CHANGING THE PARADIGM WIRELESS COMMUNICATIONS COMES OF AGE

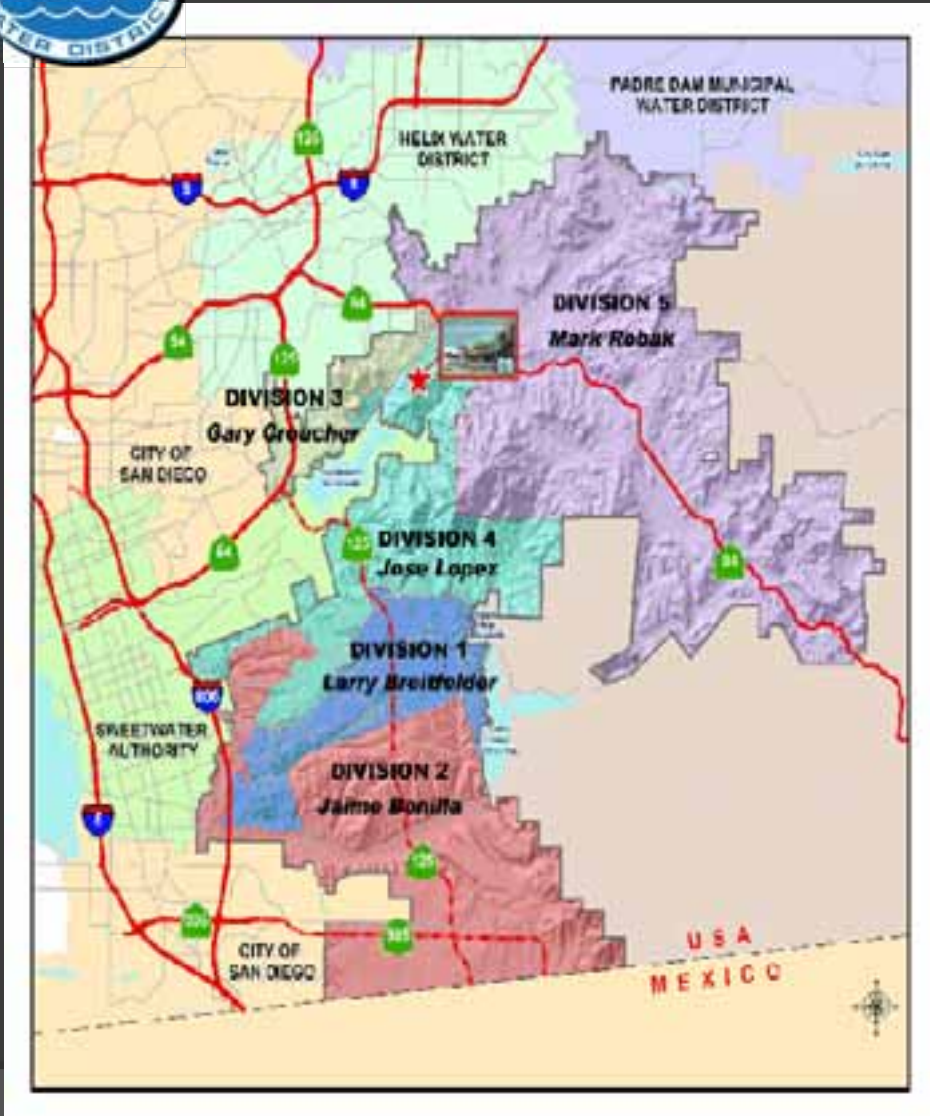
Geoff Stevens - CIO - Otay Water District

The Challenge

- Can we position ourselves to transition from an on-site physical see and touch world to an electronic world where networks and software are the primary workhorses?

- Here is a case study that addresses these issues.

Otay Water District

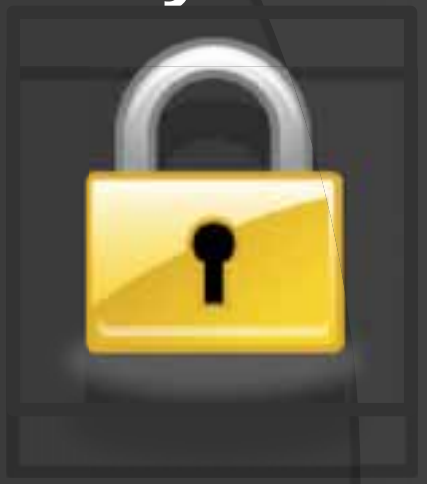


- Publicly owned water & sewer agency serving approximately 186,000 customers in a 125.5 sq. mi. area in southern San Diego county
- Owns & operates a wastewater collection & reclamation system providing sewer service to approximately 6000 homes & businesses

What do we need to communicate ?

