GWP is GLENDALE OWNED and GLENDALE FOCUSED

2016 – 2017 Annual Report

CITY COUNCIL

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A message from General Manager Stephen M. Zurn:

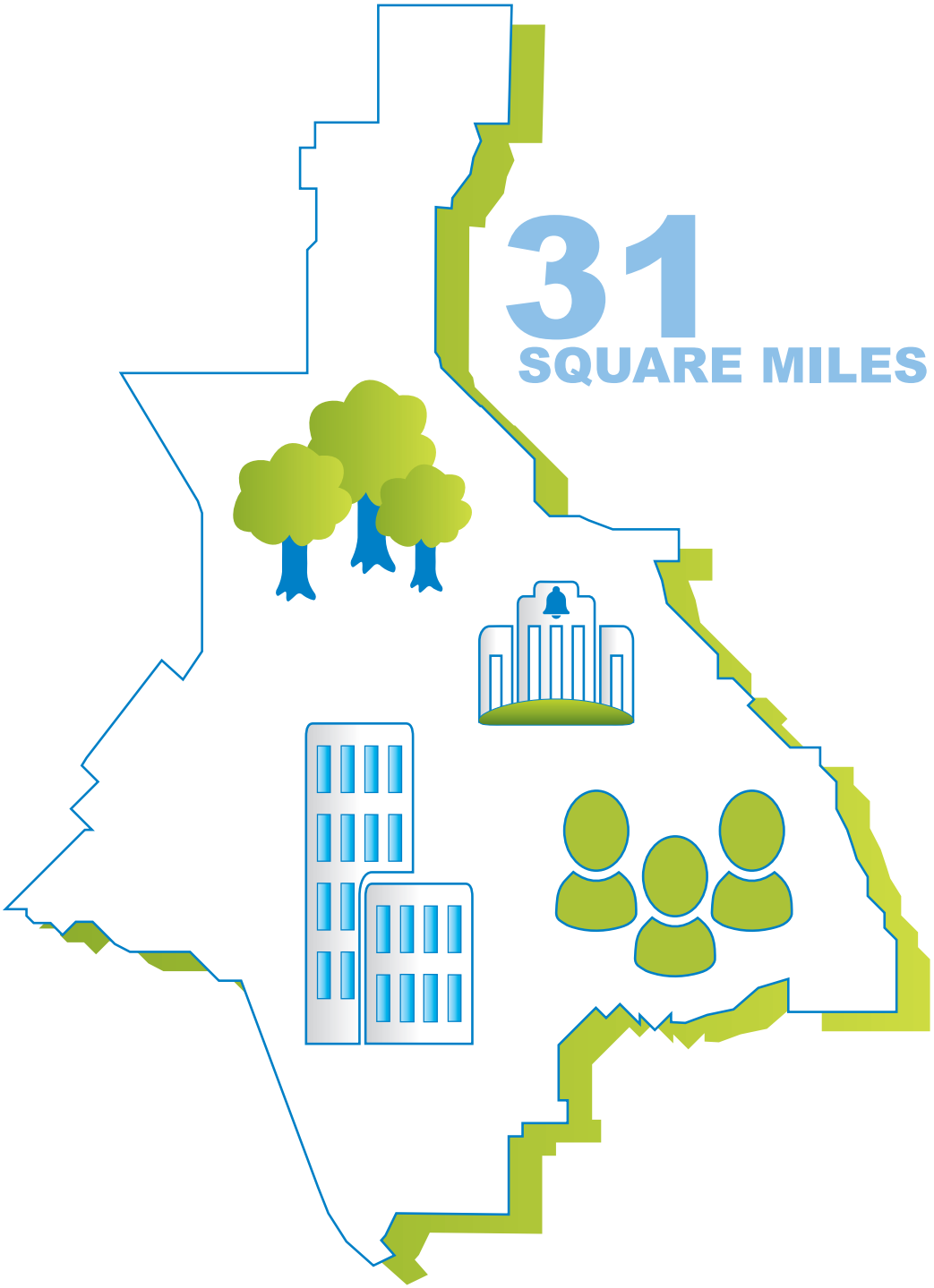
Glendale Water & Power's focus this past year was on Glendale and its residents and improving the services we provide for the people that live and work here. We improved on our Customer Services with new technologies that improved services, convenience and engagement. We enhanced the safety and aesthetics through improvements in our electrical overhead and underground infrastructures and upgraded facilities and equipment City-wide to ensure the highest level or reliability. We are committed to ensuring and adequate supply of water at competitive rates and worked to enhance efficient use and conservation.

