

Steelhead/rainbow trout resources of San Diego County

San Mateo

San Mateo Creek consists of about 22 stream miles. It flows southwest from headwaters in the southern Santa Ana and Elsinore Mountains, entering the Pacific Ocean at San Mateo Point.

A DFG record from 1939 indicates that *O. mykiss* YOY were rescued from San Mateo Creek and planted in the lagoon (DFG 1939a). A memo from that year describes the steelhead resources of the creek:

“Reports from many sources indicate that there has been a heavy run of steelhead spawners in this stream every year. Number of fish running seems to be in the thousands with a reported length of from 18 to 24 inches... Spawners have been seen in the stream 12 miles from mouth 4 days after a storm” (DFG 1939b, p. 2).

The memo adds, “The live water area for this year seems to be that part of the stream for eight miles above the first 12, the lagoon and one tributary, Blue Water canyon... The total available spawning area of the stream and its tributaries is about 25 miles or more... Some 19,000 steelhead fingerlings were rescued from San Mateo creek this year” (DFG 1939b, p. 3).

San Mateo Creek was stocked in 1945 and in subsequent years (DFG 1945a). A 1946 DFG memo described a visit to San Mateo Creek and stated, “[in one pool]...I saw perhaps a couple of dozen steelhead fingerling, and counted 9 trout 9 to 12” long” (DFG 1946a, p. 2). According to an issue of the DFG journal from 1946, “[DFG warden E.H.] Glidden states that trout weighing up to about 20 pounds run far up the San Mateo, and that he has personally observed the runs in San Mateo and San Onofre creeks for 20 years” (DFG 1946b).

Staff from DFG surveyed San Mateo Creek in 1950 and observed multiple *O. mykiss* year classes, including individuals to 14 inches in length (DFG 1952). The notes from the survey state, “I believe the present resident population of RT is sufficient to reproduce the carrying potential of this stream whenever water conditions improve, and “...it is very likely from all reports that an ample steelhead population migrates considerable distance upstream...” (DFG 1952).

Staff from USFWS conducted habitat surveys on creeks in Camp Pendleton in 1995 and 1996, including mainstem San Mateo Creek. The resulting report states, “The Santa Margarita River and San Mateo Creek provide a corridor to upstream habitat off-Base. Spawning and rearing habitat occurs on San Mateo Creek and Devils Canyon within the Cleveland National Forest” (Knight 1998, p. 1).

Staff from DFG collected *O. mykiss* in San Mateo Creek in 1999 and took tissue samples. According to subsequent a paper concerning the San Mateo steelhead, “The discovery... represents the first multiple record account of trout in the creek in over 50 years” (DFG 2004, p. 140). A memo addressing conservation of the population recommended habitat restoration, removal of exotic fish, and evaluation of groundwater use and lagoon management (DFG 1999).

In 2000, staff from DFG reported that *O. mykiss* sampled in San Mateo Creek in 1999 likely were the progeny of adult steelhead. The report states, “Field surveys yielded no evidence of a reproducing resident trout population...” (DFG 2000, p. 17). In 2004 DFG staff noted, “The higher water temperature [in San Mateo Creek than in Devil Canyon Creek] and presence of non-native fish species likely contributed to the extirpation of adult trout on SMC in 2000” (DFG 2004, p. 140).

A draft assessment for San Mateo Creek steelhead prepared in 2001 noted impacts from off-highway vehicles in the Wildomar area, non-native plants, and erosion of trails in the San Mateo Wilderness. The assessment cited several projects to reduce these impacts and other factors potentially affecting steelhead (USFS 2001).

Tissue samples from San Mateo Creek *O. mykiss* were analyzed as part of a study of genetic structure in southern California streams. The resulting report indicates that the fish “are clearly not [of hatchery ancestry]” (Girman and Garza 2006).

Devil Canyon

Devil Canyon Creek consists of about eight stream miles and is tributary to San Mateo Creek. It flows west, entering San Mateo Creek at about stream mile ten.

A 1998 USFWS report cites Dave Woelfel as confirming the presence of *O. mykiss* historically in Devil Canyon Creek based on reports from fishermen who caught steelhead there in the 1920s and 1930s (Knight 1998).

