



# General Manager's Message

**Tage I. Flint, PE**General Manager/CEO
Mr. Flint has worked in the water industry for over 30 years. He is a registered professional engineer and resides in Davis County.

Following is our Weber Basin Water Conservancy District summary of accomplishments for 2018. Our business is full of variables, and part of our responsibility is to adjust to those changes so that there is a consistent and reliable water supply for our customers.

We started the year with changing conditions in front of us. Our Water Supply and Power Department handled a winter with acceptable snow levels followed by a very hot and dry spring/summer season. The Strategic Initiatives group worked hard to educate the population on the importance of conservation. Our Construction and Maintenance Department handled pipeline replacements in several locations including northwest Weber County where conditions are difficult. Engineering, Administration, and IT employees launched new work order systems and completed a large-scale capital assets plan. M&I water professionals met and exceeded all EPA drinking water regulations for the entire year.

I am extremely pleased to report that our employees adjusted to these and many other variables presented to them. The result was a seamless and high-quality water supply delivered every day to our customers. You will see the aforementioned projects and many others summarized in the pages to follow.

Our dedicated Board of Trustees and employees of the District are pleased to present the following 2018 Annual Summary. My thanks to our board, employees, customers, and partners for their tireless efforts to make our agency responsible and responsive.





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### **Board of Trustees**

The Board of Trustees is the governing body of the District and consists of representatives from Davis, Morgan, Summit, and Weber counties. After receiving recommendations from the County Commissions, the Governor of the State of Utah appoints Trustees, who are then confirmed by the Utah State Senate. The Board appoints a General Manager who serves as the Chief Executive Officer of the District.



Paul C. Summers Trustee, Davis County Mr. Summers represents Davis County. Before retirement, he spent 13 years with the Utah Division of Water Resources and 20 years in the engineering consulting business. He is a licensed civil engineer in the State of Utah and served as President of the Board in 2018.





Jay V. Christensen Trustee, Weber County Appointed to the Board as a representative of Weber County, Mr. Christensen has many years' experience in the water industry and serves on various water boards. He also has a successful career with Great Salt Lake Minerals and is a past Plain City Councilmember.



Dave Ure Trustee, Summit County The representative of Summit County, Mr. Ure is a rancher and past dairy farmer. He is currently Director of School and Institutional Trust Lands Administration and served in the Summit County Council and Utah House of Representatives for several years.



Kym O. Buttschardt Trustee, Weber County Mrs. Buttschardt was appointed to the Board to represent Weber County. She owns several successful local restaurants and has been a CPA. She is an Ogden native who is very active in the community, serving on several local boards.



Kerry W. Gibson Trustee, Weber County Mr. Gibson represents Weber County. A lifetime dairy farmer from West Weber, he was a three term State Representative, a two term County Commissioner, and is the newly appointed Commissioner of Agriculture and Food.



John Petroff, Jr. Trustee, Davis County Mr. Petroff was appointed to represent Davis County. He is a successful private business owner. He also served as Mayor of West Point City and completed two terms of service as a Davis County Commissioner.



Dee Alan Waldron Trustee, Morgan County The representative from Morgan County, Mr. Waldron is a successful private business owner and farmer. He is a past Morgan County Commissioner and serves as a director on several local water boards.



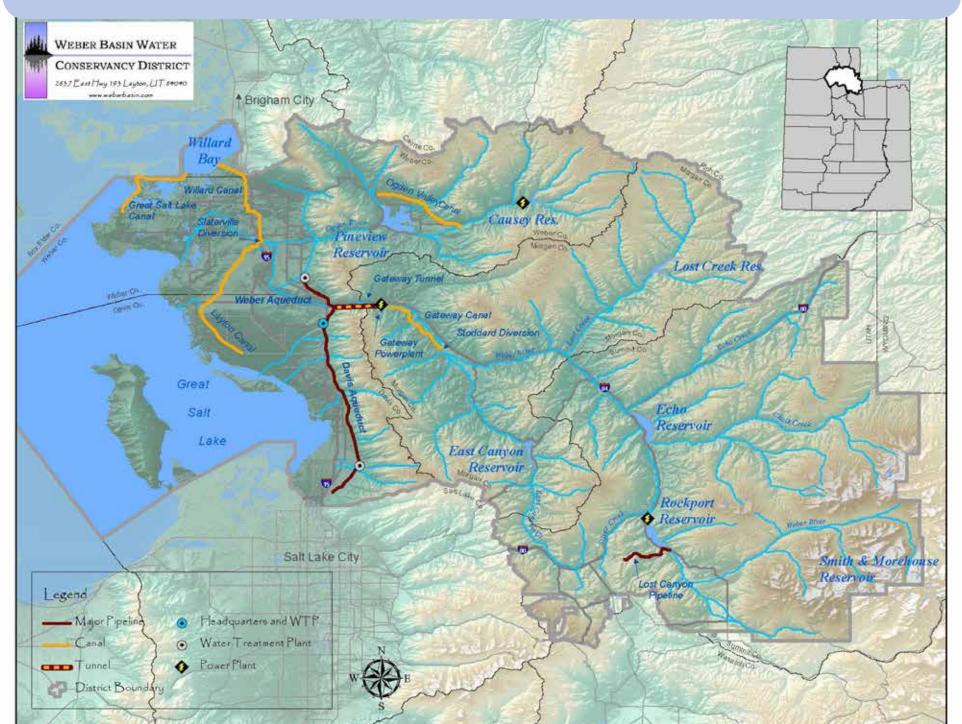
Marlin K. Jensen Trustee, Weber County Mr. Jensen represents the Ogden Valley area of Weber County. He is a retired attorney and participates in a family farming enterprise. He served as a general authority and Church Historian for the LDS Church. He also serves as a member of the Utah State Board of Regents.



P. Bret Millburn Trustee, Davis County Mr. Millburn was appointed to the Board to represent Davis County and has served as a Davis County Commissioner. He has always been actively involved in civic and religious affairs, serving in various leadership capacities.

# Weber Basin Water • Service Area Map

The District supplies five categories of water to its customers including wholesale and retail agricultural irrigation, wholesale and retail secondary irrigation, treated municipal and industrial, untreated municipal and industrial, and groundwater replacement.





