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Bureau of Land Management California Desert Conservation Area, Palm Springs-South Coast Field Office

Whitewater River Wild and Scenic River Comprehensive River Management Plan

Forest Service San Bernardino National Forest Pacific Southwest Region

Bureau of Land Management Palm Springs-South Coast Field Office California Desert District

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Background

This comprehensive river management plan (CRMP) establishes programmatic management direction for the Whitewater River ("river"), a Wild and Scenic River (WSR) jointly administered by the US Forest Service (Forest Service or FS) and Bureau of Land Management (BLM). Within the area of Forest Service jurisdiction, the river runs through the Front Country Ranger District of San Bernardino National Forest (Forest). Within the area of BLM jurisdiction, the river runs through the Palm Springs-South Coast Field Office management area. This CRMP has been developed to implement the direction of the Wild and Scenic Rivers Act of 1968 (Public Law 90-542) as amended in the 2019 John D. Dingell, Jr. Conservation, Management, and Recreation Act (Dingell Act, Public Law 116-9). The Dingell Act designated 28.1 miles of the Whitewater River, adding it to the National Wild and Scenic Rivers System. In its designating legislation, Whitewater River was classified as a combination of wild and recreational segments. The Wild and Scenic Rivers Act (Act) established a system for preserving outstanding free-flowing rivers. Section 1(b) of the Act directs that:

> *"certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreations, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations"* (Public Law 90-542, 1968).

Role of a CRMP

The Act requires the agency responsible for administration of designated rivers to develop a CRMP for all rivers added to the National Wild and Scenic River System, in order to protect and enhance their free-flowing condition, water quality, and outstandingly remarkable values (ORVs) -- collectively referred to as "river values" -- for the benefit and enjoyment of present and future generations. The Forest Service, under the direction of the Secretary of Agriculture, and the BLM, under the direction of the Secretary of Interior, are the agencies responsible for the administration of the Whitewater River.

The purpose of this CRMP for the Whitewater River WSR is to protect and enhance river values by providing desired conditions, management direction, and monitoring plans that will be applied to the designated river corridor (the area within the proposed final boundary). The CRMP also addresses resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of the Act.

This CRMP does not withdraw or invalidate valid existing rights within the corridor. Existing land uses in the Whitewater River WSR corridor are discussed in the "Land Uses and Access in River Corridors" section below.

The river and its boundaries are shown in Figure 1, below. The river's outstandingly remarkable values are further discussed in the "Baseline Conditions" section.

As established in the 2019 Dingell Act, the Forest Service administers 19.1 miles of the WSR, including four wild segments and one recreational segment. BLM administers the other 9 miles which include a 5.4-

mile wild segment and a 3.6-mile recreational segment. Further discussion of the river's classifications is detailed in the "Wild and Scenic River Corridor Classification" section, below.

This management plan, in addition to all existing management direction, will guide all development, management, and restoration activities in the WSR corridor. Additional information about existing management direction is described in the "Planning Context" section below.

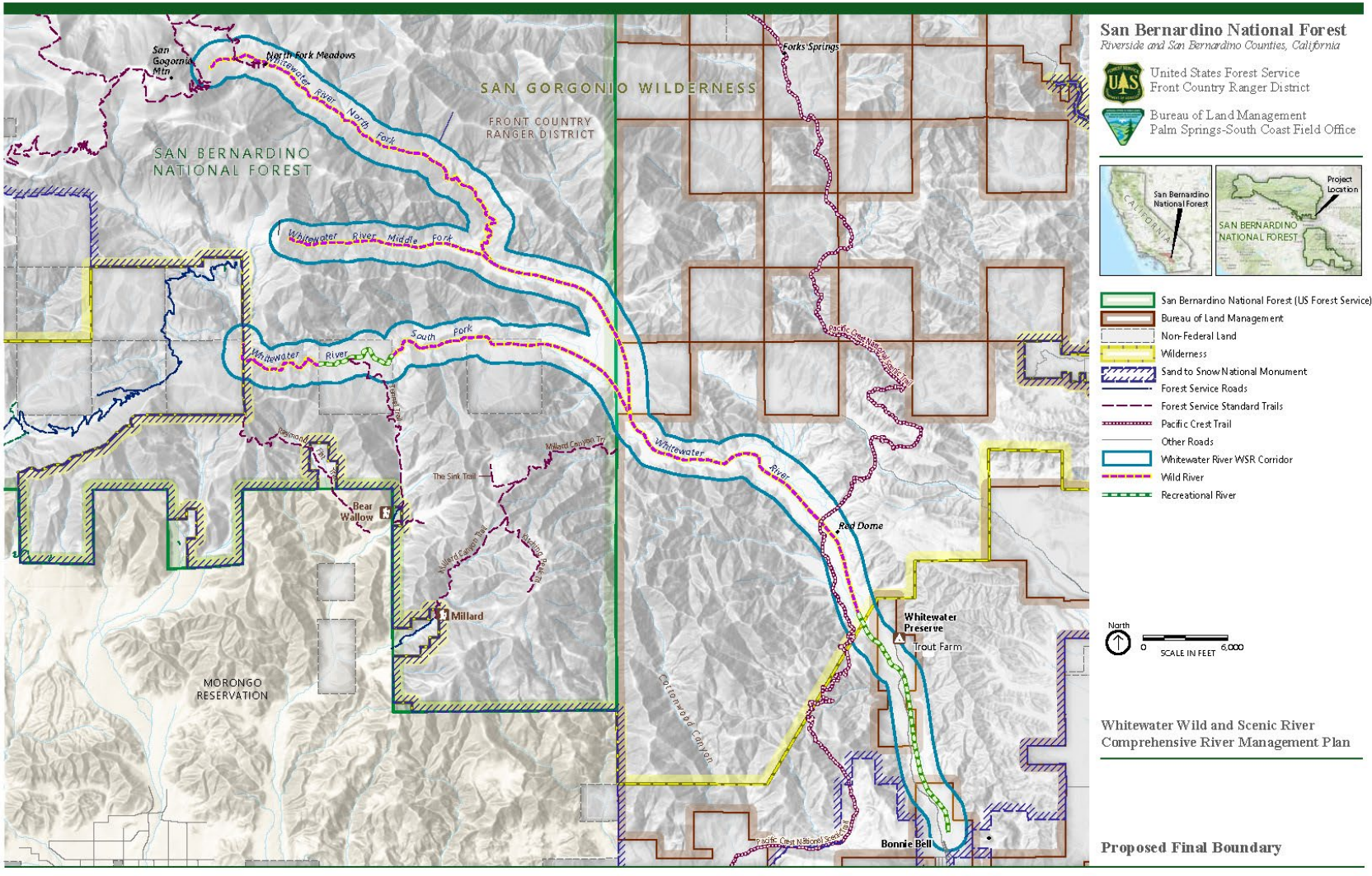

Figure 1. Proposed Final Boundary

River Corridor Locations and Boundaries

Whitewater River is located within both Riverside and San Bernardino counties, California, and is split between Forest Service and BLM jurisdiction. Most of the 28.1 miles of designated river falls under Forest Service jurisdiction in the San Bernardino National Forest. Whitewater River is also located within the Sand to Snow National Monument, which was designated by Presidential Proclamation in 2016. Approximately 90% of the river corridor is within wilderness, and much of it is inaccessible. Whitewater River WSR includes the Forest Service-managed North Fork, Middle Fork, and South Fork to the north, as well as the BLM-managed main stem of the Whitewater River. Originating on San Gorgonio Mountain, within the San Gorgonio Wilderness, the designated reach of the river flows through the San Bernardino Mountains to the Coachella Valley region.

The proposed final Whitewater River boundary differs from the 1/4-mile interim boundary distance along a 1.27-mile reach of the river. This reach begins approximately 2.4 miles downstream of the confluence of the Whitewater River and the Whitewater River South Fork and terminates in the vicinity of Red Dome. In this reach, the buffer is 1/4-mile on the western bank but extends to as much as 0.33 mile on the east bank. This was necessary to capture the entire valley floor, wherein the active channel migrates from bank to bank, and up the valley walls to capture the horizontal extent of high flow flood events. To counter the increase in boundary width, boundary width reductions were made immediately upstream on the western bank for a reach of approximately 1.9 miles. These boundaries are referred to as the "river corridor."

