



**Weber Basin Water
Conservancy District**

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WEBER BASIN WATER CONSERVANCY DISTRICT



2015 Summary





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.

Message from Tage I. Flint, General Manager / CEO

2015 proved to be a successful year for our staff and Board in providing reliable and quality water service to hundreds of thousands of residents in five counties. The water year produced a slim amount of runoff which we optimized into a full year's supply without any of our large reservoirs filling. We are appreciative of our Board of Trustees for their leadership and for this year's addition of a few much needed staff positions that will be put to good use as we continue to expand our infrastructure.

The Governor's Office of Management and Budget continues to project that our District's population will double over the next four decades. Two major topics generate from this discussion. First, water conservation and development will be key to our having a sufficient supply for our children and grandchildren. Second, the complex and extensive infrastructure on which we depend every day for our water service will need to be repaired and rebuilt in the same time frame in order to sustain what we already have.

My personal thanks to our excellent employees who possess a wide array of expertise, all of whom contribute to the larger success of delivering a consistent and quality water supply to our communities. The pages that follow indicate the breadth and scale of the system on which each resident depends daily.

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2015 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. Trustees are appointed by the Governor of the State of Utah confirmed by the Senate after receiving recommendations from the County Commissions. The Board appoints a General Manager who serves as the Chief Executive Officer of the District. The General Manager also serves as the Treasurer and Secretary of the District.



Kerry W. Gibson
Trustee, Weber County

Mr. Gibson represents Weber County and served as President of the Board in 2015. He owns and operates a large dairy in West Weber and a local convenience store.

He was a three term State Representative and is currently serving as a Weber County Commissioner.



Eric B. Storey
Trustee, Weber County

Mr. Storey represents the Ogden Valley area of Weber County. He is employed by Zions Bank as Manager of Corporate Real Estate. He is the senior board member.



Kyle R. Stephens
Trustee, Davis County

Mr. Stephens was appointed to the Board to represent Davis County. He is the past Deputy Commissioner of Agriculture for the State of Utah and is very active in the community.



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.



John Petroff, Jr.
Trustee, Davis County

Mr. Petroff was appointed to represent Davis County. He is a successful private business owner. He served as Mayor of West Point City prior to his current role as a Davis County Commissioner.



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 city council member.



Kym O. Buttschardt
Trustee, Weber County

Mrs. Buttschardt was appointed to the Board to represent Weber County. She owns several successful local restaurants and is a CPA. She is an Ogden native who is very active in the community.



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.



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.

EXECUTIVE STAFF



Tage I. Flint, PE
General Manager / CEO



Mark D. Anderson, PE
Assistant General Manager / CTO



Scott W. Paxman, PE
Assistant General Manager / COO



Darren E. Hess, PE
Assistant General Manager / Strategic Initiatives

Brittney Bateman
Programs Manager





ADMINISTRATION

Department

*The **Administration Department** is responsible for many District functions and is a key part of the successful operation of the District.*

This department manages thousands of customer service calls each year by utilizing a work order management system that allows for better communication between the departments and has resulted in improved time management. It also oversees the Reclamation Reform Act, which is a federal law administered by the Bureau of Reclamation.

The Administration Department continues to perform all accounting duties with precision. It manages tens of thousands of water purchase contracts and assists other departments as needed.





2015 Water Contract Activity

The District supplies five categories of water to its customers including wholesale irrigation, retail secondary and agricultural irrigation, treated municipal, untreated industrial, and groundwater replacement. During 2015, the District's total water sales reached 224,559 acre-feet. You will find the District's customers who purchase this water throughout this summary.

Wholesale Irrigation

The District supplies water to various secondary water companies and districts along the Wasatch Front. These organizations then retail water to customers in their respective service areas. The District is also a source of economical irrigation water purchased by irrigation companies and supplied to individual farmers.

Retail Secondary & Agricultural Irrigation

Many residents of Davis and Weber counties enjoy the use of Weber Basin water to irrigate their lawns and gardens. The District provides secondary water directly to many residents from Ogden to Woods Cross. The District also delivers economical irrigation water directly to many farmers in Box Elder, Davis, Morgan, Summit and Weber counties for agricultural uses.

Treated Municipal

The District wholesales drinking water to almost every city and water improvement district in Davis and Weber counties as well as several entities in Summit County. Depending on the entity, either all or a part of their drinking water supply is provided by the District.

Untreated Industrial

Many industries in Davis and Weber counties rely on water supplied by the District for their manufacturing, processing, and other uses.

Groundwater Replacement

Many residents within the District do not have access to a municipal or community water system and must depend on alternative sources for their domestic water. Additionally, some municipalities and public water systems located away from main waterways require groundwater for which no new appropriations are given. Utilizing District owned reservoir storage rights, drinking water purveyors and individuals contract with the District for a water supply which, along with an approved exchange application from the State Division of Water Rights, permits drilling of a well to meet their needs.

The diagram below shows the quantities sold of each category.

2015 Water Contracts – 224,559 acre-feet

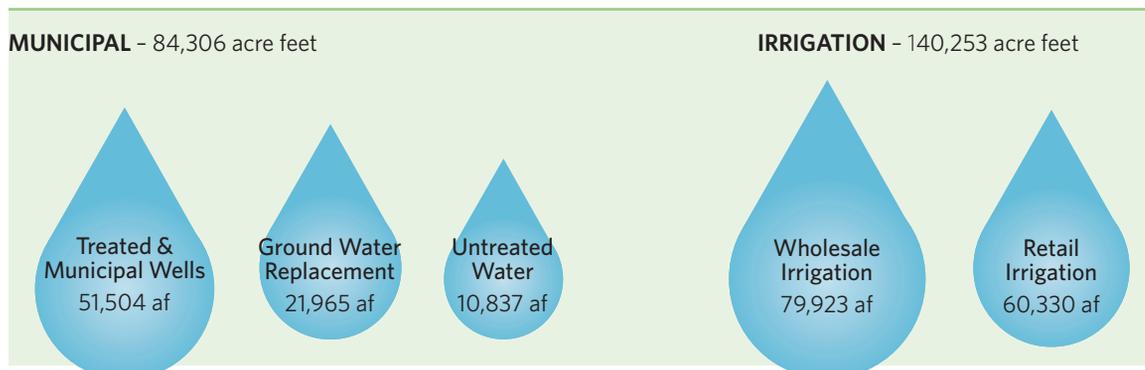


PHOTO: REBECCA DELIUS

Sherrie A. Mobley
Manager / CAO

Becky Delius
Purchasing Assistant /
RRA Specialist

Deena Harris
Customer Service Specialist

Lee Heslop
Courier

Kendall Searle
Contracts & Purchasing Assistant

Kathy Wood
Accountant





FINANCE & HUMAN RESOURCES

Department

*The **Finance and Human Resources Department** prepares and tracks the budgets of each of the various funds and presents them to the Board of Trustees for consideration of approval.*

The department also facilitates the investment of District funds; deals with the financing needs of the District; is involved with the process of recruiting, interviewing, screening, and hiring new employees; is the District's liaison with commercial insurance agents, employee benefits providers, and several state agencies; and acts as a support for the other departments of the District.





2015 Human Resources Information

The District ended the year with 105 full-time, part-time, and seasonal employees. Eleven new employees were hired during the year who replaced employees leaving the District or filled new positions. In March 2015, District personnel, family, and friends were stunned and saddened by the tragic death of Matt Rasmussen who died in a fishing accident. Matt had worked as a Senior Engineer for nearly 10 years.

A total of 19 seasonal employees were hired to work in the conservation garden, perform water audits, give tours of District facilities, maintain the District's right-of-way properties, and assist in the delivery of secondary and irrigation water, the repairing of pipelines, and other miscellaneous projects.

John K. Davis
Controller / CFO

2015 Financial Information

Fiscal Year (FY) 2015 was a positive year for the District even though Total Revenues decreased from \$32,735,078 in FY 2014 to \$31,237,189 in FY 2015. The difference was largely due to one-time payments during FY 2014 by three cities for obligations totaling more than \$1.7 million. The District expended more than \$11 million on capital projects during FY 2015 with the bulk being spent on the East Layton Culinary Transmission Pipeline, Phase 3 of the Willard Canal Lining, and the AV Watkins Dam 2-foot Raise projects.

The District took advantage of very favorable interest rates during the year to refund two bond issues totaling \$32,175,000. The District issued \$10 million of bonds during the fiscal year to assist in the 2-foot raise of the AV Watkins Dam.

All bond and loan obligations were met in a timely matter during FY 2015, and the District's debt service coverage rate of 1.95 was well above the bond covenant rate of 1.25.

STATEMENT OF SOURCES & USES OF FUNDS

Fiscal Year Ended June 30, 2015

SOURCES:	
Water Sales	\$19,159,407
Taxes & Fee-in-Lieu of Taxes	9,012,213
Interest	402,162
Miscellaneous	2,663,407
Net Use of Loan/Bond Proceeds/Reserves	42,175,000
TOTAL REVENUE & LOAN/BOND PROCEEDS/RESERVES	\$73,412,189
USES:	
Water Payments, Assessments & Water Stock Purchases	\$1,016,293
Interest Expense	4,280,552
Operating Expenses	13,068,863
Utilities	390,600
Loan & Bond Payments	42,725,524
Capital Improvements	11,311,831
Added to Reserves	618,526
TOTAL EXPENDITURES	\$73,412,189

STATEMENT OF NET POSITION

Fiscal Year Ended June 30, 2015

ASSETS:*	
Current Assets	\$50,507,219
Sinking Fund & Reserve Fund Assets	38,686,908
Property & Equipment (less accumulated depreciation)	269,770,030
Pension Charge - Deferred Outflows of Resources	478,743
TOTAL ASSETS & DEFERRED OUTFLOWS OF RESOURCES	\$359,442,900
USES:	
Current & Other Liabilities	\$8,455,433
Long-Term Obligations	142,208,251
Bond Premium - Deferred Inflows of Resources	6,792,817
Pension Credit - Deferred Inflows of Resources	271,426
Refunding Credit - Deferred Inflows of Resources	624,330
Net Position	201,090,643
TOTAL EXPENDITURES	\$359,442,900

*Does not include federally owned Weber Basin Project facilities operated by the District.





ENGINEERING

Department

*The **Engineering Department** is responsible for ensuring the District's capability to reliably and efficiently meet existing and future water demands throughout the District's service area. This is accomplished through the completion of capital improvement projects involving District and Weber Basin Project facilities, in addition to the rehabilitation and maintenance of existing infrastructure.*

Additional tasks performed by the Engineering Department include subdivision reviews which occur as new development requires the expansion of the District's existing secondary systems, management of all license agreements which are used any time another entity encroaches upon District or Bureau of Reclamation (BOR) facilities, assisting in the procuring of federal grants in order to rehabilitate existing facilities and seismically retrofit them as necessary, and providing technical assistance to other departments within the District as they perform their respective duties.





This year the District continued work on the rehabilitation of the Davis Aqueduct, downhole development of District Well No. 2, expansion of meters on the secondary irrigation system, seismic retrofitting of District tanks, and fencing of various sensitive facilities throughout the District. The District designed and oversaw construction of an interconnect vault allowing the conveyance of water between providers in the Snyderville Basin (first project completed as part of the Western Summit County Agreement) and the A.V. Watkins 2-Foot Dam Raise.

New construction consisted of completion of the 12 Million Gallon Culinary Water Tank Seismic Retrofit, North Summit Irrigation Pressurized Connection at Wanship, Widening of Station 30+45 Gateway Canal Bridge, and Lost Canyon Diversion Housing. The District has continued to work towards the drilling of new culinary wells located in south Davis County in an effort to provide greater redundancy to the culinary system in this area.

Additionally, the Engineering Department has worked with various engineering consultants and contractors, as well as District M&I, Water Supply and Power, and Maintenance personnel, in order to complete these projects. These projects enable the District to increase water supply and water quality, raise the level of reliability, and improve the District's infrastructure to maintain a high level of service to its customers.

Projects

12 MILLION GALLON CULINARY WATER TANK SEISMIC RETROFIT PROJECT

The District designed and installed a pair of earthquake sensors and an automatic shutoff valve to the 12 MG Sandridge Tank. The automatic shutoff valve will be triggered in a seismic event where the ground accelerations will be great enough that the pipeline could break and drain the tank. Shutting the valve and conserving the water storage is crucial not only to supply culinary demands but to fight fires which tend to break out after large seismic events. This project was funded in part with a FEMA grant and also won the Grand Conceptor Award from the American Council of Engineering Companies of Utah.