Tage I. Flint, PE General Manager/CEO

# **Administrative Support**

# **Administrative Staff**

Sherrie Mobley | Administration Manager/CAO Calysta Bravo | Accountant & Budget Officer

Rebecca Delius | Purchasing Assistant &

Records Management Specialist

Deena Harris | Customer Service Specialist

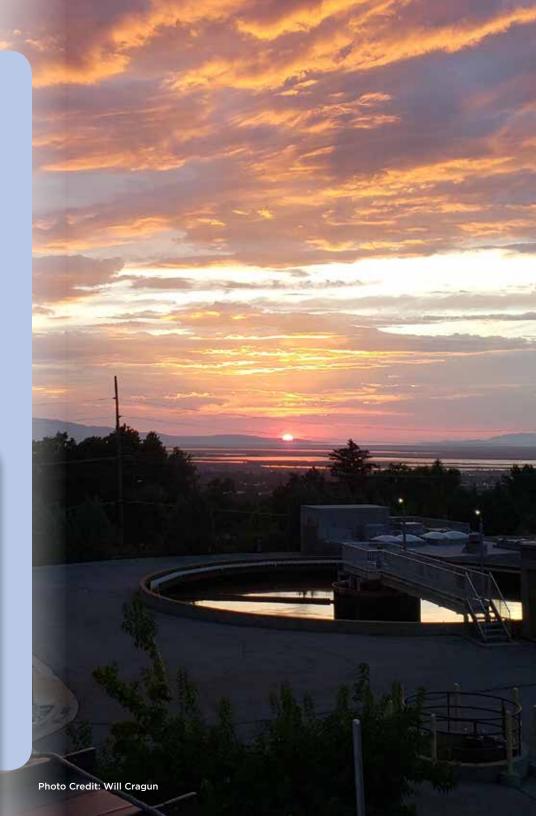
Kendall Searle | Customer Service Supervisor &

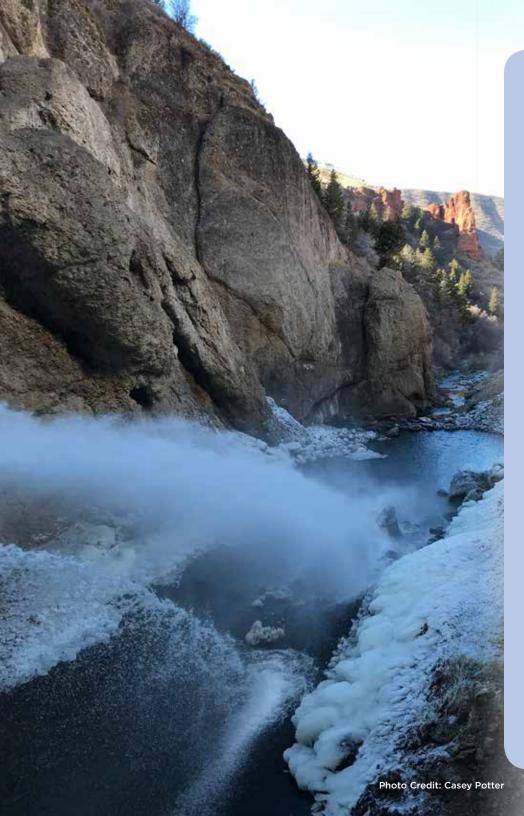
Contract Administrator

### **Executive Staff**

Brittney Bateman | Executive Envoy & Programs Manager Krysta Countryman Administrative Specialist Kathy Wood | Human Resources Manager







# **Sustainment**



Scott W. Paxman, PE Assistant General Manager Chief Technical Officer

# **Construction & Maintenance Staff**

Troy Stout, PE | Manager,

Construction & Maintenance

Cole Bailey | C&M Worker I Jack Bussberg | C&M Worker II

Jordan Clontz | Crew Chief

Preventative Maintenance

Jacob Dye | Maintenance Worker

Irrigation Operator I

Russell Fearn | Crew Chief, Work Orders

Tracy Hess | M&I Distribution Technician I Jacob Jaques | Crew Chief, Special Projects

Nolan Kelley | Superintendent, C&M

Christopher Kendall | Warehouse

**Inventory Control** 

Layne Leonard | C&M Worker II

Kasey Monson | Construction Mechanic Daniel Parresol | Irrigation Operator I &

Maintenance Worker II

Trase Penman | Crew Chief, Right-Of-Way

Kenny Schow | C&M Worker III Tristian Trussell | C&M Worker II

Crew Chief, Special Projects Scott Wilson |

Jared Woolsey | Welder

# **Engineering & IT Staff**

Derek Johnson, PE | Manager, Engineering & IT

Gary Allen | Scada Specialist

Michael Alverson Supervisor, GIS & IT

Zeke Bardwell | Inspector

Briant Jacobs, PE | Engineer

Marc Montgomery | Inspector

Riley Olsen, PE | Engineer

Greg Pierce | Supervisor,

Scada Programming

Casev Potter | Engineer

Samuel Sorensen, PE | Engineer

Talon Thurgood | GIS / IT &

**Property Mgt Specialist** 

Austin Wilcox | Programmer

Darren Hess, PE Assistant General Manager Chief Operations Officer

# **Operations**

**Municipal & Industrial Water Staff** 

Brad Nelson, PE Manager, M&I Water Nathan Allison Water Treatment Plant Operator Jeff Connor Plant Manager, DNWTP Willard Jake Cragun Water Treatment Plant Operator Supervisor, Treatment Plant Operations Bart Fearn Nathan Frew Plant Manager, DSWTP Dean Gifford Water Treatment Plant Operator Kevin Green Water Treatment Plant Operator Thomas Hamblin Water Treatment Plant Operator Geoffrey Howell Water Treatment Plant Operator John Jacobson Water Treatment Plant Operator Tyler Jensen Water Treatment Plant Operator Lee Jones Water Treatment Plant Operator Brett Kennedy Water Treatment Plant Maintenance Rex Lee Water Treatment Plant Operator Adam Moulding Water Treatment Plant Operator **Douglas Parslow** M&I Distribution Operator Lead Aaron Pearce Water Treatment Plant Operator Todd Pollock Water Treatment Plant Operator Auggie Rose Plant Manager, WSWTP Clay Schmalz Treatment Plant Maintenance Foreman Ian Smith Water Treatment Plant Operator Mitchell Sorenson Water Treatment Solids Handling Specialist Paul Spens M&I Pipeline Operator Chase Tate Water Treatment Plant Operator Shane Visser Water Treatment Plant Operator Jeffrey Weyburn Water Treatment Plant Operator Amanda Delgado Chemist II Spencer Gatten Chemist I Kelly Holmes Chemist II Ryan Williams Lab Director Water Quality Mgr

