

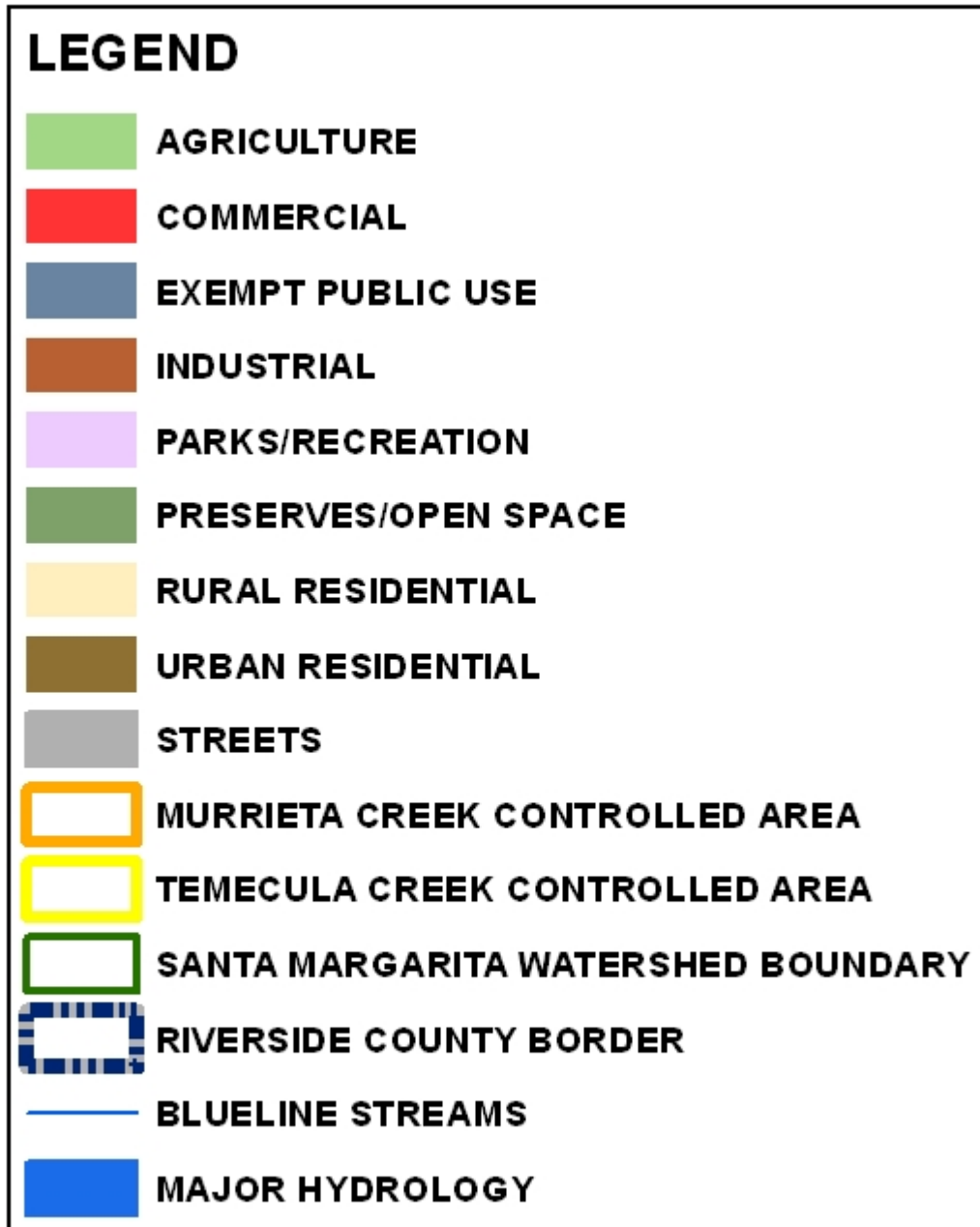
Attachment D

Monitoring Station Descriptions

## Attachment D – Description of Monitoring Stations

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Below is the legend for the maps within this section.



## Attachment D – Description of Monitoring Stations

### Station Name: Temecula Creek below Pala Road (Lower Temecula Creek)

Hydstra<sup>1</sup> Reference #: 902LTC777

#### Location:

Latitude 33° 28 '28.14" N  
Longitude 117° 8' 19.84" W  
Elevation 1,008 ft  
Thomas Bros Pg 979B3

**Classification:** Receiving Water -  
Mass Loading Station &  
Stream Assessment

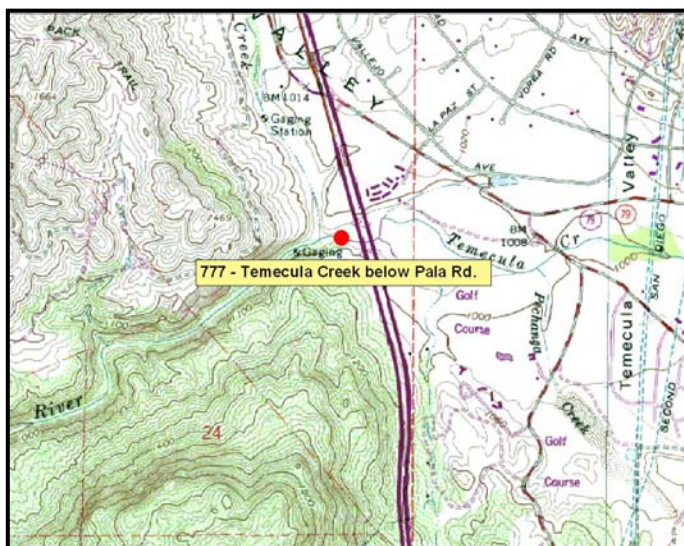
**Type of Channel:** Natural River

**Receiving Water:** Santa Margarita River



#### Directions to the site:

Drive south on the I-215 freeway and exit at SR 79 South/Old Town Front Street. Go west of the freeway and turn left at the first stoplight. Turn left about 100 feet past the stop light onto a gravel/dirt road. Turn right, before the yellow EMWD gate. Drive to the dirt road that goes left and up. Go about 100 feet and turn right onto the dirt road. Go about 1,700 feet and drive to where the dirt road meets up with the gravel road. Follow the gravel road to the L3437 Pala II Pump Station. Park just past the pump station. Walk to the east and sample water from the stream flow just under the bridge.



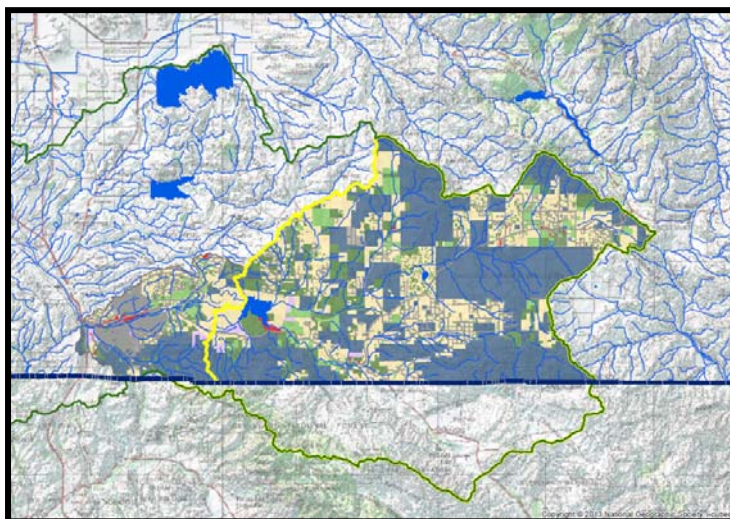
**Temecula Creek at Pala Road** is a Receiving Water Station. The Temecula Creek site, at an elevation of 968 feet, is located just east of the I-15 Freeway overpass, upstream of its confluence with Murrieta Creek. Creek flows are subsurface approximately 200 yards upstream (east) of the I-15 Freeway. The site seasonally varies from sparse to heavy in-stream vegetation.