Wild and Scenic River Corridor Classifications

The Wild and Scenic Rivers Act states rivers should be classified, designated, and administered as wild, scenic, or recreational. The three classes (wild, scenic, or recreational) represent a development scale and serve as a framework for future management; they are not synonymous with the river's outstandingly remarkable values. Designating river segments in classifications neither prohibits development nor gives the federal government control over private property. Wild rivers are "those rivers or sections of river that are free of impoundments and generally inaccessible except by trail, with watershed or shorelines essentially primitive and water unpolluted." Scenic rivers are "those rivers or sections of rivers that are free of impoundments, with shorelines or watershed still largely primitive and shorelines largely undeveloped, but accessible in places by road." Recreational rivers are "those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past."

The Dingell Act designated the Whitewater River a Wild and Scenic River. The Whitewater River was classified as a combination of wild and recreational segments at the time of designation, based on eligibility reports from the Forest Service (USDA Forest Service 2005c) and BLM (2002). A total of 28.1 miles of Whitewater River is designated as a wild or recreational river (see Figure 1). Approximately 19.1 miles, including four wild segments and one recreational segment, are under Forest Service jurisdiction. The other 9 miles are under BLM jurisdiction, which includes 5.4 miles classified as wild river and 3.6 miles classified as recreational.

The first wild segment of Whitewater River under Forest Service jurisdiction is a 5.8-mile-long section within the North Fork of the river, from the source of the river near San Gorgonio Mountain to its

confluence with the Middle Fork. The next Forest Service section of the river is a 6.4-mile-long wild segment of the Middle Fork, from the source of the river to its confluence with the South Fork. The third wild segment administered by the Forest Service is the 1.0-mile-long portion of the river in the South Fork that extends from the confluence of the river with the East Fork to the section line between sections 32 and 33, T. 1 S., R. 2 E., San Bernardino Meridian. The Forest Service also administers a recreational segment of the river, 1.0 mile in length. This segment of the South Fork spans the section line between sections 32 and 33, T. 1 S., R. 2 E., San Bernardino Meridian, to the section line between sections 33 and 34, T. 1 S., R. 2 E., San Bernardino Meridian. The final Forest Service wild segment is 4.9 miles in length, extending along the South Fork from the section lines between sections 33 and 34, T. 1 S., R. 2 E., San Bernardino Meridian, to the confluence with the Middle Fork.

The BLM also administers two segments of the river: one wild segment 5.4 miles in length, as well as a 3.6-mile-long recreational segment. The wild segment runs along the main stem of the river, from the confluence of the South and Middle forks to the San Gorgonio Wilderness boundary. The recreational segment spans the portion of the main stem from the San Gorgonio Wilderness boundary to 0.25 miles upstream of the southern boundary of section 35, T. 2 S., R. 3 E., San Bernardino Meridian.[1]

Regional River Setting

Forest Service segment

All the segments of the Whitewater Wild and Scenic River in the Forest Service jurisdiction are in the San Gorgonio Wilderness. The North Fork is wild in nature, with little recreation use except where Trail 1E05.3 leads to the Mine Shaft Flat and Big Tree wilderness campsites. The Middle Fork is a wild setting. The South Fork is accessible by National Forest System Road 2501 (which provides management access to diversion dams located outside the designated corridor) and Forest Trail 2E08 from Bear Wallow Trailhead accesses the river on private land in Section 33; otherwise, it is a wild, very low-use setting.

The section of the river with diversion dams is not free-flowing, was therefore ineligible for Wild and Scenic River designation, and is therefore not included in the designated WSR. The remainder of the river is free of impoundments, inaccessible by road or trail, and located in a primitive watershed with unpolluted waters (USDA Forest Service 2005a).

BLM segment

The BLM segment has regionally unique headwater springs and steep canyon walls. The river corridor supports a large amount of quality (remote, pristine, designated wilderness) and diverse habitat for regionally significant animal populations, including but not limited to federally listed and proposed species such as California spotted owl (Southern California/Coastal Distinct Population Segment proposed for federal listing as endangered), desert bighorn sheep (BLM designated sensitive species) and arroyo toad (federally listed as endangered). The northern part of the designated BLM segment is wild and is generally low in use north of Red Dome. Use in this part of the corridor is typically for hunting or solitude experiences. Traveling south, the Pacific Crest Trail (PCT) intersects with the WSR corridor near Red Dome; the designated BLM segment in this area is a popular recreation setting due in part to the

[1] Location descriptions in this section for each designated WSR segment are pulled from the 2019 Dingell Act.

Whitewater Preserve, owned and managed by the Wildlands Conservancy. This area experiences the highest use within the corridor and the Preserve serves as a popular starting point for hiking groups traveling north, as well as equestrian, hunting, and camping activities. The Whitewater River is also an important ceremonial and cultural area for traditional Cahuilla Indians, who visit the river to collect and gather native materials.

Planning Context

The Forest's and BLM's responsibilities and requirement to comply with other federal laws remains unchanged by direction in this plan. The planning context for this CRMP includes, but is not limited to, the following other laws, regulations, policies, and special area plans that guided development of this plan as well as future river management.

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act of 1968 preserves selected rivers and their immediate environments in free-flowing conditions to protect them for the benefit and enjoyment of present and future generations. These rivers may possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values. The Wild and Scenic Rivers Act states rivers should be classified, designated, and administered as wild, scenic, or recreational. The Wild and Scenic Rivers Act requires the administering agency to establish a detailed river corridor boundary of an average of not more than 320 acres per river mile and to prepare a CRMP for those areas. The Act also requires the identification of user capacities and the development of management strategies to manage use within those capacities (IVUMC 2016a in Otak, Inc. 2023). A user capacity analysis was conducted for the Whitewater River and is included as Appendix A.

Under Section 7 of the Act, water resources projects are restricted within the WSR in order to protect river values from the harmful effects of these projects. Section 7 requires evaluation of federally assisted water resources projects and a determination by the river-administering agency (IWSRCC, no date). A water resources project must meet applicable evaluation standards prior to implementation.

2019 John D. Dingell, Jr. Conservation, Management, and Recreation Act

The 2019 John D. Dingell Jr. Conservation, Management, and Recreation Act (Public Law 116-9) designated the Whitewater River as a Wild and Scenic River and established interim boundaries for the designated section. It also divided Whitewater River into four segments, designated as either recreational or wild, along 28.1 miles of river. Approximately 19.1 miles, including four wild segments and one recreational segment, are under Forest Service jurisdiction. The other 9 miles are under BLM jurisdiction and includes a 5.4-mile wild segment as well as a 3.6-mile recreational segment.

Forest Plan

The National Forest Management Act of 1976 (NFMA) establishes standards for how the Forest Service manages the national forest and requires the development of land management plans (Forest Plan/ LMP) for national forests. The 2005 LMP for the San Bernardino National Forest is the guiding direction for the Forest. The 2005 LMP includes desired conditions and management directions for several eligible Wild and Scenic Rivers that were later designated WSRs, including Whitewater. This direction was

developed for eligible Wild and Scenic Rivers and have been adopted following designation of the Whitewater River.

Within the 2005 LMP, management direction was specifically developed to preserve the free-flowing condition and water quality and to protect the ORVs for which Whitewater was later congressionally designated. Management activities that are inconsistent with these objectives will not be permitted.

Forest Service Manual—Comprehensive River Management Plan

Forest Service Manual 2354 provides additional information on the requirements for completing a CRMP. Additional guidance on the suggested contents of a CRMP is found in the *Wild and Scenic River Management Responsibilities*, a technical report of the Interagency Wild and Scenic Rivers Coordinating Council (2002). The suggested contents include a description of the river setting and resource values, planning context, coordination with others, management direction, management actions, and monitoring strategies.

Government to Government Tribal Coordination

Joint Secretarial Order No. 3403 provides guidance with regard to Government-to-Government relations with Tribes and agency policy and guidance on tribal consultation and other engagement. Throughout the planning effort, the agencies have engaged with interested tribal parties; the agencies will continue to engage interested tribal parties in river management issues in the future.