# **Water Supply & Power Staff**

Alan Hatch Chris Hogge, PE Manager. Irrigation Operator II Water Supply & Power Jeff Kina Irrigation Operator II Casey Folkman Power Plant Operator & Benjamin Love **Lead Irrigation Operator** Dam Tender Michael Midgley Superintendent, Chad Montgomery | Power Plant Operator & Water Supply & Power Dam Tender Irrigation Operator II Lee Smith Power Plant Operator & Bobby Waldron Casey Bitton Electrician IV Dam Tender **David Giles** Electrician III Gordon Barrow | Lead Electrician Irrigation Operator & Jason Obrav Dam Tender Kenneth Turner Lead Electrician



# E STORESTON Photo Credit: Gordon Barrow

# **Strategic Initiatives**



Jonathan Parry, PE Assistant General Manager Strategic Initiatives

Lucy Gelb | Conservation Program Analyst & GIS Specialist

Liberty Hamilton | Tour Guide Cindy Hellewell | Tour Guide Brooke Henderson | Tour Guide Corinne Hoffmann | Tour Guide Ashley Nay | Water Resource

**Environmental Analyst** 

David Rice | Conservation Program Coordinator

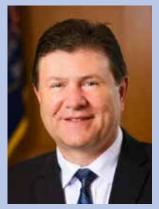
Abby Smith | Meter Technician

Janice Terry | Assistant Conservation

Program Coordinator

Marci Wood | Conservation Garden Lead

# **Retirements**



Mark Anderson, PE 37 years of service with the District



John Davis 33 years of service with the District

# **Sustainability**

Weber Basin Water has the responsibility to provide a reliable water supply to some of the fastest growing counties in the state. This includes improvements of existing water system infrastructure, encouraging and educating residents on how to be more efficient with their water use, and the development of new water supply when needed.

# Conservation by the Numbers



CLASS ATTENDANCE 1,100



GARDEN VISITS 8,000



SCHOOL TOURS 4,343



SECONDARY METERS INSTALLED 8,200

### **Community Outreach**

With the Learning Garden as the center of water education and demonstration, the District has invested time and funds to develop education programs and outreach. These programs are intended to reach the water users and motivate positive change in watering behaviors.

### **Watershed Protection**

The District organized a Watershed Protection Coalition for the Weber River Watershed comprised of federal, state and local government agencies. The District remains active in monitoring projects that may impact the water quality, as well as promoting projects that improve water quality.

### Recreation

The District works with State Parks, American Land and Leisure, and National Forest Service to provide many recreational opportunities within the District boundaries involving the Ogden and Weber Rivers and the reservoirs on those rivers.

### **Flood Control**

During the spring runoff, the District regulates the river in an effort to store excess flows in the reservoirs and reduce peak flows downstream of the reservoirs, effectively minimizing any flood damage that may occur.





# Accomplishments Above and Beyond

National Weather Service Cooperative Observer Program: 50-Year Honored Institution Award

The NWS awarded the District with Honored Institution Awards for 50 years of dedicated service to the Cooperative Observer Program for its Oakley and Wanship Dam stations.

### Intermountain Section -American Water Works Association: Best Tasting Water Award

For the third year in a row, Weber Basin has been awarded the Best Tasting Surface Water Award. The District competed against entities from across the state and southern Idaho.

### Utah Local Governments Trust: Trust Accountability Program Award

As a result of implementing loss prevention best practices, the District will receive a 1.5% discount on Worker's Compensation premiums.

# **Tapping Into Our People**

### **Core Values**

We believe that each position at the District has a unique and important purpose, and we strive to find top talent to fill those positions. Our goal is to provide a positive work environment, because we believe that a strong culture drives engagement and retention, reduces stress, and leads to happier and more productive employees.

This year we asked employees to brainstorm, prioritize, and finalize the values that best represent the District. With management support, employees created the C.O.M.P.A.S.S. core values: Collaboration, Ownership, Mutual Respect, Professionalism, Appreciation, Safety, and Sustainability.

Similar to a compass, our core values are the guiding principles that help us stay on course with our vision. Our values affect every aspect of the District from recruiting and employee benefit packages to workplace culture and strategic decision making. They play a critical role in shaping the success and health of the District, our employees, and our customers.

This year, our employees focused on the Safety core value, which cumulated in the District being awarded the Trust Accountability Program (TAP) award. During the year, employees trained on several topics including trench shoring, machine guarding, first aid/CPR/AED, and fall protection. Several improvements were made to processes that make them safer, and a loss prevention program was implemented along with best practices for safety.

# Water Treatment and Distribution Operator Training

The District provides free annual training for water system operators throughout the state, which helps keep qualified, educated operators at the controls of water treatment and water delivery for all of our communities.

### **Employees of the Year**

Brittney Bateman • Riley Olsen Casey Folkman

### **Service Awards**

**5 Years of Service Awards**Brittney Bateman • Marci Wood
Casey Bitton • Kenny Schow

10 Years of Service Awards
David Rice

15 Years of Service Awards
John Jacobson • Bobby Waldron

25 Years of Service Awards
Dean Gifford • Todd Pollock

**35 Years of Service Awards**Gary Allen

**40 Years of Service Awards**Clay Schmalz



C.O.M.P.A.S.S.
Our Values Guide Our Success



# **Infrastructure Highlights**

# Willard Canal Lining Project (Phase 6)

- 2,000 lineal feet of canal lined with concrete
- Underdrain system added
- Installed access ramps for maintenance

Departments: Engineering & IT, Water Supply and Power

Partial grant funding received.