Staff from USFWS conducted habitat surveys on creeks in Camp Pendleton in 1995 and 1996, including Devils Canyon Creek. The resulting report states, “Spawning and rearing habitat occurs on San Mateo Creek and Devils Canyon within the Cleveland National Forest” (Knight 1998, p. 1).

Staff from DFG observed *O. mykiss* in Devil Canyon Creek during several years prior to 2002 (DFG 2002). A 2000 DFG report states, “Juvenile steelhead currently rear in...Devil Canyon Creek” (DFG 2000, p. 16). A 2004 paper notes, “Genetic and age analysis on specimens collected in 1999 and 2000 established that...successful, resident reproduction occurred in DCC in 2000” (DFG 2004).

San Onofre

San Onofre Creek consists of about 13 stream miles. It flows southwest from headwaters near Margarita Peak, entering the Pacific Ocean at San Onofre Beach.

According to an issue of the DFG journal from 1946, “...[DFG warden E.H. Glidden] has personally observed the runs in San Mateo and San Onofre creeks for 20 years” (DFG 1946b). The San Onofre Creek lagoon was surveyed in 1950 and juvenile steelhead were observed (DFG 1979)

Staff from USFWS conducted habitat surveys on creeks in Camp Pendleton in 1995 and 1996, including mainstem San Onofre Creek. The resulting report states, “The best steelhead habitat on the Base occurs within the upper San Onofre Creek drainage” (Knight 1998, p. 1).

As part of a steelhead distribution study, NMFS staff collected information on San Onofre Creek. The resulting 2005 report notes that the creek is dry, and therefore incapable of supporting *O. mykiss* (NMFS 2005). According to a naturalist and long-time resident, suitable steelhead habitat is available in the upper reaches and the lagoon (Greenwood pers. comm.).

Santa Margarita River

The Santa Margarita River consists of about 29.5 stream miles. It flows southwest from its headwaters at top of Temecula Canyon, entering the Pacific Ocean near Camp Del Mar. The diversion weir feeding O'Neil Lake is located at about stream mile 9.5. It was constructed in 1982.

Warden E.H. Glidden was reported to have rescued adult steelhead in the Santa Margarita River in the 1930s or 1940s (Knight 1998). Steelhead fry were collected in 1939 (Knight 1998).

Rainbow trout were stocked in the Santa Margarita River in 1941 and in subsequent years (Knight 1998, Table 5). A 1947 summary of stream surveys describes the Santa Margarita River. Staff from DFG states, "A constant flow is present in the section opposite Fallbrook but summer temperatures and shifting sand bottom make it unsuitable for trout" (DFG 1947a). A memo from 1949 notes, "...a few steelhead are known to enter the river on wet years and run upstream to slightly above the Fallbrook area" (DFG 1949a).

According to a 1964 news release, "the area between the lower reaches of the Temecula Gorge and the town of Fallbrook were planted with catchable-size rainbow trout" (DFG 1964a).

Staff from USFWS conducted habitat surveys on creeks in Camp Pendleton in 1995 and 1996, including mainstem Santa Margarita River. The resulting report states, "The Santa Margarita River and San Mateo Creek provide a corridor to upstream habitat off-Base" (Knight 1998, p. 1). It adds, "[The Santa Margarita River]...contained the least quantity and quality of steelhead habitat" (Knight 1998, p. 92).

A fish distribution study of the Santa Margarita watershed was conducted between 1997 and 1999 and *O. mykiss* was not observed. The resulting paper cites previous work in stating, "...steelhead, stickleback, and lamprey...have been extirpated since at least the 1940s" (Warburton 2000). The study indicates that steelhead rearing habitat is present in the Santa Margarita River "from about the De Luz Ford on the Base to the top of the gorge..." (Warburton 2000).

According to a 2003 NMFS report, the Santa Margarita River does not offer spawning habitat downstream from O'Neil Dam (NMFS 2003).

DeLuz

DeLuz Creek consists of about 12.9 stream miles and is tributary to the Santa Margarita River. It flows south, entering the Santa Margarita at about stream mile 2.3.

As part of a study of streams on Camp Pendleton, staff from USFWS reviewed information regarding the distribution of *O. mykiss*. Anecdotal accounts and photographs indicate that steelhead adults were present in DeLuz Creek until at least the 1940s

(Knight 1998). According to the USFWS report, DeLuz Creek was stocked in 1942 (Knight 1998). Staff from DFG examined smaller San Diego County streams, including DeLuz Creek, in 1947 with regards to stocking. The resulting memo states, “A few trout survive in the headwaters from year to year” (DFG 1947a). The memo characterizes habitat in the creek as “poor”.

