

Regional Phase I MS4 Permit Reissuance Workshop # 3

Focus on Ventura County

Item 17

September 13, 2018

Ventura County MS4 Permit

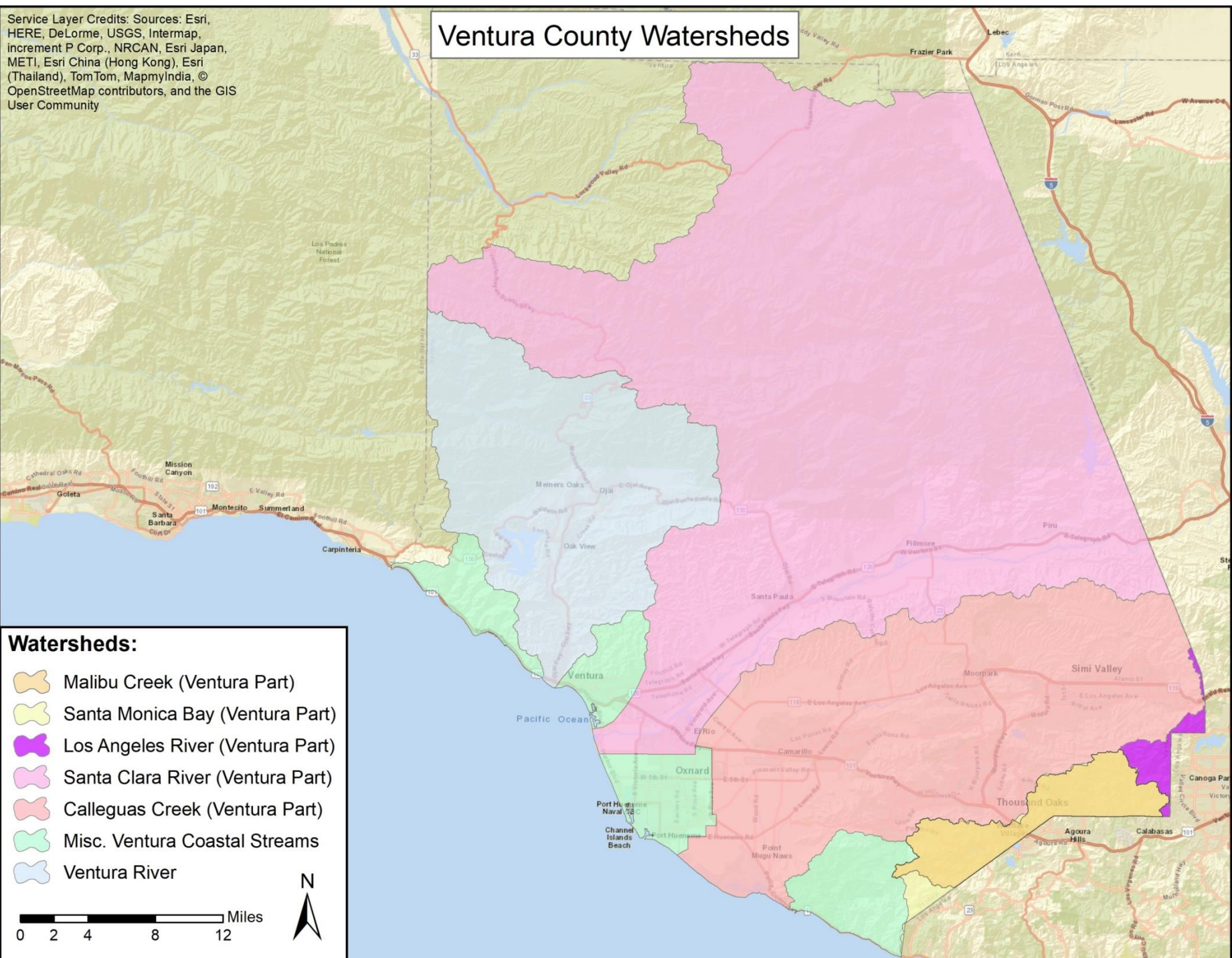
- * The Board adopted Order No. R4-2010-0108 on July 8, 2010.
- * Principal Permittee: Ventura County Watershed Protection District
- * 11 Co-Permittees:
 - * County of Ventura
 - * Cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Ventura, Santa Paula, Simi Valley, and Thousand Oaks

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Ventura County Watersheds

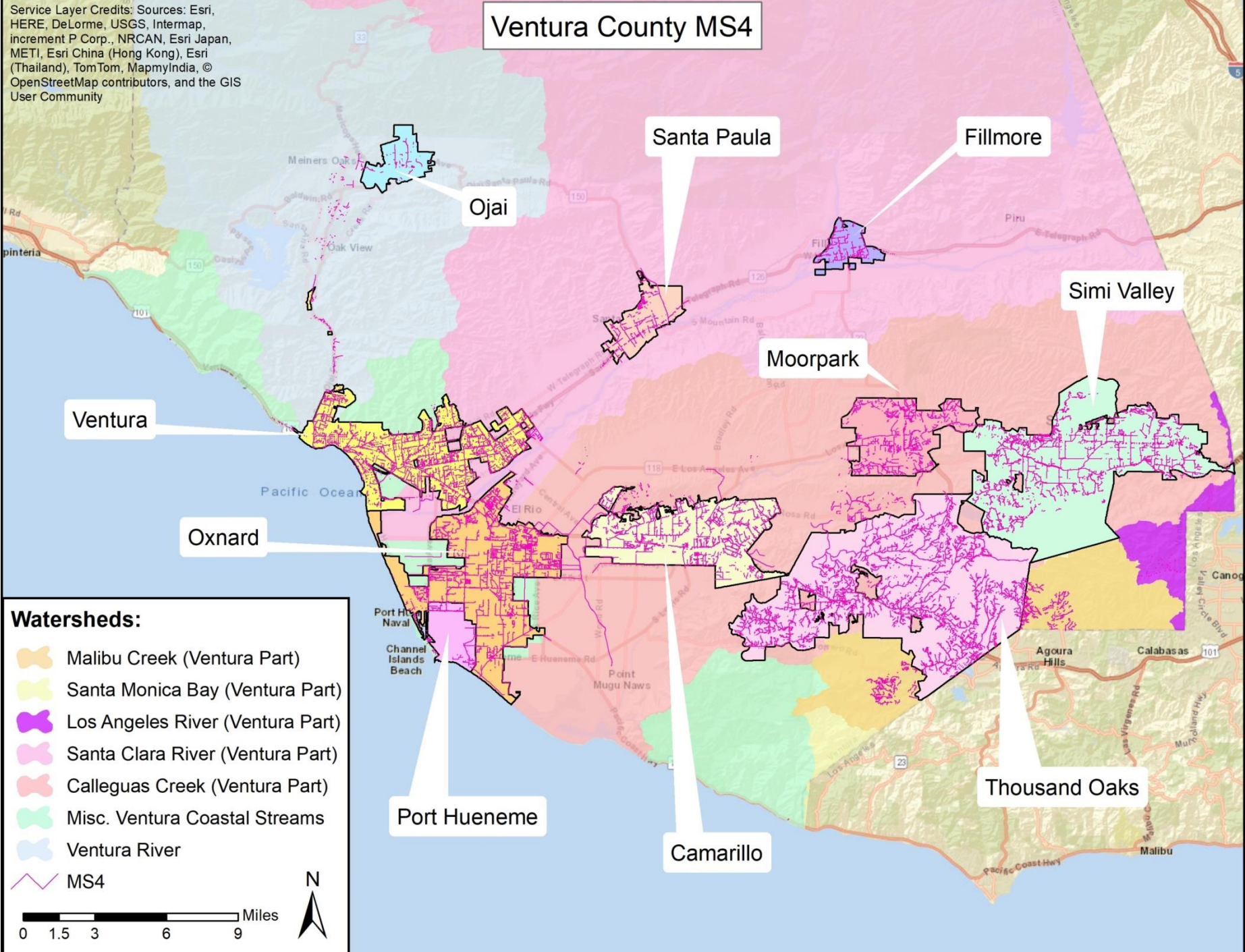
Watersheds:

-  Malibu Creek (Ventura Part)
-  Santa Monica Bay (Ventura Part)
-  Los Angeles River (Ventura Part)
-  Santa Clara River (Ventura Part)
-  Calleguas Creek (Ventura Part)
-  Misc. Ventura Coastal Streams
-  Ventura River




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Ventura County MS4



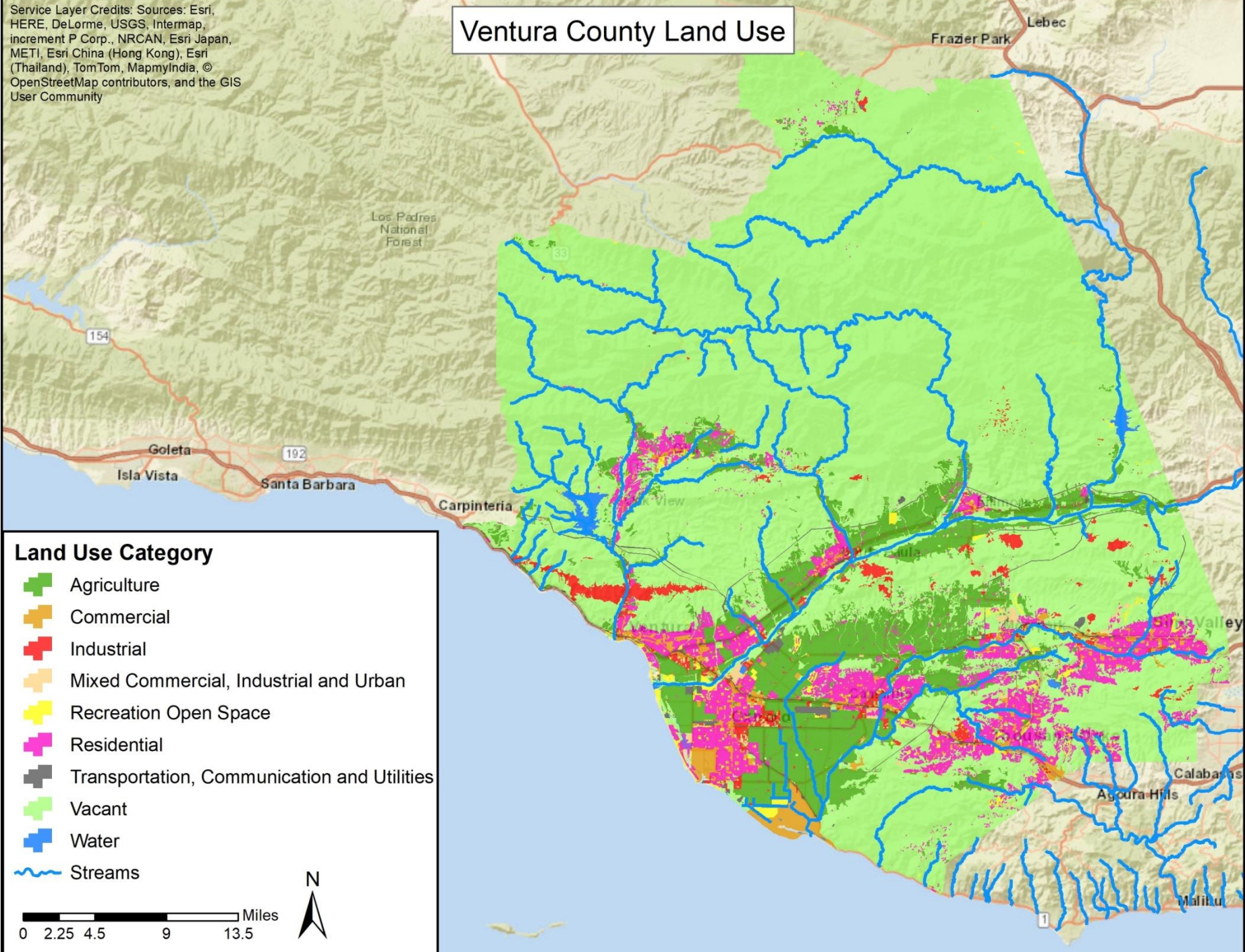
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-  MS4



