CASE STUDY

Operations Dashboard with Custom Reporting

DRMcNatty created a custom dashboard that offers a clear, real-time view of operational performance alongside the ability to run tailored reports. Access to live data, the ability to set performance alerts, and the use of interactive graphics have all enhanced the client's ability to manage their daily operations.

CLIENT

San Diego County Water Authority

PROJECT
Water Service
Operations Dashboard

LOCATION
San Diego

TOOLS
Web Framework
Ruby on Rails Database
PostgreSQL CHarting
Library
Highcharts

SERVICES PROVIDED
Custom Designed
Dashboard
Hosting

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OVERVIEW

The Water Authority delivers water through more than 300 miles of pipeline to 6 cities, 17 special districts and to Marine Corps Base Camp Pendleton. Three times a day, with over 100 pipeline connections, the Water Authority evaluates the flow rate at each of these connections and establishes the demand needed for each of its clients. The reporting system is based on Excel spreadsheets and the data is tabulated twice a day and sent to key individuals, apprising them of current operating demands.

CHALLENGES

San Diego County Water Authority needed a centralized database in order to access the data via a Web-based dashboard and for maintaining a historical record. In addition, they needed to display information related to the Water Authority pipeline operations that will also allow "drill-down" functionality to display specific information as well as provide alerts and reports to stakeholders via email. It must use and store the data in their existing PostgreSQL database.
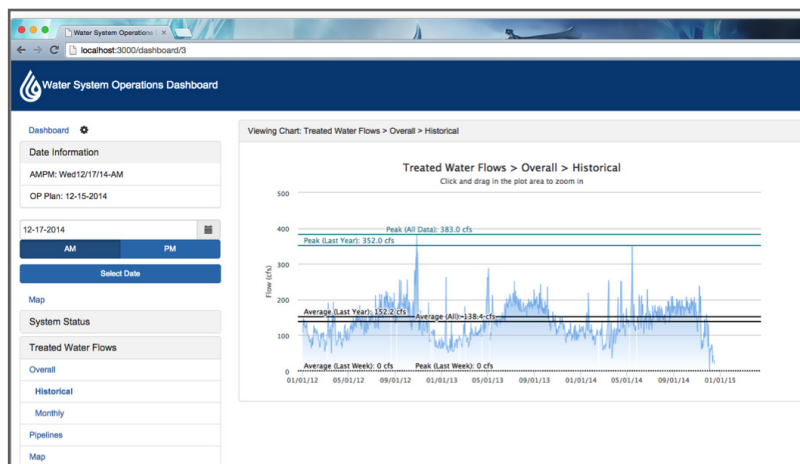
SOLUTION

