



**Delivering Quality Every Day** 

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Whenever possible, data for the fiscal year were used in this report. However, in cases where fiscal year data were not available or feasible to use, we have listed data from the calendar year.

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# Definitions

### **Definitions for this publication**

**AF** = Acre feet

**ASR** = Aquifer storage & recovery (treated water pumped into the underground aquifer, then retrieved for use at a later date)

**CFS** = Cubic feet per second

**cfu/ml** = Colony-forming units (bacteria) per milliliter

**CT** = Concentration x time (for chlorination)

**Feet Above/Below Compromise** = Utah Lake level above or below "Compromise Elevation," established by a 1986 agreement between landowners surrounding Utah Lake and water right owners. When the Utah Lake level exceeds Compromise Elevation, the radial gates at the Utah Lake Outlet Structures must be fully opened.

**FTE** = Full-time employee(s)

**FY** = Fiscal Year

**GWR** = Groundwater Rule

HAA = Haloacetic acid

**HPC** = Heterotropic plate count

**JVWCD** = Jordan Valley Water Conservancy District

**JVWTP** = Jordan Valley Water Treatment Plant

**M&I** = Municipal and industrial

**MG** = Million gallons

**MGD** = Million gallons per day

**mg/L** = Milligrams per liter

**MSL** = Mean sea level

**MWD/MWDSLS** = Metropolitan Water District of Salt Lake & Sandy

**NTU** = Nephelomentric turbidity units

**OM&R** = Operations, Maintenance & Replacement

**PEA** = Poly-electrolyte Anionic (anionic polymer)

**PEC** = Poly-electrolyte Cationic (cationic polymer)

**PAC** = Powdered Activated Carbon

**PRWUA** = Provo River Water Users Association

**SCADA** = Supervisory Control and Data Acquisition (a computer-based system for remotely monitoring and controlling water systems

**SERWTP** = Southeast Regional Water Treatment Plant

**SWGWTP** = Southwest Groundwater Treatment Plant

**SWJVGWP** = Southwest Jordan Valley Groundwater Project

**TDS** = Total dissolved solids

**THM** = Trihalomethane

**TOC** = Total organic carbon

**UFRV** = Unit filter run volume

# WATER SUPPLY/WATER QUALITY

### **Water Supplies**

Municipal & Industrial water supplies (acre-feet)	FY 12/13	FY 11/12	FY 10/11	FY 09/10
Jordanelle Reservoir (Central Utah Project) <sup>a</sup>	56,484	41,502	41,711	44,019
Deer Creek Reservoir (Provo River Project) <sup>b</sup>				
storage	788	12,140	3,477	7,410
extra allotment	0	11,634	5,903	4,360
leases & purchases	0	0	0	0
temporary Provo River storage	0	0	0	0
MWD surplus (Little Cottonwood Creek)	0	0	0	0
Upper Provo River reservoirs <sup>a</sup>	0	1,876	2,623	2,233
Echo Reservoir <sup>c</sup>	1,295	2,982	185	3,822
Provo River (direct flows)	11,642	3,897	8,620	3,482
Weber River (direct flows)	0	0	0	673
Local Wasatch streams	1,783	4,165	2,566	2,227
Bingham Canyon Water Treatment Plant <sup>d</sup>	3,941	3,620		
Groundwater (wells)	17,206	12,924	15,250	15,457
Subtotal for M&I	93,139	94,740	80,335	83,683
Irrigation water supplies				
Jordanelle Reservoir (Central Utah Project) <sup>a</sup>	57	34	23	46
Deer Creek Reservoir (Provo River Project) <sup>b</sup>				
storage	0	3,706	6,062	5,812
extra allotment	0	1,785	301	3,201
leases & purchases	0	0	0	0
temporary Provo River storage	0	0	0	0
Upper Provo River reservoirsª	0	0	0	0
Echo Reservoir <sup>c</sup>	0	17	0	1,452
Provo River (direct flows)	0	17,047	7,962	10,649
Weber River (direct flows)	0	0	0	0
Utah Lake	31,562	12,065	15,115	12,143
Subtotal for irrigation	31,619	34,654	29,463	33,303
TOTAL ALL SUPPLIES	124,758	129,394	109,798	116,986
M&I water treated or transported for other agencies	3,241	4,999	5,384	7,707
TOTAL ALL WATER	127,999	134,393	115,182	124,693

a-Provo River sources

b-Weber, Duchesne and Provo River sources

c-Weber River sources

d-Treats southwest Salt Lake County groundwater

\*- Standby water delivery contract.

a- Hydrant and main line flushing, main line breaks, reservoir cleaning and irrigation of landscaping at Jordan Valley sites.

*b*-Treatment plant losses calculated based on plant use and evaporation for both JWNTP and SERWTP.

c- This total includes Jordan Valley water exchanged at 11400 South and east-side water exchanged at 2100 South.

## **Water Deliveries**

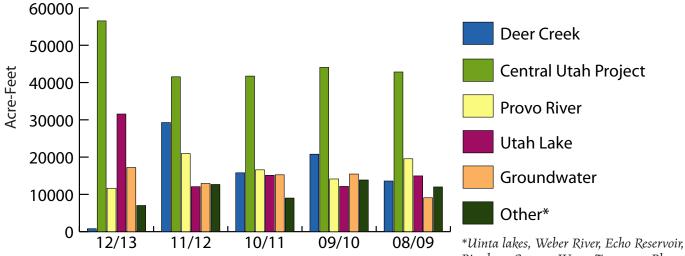
All deliveries in acre feet	FY 12/13	FY 11/12	FY 10/11	FY 09/10
Bluffdale City	1,787	1,780	1,615	1,435
Copperton	1	0	0	0
Draper City	3,770	3,693	3,151	3,123
Granger-Hunter Improvement District	20,738	21,443	17,123	19,621
Herriman City	3,576	3,273	2,772	2,396
Hexcel Corporation	716	719	720	677
Kearns Improvement District	8,578	8,265	7,746	7,468
Magna Water Company	816	834	760	910
Midvale City	167	166	69	106
Riverton City	586	800	443	2,467
City of South Jordan	14,594	14,482	11,801	11,661
City of South Salt Lake	1,297	1,262	1,069	626
Taylorsville-Bennion Improvement District	4,525	5,300	4,554	5,030
Utah State Department of Corrections	531	598	641	452
WaterPro, Inc.	1,890	1,382	1,009	981
West Jordan City	18,124	18,226	16,119	16,314
White City Water Improvement District	0	0	0	0
Willow Creek Country Club	404	391	309	294
Total Wholesale	82,100	82,614	69,943	73,642
Jordan Valley WCD retail area	9,356	9,465	8,716	8,463
(Holladay, Murray, Sandy, South Salt Lake & unincorporated county)				
JVWCD use <sup>a</sup>	549	553	472	493
JVWCD treatment plant losses <sup>b</sup>	1,134	2,108	1,204	1,085
SUBTOTAL FOR DELIVERIES, USE & LOSS	93,139	94,740	80,335	83,683
Irrigation & raw water delivered				
Utah State Department of Public Safety	5	10	8	6
Staker Parson Companies	57	34	43	48
Welby-Jacob Water Users Company	31,557	34,610	28,508	28,873
SUBTOTAL FOR IRRIGATION & RAW WATER	31,619	34,654	29,463	33,303
TOTAL DELIVERED WATER	124,758	129,394	109,798	116,986
<u>M&amp;I water treated or transported</u>				
Metropolitan Water District of Salt Lake & Sandy <sup>c</sup>	3,212	4,967	5,379	7,706
Taylorsville-Bennion Improvement District	21	23	2	1
West Jordan City	8	9	2	0
SUBTOTAL FOR TREATED OR TRANSPORTED WATER	3,241	4,999	5,384	7,707
TOTAL WATER DELIVERED, TREATED OR TRANSPORTED	127,999	134,393	115,182	124,693

# WATER SUPPLY/WATER QUALITY

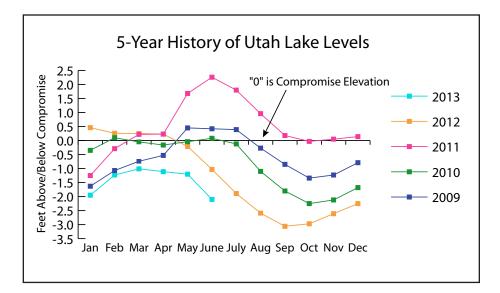
## 5-Year History of Water Source Supplies (acre-feet)

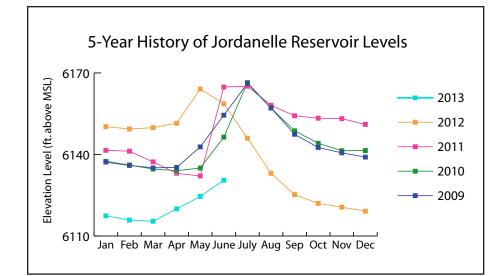
	12/13	11/12	10/11	09/10	08/09
Deer Creek Reservoir Storage Extra allotment Leases and purchases Temporary Provo River storage Subtotals:	788 0 0 <u>0</u> 788	15,846 13,419 0 0 29,265	9,581 6,204 0 <u>0</u> 15,785	13,222 7,561 0 <u>0</u> 20,783	7,061 6,530 0 <u>0</u> 13,591
Central Utah Project	56,541	41,536	41,734	44,065	42,835
MWD surplus (Little Cottnwd Crk)	0	0	0	0	0
Provo River	11,642	20,944	16,582	14,131	19,551
Uinta lakes	0	1,876	2,623	2,233	1,921
Weber River	0	0	0	673	0
Echo Reservoir	1,295	2,999	185	5,274	4,772
Utah Lake	31,562	12,065	15,115	12,143	14,963
Groundwater	17,206	12,924	15,250	15,457	9,093
Bingham Cyn Water Trt Plant	3,941	3,620	3,641	3,457	3,571
Wasatch mountain streams	1,783	4,165	2,566	2,227	1,733
TOTALS: <sup>a</sup>	124,758	129,394	109,840	116,986	108,459

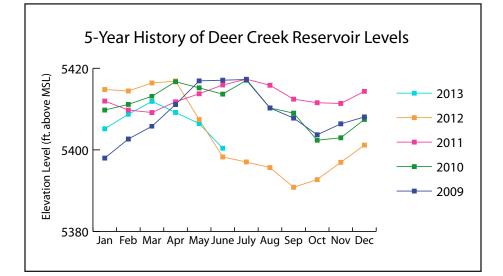
a) Does not include transported water as shown on previous page



\*Uinta lakes, Weber River, Echo Reservoir, Bingham Canyon Water Treatment Plant, and Wasatch mountain streams.

