
Public Utilities Department

March 2021

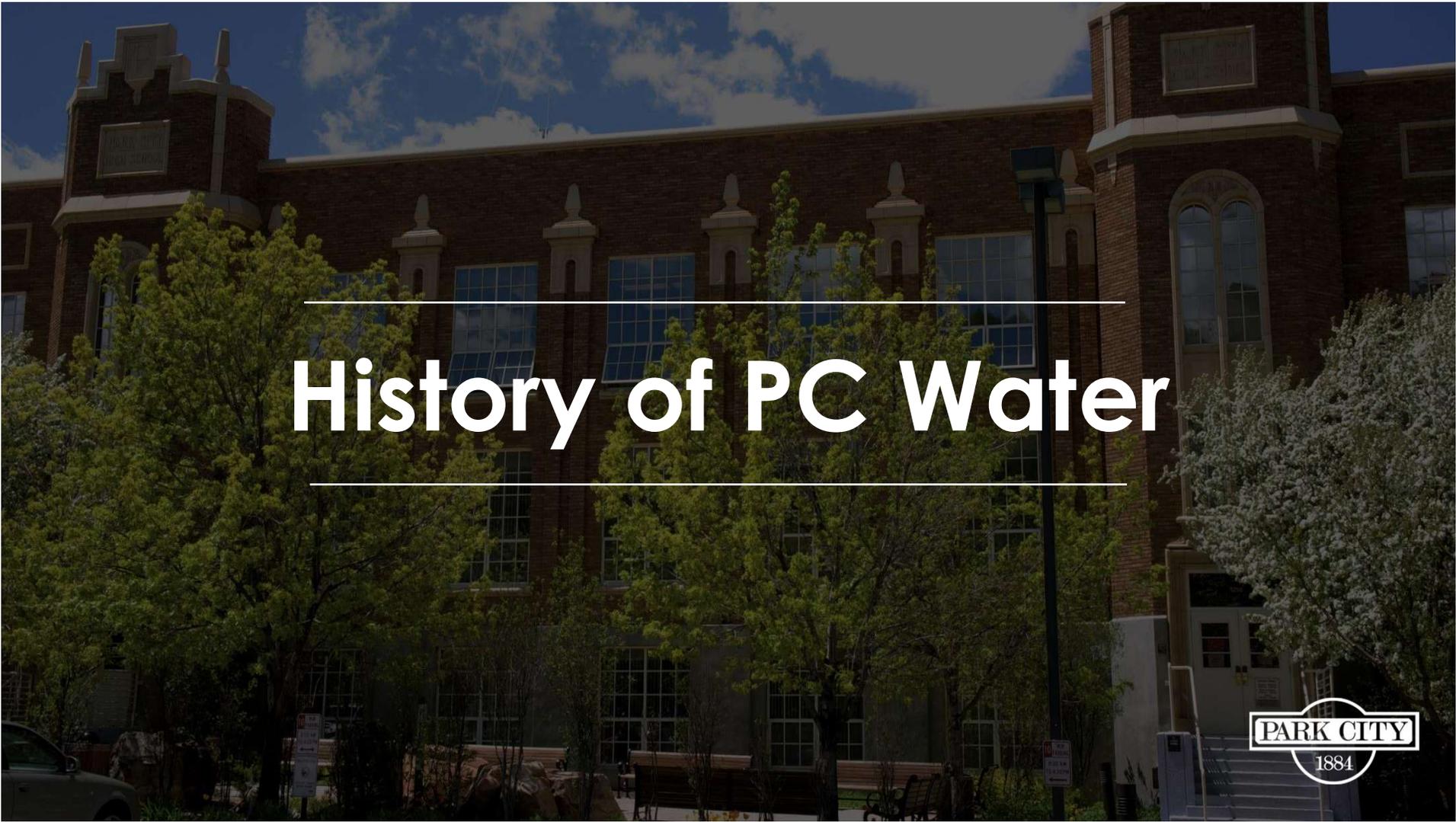
PC Stat

Data-Driven Action



PARK CITY

1884



History of PC Water

PARK CITY

1884

History of Park City Water

Public commentary not happy with the water company.

“It looks queer to the average Parkite to walk up to a bucket of drinking water and be able to see the bottom of the pail.”

Late 1800s

1893 - Town practically without water in case of fire.

June 19, 1898, Great Fire destroyed 200 buildings

1901 - A form of dysentery affected many Park City residents, who believed it was caused in part, if not in whole, by their water

Late 1800s

BEER ADS targeted PC residents who feared their water “just enough to aid digestion...for some beer is not healthful, Schlitz is the pure beer, the clean beer, the filtered and sterilized beer. No bacilli in it—nothing but health. And Schlitz is the aged beer that never causes biliousness.”

Early 1900s

1930's - Park City takes over the water system

1930 - Spiro Tunnel first used

1946 - Judge Tunnel replaces the Alliance Tunnel as primary source

1930s & 40s

History of Park City Water

1970's - Service area extended from Old Town into Park Meadows, Thaynes, and Prospector

1979 - Park Meadows Well drilled

1981 - Thiriot Spring first used

1980's - Snowmaking deliveries start

1970s & 80s

1990- Middle School Well drilled

1993 - Spiro Treatment Plant first built to remove heavy metals, primarily arsenic, thallium, antimony, iron and manganese

1999 - Divide Well drilled

1990s

2002 - Water from JSSD pumped into Park City

2004 - Spiro WTP upgraded for new arsenic standard

2007 - Park City experiences a large release of accumulated metals from the distribution system piping.

2010 - Park City experiences a second release

Early 2000s

2011 - major reorganization of the Public Utilities Department

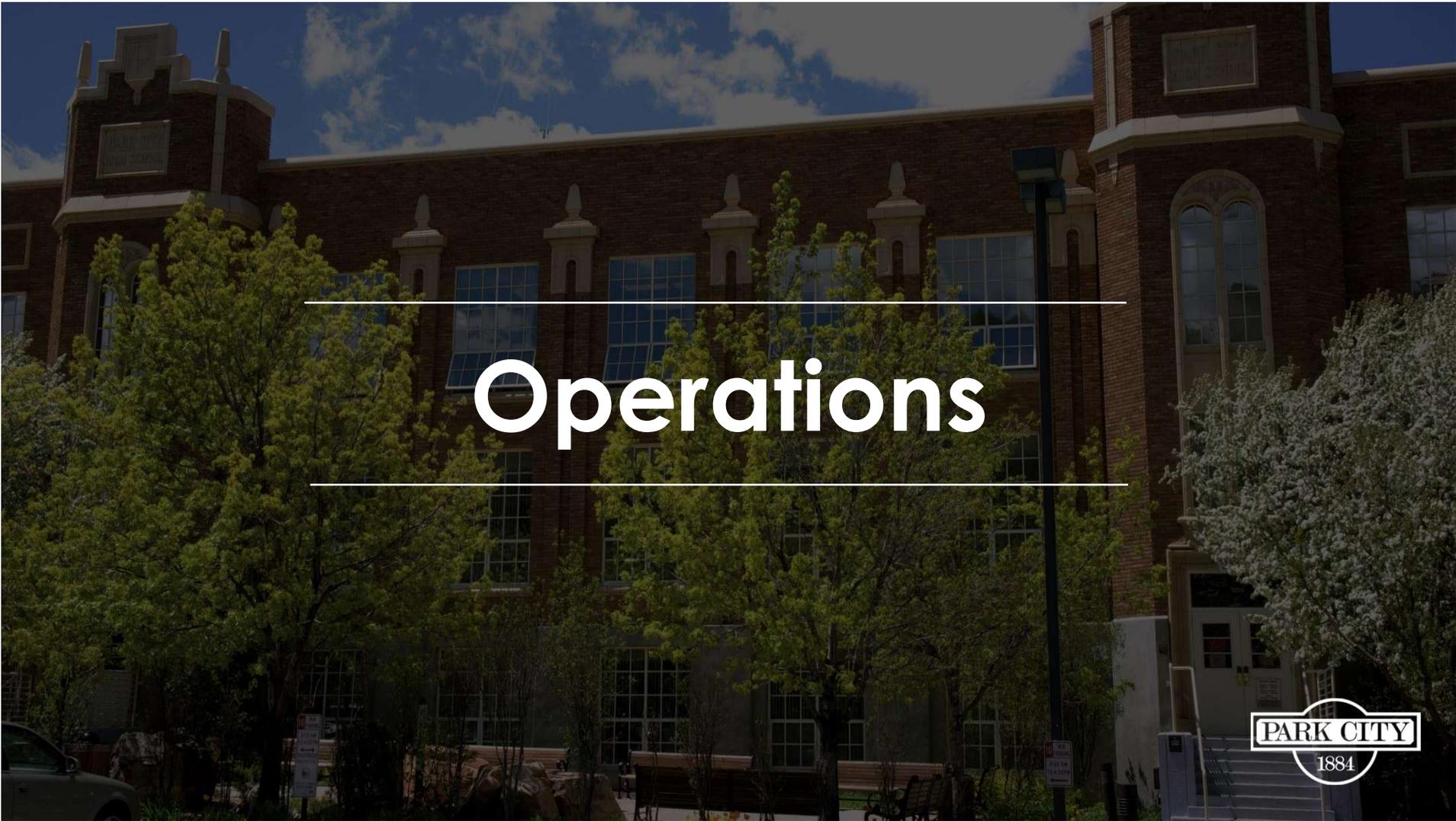
2012 - Rockport Importation and Treatment Project Completed

