GIS-Centric Asset Management implementation for Public Works

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This presentation is conducted using an ESRI story map.

The following are screenshots of the Story Map.

URL: http://bit.ly/ULta7O
GIS-Centric Asset Management Implementation for Public Works

City of Hesperia, CA, implored from Fabius GIS to develop a new application to address a major challenge: managing the GIS-centric (CityWorks enterprise GIS) seamless design and mapping system. The implementation of public works asset management software will be explored. This presentation introduces the system of the asset management system and how Public Works can use the solution to track work performed and produce the value added by the city through asset analysis.

Presented By

Introductions: Eric Greene is the GIS Manager at the City of Hesperia, CA. Hesperia is a city of 40,000 located in the High Desert west of LA. Bill Haddington is a Senior Consultant with POWER Engineers and has been working with the City since 2000.
GIS-Centric Asset Management Implementation for Public Works

City of Phoenix, AZ, turned from a legacy CAD/CAM based system to a recently commissioned department of the GIS-centric Cityworks Sphere Web solution. Using the Esri map concept, the journey of this Water Management System will be explained. With the progression to the core solution of the art asset management system and how Public Works used the system to track work completed and produce assets such as the City's reservoirs.

In January, 2006 the City began the implementation of a "City Wide" Geographical Information System. Nobel Systems, from San Bernardino digitized the City's utility infrastructure from AutoCad and As-built plans into ESRI software.
GIS-Centric Asset Management Implementation for Public Works

City of Temecula, CA, invested in Cityworks CMMS to enhance its asset management capabilities. This decision was motivated by the need for a more efficient and comprehensive approach to managing its infrastructure assets. The Cityworks system provides a robust platform for tracking, maintaining, and updating asset information, ensuring that the city can make informed decisions based on up-to-date data.

In August 2007, the City selected Power Engineers, formerly Velocite, to migrate asset data from the City’s existing Hansen 7 asset management system into a fully functional GIS-Centric asset management system through the use of Cityworks Desktop 4.5 from ArcGIS. This migration process involved a systematic approach to transfer the existing data from Hansen 7 to Cityworks, ensuring that all critical records were accurately captured and organized within the new system.

The migration process was not only about data transfer but also about integrating the new system with the City’s existing GIS infrastructure. This integration allowed for a seamless workflow, wherein asset management tasks could be seamlessly tied to geographic locations, enabling more effective planning and maintenance activities.

The Cityworks system has since become an integral part of the City of Temecula’s operations, providing real-time data for decision-making, improved asset management, and enhanced service delivery to the community. The City continues to leverage the capabilities of Cityworks to stay ahead in the field of asset management, ensuring that its infrastructure remains robust and well-maintained.
GIS-Centric Asset Management Implementation for Public Works

City of Tempe, AZ, accessed from #203 (SWF) for a real-time visual application to a visually remote deployment of the #203 software. #203 software integrates the daily life of Public works and a real-time management system will be open. Watch the progress in the current state and forecast the management system and use public data in the system to track work completed and evaluate the suitable status. The city uses remote access using #203 and a wireless system.

GIS Centric Asset Management System deployed as of 2007. Deployed using Citrix to field crews and on power users' desktops. Field users have remote access using VPN and wireless cards.
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Cityworks is used to track a number of work processes at the City. We currently track Public Works including, Water, Sewer, Signs, CCTV, Roads, Graffiti Removal. We try to track all work that is completed on an asset. We also use this system to track Service Requests from Citizens.
GIS-Centric Asset Management Implementation for Public Works:

The City of Mesquite, NV, utilizes Esri's Cityworks to enhance asset management as a highly competitive improvement of the City's current Cityworks system. By leveraging the Cityworks platform, the City has streamlined its asset management processes, leading to improved efficiency and better resource allocation. With Cityworks, the City can effectively manage and track its assets, ensuring that maintenance and repair tasks are completed efficiently. In addition, Cityworks allows for better data visualization, enabling the City to make informed decisions based on real-time data. By implementing Cityworks, the City has achieved a significant improvement in its asset management capabilities, leading to increased productivity and cost savings.
GIS-Centric Asset Management Implementation for Public Works

A GIS-centric solution was implemented in the City of Vlasofa, Serbia, to manage their public works assets. The solution, based on the City's existing GIS database, allows for real-time tracking and management of assets, improving efficiency and reducing costs.

The system includes a web-based interface that enables users to perform tasks such as asset creation, update, and maintenance. The map view provides a clear visualization of all assets, allowing for easy identification and access.

Key features of the system include:
- Real-time asset tracking
- Asset maintenance and repair tracking
- Reporting and analysis capabilities

The implementation has resulted in a significant improvement in asset management, allowing the City of Vlasofa to better allocate resources and improve service delivery.