### West Haven and Hooper Pump Station Upgrade

- Enhanced agricultural and secondary operations
- Updates to existing pumps and motors and SCADA system

Departments: Engineering & IT and Water Supply & Power



### **Work Order System**

- Program created in-house
- Allows employees to access work orders, notes, attachments, and statuses

Departments: Engineering & IT

### Wholesale Meter Upgrade Project

- Widescale project to update all treated and untreated wholesale connections
- Will give customers access to near-instantaneous readings and data
- Expected completion date of 2020

Departments: Construction & Maintenance, Engineering & IT, M&I Water, Administration, Water Supply & Power, Strategic Initiatives

Partial grant funding received.





### **Drilling of Green Road Well**

- Located in Fruit Heights to add resiliency to Davis County
- Culinary well drilled down 1,100 feet
- ~900 gpm test production

Departments: Engineering, M&I Water

### **GSL Pipeline Replacement**

- Large-scale replacement of 16,000 lineal feet of 12-16" pipe
- All work completed by District staff with zero safety incidents

Departments: Construction & Maintenance, Engineering, M&I Water, Administration

### **Wanship Hydropower Plant**

- Rehabilitation and seismic upgrades to substation, turbine, regulator, backup system, transformer, etc.
- Done in conjunction with an upgrade to Rocky Mountain Power's system

Departments: Water Supply & Power

Partial funding received from Rocky Mountain Power.





# **Planning for the Future**

### **Water Reuse Feasibility Study**

The District partnered with local stakeholders to study the feasibility of implementing a wastewater reuse project. The study identified several possible sites, willingness from partners, and the impacts of a project to the Great Salt Lake.

### **Supply & Demand Study**

In 2017, new population projections for the State of Utah were released by the University of Utah's Kem C. Gardner Policy Institute. These latest population projections were used to update the projected water demands in the District's most recent Supply and Demand Study.

### **Drought Contingency**

The District completed the first ever Drought Contingency Plan in the state. The plan brought together a diverse group of stakeholders, experts on drought, university researchers, and water managers to create a plan to be better prepared for future droughts.

### **Resource Plan**

The Water Resource Plan provides the public an overview of current water issues, water challenges, and future opportunities the District may be facing to develop sufficient water supplies and facilities to meet the needs of the growing population within its boundaries.



# **Finance**

### **Responsible Pricing**

The District is committed to fair and equitable water rates and only charges for cost of service. The District is unique in that it has a tiered water rate structure for capital charges. In addition to operation and maintenance fees, users pay for the portion of infrastructure that was built to capture, transmit, and treat their water supply. In 2018, the District completed a study of O&M expenses and fees and compared the findings to water rates. O&M increases over the next few years will reflect the cost of delivering water to various types of water.

### **Capital Asset Program**

The District continues to fund its Capital Asset Repair and Replacement Fund as required by Utah Code. Due to funding cuts at the federal level, the responsibility of replacing most of the original federal project works belongs to the District. In 2018, the District completed over \$8 million in repair and replacement projects on capital assets. Projects included the pipeline replacement, rehabilitation of several wells, lining and repair of canals, vault rehabilitation, upgrade and replacement of water treatment plant processes, the rehabilitation of AV Watkins Dam's outlet works and pumps, and a repair on Combe Reservoir.

### **Financial Audit**

The District's FY2018 financial and auditor's reports received an unmodified opinion from an independent auditor, which is the highest opinion that can be received. The District collected \$42.8 million dollars in revenues in 2018 including \$1 million in grant funding and \$3.7 million in credits issued by the Bureau of Reclamation in relation to the federal project. \$46.6 million of bonds were issued to prepay the repayment of the federal project, refund prior debt issues, and provide funding for capital projects. Expenditures totaled \$62.7 million, including \$5.6 million in capital projects.

# STATEMENT OF SOURCES AND USES OF FUNDS

Fiscal Year Ended June 30, 2018

SO	U	R	C	ES:	

Water Sales	\$24,685,183
Taxes & Fee-in-lieu of taxes	10,014,893
Interest	1,175,183
Miscellaneous	6,883,448
Net Use of Loan/Bond Proceeds and Reserves	46,600,000

TOTAL REVENUE AND

LOAN/BOND PROCEEDS/RESERVES \$89,358,707

### USES:

Water Payments, Assessments, &	Water Stock Purchases \$1,123,225
Interest Expenses	5,411,366
Operating Expenses	21,650,098
Utilities	492,157
Loan & Bond Payments	28,391,328
Capital Improvements	5,643,153
Added to Reserves	26,647,380
TOTAL EXPENDITURES	\$89,358,707

### STATEMENT OF NET POSITION

Fiscal Year Ended June 30, 2018

### ASSETS:

CURRENT ASSETS	\$55,440,430
SINKING FUND & RESERVE FUND ASSETS	57,726,447
PROPERTY & EQUIPMENT (less accumulated depreciation)*	276,637,663
PENSION CHARGE	
DEFERRED OUTFLOWS OF RESOURCES	2,085,976
TOTAL ASSETS	