A 1998 USFWS report cites a 1974 San Diego Coast Regional Commission (SDCRC) report as confirming the presence of *O. mykiss* in DeLuz Creek in 1950-52 (Knight 1998).

Staff from USFWS conducted habitat surveys on creeks in Camp Pendleton in 1995 and 1996, including DeLuz Creek. The resulting report stated, “...DeLuz Creek contained the least quantity and quality of steelhead habitat” (Knight 1998, p. 92).

A fish distribution study of the Santa Margarita watershed was conducted between 1997 and 1999. The resulting paper indicates that suitable steelhead rearing habitat is present in upper DeLuz Creek (Warburton 2000).

Roblar

Roblar Creek consists of about 6.6 stream miles and is tributary to DeLuz Creek. It flows southeast, entering DeLuz Creek upstream from Camp De Luz.

Staff from DFG visited Roblar Creek in 1947 and recommended stocking (DFG 1946a). Based on the context of the letter, the recommendation indicates that suitable habitat was present.

A consulting biologist's report from 1991 discusses Roblar Creek. The report notes the presence of perennial water and suitable substrate, stating, “[Roblar Creek] may have suitable conditions to support steelhead at present” (Higgins 1991, p. 19).

Staff from USFWS conducted habitat surveys on creeks in Camp Pendleton in 1995 and 1996, including Roblar Creek. The resulting report states, “Small amounts of habitat...occur on Roblar Creek” (Knight 1998, p. 95).

Fern

Fern Creek consists of about one stream mile and is tributary to DeLuz Creek. It flows east, entering DeLuz Creek at De Luz.

According to a 1930 DFG survey report, “[Fern Creek] was first stocked in 1930 with poor results” (DFG ca 1932). The report noted that poor habitat made stocking “useless.” Poor habitat quality also was reported in a 1947 survey report (DFG 1947a).

A 1998 USFWS report cites Allen Brain as confirming the presence of *O. mykiss* historically in Fern Creek based on a 1942 observation of steelhead (Knight 1998).

Rainbow

Rainbow Creek consists of about 4.5 stream miles and is tributary to the Santa Margarita River. It flows west, entering the Santa Margarita west of Red Mountain.

A consulting biologist's report from 1991 discusses Rainbow Creek. The report notes the presence of perennial water and suitable substrate, stating, "[Rainbow Creek] may have suitable conditions to support steelhead at present" (Higgins 1991, p. 19). A fish distribution study of the Santa Margarita watershed was conducted between 1997 and 1999. The resulting paper indicates that suitable steelhead rearing habitat is present in lower Rainbow Creek (Warburton 2000).

San Luis Rey River

The San Luis Rey River consists of over 50 stream miles downstream from Lake Henshaw. It flows in an overall westerly direction, entering the Pacific Ocean at the city of Oceanside. Lake Henshaw Dam was constructed in 1924. According to a 2003 NFMS report, the San Luis Rey River system is not accessible to steelhead spawners (NMFS 2003).

As part of a habitat study, staff from USFWS reviewed records concerning streams of Camp Pendleton. The resulting report relays accounts by Natives Americans that a steelhead run existed in the upper San Luis Rey River prior to construction of Henshaw Dam (Knight 1998, p. 19).

Records were given by Smith 1880 for "fresh water streams at Pala, and near Smith's [Palomar] Mountain, San Diego county" (DFG 1946b). In an 1881 paper, David Starr Jordan noted rainbow trout in the San Luis Rey River.

Regarding rainbow trout, a 1946 reference states, "It is abundant in the streams rising in Smith [Palomar] Mountain and emptying in to the San Luis Rey River" (DFG 1946b).

According to Carl L. Hubbs, "A specimen from Pala which I examined about 1913...was deep-bodied and unusually coarse-scaled and may have represented a slightly differentiated fresh-water race" (DFG 1946b).

A 1946 DFG memo indicates a successful stocking program in previous years on the San Luis Rey River (DFG 1946c). A 1946 DFG survey report states, "Live section near Pala often contains a few large trout washed downstream from tributaries but few trout in general" (DFG 1946d).