2013 - Judge Tunnel removed

2016 - Creakside WTP built

2020 - Spiro WTP Demolished and 3Kings WTP construction began

Last 10 years

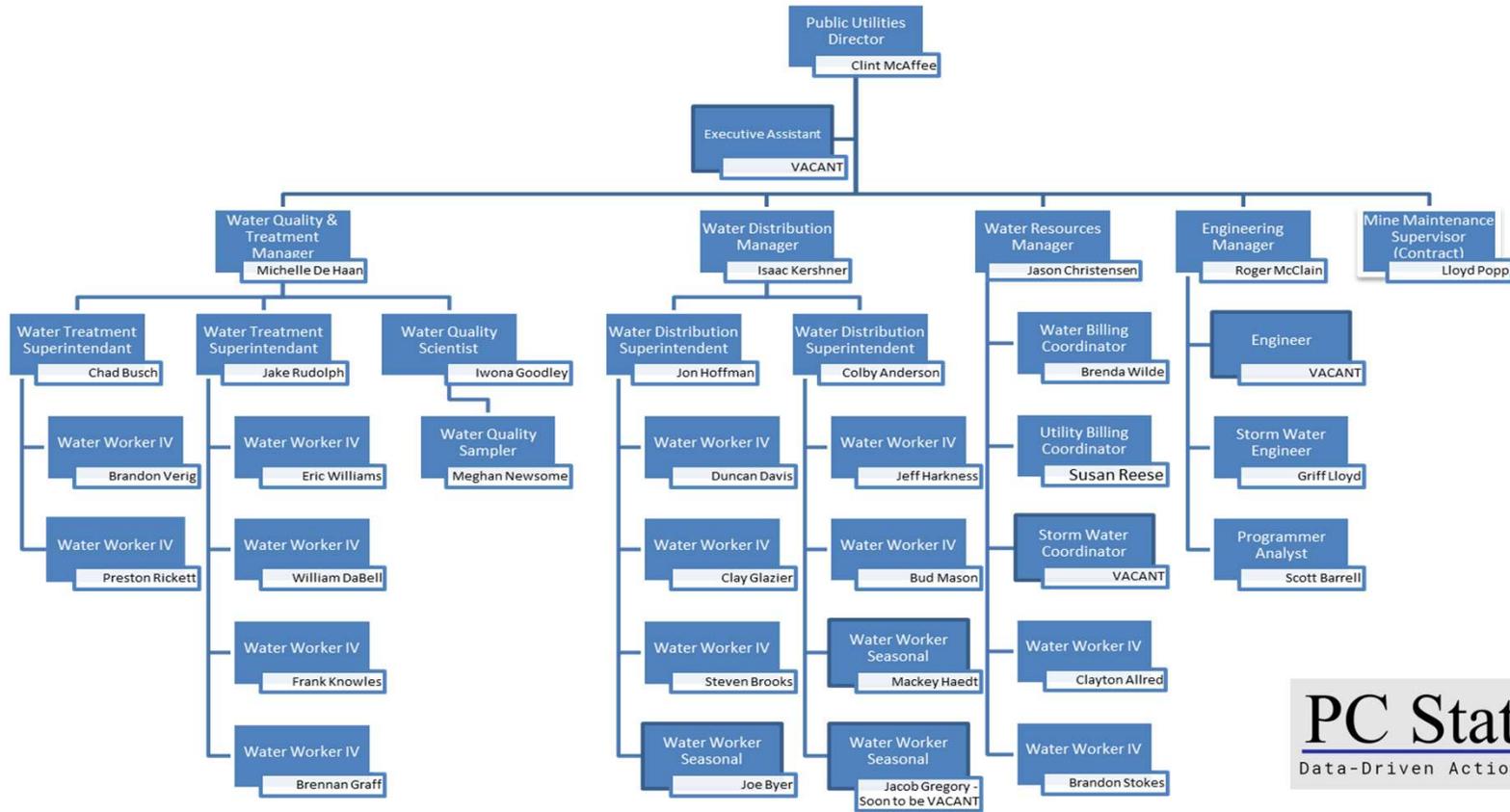


Operations

PARK CITY

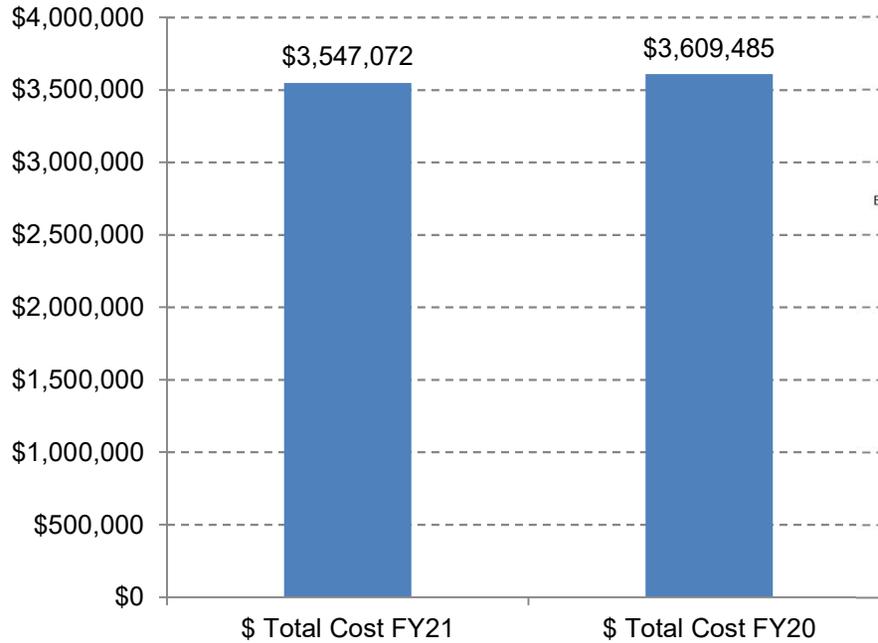
1884

Staff

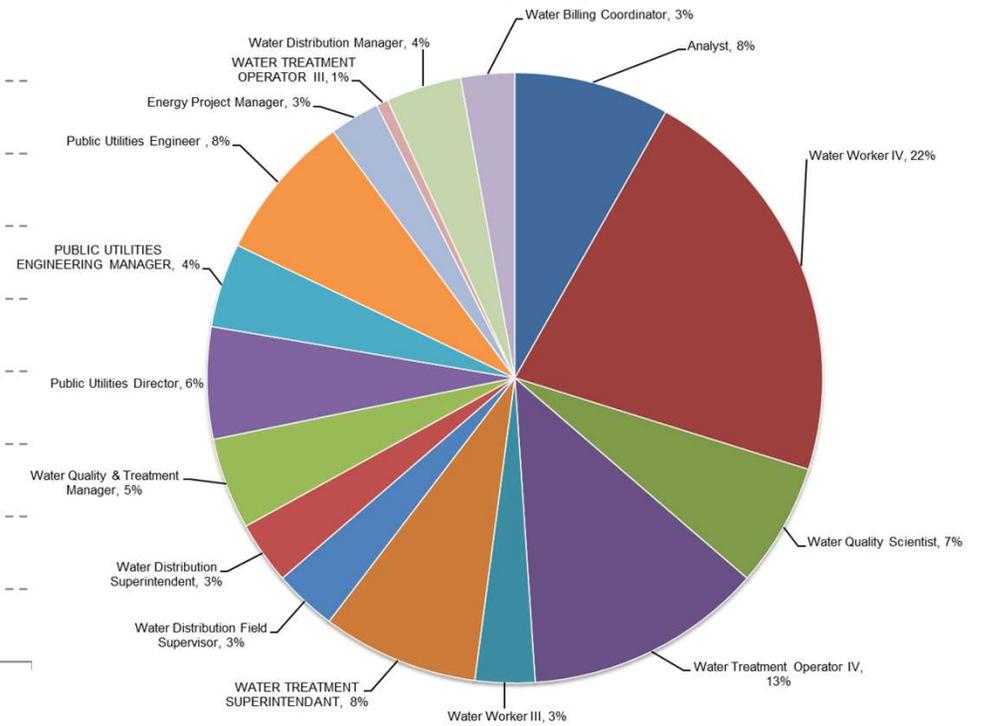


Personnel

YoY Total Personnel Costs



% Personnel Decomposition by FTEs - FY21



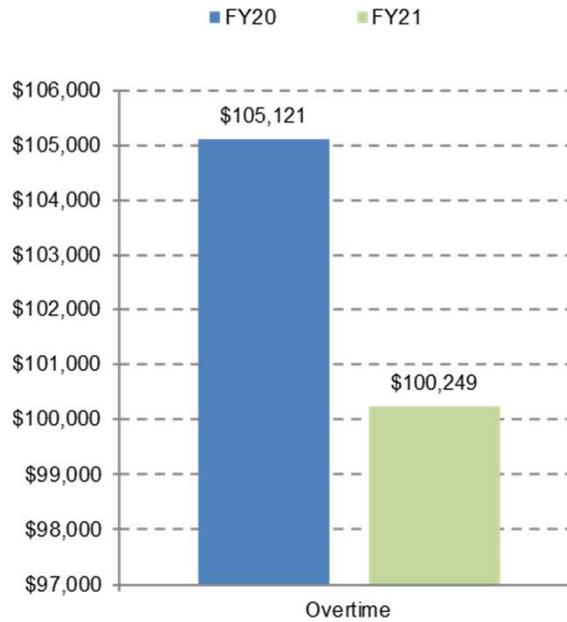