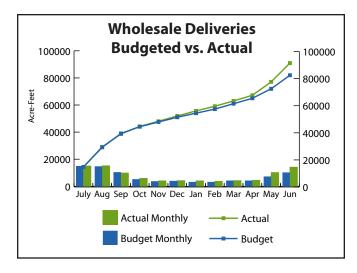






# WATER SUPPLY/WATER QUALITY

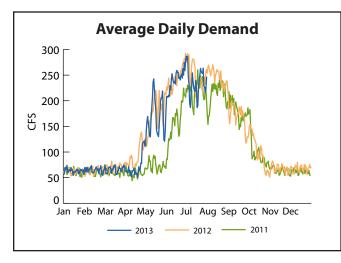
### **Wholesale Deliveries**

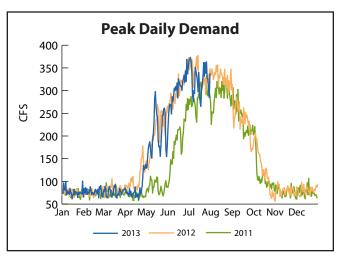




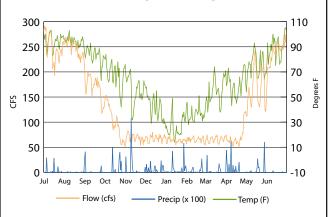
Contract deliveries are made to Jordan Valley Water's 17 wholesale member agencies.

### **Daily System Demands (Calendar Year)**





Flow vs Temp vs Precipitation



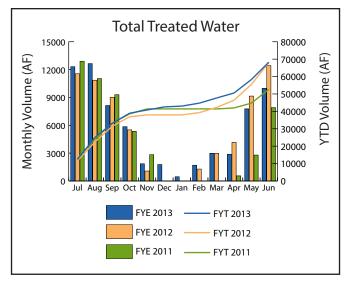
### **Treatment General Information**

i reatment General Information				
freatment General mormation	JVWTP	SERWTP	SWGWTP	TOTALS
General information	<u>12/13</u>	<u>12/13</u>	<u>12/13</u>	<u>12/13</u>
Rated capacity (MGD)	180	20	7	207
Maximum daily effluent flow (MGD)	152	16	N/A	168
Average daily flow during operation (MGD)	65	8	N/A	73
Percent of fiscal year in operation	94	91	0	
Plant production (acre-feet)				
Total flow into plant	68,804	8,139	N/A	76,943
Plant use & loss	(968)	(108)	N/A	(1,076)
Total treated water to distribution or injected	67,836	8,031	N/A	75,867
Combined total treated water to system (acre-feet):				75,867
Direct Treatment O&M costs				
Personnel	\$1,297,542ª	\$476,375	\$109,868	\$1,883,785
Chemicals	\$1,138,977	\$180,183	\$3,435	\$1,322,595
Utilities	\$273,827	\$114,221	\$100,589	\$488,637
Other	\$685,611	\$126,649	\$207,864	\$1,020,124
Total treatment expenses	\$3,395,957	\$897,429	\$421,756	\$4,715,142
Treatment O&M cost per acre-foot	\$44.21	\$108	b	
a) Personnel costs for IVWTP include operators				

a) Personnel costs for JVWTP include operators,treatment admin, lab, compliance and maintenance staff.b) No water was produced into the delivery system.

### **Jordan Valley Water Treatment Plant**

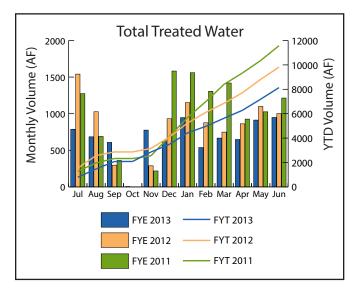
JVWTP is a conventional-process treatment plant with a rated capacity of 180 million gallons per day (MGD). Source water for the treatment plant is conveyed from the Provo River at the Olmsted Diversion, through the Jordan Aqueduct. Provo River water may also be diverted at the Murdock Diversion near the entrance of Provo Canyon, and conveyed through the Murdock Canal. JVWTP is operated by Jordan Valley on behalf of itself and Metropolitan Water District of Salt Lake & Sandy. The plant is owned 2/7 by Metro and 5/7 by Jordan Valley.

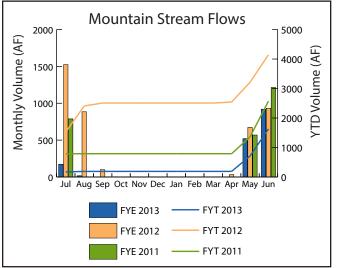


Gaps in graph data indicate the plant was off-line.

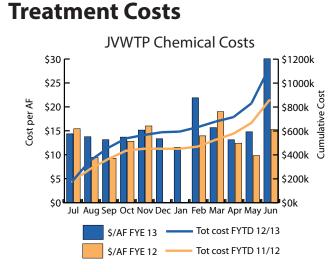
### **Southeast Regional Water Treatment Plant**

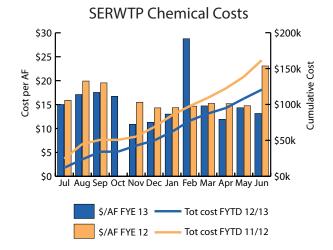
With a rated capacity of 20 MGD, SERWTP uses a unique process of high rate clarification to quickly settle suspended solids. The source water for the treatment plant is obtained from multiple sources. A portion of the water is conveyed through the Salt Lake Aqueduct, with the intake located at the base of Deer Creek Dam. The remaining portion of source water comes from snow pack runoff collected into the Draper Diversion from five mountain streams: South Fork, Middle Fork, Bells Canyon, Rocky Mouth, and Big Willow.



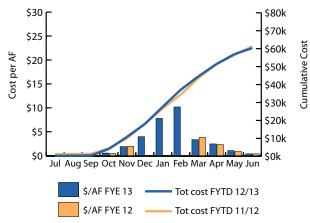


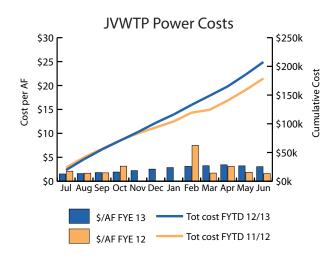
Gaps in graph data indicate the plant was off-line.



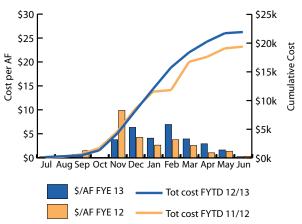


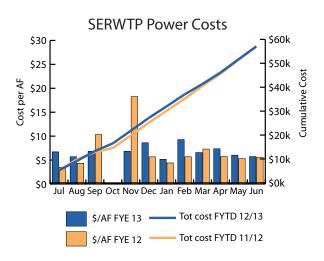
JVWTP Natural Gas Costs





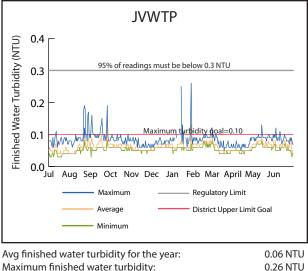
SERWTP Natural Gas Costs





# Turbidity

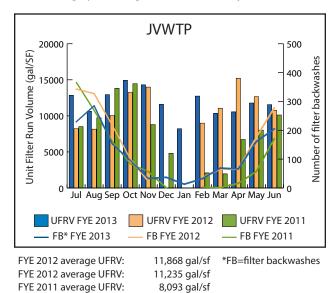
Current regulations for surface water require combined effluent turbidity to be below 0.3 NTU 95 percent of the time, and to never exceed 1.0 NTU. There are also requirements for



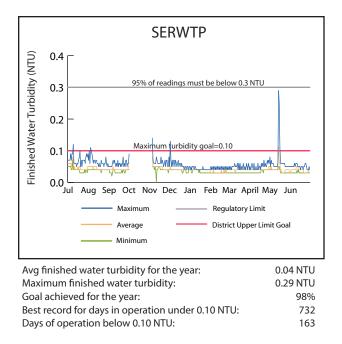
Avg inished water turbidity for the year:	0.06 NTO
Maximum finished water turbidity:	0.26 NTU
Goal achieved for the year:	91.3%
Best record for days in operation under 0.10 NTU:	432
Days of operation below 0.10 NTU:	13

### **Filter Performance**

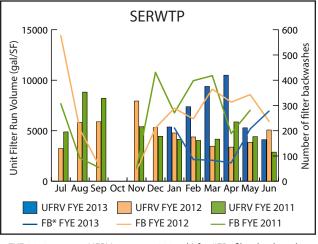
Unit Filter Run Volume (UFRV) is a measure of the volume of water per area of filter as a means to determine filter efficiency. Typically a UFRV of 5000 gal/SF or more is considered good. Operations personnel are currently working several filter surveillance projects to improve overall efficiency at both the



individual filters. The Partnership for Safe Water has set a finished water turbidity goal of 0.1 NTU, which JVWTP and SERWTP have adopted and typically meet.



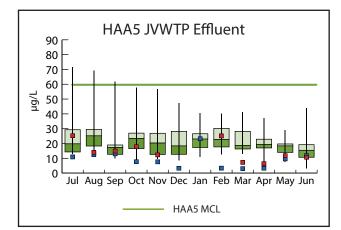
JVWTP and SERWTP. The graphs below also show a comparison of the average number of filter backwashes per month. Typically higher UFRVs will correspond to fewer backwashes unless the filter becomes inefficient due to process disruptions, water quality, or other contributing factors.