PHOTO: GARY ALLEN

Jonathan F. Parry, PE
Manager

Gary Allen
SCADA

Mike Alverson
GIS & IT Supervisor

Lou Eddy
Inspector

Briant Jacobs, PE
Engineer

Jeff Morgan
Inspector

Greg Pierce
GIS Specialist

Matt Rasmussen, PE
Senior
Engineer

Troy Stout, PE
Engineer





NORTH SUMMIT WANSHIP CONNECTION

Several irrigation companies located within the Snyderville Basin, as well as other individual water right holders, joined to form the



North Summit Pressurized Irrigation Company. At the time of North Summit's formation, it received a Water-SMART grant to pipe its earthen-lined canals located below Rockport Reservoir. North Summit also negotiated with the Bureau of Reclamation and gained approval to

convey its irrigation water through Weber Basin Project facilities. As part of these negotiations, the District agreed to pay for the facilities required to convey their water through properties owned by the federal government. Ultimately this project allowed North Summit to make use of pressure generated by the impounding of water behind Wanship Dam.

WESTERN SUMMIT COUNTY INTERCONNECT

Water resources in the Snyderville Basin are in high demand. Furthermore, there exists a concern that the lack of integration of the current water systems results in relatively higher costs and an inability to balance water resources and needs. In order to complete and operate partially built infrastructure and to integrate the water systems in an effort to achieve efficiency, lower costs, and better access to dependable water resources, additional capital is required. To achieve these goals, Park City, Mountain Regional Water Special Service District, Summit Water Distribution Company, and the District agreed to make the capital investment necessary to construct and operate the required infrastructure and entered into an agreement allowing the District to use excess capacity in their respective facilities. As part of this agreement, the District agreed to design and construct an interconnection among Mountain Regional's, Park City Water's and Summit Water's systems to provide for wheeling of water and service among the systems as contemplated by this agreement. This project acts as Phase I of a proposed three stages and allows for the delivery of excess water from Mountain Regional to Summit Water.

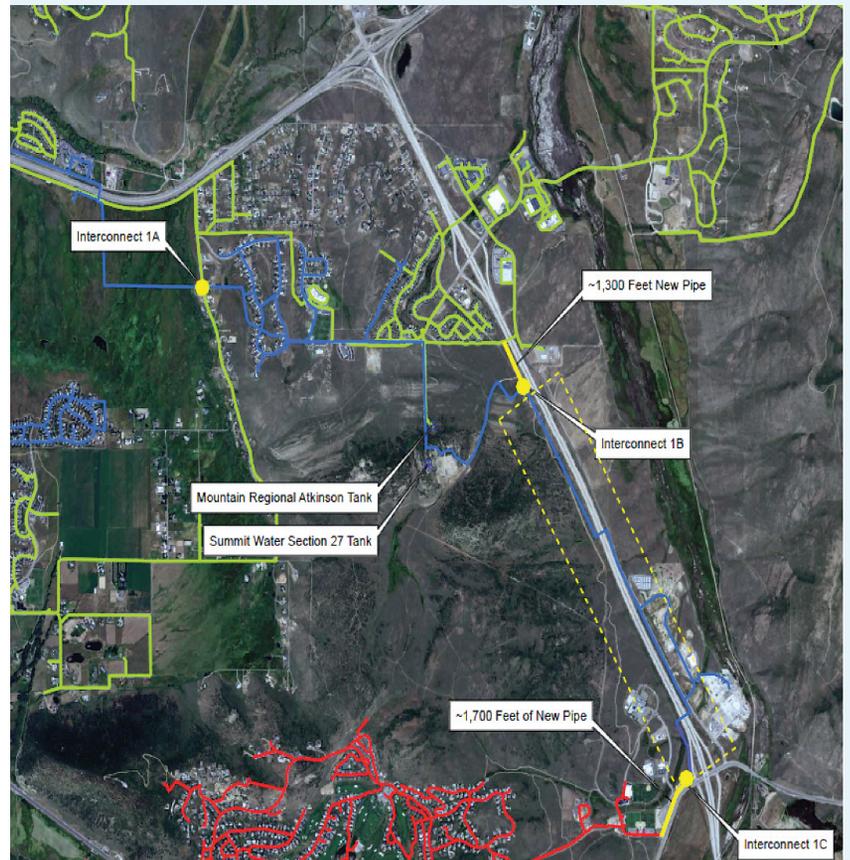




PHOTO: NOKE KELLEY

LOST CANYON DIVERSION HOUSING

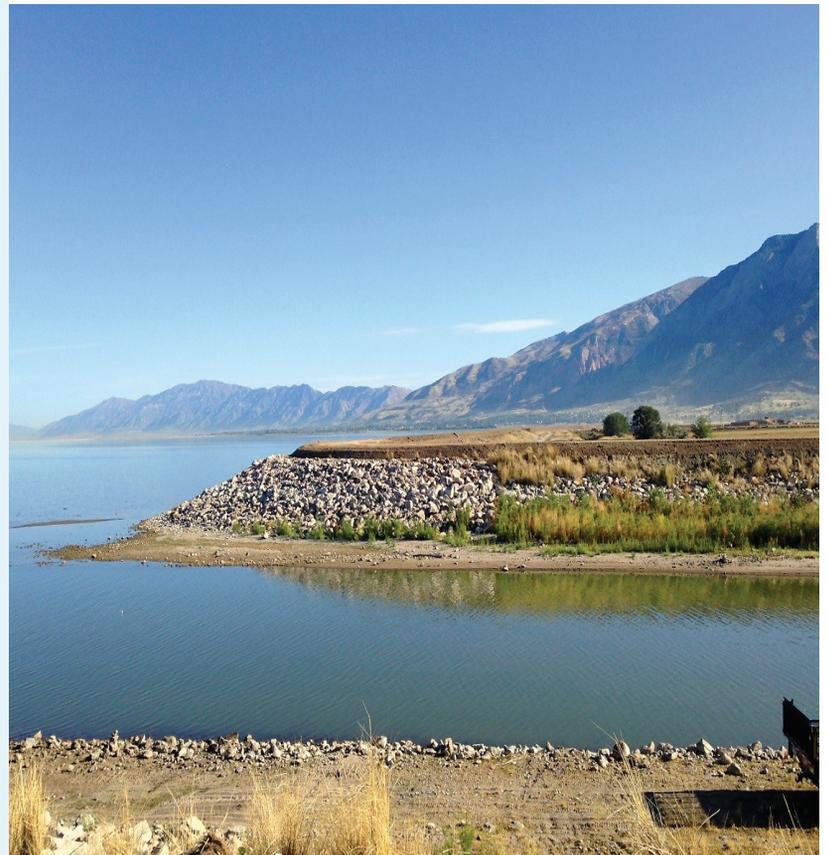
The District completed a structure built over the Lost Canyon Diversion in an effort to minimize impacts to the facility during cold weather events. It was constructed to match existing structures in the area. Recognizing that maintenance of this diversion requires periodic removal of the screen, the roof was designed to be completely removable to facilitate this work. Insulation and natural gas heaters were also installed.

A.V. WATKINS 2-FOOT RAISE

Willard Reservoir is an off-channel storage facility located 12 miles northwest of Ogden in Box Elder County. Construction of this U-shaped zoned earthfill dam was started in 1958 and completed in 1964. The reservoir is fed by the Willard Canal which receives water through the Slaterville Diversion Dam located on the Weber River approximately eight miles south of the reservoir. Water is returned from Willard Reservoir to Weber River as needed over the same route, facilitated by two pumping plants. The dam and reservoir are features of the original Weber Basin Project and provide irrigation and municipal and industrial



water to heavily populated and industrialized lands east of the Great Salt Lake. Project benefits include irrigation, M&I water, fish and wildlife, and flood control.





DISTRICT WELL NO. 2 REHABILITATION PROJECT

The District Well No. 2 was rehabilitated in 2015 in accordance with Utah public drinking water supply standards. Rehabilitation consisted of the installation of an inner casing, a screen liner, and engineered gravel pack. These items were installed in order to address excessive sand production exhibited by the well during normal operation. Upon completion of rehabilitation activities, testing was performed to determine the effectiveness of the project. This testing indicated sand content of pumped water at less than 0.1 ppm while pumping at a rate of 4,635 GPM.



SOUTH DAVIS CULINARY WATER WELL

In an effort to fully utilize water rights associated with the Weber Basin Project and to ensure a more robust culinary system in the south Davis County area, the District worked with both the Bureau of Reclamation and the State of Utah to file a change

application. This change application included the addition of 7 potential points of diversion. These additions will allow the District the opportunity to pursue new well locations. A well site in Bountiful has been identified per these efforts.



GATEWAY CANAL BRIDGE EXPANSION

During the construction of the Gateway canal, a combination bridge and gate structure was constructed in order to allow access to either side of the canal at Station 30+45. This structure consisted of a double-cell reinforced concrete box culvert with a deck width of 14 feet and a total span of 23 feet. Recognizing this is a heavily utilized accesspoint across the canal by the District, it was analyzed to determine what improvements could be made to accommodate the crossing of heavy construction equipment. The analysis provided a design that widened the bridge to a total width of approximately 28 feet and provided H 20 loading.



AQUEDUCT MAINTENANCE AND REPAIR

The District managed the cleaning of 12,337 linear feet of the Davis Aqueduct. The District also managed and repaired 289 joints located within this same section of pipe. The project began in February and was completed in March. A total of 40 joints that were previously sealed were inspected and warranty work performed. Management of this project included the coordination of multiple contractors in order to obtain satisfactory cleaning and repair of the aqueduct.



PHOTO: BRIANT JACOBS

SEISMIC RETROFIT OF WATER TREATMENT PLANT BACKWASH TANKS

The District moved forward with the design of seismic retrofits to two backwash tanks located at the Davis South and Weber South Water Treatment Plants. The District began work with a consultant in order to complete the design. This work is being funded in part due to a FEMA grant the District received the previous year.

SECONDARY WATER METERING PROJECT-PHASE 4

This year the District returned to the Farmington area to continue installation of end-user meters in an effort to promote water conservation. The District installed a total of 616 meters to existing secondary water users in this service area. It is anticipated the entirety of the Farmington secondary service area that utilizes one-inch service connections will have metering installed in 2016. These meters allow the District to send monthly use statements to its customers that provide detailed information and assists them in understanding how much water they are using on their secondary water systems.





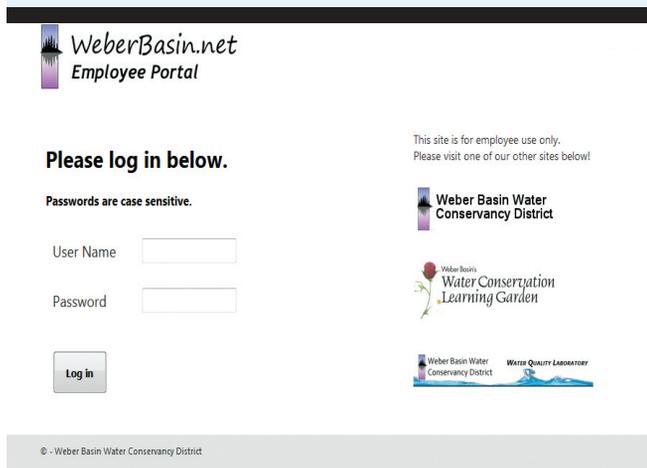
FENCING OF THE 2.6 RESERVOIR

The Bureau of Reclamation’s property located at the 2.6 reservoir was not originally fenced along the property boundary. Due to safety concerns associated with encroachment of the property, as well as for a desire to protect the capability to expand the reservoir in the future if needed, the BOR requested the fencing be constructed on the property line. The District and the BOR met with homeowners and coordinated efforts to relocate items previously located on BOR property to the homeowners properties. Trees located on BOR property were then removed and a fence constructed on the property line. A new approach which facilitated access to the reservoir was installed as part of this fencing project. The project was completed in February 2015.

GIS/IT

The District’s Geographic Information System (GIS) and Information Technology (IT) staff provides data and technology that saves time and effort for District employees and customers. 2015 saw updates to the District’s custom applications and construction of new applications. GIS staff offer support for the secondary metering project and are refining the use of GIS to automate the reallocation of secondary water.