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Ventura County Land Use



Land Use Category

- Agriculture
- Commercial
- Industrial
- Mixed Commercial, Industrial and Urban
- Recreation Open Space
- Residential
- Transportation, Communication and Utilities
- Vacant
- Water
- Streams

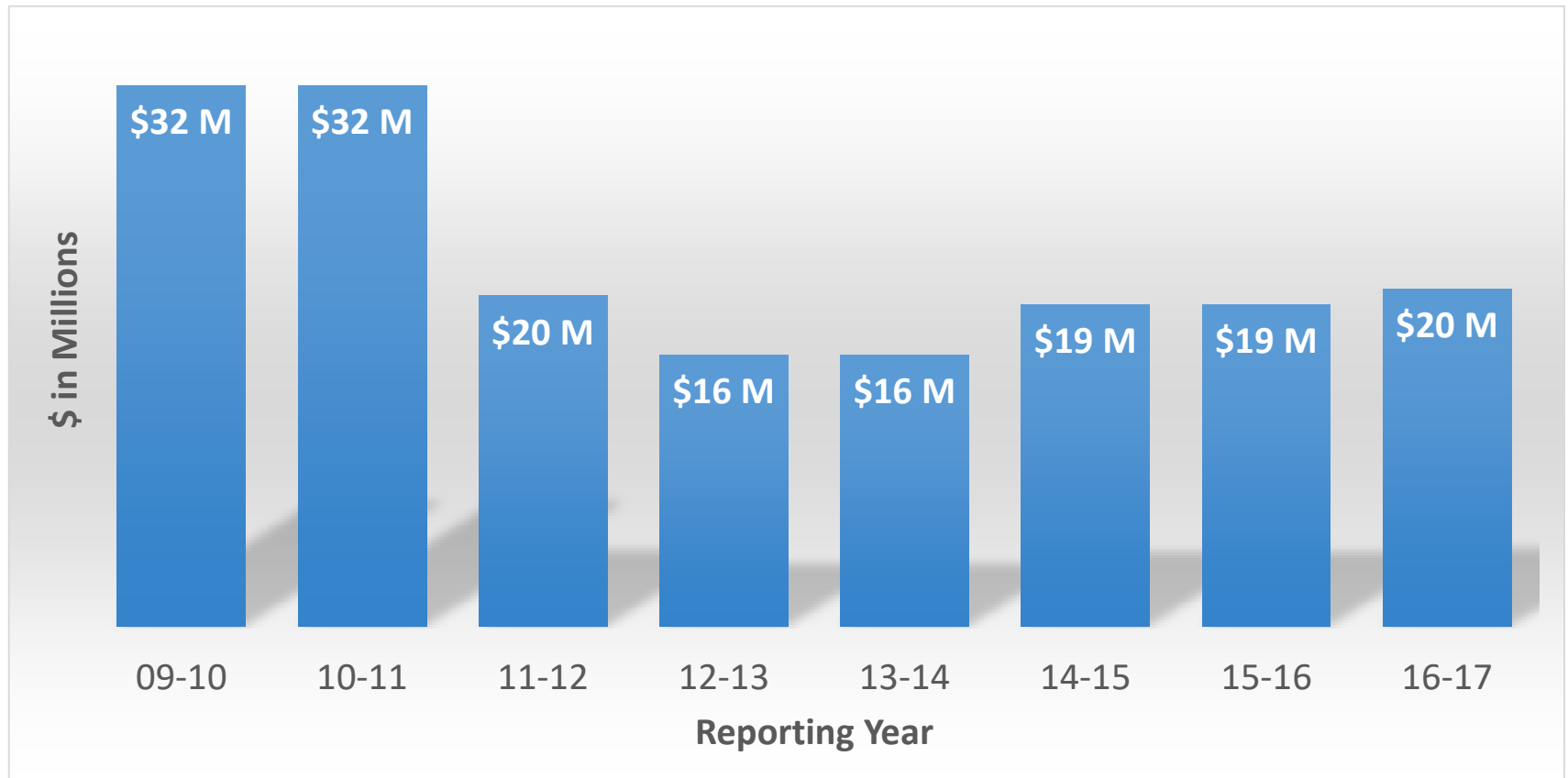
0 2.25 4.5 9 13.5 Miles



Program Elements

- * Non-Stormwater Discharge Prohibition
- * Receiving Water Limitations
- * TMDL Provisions
- * 6 Minimum Control Measures (MCMs)
- * Monitoring and Reporting Program (MRP)

Ventura County MS4 Permit Implementation Costs











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Grant Projects

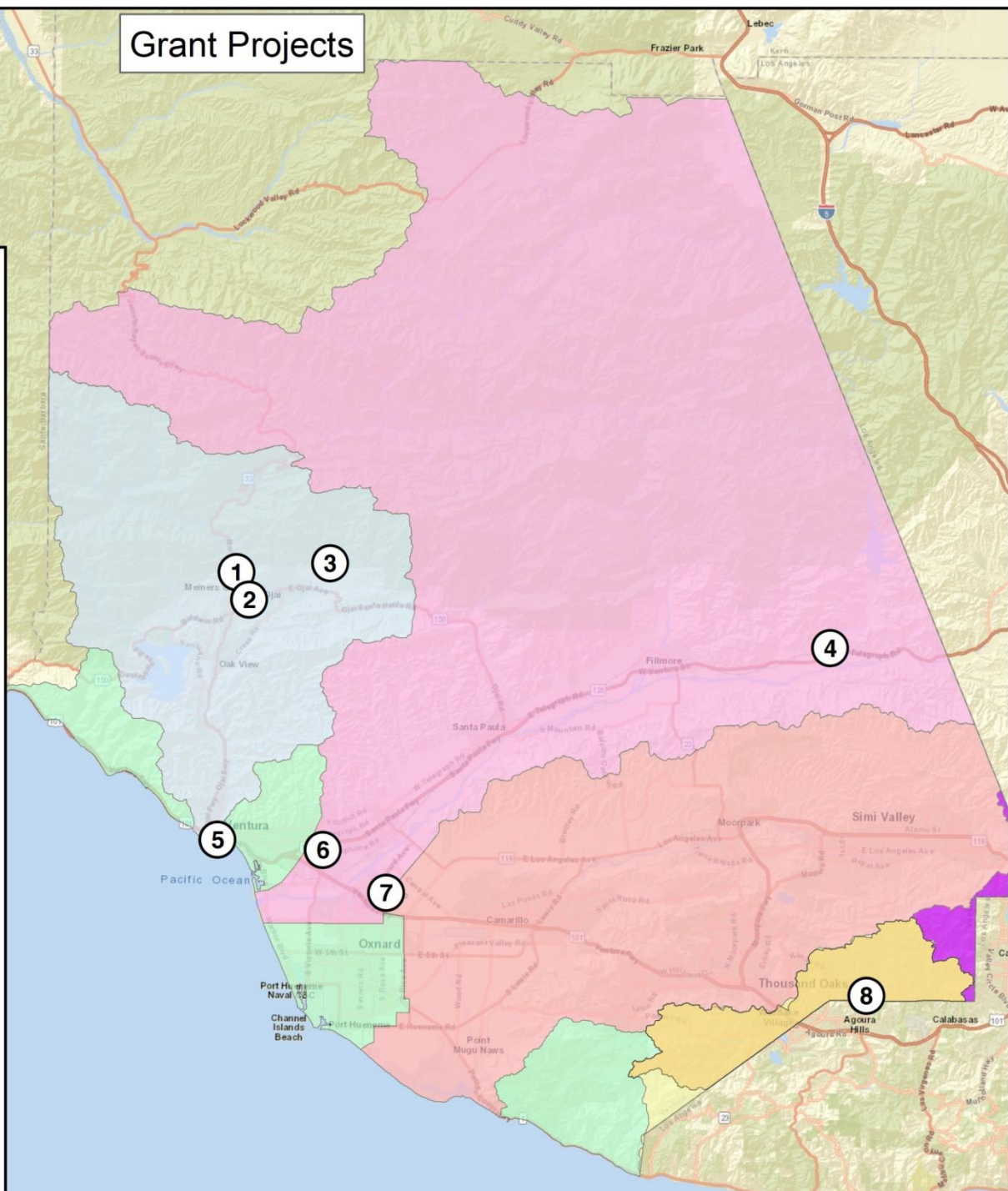
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Grants Projects:

-  ① Ojai Wetland Restoration (\$985,000)
-  ② Happy Valley Bioswale (\$815,651)
-  ③ San Antonio Creek Spreading Grounds (\$1,831,994)
-  ④ Piru Stormwater Capture (\$455,837)
-  ⑤ Promenade Park LFD California St. and Figueroa St (\$838,802)
-  ⑥ County Government Center Parking Lot (\$1,495,294)
-  ⑦ El Rio Retrofit (\$948,501)
-  ⑧ Oak Park Green Streets (\$1,397,990)

0 2 4 8 12 Miles



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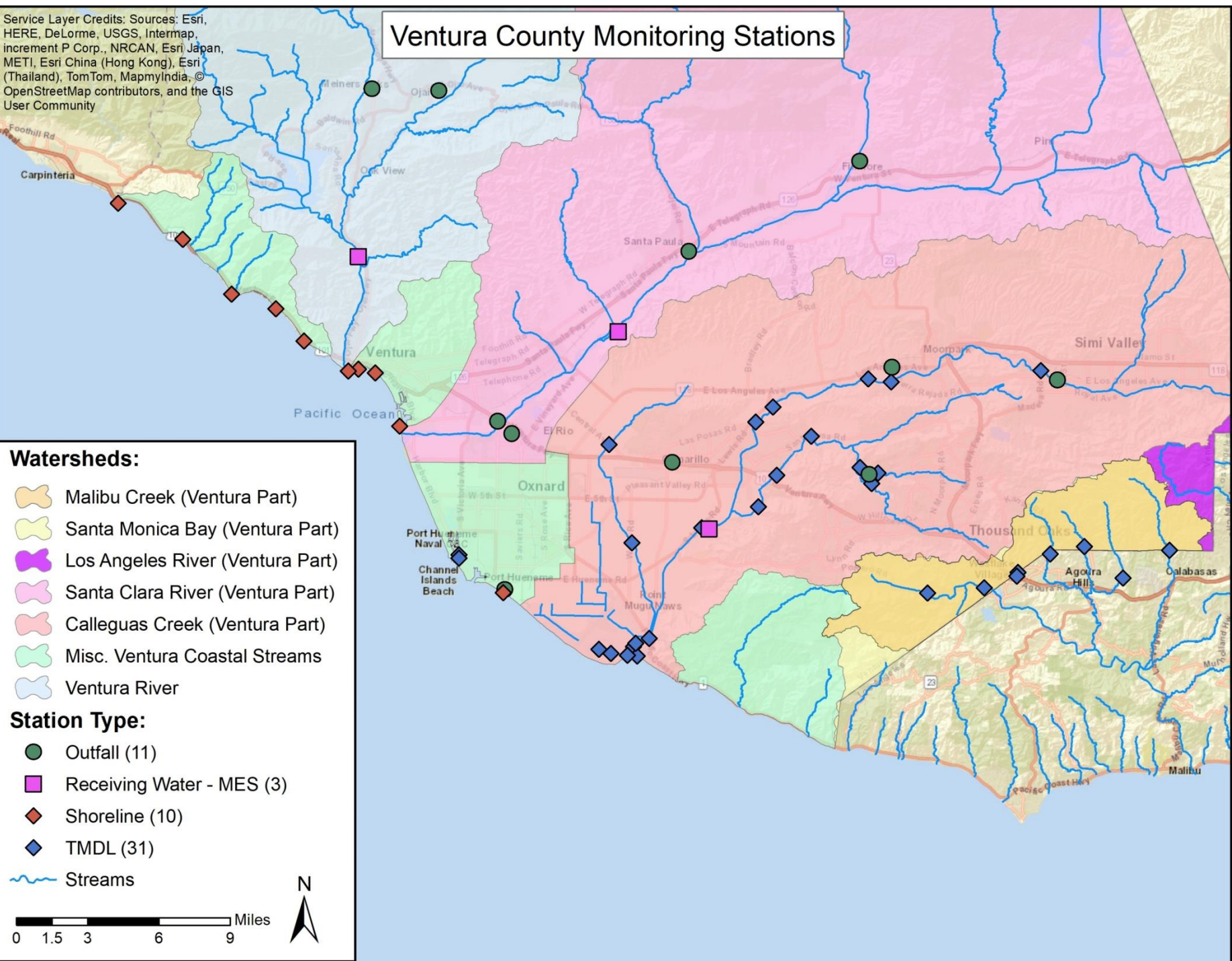
Ventura County Monitoring Stations

Watersheds:

- Malibu Creek (Ventura Part)
- Santa Monica Bay (Ventura Part)
- Los Angeles River (Ventura Part)
- Santa Clara River (Ventura Part)
- Calleguas Creek (Ventura Part)
- Misc. Ventura Coastal Streams
- Ventura River

Station Type:

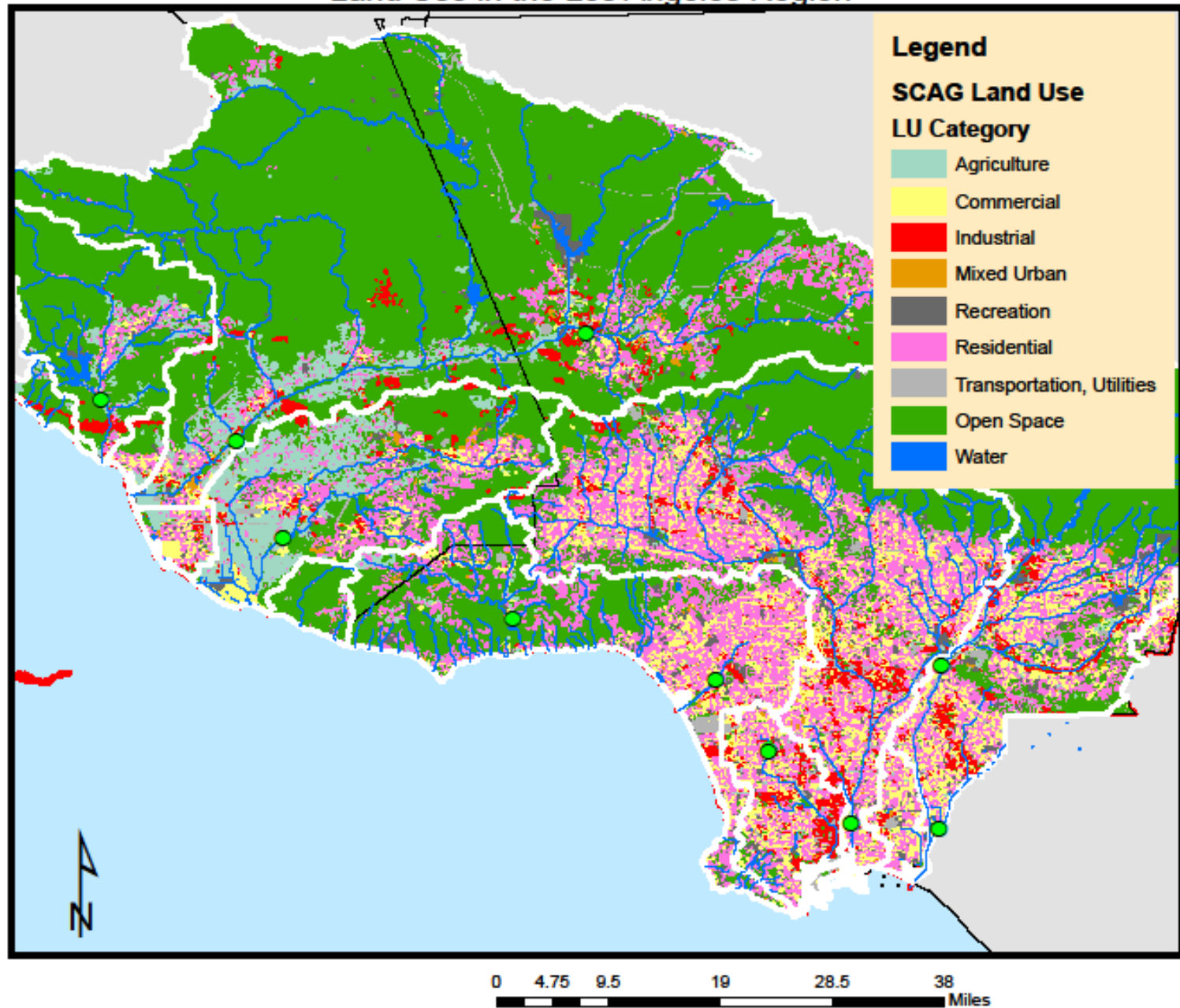
- Outfall (11)
- Receiving Water - MES (3)
- ◆ Shoreline (10)
- ◆ TMDL (31)
- ~ Streams