\$391,890,516

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\$391.890.516

### **LIABILITIES & NET POSITION:**

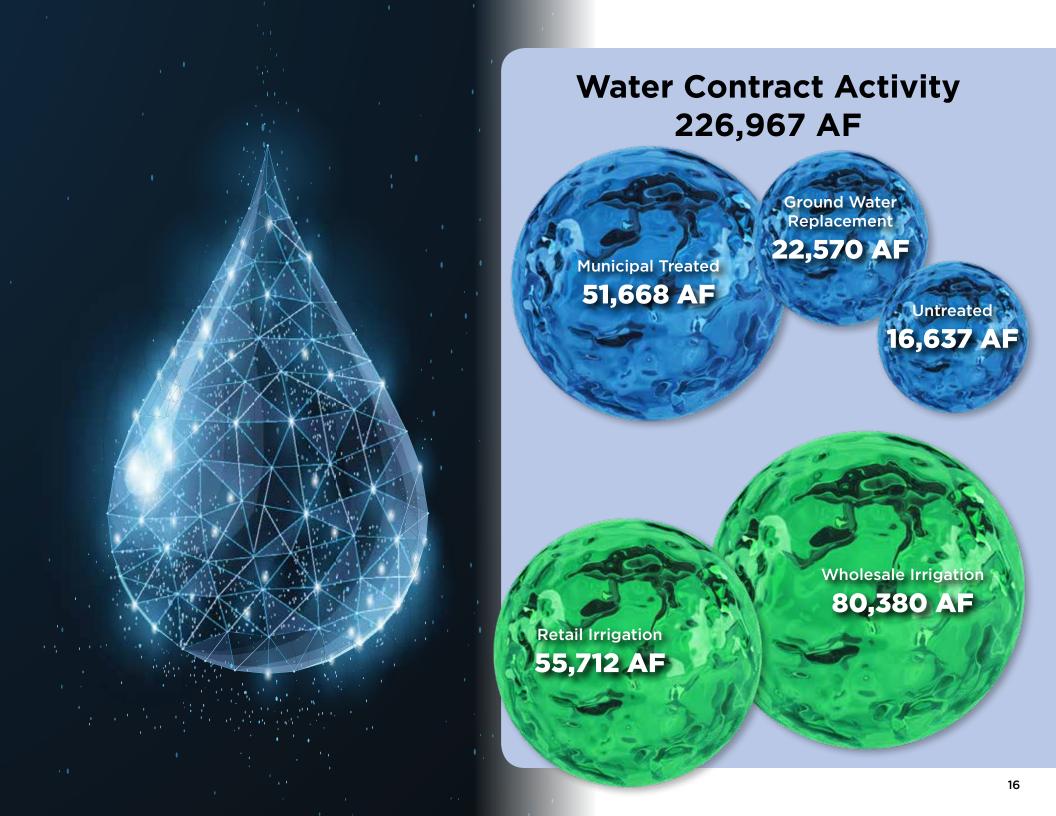
**NET POSITION** 

& DEFERRED OUTFLOWS OF RESOURSES

DEFERRED INFLOWS OF RESOURCES

**TOTAL LIABILITIES & NET POSITION** 

CURRENT & OTHER LIABILITIES	\$9,381,903
LONG-TERM OBLIGATIONS	145,558,312
BOND PREMIUM	
DEFERRED INFLOWS OF RESOURCES	12,826,279
PENSION CREDIT	
DEFERRED INFLOWS OF RESOURCES	1,578,602
REFUNDING CREDIT	



# **Summary of Irrigation Water Contracts - AF**

Contracting Entity	Contract Amount	Delivery Loss	Net Useable	Contracting Entity	Contract Amount	Delivery Loss	Net Useable
Benchland Irrigation	4,475	448	4,027	North Round Valley	150	15	135
Bountiful Sub Water District	17,500	1,600	15,900	North Salt Lake (Foxboro)	800	0	800
Centerville Deuel Creek	2,891	264	2,627	Oakridge Country Club	500	50	450
Chalk Creek Irrigation	643	64	579	Ogden River Water Users Assoc.	3,705	283	3,422
CO-OP Farms Irrigation	300	30	270	Peterson Irrigation	614	61	553
Croyden Irrigation	450	45	405	Pintail Duck Club	100	10	90
Davis & Weber Counties Canal	900	0	900.0	Roy Water Conservancy District	365	0	365
Downs Creek Irrigation	100	10	90	Salmaho Irrigation	167	17	150
East Porterville Irrigation	200	20	180	So. Davis Water Improvement Dist.	3,210	321	2,889
East Wanship / Gibbons & Pace	100	10	90	South Morgan Water Company	400	40	360
Eden Irrigation	1,200	120	1,080	South Ogden Conservation District	2,345	234	2,111
Emmertsen Irrigation	100	10	90	So. Weber Water Improvement Dist.*	2,223	0	2,223
Felt, Peterson, Slater Irrigation	100	10	90	Sun Hills Golf Course	496	37	459
Haights Creek Irrigation	7,008	692	6,316	Syracuse City	1,113	111	1,002
Hill A.F.B. Golf Course	640	64	576	Uintah Mountain Streams	200	20	180
Hill Field At 193	139	14	125	Valley View Golf Course	373	37	336
Hooper Irrigation	5,663	566	5,097	Warren Irrigation	700	70	630
Huntsville Irrigation	600	60	540	Weber Basin Job Corps	300	30	270
Huntsville So Bench Irrigation	600	60	540	Weber-Box Elder Conservation Dist.	4,233	208	4,025
Kays Creek Irrigation	2,000	200	1,800	Weber Canal Company	200	20	180
Kaysville Irrigation	1,691	178	1,513	Welch Field Ditch	240	24	216
Lagoon Amusement Park	225	23	202	West Bountiful Golf	294	29	265
Layton Canal & Irrigation Co.	5,491	549	4,942	West Hoytsville Irrigation	300	30	270
Littleton-Milton Irrigation	300	30	270	West Wanship Irrigation	150	15	135
Middle Fork Irrigation	830	83	747	Wilson Irrigation	1,500	150	1,350
Mountain Valley Canal Irrigation	1,297	130	1,167	Sub Totals	80,380	7,108	73,272
Mountain View Irrigation	100	0	100	Retail Irrigation Water Sales	55,712	5,571	50,141
North Morgan Irrigation	160	16	144	Totals	136,092	12,679	123,413

# **Summary of M&I Water Contracts - AF**

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CONTRACTING ENTITY	CONTRACT AMOUNT
BIG WEST OIL	100.00
CHEVRON, USA	1,200.00
GREAT SALT LAKE MINERALS	7,980.00
MOUNTAIN REGIONAL SSD	2,100.00
NORTH SALT LAKE CITY	30.00
OGDEN CITY	1,500.00
PARK CITY	2,900.00
PARSONS	22.00
SUMMIT WATER DIST. COMPANY	800.00
TESORO	5.00
TOTAL UNTREATED	16,637.00

### TREATED WATER

CONTRACTING ENTITY  DAVIS COUNTY	CONTRACT AMOUNT
BOUNTIFUL CITY	1,000.00
CENTERVILLE CITY	500.00
CHEVRON, USA	2,000.00
CLEARFIELD CITY	5,348.00
CLINTON CITY FARMINGTON CITY	1,630.00 501.00
FRUIT HEIGHTS CITY	745.00
GENEVA ROCK	44.00
HILL AIR FORCE BASE	1,018.79
KAYSVILLE CITY	2,500.00
LAYTON CITY	7,216.00
MIDA-FALCON HILL	10.00
MUTTON HOLLOW WID	220.00
NORTH SALT LAKE CITY	2,015.00
SOUTH DAVIS WID SOUTH WEBER CITY	360.00 1,009.31
SUNSET CITY	1,400.00
SYRACUSE CITY	1,925.00
TESORO	5.00
WASATCH INTEGRATED WASTE MGMT	10.00
WEBBS CANYON WATER COMPANY	9.00
WEBER BASIN JOB CORP	60.00
WEST BOUNTIFUL CITY	750.00
WEST POINT CITY	700.00
WOODS CROSS CITY	100.00
TOTAL DAVIS COUNTY	31,076.10