Aquatic habitat is not found in this reach. Conditions for benthic invertebrates tend to be poor at best. Primary source of flow at this sampling location during Dry Weather is rising groundwater surfacing approximately 400 yards upstream. During the 2011-2012 Dry Weather monitoring activities there was no evidence of any MS4 contribution to flow at this station during Dry Weather; Temecula Creek is ephemeral beyond this spot. Vail Lake lies approximately 18 miles upstream of the Pala Road Crossing and traps virtually all of the Temecula Creek storm flows; discharges

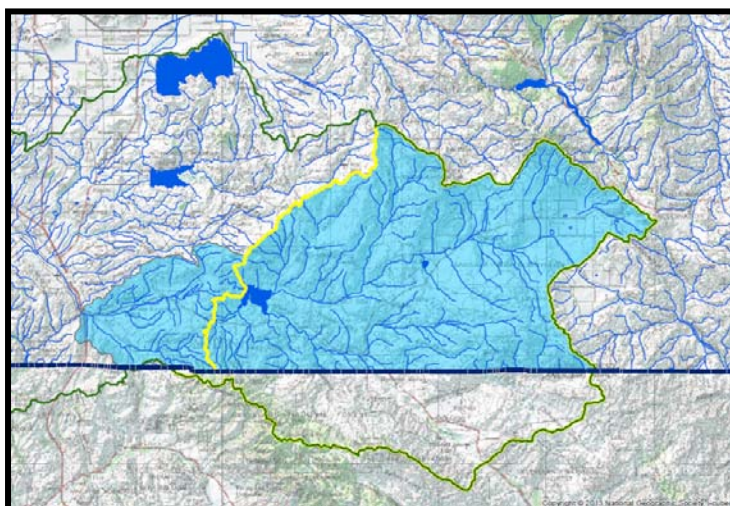
<sup>1</sup> Hydstra is a proprietary data management system, the program supports export of data in commonly used spreadsheet and database formats. The use of trademark or brand names does not connote a recommendation of a particular product.

## Attachment D – Description of Monitoring Stations

from Vail Lake flow into infiltration basins above Butterfield Stage Road. The soil profile in this 18-mile reach of Temecula Creek consists of deep alluvium with a high infiltration rate. Non-significant storm flows infiltrate prior to reaching the Santa Margarita River. Less than 5% of the watershed tributary to this station is zoned for urban land uses and within the Permittee's jurisdiction. MS4 facility discharges to Temecula Creek flow into a 100-foot-wide vegetated strip that is approximately 13,000 feet long and starts approximately 3½ miles upstream of this sampling location.



This site was also used as a probabilistic site in the SMC Dry Weather Regional Monitoring Program for the 2009 Index Sampling Period. Results of that effort will be discussed in a future SMC Progress Report.



The total drainage area tributary to the Temecula Creek stations is 232,404 acres, of which 175,671 acres are within Riverside County. This tributary map includes the drainage area above Vail Lake, which is actually a controlled input to the tributary that releases flows infrequently.

**Temecula Creek (902LTC777) Land Use (%)**

Land Use	2013	2012	2011	2010	2009	2008	2007	2006	2005
Urban Residential	1.54	1.54	1.54	1.54	1.54	1.54	1.53	3.55	5.0
Industrial	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.8
Commercial	0.47	0.45	1.55	1.55	1.55	1.49	0.43	0.31	0.5
Streets	2.37	2.39	2.49	2.49	2.49	2.48	2.52	-	-
<b>Total Urban</b>	<b>4.41</b>								
Rural Residential	31.00	31.11	29.70	29.70	29.70	30.04	33.20	25.47	44.7
Agriculture	5.20	5.10	8.28	8.28	8.28	8.27	8.84	6.18	14.3
Preserves & Open Space	13.45	13.68	16.25	16.25	16.25	16.20	16.22	44.41	33.6
Parks & Recreation	0.96	0.75	1.15	1.15	1.15	1.00	0.61	1.21	1.1
Exempt Public Properties	44.99	44.95	39.01	39.01	39.01	38.95	36.62	18.83	50.9
<b>Total Non-Urban</b>	<b>95.60</b>								

Note: GIS information has improved considerably and percentages have become more accurate since 2004.

## Attachment D – Description of Monitoring Stations

### Station Name: Murrieta Creek at Temecula (Lower Murrieta Creek)

**Hydstra Reference #:** 902LMC778

**Location:**

Latitude 33°28'40.88 N  
Longitude 117°8'32.35" W  
Elevation 1,030 ft  
Thomas Bros Pg 978J2

**Classification:** Receiving Water -  
Mass Loading Station &  
Stream Assessment

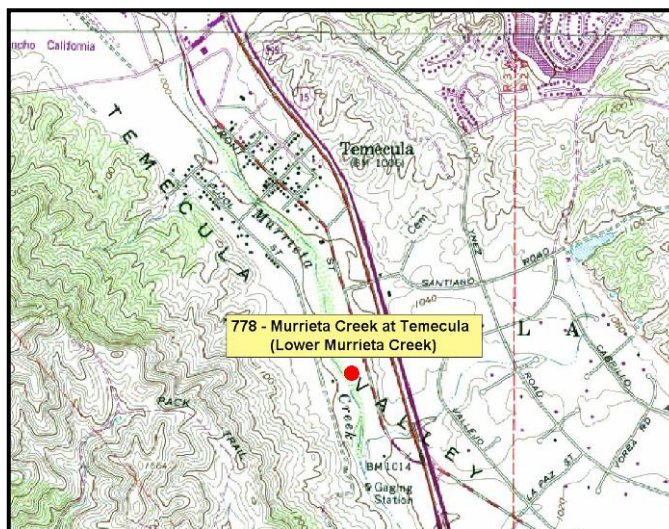
**Type of Channel:** Natural River

**Receiving Water:** Santa Margarita River



**Directions to the site:**

Exit Rancho California Road from Interstate 15. Drive west of the freeway and turn left to Front Street. Turn right to Main Street. Turn left to Pujol Street. When Pujol Street goes from asphalt to a dirt road, drive about 500 feet and turn left at the two (2) yellow vertical bollards. CAUTION: A 4-Wheel drive vehicle is recommended when driving in this area. Drive straight toward the creek. The picture shows the sampling location which is approximately 1100 feet downstream of the Rancho California Water District (RCWD) blow-off and approximately 600 feet downstream of the United States Geological Service (USGS) gage house. Note: During Storm Events, sampling is conducted at the USGS gage house, upstream of the USGS weir due to safety.

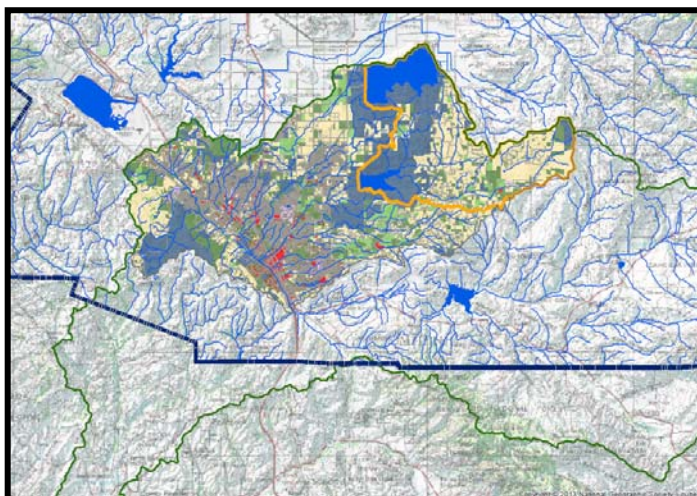
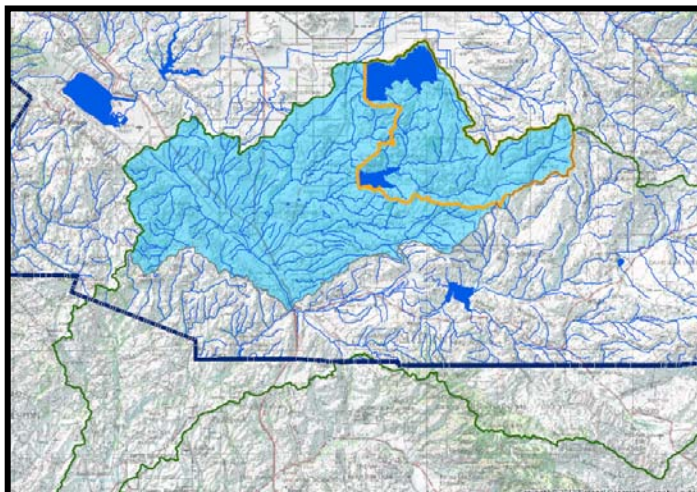


