Operational Dashboard for Water & Wastewater Agencies

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Cucamonga Valley Water District

WESTON SOLUTIONS
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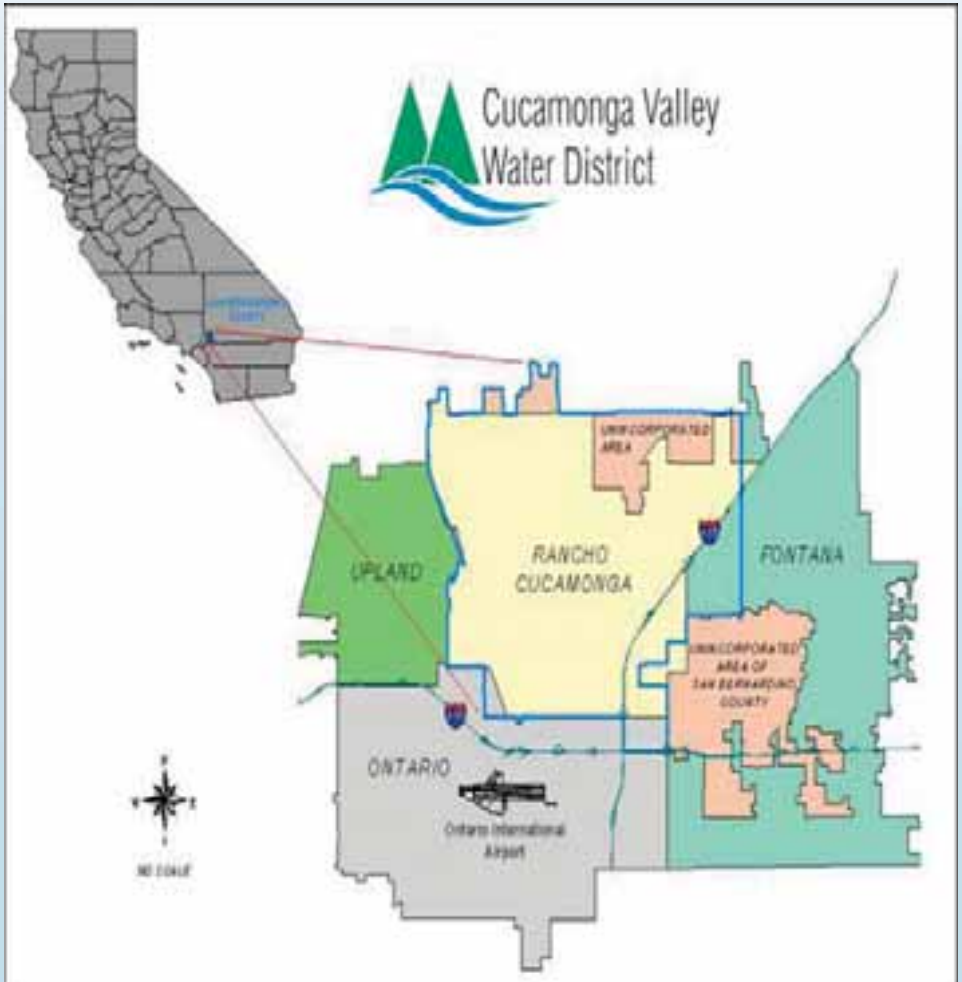
Agenda

- CVWD Background
- CMMS Business Need
- CMMS Operations
- Operations Dashboard

Cucamonga Valley Water District

Cucamonga Valley Water District



- The Cucamonga Valley lies between the cities of Los Angeles and San Bernardino in the San Bernardino County
- Known in the 1940s for its vast grape vineyards and wineries (60 wineries and over 35,000 acres of vineyards)
- Today mostly residential and industrial development with under 1000 acres of vineyards remaining

CVWD History & Asset Details

The Cucamonga Valley Water District was created as a “Special District” in 1955 and was developed from 23 smaller water companies.

