

San Diego State University
College of Sciences
Field Stations Program
2007 HPWREN Users Meeting



San Diego State University ★
Properties in Field Station Programs



Produced by
Jeffrey T. Iles
September 20, 1999

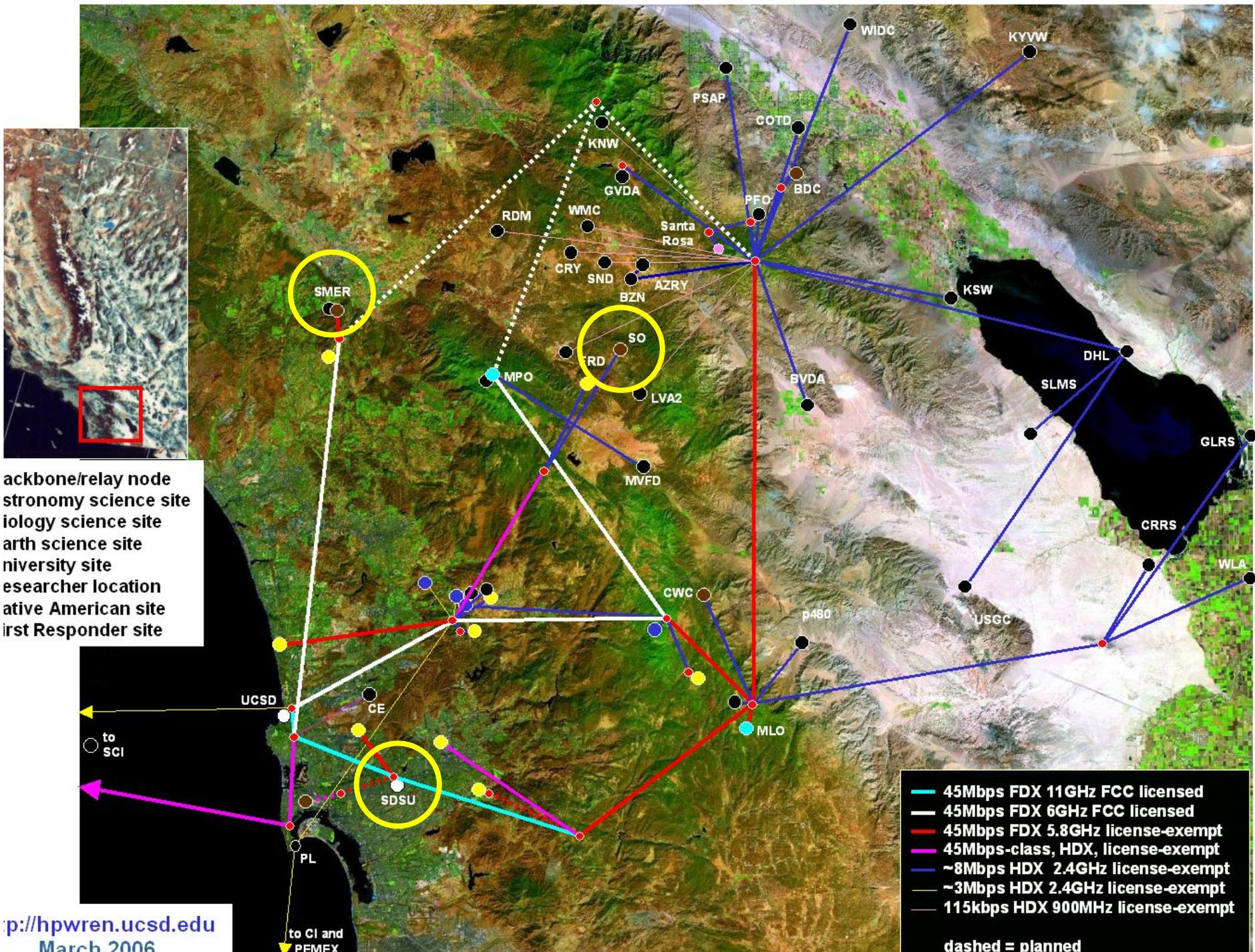
Field Stations
College of Sciences



- Field Stations
- Major freeways
- Streams
- County lines
- International boundary



- # SDSU's Field Station Locations in San Diego County
- Santa Margarita Ecological Reserve
 - Sky Oaks Field Station
 - Tijuana Estuary Reserve
 - Fortuna Mountain



RICE FIRE

CA-MVU-10502
as of 10/26/07 - 0700 Hrs
9,000 Acres 40% Contained
Started October 22, 2007 0416 Hrs
San Diego County

Fire Threats and Damages
206 Residence Destroyed
2 Commercial Properties Destroyed
40 Outbuilding/Other Destroyed
200 Residence Threatened

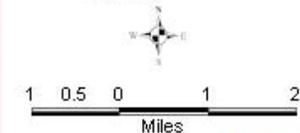
12 hours: De Luz and areas North of
Mission Rd.

Fire Perimeter

- Fire Perimeter as of 10/26/07 AM
- Incorporated City Limits
- Pala Indian Reservation
- US NAVY

