

SALT LAKE CITY PUBLIC UTILITIES 2017 ANNUAL REPORT







DIRECTOR'S MESSAGE

Resilience is at the heart and mission of Public Utilities.

That word defines everything we do – from rapidly responding to a utility emergency, to planning, building, and maintaining key infrastructure. Every operation we perform requires dedication, teamwork, and a ready-for-anything commitment to our work.

Examples of our resilience are everywhere. This year, our employees sprang into action, quickly and methodically addressing flooding and property damage brought on by two intense summer storms. We launched a funding mechanism and began public engagement for our new wastewater treatment facility, with construction set to begin next year. As the new structure is built, our current plant will continue operations. With anticipated completion by 2025, the new facility will serve our City for the next 50 years, satisfying expected population growth and expanded environmental regulations.

Our Rate Advisory Committee worked diligently to prepare fair and financially sound utility-rate recommendations for our Mayor and City Council. We also initiated an update to our Watershed Management Plan – the first in 18 years. After completion in early 2018, the Plan will provide a framework for addressing increasing pressures and vulnerabilities on our watershed, including climate change, wildfire, and massive recreational use.

Of course, beneath these definitions of readiness and resilience is this: An expectation that our team members deliver top performance every day. Our 24/7 operations require a full spectrum of service and dedication. This is why we have built into our structure career opportunities that reward experience and knowledge. We are dedicated to succession planning, ensuring seamless transitions as valued employees retire and their replacements come on board.

Great possibilities lie ahead. So we ask the public to join in helping us to meet the responsibilities implicit in our Department motto: *Serving our community, protecting our environment*. It is a privilege to deliver utility service in ways that support and safeguard our public health, our precious Wasatch watershed, and our greater Community.

These are exciting times, with true opportunities for our City and Public Utilities. We pledge our best work to the public, with timely, professional, and personal contact.

In a word: **Resilience.**



Laura Briefer, Director

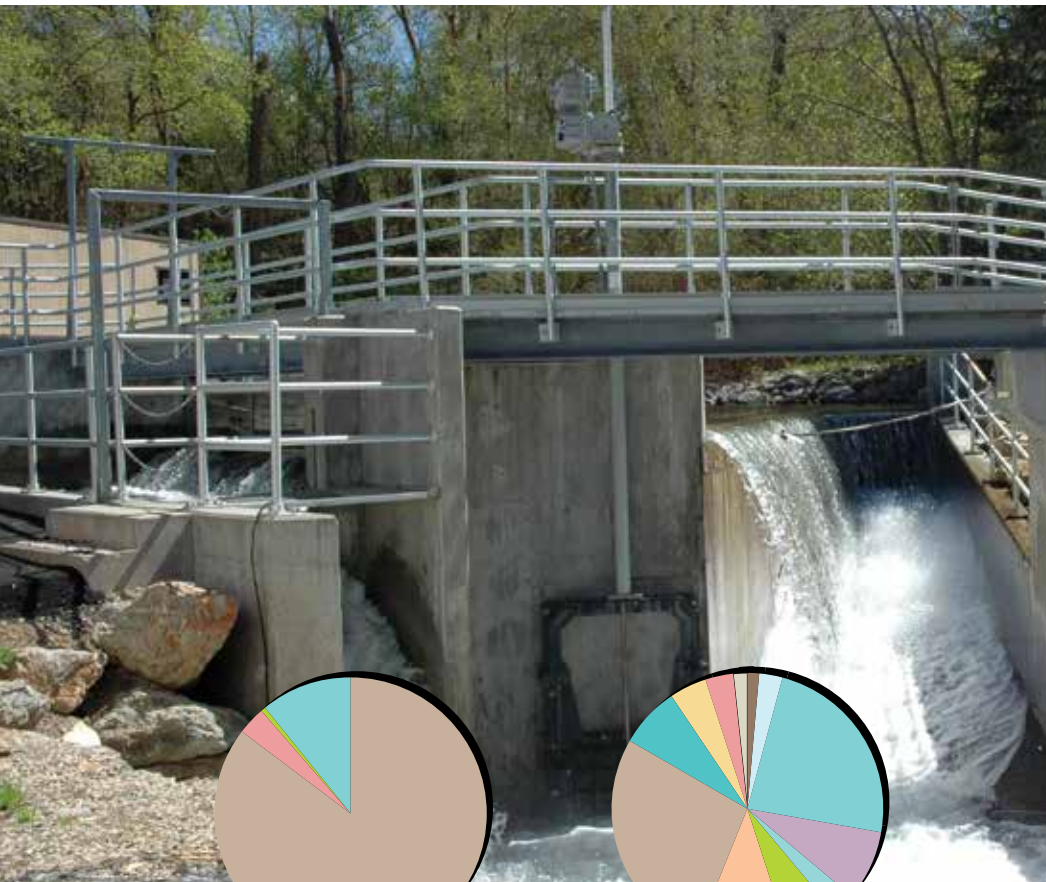


Laura Briefer, MPA

DRINKING WATER

We deliver high quality drinking water to Salt Lake City, Holladay, Cottonwood Heights, Millcreek, and portions of the unincorporated county through more than 90,000 service connections. Our **WATER QUALITY** program consistently meets or exceeds all state and federal clean water regulations. Our water is sourced from surface water and groundwater wells supplied through City-owned facilities or purchased from wholesale water suppliers. To ensure our water quality, we monitor,

sample, and analyze our source waters, our treatment processes at the facilities, and the finished drinking water at locations throughout the distribution system. In addition we completed the Bacteriological Sample Site Analysis Plan, which helps ensure we have representative sampling throughout our system and measures in place to mitigate any issues. We also prevent system contaminations by monitoring connections through our Cross-Connection program.