**Lower Murrieta Creek at** is a Receiving Water Station. The station is located just above the confluence of Murrieta Creek with Temecula Creek, at an elevation of 987 feet, downstream of the USGS gauging station in southern Temecula, CA, where Highway 79 crosses the I-15. The station is located in a section of bedrock just downstream (within ½ mile) from a portion of the Creek that was graded and re-vegetated in 2004 as a result of an Army Corps of Engineers project. A tributary to the Santa Margarita River, flows during Dry Weather at this station consists of rising groundwater that begins approximately ½- to ¼-mile from Murrieta Creek's confluence with the Santa Margarita River.

This monitoring station is 0.4 miles upstream of the confluence of Temecula Creek and Murrieta Creek. The soil profile here indicates bedrock at the surface. The flow seen in the photo above is supplied by the mandated Rancho California Water District (RCWD) blow off just 100 yards upstream of the gauge and sampling point.

## Attachment D – Description of Monitoring Stations

The total drainage area tributary to the Murrieta Creek station is 141,912 acres, all of which resides within Riverside County. This tributary map includes the drainage area above Lake Skinner, which is actually a controlled input to the tributary that releases flows infrequently.



**Murrieta Creek (902LMC778) Land Use (%)**

Land Use	2013*	2012	2011	2010	2009	2008*	2007*	2006	2005
Urban Residential	8.12	11.64	11.58	11.58	11.58	11.56	11.39	7.5	11.88
Industrial	0.71	1.00	0.96	0.96	0.96	0.95	0.91	0.7	1.56
Commercial	1.66	2.32	5.21	5.21	5.21	5.18	2.05	2.1	2.53
Streets	7.02	9.18	9.28	9.28	9.28	9.26	8.92	-	-
<b>Total Urban</b>	<b>17.52</b>								
Rural Residential	31.44	28.18	29.52	29.52	29.52	29.75	33.21	41.2	20.96
Agriculture	6.09	6.80	12.49	12.49	12.49	12.32	12.64	19.5	2.75
Preserves & Open Space	16.42	19.45	15.03	15.03	15.03	15.00	16.56	28.5	21.62
Parks & Recreation	0.62	0.84	2.54	2.54	2.54	2.47	0.72	0.5	2.16
Exempt Public Properties	27.91	20.59	13.40	13.40	13.40	13.51	13.60	39.5	36.55
<b>Total Non-Urban</b>	<b>82.48</b>								

\* Land use area represents portion of watershed below Lake Skinner. 2006 – Includes Lake Skinner drainage area. 2005 – Urban influenced area only. 2013 – Includes Lake Skinner drainage area. Note: GIS information has improved considerably and percentages have become more accurate since 2004.

## Attachment D – Description of Monitoring Stations

**Station Name:** Adobe Creek

**Hydstra Reference #:** 902ADB848

**Location:**

Latitude 33°30'48.10" N  
Longitude 117°16'04.40" W  
Elevation 1,749 ft.  
Thomas Bros Pg: 957 D5

**Classification:** Receiving Water -  
Reference (Dry)

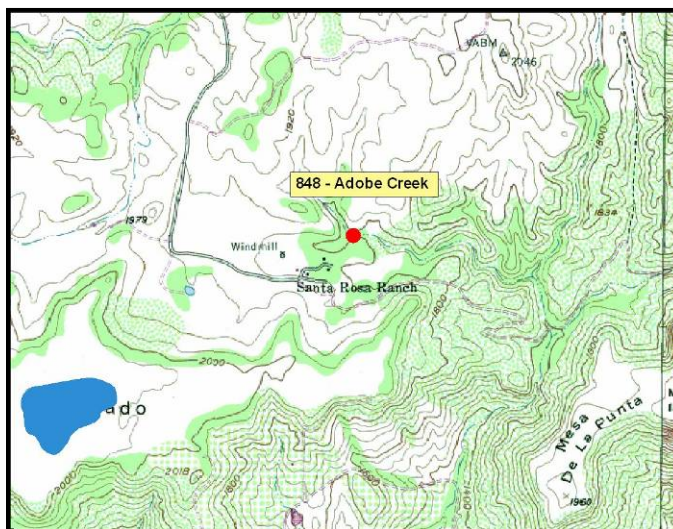
**Type of Channel:** Natural Stream

**Receiving water:** Sandia Canyon to  
Santa  
Margarita River



**NOTE:** Due to an ownership change from the Conservancy to the State Department of Fish and Game, a Research Use Permit is required for sampling and monitoring.

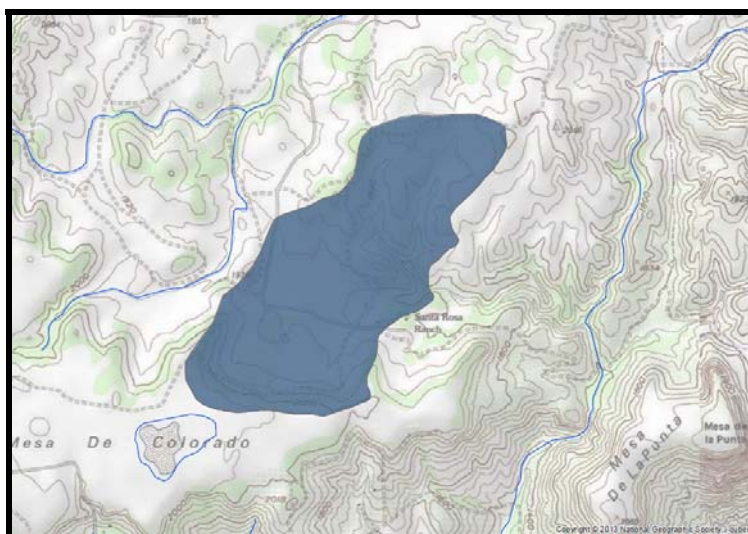
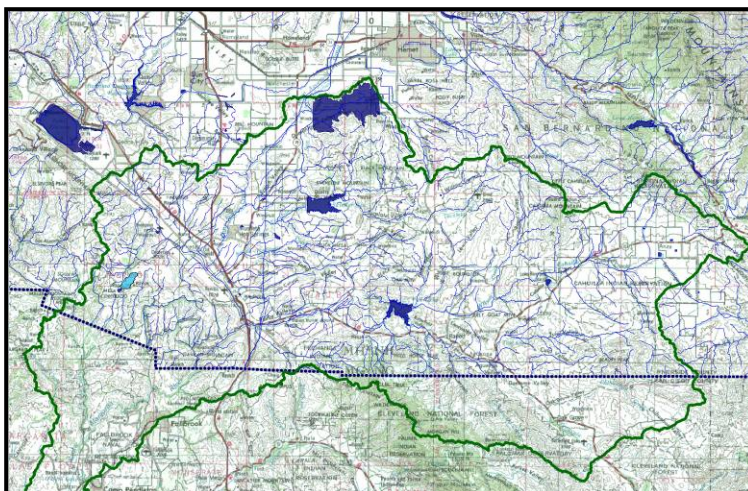
**Directions to site:** From the District, drive east on the 60 Freeway and connect with the 215 Freeway southbound. Exit at Clinton Keith Road. Turn right at the end of the off ramp heading west on Clinton Keith Road. Continue past the 15 Freeway and past the Murrieta city limits. When you get to the area of the Santa Rosa Plateau Ecological Reserve, Clinton Keith Road will head at a 90° turn to the right. Before turning to the right, there is a gate to the left that enters the Plateau Reserve. There is a number combination lock on this gate. After entering past this gate, the dirt road will come to a tee. Turn right and continue the dirt road for about 1 mile, follow the signs that say “Adobe Ranch”. Park at the “Ranch house”. There is a foot trail that goes to the north of the Ranch; walk this trail past the “windmill” to the Adobe Loop Trail and over a wooden bridge. Follow the sign that takes you on to the Adobe Loop Trail staying to the right. Be careful of mountain lions! Continue to walk along the foot trail along the Adobe Loop Trail. Walk down the stairs, over the wooden bridge and approximately 80’ past the bridge that crosses over the creek to the sampling site.



