southern rubber boa (Forest Service Sensitive, State threatened) also occur within both the conifer and riparian habitat present in the Santa Ana River drainage.

Determination: Both the fisheries and wildlife values along the Santa Ana River are recognized as being outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Though information of Native American use of the Santa Ana River corridor is limited, what is known indicates the use to be focused, with sites representing a small seasonal camp or plant processing (bedrock milling features) activity areas. These types of sites are not rare or unusual in

character for the area. Serrano place names are known, indicating that the area was used and important to Native Americans. However, the Santa Ana River has not had significant pre-historic use and possesses no outstandingly remarkable values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: The lower segment of the Santa Ana River had early hydropower development, which was regionally significant. The upper segment of the Santa Ana River was a major focus of historic activity associated with the Great Hiking Era. Recreation residences and organizational camps are other examples of recreation activity with historic associations located within the river corridor. It possesses outstandingly remarkable values.

Determination: No significant persons, events, or activities are associated with the upper segment of the canyon, so historic value for that portion is not considered to be outstandingly remarkable. In the lower segment, the water development is an exemplary and unique historic value, both regionally, and perhaps, nationally. There is a unique opportunity to interpret the history and geology of the Santa Ana River Canyon, and its contribution to the development of the County and southern California. Historic values are considered to be outstandingly remarkable in the lower segment of the River.

7. *Other (Botany)*

Description: Habitats along the Santa Ana River corridor are floristically diverse. The headwaters of the South Fork of the Santa Ana River begin in South Fork Meadows, a complex consisting of several large and numerous small meadows and seeps. At this location, wet montane meadow habitat continues along the creek for over two miles with elevations ranging between 7,300 and 9,000 feet. Seven, nationally significant populations of California taraxacum, a federally endangered plant species, occur in South Fork Meadows. Within this same meadow system and stream corridor, the only forest population of adder's-mouth, California's smallest native orchid (a Forest Service Sensitive species), occurs. Amongst silty humps of streamside habitat, 26 plants of this taxon, presumed to be extinct in California, were relocated by Coleman in August, 1989. The white flowered bog orchid (Forest Watch list) was also observed within this meadow system by Coleman in August, 1989 and by forest botanists in August, 2002 when they also relocated the only forest location of scalloped moonwort, (Forest Service Sensitive species of regional significance). One-quarter mile north of this location, also in montane meadow habitat, *Polemonium occidentale*, a disjunct from northern California and Forest Watch list species, was also relocated in 2002. Two additional orchids on the Forest Watch list, the spotted coral root and broadleaved twayblade, were observed in adjacent shaded forest habitat by Coleman in 1989.

Other rare plants with forest status are known from the Santa Ana River Corridor. A historic occurrence of California taraxacum occurs along the lower portion of the river below Filaree Flat. One of only two populations on the forest of Parish's checkerbloom, a candidate for federal listing, occurs in mesic

openings within the river corridor. This population is nationally significant. Locally significant populations of lemon lily, a Forest Service Sensitive species, occur along the river in several locations. Round-leaved boykinia, (Forest Watch species) occurs in the meadow near Camp Metoche and there is potential habitat along the river corridor. The Bear valley milk-vetch and Barton Flats Horkelia (Forest Service Sensitive species) also occur within upland vegetation within the river corridor.

Wet montane meadow habitat has been identified as a rare community type in the four southern California Forests and is regionally significant. The South Fork of the Santa Ana River flows through a large expanse of montane conifer forest, also identified as an important habitat type and as an area of high significance in the four southern California National Forests. This expanse of mid-elevation conifer forest, consisting of pine and fir, occurs adjacent to the south side of the Santa Ana River for at least one-half of its entire length.

Determination: Botanical values along the Santa Ana River are recognized as being outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery of the South Fork of the Santa Ana River within the wilderness is unique and diverse from a regional southern California standpoint and possesses outstandingly remarkable visual values.

Recreation

The recreation use along the Santa Ana River is regional in origin, from communities throughout southern California. It is a moderate to high use southern California multi-elevation backcountry canyon, and the river corridor is characterized by outstandingly remarkable recreation values.

Fish

The fisheries values in the Santa Ana River are recognized as being outstandingly remarkable due to 1) the presence of nationally and regionally significant populations of rainbow and brown trout, 2) historical and suitable habitat for the federally proposed Santa Ana Sucker and the potential for reintroduction in this river, and 3) the amount and quality of the aquatic habitat.

Wildlife

The wildlife values along the Santa Ana River are recognized as being outstandingly remarkable due to

1) nationally and regionally significant occupied habitat for southwestern willow fly catcher with nesting occurrences, 2) regionally significant pairs of California spotted owls, 3) the high quality riparian corridor wildlife linkage that crosses a wide elevational gradient, and 4) the robustness and diversity of wildlife along the river, which includes additional Forest Service Sensitive species.

Botany

The botanical values present along the Santa Ana River have been identified as being outstandingly remarkable due to 1) the large, numerous and nationally significant populations of California taraxacum (federally endangered) and six other meadow taxa with forest status present in South Fork meadows, 2) presence of one regionally significant population of Parish's checkerbloom (Federal candidate), several locally significant populations of lemon lily (Forest Service Sensitive) along the Santa Ana River, and three additional Forest Service Sensitive plant taxa, 3) presence of the large acreage of montane wet meadow habitat identified as a rare community type in the four southern California National Forests and, 5) the large expanse of mid-elevation conifer forest, identified as an important habitat type within the four southern California National Forests, occurring adjacent to the South Fork and Santa Ana River corridors.