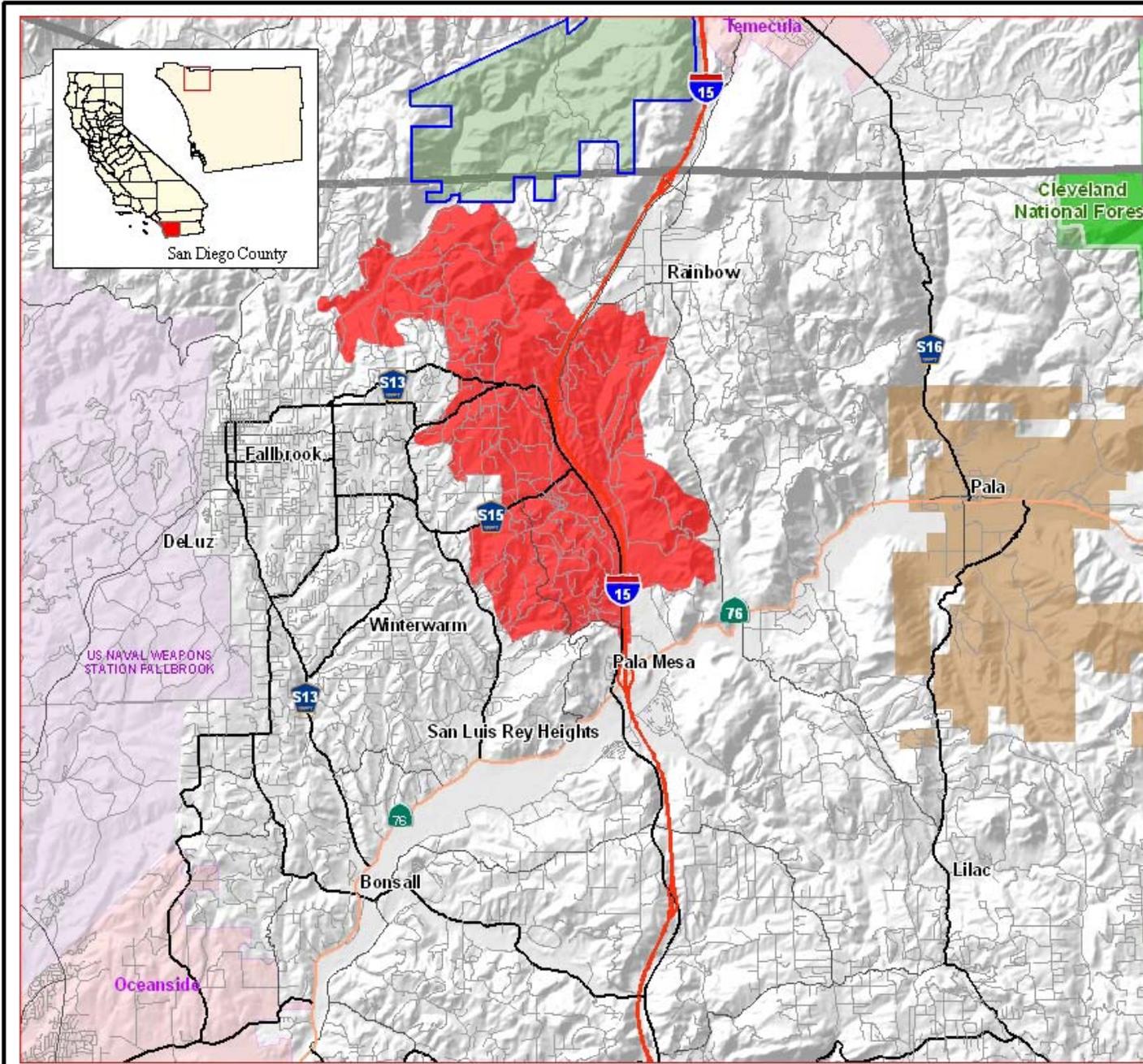
Transportation Network

- Freeway
- Highway
- Major Road
- Secondary Road
- Residential Road
- National Forest Boundary
- Santa Margarita Ecological Reserve boundary



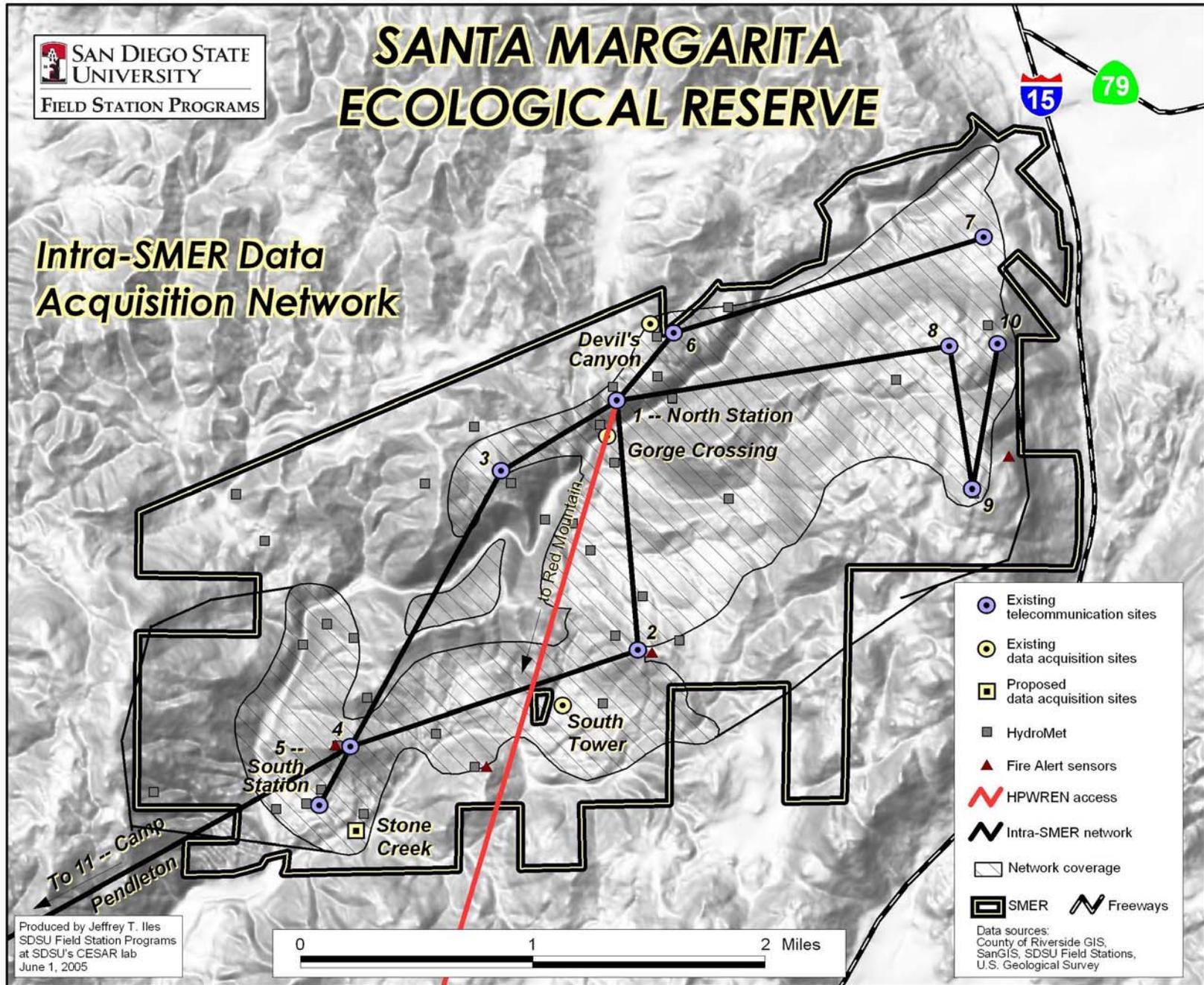
Created by OES-GIS, M Baldwin
October 26, 2007
Sources: FAMWEB 2009;
active_incident fires 2007;
D:/Active_Incidents/Fires/2007/Southern_California
_Wildfires_2007/Prospect/102607/Rice_102607_AM.mxd