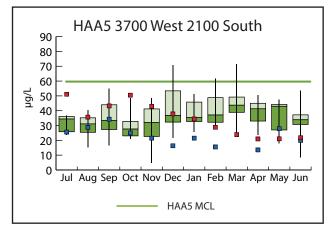


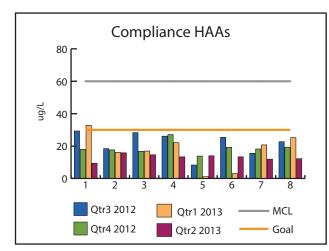
FYE 2012 average UFRV: FYE 2011 average UFRV: FYE 2010 average UFRV: 4,829 gal/sf \*FB=filter backwashes 5,209 gal/sf 7,023 gal/sf

#### **Effect of Chlorine Dioxide on DBPs**

Disinfection-By-Products (DBPs) are formed when a disinfectant, such as chlorine, is in contact with naturally occurring organic matter in water. DBP levels generally continue to increase as the water travels out into the distribution system and into the consecutive systems of our member agencies. Though there is no MCL for DBPs leaving a treatment plant, the Treatment Department has established a goal of 40 ug/L for TTHMs and 30 ug/L HAA5 leaving the effluent of both treatment plants. The ability to use chlorine dioxide as the primary disinfectant came online at JVWTP in March 2012. This disinfection enhancement lowers the

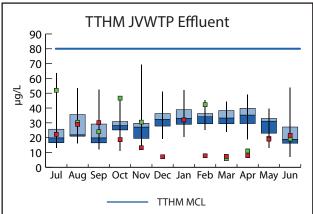


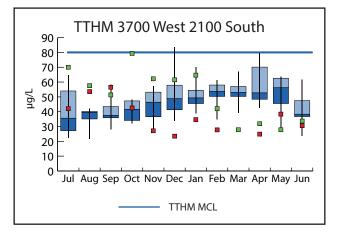


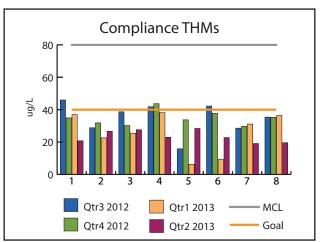


DBP formation within the plant and therefore helps our member agencies comply with DBP requirements in their systems.







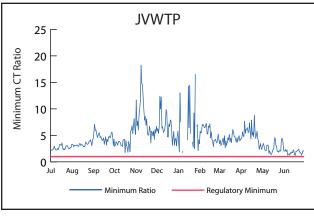


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### **Chlorine Disinfection**

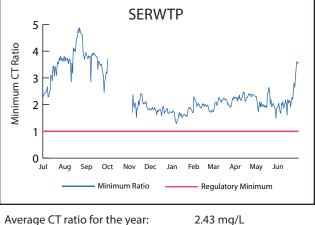
**Minimum CT Ratio** 

Concentration x time (CT) is a measure of disinfection effectiveness which varies with water temperature, pH and disinfectant. Current regulations require sufficient CT to achieve 99.9 percent inactivation of Giardia and 99.99 percent inactivation of viruses. Compliance is determined by a CT ratio which compares the amount of CT achieved to the amount required. A minimum CT ratio of 1.0 and a chlorine residual of 0.2 mg/L is required.



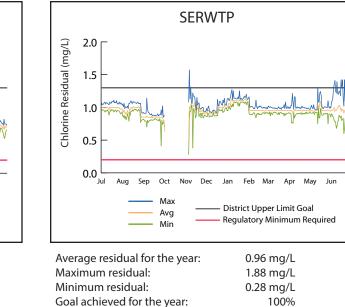
Average CT ratio for the year: Minimum CT ratio for the year: 4.51 mg/L 1.24 mg/L

98%



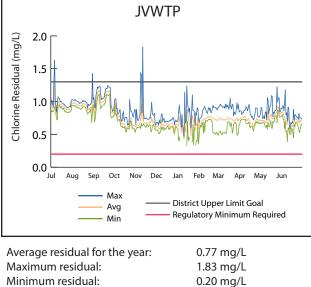
Minimum CT ratio for the year:





# **Chlorine Residual**

Goal achieved for the year:



### **Total Coliform Rule & Chlorine Residuals**

The overall quality of the water provided by Jordan Valley Water Conservancy District to its customers is governed by compliance to the Safe Drinking Water Act and its components.

	Samples	% Samples	# Samples	# HPC	#GWR	Free	Chlorine Resid	lual
Month	analyzed*	total coliform positive	fecal coliform positive	Samples Taken	Samples Taken	Minimum (mg/L)	Average (mg/L)	Maximum (mg/L)
July	114	0	0	1	34	0.70	1.44	0.00
August	117	0	0	0	43	0.65	1.32	0.07
September	110	0	0	0	21	0.64	1.28	0.05
October	97	0	0	7	5	0.48	1.16	0.00
November	104	0	0	1	13	0.60	1.46	0.05
December	107	0	0	0	15	0.56	1.03	0.06
January	108	1	0	0	38	0.62	1.28	0.00
February	104	0	0	0	13	0.59	1.12	0.06
March	112	0	0	0	2	0.68	1.07	0.18
April	113	0	0	0	6	0.69	1.20	0.19
Мау	114 0 0		1	32	0.60	1.15	0.03	
June	107	0	0	2	57	0.60 1.49		0.01
Totals	1307	1	0	12	279			

\* The number of samples collected and tested depends on the population served.

### **Total Samples Collected**

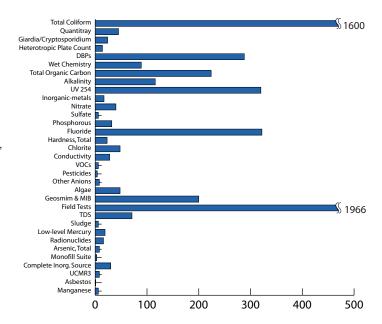
Sampling sites include JVWTP, SERWTP, SWGWTP, distribution system, mountain streams, Jordan & Provo Rivers, and various sites in response to customer calls.

#### Total samples collected for FYE 2012: 5,636

Data includes samples collected by Operations and Compliance Section personnel.

- Wet Chemistry = pH, Alkalinity, Conductivity, Turbidity, TDS, Hardness, Color.
- Radionuclides = Radium 226 & 228, Gross Alpha, Gross Beta.

• "Other" = Nitrite sample for injection activity and sludge sample.



# WATER SUPPLY/WATER QUALITY

## Fluoride

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	AVG
On-line Analyzers	AVG mg/L												
JVWTP	0.78	0.78	0.87	0.88	0.84	0.79	0.41	0.84	0.89	0.85	0.80	0.29	0.75
SERWTP	0.72	0.70	0.70	0.64	0.62	0.59	0.68	0.69	0.68	0.71	0.69	0.00	0.62
1145 E. Webster Dr. Well	*	*	*	*	*	*	*	*	*	*	*	*	*
1453 E. 9400 S. Well	*	*	*	*	*	*	*	*	*	*	*	*	*
1500 E. 8600 S. Well	0.55	0.63	0.67	0.50	0.53	ANW	ANW	0.50	0.64	0.59	0.43	0.82	0.59
1850 E. Newbury Dr. Well	0.60	*	*	0.64	0.68	*	*	*	*	*	*	*	0.64
Well Field Collection Station	0.58	0.61	0.64	0.51	0.41	0.55	0.63	0.59	0.58	0.60	0.51	0.76	0.58
275 E. Carol Way Well	*	*	*	*	*	*	*	*	*	*	*	*	*
1028 E. College St. Well	*	*	*	*	*	*	*	*	*	*	*	*	*
4670 S. 1590 E. Well	*	*	*	*	*	*	*	*	*	*	*	*	*
1364 E. 6400 S. Well	0.66	0.77	0.79	0.84	0.47	0.77	0.78	0.81	*	0.69	0.78	0.45	0.71
8574 S. Moniter Dr. Well	*	*	*	*	*	*	*	*	*	*	*	*	*
1330 E. 8200 S. Well	0.29	0.74	0.66	*	*	0.77	0.63	*	*	*	*	No feed	0.56
1300 E.7000 S.Well	0.55	0.51	0.60	0.58	0.57	0.46	0.40	0.31	0.60	0.63	0.73	0.57	0.54
9390 S. Solena Way Well	0.32	*	*	*	*	*	*	*	*	*	*	*	0.32
1100 E. 4500 S. Well	0.76	0.66	*	*	*	*	*	*	*	*	*	0.82	0.70
10730 S. 1300 E. Pump Sta.	0.68	0.72	0.69	0.60	0.64	0.61	0.65	0.68	0.69	0.74	0.75	0.78	0.69
250 E. 11400 S.	0.77	0.77	0.64	0.61	0.67	ANW	0.71	0.73	0.72	0.77	0.75	0.78	0.72
1200 E. 9400 S.	0.59	0.60	0.70	0.61	0.46	0.57	0.67	0.65	0.71	0.73	0.36	0.64	0.61
8200 S. 1300 E.	0.55	0.67	0.67	0.62	0.54	0.62	0.71	0.64	0.72	0.70	0.60	0.39	0.62
300 E.4500 S.	0.57	0.62	0.58	0.58	0.49	0.52	0.61	0.50	0.67	0.70	0.59	0.67	0.59
9000 S. on JA-2	0.71	0.73	0.64	0.66	0.70	0.71	0.52	0.65	0.74	0.87	0.92	0.66	0.71
Terminal Reservoir	0.73	0.75	0.62	0.60	0.67	0.72	*	0.63	0.70	0.69	0.70	0.88	0.70
3200 W. 6200 S.	0.68	0.72	0.72	0.56	0.56	0.66	0.83	0.76	0.68	0.67	0.75	0.00	0.63
Pony Express Vault	0.73	0.71	0.67	0.63	0.64	0.56	0.45	0.59	0.70	0.73	0.65	0.00	0.59
Grab Samples													
2310 Alta Canyon Dr.	0.58	0.58	0.63	0.67	0.51	0.62	0.61	0.60	0.76	0.63	0.61	0.00	0.57
2640 Wren Road	0.67	0.66	0.67	0.71	0.67	0.53	0.67	0.65	0.76	0.75	0.69	0.00	0.62
1348 E. 5360 S.	0.66	0.78	0.81	0.75	0.74	0.39	0.82	0.47	0.68	0.80	0.75	0.00	0.64
6565 S. 1300 W.	0.79	0.90	0.79	0.58	0.55	0.64	1.03	0.81	0.68	0.61	0.84	0.00	0.68
Monthly Systm Avg	0.63	0.70	0.69	0.64	0.60	0.62	0.66	0.64	0.70	0.71	0.68	0.42	

YTD Combined System AVG 0.64

**Note:** Bolded values represent sites and/or fluoride feeders that were offline at various times throughout the month, yet representative of system water, so they are included as a monitoring site.