The District continues to look for more efficient ways to share District GIS information with employees and provide technology that increases productivity

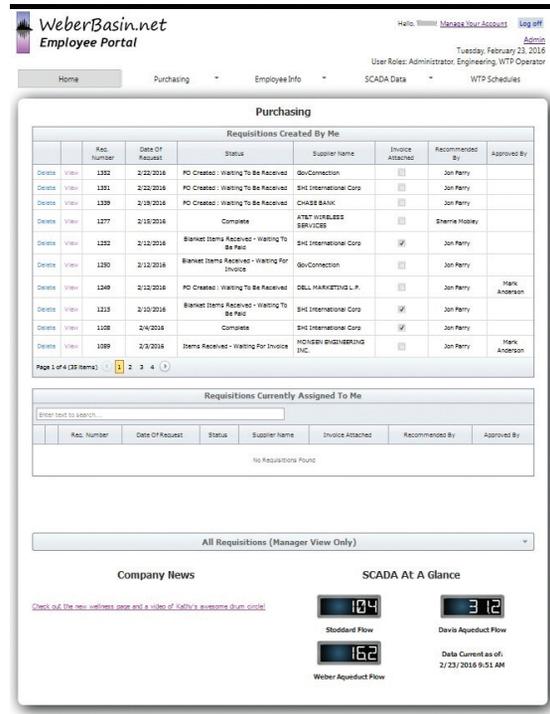


NEW DISTRICT WEB PORTAL

The new District web portal allows for increased functionality, including operations that provide the ability to review SCADA data, employee news and company information, and the new procurement management system. Timecard submission with approvals and other functionality will be added at a later date. The site has been entirely developed and written in-house to provide for maximum customization. The site will increase productivity, minimize paper use, and allow for management to approve or deny requisition requests from any location.

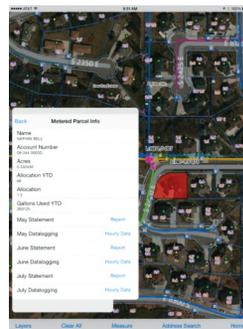
PROCUREMENT SYSTEM

The District's outdated paper based requisition and purchasing system has been completely replaced with an online, web based system. This allows for near instantaneous response and tracking of any purchase request within the District. Users are able to monitor the status of their requests through a web page. This system interfaces entirely with the existing accounting system allowing for the creation of purchase orders and receipt of items. The website contains over 15,000 lines of code that work together to improve the procurement process. It also contains algorithms that ensure all current purchasing laws and standards are followed for the approval processes. All this information, including any scanned documentation, is stored in a database for instant query and retrieval requests. This system is a giant leap forward in ensuring the tightly controlled purchasing environment is taken to the digital age. It provides an increased level of security for this process and ensures the movement of requisitions in a timely manner. It was one of the District's largest IT projects to date.



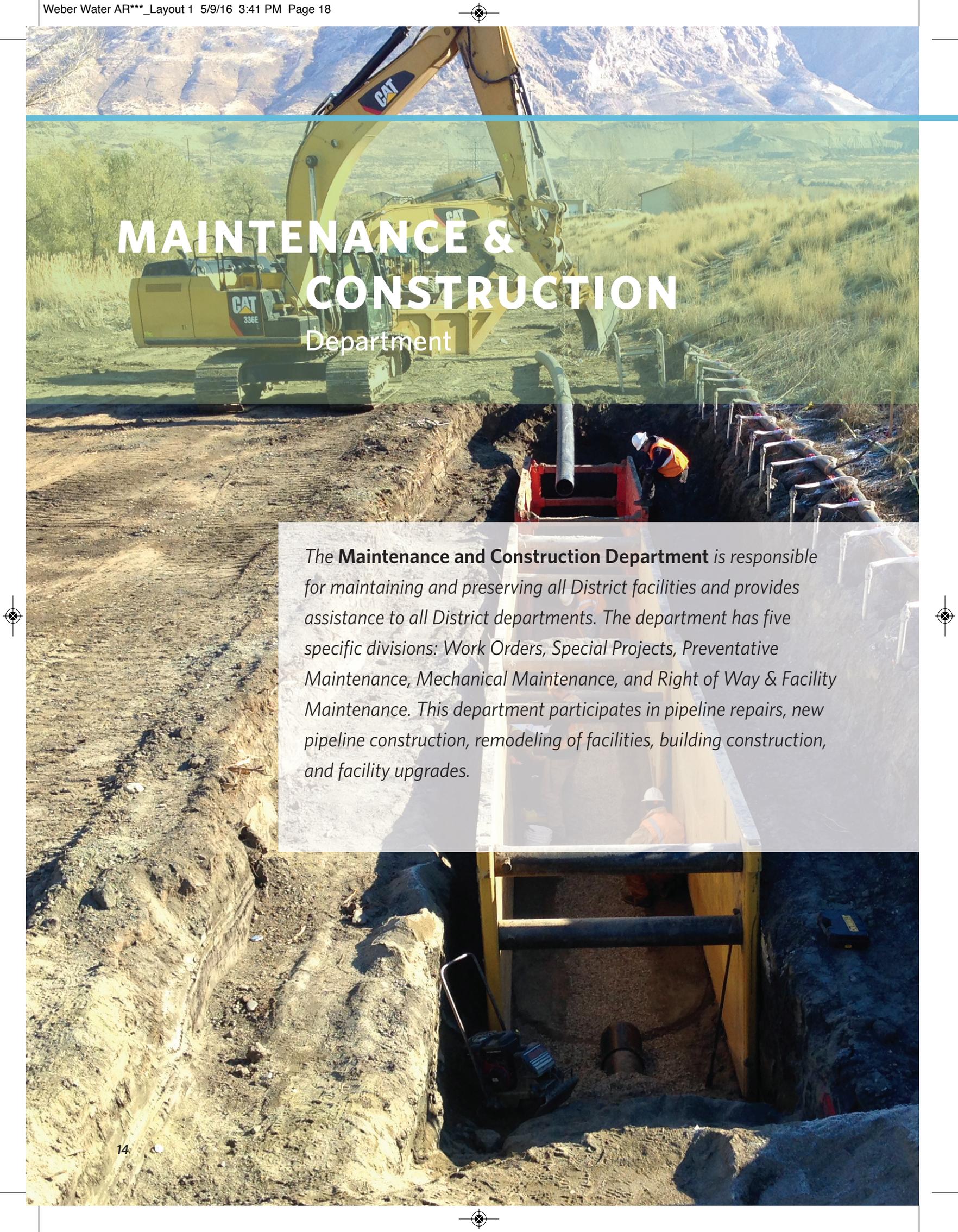
SCADA IMPROVEMENTS

The District has added SCADA to North Summit Pressurized Irrigation Company, Wanship Pressurized Ditch Company, Park City Interconnect, and the MIDA Metering Vault and also upgraded several other District metering vaults. The District maintains over 110 remote sites on SCADA which allows monitoring and collection of historical data, along with remotely controlling the system from a centralized location.



IOS APPLICATION

The iOS mapping application that shows all District GIS and infrastructure data has now been distributed to partner irrigation districts. It allows for easy access to pipeline and turnout information to these districts that have assumed operations and maintenance of portions of the District retail irrigation system. In order to keep up with current standards and iOS releases, this app must be updated occasionally throughout the year to ensure compatibility with new technology and standards.



MAINTENANCE & CONSTRUCTION

Department

The **Maintenance and Construction Department** is responsible for maintaining and preserving all District facilities and provides assistance to all District departments. The department has five specific divisions: Work Orders, Special Projects, Preventative Maintenance, Mechanical Maintenance, and Right of Way & Facility Maintenance. This department participates in pipeline repairs, new pipeline construction, remodeling of facilities, building construction, and facility upgrades.

SPECIAL PROJECT DIVISION

The Special Projects Division responds to and makes repairs to all leaks and emergency conditions that occur throughout the District. This division also performs new construction and remodeling projects.

A list of projects that were completed in 2015 by the Special Project Division include:

- 1,200 feet of filtered toe drain was installed on the north end of A.V. Watkins Dam under direction of the Bureau of Reclamation preparatory to the raising of the dam.
- New 24" valve installed on the M&I main transmission pipeline to provide isolation and flow control.
- The Ogden Valley Canal clay lining and maintenance project continued to insure canal integrity.
- Waterwise landscaping was integrated at the Orchard Drive Well and Clearfield Well #2 properties.
- Concrete retaining wall and stairs were added to the inlet at East Canyon Water Treatment Plant.
- Phase 3 of the Davis Aqueduct rehabilitation project continued which consisted of cleaning of interior clamps and installation of new pipeline joint coatings.
- New air vents installed at four locations on the Davis Aqueduct to provide better circulation.



Mark H. Clark
Manager

Brent Briggs
Mechanic

Jordan Clontz
Crew Chief,
Preventative Maintenance

Russell Fearn
Crew Chief, Work Orders

David Fisher
Shop Worker

Nolan Hadley
Maintenance Worker

Stan James
Seasonal Worker

Jacob Jaques
Crew Chief, Special Projects

Nolan Kelley
Maintenance Superintendent

Bruce McDonald
Maintenance Worker

Kasey Monson
Warehouse Inventory Control

Trase Penman
Crew Chief, Rights-of-Way

Kenny Schow
Maintenance Worker

Tristian Trussell
Maintenance Worker

Kaden Vernon
Maintenance Worker

Scott Wilson
Crew Chief, Special Projects

Jared Woolsey
Welder





PREVENTIVE MAINTENANCE DIVISION

The Preventative Maintenance Division continues to upgrade and rehabilitate M&I and irrigation vaults and structures throughout the District. M&I vaults are regularly cleaned and inspected to maintain optimal security and operator safety.

Included in the larger projects is the rehabilitation of the Ritter Drive M&I Vault. Rehabilitation included installation of new valves, piping, automatic controls, ladders, and hatches.

WORK ORDERS DIVISION

In 2015, the Work Orders Division removed a large amount of treatment solids from the District's three water treatment plants and deposited them into the District's private landfill site. Concrete replacement, caulking, and dredging the settling areas were performed on the Gateway Canal. Inspection, repairs, and coatings were applied to key dam facilities. The Work Orders Division also installed and replaced secondary water meters which continues to be an ongoing task.



RIGHT OF WAY AND FACILITIES MAINTENANCE

The Right of Way and Facilities Maintenance Division is responsible for landscaping at the Wasatch Front Regional Alignment facilities in Davis and Weber counties. This work includes mowing, vegetation control, pipeline rights-of-way canal properties, and other landscaping duties. This division performs snow removal as required and upgrading landscapes of District properties.



MECHANICAL MAINTENANCE DIVISION

The Mechanical Maintenance Division is responsible for the maintenance and upkeep of the District's fleet of service vehicles and heavy equipment. It also maintains, repairs, and services pumps, small engines, tools, and equipment. Standby emergency generators throughout the District are regularly serviced and maintained to insure reliability.

WATER SUPPLY & POWER

Department

*The **Water Supply and Power Department** operates facilities which control the storage and conveyance of all raw water supplied to District customers within its boundaries. These operations include operation of all storage and diversion dams for water storage and flood control purposes, canals, aqueducts, irrigation trunklines, laterals and pumpstations.*

The department also operates and maintains hydropower generation facilities at Wanship and Causey Dams and at the terminal of the Gateway Canal. The hydroplants provide the majority of the power needs of the District. Electricians within the department troubleshoot and maintain all electrical facilities throughout the District.

The snowpack accumulation for the Weber and Ogden River drainages experienced record lows in the late winter and spring of 2015 with snow water equivalents averaging 37% of normal on April 1. The April 1st projections for runoff during the April through July time period ranged between 15% and 50% of normal with the driest drainages being East Canyon Creek, Lost Creek and the Ogden River. Fortunately, the month of May was much wetter than normal with rainfall amounts ranging from 4 to 8 inches. This rainfall was very timely in that it met the needs of both the agricultural interests and the secondary water users making it possible for the District to gain and hold previously stored water that otherwise would have gone to use during the month of May. This month-long wet pattern significantly improved the bleak outlook in April and helped the District get through the summer without more extensive shortages.

The above described events allowed for the filling of Echo Reservoir along with the smaller Smith and Morehouse and Causey reservoirs. The filling of Echo also allowed the District to fully retain the holdover water acquired from the Weber River Water Users Association at the end of the 2014 irrigation season.

In an effort to conserve water for future use, the District placed a 20% restriction on all irrigation and secondary water contracts and shortened the irrigation delivery season to October 1st. Through prudent usage by the residents in the District and effective reservoir management, the District storage facilities were able to end the irrigation season with approximately 40% holdover.