### TREATED WATER CONT.

CONTRACTING ENTITY	CONTRACT AMOUNT
MORGAN COUNTY	
REPLACEMENT WATER	2,069.50
SUMMIT COUNTY	,
REPLACEMENT WATER	13,081.25
WEBER COUNTY	
SILVERLINE	5.00
BONA VISTA WATER IMP. DIST	3,786.00
GREAT SALT LAKE MINERALS	850.00
HOOPER WATER IMP. DISTRICT	101.30
MJK FABRICATION	5.00
OGDEN CITY	7,000.00
PLEASANT VIEW CITY	275.00
RIVERDALE CITY	1,165.00
ROY CITY	3,263.00
SOUTH OGDEN CITY*	785.00
TAYLOR-WEST WEBER WID	596.25
UINTAH HIGHLANDS WID	247.00
UINTAH CITY	448.00
WASHINGTON TERRACE CITY	1,000.00
WEBER COUNTY-MOULDING	5.00
WEST WARREN-WARREN WID	500.00
WESTERN ZIRCONIUM	560.00
REPLACEMENT WATER	7,418.75
TOTAL WEBER COUNTY	20,591.55

TOTAL REPLACEMENT WATER	22,569.50
TOTAL TREATED WATER	51,667.65
TOTAL UNTREATED & TREATED	90,874.15

<sup>\*</sup> Amount of Burch Creek water treated for South Ogden City:

640.23 acre-feet

The following entities added to their contracts during 2018: Taylor-West Weber (86.8), South Weber City (42.66), MIDA (5), Layton City (343 transferred from Wasatch Integrated Waste)

# **Project Power Operations**

# **PEAK PROJECT POWER LOAD - KW**

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Peak Power												
Load (KW)	1,254	1,258	1,189	1,928	5,208	6,894	7,364	8,094	7,119	5,249	2,467	1,531

## **PROJECT POWER GENERATION - KWH**

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
*Net Generation													_
Causey Plant	-16,300	-13,700	46,900	851,800	1,016,700	346,000	487,300	359,200	211,900	-7,000	-14,800	-18,900	3,249,100
Net Generation													_
Gateway Plant	-12,400	-16,880	-11,920	165,960	1,072,460	1,604,160	1,724,900	1,653,900	1,196,160	-8,000	-13,920	-18,160	7,336,260
Net Generation													
Wanship Plant	-15,700	248,200	471,000	146,700	801,900	1,238,800	1,246,700	1,078,000	678,700	-8,500	-11,000	-12,000	5,862,800
Total Output	-44,400	217,620	505,980	1,164,460	2,891,060	3,188,960	3,458,900	3,091,100	2,086,760	-23,500	-39,720	-49,060	16,448,160
Project Use	891,351	792,314	840,846	913,696	2,441,292	4,230,767	5,170,230	5,258,750	4,318,870	2,325,647	1,331,525	1,049,816	29,565,104
Delivered to CRSP	-919,451	-560,994	-381,766	-601,036	-566,932	-1,387,807	-2,198,630	-2,526,850	-2,444,010	-2,342,147	-1,356,445	-1,079,976	-16,366,044

<sup>\*</sup> Not Added to CRSP

# WATER USED FOR POWER GENERATION - AF

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Causey	0	0	352	5,500	6,652	2,472	3,444	2,960	1,898	0	0	0	23,278
Gateway	0	0	0	1,764	8,534	13,326	14,544	14,390	9,284	0	0	0	61,842
Wanship	0	2,430	5,866	2,372	7,146	12,694	12,048	11,996	9,024	0	0	0	63,576
Total	0	2,430	6,218	9,636	22,332	28,492	30,036	29,346	20,206	0	0	0	148,696

# **Reservoir Operations**

# **Storage Content as of Last Day of Month - AF**

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Causey	5,310	5,840	6,601	6,937	6,823	6,480	4,479	2,845	2,139	2,845	3,497	4,088
East Canyon	38,410	39,750	42,820	45,950	47,020	42,690	36,460	28,550	23,230	23,910	24,640	25,810
Echo	50,980	56,450	65,620	72,180	71,160	53,110	33,100	18,940	8,210	11,830	15,130	18,790
Lost Creek	15,950	16,280	17,065	18,820	19,155	17,420	14,670	12,530	11,320	11,388	11,445	11,640
Pineview	71,860	76,380	86,420	104,730	107,860	91,710	72,560	55,170	41,780	43,640	45,620	48,200
Smith-Morehouse	4,113	4,105	4,319	6,420	7,072	6,514	4,303	2,779	1,794	1,869	1,819	1,819
Wanship	54,800	55,820	55,210	56,130	55,210	48,630	38,010	26,680	18,410	21,270	23,440	25,490
Willard	169,546	173,934	184,827	194,338	186,524	172,036	157,687	143,281	132,378	130,396	128,120	127,430
Total	410,969	428,559	462,882	505,505	500,824	438,590	361,269	290,775	239,261	247,148	253,711	263,267

# **Total Releases - As Of The Last Day Of The Month - AF**

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Causey	496	448	814	5,935	6,826	2,472	3,444	2,960	1,898	432	360	372	26,457
East Canyon	434	392	434	420	3144	5,878	7,028	8,210	5,696	568	360	320	32,884
Echo	0	0	320	1,716	16,776	32,422	32,562	27,692	22,376	286	0	0	134,150
Lost Creek	434	392	434	420	1332	2,252	3,088	2,540	1,540	520	450	420	13,822
Pineview	6,260	560	478	2,590	11,244	19,654	21,184	19,753	15,204	967	708	638	99,240
Smith-Morehou	se 434	392	444	1,112	11,634	4,324	2,666	1,734	1,106	474	354	302	24,976
Wanship	1,580	3,344	5,866	2,922	8,515	14,069	13,772	13,180	10,076	1,574	1,500	1,766	78,164
Willard	542	446	460	534	6,586	8,426	7,380	7,896	7,062	1,418	1,340	1,324	43,414
Total	10,180	5,974	9,250	15,649	66,057	89,497	91,124	83,965	64,958	6,239	5,072	5,142	453,107