**Adobe Creek** is a Dry Weather Reference Station located within the Santa Rosa Plateau. Adobe Creek is tributary to De Luz Creek. During Dry Weather, flows at this station consist of rising groundwater. The Adobe Creek site, at an elevation of 1614 feet, is located in a small ravine just below its spring-fed source in the Santa Rosa Plateau Reserve. It is located in an open and relatively undisturbed area with little development in its upper watershed. The site has a well-developed canopy cover and little in-stream vegetation with multiple size classes of substrate ranging from boulder to fine gravel.

## Attachment D – Description of Monitoring Stations

Total drainage area tributary to the Adobe Creek station is approximately 394 acres, all of which resides within Riverside County.



**Adobe Creek (902ADB848) Land Use (%)**

Land Use	2013	2012	2011	2010	2009	2008	2007	2006	2005
Urban Residential	0	0	0.00	0.00	0.00	0.00	0.00	0.00	Data Not Available
Industrial	0	0	0.00	0.00	0.00	0.00	0.00	0.00	
Commercial	0	0	0.00	0.00	0.00	0.00	0.00	0.00	
Streets	0	0	0.00	0.00	0.00	0.00	0.00	-	
<b>Total Urban</b>	<b>0</b>								
Rural Residential	0	0	78.21	78.21	78.21	78.21	78.21	77.93	
Agriculture	0	0	0.00	0.00	0.00	0.00	0.00	0.00	
Preserves & Open Space	0	0	0.00	0.00	0.00	0.00	0.00	0.00	
Parks & Recreation	0	0	0.00	0.00	0.00	0.00	0.00	0.00	
Exempt Public Properties	100	100	21.78	21.78	21.78	21.79	21.79	22.07	
<b>Total Non-Urban</b>	<b>100</b>								

Note: GIS information has improved considerably and percentages have become more accurate since 2004.

## Attachment D – Description of Monitoring Stations

**Station Name:** Cole Creek

**Hydstra Reference #:** 902COL188

**Location:**

Latitude 33° 31' 42" N  
Longitude 117° 16' 18.2" W  
Elevation 1,700 ft  
Thomas Bros Pg 957D1

**Classification:** Receiving Water –  
Reference (Wet)

**Type of Channel:** Natural Creek

**Receiving Water:** Murrieta Creek



**NOTE:** Due to an ownership change from the Conservancy to the State Department of Fish and Game, a research use permit is required for sampling and monitoring.

**Directions to the site:**

Exit the 15 Freeway at Clinton Keith Road and drive west (southwest) of the freeway. Drive about 6 miles. Pass the “Santa Rosa Plateau Ecological Reserve Visitor Center” until Clinton Keith makes a 90° right turn. At this point, Clinton Keith becomes Tenaja Road. Turn left towards the Reserve’s gate entrance and enter the assigned code for the electronic lock. Drive approximately 400 feet from the gate. The sampling station is a few feet downstream of the natural creek crossing (this is Cole Creek). Note that vehicles are prohibited to cross the creek when the creek is flowing.

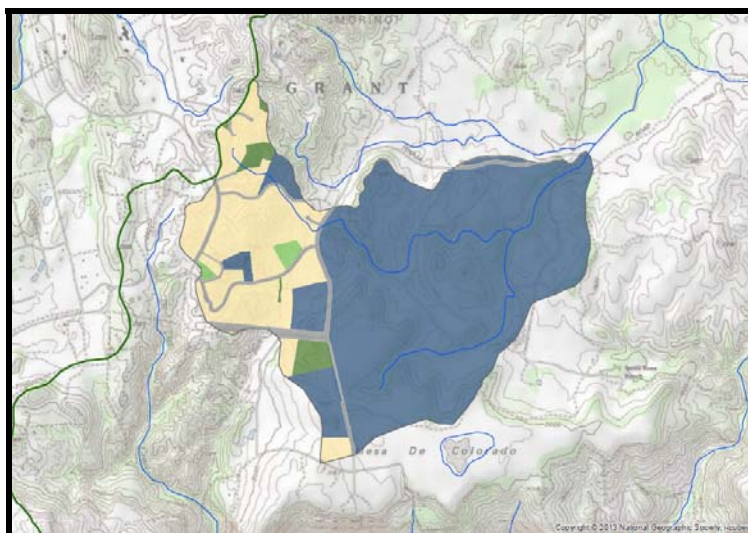
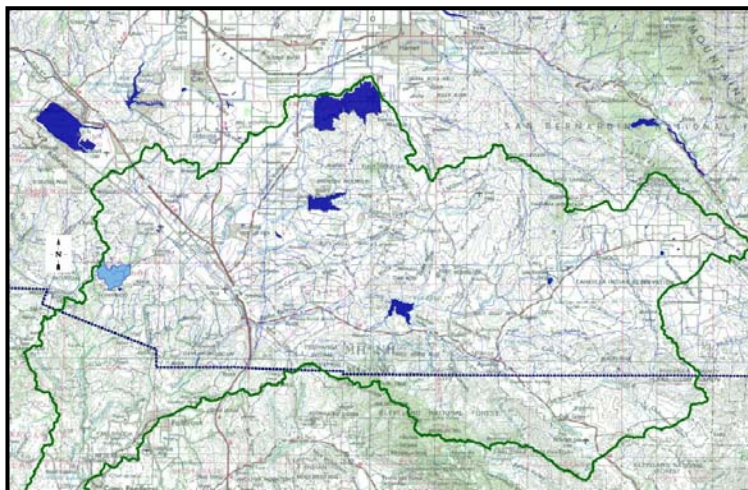


**Cole Creek** was added to the CMP in 2000 as a Reference Station. It is located within the Santa Rosa Plateau Ecological Preserve and is a natural channel. Cole Creek is a tributary to Murrieta Creek. At the sampling location, the Creek is ephemeral, flowing only when there is a significant winter Storm Event or upon a winter accumulation of approximately 9-11 inches of rainfall. The tributary watershed contains plateau grassland meadows with a few ranch residences. Approximately 3% of the upper end of the watershed tributary to this station is in urban land uses. In 2008-2009, this Reference Station location was moved upstream in order to accommodate the deployment of temporary automatic sampling equipment. The original site, utilized from 2004 through early 2008, required hiking that would be difficult when deploying automatic sampling equipment. The description below reflects the relocated Cole Creek Reference Station.

## Attachment D – Description of Monitoring Stations

Please note that the Department of Fish and Game requires advanced notice of any access within the Reserve and that a Research Use Permit is required. The District has acquired a Research Use Permit and is the point of contact with the Department of Fish and Game.

The total drainage area tributary to the Cole Creek station is 1,490 acres, all of which resides in Riverside County.



