Middle Santa Ana River Watershed Fact Sheet

The tributary drainage area to the Middle Santa Ana River Watershed is 480 square miles. Major tributaries to the Santa Ana River (Reaches 3 and 4) include: Temescal Creek (Reaches 1-6), Day Creek, San Sevaine Channel,. Box Springs Channel, and Anza Channel.

The Stormwater and Water Conservation Tracking Tool (Geodatabase) located here: **http://rivco.permitrack.com/**

MS4 Permittees: RCFC&WCD, County of Riverside, and Cities of Riverside, Corona, Norco, Eastvale and Jurupa Valley.

Landuse Data:

Population (2010 census data): 586,598 people

Percent Approximate Land Use by Category: Open (Forest Service, Parks, Open Space)- 55% , Commercial/Industrial-7%, Residential (Rural, Urban)-35%, Agriculture-3%

Regional Imperviousness Approximate Percentage: 42 % impervious, 58% pervious

Waterbodies: Santa Ana River, Day Creek, Temescal Creek, Coldwater Canyon Creek, Bedford Canyon Creek, Dawson Canyon Creek, San Timoteo Wash, Little San Gorgonio Creek, Anza Channel, Sunnyslope Channel, Tequesquite Arroyo (Sycamore Creek), Chino Creek, Mill Creek, Cucamonga Creek, Lake Evans, Lake Mathews, Lee Lake, Lake Norconian, and Mockingbird Reservoir

Habitat Areas: Refer to the U.S. Fish and Wildlife Critical Habitat, Western Region Multiple Species Habitat Conservation Plan (WRMSHCP) Potential Survey Areas, and Stephens Kangaroo Rat Habitat Conservation Plan (SKRHCP) layers in the Geodatabase (http://rivco.permitrack.com/).

Groundwater Basins: Refer to the Groundwater Data layers in the Geodatabase (http://rivco.permitrack.com/)

Development requirements: Follow the October 22, 2012 WQMP guidelines locate at http://rcflood.org/NPDES/SantaAnaWS.aspx#SAdocs

Drainage Channels: Refer to the Stormwater Data layer for District facilities and City Storm Drains in the Geodatabase (http://rivco.permitrack.com/)

Beneficial Uses: Refer to the Santa Ana Region Board website for updates to Beneficial Uses (http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml)

Watershed Management Areas	Beneficial Uses
Santa Ana River, Reach 3,	AGR, GWR, REC1, REC2, WARM, WILD, RARE, SPWN
Santa Ana River, Reach 4	GWR, REC1, REC2, WARM, WILD, RARE, SPWN

Day Creek	MUN, PROC, GWR, REC1, REC2, COLD, WILD
Cucamonga Creek, Reach 1	GWR, REC2, LWRM, WILD
Mill Creek (Prado Area)	REC1, REC2, WARM, WILD, RARE
San Timoteo Wash Reach 3	GWR, REC1, REC2, WARM, WILD
Little San Gorgonio Creek	MUN, GWR, REC1, REC2, COLD, WILD
Anza Park Drain	MUN, REC1, REC2, WARM, WILD, SPWN
Sunnyslope Channel	MUN, REC1, REC2, WARM, WILD, RARE, SPWN
Tequesquite Arroyo (Sycamore Creek)	GWR, REC1, REC2, WARM, WILD, SPWN
Chino Creek, Reach 1A	REC1, REC2, WARM, WILD, RARE
Chino Creek, Reach 1B	REC1, REC2, WARM, WILD, RARE
Temescal Creek – Reach 1a	REC2, WARM, WILD
Temescal Creek – Reach 1b	REC2, WARM, WILD
Temescal Creek – Reach 2	AGR, IND, GWR, REC1, REC2, WARM, WILD
Temescal Creek – Reach 3	**See Lee Lake**
Temescal Creek – Reach 4	AGR, GWR, REC1, REC2, WARM, WILD, RARE
Temescal Creek – Reach 5	AGR, GWR, REC1, REC2, WARM, WILD, RARE
Temescal Creek – Reach 6	INTERMITTENT - GWR, REC1, REC2, WARM, WILD
Coldwater Canyon Creek	MUN, AGR, GWR, REC1, REC2, WARM, WILD
Bedford Canyon Creek	INTERMITTENT - GWR, REC1, REC2, WARM, WILD
Dawson Canyon Creek	INTERMITTENT - MUN, GWR, REC1, REC2, WARM, WILD
Lake Evans	REC1, REC2, WARM, COLD, WILD
Lee Lake	AGR, IND, GWR, REC1, REC2, WARM, WILD
Lake Mathews	MUN, AGR, IND, PROC, GWR, REC1, REC2, WARM, WILD, RARE
Mockingbird Reservoir	AGR, REC1, REC2, WARM, WILD
Lake Norconian	REC1, REC2, WARM, WILD