Historic

The lower segment of the Santa Ana River had early hydropower development, which was regionally significant. The upper segment of the Santa Ana River was a major focus of historic activity associated with the Great Hiking Era. Recreation residences and organizational camps are other examples of recreation activity with historic associations located within the river corridor. It possesses outstandingly remarkable values.

Classification

Three segments of the Santa Ana River (19.2 miles) are eligible for classification as a wild, scenic or recreational river as follows:

Segment	Description	Length (Miles)	Classification
1	South Fork Meadows to Wilderness Boundary (South Fork)	2.4	Wild
2	Wilderness boundary to confluence with Santa Ana River (South Fork)	2.3	None. Not free flowing
3	Big Meadows to Filaree Flat	13.9	Recreational
4	Filaree Flat to confluence with Bear Creek	3.5	Scenic
5	Bear Creek to Seven Oaks Flood Control Dam flood zone	8.5	None. Not free flowing

All segments have outstandingly remarkable values for scenery, recreation, fish, wildlife and history. The South Fork segment within the San Geronio Wilderness is free of impoundments, inaccessible except by trail, and in a primitive watershed with unpolluted waters. The recreational segment of the Santa Ana River is readily accessible by road and trail and has significant recreation improvements along its shore (developed recreation sites, recreation residences, and organization camps). The scenic segment of the Santa Ana River, from Filaree Flat to the confluence with Bear Creek, is free of impoundments, has a largely undeveloped shoreline, is accessible at one location by road, and has less than pristine water quality.

Siberia Creek

Study Area Summary

Name of River: Siberia Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

Siberia Creek begins below the Bluff Lake dam (on private property) at 7,600 feet; T2N, R1W, Sec 34, SBBM. It flows west-southwest to the confluence with Bear Creek at 4,800; T2N, R1W, Sec 32, SBBM. See attached map. All of Siberia Creek is on National Forest System lands.

River Mileage:

Studied: 3.0 miles

Eligible: 3.0 miles (from Bluff Lake to confluence with Bear Creek)

Eligibility Inventory

Determination of Free Flow:

Siberia Creek is free flowing for its entire length below the dam.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Siberia Creek is located within the San Bernardino Mountains, with mid-elevation mixed conifer life zone scenery. Tall conifers with wet, lush green riparian vegetation dominate the view. Some of the gently-running creek flows or trickles part of the year. The Scenic Integrity Objective is High and Moderate. Below the dam, the landscape here has not been influenced nor altered by man. Seasonal variations are apparent in the fall when the black oaks and willows turn brilliant yellow before shedding their leaves.

Determination: The scenery is pleasant from a local southern California standpoint but possesses no outstandingly remarkable visual values.

2. Recreation:

Description: Siberia Creek is located in a Roaded Natural and Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS). The Siberia Creek Trail (1W04) passes through and around Siberia Creek. The creek also passes near the Champion Lodgepole Pine interpretive trail, site of the largest lodgepole pine in the world and adjacent to a beautiful montane meadow. The recreation use along Siberia Creek is low and local in origin.

Determination: The creek corridor is characterized by no outstandingly remarkable recreation values.

3. Geology

Description: Siberia Creek lies within the Upper San Geronimo Mountains Ecological Subunit of California. The Upper San Geronimo Mountains subunit contains mostly Mesozoic granitic rocks. Also, there are some Pre-Cambrian gneiss and Paleozoic marine sedimentary rocks. These transverse range mountains, locally significant, are a horst with faults and steep escarpments on the south-southwest, east-northeast, and west-northwest sides. Quaternary nonmarine sediments and recent alluvium are small but important components of the subunit. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: There are no outstandingly remarkable geologic values.

4. Fish and Wildlife

Description: Fish surveys for the identification of outstandingly remarkable fish values were not conducted for this creek and there is no information in forest files at this time. The California Department of Fish and Game indicate there might be some rainbow and brown trout in some locations, and that it is very remote and not a big fishery. Fisheries values along Siberia Creek are not considered to be outstandingly remarkable.

Siberia Creek is home to several, regionally significant pairs of spotted owls. These owl pairs are important, however, the wildlife values of Siberia Creek are not considered to be outstandingly remarkable.

Determination: Neither fish nor wildlife values are outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Though information of Native American use in the Siberia Creek corridor is limited, what is known indicates the use to be focused, with sites representing more specialized functions. These types of sites are not rare or unusual in character for the area, and appear to possess no outstandingly remarkable values. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or

regional importance is low.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. *Heritage resources (Historic)*

Description: The knowledge of the span and complexity of historic use of the Siberia Creek corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: Siberia Creek provides occupied habitat for two plant species listed as threatened or endangered by the U.S. Fish and Wildlife Service and the state of California. Nationally significant occurrences of the pedate checker-mallow, and California taraxacum are located along the upper portion of the creek within Lodgepole Meadow. The Lemon lily, a Forest Service Sensitive plant species of local significance, is also located in the meadow and along the creek. Within Lodgepole Meadow, there is also a high potential for the San Bernardino bluegrass, a federally endangered species to occur, as it is present in the meadow just upstream from this site. The wet, montane meadow also provides potential habitat for the scalloped moonwort, another Forest Service Sensitive plant species of regional significance. Ten additional Forest Service Sensitive plants and several rare orchids have the potential to occur. The montane wet meadow habitat is of regional significance and has been identified as one of twelve rare communities in the Southern California Mountains and Foothill Assessment. The Champion Lodgepole Pine is located adjacent to the meadow within the ¼ mile stream corridor. This *Pinus contorta* was discovered in 1963, a magnificent 440 year old, double-topped tree with a 36 foot circumference and 110+ feet height – one of the largest lodgepole pines in the world.