Region-Wide Monitoring Data

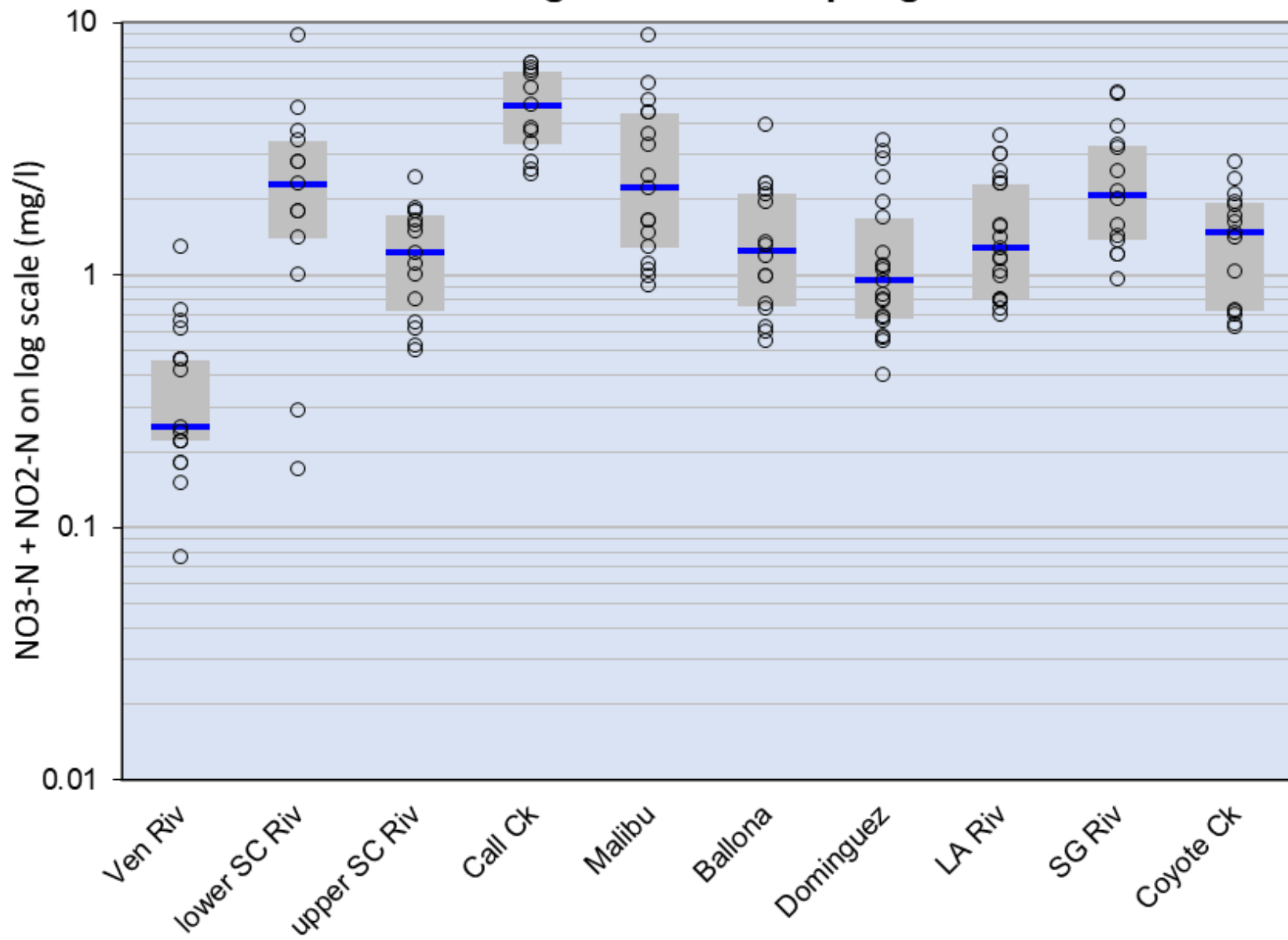
The slide features a solid blue background. At the bottom, there are several overlapping, wavy, light blue shapes that create a sense of movement or a horizon line. The text is centered in the upper half of the slide.

Mass Emissions MS4 Monitoring Stations (green) and Land Use in the Los Angeles Region

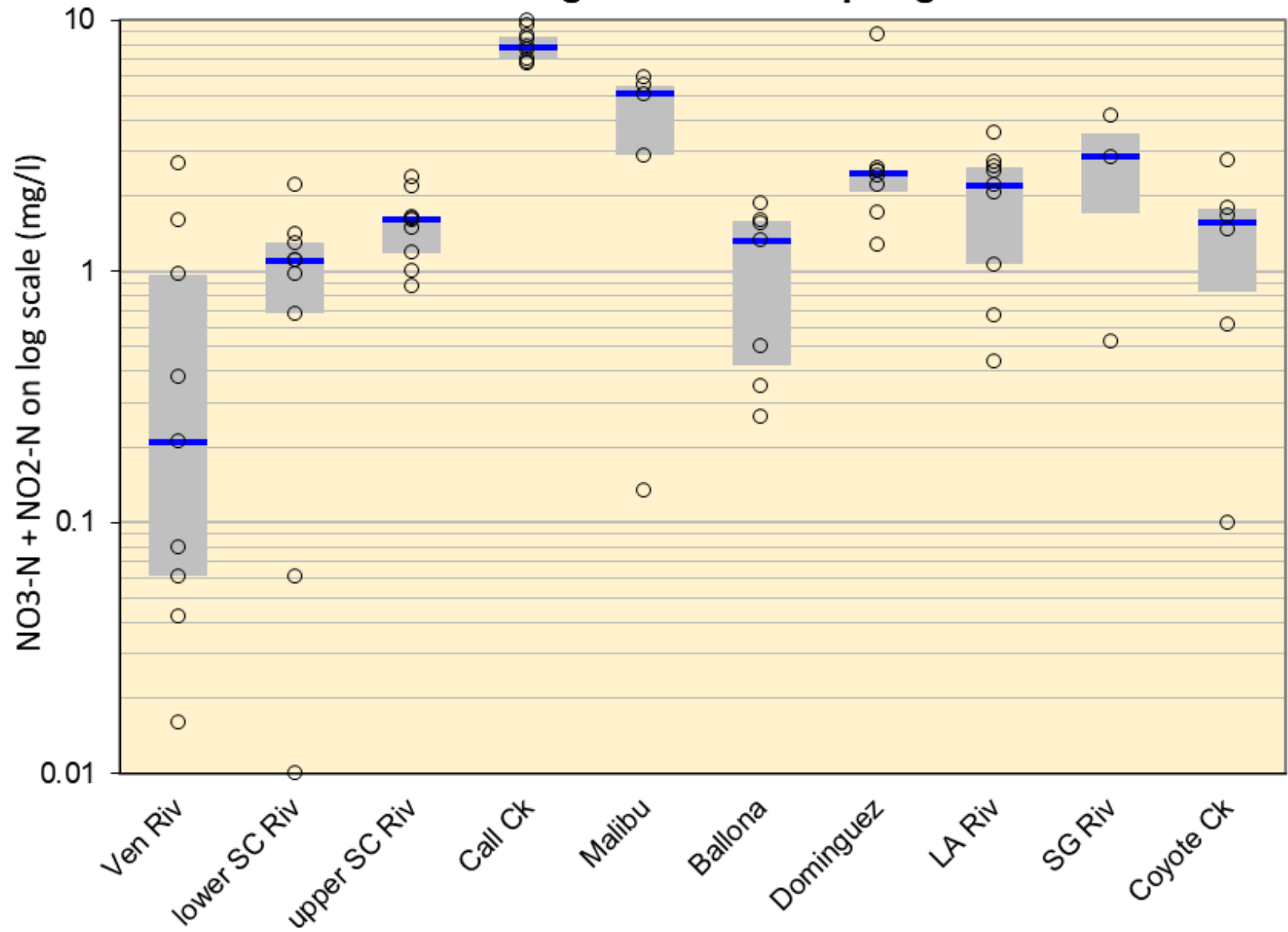


Nitrogen (Nitrate-N +
Nitrite-N) in the Region
During Wet and Dry
Weather

Nitrate-N + Nitrite-N During Wet Weather at Mass Emissions Stations in Ventura and Los Angeles Counties During Fall 2012 to Spring 2017

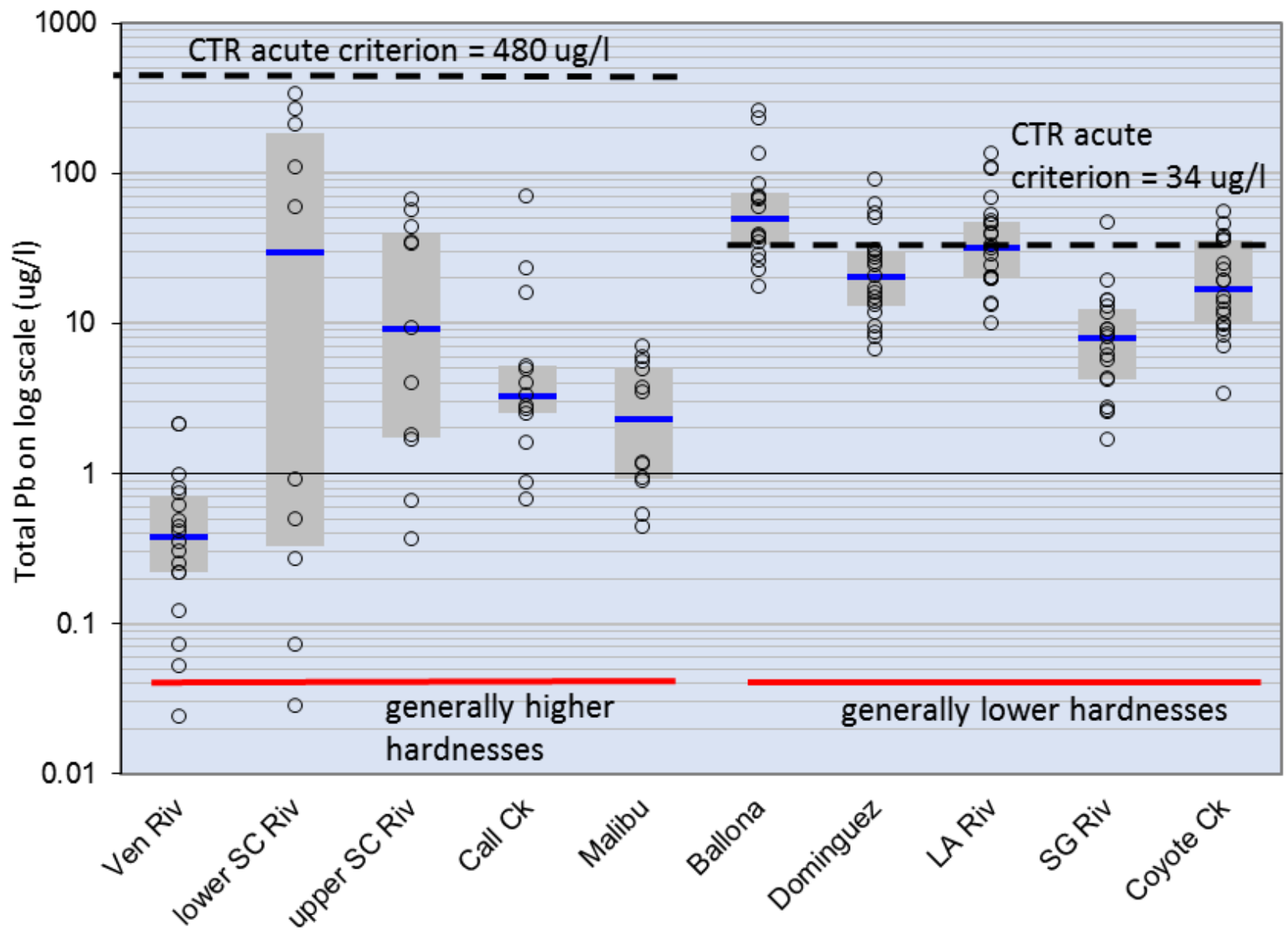


Nitrate-N + Nitrite-N During Dry Weather at Mass Emissions Stations in Ventura and Los Angeles Counties During Fall 2012 to Spring 2017

