Council Meeting Date: February 10, 2014 **Agenda Item:** 9(a)

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Discussion and Update of Surface Water Asset Management System
DEPARTMENT:	Public Works Department
PRESENTED BY:	Mark Relph, Public Works Director Brian Landau, Surface Water and Environmental Services Manager
ACTION:	____ Ordinance ____ Resolution ____ Motion __X__ Discussion ____ Public Hearing

PROBLEM/ISSUE STATEMENT:

Asset inventory and management was a new program established in the Surface Water Utility following the adoption of the Surface Water Master Plan in December, 2011. In 2013, the City made a decision to implement Azteca Cityworks, a Geographic Information System (GIS) centric Computerized Maintenance Management System (CMMS) to improve the methods and means by which the City can track the maintenance (labor, equipment, and materials) and condition of its streets, traffic, surface water, parks, and facility assets. CMMS via Cityworks are now part of a new asset management approach to be implemented Citywide over the next several years.

The CMMS serves as the City's asset management system and will be used to track assets, service requests, work orders, and asset condition assessments for the City's existing surface water utility assets (pipes, catch basins, detention facilities, pumps, etc.), roads, street signals and signs, parks and park amenities and facilities. The asset management system will also be critical for the future management of the wastewater and water utilities.

The Surface Water Utility was the first division within the City to implement Azteca CityWorks for asset management. In the past two years, the Surface Water Utility has made considerable progress in the development and implementation of this new program to improve the management of these important City assets. Tonight's presentation will highlight how CityWorks helps the Surface Water Utility achieve this functionality, in addition to showing how it has provided efficiencies in the utility's work processes.

RESOURCE/FINANCIAL IMPACT:

There is no anticipated resource or financial impact. Any future software improvements for the Surface Water Utility will be budgeted accordingly in the annual operation budget of the Surface Water Utility.

RECOMMENDATION

No action is required at this time. This agenda item is for information purposes only.

Approved By: City Manager ***DT*** City Attorney ***DT***

INTRODUCTION

Infrastructure asset management is the combination of management, financial, economic, engineering, and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner. It includes the management of the whole life cycle (design, construction, commissioning, operating, maintaining, repairing, modifying, replacing and decommissioning/disposal) of physical and infrastructure assets. Asset management programs are meant to improve services and productivity, while reducing costs and risks with the intention of making every dollar work as hard as possible. A high-performing asset management program incorporates detailed asset inventories, operation and maintenance tasks, and long-range financial planning to build system capacity.

The City and its Surface Water Utility are responsible for ensuring that its system of public assets stays in good working order, regardless of the age of components or the availability of additional funds. Asset management programs with good data—including asset attributes (e.g., age, condition and criticality), life-cycle costing, proactive operations and maintenance (O&M) and capital replacement plans based on cost-benefit analyses—can be the most efficient method of meeting this challenge.

BACKGROUND

Asset inventory and management was a new program established in the Surface Water Utility following the adoption of the Surface Water Master Plan in December, 2011. In 2013, the City made a decision to implement Azteca Cityworks, as Geographic Information System (GIS) centric Computerized Maintenance Management System (CMMS) to improve the methods and means by which the City can track the maintenance (labor, equipment, and materials) and condition of its streets, traffic, surface water, parks, and facility assets. CMMS via Cityworks is now part of a new asset management approach to be implemented City wide in the next several years.

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DISCUSSION

The Surface Water Utility was the first program to implement Azteca CityWorks for asset management. In the past two years, the Surface Water Utility has made considerable progress in the development and implementation of this new program to improve the management of these important City assets. The following efforts demonstrate the Surface Water Utility's progress:

Asset Inventory

An initial inventory of surface water assets was mapped into the GIS in 2007; however, the updates of the asset inventory had been sporadic. In the past two

years, the Surface Water Utility has made tremendous strides in updating and improving the asset inventory in the GIS. These updates include recent CIP updates of new or replaced infrastructure (including all of Aurora), drainage easements, and regional and commercial facility updates. In 2014, the Surface Water Utility will be updating all of the surface water assets within the City's parks.

Work Flow Processes

In the past couple of years, the Surface Water Utility has improved the procedures and methods by which assets are inspected and the information recorded from the inspections. Specifically, the Surface Water Utility performs preventative maintenance inspections to meet National Pollutant Discharge Elimination System (NPDES) requirements on right-of-way catch basins, regional stormwater facilities (such as Cromwell and Boeing Creek Park), commercial facilities (on private property), service request response, and preventative maintenance on the City's pump and dam assets as well.

Configuration of CityWorks

The Surface Water Utility and the IT department configured the Azteca CityWorks software for the Surface Water Utility in the summer of 2013 in a very compressed schedule (May through July). This effort included reconfiguration of GIS assets, improvement in workflows to be compatible with the software including the recording of labor, equipment, and materials associated with service requests, inspections (commercial, catch basin, and regional facilities), and work orders, the development of a user's manual by staff, and testing of the software configuration.

Implementation of CityWorks

In mid-August 2013, the Surface Water Utility began using Azteca CityWorks in its business processes. All service requests, work orders on assets, and inspections are recorded in the system and provide valuable information for scheduling preventative work, improving the tracking of costs associated with activity and asset type, and the use of mobile devices for paperless inspections.

COUNCIL GOAL ADDRESSED

The development and implementation of an asset management program is directly aligned with Council Goal 2: Improve Shoreline's utility, transportation, and environmental infrastructure.

RESOURCE/FINANCIAL IMPACT

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RECOMMENDATION

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