Determination: Botanic values are outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Botany

The botanical values along Siberia Creek are determined to be outstandingly remarkable based on 1) presence high altitude, montane wet meadow habitat, identified as one of 12 rare communities in the

Southern California Mountains and Foothills Assessment, 2) nationally significant occurrences of the pedate checker-mallow, and California taraxacum, federally listed species located along the upper portion of the creek within Lodgepole Meadow, and 3) presence of the Champion Lodgepole Pine located adjacent to the meadow within the ¼ mile stream corridor and national significance of this presence.

Classification

Siberia Creek is eligible for classification as a scenic river. It has outstandingly remarkable botanical values, is free of impoundments, is in a largely primitive watershed, and is accessible by non-motorized trails.

Bautista Creek

Study Area Summary

Name of River: Bautista Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

Bautista Creek has its headwaters at 4,600 feet on the southwest flank of a ridge between Horse Creek Canyon and Bautista Canyon; T6S, R3E, Sec 31, SBBM. The creek first flows southeasterly through the National Forest. The creek then leaves the National Forest, flowing through private land. From there it re-enters the National Forest, flowing northwest through Bautista Canyon. Then it enters State of California lands in Section 20. Bautista Creek re-enters National Forest in Section 18, reaching the forest boundary again at 2,300 feet; T6S, R1E, Sec 2, SBBM. See attached map.

River Mileage:

Studied: 13.4 miles

Eligible: 13.4 miles

Eligibility Inventory

Determination of Free Flow:

Bautista Creek is free flowing from its headwaters to the intersection with the Forest boundary, a distance of 13.4 miles. The creek is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Bautista Creek is located between the San Jacinto and Cahuilla Mountains and is characterized by moderately sloping canyons and rounded ridges. Green-gray chaparral, desert scrub and riparian vegetation dominate the view. The creek itself is often intermittent. The Scenic Integrity Objective is Moderate. Much of the landscape here is somewhat rural in feel, and has been significantly influenced and altered by man, with wildfire scars, roads, camps and some light ranching development present. Although it is part of an allotment, it is not currently grazed. Seasonal variations are slight. The

scenery here is not highly diverse.

Determination: This landscape is typical of much of the lower elevations of the San Jacinto and Cahuilla Mountains, and possesses no outstandingly remarkable visual values.

2. Recreation:

Description: Bautista Creek is located in a Roaded Natural Recreation Opportunity Spectrum (ROS), but has little recreation use along the creek. No fishing/boating opportunities are present. Sightseeing and wildlife viewing opportunities have not been developed. There is a Juan Bautista de Anza interpretive panel on State of California lands within the creek corridor. Other than that, there are no interpretive opportunities here. Almost all travel is motorized, in vehicles on the Bautista Canyon Road 5109B, a native surface road that parallels the creek. Much of this travel is local commercial vehicles and commuter traffic, from Anza to Hemet. The Bautista Canyon Road is also the location of a Federal Highway/Riverside County of Transportation project to pave and expand the 8.2 miles from a one lane to a two-lane road. It would provide for a new interpretive site and pullouts and new developed off-highway vehicle parking for Hixon Flat and Alessandro trailhead. The Hixon-Bautista Trail, 2E43, begins at the Bautista Canyon Road in Section 1 (private land) and immediately leads upslope to Red Mountain, five miles southwest. The Alessandro Trail, 2E44, begins at Bautista Canyon Road in section 20 and ends at the junction of 6S22, a distance of 2.7 miles. Bautista Canyon is a major seasonal quail and deer hunting ground. Its remoteness provides shelter for game species. Also, it has Cottonwood Truck Trail, 6S16, which is a locally popular OHV route as well as a heavily used area for recreational shooting.

Determination: Almost all of the recreation use along Bautista Creek is local in origin, mostly from the Inland Empire communities, not from outside the region. It is a relatively low recreation use southern California backcountry canyon, and the river corridor is not characterized by any outstandingly remarkable recreation values.

3. Geology

Description: Bautista Creek is part of the San Jacinto Mountains Ecological Subunit of California. The San Jacinto Mountains contain mostly Mesozoic granitic rocks and the Cahuilla Mountains contain mostly Pre-Cenozoic granitic and metamorphic rocks. Also, there are large areas of Pre-Cretaceous metasedimentary rocks and small areas of Pleistocene sediments. Portions of the San Jacinto Mountains are very steep, especially the escarpments above the Palm Springs area. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons. Some locally significant sand, silt and gravel operations occur in the area.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: The forest does not have extensive survey information on file for Bautista Creek, which is mostly an ephemeral stream. Bautista Creek is home to nationally significant populations of arroyo southwestern toad, nesting occurrences of the southwestern willow flycatcher, and the San Bernardino kangaroo rat, all federally endangered wildlife species. The U.S. Fish and Wildlife Service designated this area as critical habitat for the Quino checkerspot butterfly, a federally endangered insect. Forest Service Sensitive species present include silvery legless lizard, San Diego horned lizard, coastal rosy boa, Hammond two-striped garter snake, San Bernardino ringneck snake, purple martin, San Diego ringneck snake, Wilson's warbler, yellow warbler, yellow-breasted chat, Swainson's thrush, yellow-breasted chat, and mountain lion. The greenest tiger beetle, a rare invertebrate was collected in the 1970's along the creek and may still occur. This creek was identified as an area of high ecological significance within the four southern California National Forests in 1999.