PHOTO: GORDON BARROW

Chris C. Hogge, PE
Manager

Gordon Barrow
Irrigation Operator / Damtender

Casey Bitton
Electrician

Britt DeJong
Power Plant Operator / Damtender

Casey Folkman
Power Plant Operator / Damtender

David Giles
Electrician

Alan Hatch
Irrigation Operator

Jeff King
Irrigation Operator

Ben Love
Lead Irrigation Operator

Michael Midgley
Superintendent

Jason Obray
Electrician, Lead

Abby Smith
Lead Irrigation Operator

Lee Smith
Irrigation Operator

Ken Turner
Electrician, Lead

Bob Waldron
Power Plant Operator / Damtender

In 2015 the combined power generation of the Wanship, Gateway, and Causey hydropower plants totaled 15.4 million kWh (approximately 5% less than in 2014) while the District's power demand was approximately 27.7 million kWh (approximately 20% more than 2014). The relative low runoff and the necessary pumping increases due to the required moving of stored water to where it is needed were the two major factors influencing the District's generation and power use.

In addition to normal in-season operating maintenance and procedures, the District's system operators focused their off-season efforts on maintenance and rehabilitation of meters, pumps, PRV's and other operational facilities in preparation for the coming season.

Other projects worked on were the replacement of 4 air-vac valves with vents on the upper Davis Aqueduct, reduction of water loss from the Gateway Canal lining by systematic caulking of canal segments each fall, the continuing installation, reading and maintenance of secondary residential meters and many other facility rehabilitation projects. All of the above successfully completed projects required substantial coordination and cooperation between all departments within the District as well as consultants and contractors hired by the District and associated agencies.



IRRIGATION WATER CONTRACTS 2015 (ACRE FEET)

CONTRACTING ENTITY	CONTRACT AMOUNT	DELIVERY LOSS	NET USEABLE
Benchland Irrigation	4,475	448	4,028
Bountiful Sub Water District	17,500	1,600	15,900
Centerville Duel Creek	2,891	264	2,627
Chalk Creek Irrigation	643	64	579
CO-OP Farms Irrigation	300	30	270
Croyden Irrigation	450	45	405
Davis & Weber Counties Canal	781	0	781
Downs Creek Irrigation	100	10	90
East Porterville Irrigation	200	20	180
East Wanship / Gibbons & Pace	100	10	90
Eden Irrigation	1,200	120	1,080
Emmertsen Irrigation	100	10	90
Felt, Peterson, Slater Irrigation	100	10	90
Haight's Creek Irrigation	7,008	701	6,307
Hill A.F.B. Golf Course	640	64	576
Hill Field At 193	139	14	125
Hooper Irrigation	5,663	566	5,097
Huntsville Irrigation	600	60	540
Huntsville So Bench Irrigation	600	60	540
Kays Creek Irrigation	2,000	200	1,800
Kaysville Irrigation	1,691	169	1,522
Lagoon Amusement Park	225	23	202
Layton Canal & Irrigation Co.	5,491	549	4,942
Littleton-Milton Irrigation	300	30	270
Middle Fork Irrigation	830	83	747
Mountain Valley Canal Irrigation	1,297	130	1,167
Mountain View Irrigation	100	0	100

CONTRACTING ENTITY	CONTRACT AMOUNT	DELIVERY LOSS	NET USEABLE
North Morgan Irrigation	160	16	144
North Round Valley	150	15	135
North Salt Lake	800	0	800
Oakridge Country Club	500	50	450
Ogden River Water Users Association	3,705	283	3,422
Peterson Irrigation	614	61	553
Roy Water Conservancy District	365	0	365
Pintail Duck Club	100	10	90
Salmaho Irrigation	167	17	150
So. Davis County Water Imp Dist.	3,210	321	2,889
So. Morgan Water Company	400	40	360
So. Ogden Conservation District	2,345	234	2,111
So. Weber Water Water Imp Dist.	1,971	0	1,971
Sun Hills Golf Course	496	37	459
Syracuse City	1,113	111	1,002
Uintah Mountain Streams	200	20	180
Valley View Golf Course	373	37	336
Warren Irrigation	700	70	630
Weber Basin Job Corps	300	30	270
Weber-Box Elder Con. Dist.	4,147	199	3,948
Weber Canal Company	200	20	180
Welch Field Ditch	240	24	216
West Bountiful Golf	294	29	265
West Hoytsville Irrigation	300	30	270
West Wanship Irrigation	150	15	135
Wilson Irrigation	1,500	150	1,350
SUBTOTAL	79,923	7,099	72,824
Retail Irrigation Water Sales	60,330	0	60,330
TOTAL	140,253	7,099	133,154

2015 PROJECT POWER OPERATIONS

PEAK PROJECT POWER LOAD (KILOWATT HOURS)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Peak Power Load (KW)	1,541	2,633	944	3,815	4,375	7,735	8,103	7,239	7,001	4,295	2,723	1,188

PROJECT POWER GENERATION (KILOWATT HOURS)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
*Net Generative Causey Plant	-14,900	-14,900	49,800	575,600	950,700	481,100	389,900	402,300	237,000	-2,300	-12,000	-16,500	3,025,800
Net Generative Gateway Plant	-16,400	-6,880	-14,080	78,960	898,220	911,110	1,514,160	1,573,410	1,492,750	-2,720	-13,120	-11,600	6,403,810
Net Generative Wanship Plant	-13,120	-11,360	-11,520	952,360	986,110	1,160,370	1,224,490	1,089,200	633,140	-4,980	-12,480	-13,360	5,978,850
Total Output	-44,420	-33,140	24,200	1,606,920	2,835,030	2,552,580	3,128,550	3,064,910	2,362,890	-10,000	-37,600	-41,460	15,408,460
Project Use	882,496	852,922	690,842	1,476,090	1,820,181	3,885,872	5,026,267	4,708,740	3,752,937	2,378,714	1,418,873	834,319	27,728,253
Delivered to CRSP	-912,016	-871,162	-716,442	-444,770	64,149	-1,814,392	-2,287,617	2,046,130	-1,627,047	-2,386,414	-1,444,473	-859,279	-15,345,593

*Not Added to CRSP

WATER USED FOR POWER GENERATION (ACRE FEET)

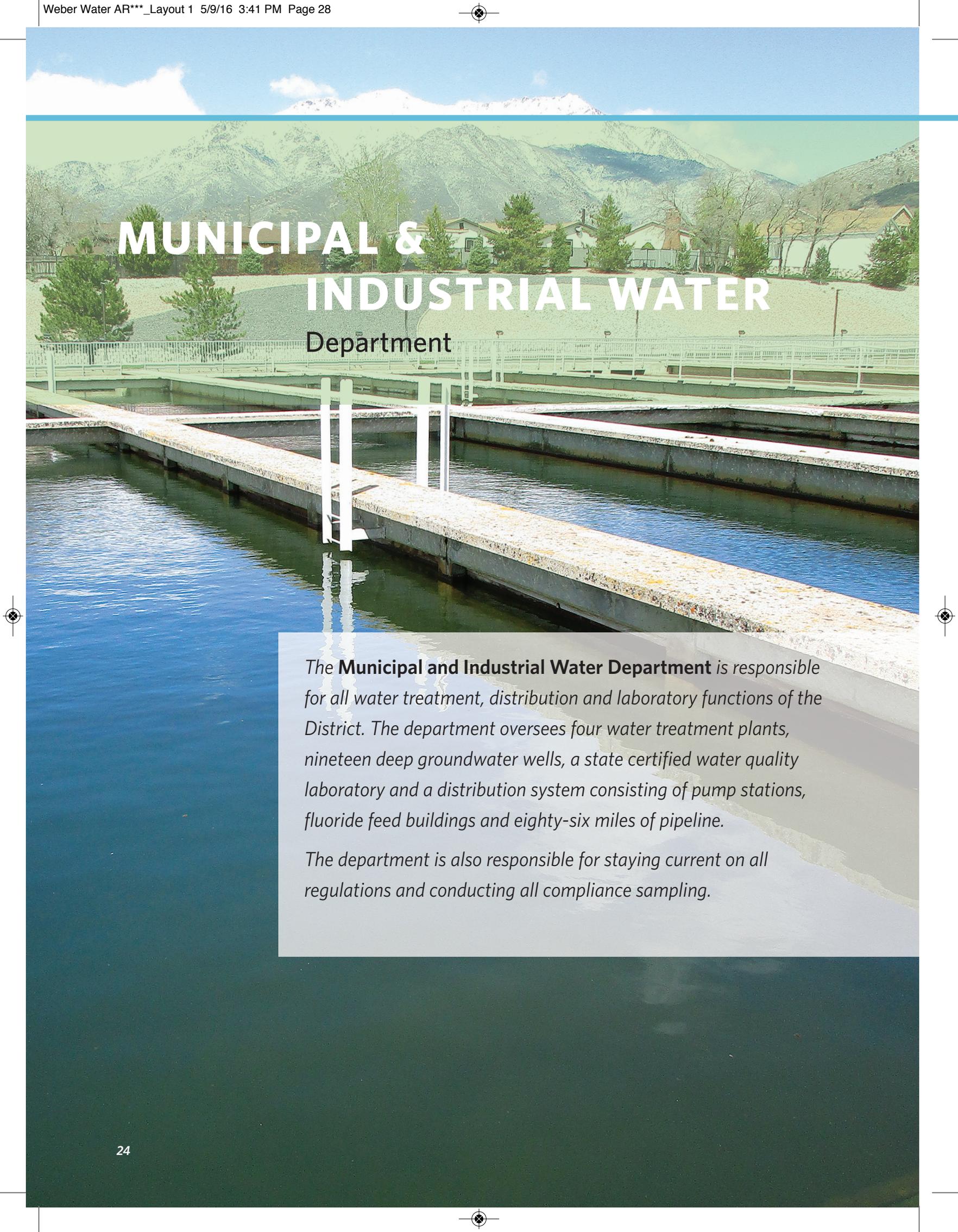
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Causey	0	0	396	3,888	5,862	3,358	2,738	3,056	2,020	0	0	0	21,318
Gateway	0	0	0	920	8,122	7,860	11,781	12,152	11,432	0	0	0	52,267
Wanship	0	0	0	7,232	8,050	9,306	10,162	9,636	8,422	158	0	0	52,966
TOTAL	0	0	396	12,040	22,034	20,524	24,681	24,844	21,874	158	0	0	126,551

2015 RESERVOIR OPERATIONS**STORAGE CONTENT AS OF LAST DAY OF MONTH (ACRE FEET)**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Causey	5,265	5,924	6,815	6,823	6,823	6,842	5,670	3,874	2,972	3,315	3,585	3,845
East Canyon	24,730	26,970	28,600	30,080	33,390	33,010	26,530	21,910	18,270	18,940	19,800	20,630
Echo	28,400	32,810	36,930	46,010	61,360	58,026	44,040	31,370	19,240	19,930	23,290	26,270
Lost Creek	11,035	11,460	11,975	12,500	13,335	13,015	10,860	9,620	8,170	8,150	8,170	8,340
Pineview	59,470	64,390	70,230	76,860	91,170	87,980	73,260	59,050	45,800	47,080	48,570	50,850
Smith-Morehouse	6,840	6,802	6,821	7,112	7,837	7,640	6,053	4,508	3,438	3,453	3,453	3,453
Wanship	45,010	47,730	50,110	45,235	48,250	47,310	38,670	29,800	25,000	27,905	30,240	32,940
Willard	85,121	89,913	94,233	90,989	108,877	101,986	90,789	84,543	84,243	81,712	80,341	84,143
TOTAL	265,871	285,999	305,714	315,609	371,042	355,809	295,872	244,675	207,133	210,485	217,449	230,471

MONTHLY RELEASES (ACRE FEET)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Causey	558	504	846	3,888	5,862	3,358	2,738	3,056	2,020	682	660	682	24,854
East Canyon	310	280	310	300	310	2,622	7,380	5,194	3,952	572	348	372	21,950
Echo	0	0	0	2,440	1,776	19,364	28,456	25,634	20,746	3,440	0	0	101,856
Lost Creek	496	448	496	680	880	1,284	2,438	1,732	1,936	500	480	496	11,866
Pineview	684	666	468	2,355	7,924	13,733	17,966	18,673	15,079	1,569	632	506	80,255
Smith-Morehouse	850	662	1,284	2,514	6,990	5,948	2,682	2,204	1,620	454	406	434	26,048
Wanship	1,612	1,456	1,612	7,366	8,737	10,533	11,877	11,141	9,244	1,783	1,624	1,612	68,597
Willard	484	474	500	2,742	2,294	4,848	5,016	3,834	2,328	1,488	1,308	1,258	26,574
TOTAL	4,994	4,490	5,516	22,285	34,773	61,690	78,553	71,468	56,925	10,488	5,458	5,360	362,000

A photograph of a water treatment facility. In the foreground, there are several rectangular concrete basins filled with water, separated by concrete walls. A white metal railing runs along the edge of the basins. In the background, there are residential houses and a large mountain range with snow-capped peaks under a blue sky with some clouds.