Pacific Crest Trail Comprehensive Plan and Foundation Document

The Pacific Crest Trail (PCT) runs throughout the BLM segment of the WSR corridor and is a popular recreational activity for visitors. The PCT was authorized by Congress in 1968 under the National Trails System Act. A 1978 amendment to this Act required a comprehensive plan defining the development, management, and use of the trail. The comprehensive plan was developed in consultation with the PCT Advisory Council, the Bureau of Land Management (BLM), the National Park Service, and the governors of California, Oregon, and Washington (USDA Forest Service 1982). In addition to the comprehensive plan, the PCT Foundation Document informs management considerations, decisions, and planning efforts for the PCT. It aggregates legislative history, legal and policy requirements, special mandates, administrative commitments, and trail management directives. It also identifies the trail's nature and purposes, what makes it significant, fundamental resources and values, and interpretive themes (USDA Forest Service 2022).

Federal Land Policy and Management Act (FLPMA)

FLPMA provides the basic underpinnings for the BLM's management of public lands. Section 302 of FLPMA states that the BLM is to manage public lands under the principles of multiple-use and sustained yield "except that where a tract of such public land has been dedicated to specific uses according to other provisions of law, it shall be managed in accordance with such law." In section 601 of FLPMA, Congress designated the CDCA with the purpose of "provid[ing] for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality." The Whitewater River WSR is located within the boundaries of the CDCA.

California Desert Conservation Area Plan

BLM's California Desert Conservation Area Plan, as amended by the Desert Renewable Energy Conservation Plan (CDCA) provides comprehensive landscape based resource management direction for BLM managed public lands in the deserts of southern California. This plan also provides criteria for defining BLM's ORVs for this CRMP effort.

Omnibus Public Land Management Act

The Whitewater River WSR is a part of the BLM's National Conservation Lands, which were established by section 2002 of the Omnibus Public Land Management Act of 2009 "in order to conserve, protect, and restore nationally significant landscapes" and specifically includes wild and scenic rivers. This section also directs the BLM to manage the National Conservation Lands "in a manner that protects the values for which the components of the system were designated."

Federal Reserved Water Rights

Section 13(c) of the Wild and Scenic Rivers Act expressly reserves the quantity of water necessary to achieve the Act's purposes for each WSR designation, unless specified otherwise. As a result, Whitewater River WSR is entitled to protection by a federal reserved water right that was created when Congress designated the river. The federal reserved water right only protects the portion of the Whitewater River in the WSR corridor and does not extend to downstream locations. The federal reserved water right protects the flows necessary to support the ORVs, which include wildlife and riparian vegetation.

The federal reserved water right is a non-consumptive instream flow water right, so any water protected by the federal right is available for other uses once the river leaves the WSR-designated portion of the river. Given that the federal reserved water right is non-consumptive and limited to the designated stream corridor, exercising and protecting this right will not affect existing water uses located downstream.

The amount of the federal reserved water right is not identified at designation, and therefore must be quantified and secured through applicable state-based processes.

Wilderness Act, Endangered Species Act

The Wilderness Act of 1964 and the Endangered Species Act of 1973 (ESA) also contribute to the planning context of the corridor. The Wilderness Act manages wilderness areas in the corridor to preserve their unique character (Wilderness Act of 1964, Public Law 88–577), while the ESA regulates the conservation and protection of the corridor's endangered and threatened species and their habitats.

Migratory Bird Treaty Act and other Migratory Bird Protections

The Migratory Bird Treaty Act (MBTA) prohibits the take of protected migratory bird species without prior authorization by the US Fish and Wildlife Service (USFWS). Other legal protections for migratory birds include Executive Order (EO) 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds" and the Memorandum of Understanding (MOU) between BLM and USFWS to promote migratory bird conservation. Specific to this CRMP and accompanying National Environmental Policy Act (NEPA) process, EO 13186 requires that FS and BLM evaluate the effects of their actions and agency plans on migratory birds, with emphasis on species of concern (The White House

2001). BLM is also required to abide by the terms of its MOU with USFWS which stipulates that it will protect, restore, and conserve migratory bird habitat (per EO 13186) and address the conservation of migratory bird habitat and populations when developing, amending, or revising management plans for BLM lands, consistent with FLPMA, the Endangered Species Act, and other applicable law.

Land Uses and Access in River Corridors

Whitewater River (Forest Service and BLM Segments)

The Whitewater River flows through private land in several locations within the designated corridor. Section 33 is accessed from Forest Trail 2E08 and contains a recreation river segment. On BLM-managed wilderness, the river flows through Sections 4, 5, 6, 9, 10, 15, 30, and 33.

The Wildlands Conservancy owns Section 35 on the Forest Service segment and Sections 31 and 33 on the BLM segment. The other recreation segment flows through Sections 15, 22, 23, 26, and 35, south of the BLM wilderness boundary. The recreation lands and visitor center for the 2,851-acre Whitewater Preserve are approximately 1.5 miles south of the wilderness boundary. Legally, all Wildlands Conservancy-owned lands mentioned above are part of the Whitewater Preserve. This nonprofit recreational facility offers visitor services, interpretive options, camping, picnic areas, hunting, equestrian use, and water activities. The PCT is also within and provides access to the WSR corridor, intersecting with the river near Red Dome on BLM land. The PCT travels south towards the Whitewater Preserve and is a popular recreational trail that visitors use within the corridor.

Other uses within the BLM segment of the corridor include private land at Wathier Landing, near the boundary of the San Gorgonio Wilderness, which offers hunting and other experiences. Further east of Wathier Landing are a few other parcels of private land owned by the Wildlands Conservancy.

Access to the wilderness parts of the Whitewater River corridor are limited, including the Forest Service jurisdiction and the parts of the BLM jurisdiction that are in wilderness. The Wildlands Conservancy-owned parts of the BLM sections described above are more easily accessed.

Land use in the corridor also includes a grazing allotment that is currently closed to livestock grazing. A portion of the river, once part of the Whitewater Canyon Grazing Allotment, was legally grazed until 1998. It was then determined that the land needed to rest and livestock were not allowed to graze.

Baseline Conditions

Management emphasis in the designated wild and scenic river corridor is to protect and preserve the free-flowing conditions, water quality, and ORVs. The Act specifies that designated rivers “shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system…” (U.S. Congress 1968).

Free-Flowing Condition and Water Quality

Whitewater River (Forest Service and BLM segments)

For free-flowing condition and water quality, the broader setting of Whitewater's designated sections include the following. Whitewater River is a small permanent stream with its headwaters in the San Bernardino Mountains, terminating at the Salton Sea in the Colorado Desert. The river's name, previously "Agua Blanco" in Spanish, comes from the milky white appearance of the water caused by silicate and lime sediment. The area drained by Whitewater River is part of the larger Salton Sea drainage basin. Several other rivers and washes eventually join Whitewater River, but the water largely infiltrates through the desert floor to provide groundwater recharge to the Coachella Valley aquifer. Whitewater River is also fed water imported from the Colorado River aqueduct, which is managed by the Metropolitan Water District of Southern California.

The designated North, Middle, and South Forks of the Forest Service segments of the river are all free flowing. The North Fork is free flowing for 5.8 miles, from its headwaters to its intersection with the Middle Fork. The Middle Fork is free flowing for 5.3 miles, from its headwaters to the Forest boundary. The South Fork is free flowing from its convergence with the East Fork to the Forest boundary. Downstream of the Forest boundary, the Middle Fork and South Fork converge to form the Whitewater River, which is free flowing to the BLM segment. All of the free-flowing segments described here typically exhibit intermittent flow. See Figure 1 for details.

The designated BLM segment of the river is also free flowing for its entire length. The Whitewater Canyon portion of the river is free flowing from the beginning of the BLM-managed lands in the San Gorgonio Wilderness through the wilderness area boundary with the lands managed by The Wildlands Conservancy, and 0.1 miles north of the community of Bonnie Bell. Except during years of low precipitation, this segment of the river has an annual flow downstream to just north of the community of Bonnie Bell. In 2019, the Whitewater Canyon area received over eight inches of rainfall in a twelve-hour period, causing a flood later named the Valentine's Day Flood. The event resulted in debris flows from adjoining canyons that covered Whitewater Canyon Road, washed out the primary crossing at the main fork, caused numerous alluvial fans, some of which covered roads, and shifted portions of the base flow channel.