2010 303(d) Impairments
(http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/303d/2010_303d.pdf):

Waterbody	**Pollutants**	**Potential Sources**
Chino Creek Reach 1A (Santa Ana River R5 cnfl to just downstream of confl with Mill Creek)	Nutrients Pathogens	Agriculture; Dairies Agriculture; Dairies; Urban Runoff/Storm Sewers
Cucamonga Creek Reach 1 (Valley Reach)	Cadmium Coliform Bacteria Copper Lead	Source Unknown Unknown Nonpoint Source Source Unknown Source Unknown

	Zinc	Source Unknown
Mill Creek (Prado Area)	Nutrients Pathogens Total Suspended Solids (TSS)	Agriculture; Dairies Dairies Dairies
Santa Ana River, Reach 3	Copper Lead Pathogens	Source Unknown Source Unknown Dairies
Santa Ana River, Reach 4	Pathogens	Non-point Source
Temescal Creek, Reach 1	pH	Source Unknown
Temescal Creek, Reach 6	Indicator Bacteria	Source Unknown

Approved TMDLs:

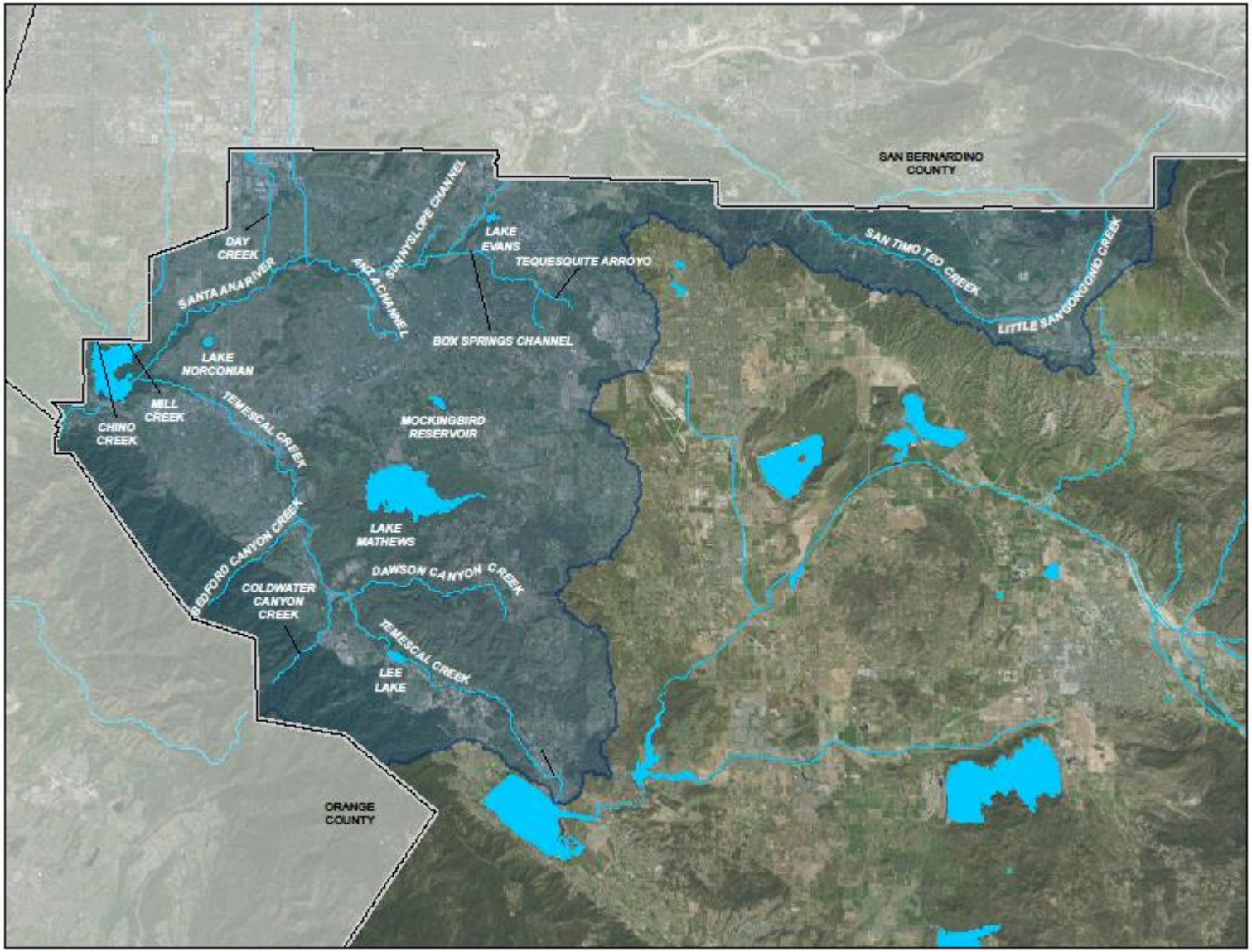
- **Santa Ana River, Reach 3**: Bacterial Indicators

A Comprehensive Bacteria Reduction Plan (CBRP), has been developed for the TMDL listed above and is located here: http://rcflood.org/downloads/NPDES/Documents/SA_Other/CBRP.pdf