MUNICIPAL & INDUSTRIAL WATER Department

*The **Municipal and Industrial Water Department** is responsible for all water treatment, distribution and laboratory functions of the District. The department oversees four water treatment plants, nineteen deep groundwater wells, a state certified water quality laboratory and a distribution system consisting of pump stations, fluoride feed buildings and eighty-six miles of pipeline.*

The department is also responsible for staying current on all regulations and conducting all compliance sampling.

The M&I Department is comprised of 31 employees who operate 4 surface water treatment plants (plants), 18 deep groundwater wells, miles of distribution pipelines ranging in size from 12 to 48 inches in diameter, and an environmental laboratory. Each of these employees work diligently to ensure the highest quality drinking water is provided to our customer agencies 24 hours a day, 365 days a year. The plants treat water primarily from the Weber River system and have a current combined treatment capacity of 99.5 million gallons per day. All plants use both chlorine as hypochlorite and ultraviolet (UV) light to ensure thorough disinfection to our customer agencies.

The 2015 water year for the M&I Department showed another increase, around 2%, in overall demand of treated drinking water from the previous year. The daily peak production was approximately 76 million gallons per day. Groundwater wells comprised approximately 26% of the District's total deliveries for the year with the remainder coming from the District's water treatment plants.

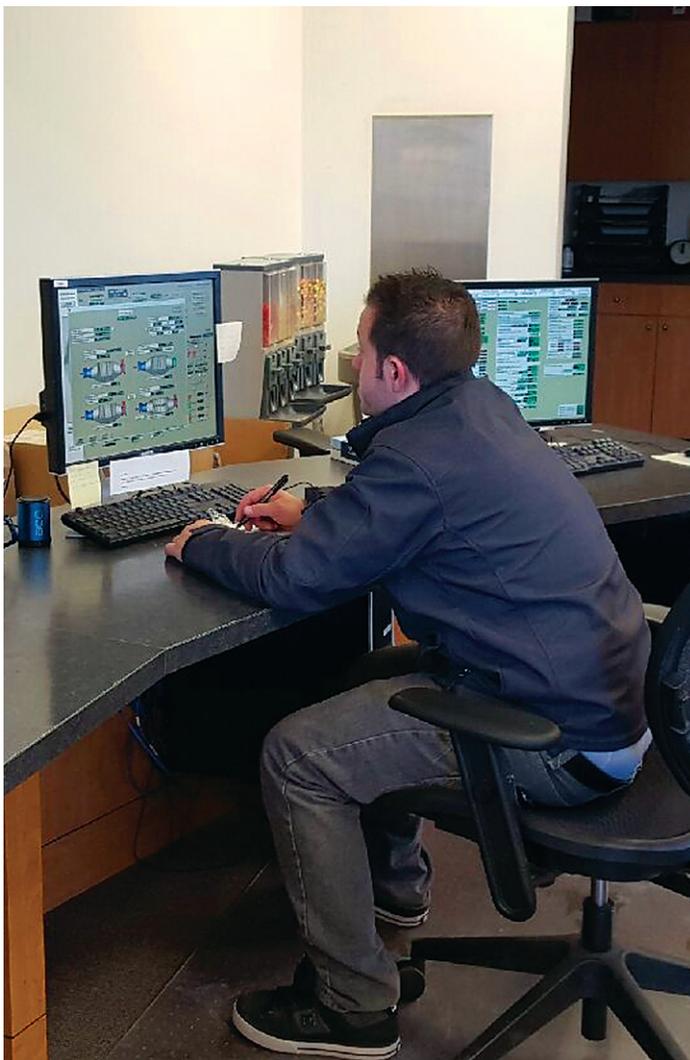


PHOTO: KENDALL SEARLE

Brad D. Nelson, PE
Manager

Nate Allison
Water Treatment Plant Operator

Zeke Bardwell
Laboratory Technician

Jeff Connor
Treatment Plant Manager

Michelle Deras
*Water Quality Specialist /
Environmental Analyst*

Bart Fearn
*Supervisor /
Treatment Plant Operations*

Nate Frew
Treatment Plant Manager

Dean Gifford
Water Treatment Plant Operator

Kevin Green
Water Treatment Plant Operator

Thomas Hamblin
Water Treatment Plant Operator

Tabitha Hathcock
Chemist

Geoffrey Howell
Water Treatment Plant Operator

John Jacobson
Water Treatment Plant Operator

Alexa Jensen
Chemist

Tyler Jensen
Water Treatment Plant Operator

Brett Kennedy
Treatment Plant Maintenance

Rex Lee
Water Treatment Plant Operator

Chad Montgomery
Water Treatment Plant Operator

Marc Montgomery
M&I Distribution Operator

Adam Moulding
Water Treatment Plant Operator

Douglas Parslow
Lead M&I Distribution Operator

Aaron Pearce
Water Treatment Plant Operator

Todd Pollock
Water Treatment Plant Operator

Scott Rackham
Water Treatment Plant Operator

Auggie Rose
Treatment Plant Manager

Clay Schmalz
*Foreman /
Treatment Plant Maintenance*

Ian Smith
Water Treatment Plant Operator

Mitch Sorenson
Water Treatment Plant Operator

Paul Spens
Solids Handling Specialist

Shane Visser
Water Treatment Plant Operator

Jeff Weyburn
Water Treatment Plant Operator

SUMMARY OF M&I WATER CONTRACTS - 2015 (ACRE-FEET)**UNTREATED WATER**

CONTRACTING ENTITY	CONTRACT AMOUNT
BIG WEST OIL	100.00
CHEVRON, USA	1,200.00
GREAT SALT LAKE MINERALS	7,980.00
OGDEN CITY	1,500.00
NORTH SALT LAKE CITY	30.00
PARSONS	22.00
TESORO	5.00
TOTAL UNTREATED	10,837.00

TREATED WATER

CONTRACTING ENTITY	CONTRACT AMOUNT
DAVIS COUNTY	
BOUNTIFUL CITY	1,000.00
CENTERVILLE CITY	500.00
CHEVRON, USA	2,000.00
CLEARFIELD CITY	5,348.00
CLINTON CITY	1,630.00
FARMINGTON CITY	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	6,873.00
MIDA-FALCON HILL	5.00
MUTTON HOLLOW WID	220.00
NORTH SALT LAKE CITY	1,905.00
SOUTH DAVIS COUNTY WID	360.00
SOUTH WEBER CITY	950.00
SUNSET CITY	1,400.00
SYRACUSE CITY	1,925.00
TESORO	5.00
WASATCH ENERGY SYSTEMS	353.00
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	30,901.79

CONTRACTING ENTITY	CONTRACT AMOUNT
MORGAN COUNTY	1,981.00
REPLACEMENT WATER	
SUMMIT COUNTY	
SUMMIT WATER DIST. COMPANY	400.00
REPLACEMENT WATER	12,927.50
TOTAL SUMMIT COUNTY	13,327.50
WEBER COUNTY	
ADVANCED FLUID CONTAINMENT	10.00
BONA VISTA WATER IMP. DIST	3,786.00
GREAT SALT LAKE MINERALS	850.00
HOOVER WATER IMP. DISTRICT	101.35
OGDEN CITY	7,000.00
RIVERDALE CITY	1,165.00
ROY CITY	3,263.00
SOUTH OGDEN CITY*	785.00
TAYLOR-WEST WEBER WID	482.40
UINTAH HIGHLANDS WID	247.00
UNITAH TOWN	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	7,056.00
TOTAL WEBER COUNTY	27,258.75
TOTAL TREATED WATER	51,504.54
TOTAL REPLACEMENT WATER	21,964.50
TOTAL UNTREATED & TREATED	84,306.04

*Amount of Burch Creek water treated for South Ogden City: 713.59 acre-feet
The following entities added to their contracts during 2015: Hooper WID (0.45)
South Weber City (140.0), Summit Water Dist. Company (400)



The Weber Basin Water Quality Laboratory is a Utah State certified laboratory meeting all National Environmental Laboratory Accreditation Conference (NELAC) requirements. The laboratory uses certified methods to produce scientifically defensible analytical data for the District, Weber Basin Water Quality Management Council (a consortium of Weber and Davis County Health Departments and the District), stakeholders, federal and state entities, public water systems, and citizens. The District has housed, operated, and managed the Weber Basin Water Quality Laboratory since 1987 as an integral part of the District's overall scope of delivering the highest quality drinking water while sustaining and protecting the Weber River watershed.



The District employs a complete laboratory staff comprised of a laboratory director, quality assurance officer, chemists and a technician. The laboratory director is responsible for the administrative oversight and overall operation of the laboratory. The quality assurance officer is responsible for ensuring data quality requirements are met. Chemists/technicians must have knowledge of basic analytical methods, materials, and techniques used in laboratory procedures relating to water quality testing. Lab personnel have the necessary education, training, technical knowledge, and experience for their assigned functions. All personnel are responsible for complying with all quality assurance requirements that pertain to their responsibilities.

The Weber Basin Water Quality Laboratory supports the District in a variety of ways. Primarily, the laboratory provides routine sampling and analysis of treated surface and ground water to meet regulatory compliance. In addition, the laboratory collects watershed samples to monitor water quality parameters. Routine monitoring of the watershed, treatment plants, and distribution system provide the District with understanding and awareness of water quality conditions. Furthermore, the laboratory supports the District, stakeholders, and partners by participating in voluntary and new regulatory monitoring programs. Analytical results acquired from these monitoring efforts are a very important tool used in water treatment and watershed management. In 2015 the lab analyzed 9,576 samples.



PHOTO: ZEKE BARKWELL



**NET PRODUCTION OF CULINARY WATER FROM TREATMENT PLANTS & WELLS - 2015 for
WEBER BASIN WATER CONSERVANCY DISTRICT (ACRE FEET)**

MONTH	WEBER SOUTH PLANT		DAVIS NORTH PLANT		DAVIS SOUTH PLANT		TOTAL	TOTAL	TOTAL
	TOTAL MONTHLY PRODUCTION	PERCENTAGE OF PLANT PRODUCTION	TOTAL MONTHLY PRODUCTION	PERCENTAGE OF PLANT PRODUCTION	TOTAL MONTHLY PRODUCTION	PERCENTAGE OF PLANT PRODUCTION	PRODUCTION OF ALL TREATMENT PLANTS	PRODUCTION OF ALL WELLS	GROSS PRODUCTION OF WELLS & TREATMENT PLANTS
JAN	859.28	28.64%	1160.99	26.87%	192.01	12.39%	2,212.28	181.61	2,393.89
FEB	464.60	15.49%	1059.51	24.53%	168.51	10.87%	1,692.62	206.93	1,899.55
MAR	682.99	22.77%	1346.00	31.16%	168.19	10.85%	2,197.19	0.00	2,197.19
APR	594.86	19.83%	1491.51	34.53%	252.93	16.32%	2,339.30	296.30	2,635.60
MAY	494.79	16.49%	1251.57	28.97%	276.53	17.84%	2,022.88	801.05	2,823.93
JUNE	579.22	19.31%	2117.07	49.01%	487.49	31.45%	3,183.79	1255.90	4,439.69
JULY	667.02	22.23%	2469.43	57.16%	489.10	31.56%	3,625.56	2684.79	6,310.35
AUG	687.30	22.91%	2012.33	46.58%	568.31	36.67%	3,267.94	2157.69	5,425.63
SEP	730.28	24.34%	1831.89	42.40%	765.17	49.37%	3,327.35	1866.17	5,193.52
OCT	693.65	23.12%	1600.43	37.05%	589.41	38.03%	2,883.49	954.82	3,838.31
NOV	677.53	22.58%	1264.72	29.28%	320.47	20.68%	2,262.72	390.66	2,653.38
DEC	596.03	19.87%	1333.12	30.86%	280.68	18.11%	2,209.83	123.38	2,333.21
TOTAL	7,727.56		18,938.59		4,558.80		31,224.96	10,919.30	42,144.26