**Cole Creek (902COL188) Land Use (%)**

Land Use	2013	2012	2011	2010	2009 <sup>+</sup>	2008*	2007	2006	2005
Urban Residential	0	0	0.00	0.00	0.00	0.04	3.24	6.15	7.0
Industrial	0	0	0.00	0.00	0.00	0.00	0.00	0.0	0.0
Commercial	0	0	0.00	0.00	0.00	0.00	0.00	0	0.0
Streets	3.98	3.98	3.93	3.93	3.93	2.42	6.81	-	-
<b>Total Urban</b>	<b>3.98</b>								
Rural Residential	21.55	23.05	88.24	88.24	88.24	58.53	60.05	38.27	57.9
Agriculture	0.83	0.23	4.03	4.03	4.03	2.37	1.70	0.48	6.4
Preserves & Open Space	2.32	1.42	2.32	2.32	2.32	23.92	5.21	0.0	28.6
Parks & Recreation	0	0	0.06	0.06	0.06	0.05	0.00	0.39	0.0
Exempt Public Properties	71.31	71.31	1.29	1.29	1.29	12.66	23.00	48.98	38.7
<b>Total Non-Urban</b>	<b>96.01</b>								

<sup>+</sup> Monitoring station relocated upstream. Figures reflect new station location.

\* Actual drainage area to monitoring station. 2005-2007 – tributary area to Murrieta Creek

Note: GIS information has improved considerably and percentages have become more accurate since 2004.

## Attachment D – Description of Monitoring Stations

### Station Name: Redhawk Channel Downstream of Overland Drive

Hydstra Reference #: 902RDH768

#### Location:

Latitude 33°28'37.54"N  
Longitude 117° 5'48.31"W  
Elevation 1,040 ft  
Thomas Bros Pg 979F3

**Classification:** Receiving Water  
(Stream Assessment)

**Type of Channel:** Earthen

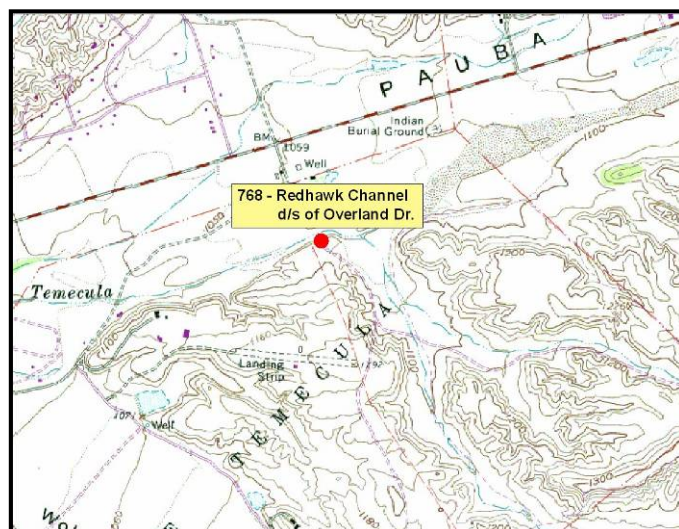
**Receiving water:** Temecula Creek

#### Directions to the site:

Exit Highway #79 east (to Indio) of Interstate 15 and turn right onto Redhawk Parkway. Turn left onto Overland Drive. Turn left into first driveway and park. Property belongs to County of Riverside Fire Department. Walk east and down the embankment into the channel. Sample location should be representative of flow from outfalls downstream of Overland Drive. The picture shows the sampling location.

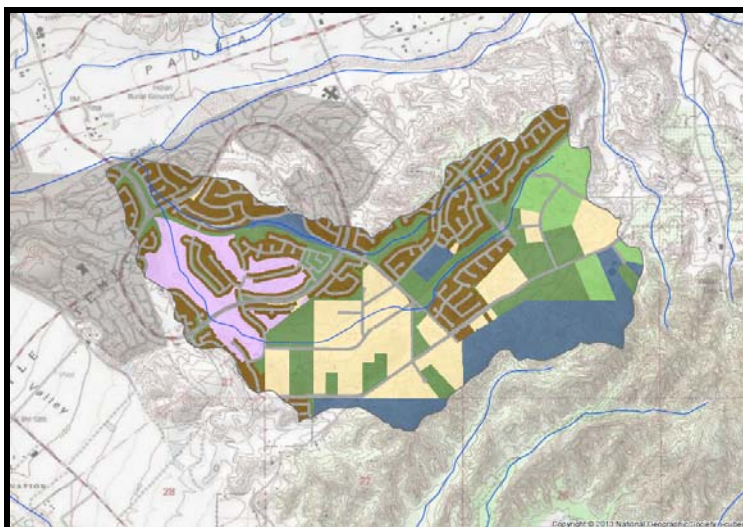
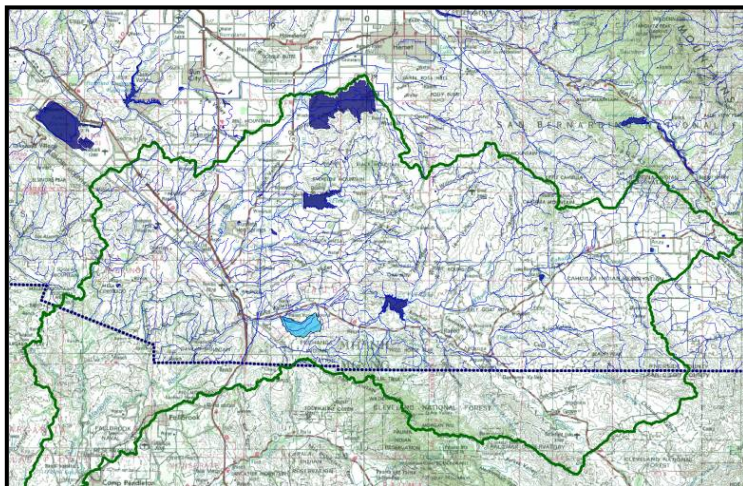
In the previous permit term this station was identified as an Outfall Tributary sampling and was sampled at these coordinates 33°28'34.6" N, -117°05'40.8" W. It has now been reclassified as a Receiving Water (Stream Assessment) site and the exact sample location has been moved downstream to the coordinates indicated above.

**Redhawk Channel Downstream of Overland Drive** is a rip-rap side sloped, soft bottomed channel. The sampling location is in an earthen reach of the channel just upstream of Temecula Creek. The supply of Dry Weather flows appears to be from urban runoff from surrounding neighborhoods. Also, reclaimed water from RCWD used to irrigate a park channel side slope nearby adds to Dry Weather flows. A tributary to Temecula Creek, non-storm runoff from the channel evaporates and/or infiltrates into Temecula Creek within a few hundred feet of the confluence.



## Attachment D – Description of Monitoring Stations

The total drainage area of the Redhawk station is 1,582 acres, all of which resides within Riverside County.



**Redhawk (902RDH768) Land Use (%)**

Land Use	2013	2012	2011	2010	2009	2008	2007	2006	2005
Urban Residential	23.01	23.09	22.91	22.91	22.91	23.05	22.78	19.04	17.60
Industrial	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	0	0	0.95	0.95	0.95	0.95	0.00	1.50	2.90
Streets	13.51	13.51	13.54	13.54	13.54	13.55	11.59	-	-
<b>Total Urban</b>	<b>36.60</b>								
Rural Residential	17.16	16.89	19.50	19.50	19.50	20.27	22.43	18.73	36.10
Agriculture	5.84	5.84	7.05	7.05	7.05	7.06	7.06	4.52	9.50
Preserves & Open Space	18.78	19.05	9.61	9.61	9.61	9.63	15.06	16.21	33.60
Parks & Recreation	7.62	7.62	45.54	45.54	45.54	13.61	7.24	11.17	0.30
Exempt Public Properties	13.99	13.99	11.89	11.89	11.89	11.89	13.85	28.84	86.50
<b>Total Non-Urban</b>	<b>63.40</b>								

Note: GIS information has improved considerably and percentages have become more accurate since 2004.