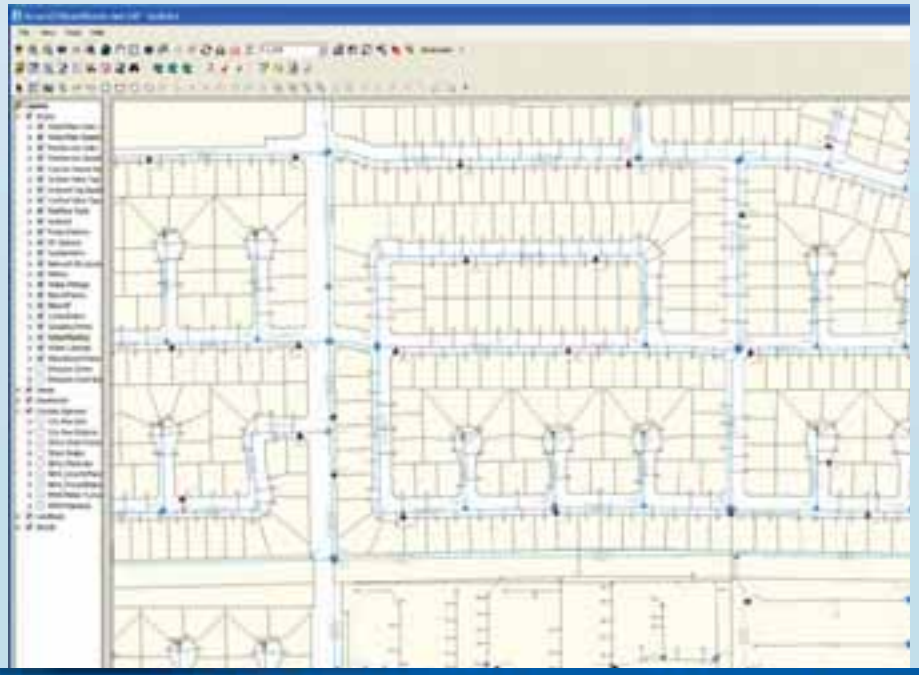
The District serves Rancho Cucamonga and portions of Fontana, Ontario and Upland.

Stats:

Service Area -	46 sq miles
Service Connections -	48,000 plus
Potable Waterlines –	720 miles
Recycled Waterlines –	10 miles
Sewerlines –	450 miles
Wells –	30
Reservoirs –	36
Water Treatment Plants –	3 (No Wastewater Treatment Plants)
Sources of Water –	Groundwater, seasonal canyon water, recycled water and purchased water

CVWD GIS Beginnings

- Initial deployment completed in 1999
- GIS primarily used by engineering and maintenance
- Atlas book production
- Light weight viewer for field crews and Engineering



Enterprise GIS Evolution at CVWD

2006 – CVWD decided to leverage its investment and make GIS central to operations **throughout the enterprise**

- Increased awareness of the importance of accurate GIS information
- Implement a GIS-centric Computerized Maintenance Management System (CMMS).
- One tool that could **maximize information sharing between departments**

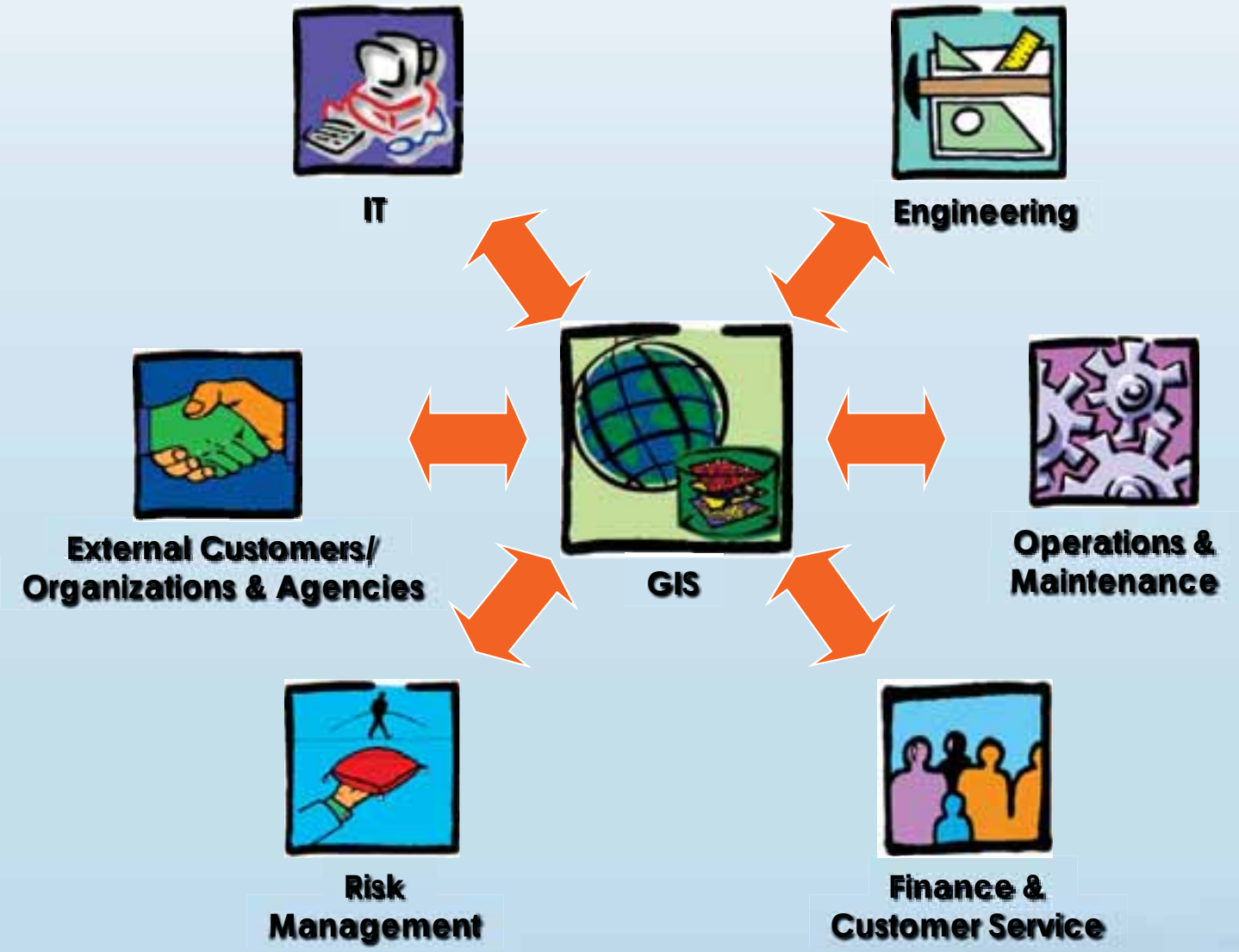
The New Business Drivers:

- Better asset and maintenance management
- Maintenance costing analysis
- Value of **integration with other systems**
- Field tools to **improve business operations** and improve efficiency

Enterprise GIS

- Application of GIS technology to meet the needs of the entire organization
- Key points
  - **Put right information in the right hands at the right time**
  - GIS recognized as a “key” enterprise technology
  - Integration throughout the enterprise
  - Common infrastructure
  - Provides broader access to geospatial data

Enterprise GIS at CVWD



The New & Improved GIS at CVWD

In 2006 District Staff performed a review of existing CMMS products to leverage the GIS data and to meet the new goals. After a thorough review was completed a new team was developed to create the future of GIS at CVWD.

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iWater

Cucamonga Valley Water District

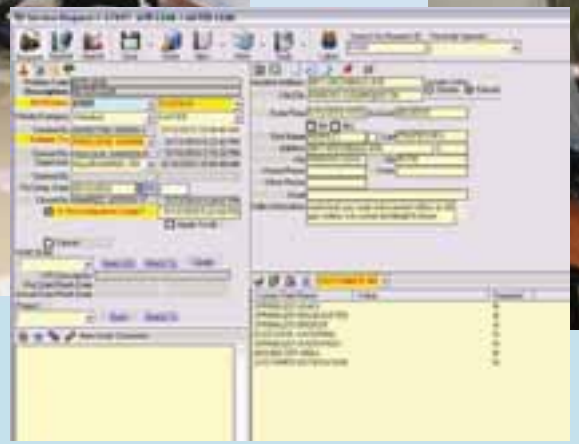
Dig-Smart
Your Eyes Underground

Cityworks™

ESRI

CMMS New Tools for the Way We Operate

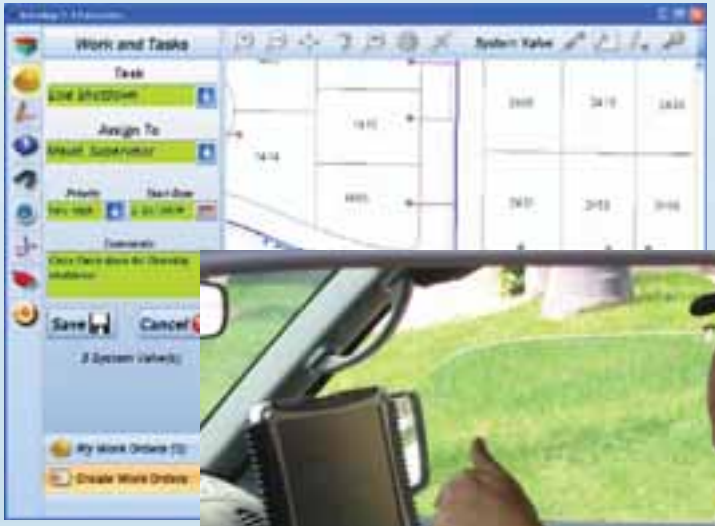
Cityworks a better way to Manage Assets and Infrastructure. GIS Focused - The way we work



Improved tracking, improved skill sets & improved Customer Service

Maintenance in Field – Inframap – Dig-Smart

GIS and Iinframap Advantages - A software designed by field staff for field staff