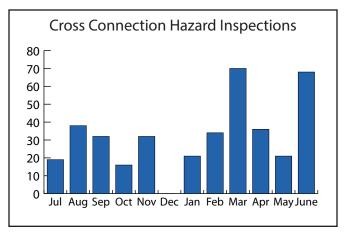
\*= offline

ANW = Analyer Not Working

### **Cross Connection Hazard Surveys Completed**

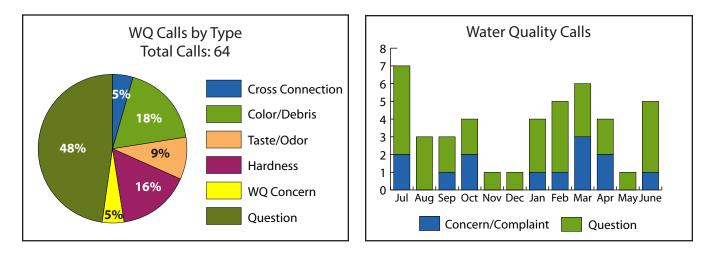
The District has an active cross connection control program. This program includes onsite inspections of industrial sites as well as the tracking of backflow device testing and public education. Below is a summary of this program's activities.

Annual Inspection Schedule		
Facility Type	# of Locations	Frequency
Jordan Valley Water facilities Water treatment plants Well houses Pump stations Reservoirs Backflow assemblies tested	67 2 35 13 17 78	1-5 years Annually
Commercial & Non-residential	1695	1-5 years
Actions Completed FYTD		
Inspections completed	387	
Backflow test reports received	609	



#### **Water Quality Calls**

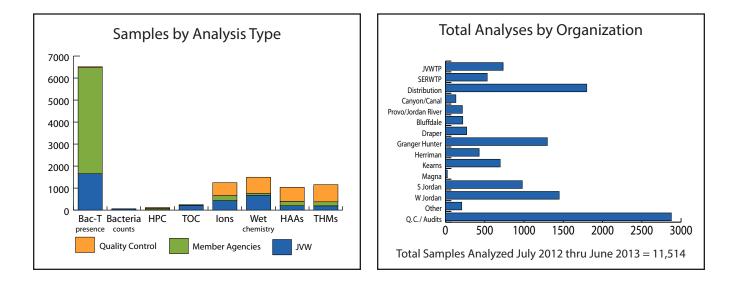
The public perceives water quality as the look, taste and feel of the water. The experience a resident receives when he calls in with a concern, question or complaint about the water determines the District's credibility in the community. These calls are logged and tracked in a database which allows us to determine response time and trends. A summary of the types of calls received is below.

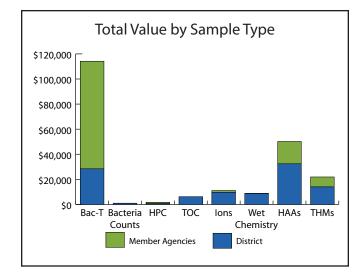


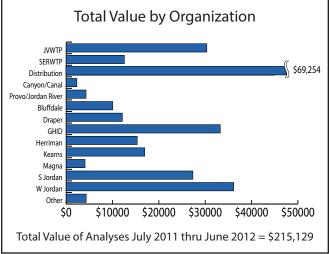
# WATER SUPPLY/WATER QUALITY

### Jordan Valley Laboratory

The Jordan Valley Laboratory (JV Lab) provides analysis services and general support for several departments of Jordan Valley Water. This allows Jordan Valley Water to lower the budget required for outside analysis and provide customized service. While it is not feasible for the JV Lab to run every test required for Jordan Valley Water's various monitoring programs, it does maintain certification for the analyses that represent the largest load. The JV Lab also provides analytical services for many of Jordan Valley Water's Member Agencies at discounted prices.

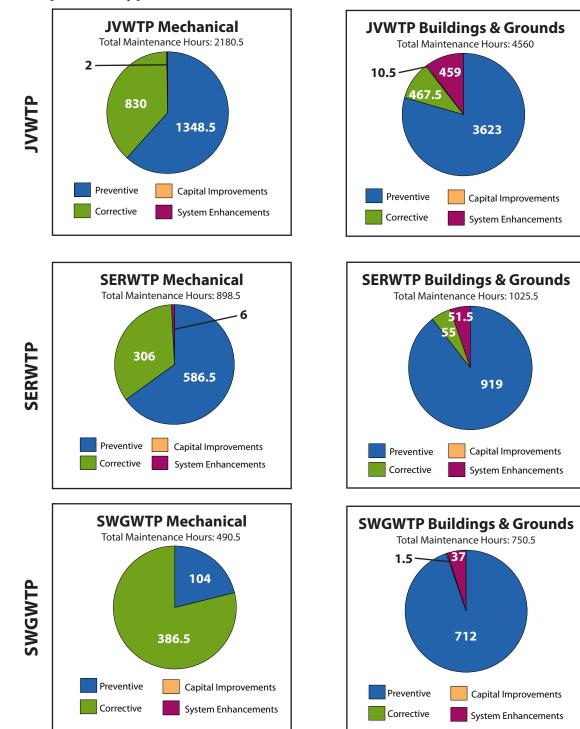






### **Treatment Plant Maintenance**

Optimizing maintenance is a primary goal for the Treatment Department. The objective of increasing preventive maintenance and improving the reliability of all equipment is to reduce the risk and liability of safety concerns, maintain an adequate inventory and reduce overtime.



#### **Hours Spent on Types of Maintenance**

# WATER CONSERVATION



The newly completed Education Center unofficially opened in 2012 as a dual-functioning facility for both conservation programs and JVWCD administrative purposes. After an 18-month occupation period by administrative staff, the building officially became available for conservation related classes, events and public rentals. The grand opening was celebrated with two events held in August 2013, a VIP dinner and a large community event attended by 2,000 people. Both events were centered around a release of Monarch butterflies with the theme of "Come See What We've Become". Plans are underway to update the garden master plan for expansion into all remaining undeveloped areas. Since the Garden's inception, annual attendance has continued to increase. In 2001, only 3,000 people visited the Garden. In 2012, nearly 20,000 walked it's paths.

### **Community Outreach**

In recent years, efforts were made to increase public outreach efforts via social media. Staff has increased the Garden's presence on Facebook, Twitter, and Blogger. These social media outlets were effectively used to promote the second annual Plant Sale held in June 2013, and to bolster membership in the Jordan Valley Home & Garden Club, which meets monthly in the Education Center. In addition to social media, the Club has also effectively used traditional media by forming a partnership with KSL's popular Studio 5 program. Club leadership appears regularly on the show to provide the "Garden in a Box" series.

Conservation Department Public Outreach: JULY 2012 - JUNE 2013

Category	Number of Events
Tour	133
Event	26
Booth	9
Class	83
Media	12
Presentation	15

# **Fundraising Efforts**

The 2012-2013 fiscal year included the ongoing capital campaign for unfinished garden exhibits and Education Center interpretive elements. Fundraising efforts yielded:

FY 2012 - 2013								
Туре	Total Amount							
CASH	Multiple	\$ 139,363						
IN=KIND	Multiple	\$ 265						

# **QWEL Program**

Jordan Valley Water has partnered with Utah State University and the Utah Nursery and Landscape Association (UNLA) to introduce the Qualified Water Efficient Landscaper Program (QWEL) to landscape professionals in Utah. The training consists of 20 hours of in-class learning about materials, installation and



maintenance practices of waterwise landscapes. Graduates are tested and certified by UNLA and a network of partners work to promote QWEL certified landscapers to the general public. The certification course was offered in October 2012 and again in February 2013, and produced a variety of green industry graduates including landscape contractors, nursery professionals, landscape designers and landscape managers.

# Member Agency Assistance Program

Funds are allocated to assist member agencies in their water conservation efforts. Member agencies interested in funding assistance are invited to submit a proposal outlining their projects, including costs and anticipated potential water savings to be achieved as a result of their project. Five agencies participated in the 2012 – 2013 grant cycle:

Granger Hunter Improvement District Magna Water District WaterPro City of South Jordan Kearns Improvement District Examples of projects include public education programs, toilet rebates, irrigation product rebates and secondary irrigation metering projects. As in years past, Jordan Valley will continue to require ongoing reporting and water use tracking.

### Waterwise Landscaping Classes

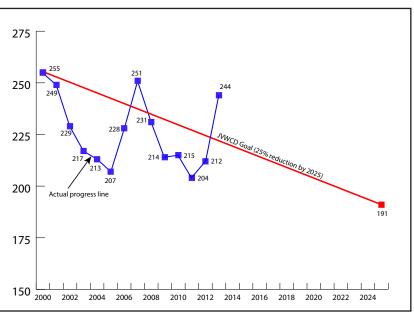
Each year Jordan Valley Water hosts a series of landscape classes centered on water-efficient landscape principles. These classes are generally free to the public and the topics are geared toward home owners. The schedule is available on the web at www.SlowTheFlow.org, the Garden Park web site (ConservationGardenPark.org), and the Now Playing Utah website (www.NowPlayingUtah.com). Class schedules are distributed each year throughout Jordan Valley's service area. The option to register for classes online through our website has proven to be an effective method of controlling class sizes as well as encouraging attendance.

#### Number of Workshops and Participants in Waterwise Landscaping Classes:

Year	Number of Classes		
2005	13	369	28
2006	14	411	29
2007	21	474	23
2008	18	518	29
2009	23	501	22
2010	20	377	19
2011	19	818	43
2012	23	921	40

#### Long-Term Water Conservation Goal

Jordan Valley Water has a long term goal to decrease per capita water usage 25% by 2025. While this number tends to fluctuate from year to year based on weather conditions, a gradual decline in the average of all years combined shows that conservation progress is being made.