Our mission and vision are simple, to be your trusted community utility by delivering reliable, high quality, environmentally-sensitive, and sustainable water and power services to our customers in a caring and cost-competitive manner. Our responsibility is to deliver on that mission, and to do so in a service-focused manner that considers the needs of our community today and tomorrow. Everything we do is to benefit the residents and businesses of Glendale.

We are constantly focused on our community and ensuring that it continues to prosper and supporting a thriving Glendale. Thank you for your support.

Stephen M. Zurn
General Manager, Glendale Water & Power

FOCUSED ON GLENDALE



By The Numbers…

Water Maintains:

Service Area Population	201,748
Service Area Square Miles	31
Number of Miles of Water Mains	384
Number of Wells	13
Number of Reservoirs	28
Total Reservoir Capacity (million gallons)	184
Number of Treatment Plants	2
Number of Booster Stations	32
All Time Peak Day (million gallons)	33
Number of Services	34,088
Residential Usage (GPCD)	104
Water Sales (billion gallons)	7.6

Electric Maintains:

Service Area Population	201,748
Service Area Square Miles	31
Number of Distribution Miles	496
Number of Subtransmission Miles	57
Number of Poles	14,805
Number of Receiving Stations	2
Number of Substations	12
Highest Peak (MW) in FY 16-17	263
Number of Meters	87,982
Power Sales (MWh)	1,584,387

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FOCUSED ON OUR CUSTOMERS

GWP is dedicated to delivering services that meet customers' needs, which focuses on exceeding service expectations for effectiveness, responsiveness, and courtesy.

GWP's Customer Services at a glance…

- Assisted over 98,000 customers over the telephone and by email, and an additional 92,000 customers at our office.
- On average, customers wait time was just over one minute before being assisted, a 43% improvement from last year.
- Billing and collection activities continued to outperform the industry on key metrics such as billing accuracy and minimal uncollectable accounts.
- Automation continued to improve service order completion with 95% of customer requests being handled remotely rather than by rolling a truck. The ability to communicate with our electric meters remotely enables us to quickly respond to our customers when connecting or disconnecting electric meters.

Community Support

GWP provides support to the Glendale Fire Department by maintaining their annual Consolidated Program Renewal accounts for Unified Program (CUPA) Permit, Fire Prevention Permit and/or Inspection and Industrial Wastewater Discharge fees. In collaboration with the Fire Department's Prevention & Environmental Management (EMC) section, Customer Services provided support in the issuance of certificates and the updating 1,300 Fire accounts.

Customer Service staff participated in numerous customer and community events, such as Customer Service in your Neighborhood, Relay for Life, Cruise Night, Verdugo 10K, and Not on Our Watch – Veteran Suicide Prevention. In addition, employees collected items needed and donated money to local foster children through the Department of Public Social Services and local nonprofit agencies including Ascencia and Childshare.

Easy Payments

More than half (57%) of the City of Glendale's Municipal Bill payments were received electronically by Glendale Water and Power, through GWP's online web portal, automated interactive voice response system, mobile application, automatic bank draft program, payment services through customer banks, and "PayNearMe" that is available at participating 7-Eleven stores nationwide.

Quality Control

Field Services completed the quality assurance inspection of 15,420 electric and water meters throughout Glendale. These on-site inspections ensure our communication with metering equipment is optimal, to validate the quality of data billed, and inspect for possible meter tampering or equipment malfunctions that could lead to loss of revenue.

