



Agenda Report

20-118

Agenda Date: 4/28/2020

INFORMATIONAL REPORT TO COUNCIL

SUBJECT

Informational Report Regarding Bi-yearly Project Status Report of the GIS Services Program [Council Pillar: Deliver and Enhance High Quality Efficient Services and Infrastructure]

BACKGROUND

On October 29, 2019, Arini Geographics was awarded a contract for Enterprise GIS Consulting Services. The contract was awarded for a three-year professional services agreement in an amount not to exceed \$3,500,000 for the initial term of the contract with the option of one additional two-year renewal term. Council has requested a bi-yearly project status report of GIS services.

DISCUSSION

The City's Enterprise GIS Program is focused on both steady state operations and projects. Critical data updates and quality assurance is constantly being performed on some of the most critical systems such as:

- City Enterprise GIS Basemap, a specialized mapping system keeping track of the City's map layers (addresses, streets, parcels, ownership, underground electric utility easements, general plan and zoning designations, flooding and noise delineations, multiyear aerial imagery) and key related attributes.
- infoMap 2.0, a web-based application that provides access and multiple querying with basic analytical functionality to City staff.
- MapSantaClara, a web-based application which provides tailored access and reporting functionality to the public at large: [<https://map.santaclaraca.gov/>](https://map.santaclaraca.gov/)
- Open Data Geospatial Portal, a web-based repository of machine-readable GIS data layers available to the public: <https://map.santaclaraca.gov/data>
- Story Maps, six publicly available web-based applications that facilitate information dissemination and increase the level of service to the public, including Development Projects and Live Traffic Cameras: <http://santaclaraca.gov/devprojects> ; <http://santaclaraca.gov/trafficcams>

From November 1, 2019 thru March 8, 2020, over 11,000 address updates have been captured in the Enterprise GIS Database, ensuring that residents, businesses, developers and government officials have the most current data. During the 77,393 visits made to MapSantaClara in that same timeframe, over 6,000 reports were created, 3,000 address searches completed, and 2,000 maps printed. More stats and information related to the steady-state Enterprise GIS activities can be found in the attached infographic.

In addition to the publicly available Enterprise GIS maps, data and functionality, the internal infoMap 2.0 provides a growing and comprehensive dataset of over 2.5 million data points and over 6,000 specific attributes. GIS staff maintains 150 unique map services that City departments leverage on a daily basis to improve efficiency of services, increase productivity, make better decisions, respond more quickly, improve citizen access, comply with government mandates, protect the community and save lives. This includes over 30,000 permit queries and nearly 20,000 address searches in the past six months alone.

Public safety remains one of the City's top priorities and has many GIS interconnections. Dedicated datasets, maps, map services, applications and integrations, for both Fire and Police Departments are being maintained and map updates to the Computer-Aided Dispatch (CAD) system are being done at scheduled intervals. The Common Operational Picture (COP), the real-time situational awareness application, now in its sixth year of operation at Levi's Stadium and the City's Emergency Operations Center (EOC) has successfully completed another NFL season, benefiting first responders, citizens and visitors. Aided by the COP which has been deployed at 144 events to date, the City's first responders are uniquely positioned to provide the best public safety service, making confident and effective decisions to keep citizens safe. For the 2019 NFL season at Levi's Stadium, police and fire staff quickly and discreetly responded to 3,412 incidents, effectively minimizing consequences.

Enterprise Asset Management (EAM) consists of a tight integration between the Enterprise GIS, the repository of asset inventories, and the Work Order Management System that keeps track of the maintenance work that is being done on those assets. Currently the IT and GIS staff, in collaboration with each respective City Department, are working on streamlining the processes through which existing asset classes (water, wastewater, recycled water, storm drain, parks and recreation, city facilities) are being kept up to date, as well as new assets that are being mapped and tracked. An ongoing citywide traffic signs inventory will provide the first ever dataset of this kind for the City, planned to be completed by the end of the current year.

Projects completed during this reporting timeframe were:

- Built a Location-based Inventory and Mapping of the 220 City-owned Properties, including their respective attributes, and documents, making this information available to City staff. This provides a quick way to access that information and an organized manner of maintaining it over time.
- Completed mapping of Water Backflow Preventers (BFPs) - almost 4,000, for the first time at the City - to be integrated into the City Enterprise Asset Management System. The resulting GIS Layer, and some attributes, would also be available to City staff via infoMap 2.0, showing which BFPs are "to code" or "not to code". This effort is ensuring BFPs code compliance and is facilitating preventative maintenance of these devices that are critical to water quality and safety.

Projects planned to be completed over the next 6 months are

- Operationalizing several GIS asset inventories, such as City-owned Properties, Water Backflow Preventers and Electric Underground Utility Easements to ensure proper information lifetime management, including availability, quality assurance and timeliness.
- Completing the Enterprise GIS integration with the Enterprise Permitting System and the

Enterprise Document Management and continue with operationalization of location components.

New projects are also being added to the Enterprise GIS portfolio, among which the following are undergoing scoping efforts:

- Enterprise GIS for the Electric Utility, which builds on the successes of previous engagements to support mapping and network modeling efforts, as well as preventative asset management and emergency response.
- Water and Sewer maintenance crews rely on digital and printed “mapbooks” for safety and decision-making in the field. GIS staff is currently prototyping new procedures to produce mapbooks faster from the Enterprise GIS, so that field crews always have the most current information to work from.
- Enterprise GIS for the Public Works Department. Given the fundamental nature of the work and function of the Department of Public Works, integration with the City Enterprise GIS is essential, with significant benefits for all City departments.

Currently the Enterprise GIS Program at the City of Santa Clara is an organization-wide framework (technology and associated processes) ensuring that the geospatial and asset data owned by each department is integrated into a single enterprise system, with high quality assurance standards, which then provides location intelligence and asset inventory across all of the needs of all and each department, and serves as a data-driven decision-making support citywide.

ENVIRONMENTAL REVIEW

This is an informational report only and no action is being taken by the City Council and no environmental review under the California Environmental Quality Act (“CEQA”) is required.

FISCAL IMPACT

There is no cost to the City associated with this report other than administrative time and expense.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City’s official-notice bulletin board outside City Hall Council Chambers. A complete agenda packet is available on the City’s website and in the City Clerk’s Office at least 72 hours prior to a Regular Meeting and 24 hours prior to a Special Meeting. A hard copy of any agenda report may be requested by contacting the City Clerk’s Office at (408) 615-2220, email clerk@santaclaraca.gov <mailto:clerk@santaclaraca.gov>.

RECOMMENDATION

Note and file the Informational Report regarding the Bi-yearly Project Status Report of the GIS Services Program.

Reviewed by: Gaurav Garg, Director of Information Technology/CIO

Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. eGIS-Activity-Infographic-March.pdf