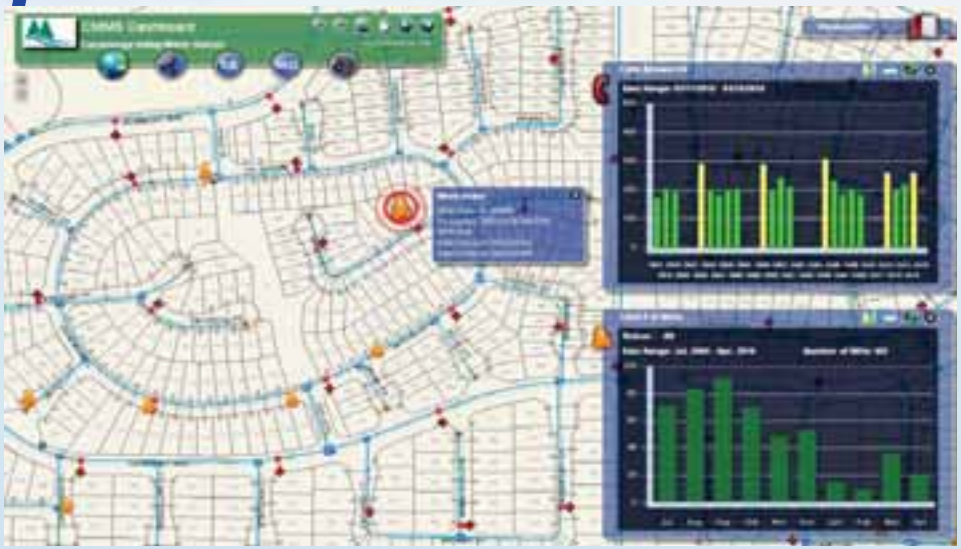


Easy to use interface made for a field person to understand

The Driver for the Operations Dashboard

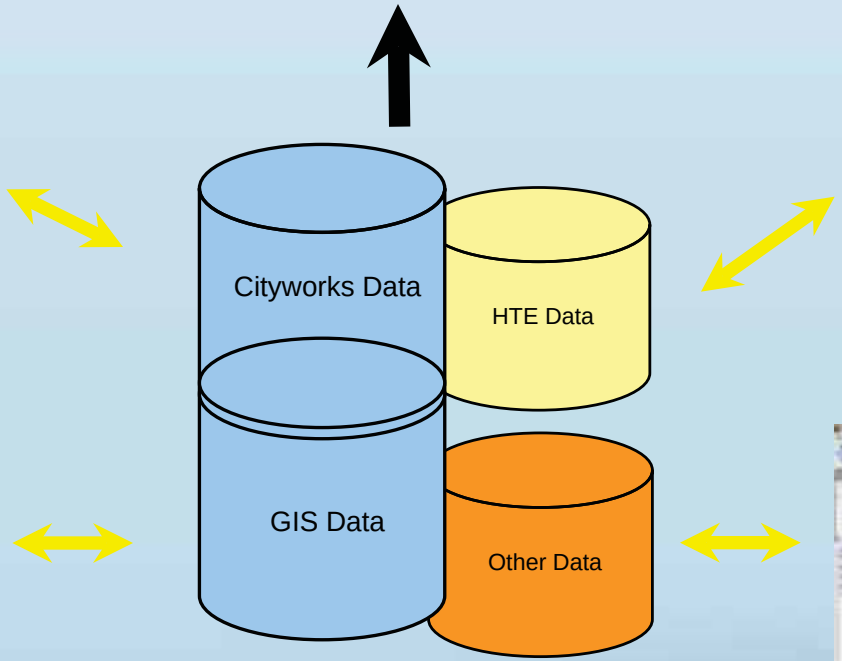
- Key Performance Indicators
  - Phase I – Maintenance Management/Customer Service
    - Call Statistics
    - Water Quality
    - Service Replacements
    - Valves Turned
    - Feet of Line Cleaned
    - Emergency Line Cleaning
    - Work Order Concentrations
  - Phase II – Asset/Performance Management
    - Financials
    - Mean Time Between Failure
    - PM Backlog
    - SCADA
    - Others…