Whitewater River flows year-round, mainly in the upper reaches, with flows tending to drop off during the fall and summer months. During and after extended periods of large magnitude precipitation events, water flow in the canyon can become very fast and treacherous. Due to the steep channel gradient and broad alluvial valley floor, with high amounts of coarse material, high precipitation events and rapid snow melt tend to shift bed materials both horizontally within the valley, creating new channel patterns, and vertically, exposing the underlying bedrock. During large magnitude precipitation events, which are rare, the river can extend to the endorheic basin of the Salton Sea, the larger drainage basin to which Whitewater belongs.

Although there are no longer any US Geological Survey (USGS) gage stations in the upper part of the basin that is the focus of this study, historical flow data is publicly available from USGS. Two gages previously existed within the Whitewater River Valley, immediately south of Bonnie Bell. Gage number 10256050 was located off the main channel, whereas gage number 10256000 was located on the main

channel. These gages recorded flow data from 1948 through 1979. The average annual flow rate during this recorded period was 17 cubic feet per second (cfs), although average annual flow rate ranged from as low as 3 cfs in 1972 to a high of 119 cfs in 1969. A maximum single flow event of 24,000 cfs was recorded in 1965. The USGS National Water Information System for this gage also lists a single flow event of 42,000 cfs on March 2, 1938, but there is no reference on how this rate was estimated or recorded. Due to uncertainty that's typical at the high end of hydrologic rating curves, significant uncertainty exists in the accuracy of both of these high flow estimates.

Gage 10256050 also recorded monthly suspended sediment discharges from October 1971 through August 1972. The data from this recorded period provide support that in high flow events, large amounts of sediment are entrained into and transported down the river. In December 1971, daily flow rates were well below 10 cfs for the majority of the month until a flow event of 126 cfs, the mean flow rate for the day, not the peak rate for that day. This event resulted in a mean sediment discharge of 21,400 tons/day. There is no current data available on flow rate, water elevation/river stage, or sediment discharges at Whitewater River, as the USGS gage stations described here no longer exist. Table 1 below details max and average discharge values by year.

Table 1. USGS Gage 10256000 Data Whitewater CA - Discharge Values (cfs)

Year	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Max	-	450	102	265	98	686	157	578	750	1,500	1,300
Average	7.36	6.63	5.63	11.5	12.5	11.7	11.5	6.64	6.61	28.8	15.5

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Max	140	62	185	660	186	84	24,000	5,500	850	16,200
Average	7.65	4.27	6.18	6.13	5.68	6.0	23.5	26.2	17.3	118.5

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Max	201	1,000	515	233	74	252	477	1,650	5,000	344
Average	28.3	13.4	2.89	13.5	11.9	8.1	6.11	6.44	59.6	35.1

Source: USGS 2023a, 2023b

Whitewater Preserve, a unit of the Wildlands Conservancy, takes monthly and annual water samples from the domestic well and the river itself. This data has demonstrated exceptional water quality in terms of dissolved oxygen, and absent or extremely low concentrations of nitrates and arsenic. Further, in 2020, Adventure Scientists (a non-profit organization that partners with agencies to collect field data) began water quality monitoring on federally managed WSR segments, including Whitewater River.
The USGS also conducted water quality testing at stream gage number 10256000, just south of Bonnie Bell, from 2006 to 2013. Data was collected on pH, dissolved solids, calcium, magnesium, potassium, sodium, bromide, chloride, fluoride, iron, arsenic, and others. Compared with the US Environmental Protection Agency (EPA) National Recommended Water Quality Criteria for freshwater aquatic life, these limited test results show that at this location, Whitewater River satisfied the EPA criteria for alkalinity, arsenic, chloride, iron, temperature, total dissolved solids, and dissolved oxygen.

Based on preliminary data, Whitewater River appears to have exceptional water quality. This may be due in part to the fact that the sections of river that are a focus of this report flow mostly through federally managed or conservation partner lands, as well as the San Gorgonio Wilderness. There are, however, threats to water quality.

Downstream of the designated river corridor, the Whitewater River receives diverted water from the Colorado River to support replenishment of the downstream Coachella Valley Aquifer. As a result, those waters of the Whitewater River may be impacted by the increased salinity levels in the Colorado River waters. These impacts are primarily of concern to the receiving Aquifer as it provides drinking water to the Coachella Valley. Where salinity levels are raised by the Colorado River waters, they are well below the State of California's upper consumer acceptance contaminant level of 1,000 mg/L. The Colorado River Basin Salinity Control Program, acting through the Bureau of Reclamation, continues to monitor salinity levels and implement programs within the basin to reduce concentrations.

The PCT intersects the lower reaches of Whitewater River and one of its tributaries. Since these areas are rather remote, hikers often camp nearby, resulting in some human waste deposition near the drainage.

There is also a power-generating wind farm near the river terminus. This facility, called Mesa Wind Farm, maintains and operates a number of turbines that require a network of access roads, some of which lie along the ridges overlooking Whitewater River. Thus, during rain events, erosion sometimes occurs off the dirt road surfaces. There has also been one instance of exceptionally high rainfall over a short period of time that resulted in flooding at the river, during the Valentine's Day storm of 2019. This flooding event, likely exacerbated by climate change, caused mass wasting and increased turbidity. Given the increased frequency of extreme rain events as a result of climate change, it is possible that flooding of this magnitude might occur again in the future.

The quality of Whitewater River and its tributaries have also been at risk for the past twenty years or more from waste related to feral cattle. The descendants of cattle that wandered onto BLM and Forest Service lands from nearby private lands are present in the river corridor. There have been several cattle removal efforts, but feral cattle are still a problem for the river.

Table 2. Monitored Water Quality Constituents - USGS Gage 10256000 White Water CA - Water Quality Sampling Results

Constituent	Units	Min	Max	Earliest Sample	Latest Sample
Alkalinity	mg/l CaCO3	0.00	742.00	11/03/1967	03/20/2023
Arsenic	ug/L	0.00	219.00	05/30/1973	04/04/2022
Chloride	mg/L	0.75	200.00	11/15/1966	04/04/2022
Iron	ug/L	0.00	17.50	08/25/1971	04/04/2022
Dissolved Oxygen	mg/L	3.57	17.50	11/03/1967	03/20/2023
Temperature	Celsius	10.00	29.00	11/03/1967	03/20/2023
Total Dissolved solids	mg/L	132.00	321.00	11/15/1966	04/04/2022

Source: https://nwis.waterdata.usgs.gov/ca/nwis/qwdata/?site_no=10256000&agency_cd=USGS

Outstandingly Remarkable Values

The Wild and Scenic Rivers Act requires that each river possess one or more outstandingly remarkable values to qualify for designation. 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 spectrum of resources that may be considered is broad, all values should be directly river related. To be considered river related, a value should be located in the river or its immediate environment (generally within ¼ mile on either side), contribute substantially to the functioning of the river ecosystem, owe its existence to the presence of the river, or some combination of these things. The Forest Service and BLM regions of comparison are defined geographically in the 2022 Resource Assessment, included in this document as Appendix B.

Prior to Whitewater River's designation as a WSR, an eligibility study was initiated in 2005 during the Forest Service LMP process, to evaluate the eligibility of Whitewater River and other rivers for Wild and Scenic River status and determine which resources would qualify as an ORV. Following Whitewater River's designation as a WSR, a resource assessment for its corridor was completed in February 2022 to support development of this CRMP. Similarly, BLM conducted an eligibility study as part of its process for the CDCA Plan Amendment for the Coachella Valley in 2002. A virtual workshop was held in March

2021 for the purpose of developing CRMPs for Deep Creek and the Whitewater River on the San Bernardino National Forest. During that workshop, the resource experts on the CRMP team, comprising representatives from the Forest Service, BLM, and contractors, reviewed each potential ORV for the river. During this time, the Forest Service decided to refine the Ecology ORV to botany because it is a more specific ORV which allows staff to better measure effects on this resource. BLM decided to rename the "Fisheries/Wildlife" to "Wildlife" alone, due to the minimal presence of fish in this part of the river. All other ORVs from the 2005 eligibility study were retained by the team with no further revisions or additions.