Source: Park City Municipal Corporation. As of 2/16/2021.

Personnel

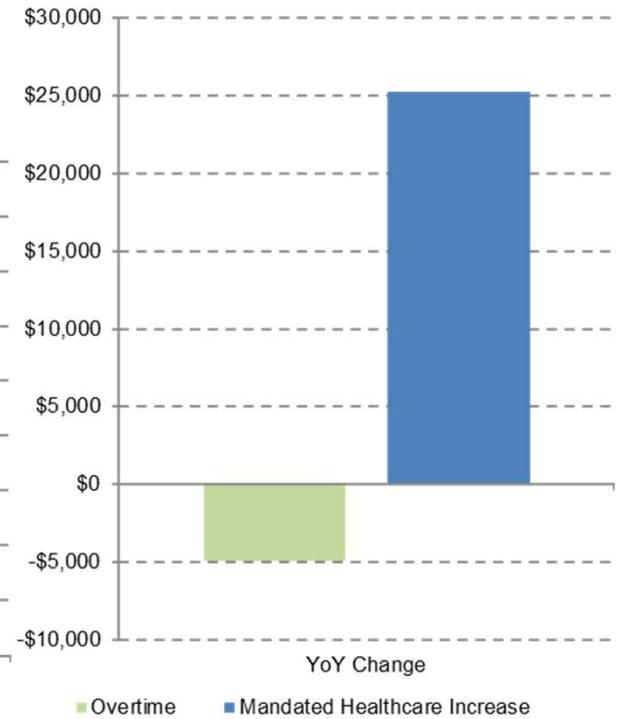
YoY Change in Key Incremental Cost Drivers - FY20 vs. FY21



YoY Change in Key Incremental Cost Drivers - FY20 vs. FY21



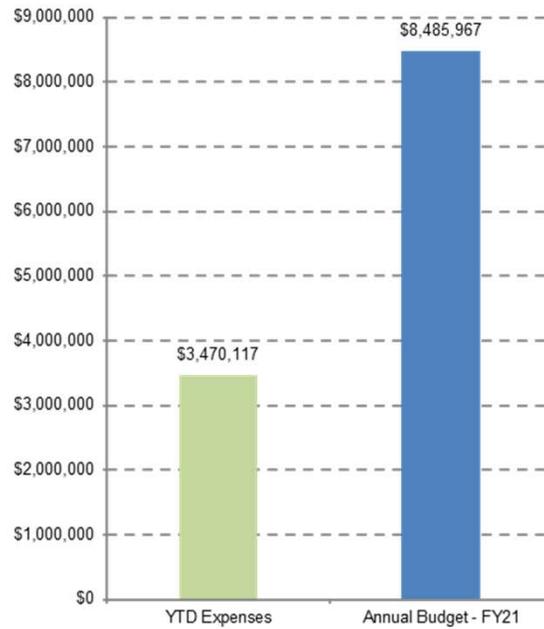
YoY Change in Key Incremental Cost Drivers - FY20 vs. FY21



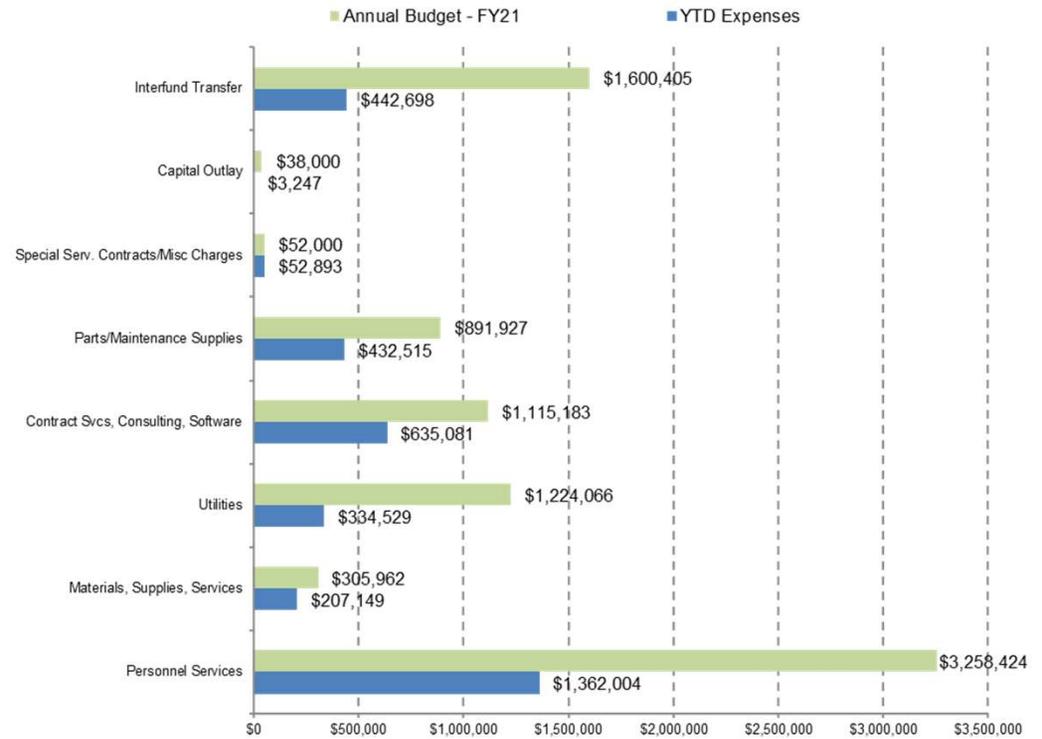
Source: Park City Municipal Corporation. As of 2/16/2021.