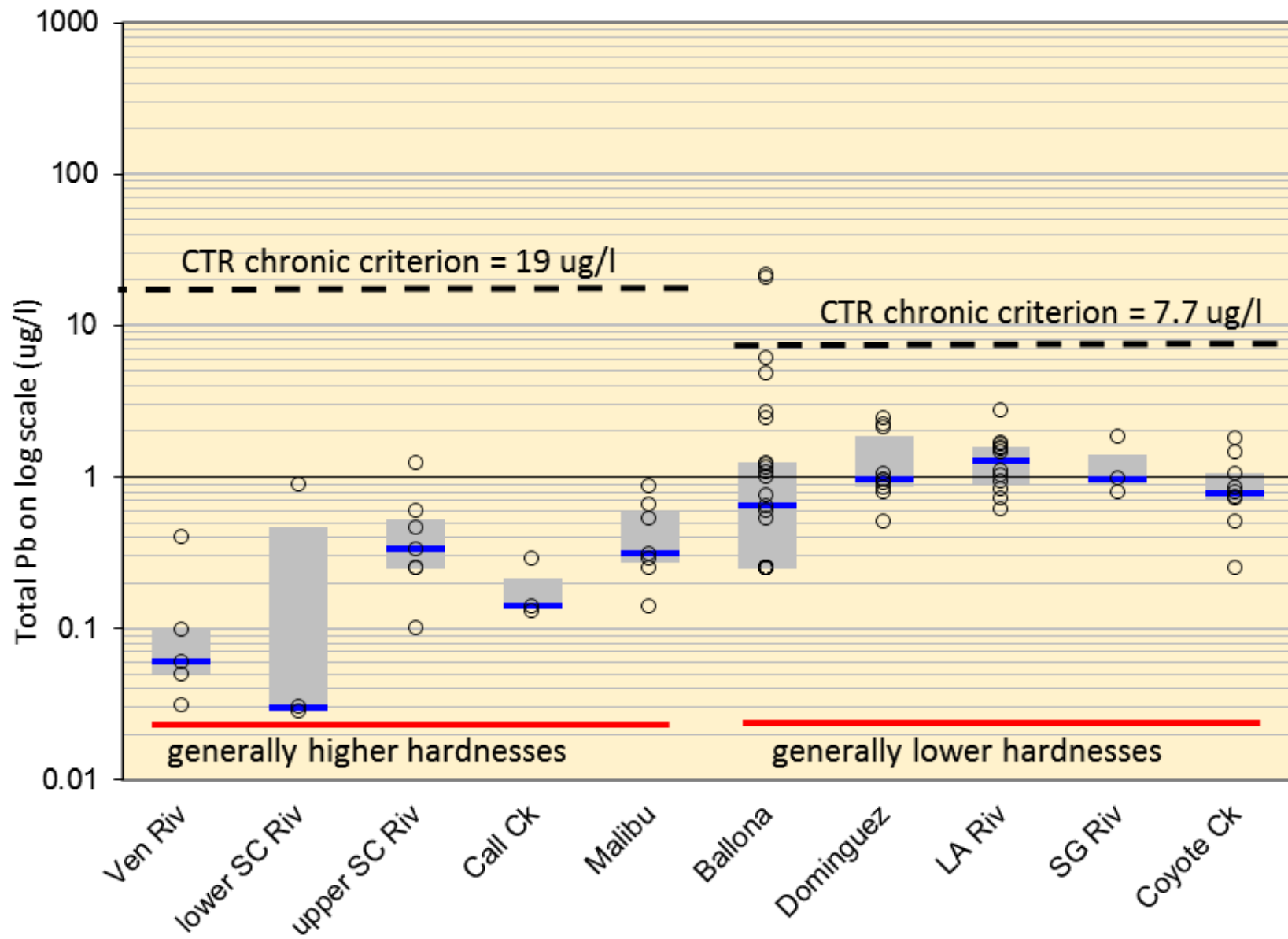


Total Lead in the Region During Wet and Dry Weather

Total Lead During Wet Weather at Mass Emissions Stations in Ventura and Los Angeles Counties During Fall 2012 to Spring 2017 with Acute CTR at Two Hardnesses 50 and 400 mg/l (dashed lines)

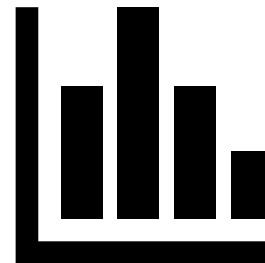
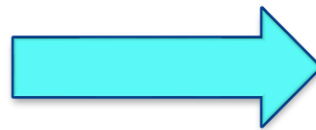


Total Lead During Dry Weather at Mass Emissions Stations in Ventura and Los Angeles Counties During Fall 2012 to Spring 2017 with Chronic CTR at Two Hardnesses 200 and 400 mg/l (dashed lines)



Monitoring Data Analysis

Ventura County



TMDLs in the Ventura County MS4 Permit with Past Interim and Past Final Compliance Dates Through 2017 for the Santa Clara River Watershed, Malibu Creek Sub-watershed, Ventura River Watershed, and Miscellaneous Ventura Coastal Watersheds

Total Maximum Daily Loads (TMDLs)	Compliance Dates: Through 2017
Santa Clara River Nitrogen Compounds TMDL	Final - 7/8/10
Upper Santa Clara River Chloride TMDL	Final – 5/4/2016
TMDL for Chloride in the Santa Clara River, Reach 3 – USEPA Promulgated	Final - 7/8/10
Malibu Creek and Lagoon Bacteria TMDL	Summer Dry: Final - 1/24/2009 Winter Dry: Final - 1/24/2012 Wet Weather: Final - 1/24/2016
TMDL for Nutrients Malibu Creek Watershed – USEPA Promulgated	Final - 7/8/10
Ventura River Estuary Trash TMDL	Final - 3/6/2016
Harbor Beaches of Ventura County Bacteria TMDL <i>Summer and Winter Dry Weather Only</i>	Summer & Winter Dry: Final - 12/18/2013 Wet Weather: Interim – 7/8/10

TMDLs in the Ventura County MS4 Permit with Past Interim and Past Final Compliance Dates Through 2017 for the Calleguas Creek Watershed

Total Maximum Daily Loads (TMDLs)	Compliance Dates: Through 2017
TMDL for Toxicity, Chlorpyrifos, and Diazinon in the Calleguas Creek, its Tributaries, and Mugu Lagoon	Final - 7/8/10
Calleguas Creek Nitrogen Compounds and Related Effects TMDL	Final - 10/15/2016
Calleguas Creek OC Pesticides and PCBs TMDL	Interim WLA – 7/8/10 Interim Siltation – 3/24/15
Calleguas Creek Watershed Metals and Selenium TMDL	Interim WLA – 7/8/10 25% reduction by 3/26/2012 50% reduction by 3/26/2017
Calleguas Creek Watersheds Salts TMDL	Interim WLA – 7/8/10 20% reduction by 12/2/2011 40% reduction by 12/2/2015
Revolon Slough and Beardsley Wash Trash TMDL	Final - 3/6/2016

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Chloride Dry Weather Exceedances (2009-2017)

% of Samples with Exceedances:

Receiving Water

- 0 - 5%
- 5.01% - 10%
- 10.01% - 15%
- 15.01% - 20%
- > 20%

Outfall

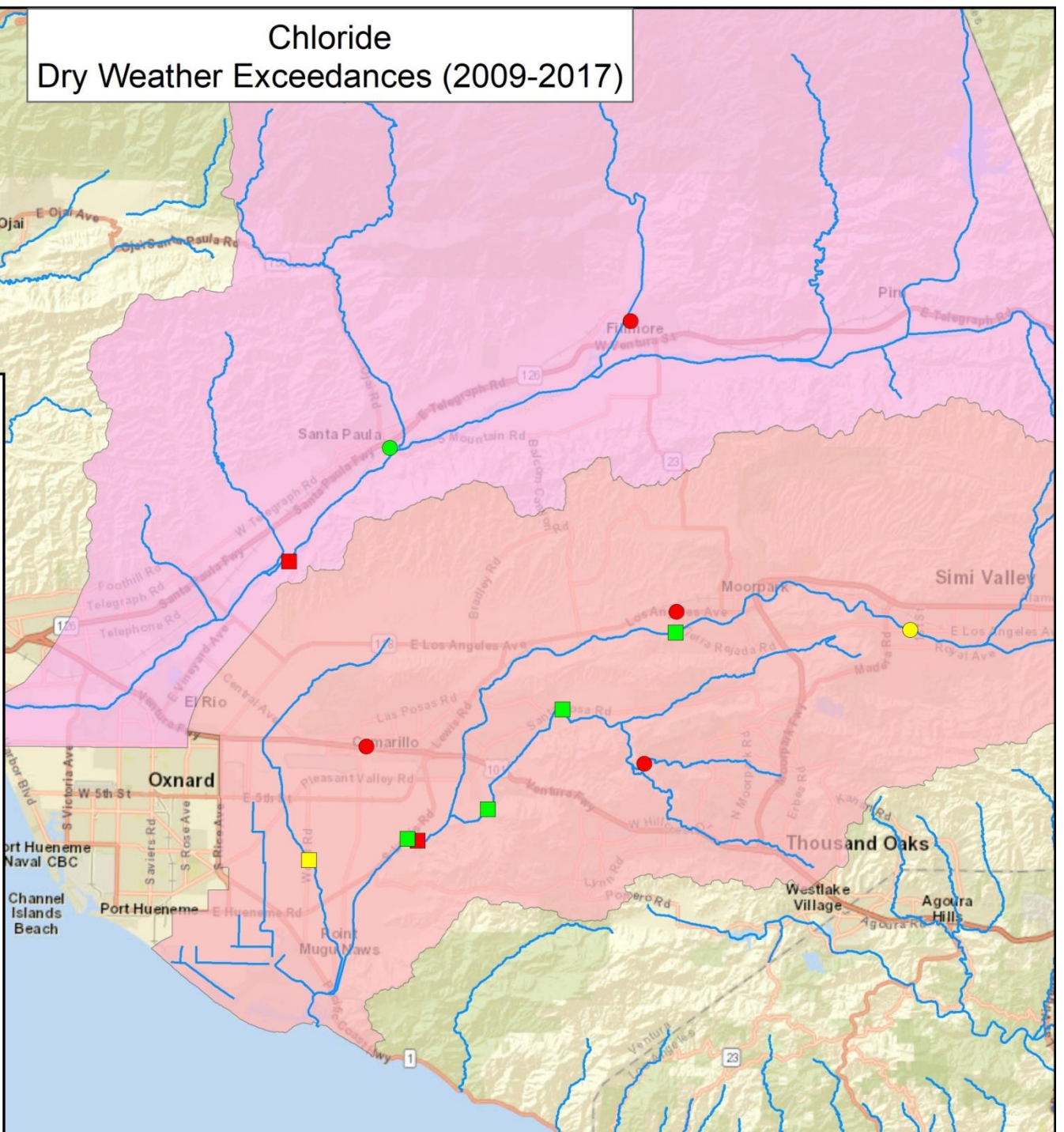
- 0 - 5%
- 5.01% - 10%
- 10.01% - 15%
- 15.01% - 20%
- > 20%