Water Quality Objectives (mg/L): Refer to the Santa Ana Region Board website for updates to Water Quality Objectives (http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml)

	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**
Santa Ana River Reach 3-Base Flow[1]	700	350	110	140	10[2]	150	30
Santa Ana River Reach 4	550	---	---	---	10	---	30
Day Creek	200	100	15	4	4	25	5
Little San Gorgonio Creek	230	125	50	40	3	45	5
Yucaipa Creek	290	175	60	60	6	45	15
Chino Creek Reach 1A-Base Flow[3]	700	350	110	140	10[4]	150	30
Chino Creek Reach 1B	550	240	75	75	8	60	15
Coldwater Canyon Creek	250	---	---	---	---	---	---
Lake Norconian	1050	---	---	---	---	---	---
Lake Evans	490	---	---	---	---	---	---
Lake Mathews	700	325	100	90	---	290	---
Mockingbird Reservoir	650	---	---	---	---	---	---

1. Additional Objectives: Boron 0.75 mg/l
2. Total nitrogen, filtered sample
3. Additional Objective: Boron 0.75 mg/l
4. Total nitrogen, filtered sample


SAN BERNARDINO COUNTY
DAY CREEK
SANTA ANA RIVER
SUNNYSLOPE CHANNEL
ANZA CHANNEL
LAKE EVANS
TEQUESQUITE ARROYO
SAN TIMOTEO CREEK
LITTLE SAN GORGONIO CREEK
BOX SPRINGS CHANNEL
LAKE NORCONIAN
MILL CREEK
CHINO CREEK
TEMESCAL CREEK
MOCKINGBIRD RESERVOIR
LAKE MATHEWS
BEDFORD CANYON CREEK
DAWSON CANYON CREEK
COLDWATER CANYON CREEK
TEMESCAL CREEK
LEE LAKE
ORANGE COUNTY