Operations Dashboard



Cityworks

HTE

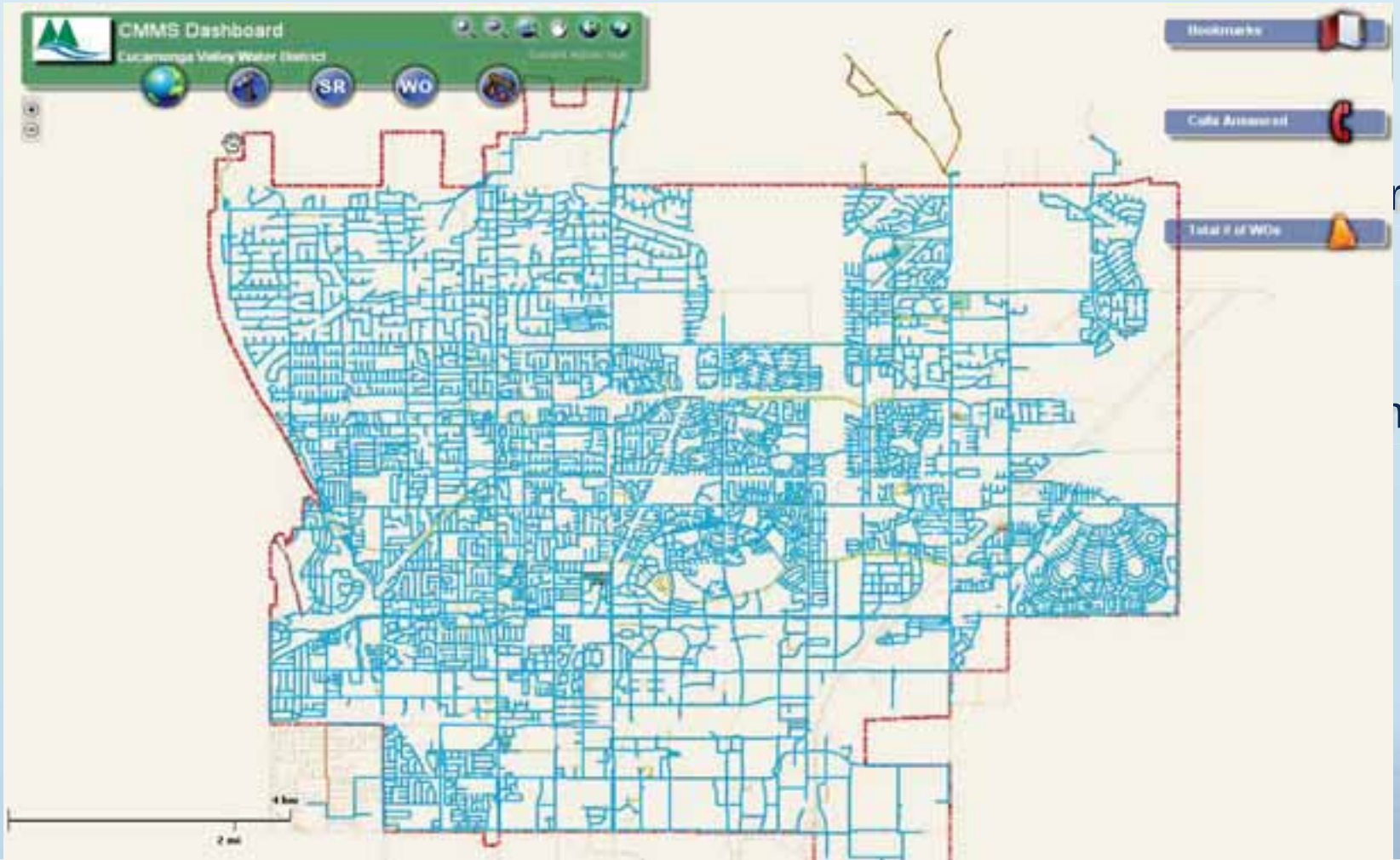


infraMAP

DigSmart

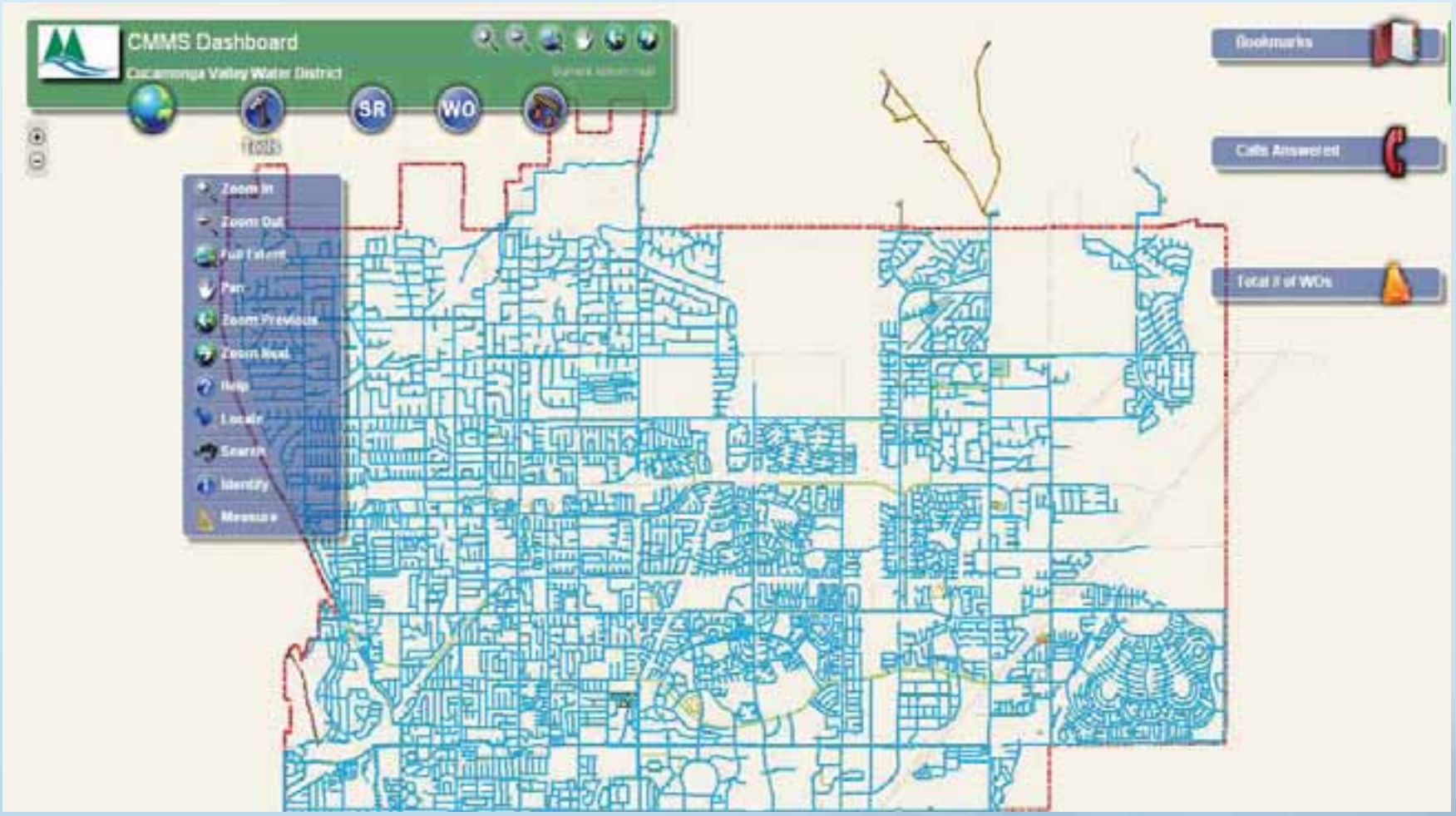
Operations Dashboard

Overview Window



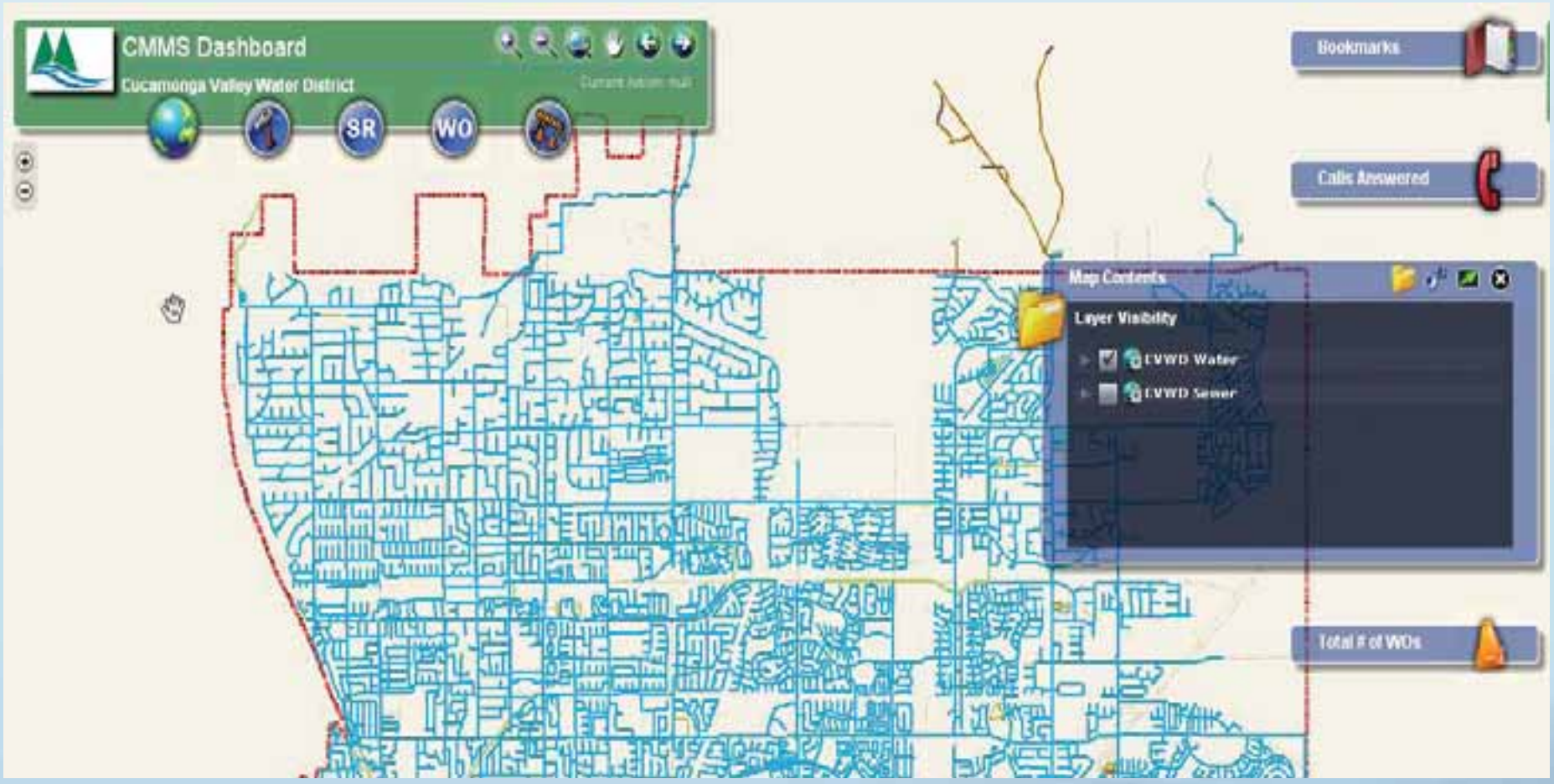
Operations Dashboard

Tools Menu



Operations Dashboard

Map Contents Widget



Operations Dashboard

Bookmark Widget & Non Spatial Data

Operations Dashboard

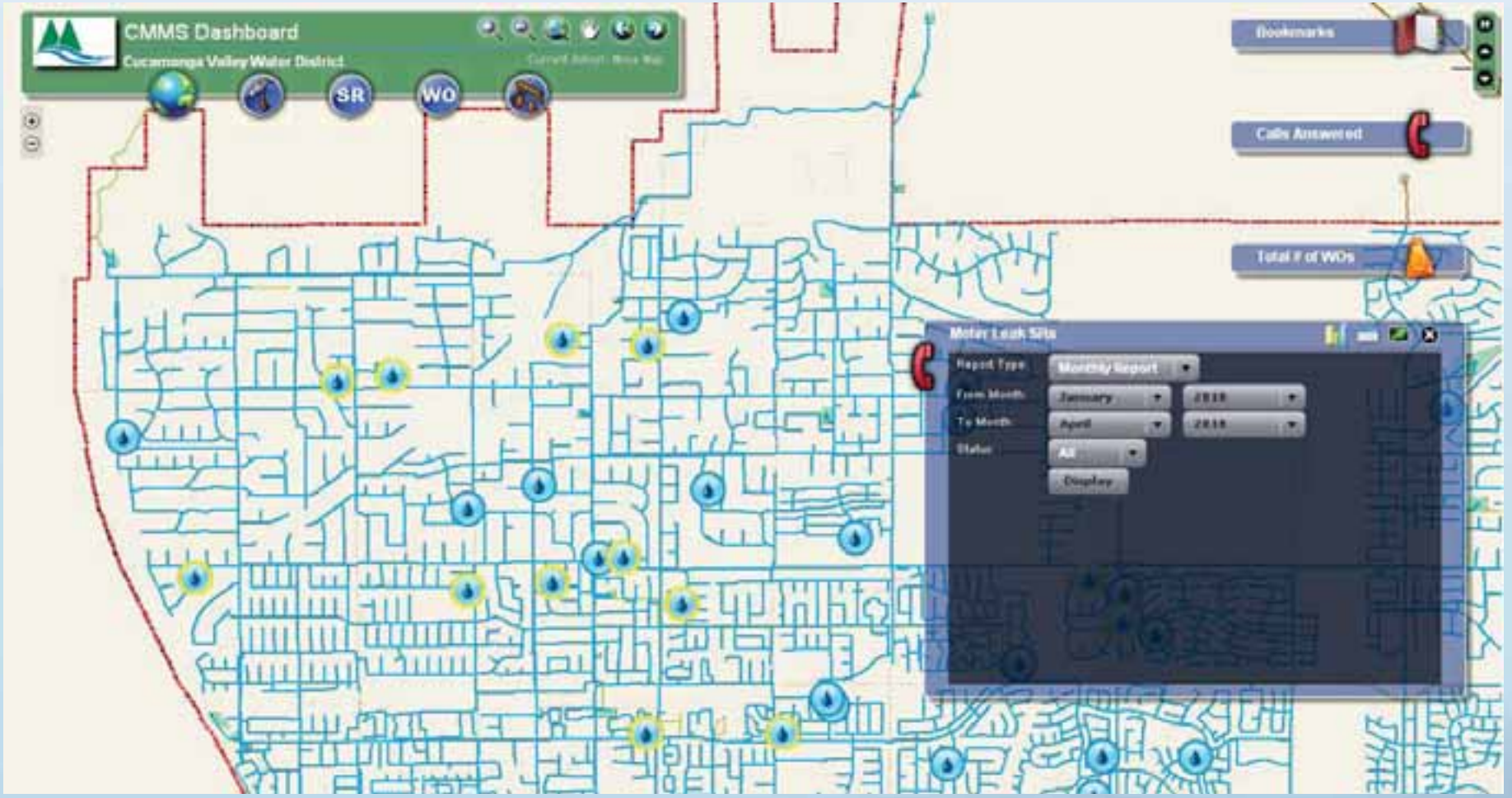