Service connections:

91,467

Service area:

136 sq. miles

Gallons of
water delivered:

28.4 billion

Population served:

344,000

Miles of mains
and conduits:

1,301

Water Utility Sources

Water Sales	\$72,699,328
Other Income	2,780,282
Interest Income	519,192
Contributions	9,131,950
Total	\$85,130,752

Water Utility Uses

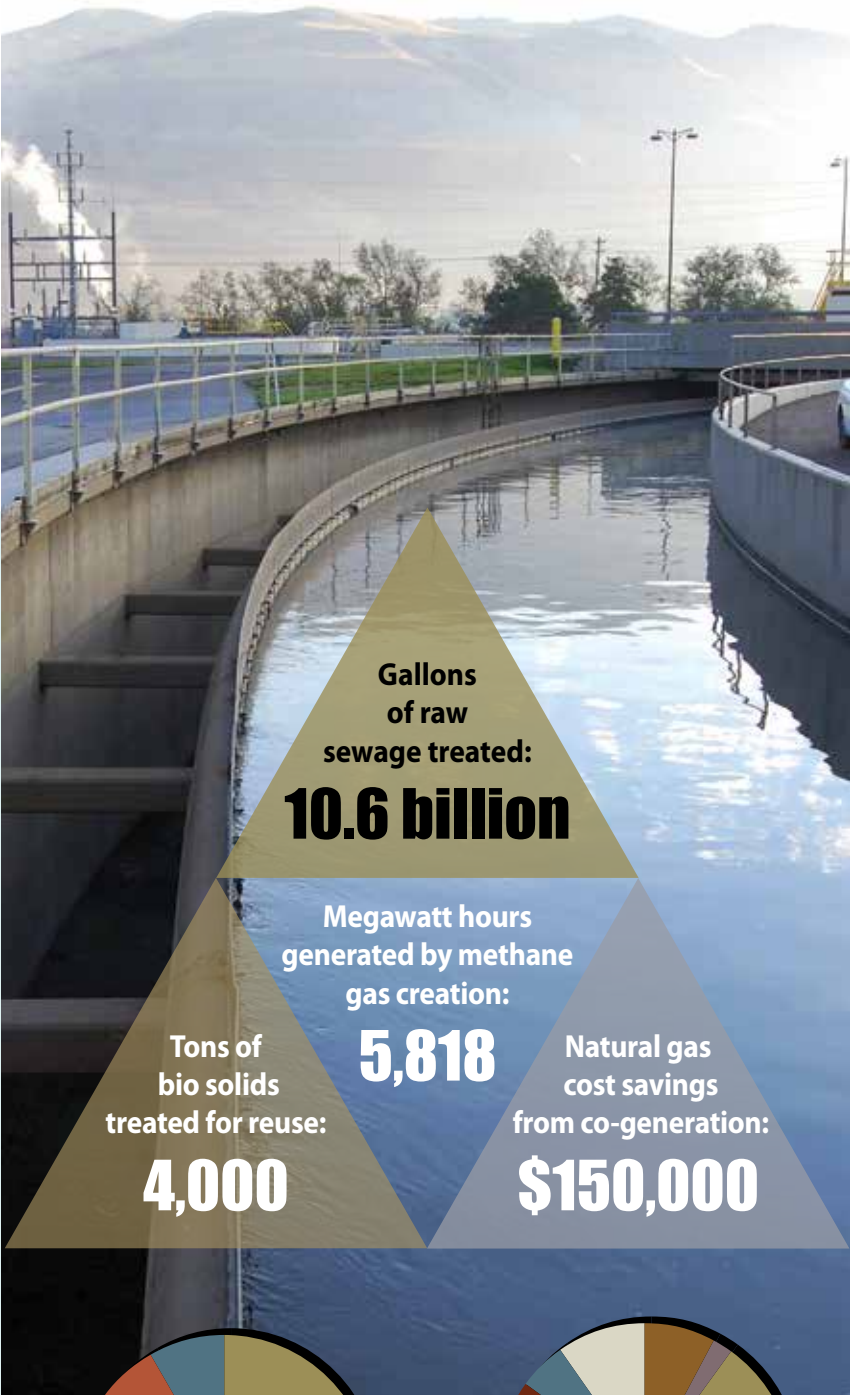
Sources of Supply	\$1,299,478
Power & Pumping	2,321,967
Purification	20,136,465
MWDSLS Assessment	7,021,892
Shops & Maintenance	2,490,158
Finance	5,064,403
Trans. & Distribution	9,518,839
Capital	23,204,211
Administration	6,139,932
Payment to City	3,800,457
Debt Service	2,753,835
Reserves	1,379,115
Total	\$85,130,752

We continue to prepare for the future by building upgrades into our drinking water treatment plants, thus ensuring water quality, efficiency, resiliency, and for meeting seismic standards. All plants have reduced energy use by operating with energy-efficient lighting.