San Jacinto River Watershed Fact Sheet

The 780 square mile watershed is regulated by several lakes and reservoirs including: Lake Elsinore, Canyon Lake, Lake Perris and Mystic Lake. Major tributaries include Bautista Creek, Poppet Creek, Potrero Creek, Perris Valley Drain and Salt Creek.

The Stormwater and Water Conservation Tracking Tool (Geodatabase) located here:
http://rivco.permitrack.com/

MS4 Permittees: RCFC&WCD, the County of Riverside, and Cities of Beaumont, Canyon Lake, Hemet, Lake Elsinore, Menifee, Moreno Valley, Perris, and San Jacinto.

Landuse Data:

Population (2010 census data): 421,328 people
Percent Approximate Land Use by Category: Open (Forest Service, Parks, Open Space)- 67% , Commercial/Industrial-3%, Residential (Rural, Urban)-25%, Agriculture-5%
Regional Imperviousness Approximate Percentage: 27 % impervious, 73% pervious

Waterbodies: San Jacinto River, Bautista Creek, Strawberry Creek, Fuller Mill Creek, Stone Creek, Salt Creek, Logan, Black Mountain, Juaro Canyon, Indian, Herkey, Poppet and Potrero Creeks, Lake Elsinore, Canyon Lake, Lake Hemet, Lake Fulmor, and Lake Perris

Habitat Areas: Refer to the U.S. Fish and Wildlife Critical Habitat Western Region Multiple Species Habitat Conservation Plan (WRMSHCP) Potential Survey Areas, and Stephens Kangaroo Rat Habitat Conservation Plan (SKRHCP) layers in the Geodatabase (http://rivco.permitrack.com/).

Groundwater Basins: Refer to the Groundwater Data layers in the Geodatabase (http://rivco.permitrack.com/)

Development requirements: Follow the October 22, 2012 WQMP guidelines locate at http://rcflood.org/NPDES/SantaAnaWS.aspx#SAdocs

Drainage Channels: Refer to the Stormwater Data layer for District facilities and City Storm Drains in the Geodatabase (http://rivco.permitrack.com/)

Beneficial Uses: Refer to the Santa Ana Region Board website for updates to Beneficial Uses (http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml)

Watershed Management Areas	**Beneficial Uses**
San Jacinto (San Jacinto River reaches 1 and 6)	INTERMITTENT - MUN, AGR, GWR, REC1, REC2, WARM, WILD
San Jacinto (San Jacinto River reaches 3-5)	INTERMITTENT - AGR, GWR, REC1, REC2, WARM, WILD
San Jacinto (San Jacinto River reach 2)	**See Canyon Lake**
San Jacinto (San Jacinto River reach 7)	MUN, AGR, GWR, REC1, REC2, COLD, WILD
Bautista Creek	MUN, AGR, GWR, REC1, REC2, COLD, WILD
Strawberry Creek and San Jacinto River, North Fork	MUN, AGR, GWR, REC1, REC2, COLD, WILD

Fuller Mill Creek	MUN, AGR, GWR, REC1, REC2, COLD, WILD
Stone Creek	MUN, AGR, GWR, REC1, REC2, COLD, W ILD
Salt Creek	INTERMITTENT - REC1, REC2, WARM, WILD
Other Tributaries: Logan, Black Mountain, Juaro Canyon, Indian, Herkey, Poppet and Potrero Creeks, and other Tributaries to these Creeks	INTERMITTENT - MUN, AGR, GWR, REC1, REC2, WARM, WILD
Lake Elsinore	REC1, REC2, WARM, WILD
Canyon Lake (Railroad Canyon Reservoir)	MUN, AGR, GWR, REC1, REC2, WARM, WILD
Lake Hemet	MUN, AGR, GWR, POW, REC1, REC2, WARM, COLD, WILD, SPWN
Lake Fulmor	MUN, AGR, REC1, REC2, WARM, COLD, WILD
Lake Perris	MUN, AGR, IND, PROC, GWR, REC1, REC2, WARM, COLD, WILD