Watersheds:

- ⬭ Santa Clara River (Ventura Part)
- ⬭ Calleguas Creek (Ventura Part)
- ~ Streams

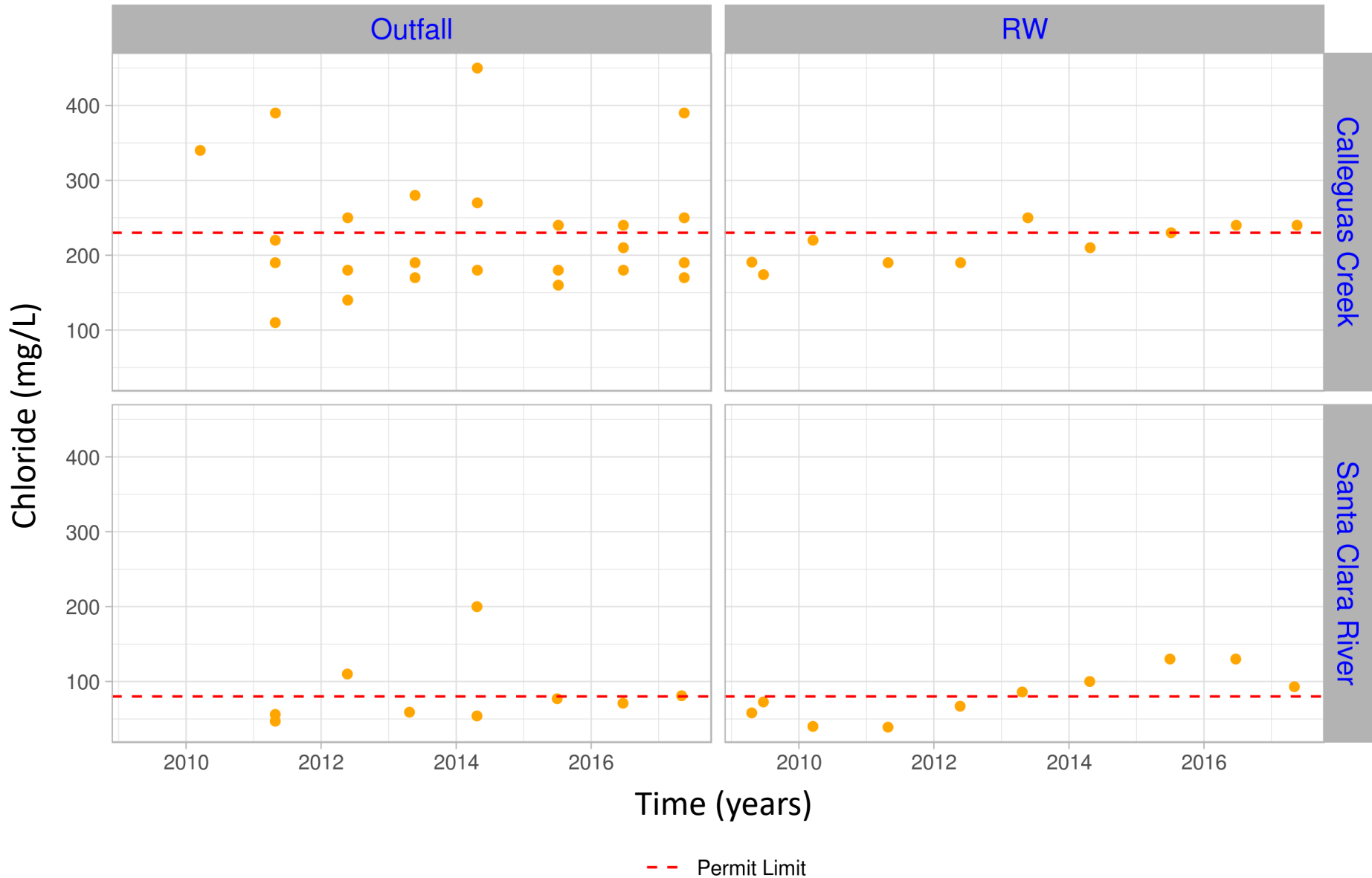
N

0 1.75 3.5 7 Miles



Chloride at Outfall and RW Stations (Dry Weather)

Santa Clara River and Calleguas Creek Watersheds



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Nitrate + Nitrite Exceedances (2009-2017)

% of Samples with Exceedances:

Receiving Water

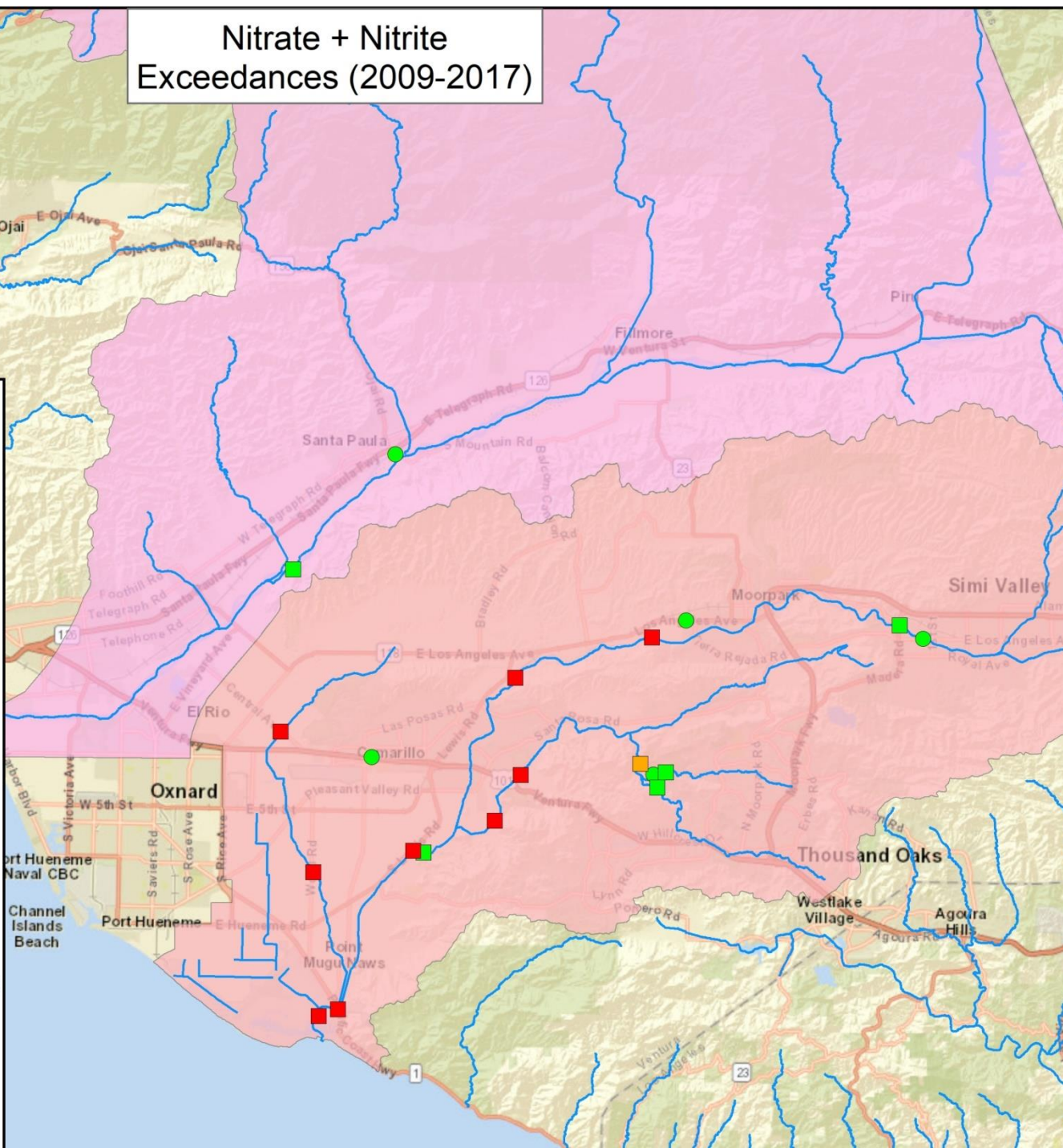
- 0 - 5%
- 5.01% - 10%
- 10.01% - 15%
- 15.01% - 20%
- > 20%