According to an issue of the DFG journal from 1946, "Local anglers have reported catching fish, thought to be steelhead trout, in San Luis Rey River..." (DFG 1946b). A 1947 summary of stream surveys characterizes the San Luis Rey River as having 11 miles of "trout water" (DFG 1947a).

Biologists observed an adult steelhead approximately 21-24 inches in length in the San Luis Rey River near Oceanside in May 2007. A survey report notes, "[The] reach lacked any possible spawning areas" (DFG 2007).

Gomez

Gomez Creek consists of about 5.5 stream miles and is tributary to the San Luis Rey River. It flows south, entering the San Luis Rey about 1.5 miles west of the town of Pala.

Consulting biologists observed two adult *O. mykiss* in Gomez Creek in September 2005. A 15-inch individual was examined, but ancestry was undetermined (Dudek 2005).

Pauma

Pauma Creek consists of about 7.4 stream miles and is tributary to the San Luis Rey River. It flows southwest, entering the San Luis Rey in Pauma Valley.

A letter describing genetic analysis of rainbow trout from Pauma Creek states, “Pauma Creek was planted with Klamath River steelhead...in 1893 or 1894” (Thorgaard ca 1983). The letter indicates the researcher’s opinion that the population is “likely to be of an introduced or hybrid origin on the basis of the history of the plants and [the genetics analysis]” (Thorgaard ca 1983). In a 1996 interview, a member of the Pauma band described catching trout in Pauma Creek during his youth (Knight 1998).

Pauma Creek was stocked, probably in the 1940s, although specific stocking reports were not located. The creek was surveyed in 1946 and multiple *O. mykiss* year classes were observed. The survey report notes “fair” natural propagation and a largely self-sustaining population. It states, “This is one of the best natural trout streams in San Diego County” (DFG 1946e).

Samples were collected in a lower and an upper section of Pauma Creek in 1997 as part of an *O. mykiss* genetics study. Individuals were collected between about five and eight inches in length (DFG 1997). In a 1999 letter NMFS staff describe the results of genetic analysis of *O. mykiss* samples from California coastal streams. The letter states, “It seems more likely (though by no means certain) that [fish from Pauma Creek] are part of a native coastal *O. mykiss* lineage” (NMFS 1999).

Doane

Doane Creek consists of about 2.5 stream miles and is tributary to Pauma Creek. It flows northwest, joining French Creek to form Pauma Creek.

A 1947 memo indicates that Doane Creek was stocked (DFG 1947a). Staff from DFG surveyed Doane Creek in 1947 and observed *O. mykiss* fingerlings. The survey report notes “poor” natural propagation and states, “This stream is generally too small in size to support many trout” (DFG 1947b).

According to a naturalist familiar with the area, a “small” *O. mykiss* population occurs in Pauma Creek (Greenwood pers. comm). The naturalist believes that the fish are “natives” (*i.e.*, not of hatchery ancestry).

Cedar

Cedar Creek consists of about 3.8 stream miles and is tributary to the San Luis Rey River. It flows south, entering the San Luis Rey near La Jolla Amago.

Records of the DFG indicate that Cedar Creek was stocked in the 1940s. In a 1949 memo, DFG staff indicated that the creek was of low priority for stocking due to low flow levels (DFG 1949b).

West Fork San Luis Rey River

West Fork San Luis Rey River consists of about 8.7 stream miles and is tributary to the San Luis Rey River. It flows southeast, entering the San Luis Rey River at Lake Henshaw.

A letter describing genetic analysis of rainbow trout from West Fork San Luis Rey River states, “[the river] was believed to have been planted with Pit River fish...in the 1890’s...and the chromosome results suggest that, although this could have had some impact, the fish there now aren’t predominantly of that origin” (Thorgaard ca 1983).

A preliminary report concerning the fishery of the West Fork San Luis Rey notes rainbow trout to 14 inches in length in the creek in the 1970s. The report states, “The rainbow stock is completely wild and may be a unique wild strain as it was introduced into the canyon about 1900 by a local rancher” (Gould undated). The source of this information is not provided.

Staff from DFG surveyed the West Fork in 1997 and observed multiple *O. mykiss* year classes, including individuals to about inches in length. The survey report states, “The San Luis Rey river system formerly connected to the Pacific Ocean and the always present possibility that these fish are from steelhead genetics exists and should be explored in light of the endangered species status of southern California steelhead” (DFG 1993).