WASTEWATER

Water RENEW Program

Rehabilitation of aged sewer system
Expansion of pipe capacity for West Side growth
Nutrient treatment
Energy efficiency and resource recovery
Water quality improvement for our environment and public health



Our **WATER RECLAMATION FACILITY** is Salt Lake City's only wastewater treatment plant. We manage and monitor the sewage treatment process for residential, commercial and industrial customers. Our other responsibilities include the technical analysis, asset management, capital improvement planning, project design, construction management, mapping, and pre-treatment. Constructed in 1965, and having been upgraded many times since, our plant is poised to undergo a full replacement. With full focus on resilience, a state-of-the-art facility – designed to handle the demands of population growth, and stricter government regulations – for the next 50 years. We will keep the existing plant operating while the new model comes on board over the next five years, a challenge this work group is prepared to meet. Our team consistently wins government and industry awards for treating sewage to higher levels than required by federal and state authorities. We do this work while simultaneously reducing our carbon footprint through collection and use of methane gas, and by cutting the pressure on the landfill by repurposing biosolids. We build conservation into our model by removing tons of pollutants in the treatment process. This allows us to return billions of gallons of treated water back into the environment each year.

Wastewater Utility Sources

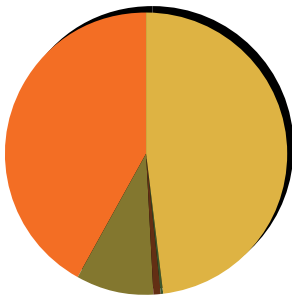
Customer Billing	\$ 24,670,395
Other Income	571,272
Interest Income	423,004
Contributions	4,280,591
Reserves	2,673,827
Total	\$ 32,619,089

Wastewater Utility Uses

Collections	\$ 2,621,388
Pumping	659,802
Reclamation	7,377,715
Finance	1,156,989
Capital	12,565,115
Administration	3,378,753
Payment to City	1,725,101
Debt Service	3,133,776
Total	\$32,619,089

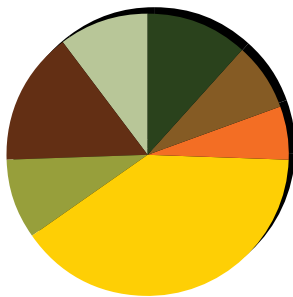
STORMWATER

Our **STORMWATER UTILITY** keeps drainage conveyances clean throughout the community, and monitors and maintains the quality of stormwater discharges. Our maintenance program is designed to clean the entire drainage system on a 5-year cycle. This is quite a task—the system consists of 343 miles of pipe, 113 detention basins, and 108 miles of open ditches and channels. Our team adheres to federal and state clean water laws and routinely collects samples from the stormwater system to prove compliance. We inspect major storm drains and detention basins annually, and schedule cleaning of main lines when yearly inspection indicates they have reached 20-percent capacity with sediment. Stormwater crews were first on the scene following two intense storms this year, assessing damage and clearing drains quickly. Preparation is key for this team. We keep 5,000 sandbags on hand for spring runoff or any flooding. And with the aid of specially designed clean-out boxes, we catch “floatables” (water bottles, beverage cups, garbage) before they reach their final destination: the Jordan River.



Stormwater Utility Sources

Customer Billing	\$	4,821,072
Other Income		23,699
Interest Income		79,254
Contributions		894,026
Reserves		4,195,181
Total	\$	10,013,232



Stormwater Utility Uses

Collections	\$	1,176,763
Engineering		776,176
Water Quality		607,094
Capital		3,986,658
Administration		933,834
Payment to City		1,514,817
Debt Service		1,017,890
Total	\$	10,013,232



Cubic feet of floatable debris prevented from entering the Jordan River:

675

Tons of debris cleaned from SLC storm drains and ditches:

3,174

Footage of pipes cleaned out:

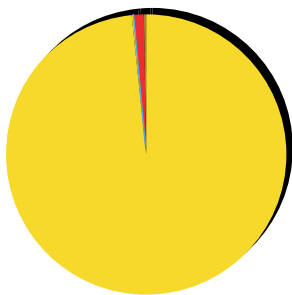
563,692

Storm drain inlets cleaned:

23,337

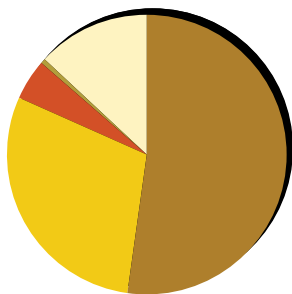
STREET LIGHTING

Our youngest enterprise fund (born in 2012), **STREET LIGHTING**, continues to work toward a key priority of Salt Lake City elected leaders and our own administration: Energy efficiency and a concerted effort to address climate change on a local level. The initial capital improvement program included a metric of converting the City's entire street lighting system to high-energy efficient lamps within 10 years. We are now 6 percent ahead of last year's conversion level, and nearly halfway to our 100-percent goal.



