

Asset Management - Lessons Learned Ten Years after Implementation

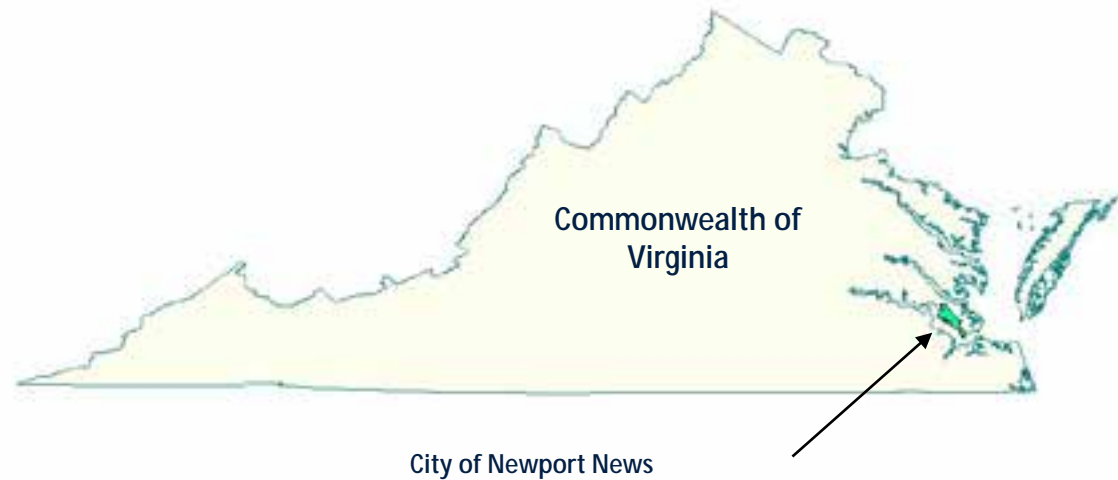
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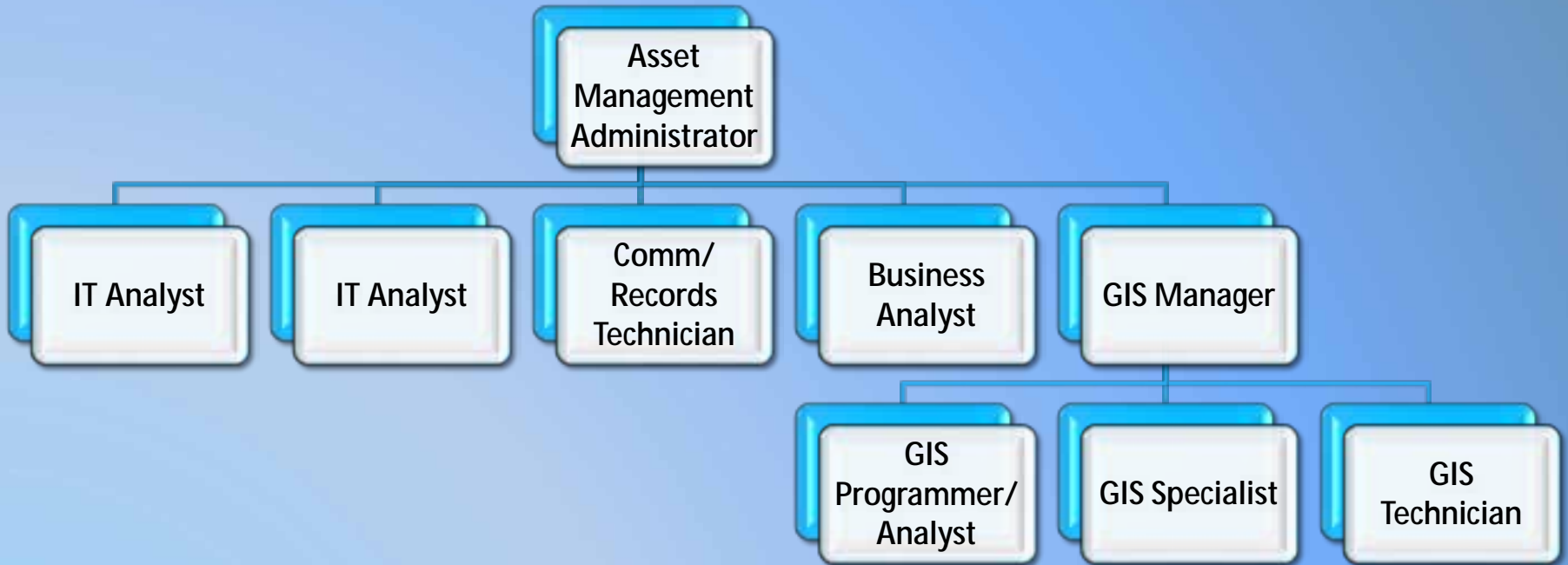


Where is Newport News?

- Named for Christopher Newport, the British sea captain and commander of the Susan Constant, the flagship of the English fleet that landed in Jamestown.
- Runs 25 miles along the James River and Hampton Roads Harbor.
- 69.2 square miles
- Population of 180,719 (2014)
- Fifth most populous city in Virginia







Asset Management Division

Implemented GIS-centric asset management system in 2004; administrates and supports Cityworks and a multitude of ancillary programs.

Supports all divisions of Public Works (NNPW) with respect to software/hardware, servers/network, cameras, radios, and phones (desk, cell, & smart phones).

GIS team maintains the NNPW-owned assets and related layers and ensures the accuracy of all GIS products (including data input and QA/QC).