An undated letter from a research geneticist states, “Although we can’t rule out the possibility that introductions could have had some impact..., it seems likely that the West Fork population is composed predominantly of native fish to the region” (Thorgaard undated). The letter recommends protecting the population “...as a potential genetic resource for the future”.

San Dieguito River

The San Dieguito River consists of about more than 23 stream miles. It is formed by the confluence of Santa Ysabel and Santa Maria creeks, and flows southwest, entering the Pacific Ocean north of Del Mar. The dam forming Lake Hodges is located at about stream mile 12.

According to an issue of the DFG journal from 1946, “Local anglers have reported catching fish, thought to be steelhead trout, ... in the estuary of San Dieguito River...” (DFG 1946b).

A 1947 summary of stream surveys describes the San Dieguito River. Staff from DFG states, “It was formerly stocked in the section below Hodges Dam with little success” (DFG 1947a).

Staff from NMFS collected information concerning steelhead distribution in southern California streams, including the San Dieguito River, in 2002. A subsequent report notes that Lake Hodges is a complete barrier to spawning and that the downstream reach was dry and therefore unsuitable as habitat (NMFS 2003, p. 12).

Santa Ysabel

Santa Ysabel Creek consists of about 33 stream miles and is tributary to the San Dieguito River. It flows southwest to become the San Dieguito downstream from the Santa Maria Creek confluence. The dam forming Sutherland Lake is located at about stream mile 16.5 and was constructed in the mid-1950s.

Field notes from 1947 record DFG staff's observations of rainbow trout upstream from the Witch Creek confluence. The notes also indicate that the creek was stocked.

Black Canyon

Black Canyon Creek consists of about 4.2 stream miles and is tributary to Santa Ysabel Creek. It flows south, entering Santa Ysabel Creek downstream from Sutherland Lake.

A creel census in 1955 indicates that Black Canyon Creek supported a rainbow trout fishery. The trout were stocked (DFG 1955).

San Diego River

The San Diego River consists of about 52 stream miles. It flows southwest from headwaters near Santa Ysabel, entering the Pacific Ocean at Mission Bay. El Capitan Dam is located at about stream mile 30 and was constructed in 1934. San Vicente Dam, constructed in 1943, impounds runoff from the San Vicente Creek basin.

According to an issue of the DFG journal from 1946, "[DFG warden E.H. Glidden] knows of steelheads having been caught in San Diego River..." (DFG 1946b). Field notes from DFG staff in 1949 indicate "good spawning areas for trout" upstream of the El Capitan Reservoir (DFG 1949c).

Staff from NMFS collected information concerning steelhead distribution in southern California streams, including the San Diego River, in 2002. A subsequent report notes that the river was dry at the time of survey and therefore unsuitable as habitat (NMFS 2003, p. 9). The report noted the possibility that upstream tributaries had water and possibly *O. mykiss*.

Conejos

Conejos Creek consists of about ten stream miles and is tributary to the San Diego River via El Capitan Reservoir. The creek flows southwest, entering El Capitan Reservoir toward its southern extent.

Staff from DFG surveyed Conejos Creek in 1946 and observed rainbow trout. (The origin of the fish is unclear, but likely to be stocking efforts based on the watershed context.) The extent of natural propagation was deemed to be "slight" (DFG 1946f).

Boulder

Boulder Creek consists of almost 12 stream miles between Cuyamaca Dam and its confluence with the San Diego River. It flows west, entering the San Diego upstream from El Capitan Reservoir.

Boulder Creek was stocked in 1930 (DFG 1933). A 1947 memo indicated that the creek did not have sufficient flow to support a fishery “except during periods of water release, once or twice a year” (DFG 1947a).

Hatchery *O. mykiss* were stocked in Boulder Creek in 1999 and in 2003 (Rodgers 2005). According to a naturalist familiar with the area, rainbow trout “from the lake access the little headwater streams and spawn in great numbers” and the creek supports a rainbow trout population throughout the year (Greenwood pers. comm.).

Cedar

Cedar Creek consists of about 12.4 stream miles and is tributary to the San Diego River. It flows southwest, entering the San Diego about one mile upstream from the Boulder Creek confluence.

Staff from DFG surveyed Cedar Creek in the 1930s and observed “very few trout”. The survey report notes stocking between 1915 and 1932 with poor success and no resulting natural propagation (DFG ca 1934).