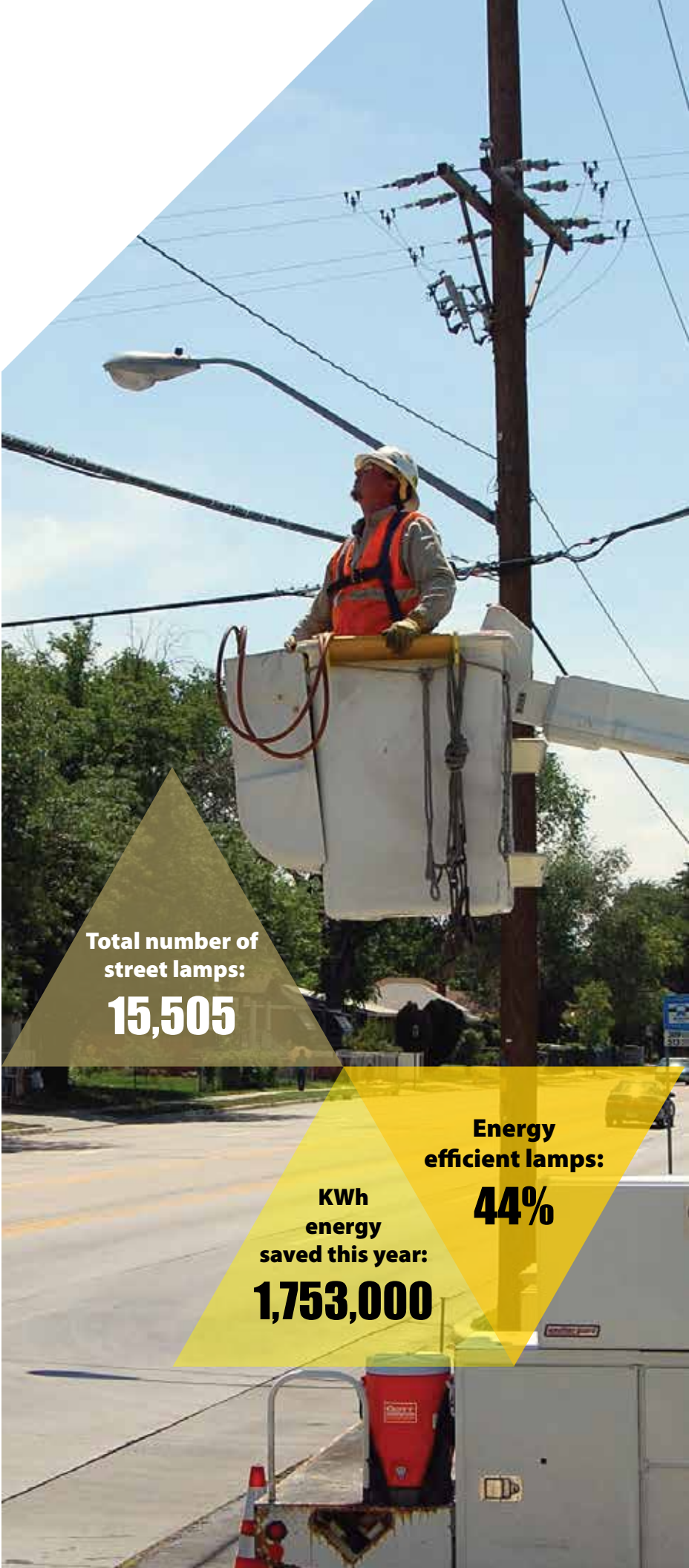
Street Lighting Utility Sources

Customer Billing	\$ 4,216,133
Other Income	7,131
Interest Income	48,352
Contributions	7,086
Total	\$ 4,278,702



Street Lighting Utility Uses

Maintenance	\$ 2,236,704
Capital	1,267,501
Administration	199,409
Payment to City	28,304
Reserves	546,784
Total	\$4,278,702



Total number of
street lamps:
15,505

Energy
efficient lamps:
44%
KWh
energy
saved this year:
1,753,000

ADMINISTRATION

THE ADMINISTRATIVE DIVISION provides direction and vision for each of our enterprise funds: Drinking Water; Stormwater; Wastewater; and Street Lighting. Policy, training, safety, media relations and community outreach, and application of both human and financial resources all live within Administration. A top priority is succession planning. Of 400 SLCPU employees, 65 of them hold key positions and are likely to retire within five years. Forty of them could retire today if they chose to. We want to retain strong institutional knowledge and to save costs as we make these important personnel transitions. Our dedicated employees, along with protecting valuable watershed and water rights, are at the foundation of our “can do” approach to providing and managing excellent utility service.

FINANCE

THE FINANCE DIVISION provides information for managerial and administrative decision making while providing oversight, direction, and management for our Customer Service, Meter Reading and Billing groups. We manage finances for the Department's four enterprise funds. This process includes preparing an annual, comprehensive budget of more than \$200 million, investing idle reserves, selling revenue bonds, establishing proper rates for customers, and forecasting financial needs of this capital-intensive Department. Preparing a cash-flow budget helps forecast our rates or customer fee changes and provides customers the flexibility to adapt to changes in their future demand for our services. Establishing internal financial and administrative controls, paying and collecting for services, plus providing necessary resources for emergency response and for requests from the Mayor and City Council round out the Finance Division's core responsibilities.

**Standard &
Poor's rating:**

AAA

**Customer
bills annually:**

1,140,000

**Payments
delinquent over
90 days:**

1/2 of 1%





Plans reviewed:

3,200

New water services:

283

New sewer laterals:

388

Sewer lateral repairs:

488

CUSTOMER SERVICE

Our **CUSTOMER SERVICE** team is key to generating trust and a good relationship with our ratepayers. The group takes customer calls and in-person visits, resolves questions and service concerns, and manages queries for all four enterprise funds. They also reach out to customers about late payments, indications of unusually high water use, and meter malfunctions. Customer call volume increased over last year, but the number of dropped calls dipped from nearly 10 percent to 6 percent – and customer satisfaction ratings of this dedicated team also rose.