Expenses

YTD Personnel Expenses vs. FY21 Budget by Type



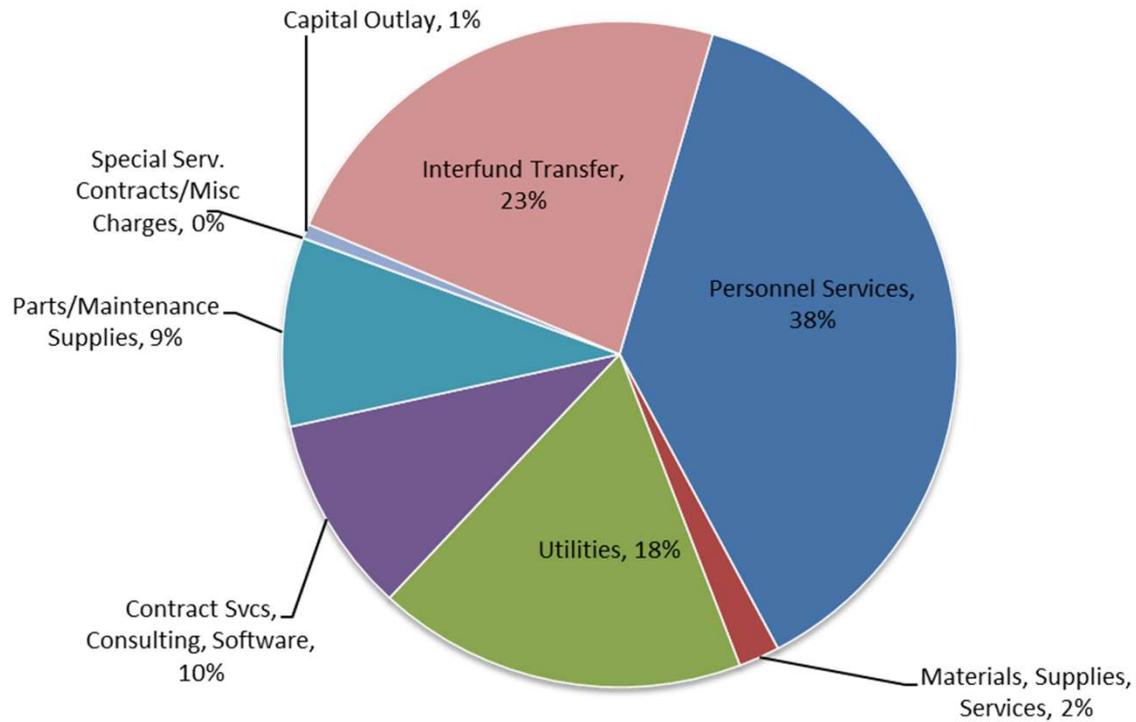
Additional YTD Expenses vs. FY21 Budget by Type



Source: Park City Municipal Corporation. As of 11/16/2020.

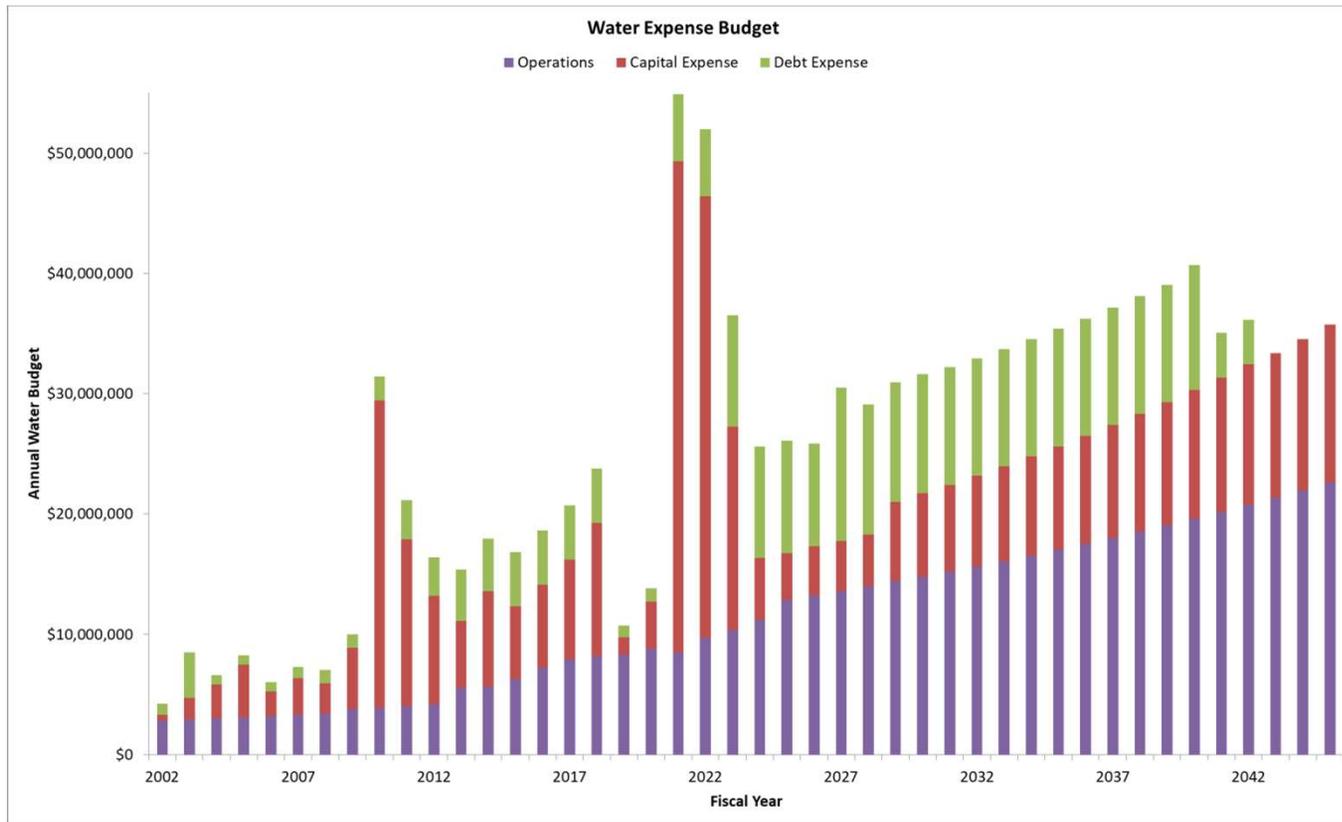
Expenses

Budget Summary Decomposition by Expense Type - FY21



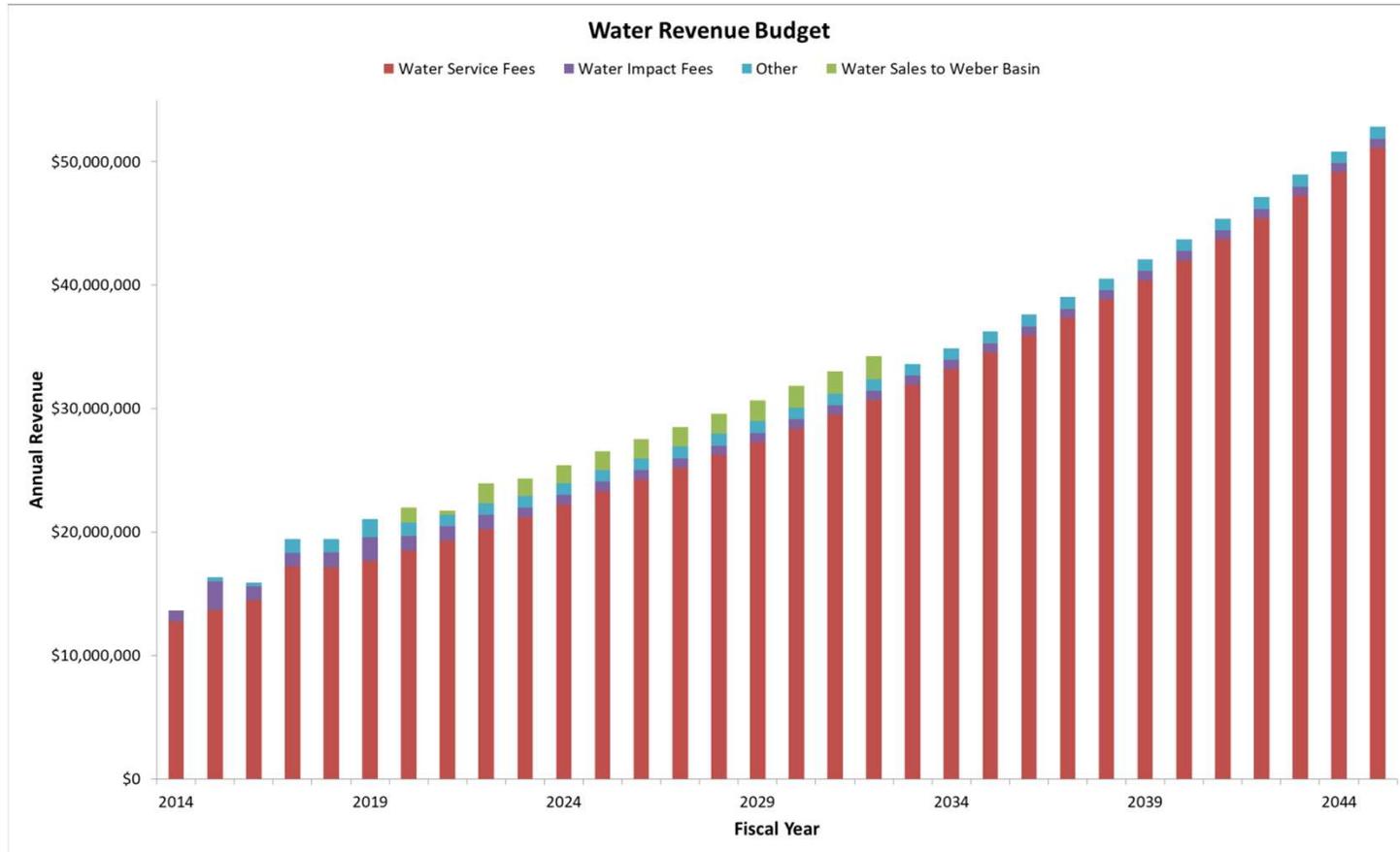
Source: Park City Municipal Corporation. As of 2/16/2021.