The identified ORVs for each agency's segment of the river are identified below in Table 3 and further described in the following section. See Appendix B for additional detail about ORV findings and rationales, as well as the criteria used to define each ORV.

Table 3. Outstandingly Remarkable Values for Whitewater River

ORV Name	Whitewater River (Forest Service)	Whitewater River (BLM)
Scenery	Yes	Yes
Wildlife	Yes	Yes
Heritage (historic, prehistoric, and cultural)	No	Yes
Recreation	No	Yes

Whitewater River (Forest Service Segment)

Scenery

Whitewater River is located within the San Gorgonio Wilderness near San Bernardino, California. The Forest Service describes the wilderness area as a unique subalpine landscape ranging in elevation from 4,400 feet to 11,502 feet at San Gorgonio Mountain, where the river originates. The wilderness, which spans 96,595 acres, is managed by both the Forest Service and the BLM. It resides within the Sand to Snow National Monument, surrounded by desert to the east.

The North Fork of the river is moderately steep and high in elevation, with canyons, slopes, and narrow ridges in the San Bernardino Mountains. To the northeast lies Ten Thousand Foot Ridge, which provides views of montane meadow, alpine forest, and subalpine forest. Dark, mixed conifer forests and green-gray chaparral blanket the surrounding hillsides as the river's elevation decreases. The river is not always visible, especially during dry summer months, although heavy winter rains and large snow melts can change this dynamic. During the summer, rich, green vegetation against high cliffs, canyon walls, and cobble-strewn wash provides for a colorful view.

One outstanding feature is the stark relief of the landscape, which supplies breathtaking views from the top of San Gorgonio Mountain. The river corridor also features high desert vegetation, willow scrub, and scattered cottonwoods. The river itself has a rocky bottom with deep pools, although portions of the river are intermittent. At lower elevations lies a sandy and boulder-strewn floodplain.

The landscape surrounding Whitewater River is rich and diverse. Runoff from high elevations has carved steep mountains and narrow canyons with pockets of riparian plant communities at the upper reaches of the river corridor, to dense riparian and canyon plant communities at lower elevations. These lower areas of the river corridor have moderately steep canyon sides. The canyon walls at this segment vary from peach to tan to light and dark gray. Seasonal changes result in a wide array of color variation in the vegetation, which also varies greatly in height along the watershed.

The most visible constructed feature near the river is Whitewater Road, the main road in Whitewater Canyon, which runs along the western side. The small community of Bonnie Bell lies at the end of the canyon, consisting of thirty homes, one above-ground power line, and a ranger station. Several trails can be found within the river corridor. To the southeast and southwest of the river corridor terminus lies a wind farm consisting of numerous turbines that are not visible from the majority of the canyon.

The Scenic Integrity Objective (SIO) for this river is Very High. The SIOs are objectives that define the minimum level to which landscapes are to be managed from an aesthetics standpoint (USDA Forest Service 2005b). Specifically, a “Very High” SIO generally provides for ecological changes only and refers to landscapes where the valued/desired landscape character is intact with only minute, if any, deviations. The majority of the remote San Gorgonio Wilderness within which the Whitewater River resides is not influenced or altered by humans. Figure 2 below shows SIOs within the WSR corridor.

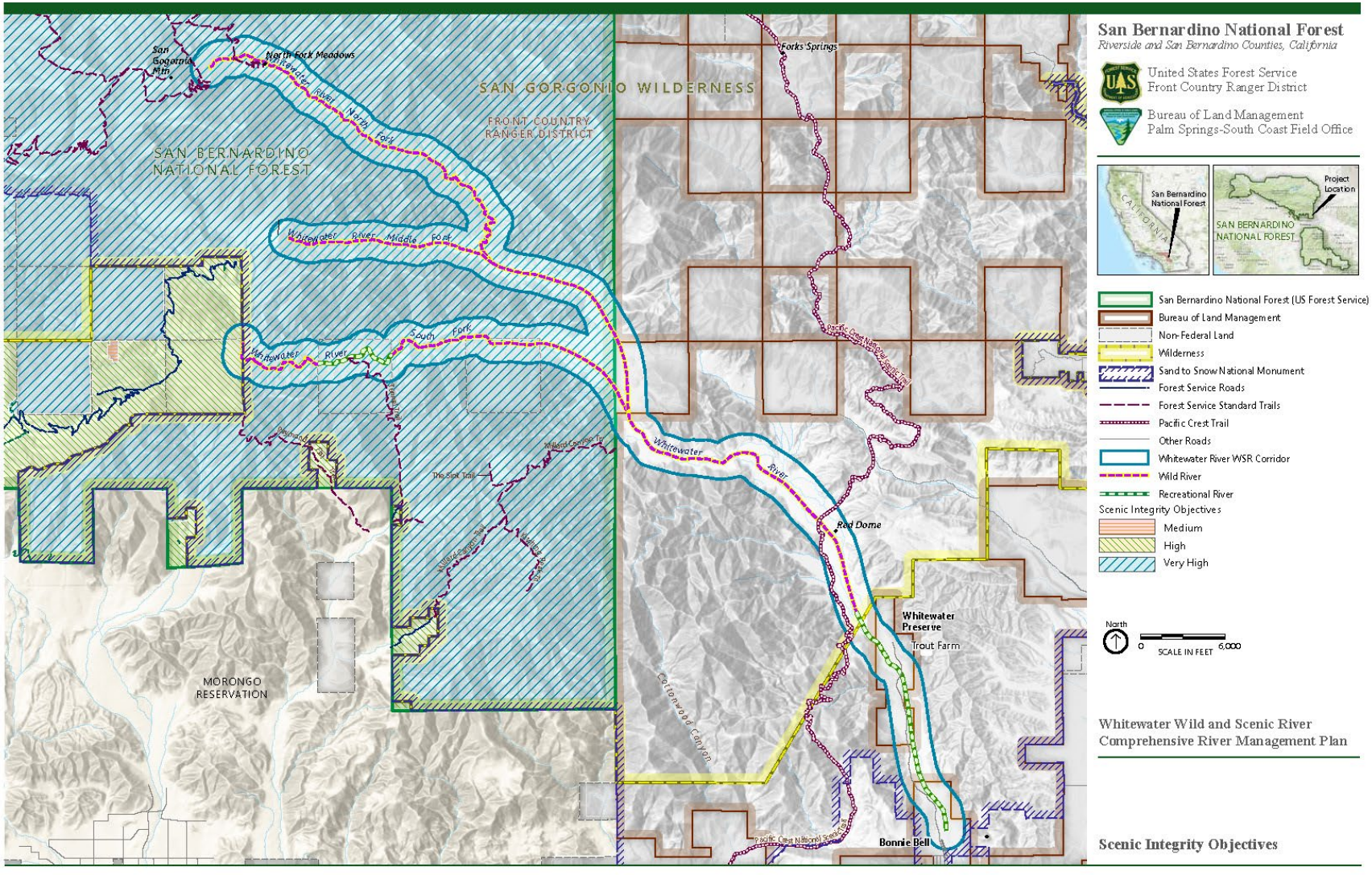

Figure 2. Scenic Integrity Objectives

Wildlife

The river corridor provides habitat to a number of rare, threatened, and endangered species. These include the Forest Service Sensitive California spotted owl (*Strix occidentalis*), San Bernardino flying squirrel (*Glaucomys sabrinus californicus*), as well as the state threatened southern rubber boa (*Charina umbratica*), and the federally endangered mountain yellow-legged frog (*Rana muscosa*), southwestern willow flycatcher, and least Bell's vireo. The river corridor is also home to over 240 species of resident and migratory birds and a number of mammalian predators, including the gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), mountain lion (*Puma concolor*), and coyote (*Canis latrans*). Portions of the river corridor and nearby area are also part of the Desert Tortoise (*Gopherus agassizii*) Conservation Area, containing designated critical habitat for the species, which is threatened at both the state and federal level and a candidate state endangered species.