Determination: Bautista Creek possesses the largest number of endangered wildlife species of any location on the forest. Wildlife values in Bautista Creek are recognized as being outstandingly remarkable. Aquatic habitat along Bautista Creek is important but is not considered an outstandingly remarkable value.

5. Heritage resources (Cultural)

Description: Evidence of Native American use of the Bautista Creek Canyon is present within the proposed WSR. This evidence reflects all aspects of Native American life, and has exceptional human-interest value to the local Native American and Tribal community as well as scientific value. Ethnographic research has documented Native American place names for areas within the drainage. The Canyon meets standards for a Traditional Cultural Property as highly significant.

Determination: Bautista Creek has had regionally significant pre-historic use, and possesses outstandingly remarkable values.

6. Heritage resources (Historic)

Description: The most important activity of the historic period was the travels of Juan Bautista de Anza in 1774 and again in 1776. The canyon was used as a route of the earliest efforts to reach the San Francisco Bay area from Sonora, Mexico. De Anza made two trips through the canyon. This trail route is designated as a National Historic Trail, which here is the Bautista Canyon Road corridor itself (not a trail). It is nationally significant, and possesses outstandingly remarkable values.

Determination: Historic values for Bautista Creek have regional and national significance, and are considered to be outstandingly remarkable.

7. Other (Botany)

Description: Bautista Creek provides nationally significant, occupied habitat for the slender-horned spine-flower, a federally endangered plant species. Within the four southern California National Forests, this plant occurs only on the Cleveland (31 acres) and San Bernardino National Forests (17 acres). The Bautista Creek population is significant because it is the only known location on the forest, consists of a large number (approx. 2,000) of individuals, and plants are scattered over a two mile stretch of Creek (CNDDDB occurrence 21). These annual plants occur on alluvial benches in or adjacent to the stream channel. Habitat is created by deposition of sediments carried by the stream. The habitat is dependent on proper functioning condition of the creek therefore downstream habitat is affected by hydrologic alterations upstream. The most significant method for Very High of slender-horned spineflower deals with water and watersheds. Proper management of water and watersheds provides the most significant benefit because the plant habitat is tied to hydrology and fluvial geomorphology and also because many of the remaining 23 occurrences of the spine-flower occur downstream off of National Forest System lands.

Determination: Botanical values along Bautista Creek are recognized as being outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Wildlife

Bautista Creek is considered to have outstandingly remarkable wildlife values based on 1) the presence of nationally significant populations of arroyo southwestern toad and San Bernardino kangaroo rat, and nesting occurrences of the southwestern willow flycatcher, all federally endangered species, 2) the U.S. Fish and Wildlife Service designation of Bautista Creek as Critical Habitat for the Quino checkerspot butterfly, a federally endangered insect, 3) the presence of fourteen Forest Service Sensitive species, 4) recognition of this stream as an area of high ecological significance within the four southern California National Forests in the Southern California Mountain and Foothill Assessment, and 4) recognition that Bautista Creek supports the largest number of endangered wildlife species of any location on the forest.

Botany

Bautista Creek is considered to possess outstandingly remarkable botanical values based on the nationally significant, occupied habitat of the slender-horned spineflower, a federally endangered plant species occurring on alluvial benches within the creek corridor. Regional and national significance of this occurrence is based on 1) the population occurring in one of only two locations of this plant in the four southern California National Forests, 2) this population being the only known population on the forest, 3) the large number (approx. 2,000) of individuals within this population and 4) the quantity of occupied habitat of this population (occurs over a two mile stretch of creek).

Cultural

Bautista Creek has many Native American sites of exceptional human-interest along the whole length of the canyon. Most of the sites represent occupation or habitation sites while others represent specialized activities such as milling features for food processing. While few archaeological investigations have been undertaken, ethnohistoric Cahuilla village sites occur at the upper portion of the drainage. The canyon meets the standards for a Traditional Cultural Property as highly significant. It possesses outstandingly remarkable values.

Historic

The most important event of the historic period was the passages of Juan Bautista de Anza in 1774 and again in 1776. The canyon was used as a route of the earliest efforts to reach the San Francisco Bay area from Sonora Mexico. De Anza made two trips through the canyon. This trail route is designated as a National Historic Trail, which here is the Bautista road corridor itself (not a trail). It is nationally significant and possesses outstandingly remarkable values.

Classification

The entire length of Bautista Creek, 13.4 miles, is eligible for classification as a recreational river. The creek has outstandingly remarkable values for wildlife, botany, prehistory and history. All of the creek is readily accessible by road or trail, has some development on the State lands, and less than pristine water quality.

Fuller Mill Creek

Study Area Summary

Name of River: Fuller Mill Creek

Location: State of California, San Bernardino County, San Bernardino National Forest

Fuller Mill Creek has its headwaters at 7,800 feet on the southwestern flank of Fuller Ridge in the Mount San Jacinto State Park; T4S, R3E, Sec 18, SBBM. The creek first flows southwesterly through the State Park. The creek then leaves State lands, flowing through the Pine Wood parcel of private land in Section 13. From there it enters the National Forest, flowing southwest and south, under State Highway 243, skirting the Lawler Park parcel of private land, then joining the North Fork of the San Jacinto River at 5,100 feet; T4S, R2E, Sec 26, SBBM. See attached map.