# Net Production of Culinary Water from Treatment Plants & Wells - AF

	WEBER SOL	JTH PLANT	DAVIS NOR	TH PLANT	DAVIS SOU	TH PLANT	PRODUCTION	PRODUCTION	GROSS TOTAL
							TOTAL OF ALL	TOTAL	PRODUCTION
	TOTAL	% OF	TOTAL	% OF	TOTAL	% OF	TREATMENT	OF ALL	OF WELLS &
	MONTHLY	PLANT	MONTHLY	PLANT	MONTHLY	PLANT	PLANTS	WELLS	TREATMENT
MONTH	PRODUCTION	CAPACITY	PRODUCTION	CAPACITY	PRODUCTION	CAPACITY			PLANTS
JAN	691.00	23.03%	1,567.63	36.29%	289.00	18.65%	2,547.63	0.00	2,547.63
FEB	581.00	19.37%	1,495.86	34.63%	278.00	17.94%	2,354.86	0.00	2,354.86
MAR	714.00	23.80%	1,632.82	37.80%	347.00	22.39%	2,693.82	0.00	2,693.82
APR	860.00	28.67%	1,901.65	44.02%	374.00	24.13%	3,135.65	107.83	3,243.48
MAY	1,152.00	38.40%	2,502.74	57.93%	501.00	32.32%	4,155.74	782.86	4,938.60
JUN	1,081.00	36.03%	3,052.86	70.67%	635.00	40.97%	4,768.86	1,556.85	6,325.71
JUL	938.00	31.27%	3,307.20	76.56%	663.00	42.77%	4,908.20	2,093.33	7,001.53
AUG	910.00	30.33%	2,300.41	53.25%	633.00	40.84%	3,843.41	2,391.99	6,235.40
SEP	862.00	28.73%	1,853.93	42.92%	581.00	37.48%	3,296.93	1,517.91	4,814.84
OCT	807.00	26.90%	1,122.57	25.99%	465.00	30.00%	2,394.57	931.67	3,326.24
NOV	828.00	27.60%	1,221.36	28.27%	300.00	19.35%	2,349.36	266.68	2,616.04
DEC	822.00	27.40%	1,162.05	26.90%	274.00	17.68%	2,258.05	208.67	2,466.72
TOTAL	10,246.00		23,121.08		5,340.00	_	38,707.08	9,857.79	48,564.87

COMPARED TO TOTAL PLANT PRODUCTION:												
	<b>PRODUCTION%</b>	OF TOTAL										
WEBER SOUTH PLANT	10,246.00	26.47%										
DAVIS NORTH PLANT	23,121.08	59.73%										
DAVIS SOUTH PLANT	5,340.00	13.80%										
TOTAL	38,707.08	100.00%										

# PERCENT OF PRODUCTION COMPARED TO TOTAL PLANT AND WELL PRODUCTION:

PRODUCTION 9	% OF TOTAL
10,246.00	21.10%
23,121.08	47.61%
5,340.00	11.00%
9,857.79	20.30%
48,564.87	100.00%
	10,246.00 23,121.08 5,340.00 9,857.79

PERCENT OF INDIVIDUAL PLANT PRODUCTION

TOTAL CAPACITY	129.6 MGD	12,257 ACRE-FEET	90,470 GPM
WELLS	35.6 MGD	3,387 ACRE-FEET	24,720 GPM
DAVIS SOUTH PLANT	16 MGD	1,550 ACRE-FEET	11,250 GPM
DAVIS NORTH PLANT	46 MGD	4,320 ACRE-FEET	32,000 GPM
WEBER SOUTH PLANT	<b>3</b> 2 MGD	3,000 ACRE-FEET	22,500 GPM

# Water Pumped from Wells - AF

<b>CULINARY WELLS</b>	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
BEN LOMOND	0	0	0	0	0	0	79.96	95.83	0	0	0	0	175.79
CLEARFIELD #1	0	0	0	0	0	0	0	0	0	0	0	0	0
CLEARFIELD #2	0	0	0	0	0	0	69.94	245.11	308.32	339.22	244.06	208.67	1,415.32
DAVIS BOULEVARD	0	0	0	0	0	0	0	0	0	0	0	0	0
DISTRICT WELL #2	0	0	0	0	248.03	365.82	456.25	443.94	198.34	0	0	0	1,712.38
DISTRICT WELL #3	0	0	0	0	0	0	0	0	0	0	0	0	0
FAIRFIELD	0	0	0	0	416.4	547.28	560.61	546.88	0	0	0	0	2,071.17
LAYTONA	0	0	0	0	0	0	0	236.59	200.09	38.14	0	0	474.82
NORTH OGDEN	0	0	0	0	16.83	79.02	82.71	80.84	72.17	63.03	22.62	0	417.22
NORTH WEBER	0	0	0	107.83	101.6	96.88	97.38	94.74	87.73	43.72	0	0	629.88
ORCHARD DR.	0	0	0	0	0	4.55	31.6	31.79	27.64	4.42	0	0	100
RIVERDALE	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH DAVIS	0	0	0	0	0	198.15	270.47	255.33	231.62	263.78	0	0	1,219.35
SOUTH WEBER #1	0	0	0	0	0	265.15	444.41	45.88	0	0	0	0	755.44
SOUTH WEBER #2	0	0	0	0	0	0	0	315.06	392	179.36	0	0	886.42
TOTAL	0	0	0	107.83	782.86	1,556.85	2,093.33	2,391.99	1,517.91	931.67	266.68	208.67	9,857.79

IRRIGATION WELLS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Farmington Well #1	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmington Well #2	0	0	0	0	0	0	0	0	0	0	0	0	0
Mills Park Well	0	0	0	0	7.1	65.1	96.6	87.2	89.1	0	0	0	345.1
Washington Terrace Well	0	0	0	0	0	0	189.8	191	135.8	0	0	0	516.6
West Bountiful 5th South	0	0	0	0	0	0	0	0	0	0	0	0	0
West Bountiful Golf Well	0	0	0	0	0	0	22.7	34.4	0	0	0	0	57.1
TOTAL	0	0	0	0	7.1	65.1	309.1	312.6	224.9	0	0	0	918.8

These wells are some of the facilities which are operated by project generated power.