Whitewater River (BLM segment)

Scenery

The Whitewater River segment on BLM land has been inventoried as having a Class II scenic quality rating, retaining the existing scenic landscape character, based on BLM Visual Resource Management guidelines (BLM 1986). The river segment is distinct given its lush vegetation and riparian area, as well as the rarity of water in the surrounding environment. The river corridor is described as beautiful and unique.

The landscape surrounding Whitewater River is rich and diverse. Runoff from high elevations has carved steep mountains and narrow canyons with pockets of riparian plant communities at the upper reaches of the river corridor, to dense riparian and canyon plant communities at lower elevations. These lower areas of the river corridor have moderately steep canyon sides. The canyon walls at this segment vary from peach to tan to light and dark gray. Seasonal changes result in a wide array of color variation in the vegetation, which also varies greatly in height along the watershed.

There are several trails within the river corridor, including part of the PCT. The most visible structure near the river and within the river corridor is Whitewater Road, the main road in Whitewater Canyon, which runs along the western side.

The small community of Bonnie Bell lies at the end of the canyon and outside of the designated corridor. It consists of thirty homes, one above-ground power line, and a ranger station. To the southeast and southwest of the river corridor terminus lies a wind farm consisting of numerous turbines that are not visible from the majority of the canyon.

Wildlife

The river corridor supports a number of sensitive and state and federally listed species, as well as a wealth of birds and mammals. Several additional BLM Sensitive and California Species of Concern occur along the BLM managed portions of the river, including the summer tanager (*Piranga rubra*), yellow warbler (*Dendroica petechia*), yellow-breasted chat (*Icteria virens*), gray vireo (*Vireo vicinior*), and crissal thrasher (*Toxostoma crissale*). Desert bighorn sheep are also a BLM sensitive wildlife species and can be found throughout the river corridor.

The state threatened southern rubber boa (*Charina umbratica*) can be found within the corridor in addition to the federally endangered mountain yellow-legged frog (*Rana muscosa*), southwestern willow flycatcher (*Empidonax traillii extimus*), and Least Bell's vireo (*Vireo bellii pusillus*).

Heritage (Historic, prehistoric, and cultural)

There is evidence that Whitewater Canyon was a settlement place of the "white water" or Wanakik Cahuilla (Bean 1960; Apodaca 1999:55) before they moved to the Malki reservation site. The nearby historic and presumably prehistoric Village of Wanapiapa, is a Wanakik Cahuilla settlement site. It was visited by the Jose Romero Expedition in 1823 (Bean and Mason 1962), and is only 2.6 miles southwest of Whitewater Canyon, which supports Wanakik settlement in Whitewater Canyon. The Wanakik people that moved to the Malki reservation were joined by a group of Pass Cahuilla who had been living on Mission Creek, just to the east of Whitewater, prior to the area being flooded. Historians and archaeologists speculate that the village site flooded during the winter of 1861-1862, resulting in the movement of its residents to a location near or at Whitewater Ranch before moving to Malki. At least three potential village sites in Whitewater Canyon have been identified by archaeologists. There is also evidence of a native trail system that ran through a section of the Whitewater River. There is uncertainty about the routes and Native American names for the trail system. , and the history of use of the trail. There is a segment of the trail system exceeding 300 meters with documented scatters of pottery sherds. This suggests late prehistoric use of the trail segment.

In addition to the Native American history at the site, the nearby Bonnie Bell property appears to have originally been used by tuberculosis patients around 1925-1926. It is unclear whether this was a dedicated medical facility. However, in the early 1920s, the interior of California was flooded with people seeking relief from respiratory complaints like tuberculosis. Today, Bonnie Bell is a private property with a small cluster of houses.

Recreation

As one of the premier destinations for outdoor recreation in the Coachella Valley, the Whitewater River attracts visitors year-round from all over Southern California. Recreational opportunities along this segment of the river include swimming, wading, hiking, hunting, picnicking, wildlife viewing, nature photography, and horseback riding. Access to the recreational portion of the river is readily available via the paved Whitewater Road, and there are paved parking areas by Whitewater Preserve. The paved road, nearby PCT, and other trails provide multiple routes of access for visitors. Thus, most of this segment of the river is easily accessible for outdoor recreation. Although remote areas of the river are not accessible via trail, there is evidence of some user-generated trails within the river corridor, suggesting a desire for more recreational opportunities. Unlike other nearby water resources, Whitewater River offers outstanding and easily accessible opportunities for waterplay year-round.

The river corridor also provides stunning wildlife viewing opportunities, just a short drive away from Coachella Valley. The nearby Wildlands Conservancy frequently offers free opportunities to view the unique desert bighorn sheep (*Ovis canadensis nelsoni*) through readily available spotting scopes. There are also exceptional opportunities for birders, including views of migrating summer tanagers (P*iranga rubra*) and vermilion flycatchers (*Pyrocephalus rubinus*), as well as the chance to see the endangered southwestern willow flycatcher (*Empidonax trailii extimus*), and least Bell's vireo (*Vireo belli pusillus*).

Visitors to the Wildlands Conservancy facilities can learn more about common local birds and engage in a host of other programs. The Whitewater Preserve also operates a Visitor Center with educational outreach programs.

In addition to wildlife viewing and waterplay, there are also a wide range of hiking opportunities at the BLM segment of Whitewater River. Hikers can access both the desert, as well as mountain habitat, including the 11,503-foot-tall eastern slope of San Gorgonio Mountain. Local visitors access trails at the recreational section of the river, which is one of the only hiking spots in the area that permits dogs. The southern portion of the wild section of the river connects into the PCT, which provides world-class hiking and views of the Whitewater River valley.

Whitewater River also provides deer hunting opportunities. The wilderness just beyond the PCT offers hunters a primitive desert hunting experience in proximity to an urban area. Upstream, there are more solitary, forested hunting areas. The Whitewater River corridor also offers a nationally significant opportunity to hunt desert bighorn sheep through a desert bighorn sheep tag application process.

Climate Change

To evaluate the influence of climate change stressors on the ability to manage for the ORVs, the interdisciplinary team (IDT) from the San Bernardino National Forest and BLM staff, along with regional staff from the Forest Service Region 5 Wild and Scenic Rivers Program, met with the Northern Institute of Applied Climate Science in February 2022. The workshop included a review of climate influences on watershed and river values and integrated methods, tools, and resources from the Adaptation Workbook, a climate change decision-support framework (USDA Forest Service 2016). Specifically, the IDT used the Adaptation Workbook to integrate climate change considerations into this CRMP. The IDT evaluated potential management actions that may be needed to respond to the effects of climate change and needed to sustain or maintain river values given climate-related risks and vulnerabilities. See the “Management Direction” section for climate-related management actions. Notes from this workshop are included as Appendix C.

Visitor Use Management and Capacity

A user capacity analysis was conducted for the Whitewater River in support of the development of this CRMP. The Act does not define user capacities or prescribe a particular approach to address user capacities in CRMPs. However, agencies are directed to specify numeric user capacities to define the maximum number of people that can be accommodated in a designated river area without adversely impacting river values (IVUMC 2016b in Otak, Inc. 2023). Goals of the capacity analysis included identifying current usage at the river, determining the kinds of uses the river can support, calculating user capacities, establishing thresholds of use to prevent river degradation, identifying triggers for management action, and establishing an adaptive management framework. Site-specific user capacity methodologies were developed to specify estimated numeric user capacities for three analysis areas within the Whitewater WSR corridor. The user capacity analysis is incorporated into this CRMP; details on the framework, concepts, and methodology used to develop the capacity analysis, as well as the conclusions reached, are found in Appendix A.