Percent of Individual Plant Production Compared to Total Plant Production:

PLANT	PRODUCTION	% OF TOTAL
WEBER SOUTH PLANT	7,727.56	24.75%
DAVIS NORTH PLANT	18,938.59	60.65%
DAVIS SOUTH PLANT	4,558.80	14.60%
TOTAL	31,224.96	100.00%

Percent of Production Compared to Total Plant & Well Production:

PLANT	PRODUCTION	% OF TOTAL
WEBER SOUTH PLANT	7,727.56	18.34%
DAVIS NORTH PLANT	18,938.59	44.94%
DAVIS SOUTH PLANT	4,558.80	10.82%
WELLS	10,919.30	25.91%
TOTAL	42,144.26	100.00%

Monthly Capacity:

PLANT	(Millions Gallons/Day) MGD	ACRE FEET	(Gallons/Minute) GPM
WEBER SOUTH PLANT	32	3,000	22,500
DAVIS NORTH PLANT	46	4,320	32,000
DAVIS SOUTH PLANT	16	1,550	11,250
WELLS	35.6	3,387	24,720
TOTAL CAPACITY	129.6	12,257	90,470

Daily peak production - 76 MGD | Population served - 550,000

WATER PUMPED FROM WEBER BASIN WELLS - 2015 (ACRE FEET)

CULINARY WELLS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
BEN LOMOND	0.00	0.00	0.00	0.00	0.00	36.66	84.83	86.08	60.21	93.84	0.00	0.00	361.62
BOUNTIFUL	0.00	0.00	0.00	0.00	0.00	61.26	328.18	274.05	266.47	189.20	0.00	0.00	1,119.16
CLEARFIELD #1	0	0	0	0	0	0	0	0	0	0	0	0	0
CLEARFIELD #2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	253.82	100.85	0.00	0.00	0.00	354.67
DAVIS BLVD	0	0	0	0	0	0	0	0	0	24.88	0	117.22	142.1
DIST WELL #2	0	0	0	0	0	0	0	0	0	0	0	0	0
DIST WELL #3	122.55	83.22	0.00	0.00	0.00	134.70	226.08	423.18	184.50	0.00	0.00	0.00	1,174.23
FAIRFIELD	0.00	0.00	0.00	156.66	540.51	443.33	670.36	452.55	533.62	36.08	357.37	0.00	3,190.48
LAYTONA	57.42	0.00	0.00	0.00	0.00	161.09	399.32	63.77	235.69	314.13	0.00	0.00	1,231.42
NORTH OGDEN	0.00	0.00	0.00	16.51	83.42	83.31	64.89	80.35	4.49	0.00	0.00	0.00	332.97
NORTH WEBER	0.00	0.00	0.00	0.00	0.00	61.99	76.11	84.09	23.63	0.00	0.00	0.00	245.82
ORCHARD DR.	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.82	31.78	33.29	6.16	101.69
RIVERDALE	0.00	5.68	0.00	123.13	177.12	154.92	269.79	58.49	0.00	0.00	0.00	0.00	789.13
SO WEBER #1	0	118.03	0	0	0	118.64	565.23	381.31	427.89	264.91	0	0	1876.01
SO WEBER #2	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	181.61	206.93	0.00	296.30	801.05	1,255.90	2,684.79	2,157.69	1,866.17	954.82	390.66	123.38	10,919.30
ACCUM TOTAL	181.61	388.54	388.54	684.84	1,485.89	2,741.79	5,426.58	7,584.27	9,450.44	10,405.26	10,795.92	10,919.30	10,919.30

IRRIG WELLS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
FARMINGTON #1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FARMINGTON #2	0.00	0.00	0.00	0.00	0.00	0.00	16.40	0.00	0.00	0.00	0.00	0.00	16.40
W BNTFL GOLF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W BNTFL 5TH SO	0.00	0.00	0.00	0.00	0.00	0.00	<1	0.00	0.00	0.00	0.00	0.00	0.00
MILLS PARK	0.00	0.00	0.00	0.00	0.00	46.10	39.30	26.80	0.00	0.00	0.00	0.00	112.20
WASH TERRACE	0.00	0.00	0.00	6.20	61.80	167.00	246.00	243.70	241.30	0.00	0.00	0.00	966.00
TOTAL	0.00	0.00	0.00	6.20	61.80	213.10	301.70	270.50	241.30	0.00	0.00	0.00	1,094.60
ACCUM TOTAL	0.00	0.00	0.00	6.20	68.00	281.10	582.80	853.30	1,094.60	1,094.60	1,094.60	1,094.60	1,094.60

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

STRATEGIC INITIATIVES

The District is continually looking for new and innovative ways to conserve and extend existing water supplies. As the population continues to increase, additional delivery requirements are placed on existing infrastructure and water supplies in order to meet future water demands. Effective planning is essential to modify and/or create programs in order to extend limited water supplies and defer costly new infrastructure and development of future large water projects. These new programs must educate the public and help them understand that water is a limited resource in the mountain west and that individual water conservation plays a large role to meet future demands. The District continues to develop new ideas and new education programs in order to allow the District to meet future water needs throughout its service area. The District also works with professionals and agencies throughout the state to develop new initiatives that will increase the public's awareness of critical water issues and develop strategies to help solve them.

Water conservation plays an important role in meeting long term water needs of the communities it serves. Water conservation and improved efficiency will extend limited water supplies and defer costly new infrastructure and development of future large water development projects.

To help the District achieve its conservation goal in its service area, the following programs and projects are now being implemented:

- Ongoing public education and information.
- Ongoing implementation and enforcement of time of day watering practices.
- The encouragement of customer agencies to use ordinances and rate structures to encourage conservation.
- The Learning Garden, a water conservation demonstration garden, promotes proper principles and provides information on water efficient landscaping.
- Continued participation in the Governor’s Water Conservation Team.
- Pilot studies on “smart” irrigation controllers within the District’s service area.
- The Water Check program for Davis, Summit and Weber County residents.
- Metering secondary irrigation water for accountability throughout the District.
- Rebates for various smart products for irrigation systems.
- Investigating opportunities for water reuse.
- Free landscape classes and Garden Fair events for the public.

The *Table* below provides the participation and activity level for conservation related programs during 2015.

2015 ACTIVITIES	NUMBER PARTICIPATING
Visitors to the Learning Garden (Estimated)	10,000+
Free Landscape Class Attendance	788
Garden Fair Participation (Estimated)	2,500
Residential Water Audits Completed	479
Secondary Water Metering (installed to date)	2,683
Irrigation Product Rebates	164
Davis School District Tours	4,087
Special Group Tours or Group Events (scouts, women’s, other)	980
Other Booths or Events in Community (12)	3,000+

Amy Derrick
Tour Guide

Derek Johnson
*Water Resource /
Environmental Analyst*

David Rice
*Coordinator,
Water Conservation Programs*

Janice Terry
*Assistant Water Conservation
Coordinator*

Marci Wood
Conservation Garden, Lead

Melissa Zaugg
Tour Guide

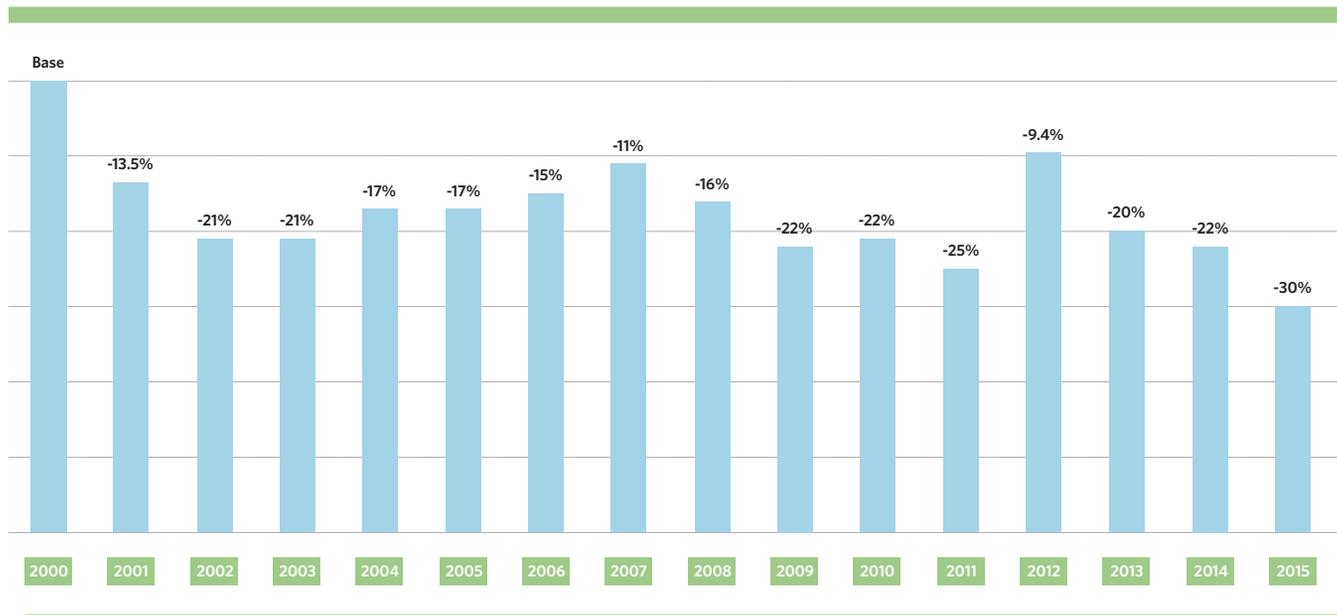
Governor Herbert has set a state conservation goal of a 25% reduction in M&I per capita use by the year 2025, using the year 2000 as a baseline. The recent drought years that Utah has experienced combined with the projected rapid population growth along the Wasatch Front has set the stage for increased efforts in water conservation. The District has been calculating deliveries to the urbanized areas along the Wasatch Front at consistent locations in order extrapolate water delivery reductions within the District. The figure below shows the estimated reduction in deliveries since 2000. These reductions occurred despite significant population increases over the same period of time.

While it is clear that weather plays a large role in water use from year to year, there have been significant water savings from education and conservation. The messaging continues and the acceptance of water conservation has grown stronger over the last several years. Additional dry years have played a role in bringing awareness to local water issues of water supply and water use, especially water use for landscapes. The District hopes that a water conservation ethic will continue to be a part of the general life style of the public and that overall per capita water use can continue to decrease as efficiency measures continue to be implemented.

Looking at long term water needs, the District considers water conservation as a future water source. If current water supplies are used efficiently, future water development projects that are very costly can be deferred. Water is a precious resource that should be used as efficiently as possible regardless of year to year weather cycles or conditions.



Estimate of Reduction in Weber Basin Water Conservancy District Water Deliveries (Not adjusted for population growth)





Water Conservation Learning Garden

The District constructed a Water Conservation Learning Garden to educate and demonstrate to the public proper landscaping and water practices. It is approximately two acres in size and provides the public an opportunity to see a variety of information. Principles that are demonstrated include proper and beautiful plant material, proper planning and design, proper use of turf, efficient irrigation, and others, built into and constructed in various displays in the garden. There are several different turf varieties growing on site such as mulches, native plants, hard-example yards to provide ideas and education to all visitors. The Learning Garden is now maturing and developing into a true destination and education site. It is a valuable asset and great resource with live examples of how to have beautiful landscaping while reducing outdoor water needs.

The Garden is located at the District headquarters site at the intersection of Highway 89 and Highway 193 in Layton, Utah. The Garden is free to the public and is open daily from 8:00 a.m. to 8:00 p.m. April through October and 8:00 a.m. to 5:00 p.m. through the winter. All residents are invited to visit and enjoy.

Visit the District website at www.weberbasin.com/conservation for the current updated and complete schedule.





WATER TREATMENT & DISTRIBUTION OPERATOR TRAINING

Each year the District promotes and provides training for water system operators throughout the District. The classes and materials are free of charge and run twice a week through February and March. The attendees are given study materials, presentations, and training to prepare them for the State of Utah's certification exam or for Continuing Educations Credits (CEUs). The instructors for the class include District staff, Utah Division of Drinking Water staff, county health officials, equipment and material vendors, as well as other experts in the field of water treatment and distribution. Over 100 attendees participate from many cities and districts each year.