River Mileage:

Studied: 3.4 miles

Eligible: 3.4 miles

Eligibility Inventory

Determination of Free Flow:

Fuller Mill Creek is free flowing from its headwaters to the intersection with the North Fork of the San Jacinto River, a distance of 3.4 miles. The creek is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Located in the San Jacinto Mountains, Fuller Mill Creek is characterized by moderately sloping canyons and rounded ridges. Mixed oak and conifer covered hillsides and riparian vegetation dominate the view. The creek itself is sometimes intermittent. The Scenic Integrity Objective is High. Some of the landscape here has been influenced and altered by man, with roads, cabins and recreation infrastructure present. Seasonal variations are moderate. The scenery here is not highly diverse. This landscape is typical of much of the middle elevations of the San Jacinto Mountains.

Determination: The creek corridor possesses no outstandingly remarkable visual values.

2. Recreation:

Description: Fuller Mill Creek is located in a Roaded Natural Recreation Opportunity Spectrum (ROS). The headwaters of the creek begin about ¼ below the Pacific Crest Trail (PCT), within the Mount San Jacinto State Park. There is no access from the PCT to Fuller Mill Creek, however, and no other public trails are within the creek corridor. Fishing opportunities are present here and fishing was popular, but after the proposal for listing of the mountain yellow-legged frog, stocking ceased, so fishing at this site has fallen off. No boating opportunities are present. Sightseeing, wildlife viewing and interpretive opportunities have not been developed. The major recreation opportunity is the small Fuller Mill Creek Picnic Area, located below Highway 243 in Section 26. Almost all of the recreation use along Fuller Mill Creek is local in origin, mostly from the Inland Empire and Idyllwild communities, not from outside the region. It is a low to moderate recreation use southern California mid-elevation recreation area, and the creek corridor is not characterized by any outstandingly remarkable values.

Determination: The creek corridor does not possess outstandingly remarkable recreation values.

3. Geology

Description: Fuller Mill Creek is part of the San Jacinto Mountains Ecological Subunit of California. The San Jacinto Mountains contain mostly Mesozoic granitic rocks. Also, there are large areas of Pre-Cretaceous metasedimentary rocks and small areas of Pleistocene sediments. Portions of the San Jacinto Mountains are very steep, especially the escarpments above the Palm Springs area. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: No native fisheries occur in Fuller Mill Creek; however, rainbow trout have been stocked by early settlers and by California Department of Fish and Game. Portions of the Fuller Mill Creek have good quality habitat but fish values are not considered to be outstandingly remarkable.

Fuller Mill Creek is home to a nationally significant population of mountain yellow-legged frog. The creek supports one of the last remaining populations of this federally endangered species in southern California and the only known population on the San Jacinto Ranger District. This species is highly imperiled; less than 100 individuals are estimated to exist. Surveys conducted in this creek for the mountain yellow-legged frog in 2002 yielded eight individuals. The California spotted owl and the southern rubber boa (Forest Service Sensitive species) are also present along Fuller Mill Creek. There is

potential for the San Bernardino flying squirrel (Forest Service Sensitive) to occur.

Determination: Wildlife values along Fuller Mill Creek have been determined to be outstandingly remarkable. The river does not possess outstandingly remarkable fish values.

5. Heritage resources (Cultural)

Description: Though information of Native American use in the Fuller Mill Creek corridor is limited, what is known indicates the use to be focused, with sites representing more specialized functions. These types of sites are not rare or unusual in character for the area, and appear to possess no outstandingly remarkable values. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of human use of the Fuller Mill Creek corridor is limited but several sites are known to be located within the corridor. Research indicates that the historic use was associated with logging. Fuller Mill Creek was logged from 1880 through 1895, with the timber brought down by wagon to San Jacinto. The sites and features recorded within the corridor are common in the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. Other (Botany)

Description: Fuller Mill Creek provides occupied habitat for a locally significant population of lemon lily, a Forest Service Sensitive species.

Determination: Although this habitat is important, botanical values along Fuller Mill Creek are not considered to be outstandingly remarkable.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Wildlife

The wildlife values along Fuller Mill Creek are recognized as being outstandingly remarkable based on 1) presence of nationally significant, occupied habitat for mountain yellow-legged frog and recognition of the value of this habitat for species recovery, 2) recognition of the significance of this occurrence; it is one of only several occurrences in southern California with a total population estimated at 100 individuals and, 3) presence of other Forest Service Sensitive species, California spotted owl and San Bernardino flying squirrel.

Classification

The entire 3.4 mile length of Fuller Mill Creek is eligible for classification as a recreational river. It has outstandingly remarkable values for wildlife. Fuller Mill Creek is readily accessible by road or trail, has some development, and less than pristine water quality.

Palm Canyon

Study Area Summary

Name of River: Palm Canyon

Location: State of California, San Bernardino County, San Bernardino National Forest

The intermittent creek in Palm Canyon has many minor headwaters in the Vandeventer Flat area of the Santa Rosa Indian Reservation at 4,800 feet; T7S, R4E, Sec 25, SBBM. The creek first flows north to northeast through the Reservation, crossing under California State Highway 74. It then leaves Reservation lands, flowing through a parcel of private land in Section 7. After that, it travels through the national forest within the Santa Rosa and San Jacinto Mountains National Monument, eventually entering Bureau of Land Management (BLM) lands at 2,000 feet; T6S, R4E, Sec 1, SBBM (see attached map).