## **Well Summary**

		Well	Avg		Annual	-	Total Power				Vater Leve above pu			
	Location	Capacity (cfs)	Production (cfs)	Days of Operation	Production (AF)	Cost						Max	Min	Avg
1	2500 E. Creek Rd	5.35	2.80	243.10	1,367.50	\$	74,182.02	\$	54.25	69	42	53		
2	1787 E. Creek Rd	5.01		0.00	0.00	\$	2,191.73	\$	0.00	147	147	147		
3	7751 S. 1300 East	4.01	2.27	80.00	360.30	\$	28,935.47	\$	80.31	114	76	102		
4	7750 S. 1000 East	3.11	2.29	21.20	95.80	\$	8,499.73	\$	88.72	170	112	144		
5	8200 S. 1000 East	2.01		0.00	0.00	\$	586.23	\$	0.00	141	124	132		
6	7700 S. 700 East	5.57	3.51	65.90	464.50	\$	34,328.83	\$	73.90	170	137	153		
7	8201 S. 700 East	2.23	1.83	55.40	201.00	\$	16,456.25	\$	81.87	207	156	179		
8	1200 E. 9400 South	1.78		0.00	0.00	\$	533.56	\$	0.00	126	113	120		
9	1364 E. 6400 South	6.00	3.61	238.70	1,723.50	\$	86,734.57	\$	50.32	147	71	118		
10	8651 S. 1300 East	4.00		0.00	0.00	\$	214.42	\$	0.00	17	17	17		
11	8184 S. 1330 East	7.00	3.95	123.90	1,706.80	\$	128,377.64	\$	75.22	166	107	137		
12	1307 E. 6860 South	4.70		0.00	0.00	\$	1,323.67	\$	0.00	N/A	N/A	N/A		
13	9125 S. 500 West	2.01		0.00	0.00	\$	1,032.32	\$	0.00	90	90	90		
14	2090 E. 8600 South	2.45		0.00	0.00	\$	2,049.72	\$	0.00	184	145	164		
15	1500 E. 9400 South	9.50	9.22	14.70	268.30	\$	29,665.93	\$	110.57	131	113	124		
16	1530 W. 14600 South	4.46	3.35	25.30	168.30	\$	12,015.10	\$	71.39	114	106	110		
17	300 E. 4500 South	0.70		0.00	0.00	\$	867.20	\$	0.00	167	167	167		
18	9390 Solena Way	4.80	4.10	4.20	34.40	\$	7,012.99	\$	203.87	98	92	95		
19	2300 E. 9800 South	4.12	3.32	44.40	291.70	\$	33,203.13	\$	113.83	97	99	107		
20	1155 E. Webster Dr.	6.50	8.81	18.50	323.90	\$	43,968.14	\$	135.75	139	121	131		
21	9003 S. Quail Hollow	2.20	4.92	168.90	724.00	\$	56,860.97	\$	78.54	168	38	93		
22	1600 E. Siesta Drive	9.60	8.61	258.60	4,404.80	\$	237,968.52	\$	54.02	143	34	77		
23	1526 E. 8600 South	8.50	8.52	29.50	498.70	\$	40,464.49	\$	81.14	168	142	154		
24	8518 S. 960 East	6.00	5.31	97.30	1,033.80	\$	83,395.31	\$	80.67	176	84	126		
25	1159 E. 4500 South	2.20	1.55	120.10	365.00	\$	26,289.40	\$	72.03	190	73	134		
26	1850 E. Newbury Dr.	8.90	6.08	34.30	415.90	\$	44,535.16	\$	107.08	128	100	115		
27	275 E. Carol Way	2.89		0.00	0.00	\$	1,858.99	\$	0.00	296	284	290		
28	4670 S. 1590 East	3.78	2.97	25.80	151.70	\$	9,816.04	\$	64.71	332	239	293		
29	1028 E. College Dr.	4.01		0.00	0.00	\$	1,793.04	\$	0.00	308	308	308		
30	1784 E. Creek Rd	7.13	7.42	218.10	3,204.90	\$	232,957.86	\$	72.69	290	183	243		
31	8578 S. Moniter Dr.	8.00		0.00	0.00	\$	11,089.55	\$	0.00	82	59	66		
32	Prison Well*	0.89	0.66	185.50	252.34	\$	*	\$	*	N/A	N/A	N/A		
	Totals/Averages:	148.52	4.87	94.40	17,804.80	\$	1,259,201.98	\$	69.40					

\*Owned by the Utah State Department of Corrections (not included in Totals/Avgs). Power costs paid by the Utah State Department of Corrections. Note: Cost per AF and water levels are a fiscal year average; all information based on a "power read" month.

# **Booster Pump Summary**

	Location	Current Capacity (cfs)	Total Horsepower	Average Dynamic Lift (feet)	Production Average (cfs)	Annual Production (AF)	Total Power Cost	Average Cost/AF	Days in Operation
1	4706 Naniloa Drive	12	300	N/A	0.00	0.00	\$2,219.35	\$0.00	0
2	4500 S. 4800 West	49	1625	200	13.90	4,122.90	\$99,186.23	\$24.06	180
3	6200 S. 3200 West	46	1500	180	14.63	13,369.60	\$246,416.42	\$18.43	367
4	3600 W. 10200 South	45	1900	350	7.70	5,552.20	\$269,498.78	\$48.54	363
5	5700 W. 10200 South	22	750	240	3.97	2,430.70	\$84,520.51	\$34.77	344
6	5820 S. 3800 West	25	650	180	8.75	3,315.00	\$59,851.14	\$18.05	203
7	110 E. 11400 South	24	1200	320	6.46	857.20	\$32,015.13	\$37.35	74
8	11574 S. 2580 East	4	170	260	0.00	0.00	\$0.00	\$0.00	0
9	15305 S. 3200 West	8	400	280	1.82	421.09	\$12,047.84	\$29.00	369
10	3145 W. 11400 South	42	900	110	7.70	4,823.10	\$82,979.70	\$17.20	219
11	10730 S. 1300 East	22	400	100	8.61	928.70	\$18,288.94	\$19.69	30
12	13400 S. 3300 West	30	2400	495	9.65	2,908.40	\$141,706.22	\$48.72	177
13	3200 W. 11800 South	36	3000	495	13.19	5,316.20	\$263,201.63	\$49.51	205
14	6924 Old Bingham Hwy	20	800	280	5.95	225.28	\$27,463.99	\$121.91	64
	Totals/Averages:	385	15,995	268	8.53	44,270.37	\$1,339,559.65	\$30.21	216

Note: Cost per AF is a fiscal year average; all information based on a "power read" month.

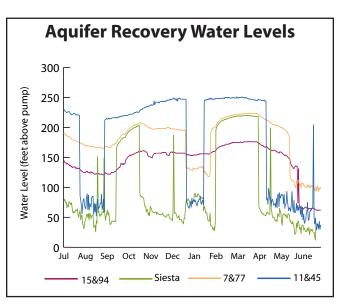
### **Aquifer Storage & Recovery and Conjunctive Management**

	Injected for underground storage (acre-feet) 33" System 16" System		108th So.			Total Well
			(north flow)	Total	Net Saved <sup>a</sup>	Production
Jul			291.43	291.43	291.43	2,274.70
Aug			316.47	316.47	316.47	2,166.73
Sep			510.75	510.75	510.75	1,168.70
Oct			372.12	372.12	372.12	270.27
Nov			228.51	228.51	228.51	1,399.30
Dec			266.26	266.26	266.26	1,391.39
Jan			504.82	504.82	504.82	2,097.99
Feb			229.31	229.31	229.31	1,102.14
Mar			463.36	463.36	463.36	87.27
Apr			379.30	379.30	379.30	439.15
May			459.11	459.11	459.11	1,489.79
June			240.59	240.59	240.59	3,318.46
Yearly Totals	0.00	0.00	4,262.03	4,262.03	4,262.03	17,205.89*

\*These totals are based on calendar months, not power months.

#### **ASR Water Quality Summary**

Monitoring and reporting for the Aquifer Storage & Rcovery (ASR) project is regulated by the Division of Water Quality's Underground Injection Crontrol permitting process. The water injected at each of the injection wells comes from either the JVWTP or SERWTP and meets all drinking water regulations since the water is injected directly from the distribution system.



This graph shows a year's sample of ground water levels at four District wells. We have been monitoring well levels to see if the aquifer is recovering. Natural recovery occurs in the winter, with more drawdown in the summer.

## System Equalization Storage Reservoir Summary

	Steel Reservoirs	Concrete Reservoirs	Constructed	Last Insp/Cleaned	Comments
2718 E. Durban Rd	1 MG	Reservoirs	1956	3/2011	
(2800 E. 9400 South)	2 MG		1964	3/2011	
9785 Eastdell Dr (2300 E. 9800 South)		6 MG	1970	3/2007	
	1 MG		1956	12/2009	
4408 S. 4800 W.	2 MG		1956	4/2009	
(48th & 45th)	5 MG (east)		1965	10/2009	
	5 MG (west)		1969	3/2010	
6044 W 4700 C	1 MG		1956	3/2013	
6011 W. 4700 S. (60th West)		6 MG	1966	10/2008	
(both west)		2 MG	1962	3/2013	
6171 S. 3200 W. (32 & 62)	2 MG (NE)		1961	3/2013	
	2 MG (SW)		1964	3/2013	
	8 MG		1968	10/2012	
5200 W. 6200 S.		2 MG	1962	3/2013	
3582 W. 10200 S. (36 & 102)		3 MG	1981	5/2012	
5631 W. Old Bingham Hwy (57th & 102)		3 MG	1981	5/2012	
6924 W. Old Bingham Hwy		3 MG	1976	3/2012	
14408 S. 5600 W. (Rosecrest)		3 MG	2000	3/2013	
	1 MG		1974	2003	
15305 S. 3200 W. (JVWTP)		8 MG	1974	1/2009	
(300011)		1 MG	1974	1996	
11574 S. Wyndcastle		1 MG	1983	3/2008	
(SERWTP)		3 MG	2003	3/2009	
		16.5 MG (bay 1)	1984		
Terminal Reservoir		16.5 MG (bay2)	1984	The Terminal	Reservoir is inspected and
5820 S. 3800 W.		33.5 MG (bay 3)	1997	cleaned ever	
		33.5 MG (bay 4)	1997		
14271 S. State		0.2 MG		5/2010	
(Prison/Minuteman)		0.4 MG		3/2010	
7600 S. New Bingham Hwy		3 MG (north bay)		3/2010	
(Zone D)		3 MG (south bay)		7/2013	

"Inspected/cleaned" means last date reservoir was inspected, repaired and cleaned according to AWWA standards.