EMERGENCY PREPAREDNESS PROGRAM

The District continues to participate in several emergency preparedness events throughout the year and throughout Northern Utah. The District uses these events as an opportunity to educate the public about where drinking water comes from and how to store and possibly treat water during and for future emergencies. The public has shown great interest in this topic especially during times of economic instability and the increased frequency of natural disasters throughout the world.

WATERSHED PROTECTION

Water quality in the watershed, especially for a drinking water source, is a very important issue. The District has organized a Watershed Protection Coalition for the Weber River Watershed. There are many federal, state and local government agencies involved, as well as other private organizations and individuals. The Coalition is active in monitoring projects that may impact the water quality, as well as promoting projects that improve water quality. The District is also very involved with other water quality groups, such as the East Canyon Watershed Committee, the Echo and Wanship TMDL Committee, the Ogden River Restoration Group, and the Summit County Water Quality Advisory Committee.

WATER FAIRS

The District's laboratory and treatment plant personnel regularly participate in educational and public outreach activities throughout the year. Various counties and school districts host water fairs annually for fourth graders to provide hands-on educational activities for the local elementary schools and students' parents. At these fairs, our employees demonstrate a model of a water treatment plant that takes muddy water through the different stages of water treatment to make clean drinking water. Attendees of these fairs learn about water quality, water conservation, recreation opportunities, and wildlife. There are typically thousands of attendees to each event.



CONSERVATION CLASSES AND EVENTS

The District held two well-publicized, annual events that drew several thousand visitors to the Learning Garden. The fairs fall on the first weekend in June and the last weekend of September and are free to the public. The KSL Garden Show broadcasted live, and there were numerous activities, classes, vendors and tours.

In 2009, a landscape class series was created to promote the Learning Garden and good landscape principles. The classes cover a variety of topics pertaining to landscaping and gardening and are taught by professionals in the horticulture and landscape industry. The landscape classes are offered free to the public from spring through fall. Each year there are over 1,000 participants in the classes and hundreds more that visit the Learning Garden throughout the growing season.





SECONDARY WATER METERING

The District provides secondary water to over 17,000 connections in Davis and Weber counties. The District began metering connections in 2008 after technology had advanced to allow for metering of secondary water. To date, the District has installed about 2,800 meters with plans to continue metering as budgets allow each year. The goal is to have all secondary connections on the District system metered so that users can be more accountable for the water that they use and large scale water savings can be achieved.

As part of the metering of secondary water, each metered user receives a usage report each month that shows them how much water they have used in comparison to what they should have used based on their parcel size, proper watering practices, and normal weather patterns. The information provided helps users to adjust their irrigation scheduling to better meet landscape needs while reducing excess irrigation waste.

The District has seen a good response to metering and a significant reduction in water use which has been very positive and promising for future projects and future results. The District will continue to move forward with secondary metering and look forward to water savings and a change in behavior among secondary water users as they become more aware of their own watering practices.

PROMOTION OF RECREATION

The District has participated with cities and various counties, federal agencies, and the State Parks Division in providing river flows, access to reservoirs and other operations that facilitate public recreation. The health and viability of the fisheries within the river basin is a concern of the District, and the District has been involved with the Division of Wildlife Resources and other stakeholders along the river to promote minimum flows and better water quality. The District works with the Utah State Parks, Bureau of Reclamation, and the US Forest Service with regards to recreation on the reservoirs along the Weber and Ogden Rivers.

TOURS OF DISTRICT FACILITIES

District Staff continue to conduct tours of the water treatment plants for many different school groups, scout troops, university classes, and individuals. The District is a proud partner with Davis County School District in educating thousands of elementary, junior high, and high school students about the water process. Each group continues to express their amazement of the complexities of the water treatment process and cleanliness of the facilities. Tours are usually available by appointment during the day or early evening. The District also offers more extensive tours to public officials and customer agencies about the watershed, infrastructure, and operations of the District.



The History of

WEBER BASIN WATER CONSERVANCY DISTRICT

Weber Basin Water Conservancy District has the regional water supply responsibilities for Davis, Weber, Morgan, Summit, and Box Elder counties. The District wholesales water to and develops additional supplies for cities, districts, and companies within those counties. Those agencies in turn distribute and retail to their respective customers. Within the District's boundaries, there are over 2,500 square miles of land. The District is unique in that it provides many categories of water including drinking water, agricultural water, urban secondary water, industrial water, and replacement water.

Weber Basin delivers approximately 225,000 acre-feet of water annually: 87,000 acre-feet for municipal and industrial uses and 138,000 acre-feet for irrigation, which includes secondary pressure irrigation systems.

The District is governed by a nine member Board of Trustees: three from Davis County, three from Weber County, one from Ogden Valley, one from Morgan County, and one from Summit County. The General Manager for the District is Tage I. Flint. Under his direction, there are three Assistant General Managers, Mark Anderson, Scott Paxman, and Darren Hess; John Davis, the Controller and Human Resource Manager; and five Department Managers: Sherrie Mobley, Administration Manager; Mark Clark, Maintenance Manager; Chris Hogge, Water Supply and Power Manager, Brad Nelson, Municipal & Industrial Water Manager; and Jon Parry, Engineering Manager.

The United States Bureau of Reclamation began planning for the Weber Basin Project in 1942, and Congressional authorization of the Project was received in 1949. The Weber Basin Water Conservancy District was created on June 26, 1950, by a decree of the Second District Court of Utah, under the guidelines of the Utah Water Conservancy Act. The District was formed to act as the local sponsor of the federal project and to further supply water resources to the population within its boundaries.

The original Weber Basin Project was constructed by the Bureau of Reclamation from 1952 through 1969 and includes canals, power plants, irrigation and drainage systems, and six major reservoirs on the Ogden and Weber rivers. Three of the six reservoirs—Wanship, Lost Creek, and East Canyon along with the non-District Echo Reservoir—regulate the flow of the Weber River before it emerges from its mountain watershed to the Wasatch Front. Causey and Pineview reservoirs regulate the flow of the Ogden River before it emerges from its watershed and joins the Weber River. Willard Bay, the largest reservoir, is an off-stream project that stores water from the lower reaches of both the Ogden and Weber rivers for uses and exchanges on the Wasatch Front. Subsequent to the original Project, the District constructed a seventh dam, Smith and Morehouse, on the upper reach of the Weber River in Summit County.

The complex transmission system that was constructed as part of the Project includes facilities such as Gateway Canal and Tunnel, the Weber and Davis aqueducts, Ogden Valley Canal and Diversion Dam, Slaterville Diversion Dam, and Stoddard Diversion Dam as well as dozens of secondary reservoirs and many miles of canals, pipelines, and other laterals. Hydropower stations located at Causey Dam, Wanship Dam, and Gateway Canal generate

power for District consumption and excess power sales. Three drinking water treatment plants and related distribution systems were constructed by the District between 1959 and 1962. A fourth, the East Canyon Water Treatment Plant, was acquired in 2013 for the Western Summit County Project and is expected to begin water deliveries by 2017 or 2018. The water treatment plants are continually going through rehabilitation and modernization projects to meet new EPA drinking water standards.

In order to repay all of the original Project costs and operate and maintain (O&M) all Project facilities, the District entered into several contracts with the United States. Funding for repayment and O&M of the federal project and the development and O&M of other water sources and facilities is generated from water sales and the original ad valorem tax on properties within District boundaries that was approved by voters in 1952 and again in 1961.

In addition to supplying water, the District also provides other District-wide and statewide services. District facilities are used for flood control during wet seasons, recreation, stream flow management, and watershed protection. Thousands of recreation visitor-days are logged every year at the reservoirs for camping, fishing, boating, and assorted water sports. River releases for fishery management and kayaking are made annually by the District, and water supplies are also used to maintain several wildlife management areas.

Future issues for the District center around development of sufficient water supplies and facilities to meet the needs of the growing population within its boundaries. Water conservation plays an increasingly important role as new sources are likely to be difficult and expensive to develop. Water demands on the District are projected to double in the next 50 years even with the assumption that the existing per capita use will reduce significantly. These projections, along with the constant need to upgrade and rehabilitate existing infrastructure, push the financial needs projections to more than six billion dollars over the next 50 years. Beyond conservation, new projects will include completion of groundwater drilling, change of use of local river supplies, and probably a large regional importation project.



Weber Basin Water Principal Infrastructure

DAMS & RESERVOIRS

Name	Location	Type of Dam	Height (ft)	Total Capacity (af)	Usable District Capacity (af)	Construction Dates
Causey	Eastern Weber County	Earth & Rock	200	7,870	6,870	1962-1964
East Canyon	Southern Morgan County	Concrete Arch	245	51,200	20,100	1965-1967
Lost Creek	Eastern Morgan County	Earth & Rock	220	22,500	20,010	1964-1966
Pineview	Ogden Valley, Weber County	Earth & Rock	91	110,150	66,228	1955-1957
Smith & Morehouse	South-eastern Summit County	Earth & Rock	82	8,350	6,560	1984-1988
Wanship	Summit County	Earth & Rock	156	62,120	60,860	1954-1957
Willard	Southern Box Elder County	Earth	36	247,189	222,160	1957-1963

AQUIFER STORAGE & RECOVERY

Name	Location	Pond Area (acres)	Capacity (cfs)	Construction Dates
ASR	Weber County	7.5	10	2002

DIVERSIONS

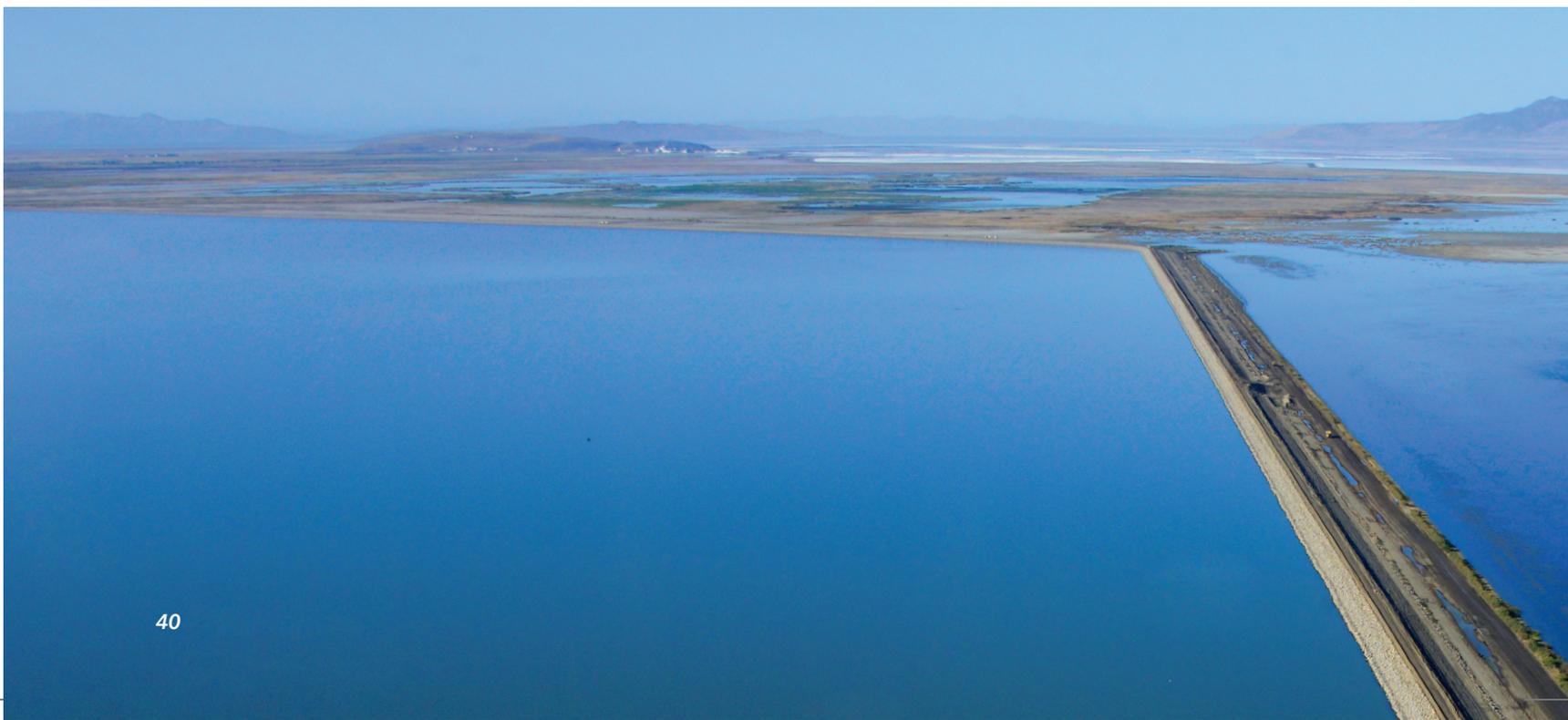
Name	Location	Pass-Through Capacity (cfs)	Acquisition Dates
Ogden Valley	South Fork of Ogden River	2,000	1962-1964
Slaterville	Weber River west of Ogden	9,000	1956-1957
Stoddard	Weber River north of Morgan	6,000	1955-1956