Expenses



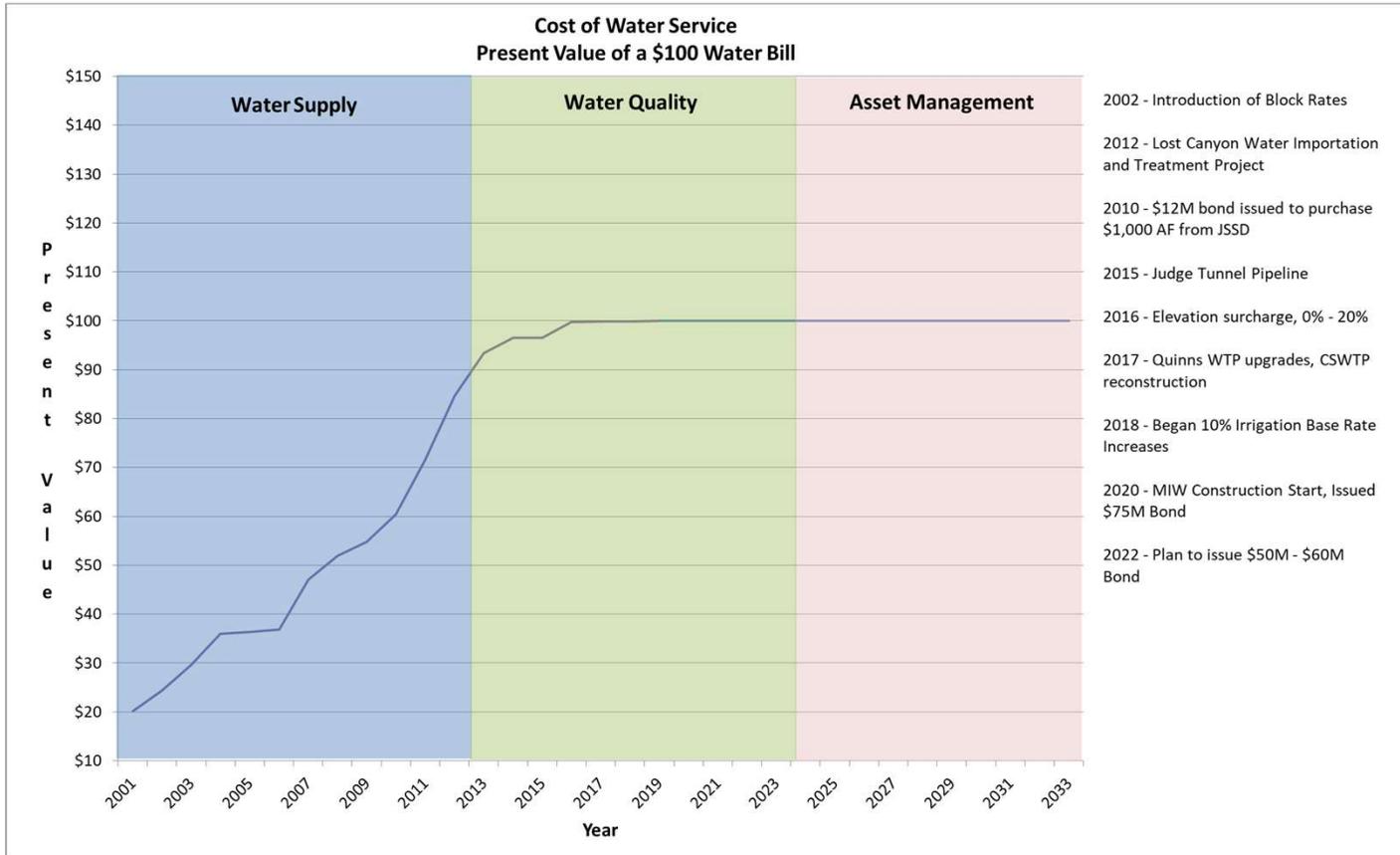
Source: Park City Municipal Corporation. As of 1/16/2021.

Revenue



Source: Park City Municipal Corporation. As of 1/16/2021.

Water Rates



Source: Park City Municipal Corporation. As of 1/16/2021.

Storm Water



Source: Park City Municipal Corporation. As of 1/16/2021.

Performance



Water System

Major Distribution Infrastructure

130 miles of pipeline
182 control valves
26 pump stations
50 pumps of varying size and capacity
54 pressure reducing stations
11 stream flow monitoring stations
950 fire hydrants
2 mine tunnels
20 storage tanks
1,775 mainline isolation valves
5,500+ meters
Telemetry and Security System

Sources and Reliable Yield

3 Tunnels	45%
1 Surface Water	30%
3 Wells	25%
1 Spring	0%

Treatment

3Kings WTP (under construction)
Quinn's Junction WTP
Creakside WTP

Compliance

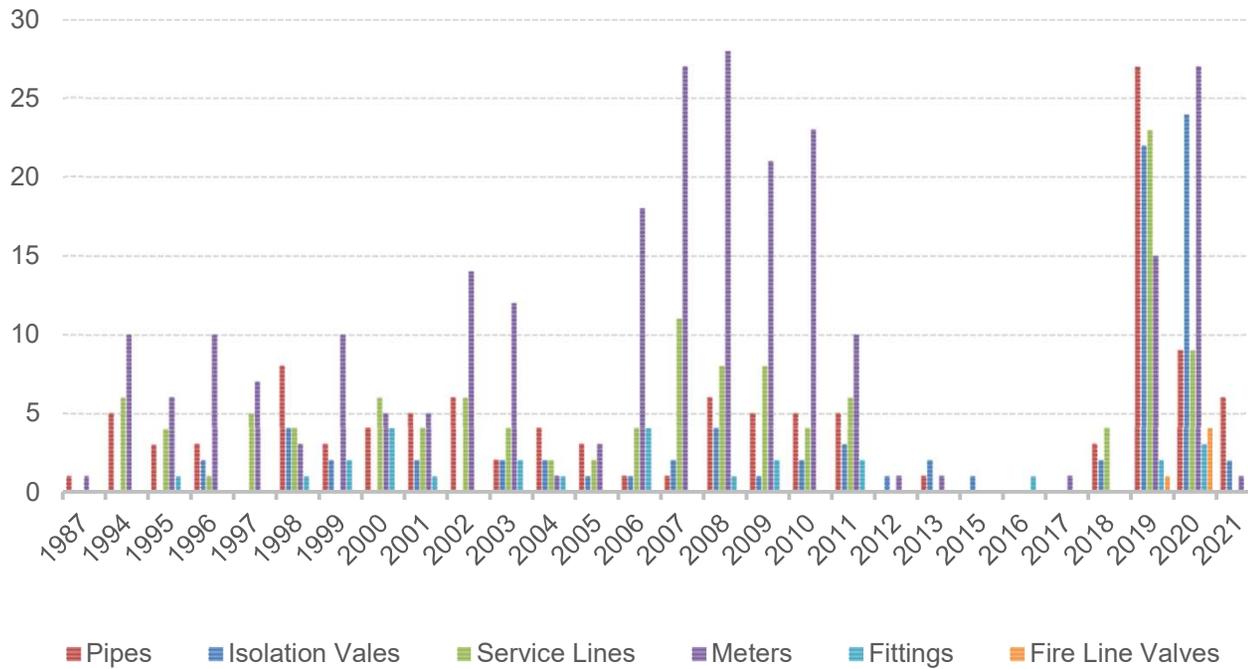
IPS points 0
Clean Water Act Violation 0
Safe Drinking Water Act Violations 0

- General Administrative Issues
- Management (Cross Connection Control, Operator Certification, Emergency Response, etc)
- Minimum Sizing
- Source Development
- Disinfection Methods
- Surface Water Treatment and Other Treatment Methods
- Pump Stations
- Drinking Water Storage Tanks
- Transmission and Distribution Pipelines
- Source Protection
- Water Quality