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	5.0	0
2	8.1	8.1

Studied: 13.1 miles

Eligible: 8.1 miles (from the private land to the national forest boundary)

Eligibility Inventory

Determination of Free Flow:

Palm Canyon is free flowing from its headwaters to the national forest boundary, a distance of 13.1 miles. The creek is also intermittent for all of its length during late spring to early winter.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: Palm Canyon is located in the lower eastern slope of the San Jacinto Mountains, characterized here by steeply sloping canyons and narrow ridges, with deep, rugged canyons. The high

desert mountains support peninsular pinyon woodland. Chaparral blankets the hills and Sonoran/Mohave desert vegetation covers the desert floor at lower elevations. The unique presence of the California fan palm (California's only native palm) gives this canyon its name. It is a nationally significant palm oasis. The creekbed in Palm Canyon is almost always dry, flowing underground for much of the year. A few short reaches have modest seasonal surface flow, providing haven for small oases. The Scenic Integrity Objective is High. Some of the landscape here has been influenced and altered by man, especially in the Reservation, with roads and cabins present. Part of the Wellman allotment during the winter. Seasonal variations are not readily apparent, except within the riparian corridor when the willows turn golden before dropping their leaves in the fall. The scenery here is regionally spectacular, with deep, rugged, rocky canyons, thick riparian vegetation, and palm oases. Winter and early spring storms bring ephemeral waterfalls. Summer thunderstorms bring flash floods.

Determination: This high-desert landscape possesses outstandingly visual values.

2. Recreation:

Description: Palm Canyon is located in a Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS). The Palm Canyon Trail (4E01) parallels most of the length of the canyon. Except for the headwaters area, where many small natural surface roads and State Highway 74 intersect the tributaries, Palm Canyon is unroaded. No recreation opportunities exist, other than hiking, sightseeing and wildlife watching. Almost all of the limited recreation use in Palm Canyon is local in origin, mostly from the Palm Springs and Coachella Valley communities, not from outside the region. It is a very low recreation use desert canyon, and the creek corridor is not characterized by outstandingly remarkable recreation values.

Determination: Recreation values are not outstandingly remarkable.

3. Geology

Description: Palm Canyon is part of the San Jacinto Mountains Ecological Subunit of California. The San Jacinto Mountains contain mostly Mesozoic granitic rocks. Also, there are large areas of Pre-Cretaceous metasedimentary rocks and small areas of Pleistocene sediments. Portions of the San Jacinto Mountains are very steep, especially the escarpments above the Palm Springs area. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: Recent surveys have not indicated the presence of fish within Palm Canyon. The best habitat is present on the Reservation lands; Palm Canyon on the Forest is mostly dry on the surface.

Palm Canyon is not recognized as having outstandingly remarkable values for fish.

Palm Canyon on adjacent Bureau of Land Management public lands provide habitat for southwestern willow flycatcher, least Bell's vireo, summer tanager, yellow warbler, yellow-breasted chat, gray vireo, southern yellow bat, and Peninsular Range bighorn sheep. On National Forest lands, the riparian vegetation in Palm Canyon provides potential habitat for the federally endangered southwestern willow flycatcher and least Bell's vireo, although none have been reported there. Portions of the canyon are historic habitat for mountain yellow-legged frog, a federally endangered species. Palm Canyon is also home to the federally endangered peninsular bighorn sheep. The sheep are dependent upon springs for water and rocky open escape terrain. While they are attracted to the riparian habitat and/or the palm oases, they are not necessarily dependent upon them. From this standpoint, Palm Canyon is not recognized as having outstandingly remarkable wildlife values.

Determination: Neither fish nor wildlife values are outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Evidence of Native American use of Palm Canyon, especially for the last two thousand years, is present in the proposed WSR. This evidence reflects all aspects of Native American life, and has exceptional human-interest value to the local Native American and Tribal community as well as scientific value. The Canyon is located in the heart of Cahuilla ethnographic territory, and the Cahuilla continue to use the area for traditional practices. The Canyon meets standards for a Traditional Cultural Property as highly significant.

Determination: The canyon meets the standards for a Traditional Cultural Property as highly significant, and has outstandingly remarkable prehistoric values.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use is limited but several sites are known to be located within the corridor. Research indicates that the historic use was associated with ranching and livestock raising. Palm Canyon long horn cattle have been raised within the corridor for over 120 years. This hardy breed and the pioneering families who raised them are part of the American West story. The sites and features recorded within the corridor are common in the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered outstandingly remarkable.

7. Other (Botany)

Description: California fan palms (*Washingtonia filifera*) are relicts from millions of years ago when the

area that is now desert was wetter and occupied by a tropical forest. Today these native North American trees occur only in locations with a high water table. Permanent streams within steep sided canyons or large springs provide habitat for the largest groves. Smaller groves occur where seeps or moist canyon sides provide moisture even where surface water is intermittent. The Palm Canyon Oases are adjacent to underground faults, which bring water to the surface. California fan palms can reach a maximum of 82 feet and are the dominant feature in the overstory. The oases community is long-lived with individual trees reaching the age of 150-200 years. Reproduction occurs only from mature trees and only after extremely wet winters. Fire is an integral part of the ecology of the palm oases as it removes the understory shrubs allowing more water for the fire tolerant palms and also causes a flush of growth as small palms are released from shade. Where fire is allowed to occur, there is a combination of mature trees in the canopy, and smaller palms that inhabit the understory.