DRMcNatty worked closely with San Diego County Water Authority's project and IT departments to assess and determine the requirements of the WSO Dashboard. We gathered existing data into a prototype that we internally tested and evaluated. The WSO Dashboard was presented to the user groups for evaluation and any enhancements were documented and refined. A secured prototype environment was hosted by DRMcNatty, which allowed access to the Water Authority users. The user groups had access to this entire process as the Dashboard and reports were vetted and refined. Historical data was also tested.
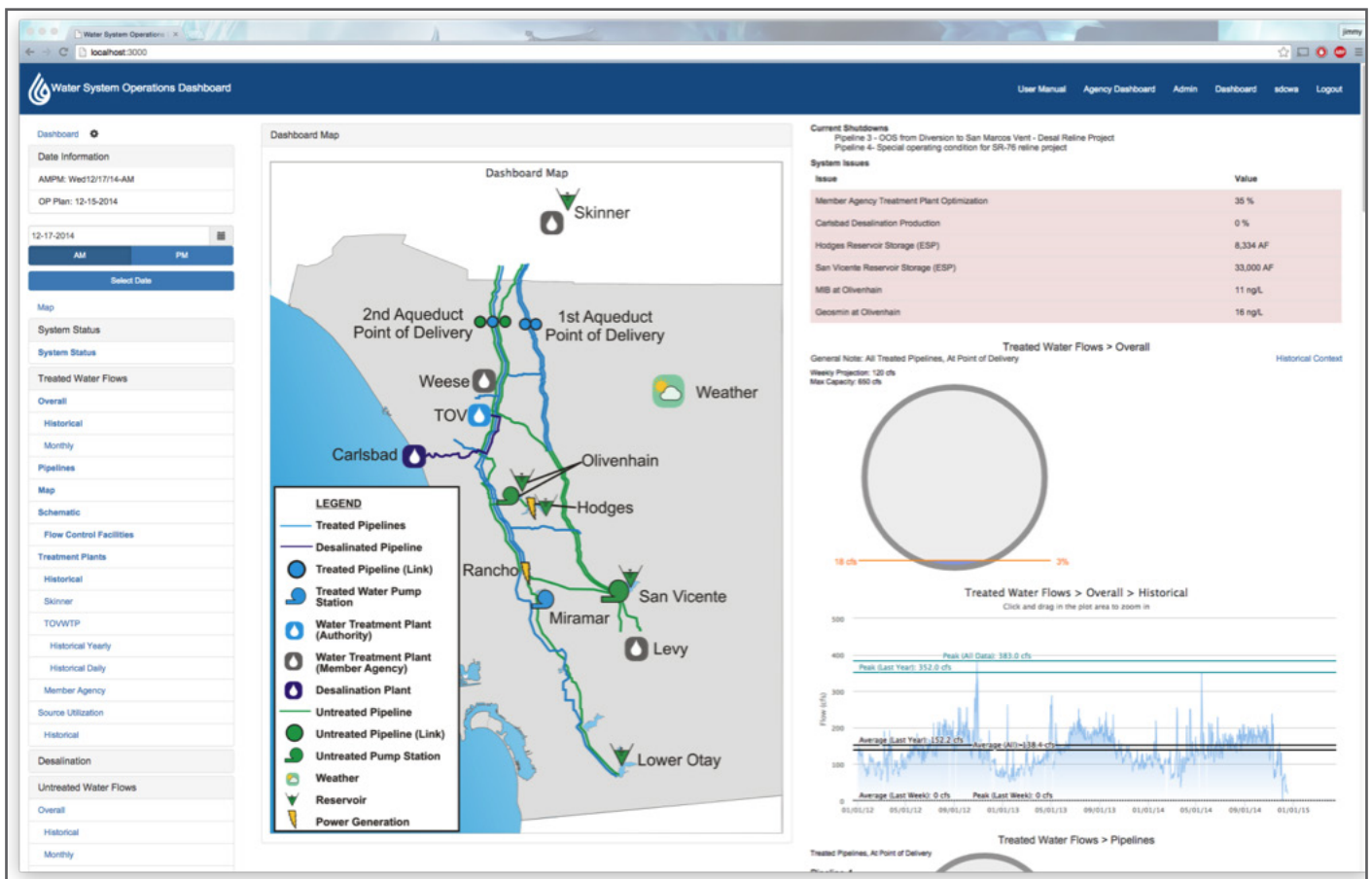
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RESULTS

Within a short time frame, DRMcNatty developed the WSO Dashboard and complemented this with community modules to provide a secure and flexible system. The dashboard is fully integrated so that San Diego County Water Authority has the option to create new reports, or modify existing ones. This is the type of flexibility we provide to our water systems clients that is well appreciated.

The administrative interface of the WSO Dashboard allows for key administration to adjust the frequency of reports, customize report triggers and the administration of reports. By using Excel as an environment to extract warehouse data, the client can distribute verified data via internal email to produce graphic comparison reports that all share a common data source.

This same data can also be accessed through a unique dashboard element that is actually a visual schematic of the system and by hovering their pointers above a key connection on the graphic, allows them to view a live data summary of the flow rate and other key values they need to monitor.