HYDRO GENERATION POWER PLANTS

Name	Location	Type of Dam	Capacity (kw)	Construction Dates
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

CANALS, TUNNELS & PIPELINES

Name	Location	Type	Capacity (cfs)	Length (miles)	Construction Dates
Davis Aqueduct	Davis County	Concrete pipe	355	23	1954-1957
Gateway Canal	Morgan County	Concrete-lined	700	9	1954-1956
Gateway Tunnel	Morgan and Davis County	Concrete-lined	435	3	1952-1954
Layton Canal	Davis County	Earth-lined/concrete-lined/pipe	260	18	1962-1964
M&I pipelines	Davis and Weber County	Varies 6"-48"	varies	80	1955-2012
Ogden Valley Canal	Weber County	Part earth-lined	35	9	1962-1964
Secondary pipelines	Davis and Weber County	Varies 2"-36"	varies	325	1955-2012
Weber Aqueduct	Weber County	Concrete pipe	80	5	1954-1956
Western Summit County	Summit County	Varies	9	9	2013*
Willard Canal	West Weber County	Earth-lined/concrete-lined	1,050	11	1961-1963





PUMPING PLANTS

Name	Location	Capacity (cfs)	Height of Lift (ft)	Construction Dates
Antelope Booster	Layton	22	50	1978
East Bountiful	Bountiful	18	475	1955
East Layton	Layton	9	65	1955
Gateway	Mountain Green	150	150	1995
Kanesville #1	West Haven	3	218	2000*
Kanesville #2	West Haven	10	315	2002
Layton Canal	West Haven	260	23	1955
Old Post Rd Booster	Ogden	6	200	1960
Rockport	Wanship	25	45	2009
Roy Drought Relief	Roy	150	340	1981
Sand Ridge East	Layton	9	92	1955
Sand Ridge West	Layton	15	138	1955
South Davis	Bountiful	18	530	1955
Unitah Bench	South Ogden	18	365	1955
Val Verda	Bountiful	6	240	1955
West Haven #1	West Haven	10	218	2007
West Haven #2/Hooper	West Haven	3	230	2010
Willard No. 1	West Weber County	500	45	1960
Willard No. 2	West Weber County	300	20	1960

WATER TREATMENT PLANTS

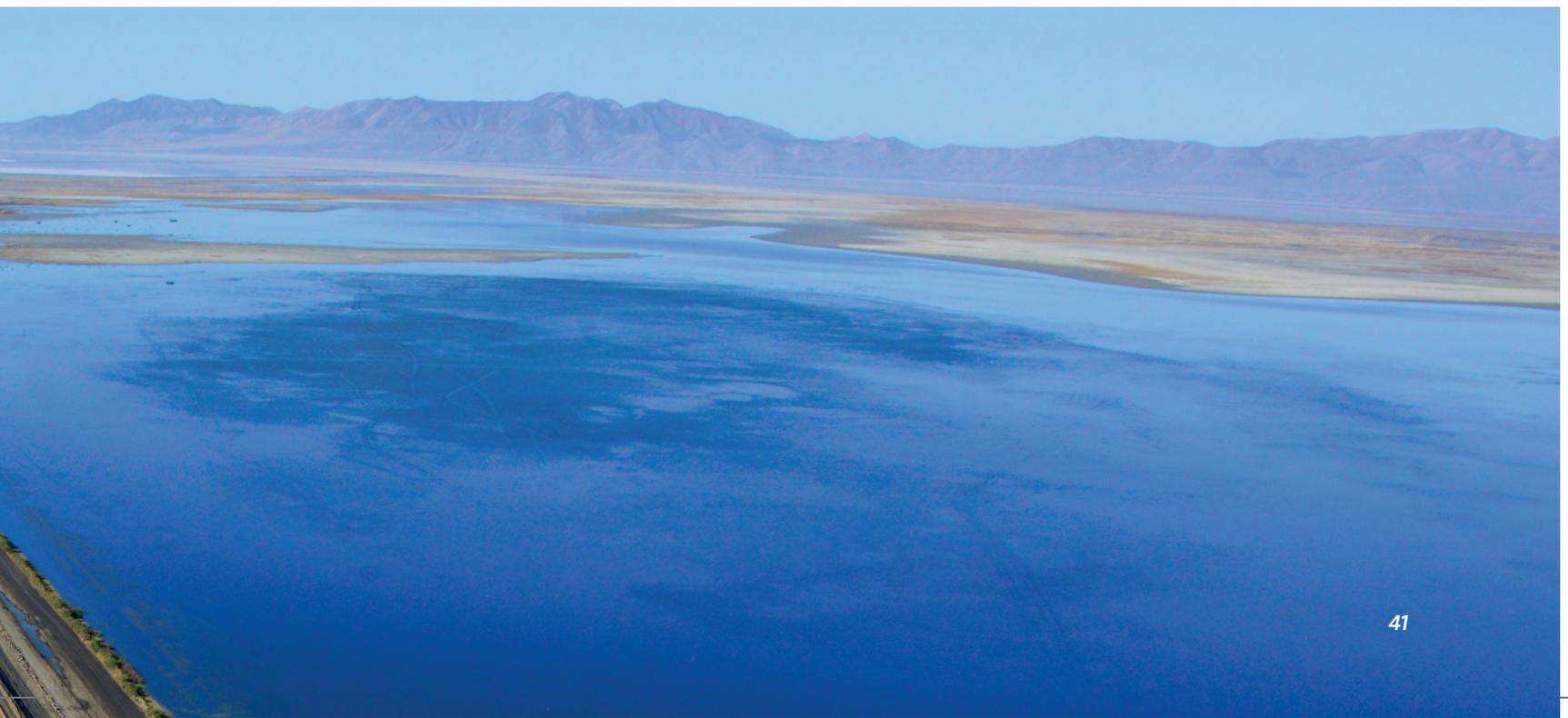
Name	Location	Capacity (mgm)	Construction Dates
Davis North	Layton, Davis County	46.0	1955
Davis South	Bountiful, Davis County	16.0	1955
East Canyon	Jeremy, Summit County	5.5	2013*
Weber South	Ogden, Weber County	32.0	1955

UNDERGROUND WATER WELLS

Name	Location	Type	Capacity (cfs)	Construction Dates
Ben Lomond	Harrisville	M&I	1.8	2001
Bountiful	Bountiful	M&I	5.2	1961
Clearfield #1	Clearfield	M&I	5.0	1961
Clearfield #2	Clearfield	M&I	5.0	1961
Davis Boulevard	Bountiful	M&I	2.2	2003
District Well #2	South Weber	M&I	11.0	1985
District Well #3	South Weber	M&I	10.0	1990
Fairfield	Layton	M&I	10.0	1992
Farmington #1	Farmington	Irrigation	5.0	1995
Farmington #2	Farmington	Irrigation	5.0	1996
Laytona	Layton	M&I	5.0	1958
Mills Park	West Bountiful	Irrigation	2.2	2011
North Ogden	North Ogden	M&I	1.8	1967
North Weber	Harrisville	M&I	1.6	2006
Orchard Dr. Well	Bountiful	M&I	0.8	1991
Riverdale	Riverdale	M&I	6.6	1960
South Weber #1	South Weber	M&I	10.0	1962
South Weber #2	South Weber	M&I	10.0	1962
Washington Terrace	Washington Terrace	Irrigation	4.0	2013
West Bountiful 5th South	West Bountiful	Irrigation	4.0	1992
West Bountiful Golf	West Bountiful	Irrigation	1.8	1993

*infrastructure acquired by the District

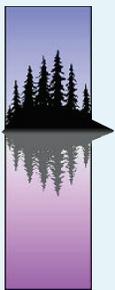
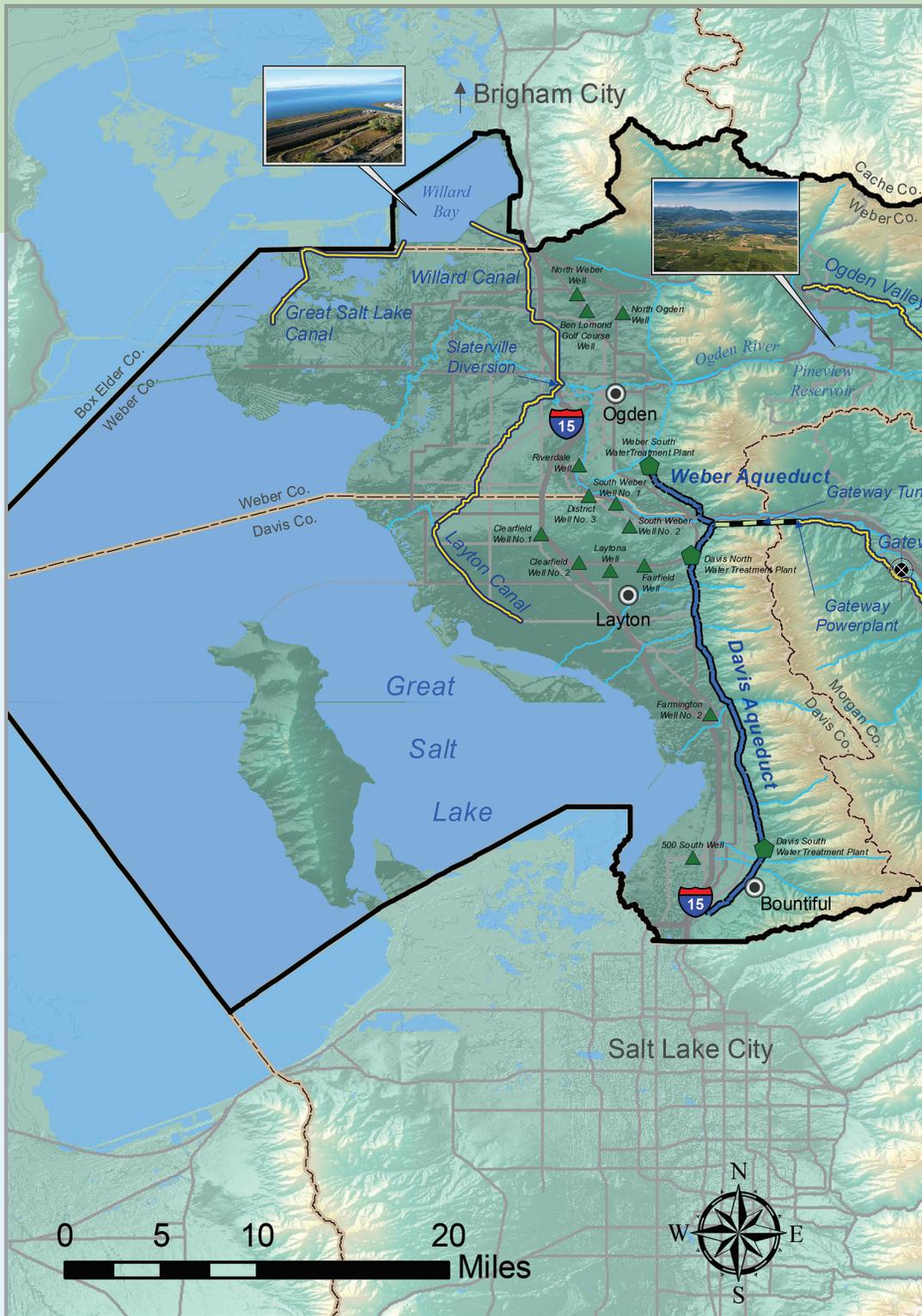
af = Acre Feet | cfs = Cubic Feet per Second | mgm = Million Gallons per Day





WEBER BASIN WATER CONSERVANCY DISTRICT

Service Area Map





TRICT