All assets are inspected every year, and labor is tracked to the nearest 6 minutes.
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City of Phoenix, TX [enslave text]

[Cityworks diagram]

Sewer CCTV Work is Planned in Cityworks and work orders transferred to Granite XP for the Sewer TV Inspections.
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City of Yuma, CA, benefited from a web-based GIS-Centric technology from the recently enhanced version of the Cityworks CMMS software. Using the story map concept, the journey of Public Works' asset management system will be documented. With the progression in the narrative, the cities and the asset management system will be depicted. The city works use the system to track assets, maintain, and produce the valuable data that city officials can use for decision-making.

Waste water and Storm Drain inspections for scheduled and proactive maintenance. Inspections are collected using Cues video capturing software. Granite XP. Observation videos are then integrated in Cityworks via CCTV reader.
GIS-Centric Asset Management Implementation for Public Works

This of Nevada’s G2, moved from stand-alone IDMS and agency specific system to a state-wide common data management platform. The GIS-centric K2000 version 8.5 solution using the story map concept, the journey of Public Works management system will be explored. Build the geospatial ‘Geocentric’ data management system, and free Public Works users the ability to use this web customization and produce the valuable data they need for analysis.
GIS-Centric Asset Management Implementation for Public Works

City of Tucson, AZ, tested their first Cityworks GIS-centric application to a recently complete deployment of the GIS-centric Cityworks server 2011. Using the story map concept, the power of Public Works Asset Management System will be discovered. Watch the progression in the current status of the GIS-centric management system and how Public Works uses the system to track work completed and monitor the service provided by the city.

Cityworks is used to tracked one of the City's Water Conservation program, Cash for Grass. Property owners can receive a rebate cash incentive to remove existing and maintained lawn and replace it with water-efficient landscaping. Rebates are offered to single family residential customers within the Mojave Water Agency service area at $0.50 per square foot, up to $3,000, to replace lawn with low water-use landscaping. This program offers a financial incentive to customers by offsetting a portion of the cost of converting water-thirsty lawn to native and desert adaptive landscapes. Program funding is limited and on a first-come, first-served basis.
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City of Phoenix, AZ, employed the CityEngine CP4E arcGIS plugin as a primary component of the GIS-centric CP4EarcGIS Geocentric Web solution. Using this ArcGIS engine, the city of Phoenix implemented an integrated GIS-Centric Asset Management System (GAMSS) that supports the city’s Public Works department. The GAMSS system allows for real-time tracking and management of assets, such as streets, parks, and utilities. This integration enhances the city’s ability to maintain and update its critical asset data, improving service delivery and asset management efficiency.

Another example of the City enhancing the utility of its digital data is through a Cash for Grass program. In this program, the city offers residents $1 per square foot of grass for converting it to drought-resistant landscaping. By offering this financial incentive, the city aims to reduce water usage and promote sustainable landscaping practices. The implementation of such programs requires a robust GIS-Centric Asset Management System to track the square footage of grass converted and to monitor the progress of the project.

The system’s ability to track and manage such programs in real-time is crucial for the city’s Public Works department. It allows for efficient resource allocation, quick response to maintenance needs, and improved service delivery. The integration of GIS technology into asset management systems is a significant step towards modernizing public infrastructure management and enhancing the quality of services provided to the city’s residents.
GIS-Centric Asset Management Implementation for Public Works

City of Yuma, Yuma, Arizona implemented an asset management system to provide a comprehensive and efficient way to manage its assets. This system uses ArcGIS, a powerful GIS software, to track and manage assets effectively.

The implementation process involved several steps, including data collection, asset mapping, and integration with the City's existing systems. The Cityworks software, developed by Bentley Systems, was used to manage the assets and their maintenance activities.

Cityworks is used to manage the FEMA events. The documentation produced after the event simplifies the reimbursement process through FEMA. The City doesn't experience many FEMA events, but they do happen. This example is for a flash flood that destroyed a portion of the roadway.

The project highlights the importance of GIS in managing public assets efficiently and effectively. The integration of various systems and the use of advanced software tools have helped the City of Yuma to improve its asset management practices.
GIS-Centric Asset Management Implementation for Public Works

The city of Honolulu, Oahu, Hawaii is currently implementing a GIS-centric asset management system. The system is being used to manage and track the location of assets such as utilities, fire hydrants, and other infrastructure elements. The software allows for the creation of custom reports and detailed asset histories. The system is designed to improve the efficiency and accuracy of asset management by providing real-time information and facilitating better decision-making. The implementation is expected to result in cost savings and improved service delivery to the city's residents.
GIS-Centric Asset Management Implementation for Public Works

The City of Phoenix, AZ, moved from tabular CMMS to a GIS-centric asset management system to enhance decision-making and reduce the City’s overhead costs. The process of transitioning to this new system will be explored. This presentation will provide an overview of the City’s asset management system and how it leverages GIS to streamline processes and improve the City’s efficiency and transparency.

The City of Phoenix is in the process of adding Reclaimed Water Assets. The system will be used to irrigate the City’s golf course. The planning, construction, and operations activities will all be tracked in Cityworks.
Questions?

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