Walk-ins:

6,577

**Investigation
collections:**

\$2.33 M

Phone calls:

114,094

**Satisfaction
rating:**

94.8%

DEVELOPMENT/ CONTRACTS

DEVELOPMENT AND CONTRACTS maintains federal and state regulations, City codes and ordinances, and our high departmental standards for water, sewer, and stormwater system connections and main connections. Flood control regulations and riparian corridor oversight also come under this group's management. The team interacts with other City departments and jurisdictions on planning, permitting, and development, and links developers with SLCPU groups including GIS/IT, billing, customer service, storm water quality, pretreatment, backflow prevention, maintenance and operations, and construction inspection. Increased service in this division was noteworthy: Walk-in contract customers were more than 50 percent over last year. New sewer laterals increased by 40 percent.

**Water
pump stations:**

30

**Miles of
sewer pipe
and collection lines:**

654

**Storm Water
Lift Stations:**

27

**SLCPU-owned
water treatment
plants:**

4



ASSET MANAGEMENT

We accurately inventory all physical assets: Pipes, valves, pumps and lift stations, treatment and sewer reclamation facilities, manholes and much more. The Asset Management team then identifies condition and criticality of each asset. Condition is the ability of an asset to perform its intended function; criticality is related to the importance of the function performed. Through these critical tasks, our Department can identify and solve system deficiencies, as well as plan needed inspections, cleaning, and maintenance. With regular collaboration among all of our work groups, Asset Management uses time and money more effectively, while ultimately preventing system failures and enhancing public health and safety.

ASSET PERFORMANCE CRITERIA:

Regulatory

Safety

Water Quality

Customer Satisfaction

Structural/Seismic Integrity

Capacity

Carbon Footprint



CAPITAL IMPROVEMENT

CAPITAL IMPROVEMENT dovetails with Asset Management – budget and planning come together to address utility infrastructure needs. We work to make timely, cost-efficient repairs or replacements of facilities, thus ensuring safer structural conditions and continued compliance with government and industry standards. Capital Improvement strives to employ the latest construction methods, new and more efficient materials, and economies of scale. The balance is always to operate efficiently and quickly, while placing public health and safety at the forefront. We continue to work steadily toward the City's goal of having all buildings and facilities operating carbon-free by 2032.



Street
lighting:

6

Number of
capital
projects:

301

Water:

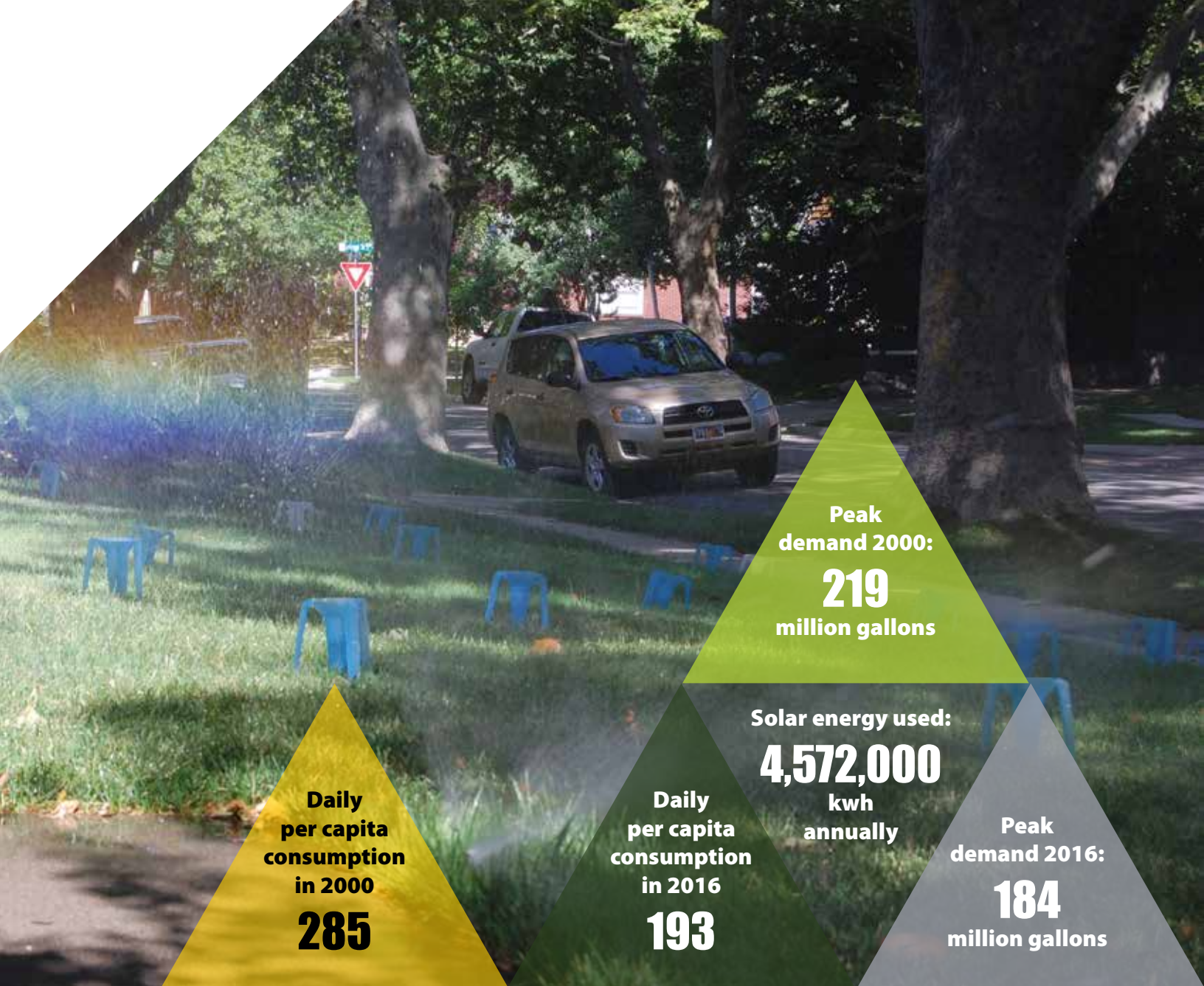
92

Sewer:

172

Stormwater:

31



WATER AND ENERGY CONSERVATION

We serve our community and protect our environment through robust water and energy conservation programs. Work is underway on the 2019 Water Conservation Master Plan Update, and we were awarded a grant from the U.S. Department of Interior's Bureau of Reclamation through its WaterSMART Drought Planning program. This will allow us to update our Water Shortage Contingency Plan.

Water supply and demand management, energy use, and climate change are threads woven throughout our planning processes. Through all of our efforts, we can achieve our goals of maintaining a resilient, sustainable water supply and also reduce our carbon footprint.

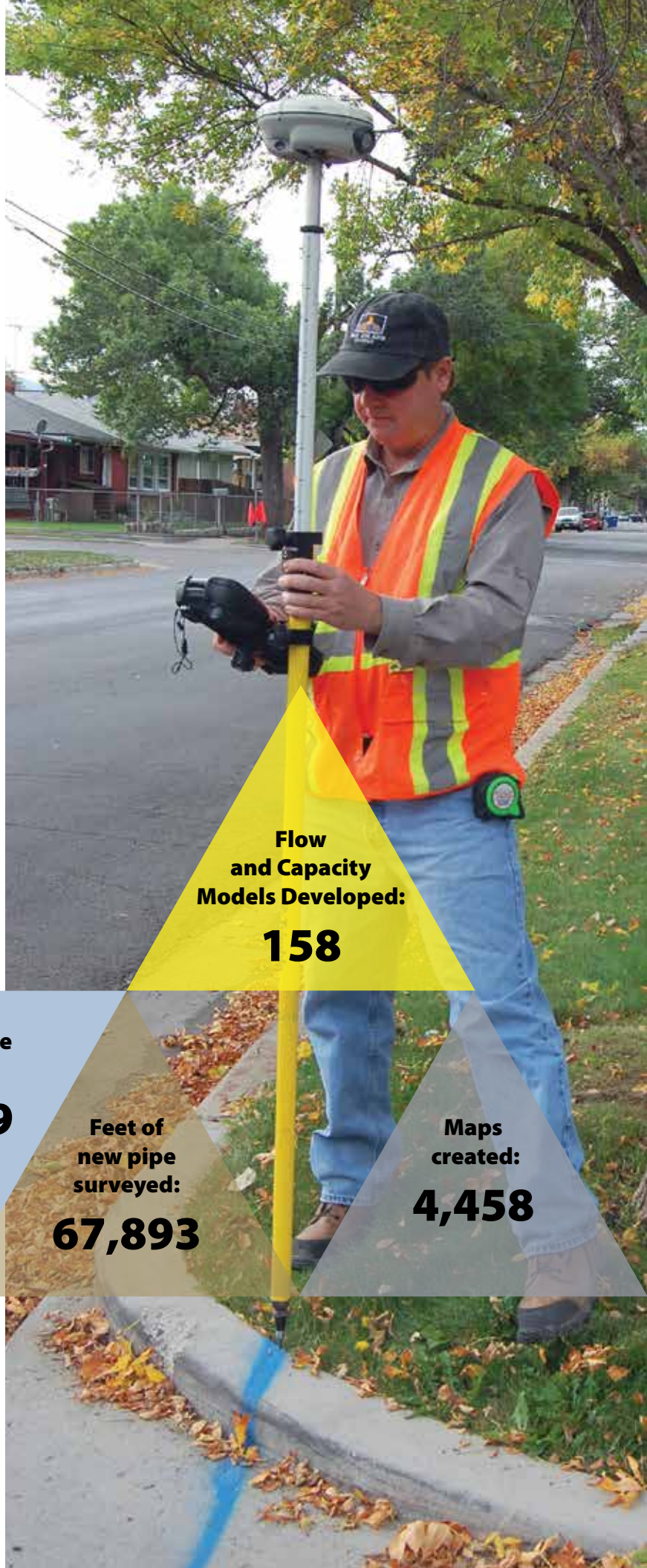


GIS/IT

GIS/IT provides other city departments, county and state agencies, as well as private property owners with mapping and location information, including Blue Stakes. Additionally, both in emergency planning and response, GIS/IT provides the mapping and other information critical to ensure our Department is prepared and can respond effectively and efficiently in protecting our community.

We map and survey all water, sewer, stormwater, and street lighting infrastructure and collect vast amounts of data for modeling and assessments. This allows for top system performance and efficient integration of each program. Our team also creates and manages maps of Department properties, including our critical watershed lands. IT supports our Department website, social media platforms, and the citizen engagement app SLCMobile – all critical tools for interacting with our community.