# **Weber Basin Water Principal Infrastructure**

<b>DAMS &amp; RES</b>	RVOIRS					
Name I	Location	Type of Dam	Height (ft)	Total Capacity (AF)	Usable Dist Capacity (	
Causey East Canyon Lost Creek Pineview Smith & Morehouse Wanship Willard	Eastern Weber County Southern Morgan County Eastern Morgan County Ogden Valley, Weber County South-eastern Summit County Summit County Southern Box Elder County	Earth & Rock Concrete Arch Earth & Rock	200 245 220 91 82 156 36	7,870 51,200 22,500 110,150 8,350 62,120 227,189	6,8 20,1 20,0 66,2	370     1962-1964       00     1965-1967       910     1964-1966       928     1955-1957       960     1984-1988       960     1954-1957
<b>AQUIFER STO</b>	RAGE & RECOVERY					
Name	Location	Pond Area (acres)	Capacity (cfs)	<b>Acquisition Dates</b>		
ASR	Weber County	7.5	10	2002		
<b>DIVERSIONS</b>						
Name	Location	Pass-Through Capacity (cfs)	Acquisition Dates			
Ogden Valley	South Fork of Ogden River	2,000	1962-1964			
Slaterville	Weber River west of Ogden	9,000	1956-1957			
Stoddard	Weber River north of Morgan	6,000	1955-1956			
<b>HYDRO GENE</b>	RATION POWER PLAN	ITS				
Name	Location	Туре	Capacity (kw)	<b>Acquisition Dates</b>		
Causey	Eastern Weber County	2 unit	2,100	1999-2000		
Gateway	Mountain Green	1 unit	4,275	1957-1958		
Wanship	Wanship	1 unit	1,950	1957-1958		
<b>CANALS, TUN</b>	NELS & PIPELINES					
Name	Location	Туре	Ca		ength (miles)	<b>Acquisition Dates</b>
<b>Davis Aqueduct</b>	Davis County	Concrete pipe		355	23.0	1954-1957
Gateway Canal	Morgan County	Concrete-lined		700	8.5	1954-1956
Gateway Tunnel Layton Canal	Morgan and Davis County Davis County	Concrete-lined Earth-lined/concrete	-lined/nine	435 260	3.3 18.0	1952-1954 1962-1964
M&I Pipelines	Davis County  Davis and Weber County	Varies 6"-48"	-iiiieu/pipe	varies	80.0	1955-2012
Ogden Valley Canal	Weber County	Part earth-lined		35	9.2	1962-1964
Secondary Pipelines		Varies 2"-36"		varies	325.0	1955-2012
Weber Aqueduct	Weber County	Concrete pipe		80	5.0	1954-1956
Western Summit Count Willard Canal		Ductile Iron Earth-lined/concrete	linad	8.9 1.050	9.0 11.0	2013 1961-1963
willaru Gallai	West Weber County	carin-imed/concrete	-IIIIEU	1,050	11.0	1901-1903

# **Weber Basin Water Principal Infrastructure**

PUMPING PLANTS					UNDERGROUND WATER WELLS				
Name	Location	Capacity (cfs)	Height of Lift (ft)	Acquisition Dates	Name	Location	Туре	Capacity (cfs)	Acquisition Dates
Antelope Booster	Layton	22	50	1978	Ben Lomond	Harrisville	M&I	1.8	2001
East Bountiful	Bountiful	18	475	1955	Clearfield #1	Clearfield	M&I	5.0	1961
East Layton	Layton	9	65	1955	Clearfield #2	Clearfield	M&I	5.0	1961
Gateway	Mountain Green	150	150	1995	Davis Boulevard	Bountiful	M&I	2.2	2003
Kanesville #1	West Haven	3	218	2000	District Well #2	South Weber	M&I	11.0	1985
Kanesville #2	West Haven	10	315	2001	District Well #3	South Weber	M&I	10.0	1990
Layton Canal	West Haven	260	23	1955	Fairfield	Layton	M&I	10.0	1992
Old Post Rd Booster	Ogden	6	200	1960	Farmington #1	Farmington	Irrigation	5.0	1995
Rockport	Wanship	25	45	2009	Farmington #2	Farmington	Irrigation	5.0	1996
Roy Drought Relief	Roy	150	340	1981	Laytona	Layton	ŬM&I	5.0	1958
Sand Ridge East	Layton	9	92	1955	Mils Park	West Bountiful	Irrigation	2.2	2011
Sand Ridge West	Layton	15	138	1955	North Ogden	North Ogden	ŬM&I	1.8	1967
South Davis	Bountiful	18	530	1955	North Weber	Harrisville	M&I	1.6	2006
Unitah Bench	South Ogden	18	365	1955	Orchard Dr. Well	Bountiful	M&I	0.8	1991
Val Verda	Bountiful	6	240	1955	Riverdale	Riverdale	M&I	6.6	1960
West Haven #1	West Haven	10	218	2003	South Davis	Woods Cross	M&I	5.2	1961
West Haven #2	West Haven	8	230	2010	South Weber #1	South Weber	M&I	10.0	1962
Willard #1	West Weber County		45	1960	South Weber #2	South Weber	M&I	10.0	1962
Willard #2	West Weber County	250	20	1960	<b>Washington Terrace</b>	Washington Ter	Irrigation	4.0	2013
	•				<b>West Bountiful 5th South</b>		Irrigation	4.0	1992
WATER TREAT	MENT DI ANTE				West Bountiful Golf	West Bountiful	Irrigation	2.0	1993

### WATER TREATMENT PLANTS

		Capacity Ac	quisition
Name	Location	(MGD)	Dates
Davis North WTP	Layton, Davis	46	1955
Davis South WTP	Bountiful, Davis	16	1955
East Canyon WTP	Jeremy, Summit	5.5	2013
Weber South WTP	Ogden, Weber	32	1955

AF=Acre Feet • CFS=Cubic Feet per Second • MGD= Million Gallons per Day