OES
CALIFORNIA
Governor's Office of
Emergency Services



SANTA MARGARITA ECOLOGICAL RESERVE

Intra-SMER Data Acquisition Network



Rice Fire Photos
Tue. 10/22, 2200 to
Wed. 10/23, 0130
from Red Mountain



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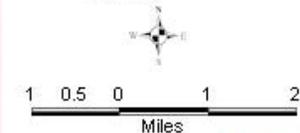
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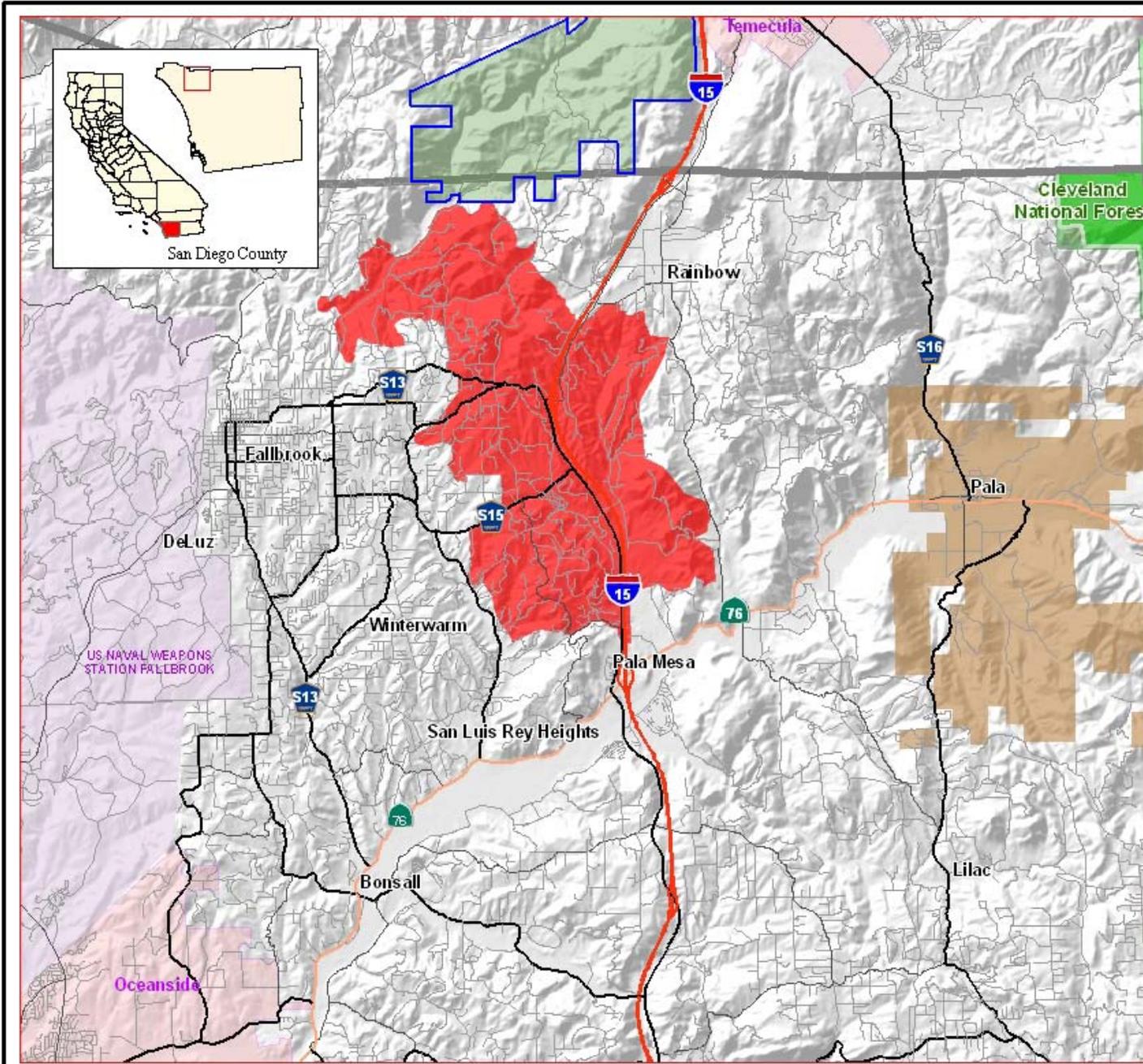
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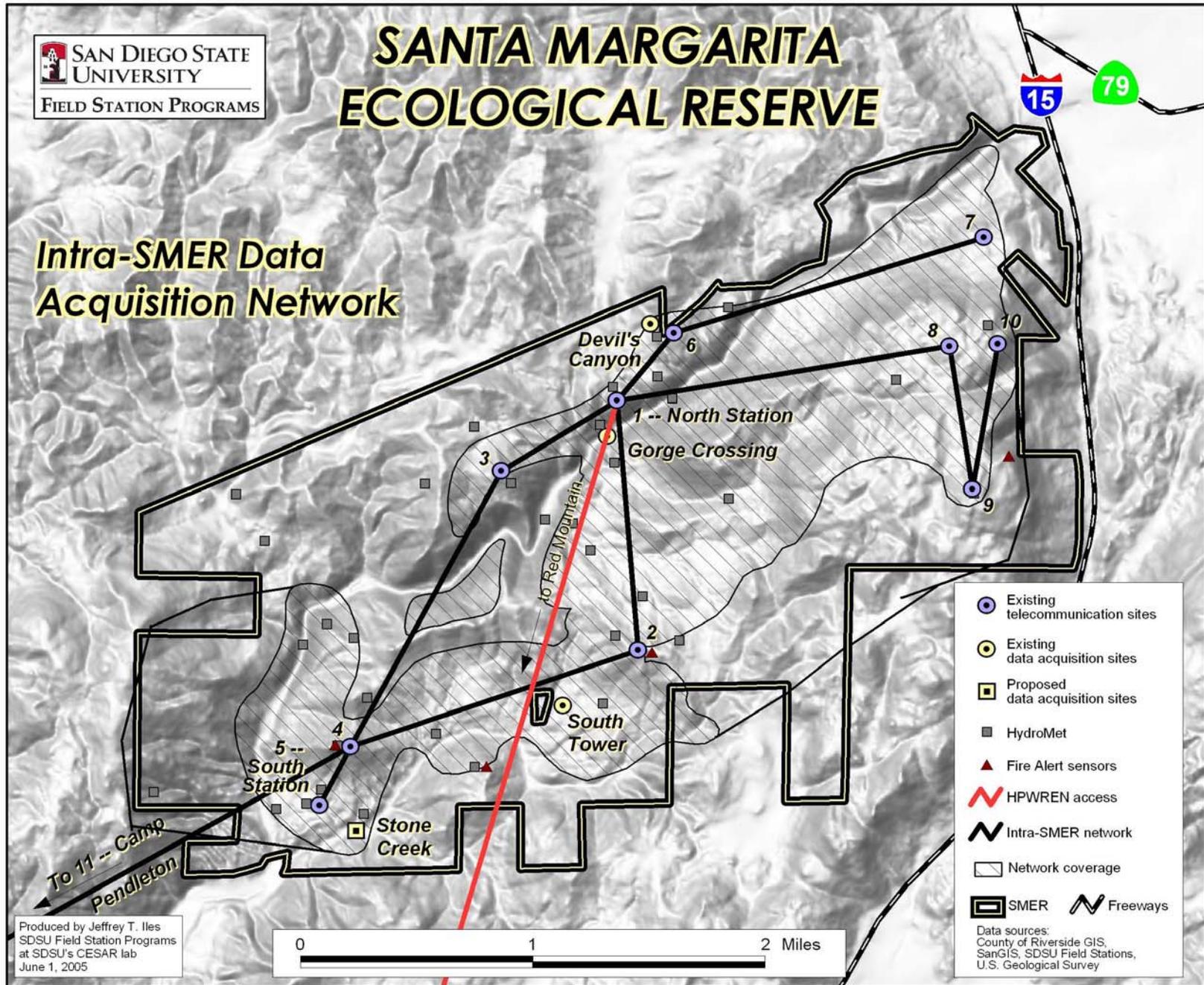
Created by OES-GIS, M Baldwin
October 26, 2007
Sources: FAMWEB 2009;
active_incident fires 2007;
D:/Active_Incidents/Fires/2007/Southern_California
_Wildfires_2007/Prospect/102607/Rice_102607_AM.mxd