Outfall

- 0 - 5%
- 5.01% - 10%
- 10.01% - 15%
- 15.01% - 20%
- > 20%

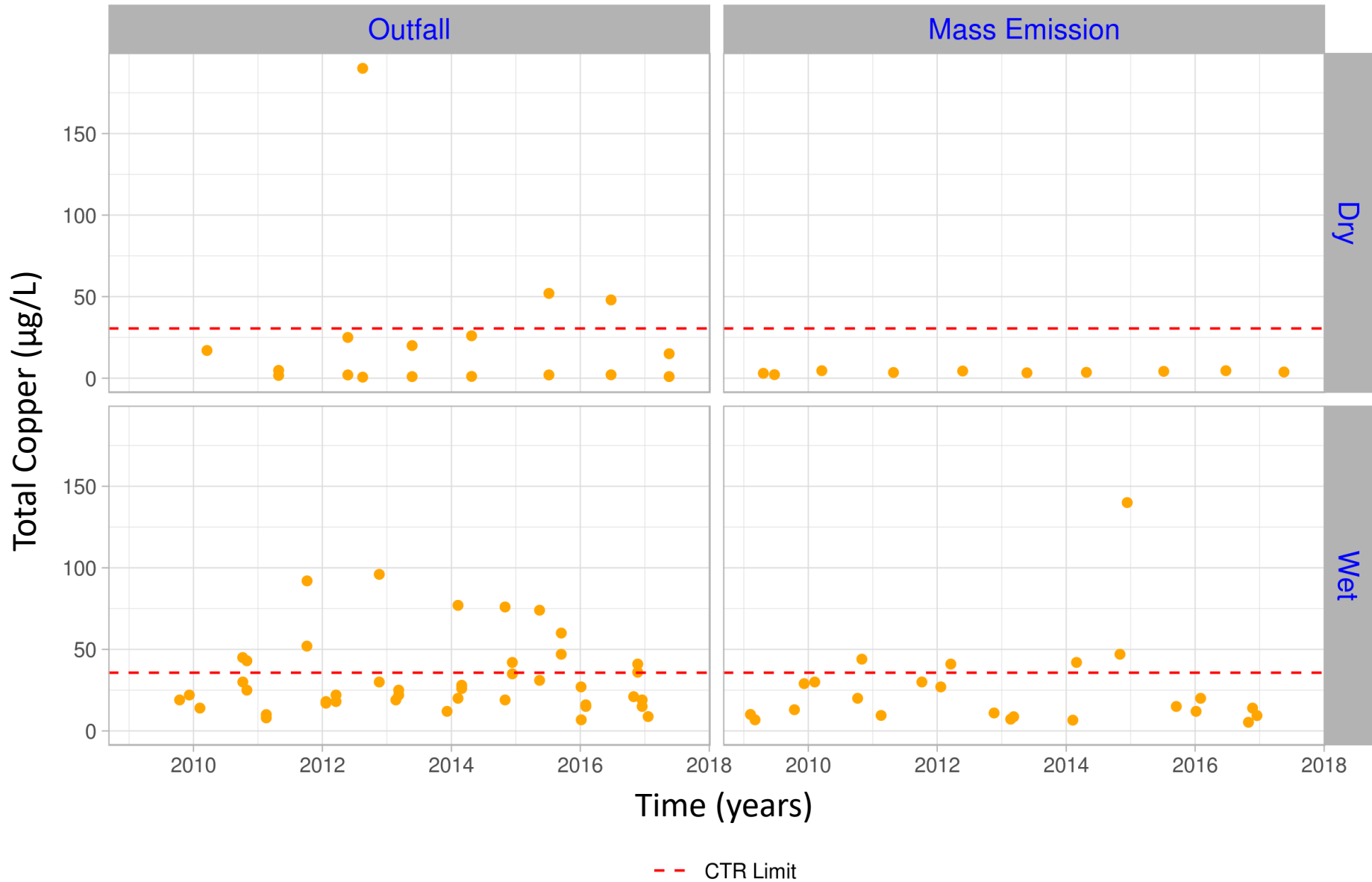
Watersheds:

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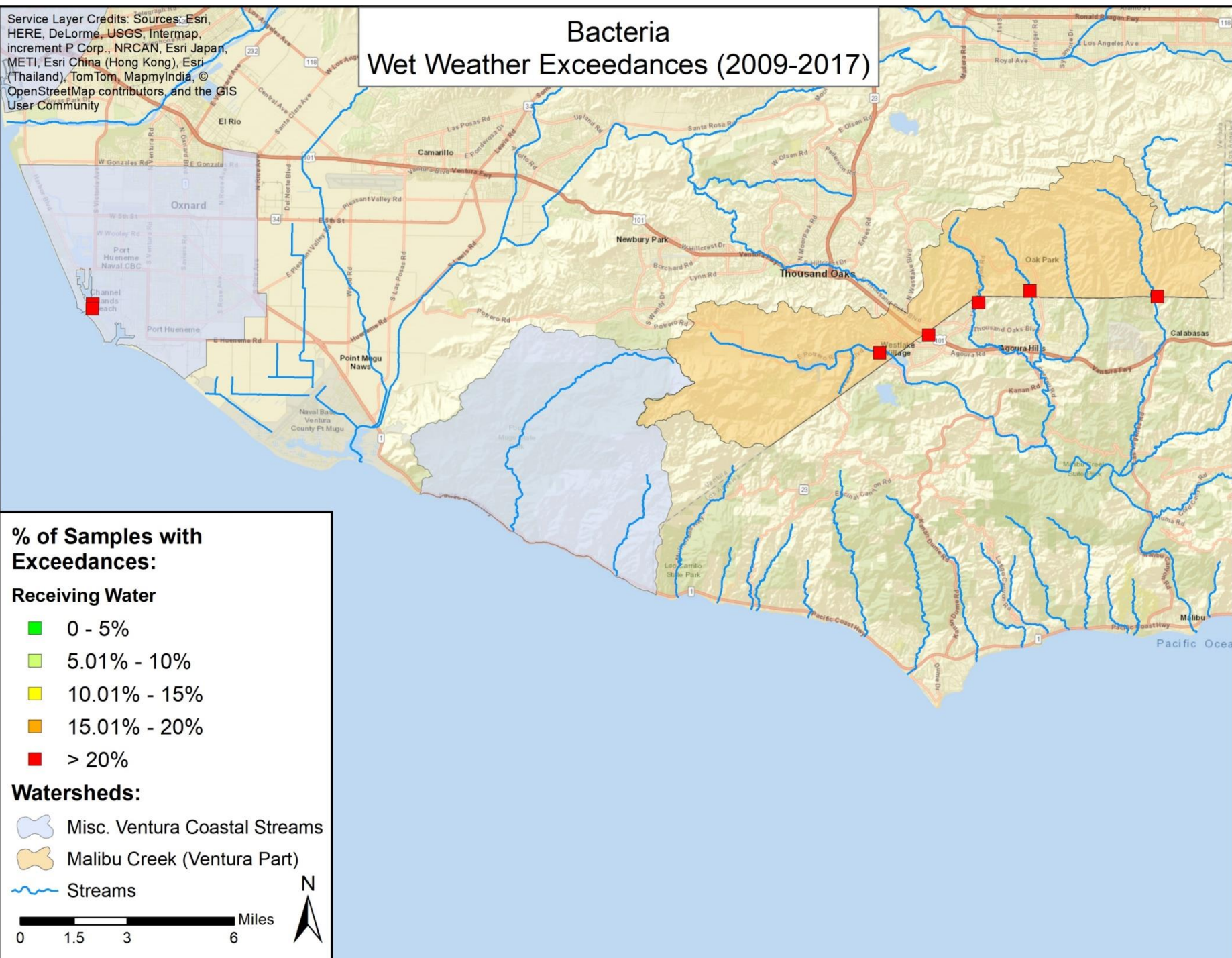
Calleguas Creek Metals TMDL - Total Copper

ME and Outfall Stations



Bacteria Wet Weather Exceedances (2009-2017)

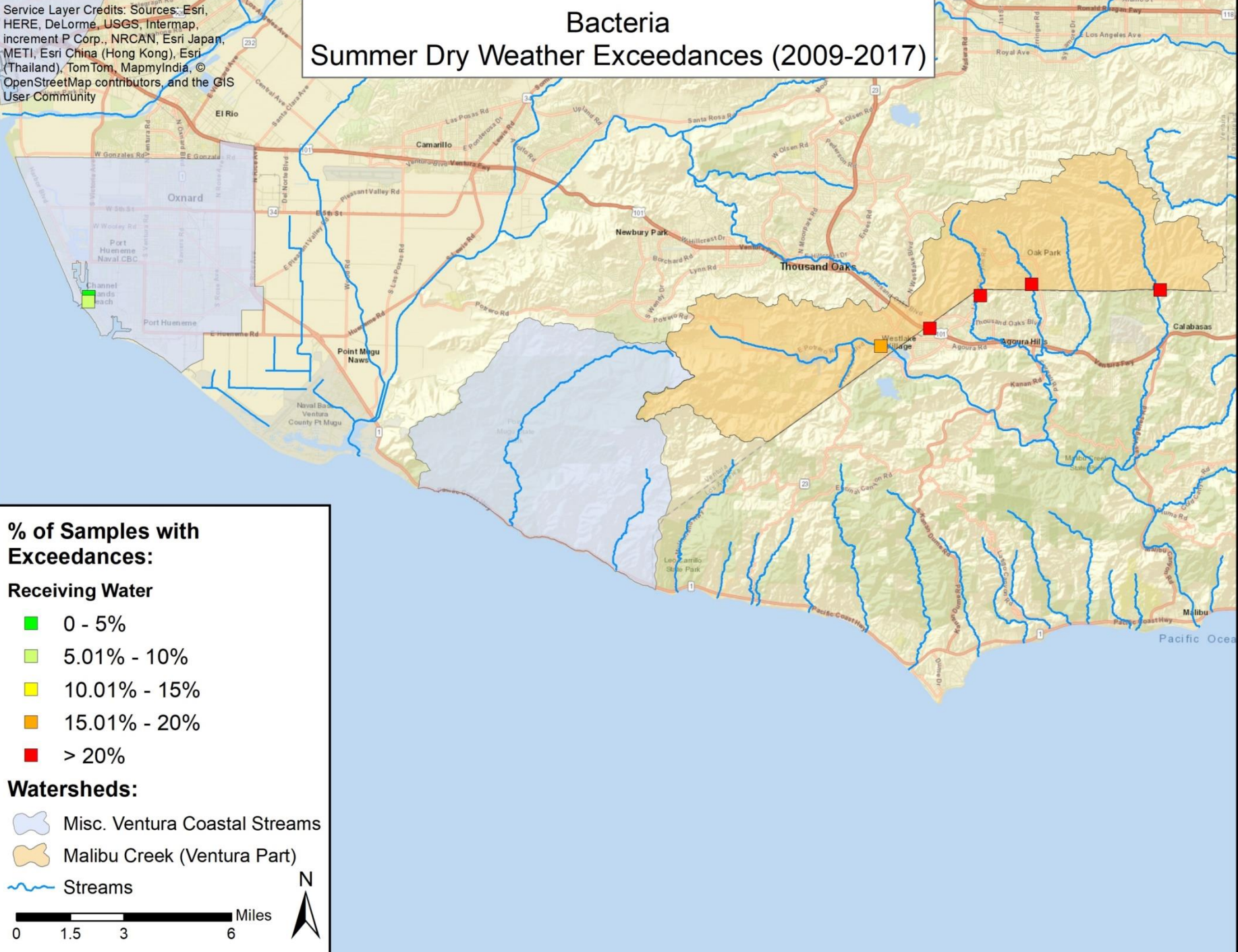
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Bacteria