Management Direction

Management direction contained in this plan is designed to meet Wild and Scenic Rivers Act as well as Forest Service and BLM requirements, in order to provide a long-term management strategy for protecting and enhancing the river segment's free-flowing condition, water quality, and ORVs. Management direction in this section consists of desired conditions and management actions and standards, some of which are drawn from the Forest Service's 2005 LMP. Those that are derived from the 2005 LMP include the document section reference in parentheses following the standard or action. Management direction from both agencies prioritizes protecting and enhancing WSR values during the planning and implementation of resource management activities in the river corridor. Some specific management actions were developed through the IDT's internal planning and discussions, and further informed by project scoping, which took place from February 15 – March 15, 2022. Project scoping consisted of releasing the Resource Assessment for public review on the Forest Service website, Twitter account, and via the newspaper of record, the Idyllwild Town Crier. Comments received during scoping focused on topics such as expanded ORVs, fire suppression jurisdiction, and botanical resources within the corridor. The Forest Service and BLM reviewed scoping comments and took them into consideration when identifying key concerns within the corridor. This helped the agencies subsequently develop management actions to address these key issues.

Given the multi-jurisdictional nature of WSRs, where appropriate, the Forest Service and BLM would continue to work with other agencies that have a nexus in WSR management, and would also maintain past, present, and future partnerships with organizations to help steward the WSR.

Desired Conditions

Desired conditions for the WSR describe the resource conditions, visitor experiences and opportunities, and facilities and services that the agency should strive to achieve and maintain within the designated river corridor in order to protect river values. The desired conditions present a broad vision of the desired state for resources in the river corridor. Actions that lead toward the desired conditions over the long term would be considered consistent with this plan. Actions that lead the corridor away from desired conditions over the long term would be considered inconsistent with this plan.

As established in the *LMP, Part 2 San Bernardino National Forest Strategy* (USDA Forest Service 2005a), the Forest has been divided into a series of geographical units called "Places." Each Place has its own landscape character. Landscape character has been described as an overall visual and cultural impression of landscape attributes, the physical appearance and cultural context of a landscape that gives it an identity and "sense of place." Desired conditions for each Place paint a picture of what the Place could be as the Forest Service implements activities to move toward the overall forest-wide desired conditions (USDA Forest Service 2005a). Whitewater River is located in the San Gorgonio Place.

The desired conditions for Whitewater River are derived from the Place-based desired conditions and have been broken out by river value.

Forest Service segment

- Scenery: Corridor is maintained as a naturally evolving and natural-appearing landscape; valued landscape attributes to be preserved over time include mountain peak silhouettes, alpine character, montane meadows, and natural-appearing views from the PCT.
- Wildlife: Habitat conditions for threatened, endangered, proposed, and sensitive species in the corridor are improving over time. Habitat linkages are intact and functioning. Feral cattle are removed; invasive nonnative species are reduced over time.
- Free-flow and Water Quality: Conditions are managed to protect or enhance the river's water quality and free flowing condition.

BLM segment

- Scenery: Corridor is maintained as a natural-appearing landscape with seasonal influences; conditions are managed to protect and enhance outstanding scenery within the river corridor.
- Wildlife: Habitat conditions for threatened, endangered, proposed, and sensitive species in the corridor are improving over time; invasive nonnative species are reduced
- Heritage (prehistoric and cultural): Heritage resources in the corridor are identified, protected, and interpreted through establishment of tribal partnerships.
- Recreation: Recreation opportunities in the corridor will be protected and enhanced where appropriate, sustainable, and consistent with river values.
- Free-flow and Water Quality: Conditions are managed to protect or enhance the river's water quality and free flowing condition.

Management Standards and Actions

Forest Service segment

The management standards below prioritize protecting and enhancing wild and scenic river values during the planning and implementation of resource management activities in the river corridor. These standards and actions are derived from the 2005 LMP as well as civic engagement and interdisciplinary team planning and discussions that informed the development of this CRMP. Those standards derived from the LMP include a citation to the LMP following the standard; standards informed through IDT planning and civic engagement do not include a citation. A standard is a mandatory constraint on project and activity decision making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. These standards are intended to protect and enhance the designated river's free-flowing condition, water quality, and ORVs.

Standards

- Any proposed water resources projects would have to be reviewed under Section 7 of the Wild and Scenic Rivers Act.
- For standards and guidelines regarding facility development in each land use zone, see the *LMP, Part 2 San Bernardino National Forest Strategy* (USDA Forest Service 2005a).
- In the wild segment, minimize facility development; when necessary to permit facilities, design structures to have a natural, rustic appearance (USDA Forest Service 2005a).

- Follow thresholds and capacity guidelines as described in the User Capacity Analysis (Appendix A) to ensure recreation activities do not negatively affect river values.
- Project planning should consider conservation of suitable habitat components over the long term, including avoidance and/or minimization of additional land disturbance activities that could cause direct or indirect adverse effects to federally endangered species.
- When implementing new projects in areas that provide for threatened, endangered, proposed, and candidate species, use design criteria and conservation practices so that discretionary uses and facilities promote the conservation and recovery of these species and their habitats. Accept short-term impacts where long-term effects would provide a net benefit for the species and its habitat where needed to achieve multiple-use objectives (USDA Forest Service 2005b).
- Design management activities to meet the SIOs shown on the Scenic Integrity Objectives Map, above in Figure 2 (USDA Forest Service 2005b).
- In the wild, scenic, and recreation segments, plan, design, and implement all management activities to be consistent with the SIO of "High." Follow guidelines in *Landscape Aesthetics: A Handbook for Scenery Management* (or other current guides) for all management activities in the WSR corridor (USDA Forest Service 2005b).
- SIOs will be met with the following exceptions:
    - ❑ Minor adjustments not to exceed a drop of one SIO level is allowable with the Forest Supervisor's approval (USDA Forest Service 2005b).
    - ❑ Temporary drops of more than one SIO level may be made during and immediately following project implementation providing they do not exceed three years in duration (USDA Forest Service 2005b).
- Until proper evaluation occurs, known heritage resource sites shall be afforded the same consideration and protection as those properties evaluated as eligible to the National Register of Historic Places (USDA Forest Service 2005b).
- Leave human remains which are not under the jurisdiction of the County Coroner undisturbed unless there is an urgent reason for their disinterment. In case of accidental disturbance of human remains, excavation of human remains, or subsequent re-internment of human remains follow national forest, federal and tribal policies.
- Protect the access to and the use of sensitive traditional tribal use areas (USDA Forest Service 2005b).

Proposed Water Extractions and Diversions

- Surface water diversions and groundwater extractions, including wells and spring developments will only be authorized when it is demonstrated by the user, and/or agreed to by the Forest Service, that the water extracted is excess to the current and reasonably foreseeable future needs of forest resources (USDA Forest Service 2005b).
- Consideration of beneficial uses, existing water rights, and the absence of other available water sources will be part of the water extraction application.
- Approved extractions and diversions will provide for long-term protection and reasonable use of surface water and groundwater resources.
- Feasibility and sustainability assessments should be appropriately scaled to the magnitude of the extraction or diversion proposed.

Management Actions

The desired conditions described above present a broad vision for the resources in the river corridor. The management actions described in this section are actions that help move the resources toward these desired conditions. For example, management actions that aim to increase recreation use monitoring help move resources such as water quality, and wildlife towards their desired conditions.

As noted above, this CRMP establishes programmatic management direction. Site-specific NEPA analysis will be done for any actions proposed on Forest Service lands in the WSR corridor. All proposed projects would be checked for consistency with the CRMP during the site-specific analysis.

Interpretation and Signage

- Provide signage or other resources to interpret the changing landscape - help visitors connect what they are seeing and the broader ecological processes.
- Engage artists, students, or citizen scientists in documenting visual changes over time from varied viewpoints (if applicable).
- Include signage, outreach, interpretation, and maps to inform visitors of the WSR designation and other important topics.
- Educate the public about impacts to fish and amphibians due to dam building.
- Educate the local community about the WSR designation and ways to protect ORVs, in order to prevent new human disturbance to the WSR corridor.
- Monitor and educate the public at high use areas on proper disposal of pet and human waste/trash, as well as Leave No Trace principles.

