

Multi-Mag Clear Choice for Santa Barbara

Referred to as the 'American Riviera', Santa Barbara, California is bordered by mountains to the north and the Pacific Ocean to the south making it an ideal place to reside and a premier resort destination as well.



The City's Public Works Department is responsible for an annual budget of over \$74 million just under half of their entire budget. Santa Barbara's PWD is responsible for operation of the El Estero Wastewater Treatment Facility and the Cater Water Treatment Facility. The Department's mission is to provide for the public's needs relative to the City's transportation system, water and wastewater services, refuse collection, construction and maintenance of all city facilities, automotive equipment communications equipment and repair and maintenance of all streets, sidewalks, and street lights throughout their jurisdiction.

Responsible for the City's potable water, recycled water and wastewater services is the Water Resources Division of the PWD. Water supply sources are referred to as one of the most diverse in California and perhaps the entire nation, and include the following 9 sources:

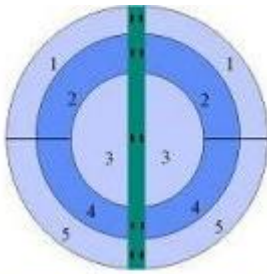
- Gibraltar Reservoir
- Devil's Canyon
- Cachuma Project
- Mission Tunnel
- Groundwater
- Recycled Water
- State Water Project
- Desalination
- Water Efficiency



The Gibraltar Reservoir

When a new clear well flow application arose at the City just over 2 years ago it was apparent that not just any commercially available flowmeter would have the ability to accurately monitor the flow. According to Bob Tsukamoto, Senior Control System Operator Specialist with the City's Water Resources Division, "We were looking for a meter to monitor the flow coming from two of our clear well lines, one 30" and one 36" line. The outfall had not been monitored previously so this was a new application at an existing facility. We didn't want to have to put in expensive bypasses and we had restrictive piping configurations because the sites were located in underground vaults." New flowmeters would be utilized to determine outflow rates of the clear wells for plant demand purposes. Accurate flow data was necessary to control the plant's influent valve that adjusts reservoir levels. Additionally, both lines fed two booster pump stations as well as a portion of the distribution system. Tsukamoto adds, "The meters would be tied into a SCADA system at the plant. We also use the combined outflow to offset what our reservoir level is doing. It controls our plant influent valve so we have a totally automated plant."

Marsh-McBirney's local rep at the time, Matt Hykin of Hykin & Associates assisted the City's contractor with their flowmeter selection. Tsukamoto has also served as a licensed electrical contractor and he states that he was somewhat familiar with the Marsh-McBirney Multi-Mag Magmeter from seeing them installed at other facilities, which included an application where the meter was used for chemical pacing at a water facility. He adds, "Your local sales rep was fantastic as far as being helpful. He would do installations, teach you how to work the meters, make recommendation and all sorts of things. He was an excellent sales rep."



Each Multi-Mag sensor is custom-built to the exact specifications supplied by the customer. Building sensors to exact inside pipe diameter ensures the highest possible accuracy.

The Multi-Mag Insertion Magmeter utilizes proven electromagnetic velocity measurement technology. The sensor has multiple electrodes that are precisely positioned according to pipe size. The electrodes constantly profile the flow to provide exceptionally high accuracy - even near bends, elbows and tight piping restrictions seen at the City of Santa Barbara. Independent laboratory test data from the National Institute of Standards and Technology (NIST) and the Water Research Center (WRC), as well as hundreds of installations worldwide, confirm the accuracy of the Multi-Mag. Accordingly, the Multi-Mag has become one of the most popular and effective products ever produced by Marsh-McBirney. Its ability to accurately measure flow in "less than ideal" conditions has earned the Multi-Mag a great deal of respect in the water industry. The sensor is easily installed or removed through a "hot tap" without the need to shut down the flow or add expensive bypasses.

Additionally, the Multi-Mag meter is unaffected by flooding conditions making it an ideal meter selection for the site conditions present at Santa Barbara's underground vault installations.

"Due to restrictive piping configurations and nearby valves at the site an insertion meters that could be used on the existing pipe line was the only reasonable solution to our problem versus putting in bypasses. It was easy to tap the pipe for the meter installation and the meters were easy to set-up and maintain." The meters have been installed for a little over two years now and according to Tsukamoto, "They're doing what they are supposed to be doing - letting us know basically when the flows increase and decrease and to what degree."

A user-friendly and easy to install flowmeter along with a knowledgeable sales representative were both integral to the success of the Multi-Mag installation at the City of Santa Barbara's Public Works Dept. While saving their City expensive construction costs not necessary with Multi-Mag's 'hot-tap' installation, personnel can also reap the reward of reliable, highly accurate flow data for their plant demand requirements.

For additional information contact McCrometer, Inc.
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