OES
CALIFORNIA
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Emergency Services



SANTA MARGARITA ECOLOGICAL RESERVE

Intra-SMER Data Acquisition Network



Rice Fire Photos
Thursday, 10/25
South Side of SMER



Sky Crane Dumping Water on Ridgeline just to the South of SMER Border



Public Agencies

Real-time Environmental Monitoring and Observation Technology SDSU Field Stations Program Web Camera

About REMOT:

- [Introduction](#)
- [Network Infrastructure](#)
- [Technology Transfer](#)
- [Future Directions](#)

About This Observatory:

- [Data](#)
- [Description](#)
- [Lessons Learned](#)
- [Equipment Used](#)
- [Operated by FSP](#)

Observatories at [SMER](#):

-  [Avocado Grove](#)
-  [Bug Trail](#)
-  [Dead Coyote](#)
-  [Devils Canyon](#)
-  [East Gorge](#)
-  [Gorge Crossing](#)
-  [Gorge Overlook](#)

earlier



18:48:28



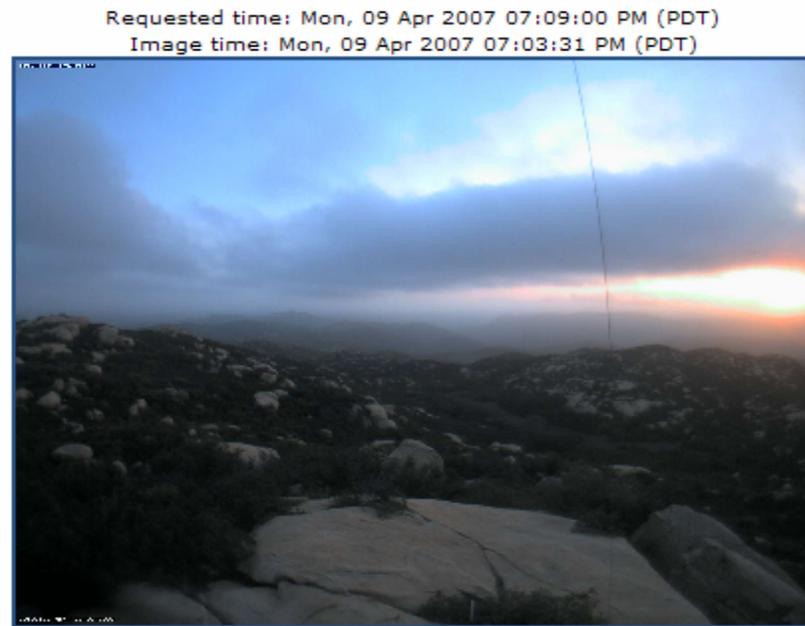
18:33:22



18:18:18



18:03:12



Requested time: Mon, 09 Apr 2007 07:09:00 PM (PDT)

Image time: Mon, 09 Apr 2007 07:03:31 PM (PDT)

[-1 wk](#) < [-1 day](#) < [-6 hrs](#) < [-1 hr](#) < > [+1 hr](#) > [+6 hrs](#) > [+1 day](#) > [+1 wk](#) >

[Get the Latest Image](#)

April 9 2007 19:09 Go

date

time

National Weather Service, CalFire, North County Fire Protection District, CHP etc.

FSP Web Site Traffic

Dashboard - Google Analytics

https://www.google.com/analytics/reporting/dashboard?id=4685709&scid=2508390 remote desktop right click

Getting Started Latest Headlines Apple Amazon eBay Yahoo! News

Dashboard - Google Analytics Wildland Fire: Home of the Wild... Gmail - Inbox - johnbkim@gm...