Cedar Creek was surveyed in 1945 and *O. mykiss* was observed, including YOY. The survey report states, “...fish of year prove spawning” (DFG 1945b). A 1947 summary of stream surveys characterizes Cedar Creek as having eight miles of “trout water” (DFG 1947a).

Hatchery *O. mykiss* were stocked in Cedar Creek in 1999 (Rodgers 2005). According to a naturalist familiar with the area, a “small resident population of rainbow trout” occurs in Cedar Creek. The population’s ancestry is uncertain (Greenwood pers. comm.).

Sweetwater River

The Sweetwater River consists of over 57 stream miles. Its headwaters are in Upper Green Valley and it flows in an overall southwest direction, entering the Pacific Ocean at San Diego Bay. The dam forming Sweetwater Reservoir, located at about stream mile 8.5, was constructed in 1888. Sweetwater Falls Dam is located at about stream mile 28, forming Loveland Reservoir. The upper portion of the Sweetwater River flows through Green Valley, and may be referred to here and in references as Green Valley Creek.

The upper portion of the Sweetwater River was stocked in 1939 (DFG 1939a). Staff from DFG surveyed the upper river in 1946 and observed *O. mykiss* fingerlings and adults. The survey report states, “...the few adult trout present in the stream which carry over apparently spawn successfully each year. In spite of good reproduction, few trout appear to survive to the following season” (DFG 1946g, p. 4). The report indicated that the upper ten stream miles had perennial flow but had limited fishery potential due to summer water temperatures. The report states, “The extreme upper 4 miles...is the most desirable section of the entire river for establishment of trout” (DFG 1946g, p. 2).

Samples were collected in Sweetwater Creek in 1997 as part of an *O. mykiss* genetics study. Individuals were collected between about [68-198 convert] in length (DFG 1997). In a 1999 letter NMFS staff describe the results of genetic analysis of *O. mykiss* samples from California coastal streams. The letter states, “It seems more likely (though by no means certain) that [fish from Sweetwater Creek] are part of a native coastal *O. mykiss* lineage” (NMFS 1999).

Tissue samples from Sweetwater River *O. mykiss* were analyzed as part of a study of genetic structure in southern California streams. The seven samples indicated mixed hatchery and native origin and an indeterminate relationship with other coastal steelhead populations (Girman and Garza 2006).

In 2003 a wildfire destroyed the *O. mykiss* population and habitat in the upper Sweetwater River. In response a captive breeding program was initiated using *O. mykiss* that had been collected in 1997. This program was unsuccessful and the population may now be extirpated.

Cold Stream

Cold Stream consists of about 2.4 stream miles and is tributary to Sweetwater Creek. It flows southeast, entering Sweetwater Creek near the Cuyamaca Rancho State Park headquarters.

Cold Stream was stocked prior to 1946. Staff from DFG surveyed the upper Sweetwater River, included Cold Creek, in 1946 and observed *O. mykiss* fingerlings and adults. The survey report states, "Cold Creek...is flowing a small quantity of water the year around throughout most of its length" (DFG 1946g). The report also indicated that natural propagation occurred in the creek. Staff from DFG note, "Cold Creek...represents the only section of the Sweetwater River that is satisfactory for developing into a permanent trout stream" (DFG 1946g, p. 7).

Tijuana River

The Tijuana River downstream from the Cottonwood Creek confluence consists of about 26 stream miles. The river enters the Pacific Ocean at Border Field State Park.

According to an issue of the DFG journal from 1946, "[DFG warden E.H. Glidden]...saw two [steelhead] that were taken in the lower flowing part of Tijuana River, on the California side of the international border" (DFG 1946b).

A 2005 NMFS technical memorandum concerning steelhead distribution indicates that steelhead historically occurred in the Tijuana River. The river was considered inaccessible to researchers investigating current migration conditions to possible upstream habitat (NMFS 2005, p. 20).

Cottonwood

Cottonwood Creek consists of about 36 stream miles and is tributary to the Tijuana River. It flows southwest, entering the Tijuana at Marron Valley. Barrett Dam is located at about stream mile 12; Morena Dam is at about stream mile 21.