### Station Name: Upper Santa Margarita River

**Hydstra Reference #:** 902USM828

**Location:**

Latitude 33° 28'26.49" N  
Longitude 117° 8'32.38" W  
Elevation 958 ft  
Thomas Bros Pg 978

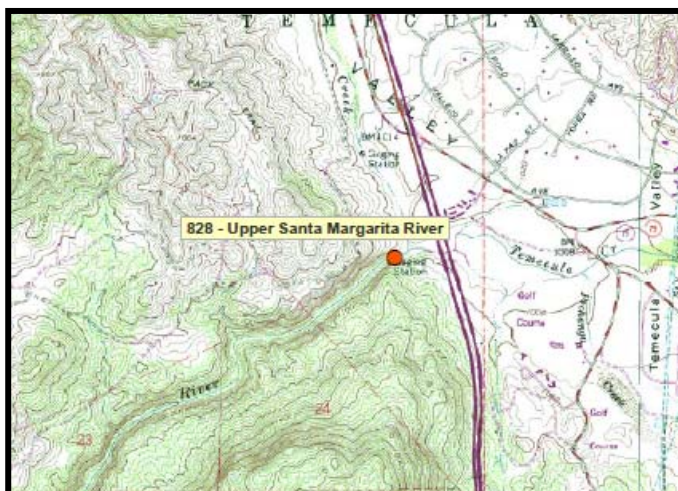
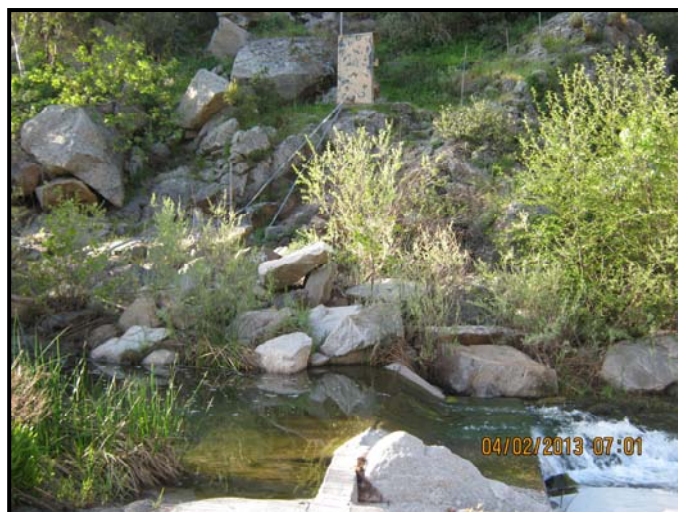
**Classification:** Receiving Water  
(Stream Assessment)

**Type of Channel:** Natural River

**Receiving water:** Santa Margarita River

**Directions to the site:**

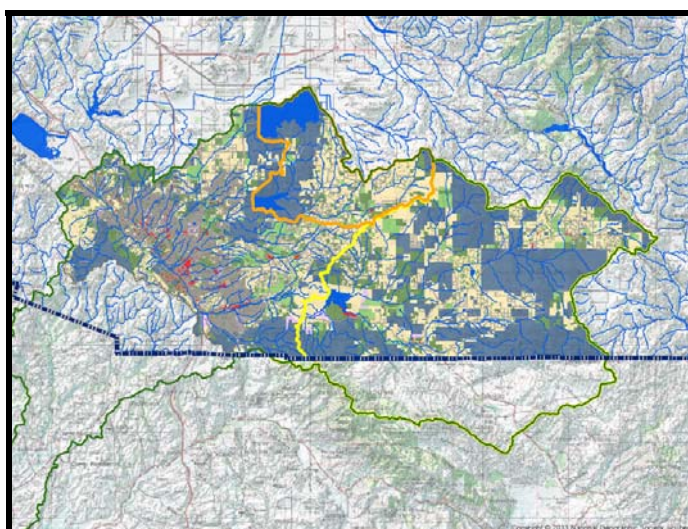
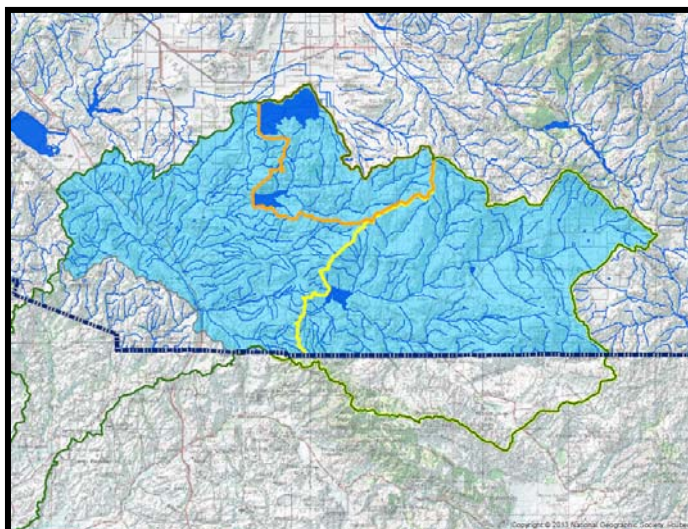
Exit Rancho California Road from Interstate 15. Drive west of the freeway and turn left to Front Street. Turn right to Main Street. Turn left to Pujol Street. When Pujol Street goes from asphalt to a dirt road, drive about 500 feet and turn left at the two (2) yellow vertical bollards. CAUTION: A 4-Wheel drive vehicle is recommended when driving in this area. Follow the dirt road to the end and park. Lock all vehicles as this area has a high number of transient incidents. Follow the dirt path down the embankment to the concrete pad built into the USGS gauge. Sample location is approximately 10 feet upstream of the USGS gauge.



**Upper Santa Margarita River** is a natural river, the product of the confluence of Murrieta Creek and Temecula Creek. The sampling location is just upstream of a USGS gauge and approximately 100 feet downstream of a Rancho California Water District (RCWD) blow-off. The supply of Dry Weather flows appears to be a mixture of rising groundwater upstream in Murrieta and Temecula Creeks and water from the RCWD blow off. The Santa Margarita River flows southwest out of Riverside County into San Diego County and eventually, into the Pacific Ocean.

## Attachment D – Description of Monitoring Stations

The total drainage area of the Upper Santa Margarita River station is 374,495 acres, of which 317,720 acres are within Riverside County. This tributary map includes controlled areas which release flows on an infrequent basis.



**Upper Santa Margarita (902USM828) Land Use (%)**

Land Use	2013	2012	2011	2010	2009	2008	2007	2006	2005
Urban Residential	4.48	Data Not Available							
Industrial	0.33								
Commercial	1.00								
Streets	4.44								
<b>Total Urban</b>	<b>10.26</b>								
Rural Residential	31.21	Data Not Available							
Agriculture	5.59								
Preserves & Open Space	14.78								
Parks & Recreation	0.81								
Exempt Public Properties	37.34								
<b>Total Non-Urban</b>	<b>89.74</b>								

Note: GIS information has improved considerably and percentages have become more accurate since 2004.

## Attachment D – Description of Monitoring Stations

### Station Name: Upper Temecula Creek above Vail Lake

Hydstra Reference #: 902UTC795

#### Location:

Latitude 33°28'2.53" N  
Longitude 116°55'59.26 " W  
Elevation 1,533 ft  
Thomas Bros Pg 981

**Classification:** Receiving Water Reference  
(Stream Assessment)

**Type of Channel:** Natural Creek

**Receiving water:** Temecula Creek

#### Directions to the site:

Exit Highway #79 east (to Indio) from Interstate 15. Continue on Highway 79 East past Temecula, and past Vail Lake. Cross over the Temecula Creek bridge crossing then pull off on the right. There is an abandoned concrete factory with locked gates. Park a safe distance off the road and lock vehicles. Walk down the embankment toward the creek under the highway bridge. The picture shows the sampling location.