Google Analytics

johnbkim@gmail.com | My Account | Help | Contact Us | Sign Out

Analytics Settings | View Reports: wildfirealert.sdsu.edu

My Analytics Accounts: fsp

Dashboard

Saved Reports

Visitors

Traffic Sources

Content

Goals

Settings

Email

Help Resources

- About this Report
- Conversion University
- Common Questions
- Report Finder

Dashboard

Export Email

Oct 6, 2007 - Nov 5, 2007



Site Usage

11,462 Visits

49.20% Bounce Rate

32,202 Pageviews

00:02:27 Avg. Time on Site

2.81 Pages/Visit

81.52% % New Visits

Visitors Overview

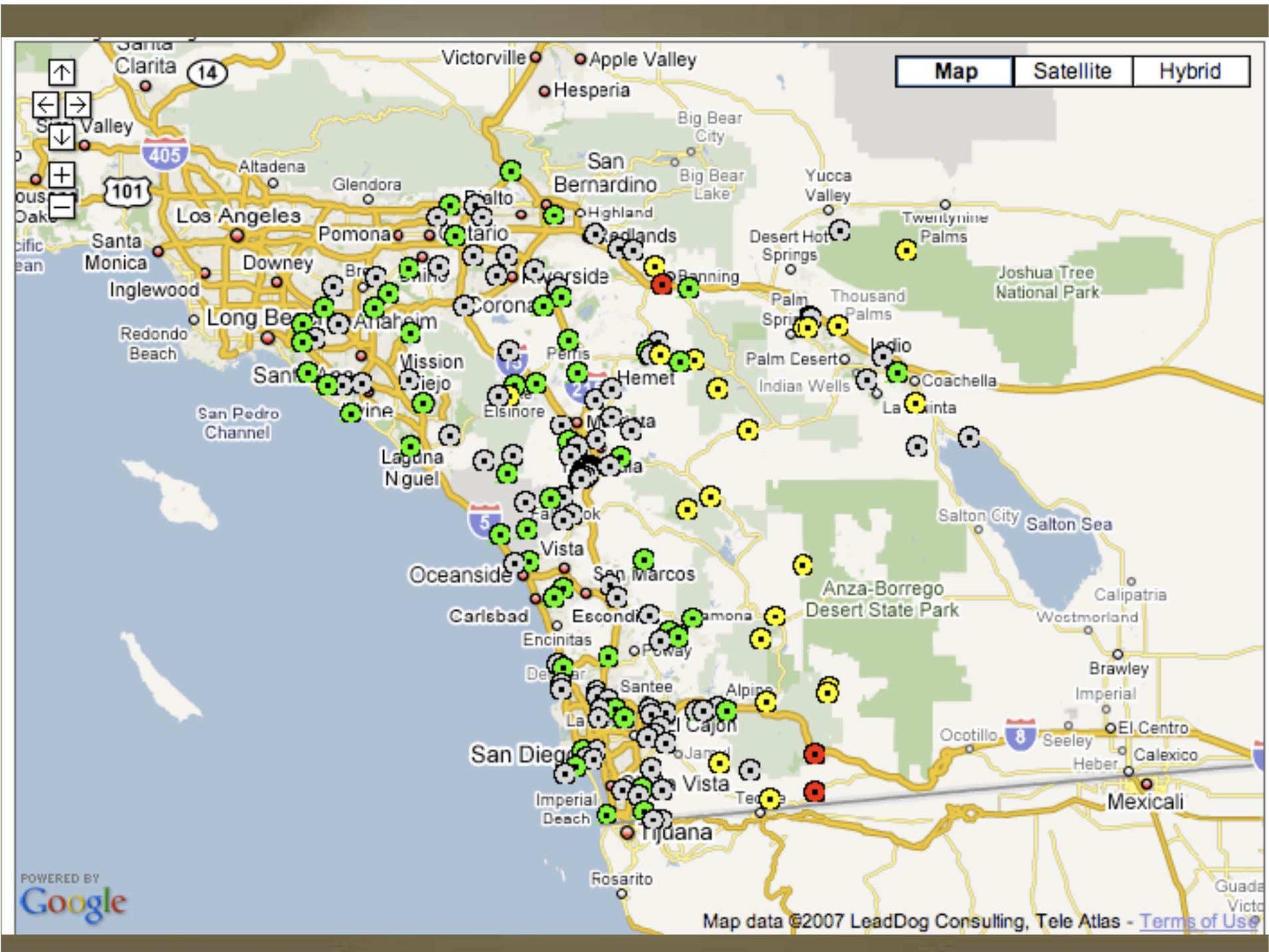


Map Overlay



Find: click Next Previous Highlight all Match case Phrase not found

https://www.google.com/analytics/reporting/maps?id=4685709&pdr=20071006-20071105&cmp=average&trows=10&&tab=0&tchcol=0&ts t=0&tscol=0&tsdir=0&mdet=WORLD&mid...



Distance Learning

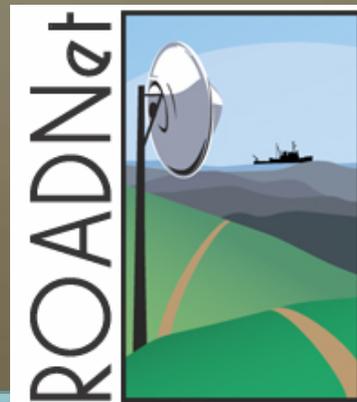
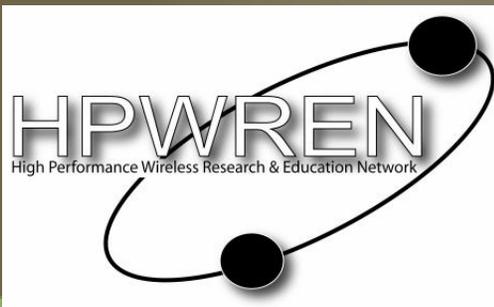
Using off the shelf equipment and free software to conduct interpretative learning from remote areas through the Internet.

- Laptop
- DV Camcorder
- Orangeware
- Skype
- Internet Connection

Learn more at our website under
“Stories From The Field”
<http://fs.sdsu.edu/kf/>