Staff from DFG surveyed Cottonwood Creek in 1946 and observed rainbow trout in the area between Barrett and Morena reservoirs. The survey report notes "little or no" natural propagation and states, "Middle Section is ideal for trout fishing" (DFG

1946h). Good conditions were credited to “constant flow from springs and Morena seepage”. A 1947 summary of stream surveys characterizes Cottonwood Creek as having four miles of “trout water” (DFG 1946h).

Hatchery *O. mykiss* were stocked in Cottonwood Creek in 1999 and in 2003 (Rodgers 2005).

Pine Valley

Pine Valley Creek consists of about 25 stream miles and is tributary to Cottonwood Creek. It flows southwest, entering Cottonwood Creek at Barrett Lake.

Staff from DFG surveyed Pine Valley Creek in 1946 and observed rainbow trout, including fingerlings and adults. The survey report indicates stocking in 1945 and states, “Adequate spawning areas but few hold over to following year” (DFG 1946i). A 1947 summary of stream surveys characterizes Pine Valley Creek as having four miles of “trout water” (DFG 1947a).

According to a naturalist familiar with the area, an *O. mykiss* population occurs in Pine Valley Creek including individuals to 21 inches in length. While the existing population is believed to be of hatchery origin, the naturalist believes that the creek was accessed by wild steelhead prior to downstream dam construction (Greenwood pers. comm.).

Noble Canyon

Noble Canyon Creek consists of about 4.8 stream miles and is tributary to Pine Valley Creek. It flows southwest, entering Pine Valley Creek north of the town of Pine Valley.

A 1946 survey report for Pine Valley Creek indicates that Noble Canyon Creek was stocked in 1944 and 1945 (DFG 1946i). A 1964 DFG letter indicates that a resident rainbow trout population existed in Noble Canyon Creek that was supplemented in 1963 by stocking (DFG 1964b).

According to a naturalist familiar with the area, an *O. mykiss* population occurs in Noble Canyon Creek, and individuals as large as 24 inches in length have been observed. The existing population is believed to be of hatchery origin (Greenwood pers. comm.).

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Table 9. Distribution status of *O. mykiss* in coastal streams of San Diego County, California¹

Watershed	Stream/Tributary	Historical Presence	Current Presence	Evidence of Decline	Anadromy	Current Population Status
San Mateo	San Mateo	DF	DF	Y	Y	2
San Mateo	Devil Canyon	DF	DF		Y	2
San Onofre	San Onofre	DF	PA		UN	0
Santa Margarita River	Santa Margarita River	DF	PA	Y	UN	0
Santa Margarita River	DeLuz	DF	PA		UN	0
Santa Margarita River	Roblar	UN	PA		UN	0
Santa Margarita River	Fern	DF	PA		UN	0
Santa Margarita River	Rainbow	UN	PA		UN	0
San Luis Rey River	San Luis Rey River	DF	DF	Y	UN	1
San Luis Rey River	Gomez	DF	DF	Y	UN	1
San Luis Rey River	Pauma	DF	DF	Y	UN	1
San Luis Rey River	Doane	PB	PB		UN	0
San Luis Rey River	Cedar	UN	UN		UN	0
	West Fork					
San Luis Rey River	San Luis Rey River	DF	DF	Y	N	3
San Dieguito River	San Dieguito River	PS	PA		N	0
San Dieguito River	Santa Ysabel	PS	UN		N	0
San Dieguito River	Black Canyon	PS	UN		N	0
San Diego River	San Diego River	PB	PA		UN	0
San Diego River	Conejos	PS	PA		N	0
San Diego River	Boulder	PS	PS		N	0
San Diego River	Cedar	PB	PS		N	0
Sweetwater River	Sweetwater River	DF	PA	Y	UN	0
Sweetwater River	Cold Stream	DF	PA	Y	UN	0
Otay River	Otay River	UN	PA		UN	0

¹Please see Methods section for an explanation of titles and values used in this table.

Table 9. Distribution status of *O. mykiss* in coastal streams of San Diego County, California¹

Watershed	Stream/Tributary	Historical Presence	Current Presence	Evidence of Decline	Anadromy	Current Population Status
Tijuana River	Tijuana River	DF	PA		N	0
Tijuana River	Cottonwood	PB	UN		N	0
Tijuana River	Pine Valley	PB	UN		N	0
Tijuana River	Noble Canyon	PB	UN		N	0

¹Please see Methods section for an explanation of titles and values used in this table.