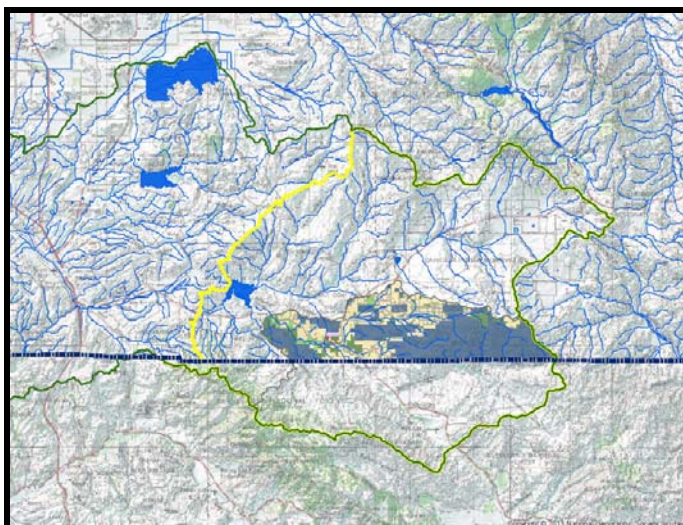
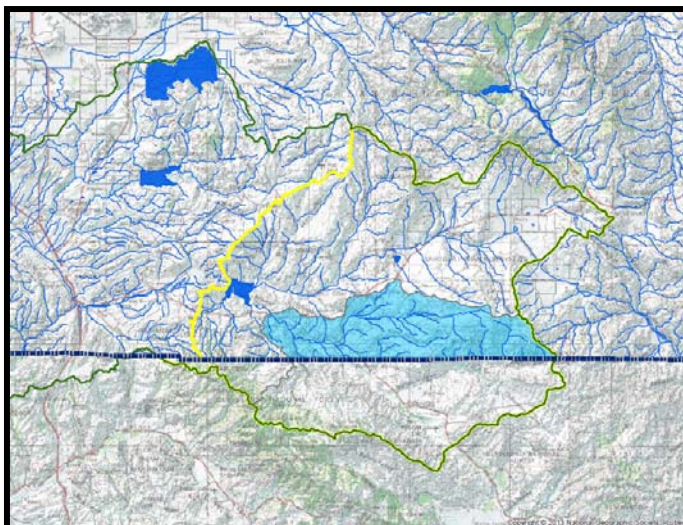


**Upper Temecula Creek above Vail Lake** is a natural creek flowing east to west towards Vail Lake. The sampling location is just under the bridge of Highway 79. The supply of Dry Weather flows appears to be from a natural spring in a tributary upstream to this location. Reconnaissance indicates that during Dry Weather, flows may evaporate and/or infiltrate before reaching Vail Lake.

*Note: Monitoring attempts at this site were unsuccessful. This proposed Reference Site did not yield any flow upon each site visit. Previous reconnaissance indicated that possible perennial flow was observed; however, upon mobilization for conducting stream assessment activities field crews observed that the site was dry, as it was a very dry year. Additional reconnaissance has been scheduled in an attempt to identify an alternative reference site for monitoring during the 2013-2014 reporting year.*

## Attachment D – Description of Monitoring Stations

The total drainage area of the Upper Temecula Creek station is 85,404 acres, of which 34,794 acres are within Riverside County. This drainage area is within the controlled area above Vail Lake which releases flows on an infrequent basis.



**Upper Temecula Creek above Vail Lake (902UTC795) Land Use (%)**

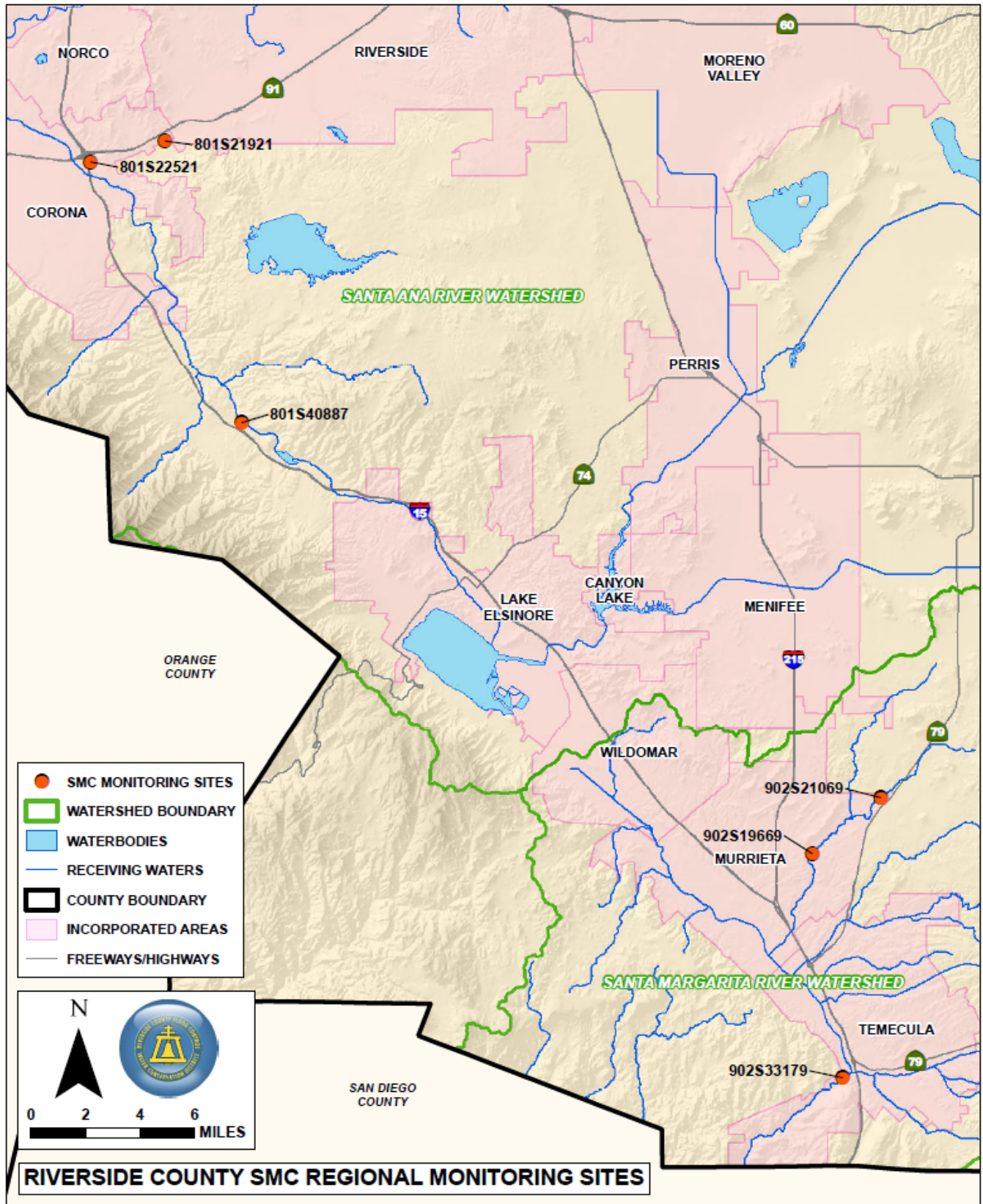
Land Use	2013	2012	2011	2010	2009	2008	2007	2006	2005
Urban Residential	0.01	Data Not Available							
Industrial	0.00								
Commercial	0.10								
Streets	1.57								
<b>Total Urban</b>	<b>1.69</b>								
Rural Residential	31.00	Data Not Available							
Agriculture	3.31								
Preserves & Open Space	7.39								
Parks & Recreation	0.35								
Exempt Public Properties	56.27								
<b>Total Non-Urban</b>	<b>98.31</b>								

Note: GIS information has improved considerably and percentages have become more accurate since 2004.