Looking toward the future, GIS/IT is helping lead the Department toward greater efficiencies by developing integrated work flow processes and increasing use of mobile applications. We maintain asset management databases, including maintenance costs and utility conditions. With mobile technology, we can use real-time information in the field, thus decreasing fuel and paper costs. Every enterprise fund, division, and work group is linked through the GIS/IT network. The



**Flow
and Capacity
Models Developed:**

158

**Blue Stake
requests:**

44,973

**Work
orders
processed:**

19,884

**SLC mobile
reports:**

4,089

**Feet of
new pipe
surveyed:**

67,893

**Maps
created:**

4,458

Department's computer hardware and software systems are also supported, including implementation of a SCADA and work order system at the Water Reclamation Plant.

SAFETY

**Number of
Public Utilities
vehicles:**

280

**Number of
on-the-job miles:**

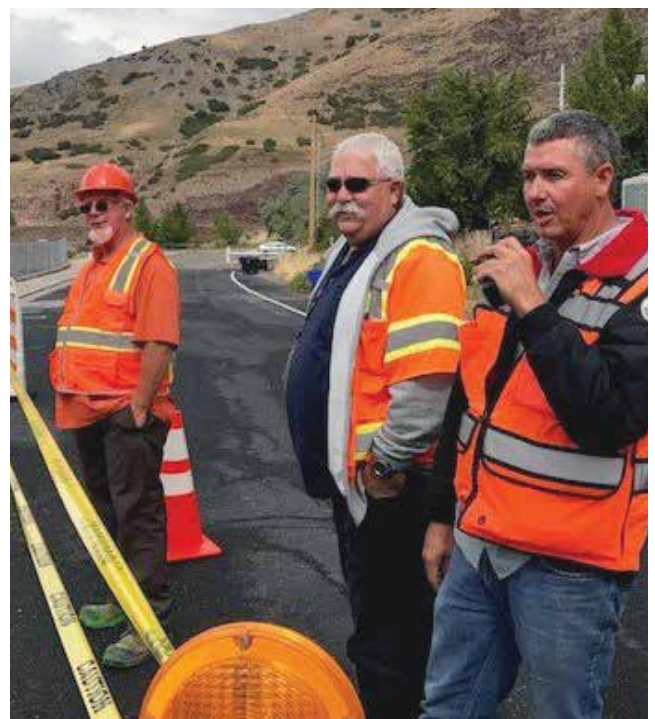
1,386,210

**Average miles
driven per vehicle:**

4,950



SAFETY is no accident at SLCPU. It is at the root of everything we do. We ensure a safer community, work product, and workplace with our safety program. Our program educates employees on our responsibility to ourselves and to our co-workers in conducting our jobs safely. This includes job training, participation in safety committees, recognition and award programs, thorough accident investigation, and worker compensation case management. With an eye on constant improvement in our safety program, this year we have trained our team in the use of Cornerstone LMS, an on-line employee training tool recently purchased by the City. Cornerstone allows efficient tracking of training, policies, procedures, safety and regulatory compliance, specialized equipment, and more. The system also allows timely tracking of renewal requirements for our many employees who must obtain federal and state licensing. We are also an integral partner in the city-wide Emergency Operations Center (EOC). Public Utilities helps to staff the operations, logistics, planning, finance, and policy group functions of the EOC. Our participation is key in responding to and managing severe events affecting our customers, such as the heavy rainstorms and flooding of summer 2017.



WATERSHED

Our **WATERSHED** Program works passionately to ensure pollution-free water sources for approximately 344,000 customers. This includes vigorously protecting SLCPU's water rights, and ensuring our water is used appropriately and wisely. Our canyon watershed is ground zero for this protection and stewardship. Watershed rangers patrol the mountains towering over the Salt Lake Valley. They monitor for compliance with watershed regulations, educate visitors, steward the land, and manage recreation

facilities. This year Watershed celebrated several accomplishments that aid in resiliency and in building a stronger future for our drinking water resources.

Our Watershed team replaced an antiquated restroom with fully equipped ADA restroom at site #30 in City Creek Canyon. We will continue to seek funding for projects that enhance accessibility to all watershed users. Planning for projects in 2018 is already underway.

We are currently updating our 1999 Watershed Management Plan to reflect greater awareness of vulnerabilities to our water supply, including climate change, massive recreational use of our canyons, potential toxic spills, and natural disasters. Additionally, SLCPU Director Laura Briefer signed the Community Wildfire Prevention Plan, a collaboration with the State and other City departments to proactively address fire threats in our watershed.



**Square miles
of watershed:**

190

**Acres purchased
for protection
(since 1989):**

31,528

Grants awarded:
(for weed control/restoration
and for trails rehabilitation)

2

**Drinking Water
Sourced in
Wasatch Watershed:**

60%



PRE-TREATMENT

THE PRETREATMENT PROGRAM monitors and controls potential industrial wastewater entering the City's Sanitary Sewer System for compliance with federal, state and city pollutant requirements. This year the Pretreatment Program also initiated a dental amalgam program. The dental amalgam program requires the onsite collection and proper disposal of all amalgam from dentist offices within the City. We work diligently to evaluate incoming and existing industries, and will have evaluated more than 50 new companies by the end of 2017.

Pollution
compliance
inspections:
200

Responses
to spills
and illegal
discharges:
50

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES WATER, SEWER, STORMWATER, AND STREET LIGHTING

Combined Statement of Revenues, Expenses, and Changes in Net Position for the Enterprise Funds of Salt Lake City Department of Public Utilities.