Identify Tool

Operations Dashboard

Reviewing Service Request Data

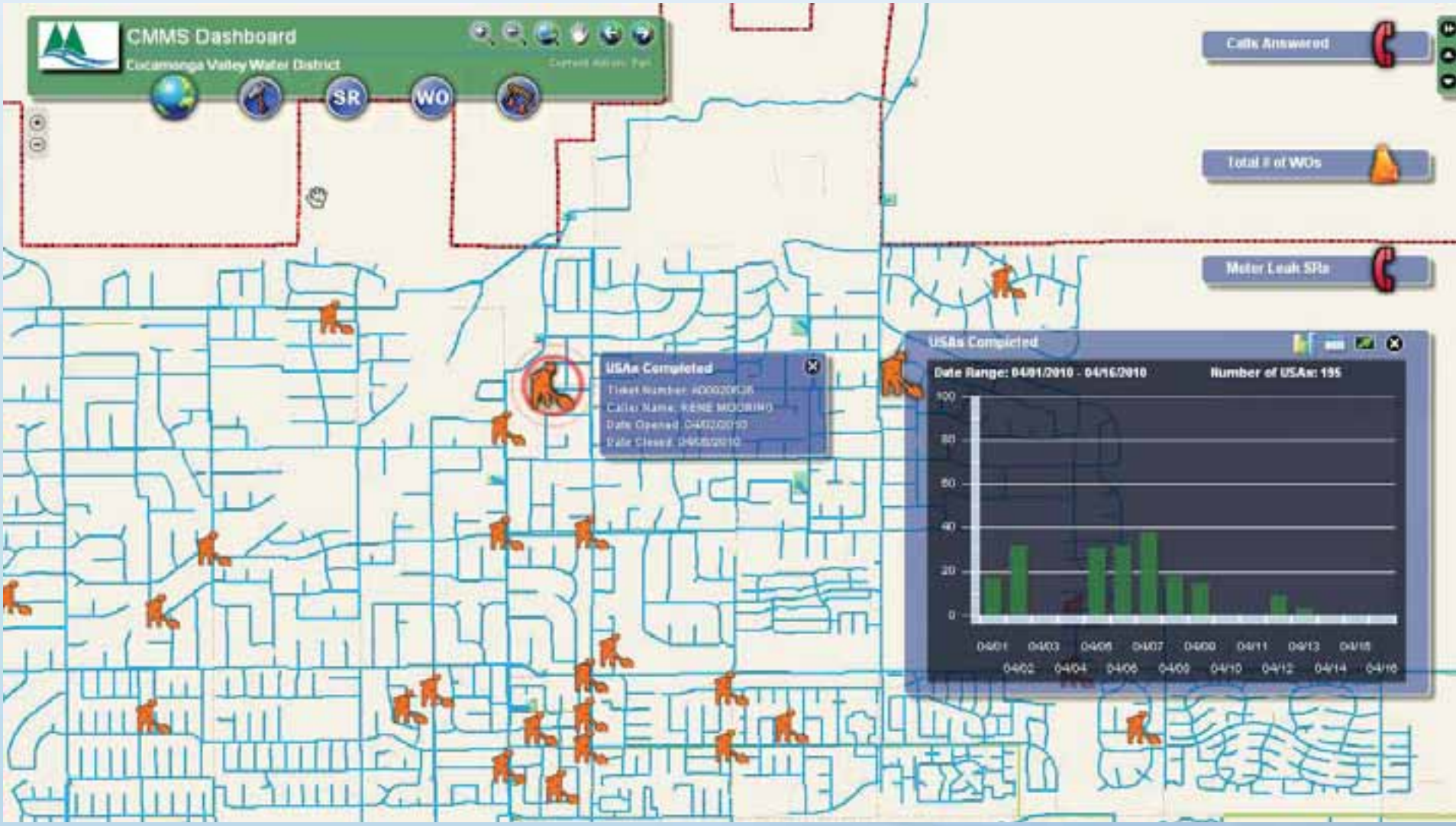
Operations Dashboard

Service Request – Query & Reporting



Operations Dashboard

Dig-Smart Interface



CVWD Viewer
http://cvwd21/cvwdviewer/
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Operations Dashboard

Work Orders – Monthly Inframap Inspections

CVWD Enterprise GIS Conclusion

For years ArcGIS has been an integral part of the computing infrastructure at the Cucamonga Valley Water District (CVWD).

In an effort to improve customer service and enhance regular maintenance operations, CVWD has integrated several enterprise information systems with ArcGIS.

- Cityworks Azteca Systems
- InfraMAP, iWater's map-based solution
- DigSmart
- Sungard H.T.E.
- Symposium Phone System Contact Center Management
- Esri Flex API is in use to produce an operations dashboard.

These systems have been integrated and deployed to meet the District's specific needs from management and office personnel to the field crews. The guiding principle has been to ***put the right information in the right hands at the right time in order to provide the best possible service to the District's customers.***

Thank You!

Questions?

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