Palm Canyon supports the largest California fan palm oasis in the United States. The abundance of these palms, relics from millions of years ago are nationally significant and unique. This location is also recognized as an area of high ecological significance within the four southern California National Forests.

Determination: The Palm Oases within Palm Canyon, both on National Forest and Bureau of Land Management lands, are recognized as having outstandingly remarkable botanical value.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery here is regionally spectacular, with deep, rugged, rocky canyons, thick riparian vegetation, and palm oases. Winter and early spring storms bring ephemeral waterfalls. This high-desert landscape possesses regionally outstandingly visual values.

Cultural

Palm Canyon is within the heart of Cahuilla territory. There are many Native American sites along the entire portion of the canyon, including village sites, seasonal camps and numerous specialized activity areas including rock art, agave roasting pits and milling features. The major occupation has occurred within the last two thousands years. Cahuilla today continue to use the area for gathering of traditional plants for food and medicine. The Canyon meets the standards for a Traditional Cultural Property as highly significant, and has outstandingly remarkable pre-historic values.

Botany

The Palm Oases within Palm Canyon are recognized as having outstandingly remarkable habitat value due to 1) a location that supports the largest California fan palm oasis in the United States, 2) the abundance of these native palms, relics from millions of years ago that are nationally significant and unique, and 3) the location is recognized as an area of high ecological significance within the four southern California National Forests.

Classification

One segment of Palm Canyon, 8.1 miles in length, from the private land to the Forest boundary, is eligible for classification as a wild river. It has outstandingly remarkable values for scenery, prehistory and botany. Also, it is free of impoundments, inaccessible except by a non-motorized trail, and in a primitive watershed with unpolluted waters. Also, through the California Desert Conservation Area Plan Amendment, the Bureau of Land Management evaluated the 1.2 mile segment of Palm Canyon where it leaves the Forest in T5S, R4E, S36, SBBM and determined that it was eligible as a wild and scenic river, with a tentative classification of scenic.

San Jacinto River (North Fork)

Study Area Summary

Name of River: North Fork of San Jacinto River

Location: State of California, San Bernardino County, San Bernardino National Forest

The North Fork of the San Jacinto River has its headwaters at two major locations, both at 10,000 feet in the Mount San Jacinto State Park, one fork; T4S, R3E, Sec 20, SBBM in Little Round Valley, just west of San Jacinto Peak; the other; T4S, R3E, Sec 29, SBBM at Deer Springs on Marion Mountain. Mileage is computed from the Little Round Valley headwater. The river first flows westerly through the State Park. The river then leaves State lands, flowing through the National Forest into Section 24, crossing National Forest System Road 4S02. From there it enters the Lawler Park private land parcel in Section 26, then joining Fuller Mill Creek. It then re-enters National Forest, flowing west and southwest. The North Fork of the San Jacinto River enters another parcel of private land at Section 17, finally joining the South Fork of the San Jacinto River near State Highway 74 at 2,200 feet; T5S, R2E, Sec 18, SBBM. Many tributary creeks feed into this river. See attached map.

River Mileage:

River Segment	Miles Studied	Miles Eligible
1	2.3	2.3
2	9.1	9.1
3	1.2	0

Studied: 12.6 miles

Eligible: 11.4 miles

Eligibility Inventory

Determination of Free Flow:

The North Fork of the San Jacinto River is free flowing from its headwaters to a diversion on private

land in Section 17, a distance of 11.4 miles. The creek is also intermittent for some of its length during the mid to late summer and fall.

Determination of Outstandingly Remarkable Values:

1. Scenery

Description: The North Fork of the San Jacinto River is located in the San Jacinto Mountains and characterized by steep, rugged, river cut canyons. Spectacular views of montane meadow (with colorful seasonal wildflowers are visible from the river) and southern California subalpine forest occur at the highest elevations. As the elevation decreases, mixed conifer and big cone Douglas fir forest come into view. Oak woodlands, chaparral and grasslands blanket the slopes at the lower elevations. Riparian woodland consisting of white alder, cottonwood and various willow species is present throughout the river corridor. The creek itself is sometimes intermittent. The Scenic Integrity Objective is a mixture of High and Moderate. Some of the landscape here has been influenced and altered by man, with roads, cabins and recreation infrastructure present. Seasonal variations are very apparent; especially in the fall as the wetland species turn golden before shedding their leaves. The scenery here is diverse, ranging from dramatic, high elevation, rocky alpine to middle elevation mixed conifer and oak woodland to lower elevation chaparral and grassland, all with riparian interlaced throughout.

Determination: This landscape is a remarkable life-zone journey of the San Jacinto Mountains, and possesses regionally outstandingly remarkable visual values.

2. Recreation:

Description: The North Fork of the San Jacinto River is located in a Roaded Natural Recreation Opportunity Spectrum (ROS). Within the Mount San Jacinto State Park, the river crosses the Pacific Crest Trail (PCT), the Marion Mountain Trail (2E14), and the Seven Pines Trail (2E13). It also passes by the Little Round Valley wilderness campsite. The river next passes the Dark Canyon Campground within the National Forest, and passes within ¼ mile of the Fuller Mill Creek Picnic Area. From that point, no other formal recreation opportunities exist except for access to the Webster Trail (2E16) in Section 9. Fishing (but no boating) opportunities are present. Informal sightseeing and wildlife viewing opportunities are present. Almost all of the recreation use along Fuller Mill Creek is local in origin, mostly from the Inland Empire and Idyllwild communities, not from outside the region. It is a low to moderate recreation use southern California multi-elevation recreation area, and the creek corridor is characterized by no outstandingly remarkable recreation values.