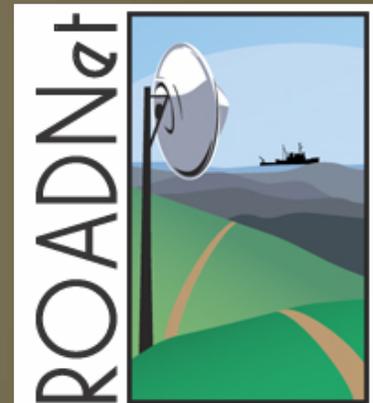
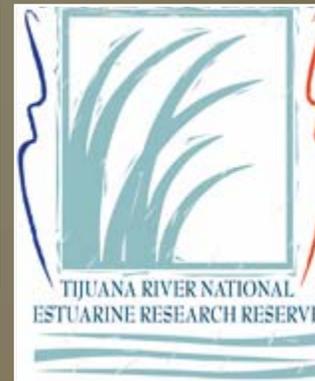
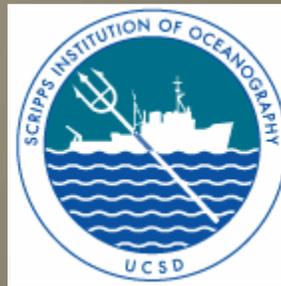
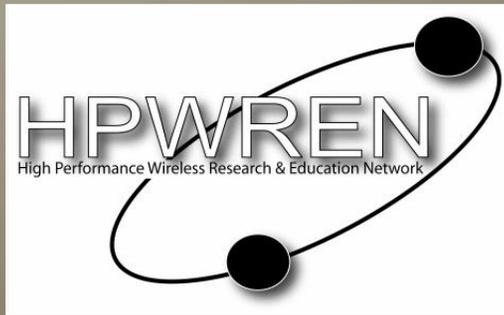


and K-12, community fairs, and Tribal Learning Centers



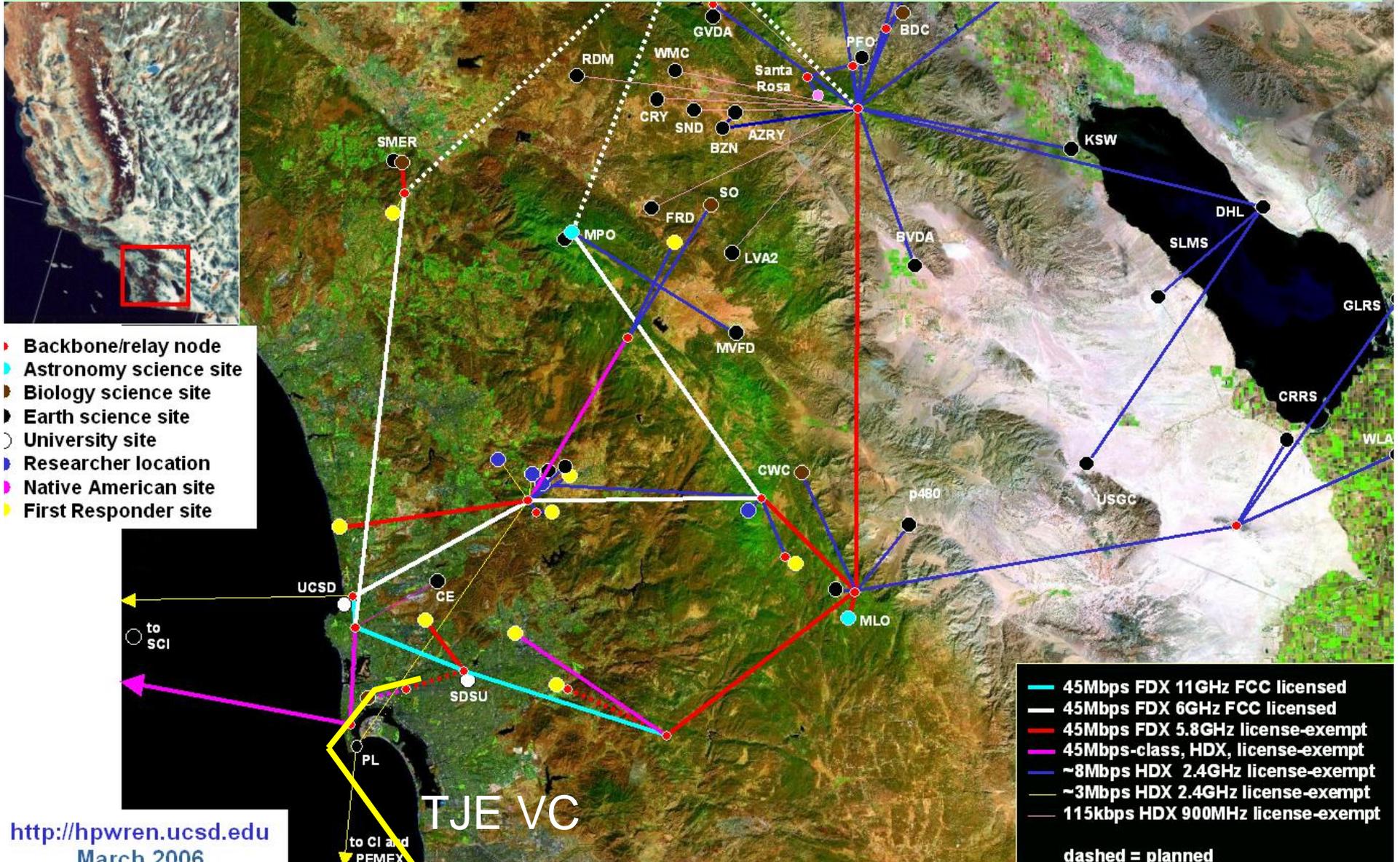
RiverNet

SDSU – SIO Tijuana River Watershed Project



Proposition 84 Water Shed Demo

\$5.4 billion in California bonds for a wide variety of projects related to water safety, rivers, beaches, levees, watersheds, and parks and forests.