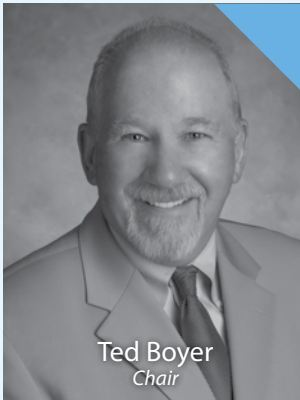
June 30, 2017

FISCAL YEAR 2017

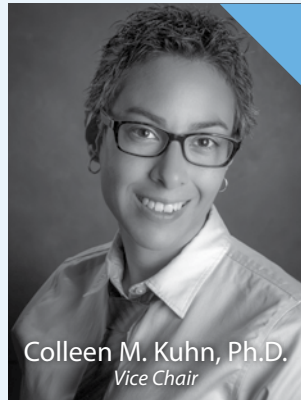
	WATER DEPARTMENT	SEWER DEPARTMENT	STORMWATER DEPARTMENT	STREET LIGHTING DEPARTMENT	COMBINED 2017
OPERATING REVENUES:					
Metered sales	\$ 72,699,328	\$ —	\$ —	\$ —	\$ 72,699,328
Charges for sewer services	—	24,670,395	—	—	21,709,585
Stormwater fees	—	—	8,421,072	—	8,421,072
Streetlighting fees	—	—	—	4,216,133	4,126,133
Other	2,780,282	571,272	23,699	7,131	3,382,384
Total operating revenues	75,479,610	25,241,667	8,444,771	4,223,264	113,389,312
OPERATING EXPENSES:					
Cost of sales and service	\$ 42,788,799	10,658,905	3,563,954	2,236,704	59,248,362
General and administrative	11,204,335	4,535,742	1,444,730	199,409	17,384,216
Depreciation	8,639,639	6,478,842	2,946,340	333,283	17,869,784
Total operating expenses	62,632,773	21,673,489	7,955,024	2,808,083	95,069,369
OPERATING INCOME (LOSS)	12,846,837	3,568,178	489,747	1,415,181	18,319,943
OTHER REVENUE (EXPENSE):					
Bond interest expense	(395,233)	(1,043,966)	(186,924)	—	(1,644,619)
Bond premium	45,786	—	—	—	45,786
Less capitalized interest portion	395,233	828,985	97,916	—	1,322,134
Net bond interest expense	45,786	(214,981)	(89,008)	(18,496)	(276,699)
Legal settlement	—	—	—	—	—
Investment income, net	519,192	423,004	79,254	48,352	1,069,802
Gain on disposition of property and equipment	117,623	26,156	(3,865)	—	139,914
Net other revenue	682,601	234,179	(13,619)	29,856	933,017
CAPITAL CONTRIBUTIONS AND GRANTS	9,131,950	4,280,591	894,026	7,086	33,566,613
CHANGES IN NET POSITION	22,661,388	8,082,948	1,370,154	1,452,123	33,566,613
NET POSITION:					
Beginning of the year	349,743,188	204,380,355	106,981,171	6,628,916	667,733,630
End of the year	\$372,404,576	\$212,463,303	\$ 108,351,325	\$ 8,081,039	\$701,300,243



PUBLIC UTILITIES ADVISORY COMMITTEE



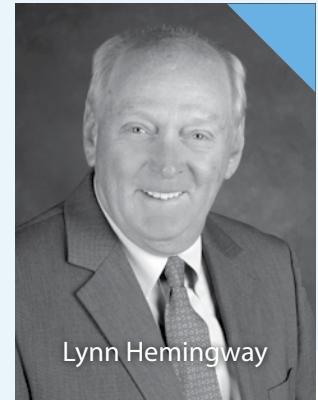
Ted Boyer
Chair



Colleen M. Kuhn, Ph.D.
Vice Chair



Sydney Fannesbeck



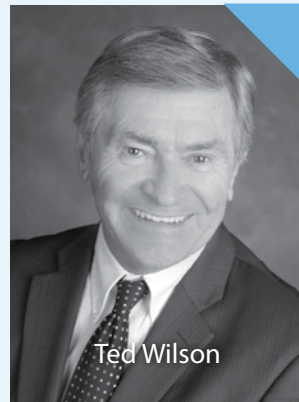
Lynn Hemingway



Kent Moore



Roger Player



Ted Wilson

A long standing volunteer group, the **PUBLIC UTILITIES ADVISORY COMMITTEE** provides input into departmental operations, rate schedules, and policy

decisions. Members serve four-year terms and represent customers throughout the department's service area.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES ADMINISTRATION

Laura Briefer, MPA
Director

Jesse Stewart, PG
Deputy Director

Kurt Spjute, CPA
Finance Administrator

Marian Rice, MPA
Water Quality Administrator

Jason Brown, PE
Chief Engineer

Mark Stanley
Maintenance Superintendent

Dale Christensen
*Wastewater Facilities
Manager*

Nick Kryger, GISP
GIS and IT Administrator

SALT LAKE CITY COUNCIL

James Rogers
District 1

Andrew Johnston
District 2

Stan Penfold
District 3

Derek Kitchen
District 4

Erin Mendenhall
District 5

Charlie Luke
District 6

Lisa Ramsey Adams
District 7

SALT LAKE CITY ADMINISTRATION

Jackie Biskupski
Mayor

Patrick Leary
Chief of Staff

Margaret D. Plane
City Attorney

Rusty Vetter
Deputy City Attorney

Cindi Mansell, NMC/CRM
City Recorder

Marina Scott
City Treasurer



Public
Utilities

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Salt Lake City, Utah 84115
www.slcgov.com/utilities
www.facebook.com/slcgu