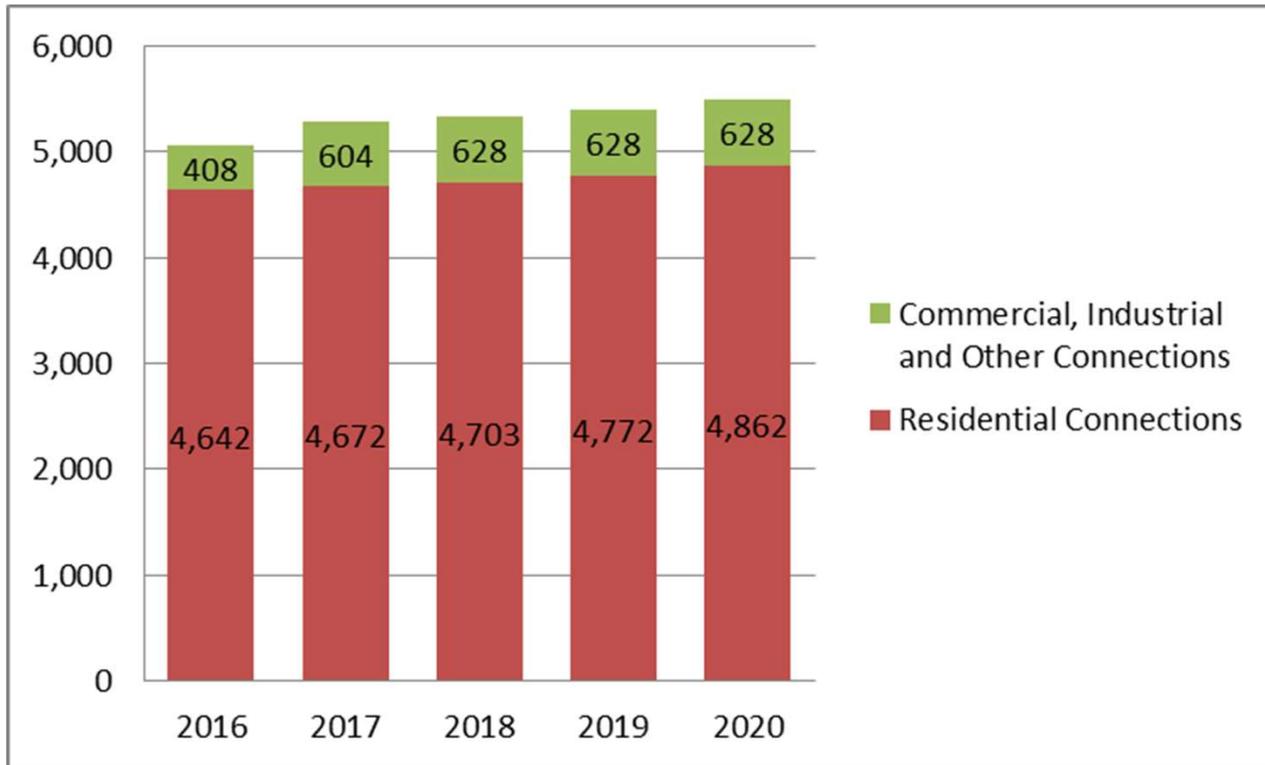


Leaks and Breaks

of Work Orders

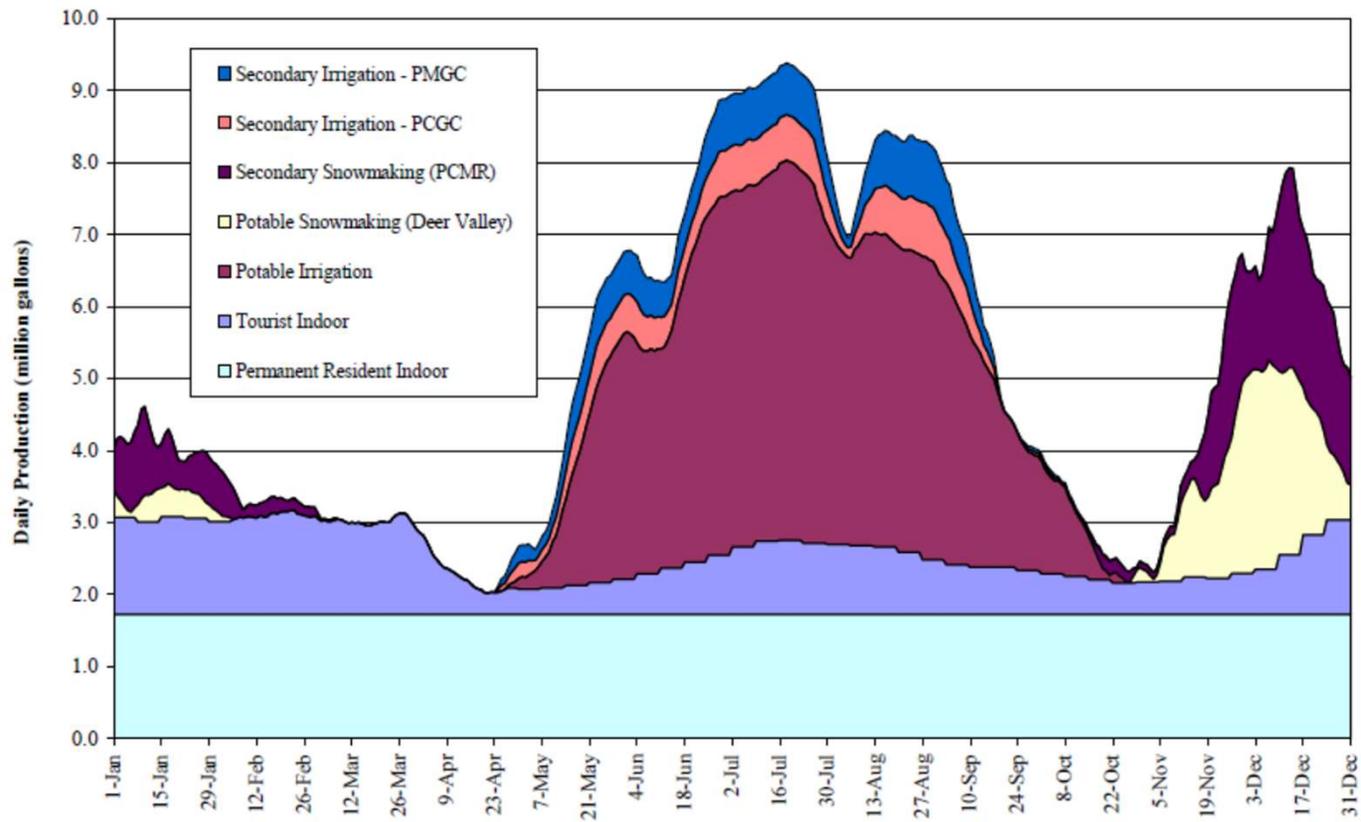


Water Connections

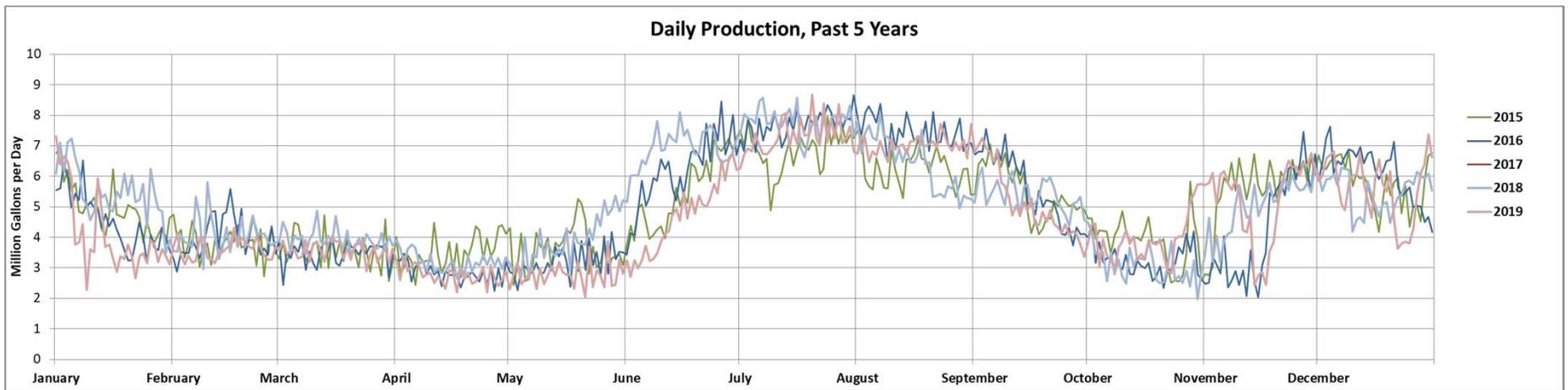
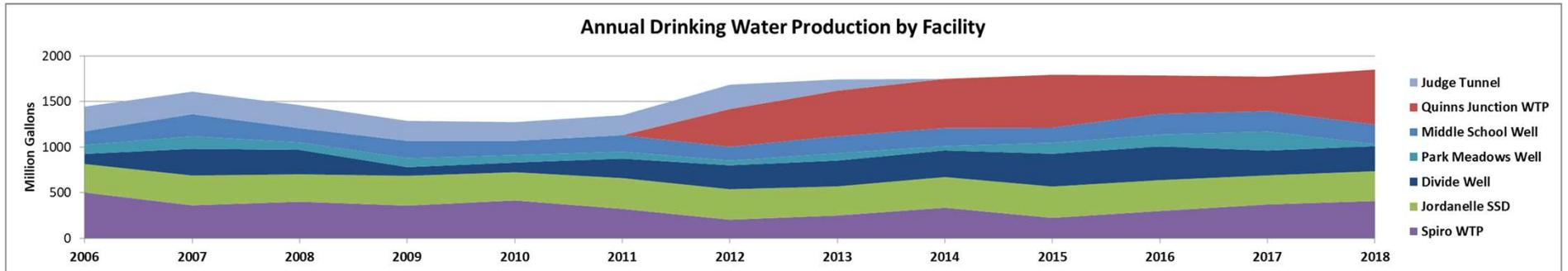