Resource Protection and Restoration

- Plant more native trees to increase shade, nesting, and feeding/foraging diversity for wildlife species.
- Ensure WSR values are incorporated into wildfire management (including during incidents and post-fire recovery) and Land and Resource Management plan revisions.
- Focus plant restoration in areas that have a high likelihood of being protected (fire suppression) during a wildland fire event.
    - ❑ Monitor invasive species to reduce fuels for wildfire.
    - ❑ Mitigate invasive species through removal, to help increase water flow and reduce fire spread through invasive grass (fuel) removal. Manage vegetation to reduce invasive tamarisk and other invasive species in the headwater area to help increase water levels, reduce temperature, reduce the susceptibility to severe fire, and allow native species to flourish without competition.
    - ❑ Control non-native plants such as tamarisk, Arundo, etc., at lower elevation in favor of mesquite and other native drought-adapted species. Partner to have natives ready to include in restoration efforts (e.g., with local universities).
- Increase efforts to remove visitor-created dams and other man-made impediments on the natural flow pattern.
- Create Community Science water quality monitoring program through the local community and water district.

BLM segment

Management Actions

As noted above, this CRMP establishes programmatic management direction. Site-specific NEPA analysis will be done for any actions proposed on BLM lands in the WSR corridor. All proposed projects would be checked for consistency with the CRMP during the site-specific analysis. As mentioned below, the Pacific Crest National Scenic Trail overlaps with the WSR corridor. Congressionally designated under the National Trails System Act, the PCT is managed by a comprehensive plan which guides the administration of the trail. The PCT in the BLM segment is also guided by BLM Manual 6280-Management of National Scenic and Historic Trails. Thus, any actions stated in this CRMP that overlap with or affect the PCT would be closely coordinated with the PCT Administrator and other affiliated stakeholders such as the Pacific Crest Trail Association in order to ensure consistency with PCT management direction.

Interpretation and Signage

- Provide signage or other resources to interpret the changing landscape - help visitors connect what they are seeing and the broader ecological processes.
- Engage artists, students, or citizen scientists in documenting visual changes over time from varied viewpoints (if applicable).
- Include signage, outreach, interpretation, and maps to inform visitors of designation and other important topics.
- Interpretation and signage on or about the Pacific Crest National Scenic Trail will follow the PCT Comprehensive Management Plan standards. All interpretation regarding the PCT will utilize the interpretive themes outlined in the PCT Foundation Document.
- Partner with The Wildlands Conservancy to provide educational materials regarding climate change and its current and impending impacts to water resources, including the Whitewater River, at the Visitor Center and post signs along corridor (non-wilderness areas).
- At wilderness trailheads or other appropriate points of public entry, interpret heritage sites that are located within the Whitewater River Corridor to:
    - ❑ Help public see how land management has changed through history and the consequences arising from land management practices;
    - ❑ Help the public envision how the public lands should be managed into the future; and
    - ❑ Encourage visitors to go to other areas of public land to limit impacts to well-used areas or areas where eligible or unevaluated sites and historic districts are at risk.
- Educate the public about impacts to fish and amphibians due to dam building.
- Educate the local community about the WSR designation and ways to protect ORVs in order to prevent new human disturbance to the WSR corridor.
- Monitor and educate the public at high use areas on proper disposal of pet and human waste as well as Leave No Trace principles.

Resource Protection and Restoration

- Increase recreation use monitoring in partnership with The Wildlands Conservancy, in anticipation of greater visitation pressure.

- Plant more native trees to increase shade, nesting, and feeding/foraging diversity.
- Ensure WSR values are incorporated into wildfire management (including during incidents and post-fire recovery) and the CDCA Plan, as amended.
- Focus plant restoration in areas that have a high likelihood of being protected (fire suppression) during a wildland fire event, such as recreation facilities and other structures.
    - ❑ Monitor invasive species to reduce fuels for wildfire.
    - ❑ Mitigate invasive species through removal, to help increase water flow and reduce fire spread through invasive grass (fuel) removal. Manage vegetation to reduce invasive tamarisk and other invasive species in the headwater area to help increase water levels, reduce temperature, reduce the susceptibility to severe fire, and allow native species to flourish without competition.
    - ❑ Monitor PCT corridor for introduction of noxious/invasive weeds. Control non-native plants such as tamarisk, Arundo, etc., at lower elevation in favor of mesquite and other native drought-adapted species. Partner to have natives ready to include in restoration efforts (e.g., with local universities).
- In the interest of incorporating tribal ecological knowledge, include tribes and interested parties when considering areas of tribal significance for management even where no eligible sites exist; and
- Document damage or threats from natural processes or increased visitation due to the WSR designation.
- Proactively protect eligible or unevaluated cultural sites in areas of high risk for fire, floods, public use, etc.:
    - ❑ Continue and extend fuel treatments to correspond to climate change;
    - ❑ Treat within eligible or unevaluated sites leaving sufficient vegetation in surrounding areas to frame and protect from looting;
    - ❑ Eliminate and rehabilitate impacts from social trails and direct visitors to use existing trails or the river channel to reduce erosion and damage to known cultural resources;
    - ❑ Develop management plans for sites eligible for listing on the National Register of Historic Places (NRHP), to track the success of management activities and modify ineffective activities as needed; and
    - ❑ Where protection is not possible, incorporate mitigation actions such as data recovery.
- Increase efforts to remove visitor-created dams and other man-made impediments on the natural flow pattern.
- Create Community Science water quality monitoring program through the local community and water district.
- Project planning shall consider conservation of the PCT and its associated resources and values. Consider avoidance and/or minimization of proposed land management activities and recreation uses that could interfere with the nature and purposes for which the trail was designated (PCT Comprehensive Plan, National Trails System Act, PCT Foundation Document).

Potential Future Management Actions

This CRMP establishes programmatic management direction and therefore, site-specific projects are not included as part of this plan. However, the Forest and BLM may consider more site-specific projects in

the WSR corridor in the future, for which separate NEPA analysis would be conducted. As noted above, all proposed projects would be checked for consistency with the CRMP during the site-specific analysis.

Forest Service segment

- None.

BLM segment

- Consider introducing BLM permit system for the wild segment of WSR within the San Gorgonio Wilderness. A permit system for through and long distance hikers on the PCT does already exist and is administered in coordination with the PCTA.

Monitoring Plan

The CRMP monitoring plan is intended to track river corridor impacts from various kinds of land uses, including recreation, and to maintain the river corridor's desired conditions. Monitoring these items will provide managers with key thresholds for when changes to management must be considered in order to protect the corridor's ORVs, free flow, and water quality, and to manage use within capacity.

The following table lists the location, issue being addressed, and brief description of CRMP monitoring items. Monitoring design considers past, current, and anticipated future funding levels, along with staffing level and other Front Country Ranger District and Palm Springs-South Coast Field Office priorities. The monitoring actions selected are those that address areas of highest concern. In addition to the actions listed in Table 4, Appendix A contains additional monitoring items related to the impacts of visitor use on river values. These monitoring items consist of a system of social and resource-based indicators, triggers for those indicators, and actions to be taken when triggers are reached. River values for which there is no specific monitoring item are already adequately monitored under existing Forest management.

Table 4. Possible Monitoring Items and their Locations in the Wild and Scenic River Corridor

Location (FS segments/ BLM segments/ both)	Potential Issue / River Value Addressed	Monitoring Action
FS and BLM segments	Water quality	Conduct surveys of surface water and groundwater to monitor for water quality indicators relative to wildlife, recreation use, and riparian health.
FS and BLM segments	Free flow	Conduct surveys of channel flow to evaluate trends in free flow in comparison to precipitation data, climate change and other changes within the watershed, such as changes in riparian vegetation from fires, grazing, or human activities.
FS and BLM segments	Wildlife, scenery, heritage resources, and hydrology impacts from visitor use	Monitor and educate the public at high use areas on proper disposal of trash as well as Leave No Trace principles, so as not to disturb habitats, viewsheds, and important cultural sites.

Location (FS segments/ BLM segments/ both)	Potential Issue / River Value Addressed	Monitoring Action
FS and BLM segments	Scenic impacts	Begin monitoring scenic integrity upon land use changes or other development
BLM segment	Recreation impacts from visitor use	Increase recreation use monitoring in partnership with The Wildlands Conservancy, in anticipation of greater visitation pressure.
FS and BLM segment	Wildlife impacts from visitor use	Continue surveys for/documentation of Forest Service Sensitive and BLM sensitive wildlife species within the WSR corridor.

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