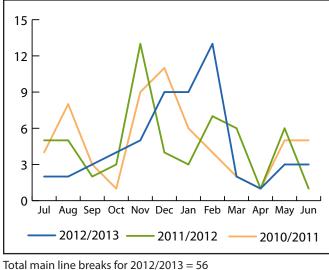
# DISTRIBUTION

 Vehicle Summary
 = Admin = Dist
 = Treat
 = W.S.
 = IT/Elec

VEH#/YR	MAKE & MODEL	END ODOM	GALLONS USED	MILES DRIVEN	MPG	MAINT. COSTS FYTD	VEH#/YR	MAKE & MODEL	END ODOM	GALLONS USED	MILES DRIVEN	MPG	MAINT. COSTS FYTD
103 - 2008	Chev 4x4 Trailblazer	63,983	628.0	10,261	16.34	\$ 75.63	261 - 2009	Chv 1/2 Ton Ext 4x4	64,194	1,885.4	24,139	12.80	\$ 672.05
104 - 2007	Toyota Camry	65,359	281.0	7,789	27.72	\$ 297.74	300 - 2004	Ford F550 DESL	44,405	392.7	3,418	8.70	\$ 137.08
105 - 2001	Chevy Impala	75,229	153.3	3,257	21.25	\$ 664.41	301 - 2008	Ford F550 Svc Truck	69,919	1,848.6	11,708	6.33	\$ 2,090.83
106 - 2004	Chevy 4x4 Tahoe	70,334	686.1	8,516	12.41	\$ 150.91	302 - 2003	Ford F550 DESL	111,366	1,423.0	13,619	9.57	\$ 2,294.72
107 - 2003	Chevy 4x4 Tahoe	125,817	299.8	4,328	14.44	\$ 396.92	306 - 2007	Ford F450 DESL	65,921	1,388.1	9,717	7.00	\$ 296.80
109 - 1999	Ford Taurus	106,103	23.9	465	19.46	\$ 0.00	308 - 2008	Ford F550 Svc Truck	56,569	1,846.2	10,991	5.95	\$ 1,065.52
110 - 1999	Chevy 4x4 Tahoe	111,949	628.2	8,466	13.48	\$ 1,028.65	309 - 2006	Ford F550 DESL	67,362	1,003.4	6,580	6.56	\$ 16,297.15
111 - 2005	Chevy Impala	61,713	363.5	7,124	19.60	\$ 132.63	310 - 1997	Fd F350 Dump desl	99,891	433.5	4,481	10.34	\$ 315.39
112 - '99	Ford Taurus	100,134	175.1	3,449	19.70	\$ 300.70	311 - 2009	Dodge 5500 Dump	30,944	882.9	7,799	8.83	\$ 153.74
115 - '00	Ford Taurus	90,130	117.4	2,354	20.05	\$ 83.58	312 - 1999	Chevy HD 3500 svc	133,014	739.1	7,946	10.75	\$ 184.29
116 - '00	Ford Taurus	111,402	16.7	306	18.32	\$ 0.00	313 - 2008	Dodge RAM 5500	51,722	1,447.4	12,224	8.45	\$ 340.70
117 - '05	Chevy 4x4 Tahoe	119,054	276.3	4,233	15.32	\$ 152.31	406 - 1999	Intl 4900 Dump desl	63,169	456.7	2,719	5.95	\$ 458.46
118 - '08	Ford Expedition 4x4	102,753	1,093.6	15,573	14.24	\$ 209.22	409 - 2004	Intl 4400 Dump desl	35,228	581.4	3,025	5.20	\$ 1,026.38
201 - '09	Chevy 1/2 Ton 4x4	32,619	1,044.4	15,688	15.02	\$ 45.82	410 - 2009	NAT 7600 Dump	22,165	1,126.7	3,345	2.97	\$ 1,095.89
202 - '09	Chevy 1/2 Ton 4x4	27,630	556.4	7,842	14.09	\$ 65.73	411 - 2009	NAT 7600 Dump	20,710	1,056.2	3,043	2.88	\$ 263.78
203 - '09	Chevy 1/2 Ton 4x4	43,147	434.4	6,195	14.26	\$ 159.68	700 - 2011	Dodge Nitro SE 4x4	29,325	773.0	14,131	18.28	\$ 78.47
204 - '99	Chevy 4x4 Blazer	81,355	206.0	3,180	15.44	\$ 206.18	701 - 2011	Ddg 1/2 Ton Ext 4x4	29,219	1,147.6	15,883	13.84	\$ 71.40
206 - '04	Chevy Ventura Van	112,986	711.7	12,684	17.82	\$ 120.40	702 - 2011	Ddg 1/2 Ton Ext 4x4	23,840	847.5	12,225	14.42	\$ 86.31
211 - '03	Chev 1/2 Ton pkup	81,629	467.1	5,859	12.54	\$ 507.91			TOTALS:	54,102.2	615,138	11.37	\$41,889.83
215 - '99	Chevy 1/2 Ton pkup	139,043	161.4	1,990	12.33	\$ 0.00			IOTALS.	57,102.2	015,150	11.57	41,007.03
						1							

VEH#/YR	MAKE & MODEL	ODOM	USED	DRIVEN	MPG	COSTS FYTD
103 - 2008	Chev 4x4 Trailblazer	63,983	628.0	10,261	16.34	\$ 75.63
104 - 2007	Toyota Camry	65,359	281.0	7,789	27.72	\$ 297.74
105 - 2001	Chevy Impala	75,229	153.3	3,257	21.25	\$ 664.41
106 - 2004	Chevy 4x4 Tahoe	70,334	686.1	8,516	12.41	\$ 150.91
107 - 2003	Chevy 4x4 Tahoe	125,817	299.8	4,328	14.44	\$ 396.92
109 - 1999	Ford Taurus	106,103	23.9	465	19.46	\$ 0.00
110 - 1999	Chevy 4x4 Tahoe	111,949	628.2	8,466	13.48	\$ 1,028.65
111 - 2005	Chevy Impala	61,713	363.5	7,124	19.60	\$ 132.63
112 - '99	Ford Taurus	100,134	175.1	3,449	19.70	\$ 300.70
115 - '00	Ford Taurus	90,130	117.4	2,354	20.05	\$ 83.58
116 - '00	Ford Taurus	111,402	16.7	306	18.32	\$ 0.00
117 - '05	Chevy 4x4 Tahoe	119,054	276.3	4,233	15.32	\$ 152.31
118 - '08	Ford Expedition 4x4	102,753	1,093.6	15,573	14.24	\$ 209.22
201 - '09	Chevy 1/2 Ton 4x4	32,619	1,044.4	15,688	15.02	\$ 45.82
202 - '09	Chevy 1/2 Ton 4x4	27,630	556.4	7,842	14.09	\$ 65.73
203 - '09	Chevy 1/2 Ton 4x4	43,147	434.4	6,195	14.26	\$ 159.68
204 - '99	Chevy 4x4 Blazer	81,355	206.0	3,180	15.44	\$ 206.18
206 - '04	Chevy Ventura Van	112,986	711.7	12,684	17.82	\$ 120.40
211 - '03	Chev 1/2 Ton pkup	81,629	467.1	5,859	12.54	\$ 507.91
215 - '99	Chevy 1/2 Ton pkup	139,043	161.4	1,990	12.33	\$ 0.00
219 - '03	Chv 1/2 Ton Ext 4x4	130,968	135.5	1,569	11.58	\$ 126.16
223 - '07	Chv 1/2 Ton Ext 4x4	105,124	1,201.2	16,467	13.71	\$ 345.04
225 - '00	Chv 1/2 Ton pickup	135,350	828.2	14,313	17.28	\$ 134.96
227 - '01	Chv 1/2 Ton Ext 4x4	131,638	333.4	4,329	12.98	\$ 101.81
228 - '09	Chv 3/4 Ton Ext 4x4	47,370	997.2	12,095	12.13	\$ 65.73
229 - '09	Chv 3/4 Ton Ext 4x4	37,842	916.4	10,959	11.96	\$ 2,065.73
234 - '02	Chv 1/2 Ton Ext 4x4	138,565	614.1	8,355	13.61	\$ 103.32
235 - 2004	Chv 1/2 Ton pickup	91,404	546.9	8,143	14.89	\$ 599.01
236 - 2005	Chv 3/4 Ton Ext 4x4	95,463	1,213.0	11,900	9.81	\$ 252.75
237 - 2005	Chv 1/2 Ton pickup	75,331	977.5	12,177	12.46	\$ 773.04
238 - 2005	Chv 1/2 Ton Pickup	70,066	346.4	3,981	11.49	\$ 109.62
239 - 2005	Chevy Colorado 4x4	100,900	484.1	9,513	19.65	\$ 68.82
245 - 2003	Chevy 3/4 CB 4x4	107,297	707.6	7,784	11.00	\$ 391.96
246 - 2008	Chv 3/4 Ton Ext 4x4	40,469	844.2	9,139	10.83	\$ 665.71
247 - 2008	Chv 3/4 Ton Ext 4x4	46,612	1,630.8	17,212	10.55	\$ 584.61
248 - 2008	Chv 3/4 Ton Ext 4x4	46,506	1,188.5	15,624	13.15	\$ 145.05
249 - 2008	Chv 3/4 Ton Ext 4x4	79,527	1,682.1	15,489	9.21	\$ 692.01
250 - 2006	Chv 1/2 Ton Ext 4x4	127,997	1,437.9	18,762	13.05	\$ 506.10
251 - 2006	Chevy 1 Ton 4x4	68,997	948.3	10,119	10.67	\$ 157.16
252 - 2007	Chv 3/4 Ton Ext 4x4	111,446	1,850.3	21,497	11.62	\$ 160.67
253 - 2007	Chv 1/2 Ton pickup	85,537	910.7	11,565	12.70	\$ 138.93
254 - 2007	Chevy 3/4 Ton 4x4	45,753	918.0	9,070	9.88	\$ 43.82
255 - 2008	Chv 3/4 Ton Ext 4x4	69,428	1,240.8	13,936	11.23	\$ 119.13
256 - 2008	Chv 3/4 Ton Ext 4x4	56,537	866.6	9,771	11.28	\$ 65.73
257 - 2008	Chv 1/2 Ton Pickup	40,506	557.6	8,798	15.78	\$ 715.74
258 - 2008	Chv 1/2 Ton Pickup	57,919	1,016.0	11,918	11.73	\$ 681.21
259 - 2008	Chv 1/2 Ton Ext 4x4	33,627	818.4	7,538	9.21	\$ 200.74
260 - 2008	Chv 3/4 Ton Ext 4x4	77,818	1,286.7	16,563	12.87	\$ 347.90

### **Pipeline Breaks**



Total main line breaks for 2012/2013 = 56Total main line breaks for 2011/2012 = 56Total main line breaks for 2010/2011 = 59

### **New Retail Connections**

	D	District (size)			Contractor (size)			ize)	
Month	3/4″	1″	1.5"	2″	3″	4″	6″	8″	Totals
July									
August		1							1
September	1								1
October	1								1
November	12	1							13
December	1								1
January									
February									
March					1				1
April	1								1
May	1								1
June	2				1				3
Totals	19	2	0	0	2	0	0	0	23

Total new retail connections for 2012/2013 = 23 Total new retail connections for 2010/2011 = 13

