SCVWD’s Mobile Condition Assessment Program

Bayworks Asset Management Workshop
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Outline

- SCVWD Asset Inventory
- Condition Assessment Program Overview
- Mobile Condition Assessments
  - System Architecture
  - Water Utility Point Asset Example
  - Watershed Linear Asset Example
SCVWD Asset Inventory

- Approximately 15,000 assets and counting
- Linear, Point, and Spatial Assets
- Natural and Constructed Assets
- Water Utility, Watershed, and Business Administration Assets
- Approximately 350 asset “types”
Water Utility Assets

Estimated Replacement Value = $7.05 billion

- 10 Dams and Reservoirs
- 152 Miles Pipeline
- 3 Drinking Water Treatment Plants
- Advanced Wastewater Treatment Plant
- 400 Acres Groundwater Recharge Ponds
- 6 Pump Stations
Watershed Assets

Estimated Replacement Value = $3.51 billion

- 817 miles of creeks
- 279 miles District fee + easement
- 43.5 miles of concrete lined channels
- 101 miles of levees
- Ecological Assets (Mitigation Areas, Re-vegetation, Fish Ladders)
- 3000+ individual assets (outfalls, sackcrete)
Administration Assets

Estimated Replacement Value = $342 million

**Fleet:** 300 vehicles and 500 pieces of equipment

**Information Technology and Systems:** 1200 computers, 450 mobile devices, 185 servers, software, phones, radios

**Buildings and Grounds:** Almaden/Winfield Campus with 11 buildings spanning 262,000 square feet over 46.7 acre area
Outline

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Condition Assessment Program Overview

Watershed
- Most creeks assessed every year
- Over 11,000 assessments in 2.5 years (4 inspectors)

Administration
- Program in development

Water Utility
- Goal to assess assets every 2 years
- Buried infrastructure every 5 to 10 years
- Over 2,500 assessments in 1.5 years (1 inspector)
Condition Assessment Program Overview

- **Condition Scores:**
  1 - Excellent
  2 - Minor Defects
  3 - Maintenance Required
  4 - Major Renewal Required
  5 - Unserviceable/End of Life

- Data is stored in the CMMS (Maximo)
  - Component of our risk score (Probability of Failure)
  - Helps determine maintenance projects for next year
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In-house GIS-ISS team built architecture that facilitates mobile device deployment District wide

- 11 devices have been successfully deployed
- 4 in progress
# Water Utility Example - Valve

![Water Utility Assessment - VLV](image.png)

**Maximo Asset IDs**

- **Equipment #**: E40269
- **Asset ID**: RFM_03VLV40269

**Condition Information**

- **Life Exp**: 6-10
- **Run Hours**: 500
- **Valve Isolates (Holds)**: Yes
- **Cavitation**: No
- **Missing Components**: No
- **Corrosion**: 3
- **Packing Glands**: 2
- **Structural Integrity**: 4
- **Labeling**: 3
- **Overall Rating**: 3

**Overall Score**

- **Assessor**: Kurt Hassy
- **Facility**: Rinconada Force Main
- **Date**: 5/20/2013 10:56:32 AM

**Previous Assessments**

- **5/13/2013 1:36:31 PM**
- **5/15/2013 2:41:25 PM**

**Comments**

- Good. Continue monitoring.
Other condition information is stored in separate database.
Watershed Example - Creek Bed

Select the Asset you want to do a Condition Assessment and Inspection on.

BED (ROSS CREEK)
BRIDGE (ROSS CREEK)
LEFT BANK (ROSS CREEK)
REACH (ROSS CREEK)
RIGHT BANK (ROSS CREEK)

Choose which type of Condition you would like to add.

- Point Condition
- Linear Condition

[OK] [Cancel]
Watershed Example – Creek Bed

Linear Condition with 2 Endpoints
Watershed Example - Creek Bed

Overall Score

Auto-populates length
Benefits of Mobile System

- Automates and standardizes data collection efforts
  - Uses predesigned templates
- Achieves process efficiencies
  - Smoother data check-in, QA-QC, analysis
- Ties asset and condition data geographically to assets
- Allows field staff to capture additional information onsite
- Allows viewing of past asset condition data in the field
- Better quality data for work orders, reporting & compliance
- Reduced errors, lower data loss
Questions