GWP's Customer Service operation is a key function within GWP and is often the first encounter with the City residents may have. Because exceptional customer service is of paramount importance to us, GWP issued a Request for Proposal for a business process review. The goal of the review is to ensure GWP is fully leveraging modernization technology capabilities and creating efficient and streamlined processes that enhance the customer experience and lead to increased satisfaction.

Response Time

Customer Services uses the AMI system and program-generated reports to identify continuous water flow at single family residences, in order to alert our customers and assist them in identifying possible leaks. In addition, each report of water waste that is reported is verified and addressed, primarily by sending notification to property owners. For the 16/17 fiscal year, 650 customer contacts were made, including over 100 field visits to further assist in water usage concerns. In addition, nearly 9,500 automated water leak alerts were sent from the WaterSmart portal.

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FOCUSED ON CONSERVATION

Using resources wisely, the GWP Conservation and Utility Modernization Section continues to educate and advocated for responsive use of natural resources and green energy sources. Public education is a critical part of our conservation strategy. Through our customer education and outreach efforts our customers learn better ways of conserving, saving money and applying to programs that help them use the tools provided to make simple changes.

GWP distributed:

- 150,000 water conservation brochures that included tips and information on California's ongoing drought and water conservation.
- Over 13,000 shower timers to help customers conserve water in the shower by encouraging them to take shorter showers.

Conservation Events & Education

- More than 300 customers attended water efficient landscape classes offered throughout the year.
- GWP attended over 40 community events to help distribute information to customers and assist customers with conservation and program questions.
- Provided 287 shade trees to support a cleaner, healthier, and more beautiful Glendale, while helping residents save energy.
- Provided 1,000 incentives to promote the purchase of approved energy and water saving appliances and home improvement devices.
- Mailed out 300,000 Home Energy Reports that include insightful messaging and information and targeted action steps for each household to help customers reduce electricity consumption.
- Educated over 1,350 sixth grade science students through our Living Wise program in areas of energy and water conservation.
- Mailed out over 131,000 WaterSmart reports that include a summarized water usage report and targeted action steps to help customers save water.
- Completed 224 Small Business site surveys, through our Smart Business Energy Upgrade Program.
- Installed a total of 4 electric vehicle charging stations throughout Glendale.

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FOCUSED ON MODERNIZATION

Being one of the first utilities to install both electric and water advanced meters, GWP is developing and implementing new and innovative energy efficiency, load management, demand response and customer engagement programs. Trends in utilities are leading towards providing digital communications that give customers near real time usage information to help them better manage their usage.

GWP My Connect Mobile App – Over 4,900 customers are using the app to view and pay their bills, see their usage, and connect with GWP.

Smart Thermostat & In-Home Display Program – Over 1,000 customers have installed smart thermostats and digital in-home displays. These displays show customers their real time electric and near-real time water usage information. Customers can also control their smart thermostats from their phone or their in-home display.

Conservation Voltage Reduction (CVR) Program

GWP continues to work with Dominion Voltage Inc. (DVI) to expand its CVR program system wide. CVR conserves electricity by operating electric customer voltage in the lower half of ten percent (10%) voltage band required by equipment standards using the voltage data collected from the Advanced Meter Infrastructure (AMI), to distribution feeders. During the FY 16/17 we had 3 transformers in full-time CVR mode with a combined savings of 3734.81 MWH. The percentage of savings by transformer ranged from 1.26% up to 3.65% for an average of 2.28% savings. We implemented 6 more transformers during FY16/17 for a total of 9 transformers in CVR mode.

Business System Automation

GWP continues to implement Automation within the Customer Information and Billing System (CIS). The North-Star Automation Platform is a powerful tool to streamline business processes, improve customer service efficiency, and free valuable staff time by automating manual business processes. This tool enables users to schedule and run routine tasks on a regular or event driven bases. It also allows instant email of notifications of successful and/or failed business processes. We automated several business processes this year including; Credit Control notice loads and Smart Letters, Overdue Interest, Meter Reading, and refund journals.