Total new retail connections for 2009/2010 = 14

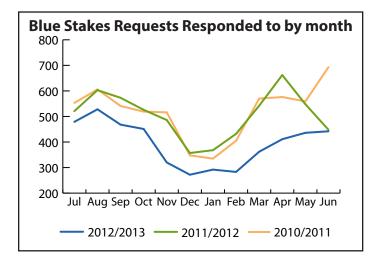
	Blue Stakes Requests	Blue Stakes Responded	Water Crossings	Sewer Crossings	Storm Drain Crossings	Gas Crossings	Power/Com Crossings
July	1386	479	2	2	5	6	5
Aug	1458	528	1	2	4	2	5
Sept	1374	468	0	0	2	0	4
Oct	1548	451	1	0	3	0	3
Nov	1130	320	4	1	4	2	5
Dec	812	272	2	0	2	1	2
Jan	710	292	0	0	2	1	4
Feb	748	283	2	0	0	0	10
Mar	1208	362	1	0	2	1	5
Apr	1445	411	3	1	3	1	2
Мау	1578	436	4	2	3	10	3
Jun	1451	442	2	1	0	9	11
Totals	14,848	4,744	22	9	30	33	59

## **Inspections/Locations Summary**

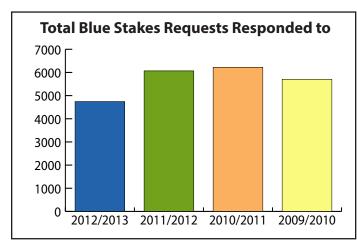
	Fire Lines Installed	Hydrants Installed	Connections Installed*	Hot Taps Performed	Scheduled Shutdowns**
July					3
Aug				2	5
Sept					4
Oct	2		12	1	3
Nov	1			1	5
Dec					1
Jan					1
Feb	1			1	1
Mar	2		1	2	5
Apr	1			3	2
Мау		1	5	3	2
Jun			1		4
Totals	7	1	19	13	36

\*All connections installed by contractor - all 3/4"

\*\*Scheduled shutdowns are shutdowns that are anticipated and notice can be given to affected customers ahead of time.



**Blue Stakes Summary** 



### **Pipeline/Valve Summary**

	Pipe length	Miles of	
Pipe diameter	(linear ft.)	pipe	# of Valves
2 inch	200	0.04	77
3 inch - 4 inch	35,707	6.76	235
6 inch	363,115	68.77	1,233
8 inch	190,443	36.07	517
10 inch	47,134	8.93	123
12 inch	81,506	15.44	162
14 inch	12,801	2.42	18
16 inch	139,417	26.40	78
18 inch	25,553	4.84	16
20 inch - 21 inch	46,333	8.78	33
24 inch	120,660	22.85	79
27 inch	18,535	3.51	3
30 inch	80,463	15.24	43
33 inch	83,198	15.76	6
36 inch	33,286	6.30	3
42 inch	200	0.04	13
48 inch	26,059	4.94	21
54 inch	5,280	1.00	12
60 inch	500	0.09	2
66 inch	51,216	9.70	3
72 inch	73,920	14.00	5
78 inch	79,041	14.97	5
Totals	1,514,567	286.85	2,646
Tot	al fire hydrants		1,339

Updated 8/12/13

Update includes:

Kelsey Court (3545 South 400 East)

The Grove at Cottonwood (1300 East 5970 South)

• 500 East Pipeline Replacement (3300 South/3900 South)

• 300 East Pipeline Replacement (3300 South/Fenton Ave.)

400 East Pipeline Replacement (3900 South/4000 South)

Georgia Circle Pipeline Replacement (3800 South 300 East)

# ENGINEERING

### **Capital Projects**

A summary of the projects which were completed by the Engineering Department in 2012-2013 are shown on Jordan Valley Water's web site under "Engineering Projects" (http://www.jvwcd.org/projects/default.aspx).

The Completed Project Reports for 2012-2013 are listed on the right side of the site.

SWGWTP stands for Southwest Groundwater Treatment Plant, and SWJVGWP stands for Southwest Jordan Valley Groundwater Project.

Projects completed this year include:

- Distribution pipeline replacements 500 East and Revere Drive
- Middle Fork supply improvement project
- SWGWTP general contract
- SWGWTP RO equipment supply
- SWJVGWP Byproduct pipeline, phase 1
- SWJVGWP equipping nine wells
- Terminal Reservoir chlorine booster facility and JVWTP PEA/PAC chemical feed systems.









Photos, clockwise from top left:

- New diversion structure on the Middle Fork of Dry Creek
- Directional drill of the by-product pipeline under Redwood Road
- Chemical feed pumps at the new Terminal Reservoir chlorine booster facility
- The new Southwest Groundwater Treatment Plant

## **Property Acquired FY 2012/2013**

Property Location	Size	Project	Total Acquisition Costs
1900 South 200 East Kaysville	1.4 acres (3 lots)	Wasatch Front Regional Pipeline Right of Way	\$421,400
UT & SL Canal Company	1.23	CPP (Central Pipeline Project)	\$130,000
UDOT 15400 South 3200 West	1.942	Mountain View Corridor	\$203,023
UDOT 15400 South 3200 West	0.686	Mountain View Corridor	\$71,500

# Water Rights Acquired 2012/2013

Yio	eld (Acre Feet)
Utah Lake Irrigation Stock	N/A
Jordan River Rights	N/A
Provo River Irrigation Stock	377.75

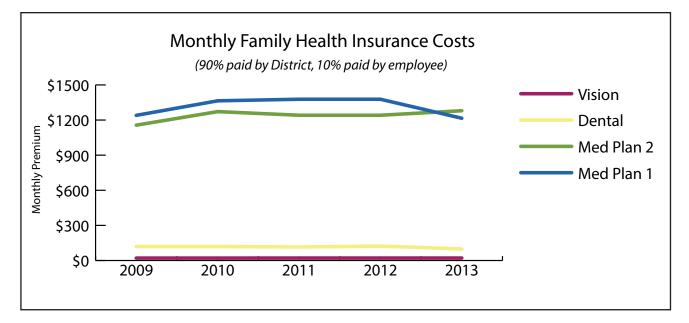
# Personnel - Employee History

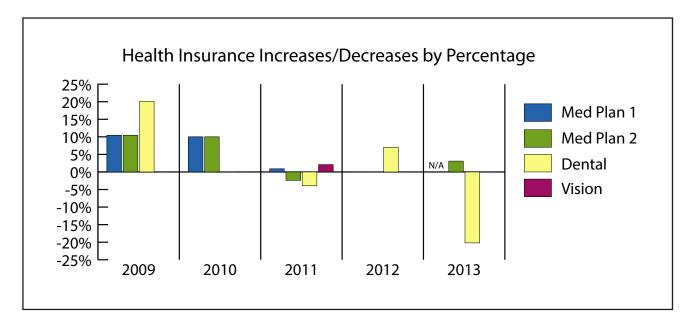
	Calendar Year 2013	Calendar Year 2012	Calendar Year 2011	Calendar Year 2010	Calendar Year 2009
Full-time authorized positions:	135	136	136	136	135
Part-time positions:	5	4	5	5	5
New positions authorized:	1	0	0	1	0
	Lead Garden Horticulturist			Water Supply Maintenance Lead	
Turnover - # of Terminations	not yet available	6	3	8	9
Retirements	not yet available	3	0	1	0
Turnover rate:	not yet available	4.28%	2.17%	5.6%	6.4%
Employees per 1,000	Employees per 1,000 AF of water delivered:			1.18	1.08
AF de	livered per employee:	941	988	847	923