Determination: The creek corridor possesses no outstandingly remarkable recreation values.

3. Geology

Description: The North Fork of the San Jacinto River is part of the San Jacinto Mountains Ecological

Subunit of California. The San Jacinto Mountains contain mostly Mesozoic granitic rocks. Also, there are large areas of Pre-Cretaceous metasedimentary rocks and small areas of Pleistocene sediments. Portions of the San Jacinto Mountains are very steep, especially the escarpments above the Palm Springs area. Mass wasting and fluvial erosion are the main geomorphic processes. Soils are thin on the steep slopes, building in depth in the canyons.

Determination: No outstandingly remarkable geologic values exist.

4. Fish and Wildlife

Description: Rainbow and brown trout are present in the North Fork of the San Jacinto River. Rainbow trout are also supplemented through stocking by the California Department of Fish and Game. Two other native fish are known to occur; the Santa Ana speckled dace (Forest Service Sensitive) and the partially armored three-spine stickleback. There is high quality habitat and the North Fork of the San Jacinto River is a locally important fishing location. However, fisheries values along the North Fork of the San Jacinto River are not recognized as being outstandingly remarkable.

The North Fork of the San Jacinto River is historic habitat to a nationally significant population of mountain yellow-legged frog (federally endangered), and a regionally significant population of California spotted owl (Forest Service Sensitive, Federal candidate). Potential habitat for southwestern willow flycatcher (federally endangered) is present. It also contains the best remaining southern rubber boa and San Bernardino flying squirrel habitat in the San Jacinto Mountains.

Determination: Wildlife and habitat values are of high quality along the North Fork of the San Jacinto River, and are recognized as being outstandingly remarkable.

Fish values are not outstandingly remarkable.

5. Heritage resources (Cultural)

Description: Information of Native American use within the North Fork of the San Jacinto River is limited. The steep river corridor limited the opportunity for use, which resulted in use that was usually focused or specialized (food or resource gathering and processing sites) and scattered throughout the corridor. Due to the steepness of adjacent landforms, the potential for extensive prehistoric occupation with exceptional human-interest values, extraordinary interpretive potential, or national or regional importance is low. The evidence of past Native American use in the corridor is not rare or unique for California, and does not have exceptional human-interest values.

Determination: Cultural values are not considered to be outstandingly remarkable.

6. Heritage resources (Historic)

Description: The knowledge of the span and complexity of historic use of the North Fork of the San Jacinto River corridor is limited. Due to the steepness of adjacent landforms, the potential for extensive occupation or use is low. Any sites or features located within the corridor would be considered common for the local area and region, and may possess local significance but they are not rare, unique or noteworthy enough to have significance beyond the local level.

Determination: Historic values are not considered to be outstandingly remarkable.

7. *Other (Botany)*

Description: The North Fork of the San Jacinto River supports locally significant populations of Lemon lily, a Forest Service Sensitive plant species. Habitat along the creek and various meadows may support occurrences of several Forest Service Sensitive plant species, although none are known at this time. High quality mixed conifer and bigcone Douglas-fir forest in this location have been identified as habitats of high ecological significance in the four southern California National Forests. The presence of these habitat types and the lemon lily occurrence are important, but the North Fork of the San Jacinto River is not recognized as having outstandingly remarkable botanical values.

Determination: The North Fork of the San Jacinto River does not possess outstandingly remarkable botanical values.

Summary of Outstandingly Remarkable Values:

Based on the rare, unique, exemplary and significant features and characteristics described in the previous section, the following values were determined to be outstandingly remarkable:

Scenery

The scenery here is diverse, ranging from dramatic, high elevation, rocky alpine to middle elevation mixed conifer and oak woodland to lower elevation chaparral and grassland, all with riparian interlaced throughout. This landscape is a remarkable life-zone journey of the San Jacinto Mountains, and possesses regionally outstandingly remarkable visual values.

Wildlife

The wildlife values along the North Fork of the San Jacinto River are recognized as being outstandingly remarkable based on 1) presence of nationally significant, historic and suitable habitat for mountain yellow-legged frog in the headwater tributaries of the North Fork of the San Jacinto River, 2) recognition of the value of this habitat based on the extremely endangered status of the mountain yellow-legged frog and, 3) the diversity of Forest Service Sensitive species present; California spotted owl, southern rubber boa and San Bernardino flying squirrel also occur.

Classification

Two segments of the North Fork of the San Jacinto River are eligible for classification as a wild or recreational river as follows:

Segment	Description	Length (Miles)	Classification
1	Headwaters to State Park Boundary	2.3	Wild
2	State Park Boundary to private land diversion	9.1	Recreational
3	Private land diversion to forest boundary	1.2	None. Not free flowing.

Both segments have outstandingly remarkable values for scenery and wildlife. The State Park segment is free of impoundments, inaccessible except by trail, and in a primitive watershed with unpolluted waters. The recreational segment of the North Fork of the San Jacinto River is readily accessible by road and trail, and has some recreation improvements along its shore (developed recreation sites, cabins).