Demand Type

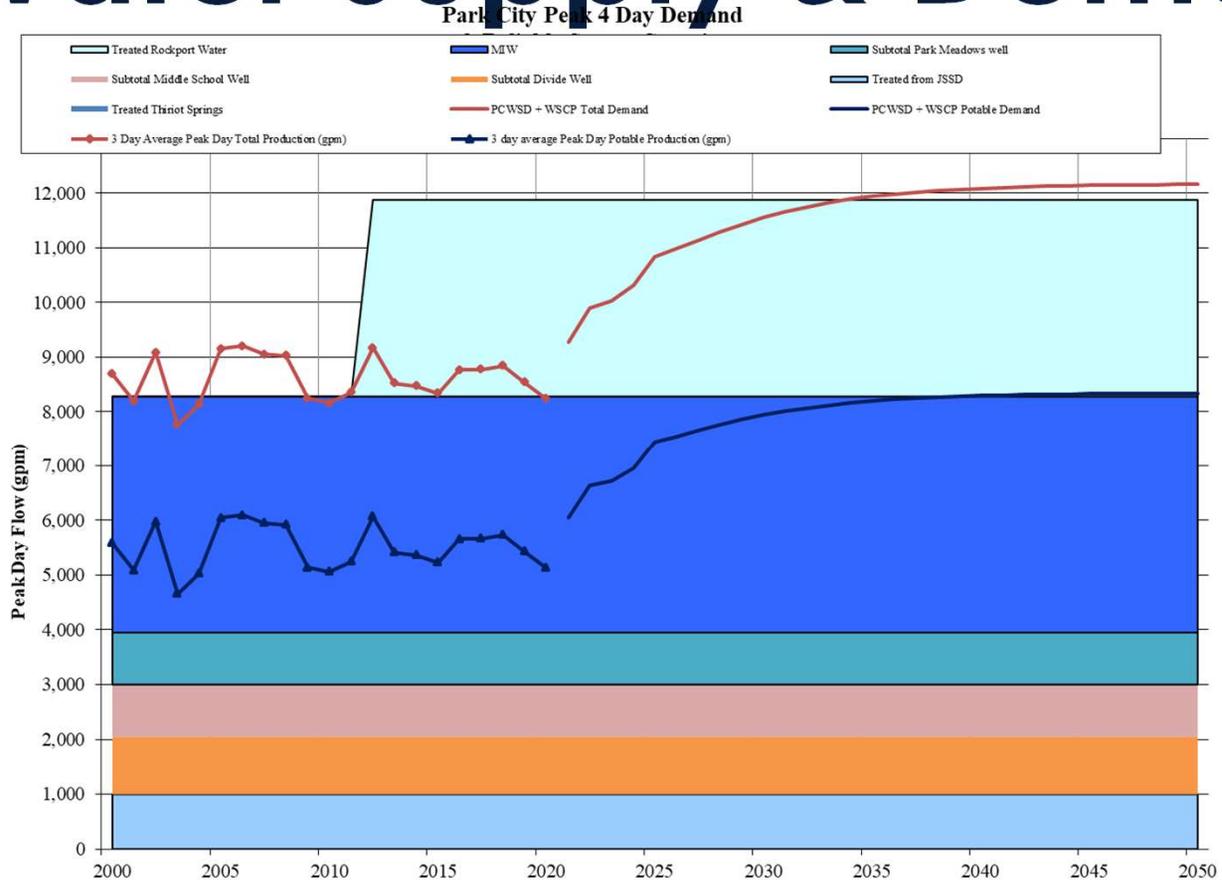
Average Daily Park City Water Production



— Water Supply & Demand —



— Water Supply & Demand —



— Conservation Highlights —

- All connections metered
- Progressive Block Rates
- Social Norming Comparison
- Comparison on Water Bill
- Active Leak Detection
- Toilet/Smart Controller Rebate
- 4th Grade Water Fair
- Irrigation Audits



Type	Block 1 - \$6.49/k-gal	Block 2 - \$10.40/k-gal	Block 3 - \$10.94/k-gal	Block 4 - \$14.17/k-gal	Block 5 - \$16.90/k-gal	Block 6 - \$29.54/k-gal
Single-Family	0-5,000	5,001-15,000	15,001-25,000	25,001-35,000	35,001 - 55,000	Over 55,000

!
Continuous Water Use
Your water has been running continuously since 1:00 PM on Monday, January 11, 2021.

[Investigate possible leak »](#)

Continuous use is often an indication of a running toilet or leaky irrigation valve.

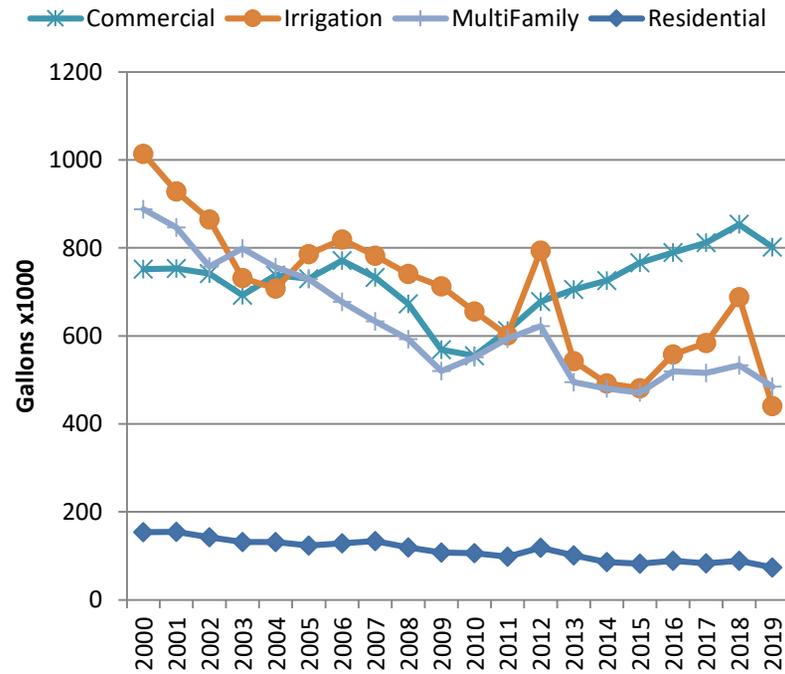
ESTIMATED GALLONS 238	ESTIMATED DURATION 6 days	ESTIMATED RATE 1 gph
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What's next?
1. Check for leaks.
[Here's how »](#)

