Better Vector Control; From Paper Maps to GIS for St. Louis County, MO

Nikki Atwal (GIS Analyst)
St. Louis County GIS Service Center
Service Request Paper Process

- Take and Document calls on the Service Request Form.
- Use map and form in the field to fulfill service request calls.
- Document multiple visits to same location on the same form.
- Enter the data into excel.
- Send bill to each municipality based on time Spent on service request calls.
Service Request AGOL Map for data collection and service request calls

- Take and Document calls on the Service Request Application.
- Use collector map and form in the field to fulfill service request calls and data entry.
- Document multiple visits in seamless related table.
- Send bill to each municipality based on time spent on service request calls. Which more accurately calculated now because of digital data entry.
- Purchased tablets and truck mounts for use by field staff
  - Unlimited data plans for each device
Service Request App (https://arcg.is/1X8mO5)

- Service Request App
- Application built using WAB.
- Editor helps with adding new requests in office.
- Query helps to look up for assigned, Completed, or in progress requests.
Service Request Map

- Service Request Map
- Layers are labeled as Assigned, In Progress, or completed for easy search of requests.
- Related table is used for entering visit info.
- Search can be used to search for specific service Request calls.
Larva site Paper Process

- Take list of larva site info and map and document treatments.
Larva site Office Application

- For office use by manager.
- Add or edit new larva sites.
- Query data
Larva site collector Map

- Larva Site Collector [Map](#).
- Layers are added by different municipality areas.
- Related table is used for entering visit info.
- Search can be used to search for specific larva site.
- Larva sites are uneditable in collector map.
- Municipality area layer is added for time tracking for billing purposes.
- Related table is used for tracking time by Municipality.
Spray Paper Process

- Check the mosquito activity for spray. Take map and form for documentation of spray routes.
Spray Office Application

- For office use by manager.
- Add or edit new spray requests.
- Query data
Spray collector Map

• Spray Collector Map.
• Layers added Spray Areas, spray no-spray requests.
• Gate Codes
Spray speed **Map**

- Spray *route* is used to calculate speed and distance.
- Helps in keep check on speed and complaints.
- Time tracking helps in billing.
Management Dashboard

- Status of job assignments.
- Speed map
- Types of Requests.
Benefits of GIS mapping

• Increased efficiency and accuracy
  • GIS mapping allows field staff to identify sites faster
  • GIS Apps/maps allow field staff to verify which areas have been treated or not

• Better accountability
  • Real-time monitoring of field staff
  • GPS tracking verifies field workers were present at work locations
  • Speed monitoring helps check the limits.

• Faster, more accurate reporting
  • GIS maps allow field staff to find sites faster
  • ULV app allows drivers to verify areas that have been treated and areas that still require treatment
  • Better time and miles calculation helps in accurate billing.
Road Blocks or Technical Issues Faced with Data and Apps

- Only one related table is editable
- Smart editor doesn’t have related table editing capability.
- Related table layer should be 1st layer in the list to be able to edit related table.
- Attribute table Is not editable in App but web Map.
- Collector issues
  - No filter or query capability.
  - Filter layers, don't show all domains for editing.
  - No way to leave date field blank
  - No label display

- Low county budget, couldn’t buy additional named users to use workforce.
Current Apps and Future planning

- Internally developed GIS applications tailored to VCP needs
  - Developed in conjunction with the Saint Louis County GIS Service Center

Currently in use
- Sites Editor
- Service Request App
- Service Request Collector Map
- Larvicide Office App
- Larvicide Collector Map
- Adulticide Tracking App
- Adulticide Office App
- ULV Speed Tracker
- Management Dashboard

Under Development
- Surveillance App
- Reporting App

https://arcgis/1X8mO5
Questions
Thanks!!

Happy Digital Vector Control

Nikki Atwal
natwal@stlouisco.com