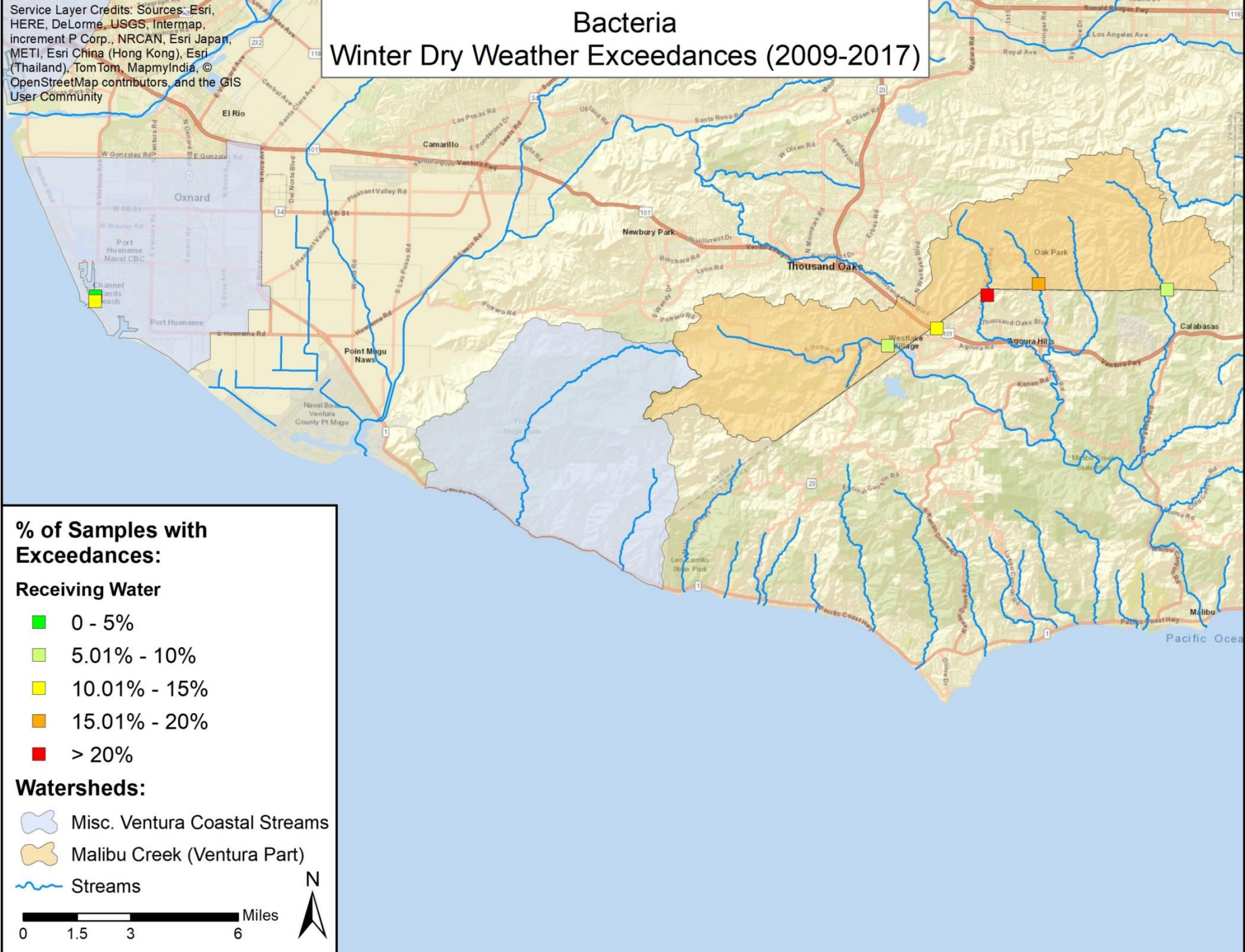
Summer Dry Weather Exceedances (2009-2017)



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Bacteria

Winter Dry Weather Exceedances (2009-2017)



Polychlorinated Biphenyls (PCBs)



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- * Method Detection Limits (MDLs) Permittees used are too high

Reported MDL (water)	Human Health CTR Criteria
0.001 - 3 $\mu\text{g/L}$	0.00017 $\mu\text{g/L}$

- * 9 years of available PCBs monitoring data for Calleguas Creek Watershed (142 water samples)
 - * Compliance Results = Inconclusive

Summary

Chloride

- SCR Reach 3 outfalls
- Calleguas Creek Watershed outfalls & receiving water

Metals

- Total Copper at SCR & Calleguas Creek Watersheds
- Total Lead at all 3 ME stations in Ventura County

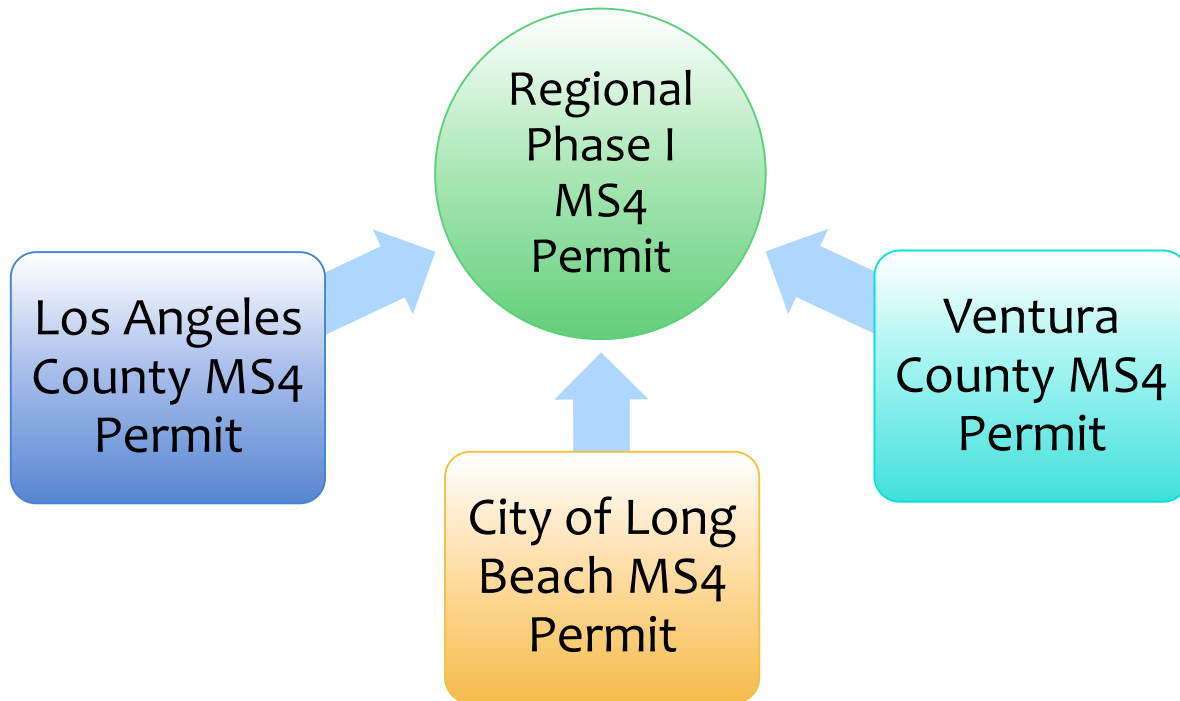
Nitrate+Nitrite as N (Total Nitrogen)

- Ventura River & SCR ME stations
- Calleguas Creek Watershed outfalls
- Calleguas Creek Watershed receiving water

Bacteria

- Ventura Harbor during dry weather
- Ventura Harbor during wet weather
- Malibu Creek subwatershed

Regional Phase I MS4 Permit



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RB4 Watersheds

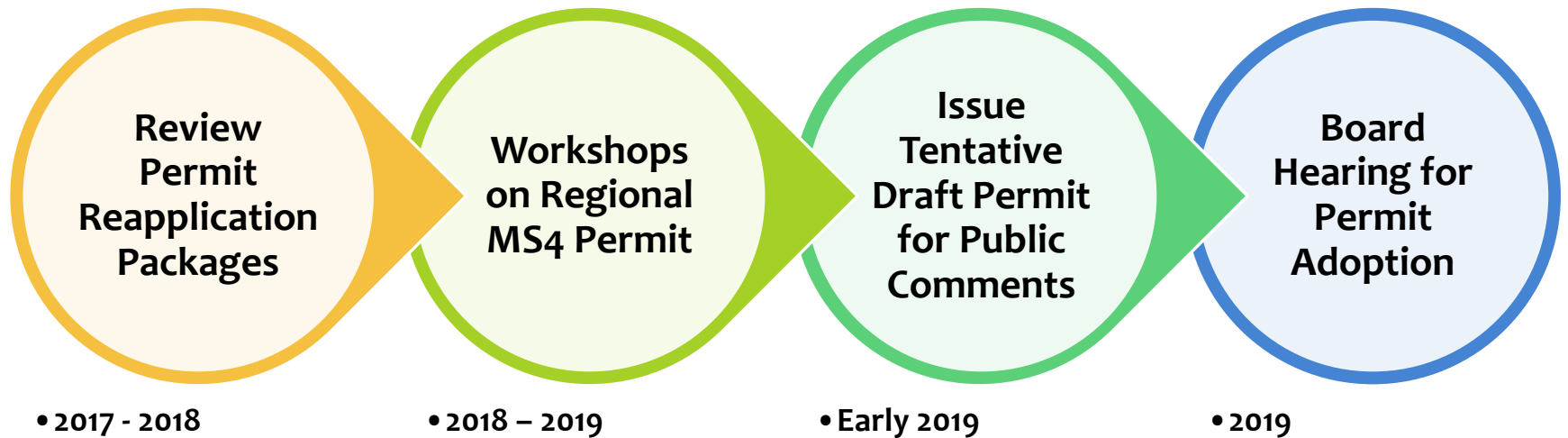


Overlapping Watersheds

-  Calleguas Creek Watershed
-  Los Angeles River Watershed
-  Santa Clara River Watershed
-  Santa Monica Bay Watershed
-  Malibu Creek Sub-watershed
-  Ventura County



Anticipated Permit Process Timeline



Permittee/Stakeholder Presentations

- * Ventura County MS4 Permittees
- * Environmental Groups
- * Other Interested Persons