The Tijuana River Watershed

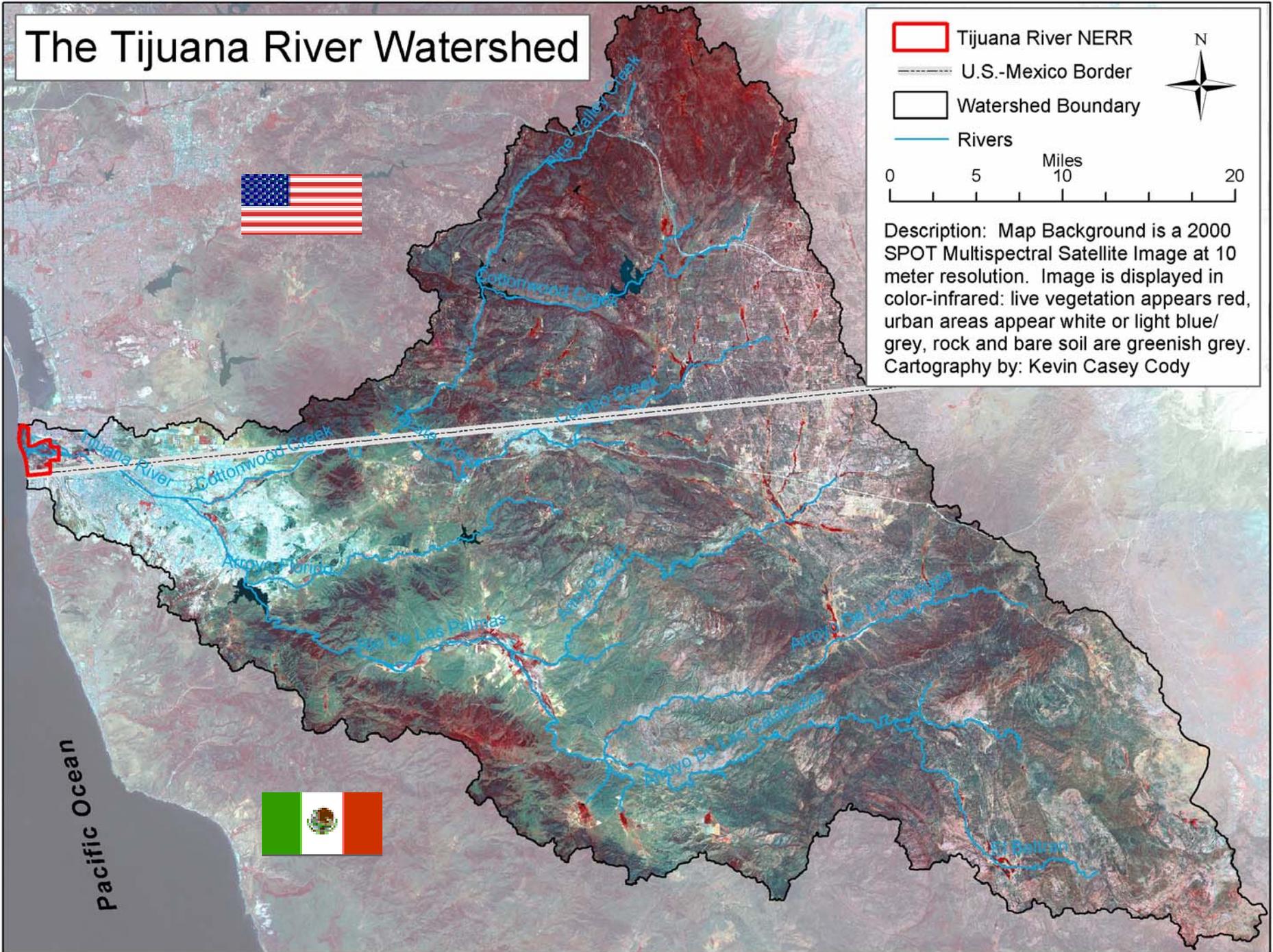


- Tijuana River NERR
- U.S.-Mexico Border
- Watershed Boundary
- Rivers



Description: Map Background is a 2000 SPOT Multispectral Satellite Image at 10 meter resolution. Image is displayed in color-infrared: live vegetation appears red, urban areas appear white or light blue/grey, rock and bare soil are greenish grey. Cartography by: Kevin Casey Cody

Pacific Ocean







Clapper Rail



Least Bell's Vireo



Snowy plover



Least tern





High-tech Environmental Sensor Network

Weather



Water Quality



Sediment

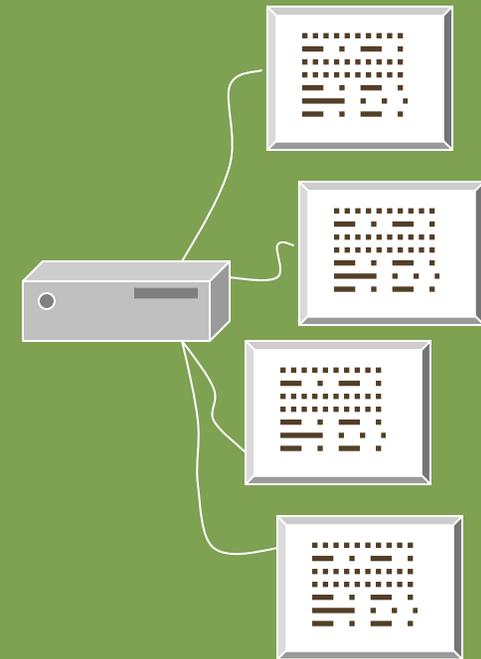
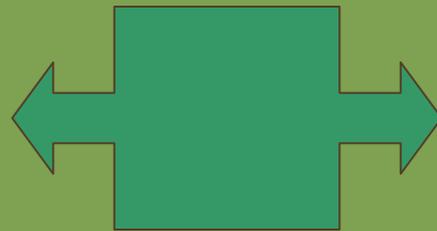


