Revolutionize Your Public Works Department Workflow

The Rancho Cucamonga Story
Service Delivery Model Change

- **Challenges:**
  - Residents expect a prompt response to service requests
  - residents are communicating directly with elected officials
  - many of us have to deal with a reduced workforce
  - aging infrastructure
  - new residential developments
    - increase in population size

- **Approach:**
  - government needs to adapt to newer technologies
    - the use of smart devices
    - GIS Cloud systems
  - use newer workflows
    - sidewalk inspection with iPads
    - street lights and sign maintenance handled electronically
Why add Mobile GIS to existing workflows?

• Less expensive to maintain than mainframe programs
• Greater ability to customize and tailor, even in-house
• Quicker deployment than traditional software programs
• Greater efficiency & effectiveness improves bottom line
• Increased transparency & accountability for citizens
In-House Mobile Apps

- Citywide Sidewalk Inspection Program
- Storm Drain Inspection
- Citywide Street Signs Inspection
- Traffic Signal Inventory
- On Call Service Request
Prior to GIS Mobile Application the process was:

- Walk each neighborhood
- Collect data on handwritten form
- Bring data back to office and input into system
- Exact locations often problematic; no pictures
- Long delay between recordation and correction
- Significant time required to complete entire city

Sidewalk Inspection Program
Sidewalk Inspection Program – Post App Development

- Two year program
- Grid city into 24 zones
- Inspect/remedy 1 zone per month
- Complete city in 24 months
- Document inspection & Document remedy information
- Ramp or grind each trip hazard location
Sidewalk Inspection Program – Post Mobile App Development

- Using a City golf cart
- Documenting using GIS App / Smartphone

- No more manual inputting
  - No paper required
  - Real time information

Mobile App and golf cart provide for efficient inspections
Areas of Importance

- School zones
- High pedestrian traffic areas
- Senior centers
- Interface with customer complaints
- Share information with Engineering Department

Marking severe hazards with orange highlighted paint
System Design

- GIS Staff
  - Produce Content and share on the web

- Desk tops
- Server with RC’s Content
- REGIS Online Services

- Field Workers

- Smart Phones & Tablets

- Mobile

Web Applications

- ESRI ArcGIS
Color Coordinated Case Types

Choose a Feature Type
- Ramp
- Grind
- Removals & Replacements
- Ramp Completed
- Grind Completed
- Removal & Replacement...
Standardized Data Collection
Catch Basin & Storm Drain Inspection

- Total of 4,024 storm drains
- Inspections are done once a year
Citywide Street Sign Inspections

- Total of 26,949 signs collected and inspected

- Signs are inspected for
  - Reflectivity
  - Sign Type
  - Condition
  - Size
  - Sheeting
  - Post Type
Traffic Signal Inventory

- Total of 194 signals maintained

- Signals are inspected for
  - Working condition
  - Cabinet Status
  - MMU Status
  - Detector Status
  - Controller Status
On Call Service Request

- Staff initiated project
- Staff track all calls for service after regular hours
- Assist staff in documenting their work
- Anticipate this data will help in identifying trends
Mobile GIS Apps in Rancho Cucamonga

• iPads are useful for field work

• Can be tailored around existing work practices

• In-house professional development opportunity for staff

• Faster, more accurate data collection
Mobile GIS Apps in Rancho Cucamonga

- Tablets & smartphones represent true mobility
  - Nearly ¼ of the world's population now uses smart phones

- A key method of communication with the next generation of residents

- Critical in an era of mobile communication, 24-hour lifestyles, and social media

- Ease of use
Conclusions

• Mobile Applications are here to stay
• Improved workflow and staff efficiency
• City is more proactive in resolving issues
• Improved data collection efficiencies and enhanced effectiveness
• Initial up-front investment yields long-term results