- SCADA
- Security
  - Gates, Locks, FOBS
  - Alarms (Perimeter Alerts, Zones, Fire)
- Surveillance – Video, Fixed and PTZ

Key Concerns
Capacity, Reliability and Security



Reliability

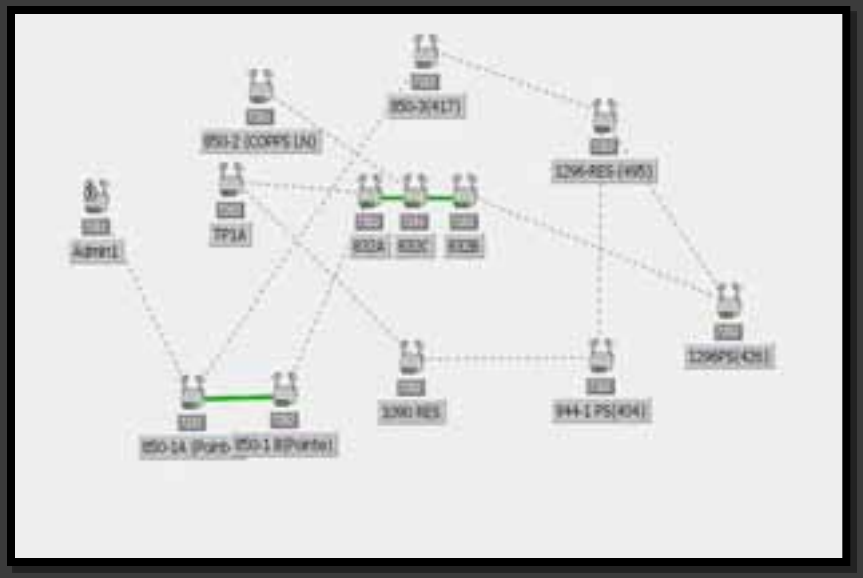
- Multi path redundancy
- Up to 80MB Capacity
- Power backup (gen sets, solar, battery)
- Flexible transmission rates increase signal strength
- At least 6-7 year lifecycle, upgrades through firmware
- Investigated satellite, cable as alternatives

Security

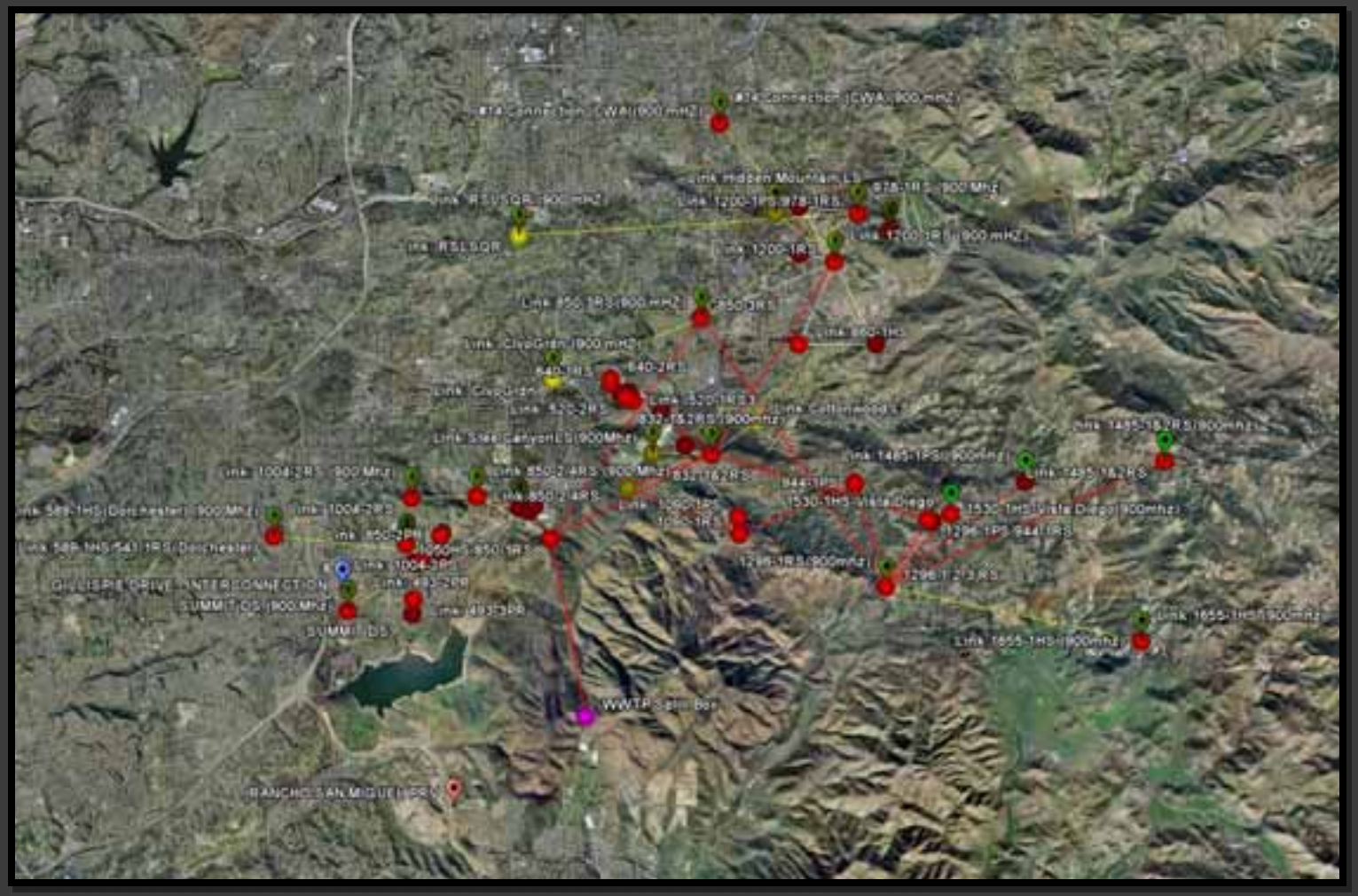
- Private network (4.9 GHz *-public safety-* to 5.8 GHz frequency
- Traffic is encrypted
- Infrastructure is behind the District's physical security (fenced and alarmed)
  - Most mounted on reservoirs, not easily accessible