Camera



Automated Sensors

Fault-tolerant middleware

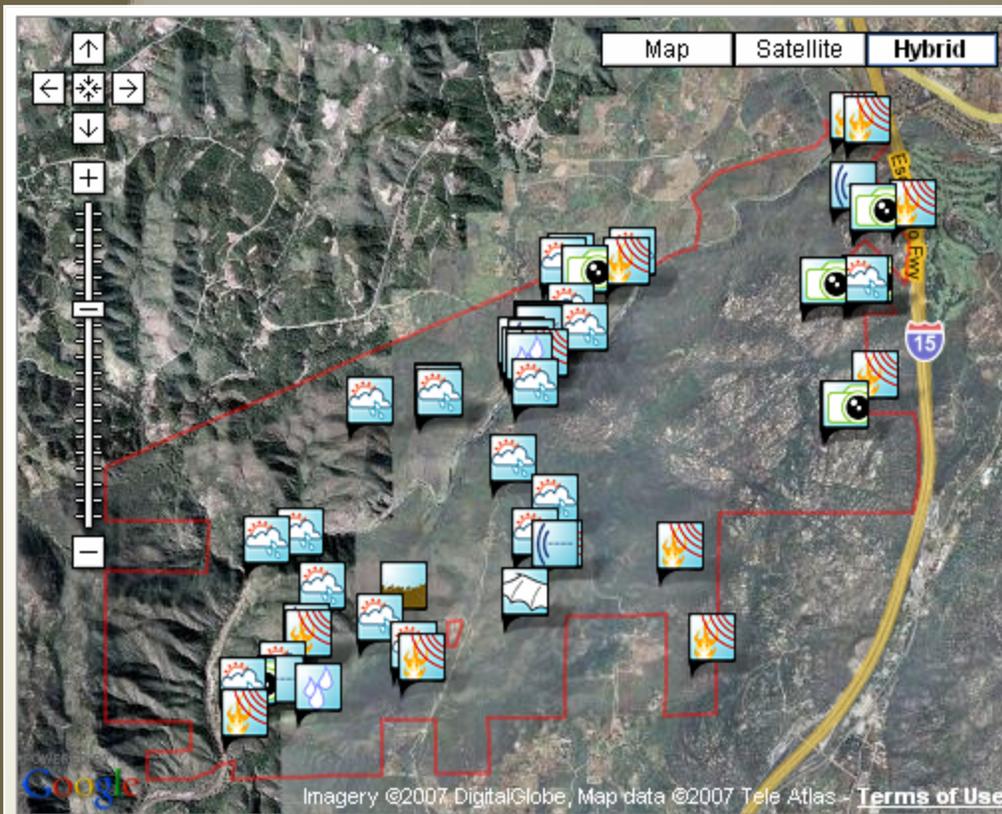


Effective Data Delivery

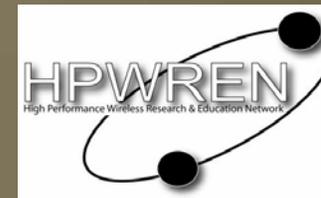
High Performance Network
connectivity to remote sites



High-tech Environmental Sensor Network at San Diego State University Santa Margarita Ecological Reserve



- Show/Hide Observatories:
- Acoustic
 - Air Quality
 - Anabat
 - Fire Sensor
 - Network
 - Seismic
 - Soil
 - Water Quality
 - Weather
 - Web Camera
 - All Observatories



wireless bubble over 80% of 4500 acre reserve
238 environmental sensors at 66 observatories



Links and Contacts

Field Stations Programs: <http://fs.sdsu.edu/kf/>

Cameras on the web: <http://archive.hpwren.ucsd.edu/cameras/>

Field Station Information
Matt Rahn, Executive Director
619.594.0580

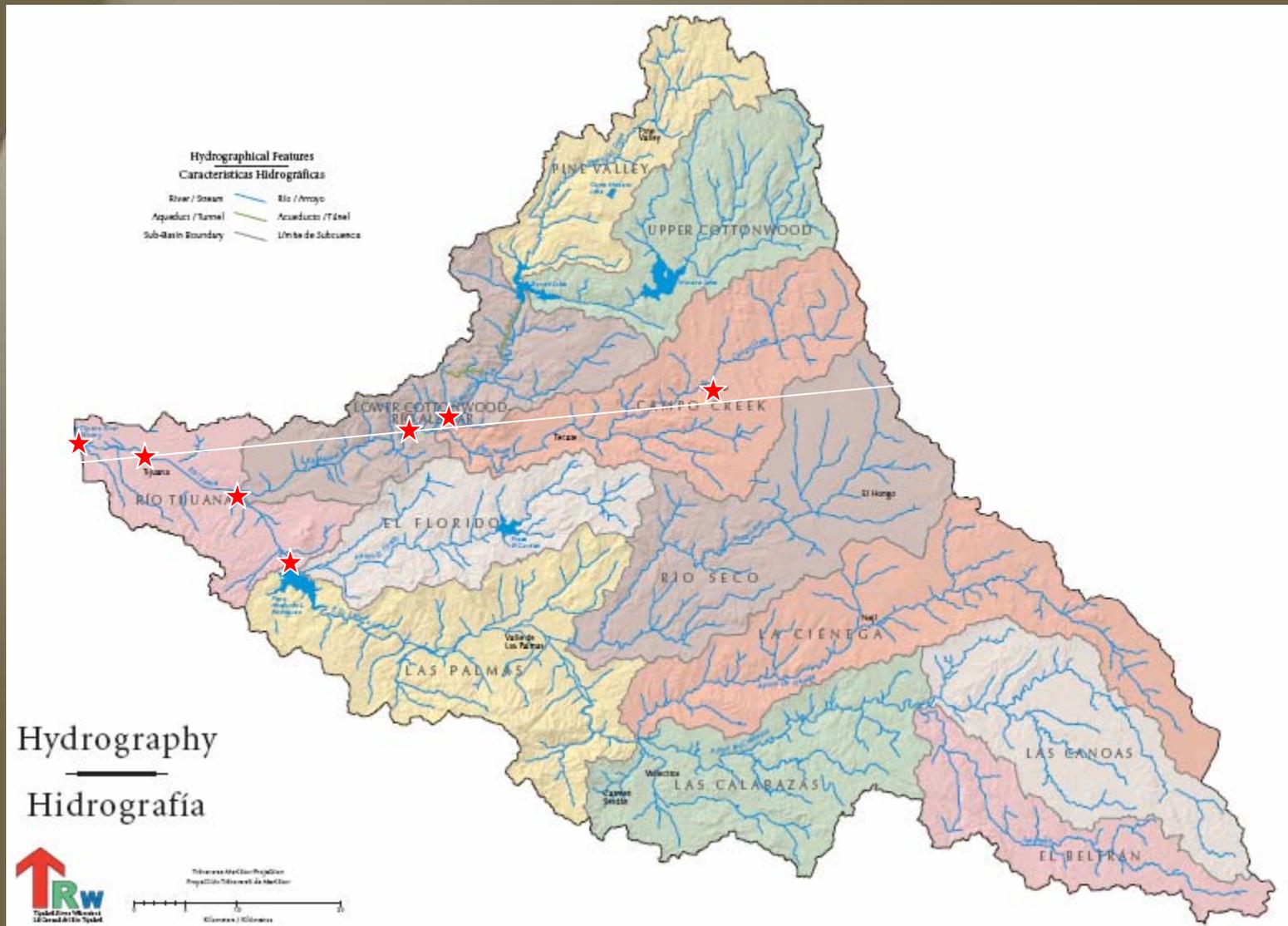
Sensor Network Information
Pablo Bryant
619.507.0944



Proposition 84 Demo



And at key locations in Tijuana River Watershed



Strategic locations in Mexico in collaboration with partner agencies
Plus Goat Canyon Micro-basins

How do we respond to a regional disaster?

- How important is voice and data communications for operation of large scale emergency response?
- Identify sources of Internet access: HPWREN, Intra-SMER, Starbucks, Borders, home based cable...etc?
- What hardware is needed: Radios, VoIP, cameras, tripods, enclosures, generators...etc?
- What are the mechanisms for training, deployment?
- Where is the funding?

HIGH PERFORMANCE WIRELESS

HPWREN
RESEARCH & EDUCATION NETWORK

UCSD

SDSU