2010 303(d) Impairments
(http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/303d/2010_303d.pdf):

Waterbody	**Pollutants**	**Potential Sources**
Canyon Lake (Railroad Canyon Reservoir)	Nutrients Pathogens	Non-point Source Non-point Source
Lake Elsinore	Nutrients Organic Enrichment/Low Dissolved Oxygen PCBs; Sediment Toxicity Unknown Toxicity	Unknown Non-point Source Unknown Non-point Source Source Unknown Source Unknown Unknown Non-point Source
Lake Fulmor	Pathogens	Unknown Non-point Source

Approved TMDLs:

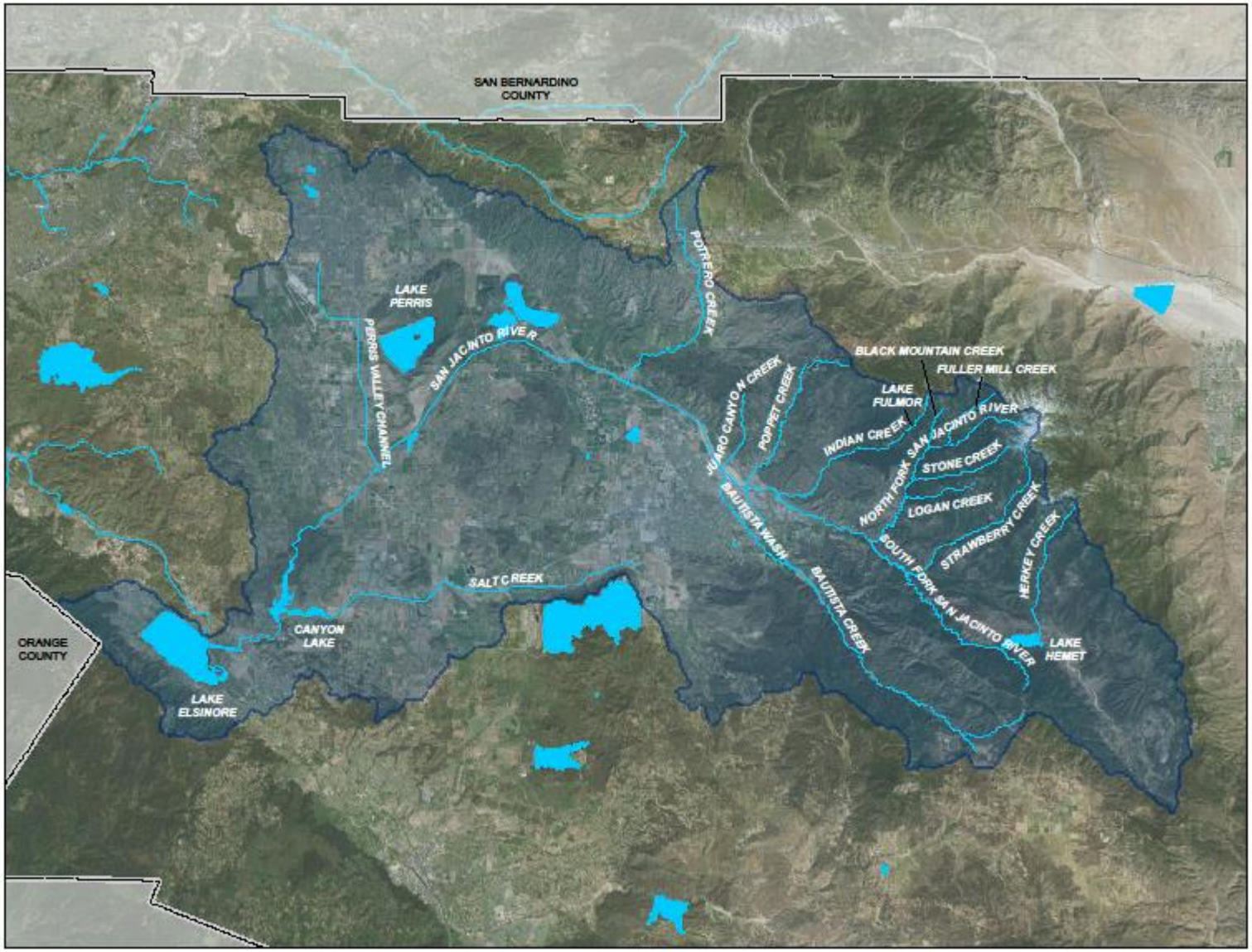
- **Canyon Lake:** Nutrients
- **Lake Elsinore:** Nutrients