Virtualization of the GWP Modernization Systems

GWP continues to migrate its physical business systems to the virtual SQL environment to support the Glendale Modernization. The SQL Cluster virtual environment now hosts and supports a number of applications. The following business systems were upgraded and/or migrated in FY 16/17:

- IEE Meter Data Management System to 8.2 and migrating database to SQL Virtual Cluster platform to save on licensing
- Water SaveSource Collection Engine and migrating to SQL Virtual Cluster
- SAP Crystal Enterprise
- Data Warehouse
- DVI Voltage conservation – Planner, Manager, and Validator
- Data Storage migration from EMC VMAX to City's Dell Compellent saving $300,000 in annual maintenance.

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FOCUSED ON PROVIDING QUALITY WATER

Service to Count On

Glendale Water & Power treats and delivers more than 7 billion gallons of safe, reliable drinking water annually and the GWP team works diligently to ensure that it meets or exceeds all state and federal drinking water standards.

This work includes continuously monitoring water quality in the distribution system. This includes:

- Taking more than 5,700 water quality samples per year to ensure that water GWP delivers meets or exceeds all federal, state, and local water quality standards.
- Managing a cross-connection control program to inspect and approve the installation of new backflow prevention assemblies.
- Monitoring and testing nearly 2,200 existing backflow prevention assemblies to help ensure that contamination doesn't enter the system
- maintaining over 3,100 fire hydrants throughout the City and by ensuring there is enough water supply for their use

The Water Division team of dedicated professionals provides safe and reliable service 24 hours per day 365 days per year. This includes responding to water main breaks and customer outages, monitoring and operating 14 wells, 28 tanks and reservoirs, 26 pump stations, and 6 pressure reducing stations.

Investing in the Future:

Investing in the future includes replacing aging infrastructure, rehabilitating water system assets that still work but need major reconditioning to extend their usefulness, and building new assets that improve the system.

- The Kenneth and Ben Lomond Water Main Replacement Project installed approximately 11,340 linear feet of new ductile iron pipe along Kenneth Road, Ben Lomond Dr. and several other streets in the area. This project was part of GWP's pipeline management program to replace existing deteriorated cast-iron water mains to improve fire protection, reliability and water quality for the homes and businesses in the local community.

- GWP also continued work on the Hoover, Keppel, Toll Recycled Water Project installing a new recycled main to offset potable water use on the athletic fields at the three schools and reduce the amount of imported water needed.

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FOCUSED ON RELIABILITY

Electric Infrastructure

Investing in the future includes replacing aging infrastructure that still work but need major reconditioning to extend their usefulness, and building new assets that improve the system.

Improving our infrastructure as we upgrade and enhance reliability and operational efficiency keeps us ready for future changes.

- Grandview substation 69/12kV EPC project (Completed in July 2016): This project upgraded the 1930's built Air Insulated Grandview substation from 34.5kV/4kV operating voltages to a new GIS substation at 69kV/12kV operating voltages. This project increased the power capacity of the substation from 22.5MVA to 56MVA.
- 2MW Battery Energy Storage project (Started in November 2016): GWP is one of the first Southern California utilities to integrate a Battery Energy Storage System into their portfolio. A 2 MW BESS was commissioned in April 2017 to develop a good understanding in integrating the technology into our entire system.

Power Management

We continue to improve the reliability our power generators by implementing continuous preventative maintenance and replacement of equipment. As our Grayson Power Plant ages, these improvements are temporary fixes until we are ready to begin work on repowering our Grayson Power Plant at the GWP Utility Operations Center and having a more modernized power plant that meets the needs of our community and gives our customers the benefits of owning their own utility in their City.

- Unit #4 Boiler – roof tube and casing repairs
- Unit #9 Gas Turbine - repairs made in accordance with G.E. Service Bulletin Units #8A, #8BC – completed economizer replacement and inlet filter housing
- Unit #9 SCR Catalyst Replacement – started in September 2017 and scheduled to be completed in February 2018.

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