## MS4 Outfall Sites for Monitoring Wet Weather Discharges, Non-Storm Water Dry Weather Action Levels, and High Priority Inland Aquatic Habitat

Type of Sampling Location	Site ID	Site Description	Latitude	Longitude	Receiving Water	HU	Permittee Assigned
<b>Inland Aquatic Habitat (IAH) Sites</b>							
Outfall	902MS4021	Line E Murrieta Creek at Murrieta Creek	33° 32' 48.50" N	-117° 12' 49.60" W	Murrieta Creek	902.32	RCFC
Prox. Upstream Receiving Water	902RW4020	Murrieta Creek u/s Line E	33° 32' 48.94" N	-117° 12' 52.54" W		902.32	
Prox. Downstream Receiving Water	902RW4022	Murrieta Creek d/s Line E	33° 32' 46.28" N	-117° 12' 49.81" W		902.32	
Outfall	902MS4034	RCP outlet to Warm Springs Creek d/s of M.H.S. Rd	33° 32' 51.10" N	-117° 10' 18.79" W	Warm Springs Creek	902.33	Murrieta
Prox. Upstream Receiving Water	902RW4033	Murrieta - Warm Springs Creek d/s of M.H.S. Rd. u/s of outlet	33° 32' 50.68" N	-117° 10' 17.46" W		902.33	
Prox. Downstream Receiving Water	902RW4035	Murrieta - Warm Springs Creek d/s of M.H.S. Rd. d/s of outlet	33° 32' 50.24" N	-117° 10' 17.91" W		902.33	
Outfall	902MS4144	Outlet into Temecula Creek @ Butterfield Stage Road	33° 28' 58.40" N	-117° 04' 37.90" W	Temecula Creek	902.51	RCFC
Prox. Upstream Receiving Water	902RW4143	Temecula Creek u/s of outlet at Butterfield Stage Rd	33° 28' 59.16" N	-117° 04' 37.48" W		902.51	
Prox. Downstream Receiving Water	902RW4145	Temecula Creek d/s of outlet at Butterfield Stage Rd	33° 28' 59.50" N	-117° 04' 43.24" W		902.51	
<b>Non-Inland Aquatic Habitat (Non-IAH) Sites</b>							
Outfall	902MS4192	Outlet to Long Canyon u/s of Commerce Ctr. Dr.	33° 30' 52.52" N	-117° 09' 41.42" W	Long Canyon	902.42	Temecula
Prox. Downstream Receiving Water	902RW4193	Temecula - Long Canyon u/s of Commerce Ctr. Dr. d/s of outlet	33° 30' 52.16" N	-117° 09' 41.83" W		902.42	
Outfall	902MS4243	Wildomar Channel u/s of Union St	33° 36' 32.29" N	-117° 17' 25.13" W	Murrieta Creek	902.31	Wildomar
Prox. Downstream Receiving Water	902RW4244	Wildomar - Wildomar Channel d/s of Union St	33° 36' 32.15" N	-117° 17' 18.04" W		902.31	
Outfall	902MS4263	Browning St Storm Drain at Santa Gertrudis	33° 34' 05.10" N	-117° 06' 37.50" W	Tucalota Creek	902.41	County
Prox. Downstream Receiving Water	902RW4264	County - Santa Gertrudis d/s Browning St storm drain	33° 34' 09.18" N	-117° 06' 43.48" W		902.41	
Outfall	902MS4289	Outlet to Empire Creek @ Butterfield Stage Rd	33° 31' 08.30" N	-117° 05' 39.40" W	Empire Creek	902.32	RCFC
Prox. Downstream Receiving Water	902RW4290	Empire Creek d/s outlet at Butterfield St Rd	33° 31' 07.49" N	-117° 05' 40.51" W		902.32	
Outfall	902MS4309	Euclid Loop Storm Drain at Warm Springs Channel	33° 36' 18.50" N	-117° 06' 48.40" W	French Valley	902.33	RCFC
Prox. Downstream Receiving Water	902RW4310	Warm Springs Channel d/s Euclid Loop storm drain	33° 36' 14.86" N	-117° 06' 53.75" W		902.33	

Attachment D – Description of Monitoring Stations



## Attachment D – Description of Monitoring Stations

### Historical Population Data

Report	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	8/7/2013
<u>Regional Populations <sup>(a)</sup></u>								
<b>State</b>	37,195,240	37,662,518	38,049,462	38,292,687	38,648,090	37,510,766	37,678,563	37,966,471
<b>Los Angeles County</b>	10,257,994	10,331,939	10,363,850	10,393,185	10,441,080	9,858,989	9,884,632	9,958,091
<b>Orange County</b>	3,071,924	3,098,121	3,121,151	3,139,017	3,166,461	3,029,859	3,055,792	3,081,804
<b>San Bernardino County</b>	1,993,983	2,028,013	2,055,766	2,060,950	2,073,149	2,052,397	2,063,919	2,076,274
<b>San Diego County</b>	3,064,113	3,098,269	3,146,274	3,173,407	3,224,432	3,118,876	3,143,429	3,150,178
<b>Riverside County</b>	1,966,607	2,031,625	2,088,322	2,107,653	2,139,535	2,217,778	2,227,577	2,255,059
<u>SMR Populations based on the Watershed Boundary</u>								
<b>Unincorporated Area</b>	ND	55,291 <sup>(d)</sup>	57,005 <sup>(d)</sup>	60,070 <sup>(c)</sup>	61,446 <sup>(c)</sup>	53,030	61,241 <sup>(g)</sup>	62,293
<b>Menifee<sup>(b)</sup></b>	N/A	N/A	N/A	678 <sup>(c)</sup>	690 <sup>(c)</sup>	703	713	721
<b>Murrieta</b>	93,567	97,257	100,173	98,583 <sup>(c)</sup>	99,340 <sup>(c)</sup>	100,664	102,868	103,632
<b>Temecula</b>	94,575	97,935	101,057	102,604 <sup>(c)</sup>	105,029 <sup>(c)</sup>	101,657	103,092	104,879
<b>Wildomar<sup>(b)</sup></b>	N/A	N/A	N/A	18,679 <sup>(c)</sup>	18,825 <sup>(c)</sup>	18,753	19,304	19,572
<u>SMR Populations based on the MS4 Permit Area <sup>(f)</sup></u>								
<b>Unincorporated Area</b>	N/A	N/A	N/A	N/A	N/A	53,030	61,241 <sup>(g)</sup>	62,293
<b>Murrieta</b>	N/A	N/A	N/A	N/A	N/A	104,459	104,985	105,832
<b>Temecula</b>	N/A	N/A	N/A	N/A	N/A	101,657	103,092	104,879
<b>Wildomar<sup>(b)</sup></b>	N/A	N/A	N/A	N/A	N/A	32,543	32,719	33,174

Sources Used: State of California, Dept. of Finance, E-1 Population Estimates, and RCIT's Riverside County Progress Report

## Attachment D – Description of Monitoring Stations

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- (a) Unless otherwise noted, data derived from State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2011 and 2012. Sacramento, California, May 2012.
- (b) Portions of the recently incorporated cities of Menifee and Wildomar are within SMR watershed.
- (c) Aerial image analysis based upon 2010 imagery and State identified trend of declined population in unincorporated Riverside County.
- (d) Derived from the Riverside County Progress Report, Riverside County Center for Demographic Research/TLMA.
- (e) ND = No Data
- (f) Includes all of the City of Wildomar and City of Murrieta and excludes the City of Menifee.
- (g) Unincorporated Area population data calculation methodology was revised and will be replicated for future annual reports. Previous Unincorporated Area should not be used for comparison due to a different and less precise methodology.