A Comprehensive Nutrient Reduction Plan (CNRP), has been developed for the TMDLs listed above and is located here:
http://rcflood.org/downloads/NPDES/Documents/SA_Other/Comprehensive_Nutrient_Reduction_Plan_for_Lake_Elsinore_and_Canyon_Lake.pdf

Water Quality Objectives (mg/L): Refer to the Santa Ana Region Board website for updates to Water Quality Objectives (http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml)

	Total Dissolved Solids	Hardness	Sodium	Chloride	Total Inorganic Nitrogen	Sulfate	Chemical Oxygen Demand
San Jacinto River Reach 1	450	260	50	65	3	60	15
San Jacinto River Reach 3	820	400	---	250	6	---	15
San Jacinto River Reach 4[1]	500	220	75	125	5	65	---
San Jacinto River Reach 5	300	140	30	25	3	40	12
San Jacinto River Reach 6	250	130	25	20	1	30	12
San Jacinto River Reach 7	150	100	10	15	1	20	5
Bautista Creek	250	130	25	20	1	30	5
Strawberry Creek and SJR North Fork	150	100	10	15	1	20	5
Fuller Mill Creek	150	100	10	15	1	20	5
Stone Creek	150	100	10	15	1	20	5
Logan, Black Mountain, Juaro Canyon, Indian, Hurkey, Poppet and Protrero Creeks, and other Tributaries to these Creeks	150	70	10	12	1	15	5
Lake Elsinore[2]	2000	---	---	---	1.5	---	---
Canyon Lake (Railroad Canyon Reservoir)[3]	700	325	100	90	8	290	---
Lake Hemet	135	---	25	20	1	10	---
Lake Fulmor	150	70	10	12	1	15	---
Lake Perris	220	110	50	55	1	45	---

1. The quality objective for Reach 4 is not intended to preclude transport of water supplies or delivery to Canyon Lake.
2. Lake volume and quality highly variable.
3. The quality objective for Canyon Lake is not intended to preclude transport of water supplies or delivery to the Lake.


SAN BERNARDINO COUNTY
LAKE PERRIS
PERRIS VALLEY CHANNEL
SAN JACINTO RIVER
POTRERO CREEK
BLACK MOUNTAIN CREEK
FULLER MILL CREEK
LAKE FULMOR
JUARO CANYON CREEK
POPPET CREEK
INDIAN CREEK
SAN JACINTO RIVER
NORTH FORK
STONE CREEK
LOGAN CREEK
BAUTISTA WASH
STRAWBERRY CREEK
HERKEY CREEK
SOUTH FORK SAN JACINTO RIVER
BAUTISTA CREEK
LAKE HEMET
SALT CREEK
CANYON LAKE
LAKE ELSINORE
ORANGE COUNTY