2. Tell us what you found
[I found a leak »](#) [This was not a leak »](#)

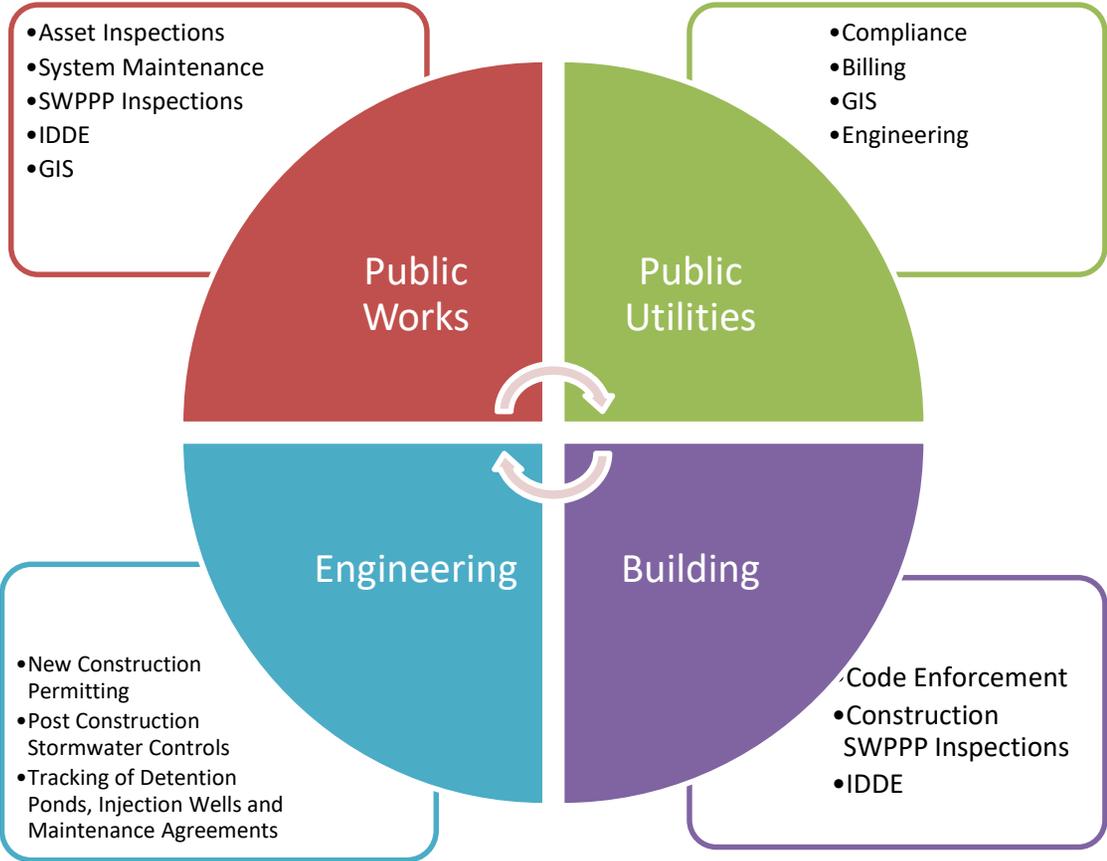
Metrics

Gallons Per Account Per Year



Account Type	Percentage Change in Water Usage from the Year 2000	Number of Accounts in 2019
Commercial	7% Increase	371
Irrigation	57% Decrease	179
Multi-Family	45% Decrease	314
Residential	52% Decrease	4,512

Stormwater Teams

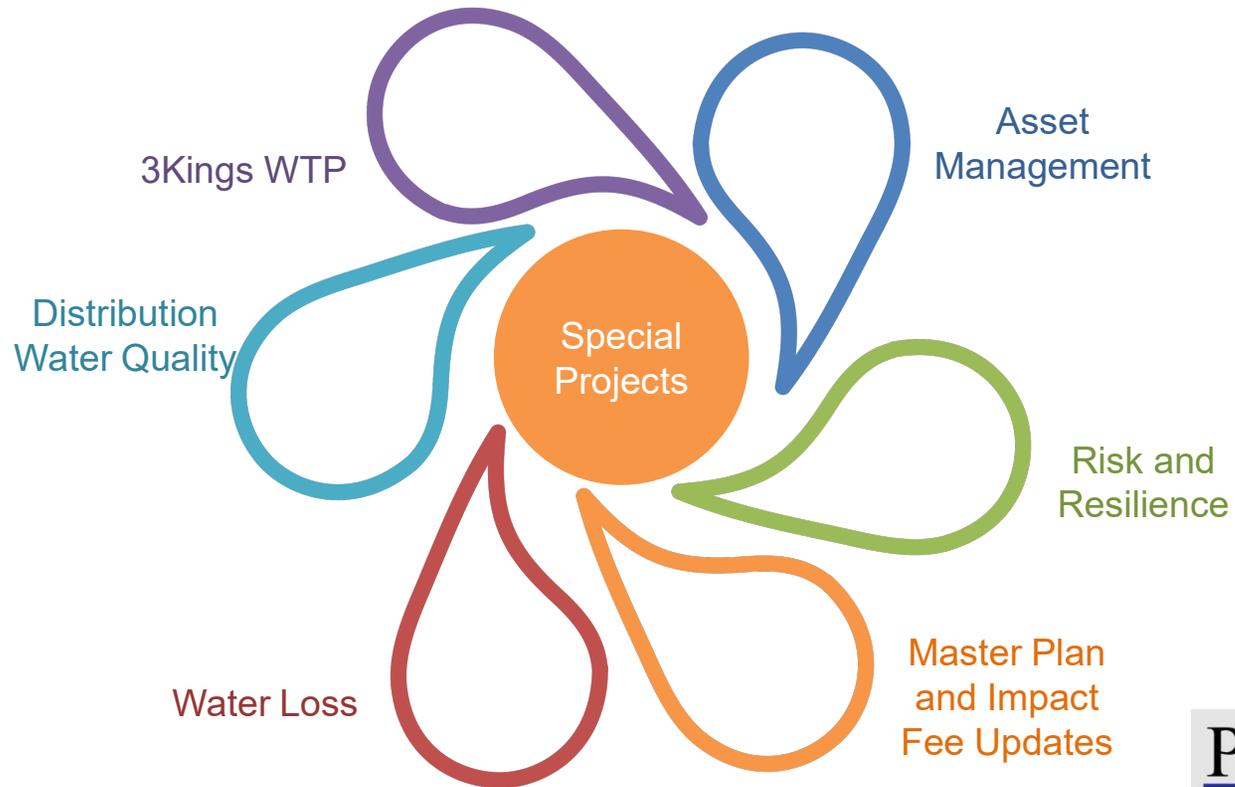




Special Projects & Innovation

PARK CITY
1884

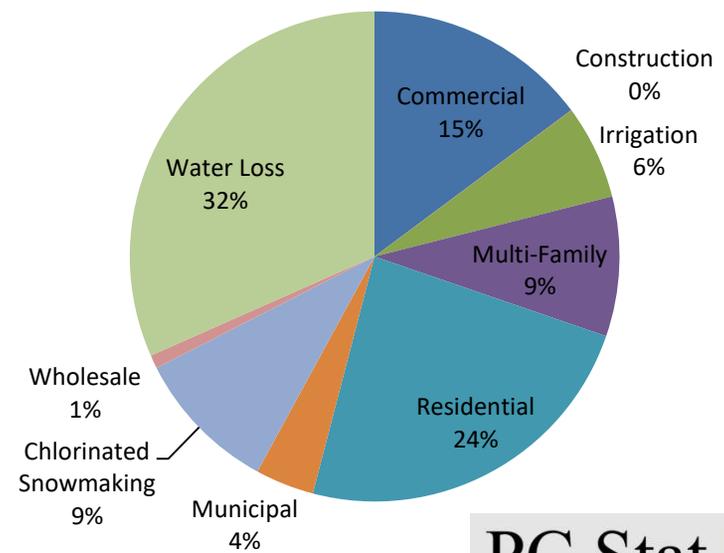
SPECIAL PROJECTS



Water Loss

- Industry Wide Problem
 - Water leaving the System without being metered
 - Leaks, Breaks, Fire Hydrants, Under reading meters
 - Over 30% common in system with ageing infrastructure.

2020 Park City Water Usage



Water Loss

- Park City focus since 2018
- Largest Success to date
Centennial Circle Water Loss Reduction

	Centennial
Water Loss Reduction	400 gallons per minute
Direct Avoided Costs	\$205,280 per year
Wholesale Price	\$1,635,200 per year
Retail Price	\$2,321,532 per year



Water Loss

- Biggest Tools
 - Breaking the City up into Zones.
 - Council Target for Water Loss
- Award Winning Effort
 - 2019 Smart Cities Award
 - 2019 Xylem Reach Award
 - 2020 American Water Works Association Article
- Effort Continues...

DMA Name	Target Loss (GPM)	Actual Loss (GPM)	Percentage Over/Under
Thaynes	81.4	209	257%
Old Town	75.7	185	244%
Park Meadows	190.9	391	205%
Deer Valley Lower	55.6	100	180%
Aerie	42.8	70	164%
Fairway Hills	51.4	61	119%
Deer Valley Upper	51.2	55	107%
Flagstaff	25.1	17	68%
Bald Eagle	22.5	10	45%
Oaks	27.9	10	36%
Sandstone Cove	5.7	2	35%
Iron Canyon	9.3	3	32%
Red Cloud Tank	7.9	2	25%
American Flag (Centennial)	12.2	3	25%
Red Cloud	5.3	1	19%
Mine Bench	2.5	0	0%
Below American Flag	7.3	0	0%
Daly	3.4	0	0%

—— 3Kings Water Plant ——



Spiro Mine Tunnel

Before



After



COVID RESPONSE