Performs records management.





How did we start?

In 2001 we were directed to bring Public Works into the 21st Century by designing and implementing an enterprise asset management system.

At the time we had:

- A non-ESRI integrated legacy asset management system.
- GASB-34 requirements.
- An IT Department with approximately 70 backlogged legacy system overhaul requests.
- A high level challenge to bring the Department and its infrastructure assets into the 21st Century.

It took us from 2001 – 2004 to get to implementation.



What divisions did we implement in 2004?

- Street Maintenance
- Building Services
- Wastewater
- Stormwater
- Administration



Users from several City departments were trained:

- City Manager's Office
- Codes
- Engineering
- Public Works



What was done initially?

- GIS data acquired and scrubbed
 - Standardized values
 - Condition and ConditionDate
 - OwnershipStatus – NNPW, private, VDOT, etc.
 - LifeCycleStatus – active, proposed, abandoned, etc.
- Service request and work order templates created
 - Capture labor, equipment, & materials
- Users trained



What divisions have been added to date?

- Wastewater
 - Consent Decree Requirements
 - Fats, Oils, and Grease (FOG) Program
- Solid Waste – service requests only
- Engineering – Traffic/Transportation



What divisions are currently being added?

- Community Maintenance
 - Unattached work orders
- Security Services
 - Cameras
 - Card Readers



What have we continually been doing?

- Editing service request and work order templates
- Adding a plethora of infrastructure assets
- Populating key asset management related attributes
- Ad hoc and systematic reporting

Wastewater Manholes									
Field	Value		Value		Value				
Address									
Install Date									
Structural Condition									
Operational Condition									
Condition Date									
Material									
Diameter									
Elevation									
Invert Elevation									
Depth									
Water Tight	Yes	No	Yes	No	Yes	No			
Has Insert	Yes	No	Yes	No	Yes	No			
Lining Type									
Ownership Status (Circle)	NNPW	PRIV	OTH	NNPW	PRIV	OTH	NNPW	PRIV	OTH
Ground Type									
Comments									
Facility ID (AM use only)									



What does this mean for Public Works?

Frontline Professionals can see infrastructure assets, their characteristics, and work history.

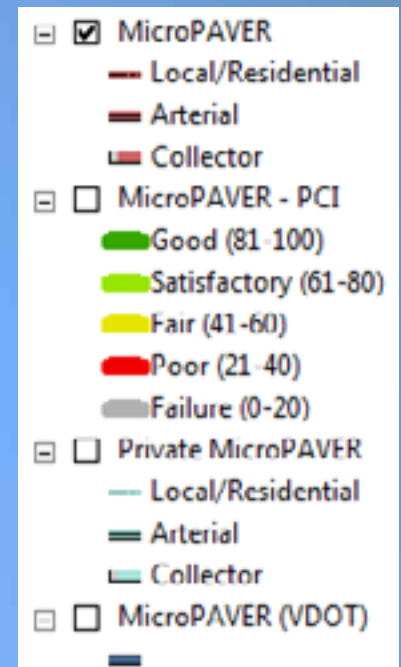
Supervisors can make informed decisions regarding the useful life of assets, while minimizing operational costs and lessening risks of failure.

- When to rehab, repair, or replace
- Increased demand
- Resistance to rate increases
- Increased demand
- Service expectations
- Regulatory requirements
- Responding to emergencies
- Protecting assets



Asset Characteristics & Work History

- Over time, more and more attributes have been populated.
 - Easier to run queries based on material, date installed, etc.
 - Frontline professionals can see how their input benefits everyone.
- Up to 11 years of work history by asset
 - Able to find problematic assets in the system as opposed to someone just knowing, i.e. institutional knowledge
 - Identify where current infrastructure assets will need to be relined, replaced, abandoned, etc.
 - Meeting state and federal mandated requirements
 - Regional Consent Order and Management, Operation, and Maintenance Program (MOM)
 - MS4



What has helped?

- 311 integration – streamlined workflow
- Champions – Hopefully one in each division
- Support
 - Users
 - Upper Management
 - Contractors

Division	NNPW PROD	Cityworks Problem Description	311 SR Type Code	311 SR Type Description	Priority (in Cityworks)
Street Maintenance	SM COMMENDATION	COMMENDATION EMPLOYEE-STREET MAINTENANCE	STREETSM	Compliment - Street Maintenance	2 Medium
Street Maintenance	SM COMPLAINT	COMPLAINT-STREET MAINTENANCE	COMPLAIN	Complaint- Street Maintenance	2 Medium
Street Maintenance	SMR STR SWEEP RQ	STREET SWEEPING COMPLAINT-STREET MAINTENANCE	COMPL001	Complaint – Street Sweeping	2 Medium
Street Maintenance	SM PROPERTY DAMAGE	PROPERTY DAMAGE BY CITY STAFF-STREET MAINTENANCE	PROPE001	Property Damages- Street Maintenance	1 High
Street Maintenance	SMR LF COLL DAMAGE	LEAF COLLECTION CREW DAMAGE-STREET MAINTENANCE	DAMAGESL	Damages- Loose Leaf Collection Crew	2 Medium
Street Maintenance	SMR DRIVEWAY	DRIVEWAY REPAIR	DRIVE001	Driveway Repair	2 Medium



What Would We Do Differently?

- Service Requests/Work Orders
 - Simplify
 - No charge codes in template titles
 - Stay out of the weeds
- System Administrators
 - Provide more depth/training
- Missing Assets
 - Push for Frontline Professional input sooner
- Naming Conventions
- Documentation



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