Otay's Current Position

Technology tested and in place
- Headquarters
- Treatment Plant
- 850 Reservoir

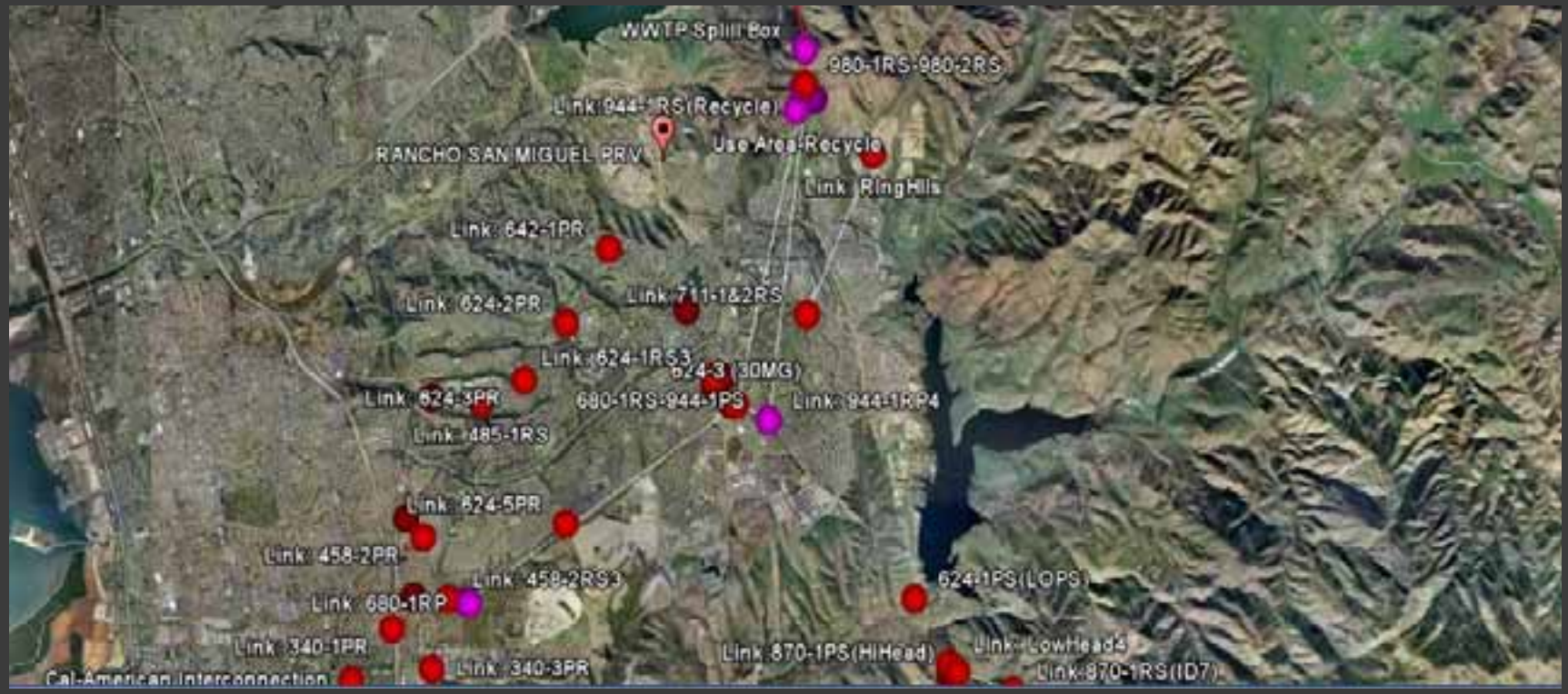


Wireless Phase II- FY 2011 North District

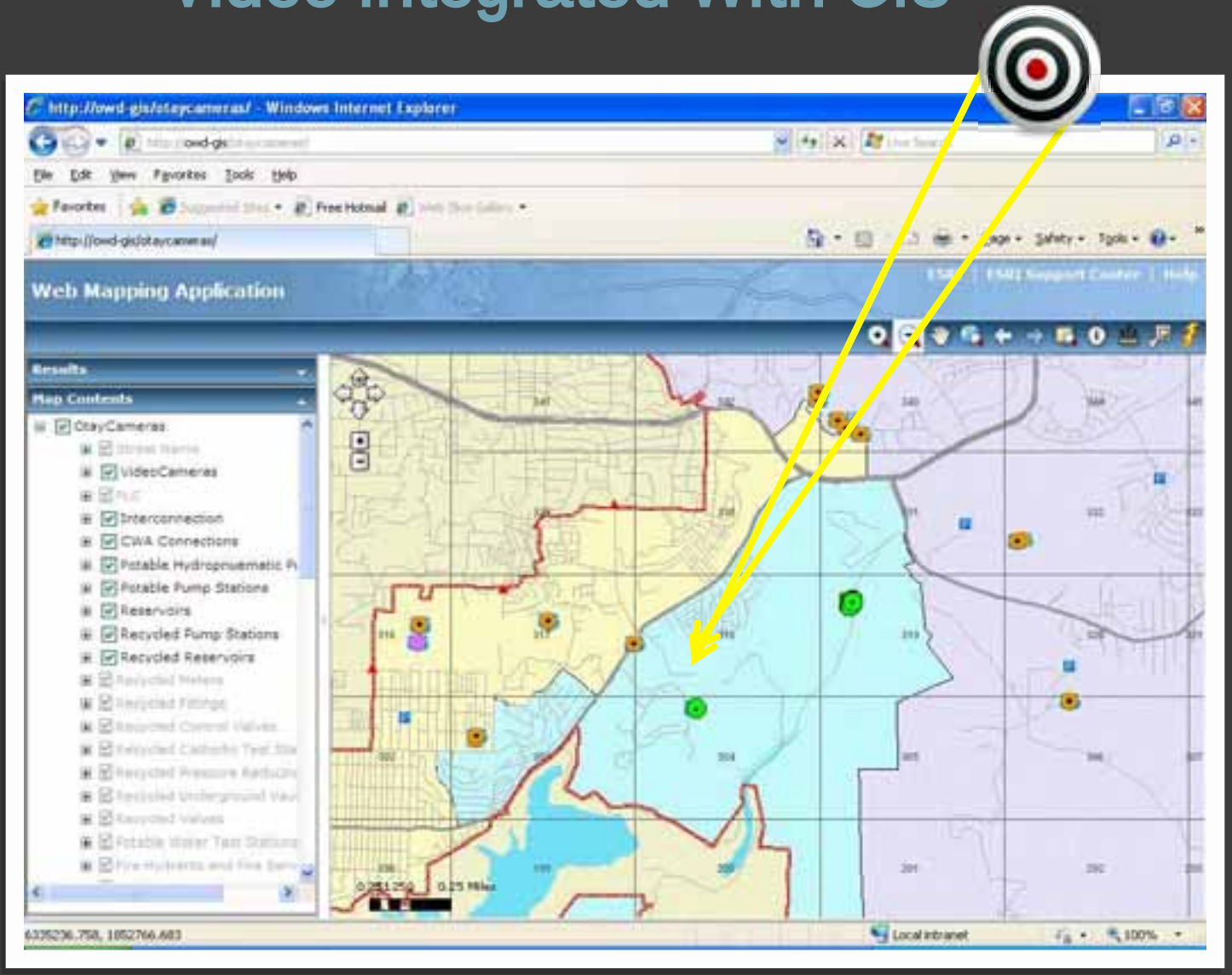


Current Request: $216,739

Wireless Phase III- FY 2012 South District



Video Integrated With GIS



WIRELESS PROJECT

CONCLUSION

- Critical project
- Foundation for growth and efficiency
- leverages future technology
- major step forward in security
- Creates new opportunities to streamline business processes
- proven but advanced and cost effective technology

Next Steps

- Addition of programmed “security zones”
- Revised business practices
- Risk assessment – what new problems have we created.
- Vendor buy in and support of this security model
- Seeking partnerships across agencies

- **“Knowledge comes by eyes always open and working hands; and there is no knowledge that is not power.”**
  - Ralph Waldo Emerson

Questions