## **Personnel Costs**

July 2013	July 2012	July 2011	July 2010	July 2009	July 2008
0.0%	0.0%	0.0%	0.0%	0.0%	3.2%
2.8%	2.5%	2.0%	N/A	N/A	N/A
3.88%	2.86% or step	2.96%	0.0%	3.0% or step	1.1%
0 to 10.00%	0 to 4.76%	0% to 6.62%	N/A	2.86% to 4.52%	N/A
2013/2014	2012/2013	2011/2012	2010/2011	2009/2010	2008/2009
\$13,502,777 4.19%	\$12,959,432 2.51%	\$12,642,170 0.49%	\$12,580,562 2.53%	\$12,270,722 6.83%	\$11,485,853 11.04%
Calendar 2013	Calendar 2012	Calendar 2011	Calendar 2010	Calendar 2009	Calendar 2008
SelectMed+HDHP	SelectHealth	SelectHealth	ValueCare	ValueCare	ValueCare
\$412.10	\$467.20	\$467.20	\$462.50	\$420.50	\$380.80
\$886.10	\$1,004.30	\$1,004.30	\$994.30	\$903.90	\$818.70
\$1,215.50	\$1,377.70	\$1,377.70	\$1,364.20	\$1,240.10	\$1,123.20
N/A	0.0%	0.9%	10.0%	10.4%	0.06%
SelectCare+HDHP			Hoalth\W/ico	HoalthWise	HealthWise
			1		\$355.10
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+ -=	,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		\$763.40
					\$1,047.30
					0.06%
5.170	0.0%	-2.4%	10.0%	10.4%	0.00%
Aetna	EMI	EMI	Aetna Dental	Aetna Dental	Delta Dental
\$28.78	\$36.10	\$33.70	\$37.29	\$37.29	\$31.05
\$61.27	\$76.80	\$71.75	\$78.52	\$78.52	\$65.40
\$98.28	\$123.20	\$115.10	\$119.77	\$119.72	\$99.76
-20.2%	7.0%	-3.9%	0.0%	20.1%	15.5%
Self Insured	Self Insured	Self Insured	Self Insured	Self Insured	Self Insured
\$7.00	\$7.00	\$7.00	\$6.97	\$6.97	\$6.97
\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
					\$20.56
0.0%	0.0%	2.1%	0.0%	0.0%	0.0%
	0.0% 2.8% 3.88% 0 to 10.00% 2013/2014 \$13,502,777 4.19% Calendar 2013 SelectMed+HDHP \$412.10 \$886.10 \$1,215.50 N/A SelectCare+HDHP \$433.80 \$932.70 \$1,279.50 3.1% Aetna \$28.78 \$61.27 \$98.28 -20.2% Self Insured \$7.00 \$15.00 \$21.00	0.0%         0.0%           2.8%         2.5%           3.88%         2.5%           0 to 10.00%         0 to 4.76%           2013/2014         2012/2013           \$13,502,777         \$12,959,432           4.19%         2.51%           Calendar 2013         Calendar 2012           SelectMed+HDHP         \$467.20           \$886.10         \$1,004.30           \$1,215.50         \$1,377.70           N/A         0.0%           SelectCare+HDHP         \$4420.80           \$932.70         \$1,241.10           \$1,279.50         \$1,241.10           3.1%         0.0%           Aetna         EMI           \$28.78         \$36.10           \$98.28         \$123.20           -20.2%         7.0%           Self Insured         \$7.00           \$15.00         \$15.00           \$21.00         \$21.00	0.0%         0.0%         0.0%         0.0%           2.8%         2.5%         2.0%         2.0%           3.88%         2.86% or step         2.96%         0% to 6.62%           2013/2014         2012/2013         2011/2012           \$13,502,777         \$12,959,432         \$12,642,170           4.19%         SelectHealth         SelectHealth         SelectHealth           \$467.20         \$1,004.30         \$1,004.30         \$1,004.30           \$1,215.50         \$1,377.70         \$1,377.70           N/A         0.0%         \$904.70           \$932.70         \$904.70         \$904.70           \$1,279.50         \$1,241.10         \$1,241.10           3.1%         0.0%         \$33.70           \$1,241.10         \$31.70         \$115.10           \$28.78         \$36.10         \$1,241.10           \$1,27         \$76.80         \$71.75           \$98.28         \$123.20         \$115.10           -20.2%         7.0%         -3.9%           Self Insured         \$7.00         \$15.00           \$15.00         \$15.00         \$15.00           \$21.00         \$21.00         \$21.00	0.0%         0.0%         0.0%         0.0%         0.0%         0.0%           2.8%         2.5%         2.0%         0.0%         N/A           3.88%         0 to 10.00%         0 to 4.76%         0% to 6.62%         N/A           2013/2014         2012/2013         2011/2012         2010/2011           \$13,502,777         \$12,959,432         \$12,642,170         \$12,580,562           4.19%         2.51%         0.49%         2.53%           Calendar 2012         Calendar 2011         Calendar 2010           SelectMed+HDHP         SelectHealth         \$467.20         \$467.20         \$462.50           \$886.10         \$1,004.30         \$1,04.30         \$1,377.70         \$1,364.20           \$1,215.50         \$1,377.70         \$1,377.70         \$1,364.20         10.0%           \$4420.80         \$420.80         \$431.30         \$994.30         \$1,364.20           \$1,279.50         \$1,241.10         \$1,272.00         \$1,272.00         \$1,004.30         \$994.70           \$1,279.50         \$1,241.10         \$1,272.00         \$1,272.00         \$1,272.00         \$1,272.00           \$1,279.50         \$1,241.10         \$1,272.00         \$1,272.00         \$1,272.00 <td< td=""><td>0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         N/A         N/A         N/A           3.88%         2.86% or step         0 to 4.76%         0% to 6.62%         N/A         0.0%         3.0% or step         2.86% to 4.52%           2013/2014         2012/2013         2011/2012         2010/2011         2009/2010           \$13,502,777         \$12,959,432         \$12,642,170         \$12,580,562         \$12,270,722         6.83%           4.19%         2.51%         0.49%         2.53%         6.83%         ValueCare         \$467,20         \$467,20         \$467,20         \$462,50         \$420,50         \$12,240,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40</td></td<>	0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         N/A         N/A         N/A           3.88%         2.86% or step         0 to 4.76%         0% to 6.62%         N/A         0.0%         3.0% or step         2.86% to 4.52%           2013/2014         2012/2013         2011/2012         2010/2011         2009/2010           \$13,502,777         \$12,959,432         \$12,642,170         \$12,580,562         \$12,270,722         6.83%           4.19%         2.51%         0.49%         2.53%         6.83%         ValueCare         \$467,20         \$467,20         \$467,20         \$462,50         \$420,50         \$12,240,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40,10         \$12,40

### **Personnel - History of Insurance Costs**





## Safety Track 2012-2013

Jordan Valley Water Conservancy District Safety Track Summary

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYT
Lost time injuries	0	0	0	0	0	0	0	0	0	0	0	0	0
OSHA recordable injuries	0	0	1	0	0	1	0	1	1	0	0	1	5
Vehicle crashes	0	0	0	1	1	2	1	1	0	2	1	1	10
Days since last Lost Time Injury: 648 (8/22/11)     Best record for Lost Time Injury: 648													

Days since last Vehicle Crash: 5 (6/25/13)

Best record for Time Without a Vehicle Crash: 128

#### Distribution Department Safety Track Summary

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYT
Lost time injuries	0	0	0	0	0	0	0	0	0	0	0	0	0
OSHA recordable injuries	0	0	1	0	0	1	0	0	0	0	0	1	3
Vehicle crashes	0	0	0	1	0	2	0	1	0	1	0	0	5
Davs since last Lost Time Iniury: 678 (8/22/11) Best record for Lost Time Iniury: 1,058													

Days since last Vehicle Crash: 75 (4/16/13)

Best record for Time Without a Vehicle Crash: 427

#### Treatment Department Safety Track Summary

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYT
Lost time injuries	0	0	0	0	0	0	0	0	0	0	0	0	0
OSHA recordable injuries	0	0	0	0	0	0	0	1	1	0	0	0	2
Vehicle crashes	0	0	0	0	1	0	1	0	0	0	1	0	3

Days since last Lost Time Injury: 924 (12/29/10) Days since last Vehicle Crash: 31 (5/30/13)

Best record for Lost Time Injury: 1,365

Best record for Time Without a Vehicle Crash: 676

#### Water Supply Department Safety Track Summary

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYT
Lost time injuries	0	0	0	0	0	0	0	0	0	0	0	0	0
OSHA recordable injuries	0	0	0	0	0	0	0	0	0	0	0	1	1
Vehicle crashes	0	0	0	0	0	0	0	0	0	1	0	1	2
Days since last Lost Time Injury: 1,539 (4/13/09) Best record for Lost Time Injury: 3,389													

Days since last Vehicle Crash: 5 (6/25/13)

Best record for Time Without a Vehicle Crash: 1,044

#### Administration, IS, and Conservation Safety Track Summary

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYT
Lost time injuries	0	0	0	0	0	0	0	0	0	0	0	0	0
OSHA recordable injuries	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle crashes	0	0	0	0	0	0	0	0	0	0	0	0	0

Days since last Lost Time Injury: 881 (1/25/11) Days since last Vehicle Crash: 383 (6/28/12)

Best record for Lost Time Injury: 2,719 Best record for Time Without a Vehicle Crash: 2,544

F	iscal Ye	ar Total	S
/12	10/11	09/10	08/09

11.

11/12	10/11	02/10	00/02
1	2	1	1
6	2	5	9
9	16	9	10

**Fiscal Year Totals** 

11/12	10/11	09/10	08/09
1	0	1	0
5	0	2	5
4	10	6	3

Fiscal Year Totals

11/12	10/11	09/10	08/09
0	1	0	0
0	1	1	0
0	2	0	2

F	iscal Ye	ar Total	S
11/12	10/11	09/10	08/09
0	0	0	1
0	0	1	4
4	2	2	4

Fiscal Year Totals

0         1         0         0           1         1         1         0           1         2         1         1	11/12	10/11	09/10	08/09
1     1     1     0       1     2     1     1	0	1	0	0
1 2 1 1	1	1	1	0
	1	2	1	1

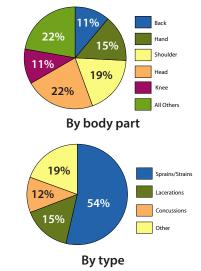
### 2012/2013 OSHA Recordable Injuries<sup>a</sup>

Date	Type of Injury	Light duty restriction (days)	Days away from work	Total PTD (Workers Comp)	Dept
9/1/12	Chest Contusion	0	0	\$135	Dist
12/12/12	Shoulder Strain	31	0	\$1,810	Dist
2/26/13	Multiple	36	0	\$6,617	Treat
3/28/13	Face Laceration	0	0	\$180	Treat
6/19/13	Shoulder Strain	10	0	\$0 <sup>b</sup>	Dist
6/20/13	Arm Strain	7	0	\$177	WS
Total	6	84	0	\$8,919	

a- Any work-related death, or any injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. b- Not a final total. This claim is still open.

PTD = Paid to date.

#### OSHA Recordable Injuries 08/09-12/13

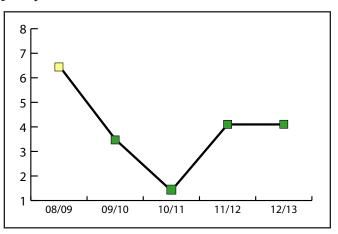


#### **OSHA Recordable Injury Incident Rates**

Fiscal Year	Avg emp hrs wrkdª	# of Injuries	Incident Rate <sup>ь</sup>	Total PTD (Wkrs Comp)
2008/2009	276,000	9	6.5	\$9,687
2009/2010	286,000	5	3.5	\$10,685
2010/2011	290,000	2	1.4	\$28,405
2011/2012	290,000	6	4.1	\$54,117
2012/2013	290,000	6	4.1	\$8,919

a- Number of employees x 2000 (2000 hours is the average number of hours an employee works per year and is the number that OSHA recommends for calculating incident rates)

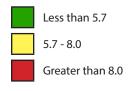
b- Total injuries x 200,000, divided by "# of employee hours worked"



### OSHA Recordable Injury Incident Rates by Department

	08/09	09/10	10/11	11/12	12/13	5-yr avg
Admin	0.0	1.9	1.9	1.9	0.0	1.1
Distribution	14.6	4.1	0.0	10.0	6.1	7.0
Treatment	0.0	3.1	3.1	0.0	6.3	2.5
Water Supply	40.0	10.0	0.0	0.0	9.1	11.8

### Performance Indicators

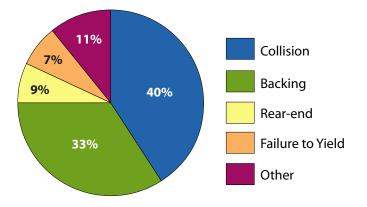


Date	District Cost	Туре	Dept
10/15/12	\$589	Backing	Dist
11/5/12	\$0	Collision	Treat
12/17/12	\$0	Rear-end	Dist
12/19/12	\$488	Backing	Dist
1/15/13	\$0	Backing	Treat
2/19/13	\$0	Rear-end	Dist
4/15/13	\$0	Rear-end	Dist
4/24/13	\$1,235	Backing	WS
5/30/13	\$397	Collision	Treat
6/25/13	\$143	Collision	WS
Cost FYTD	\$2,852		

### 2012/2013 Vehicle Crashes<sup>a</sup>

a- Vehicle Crash: an incident where an employee is driving any type of vehicle which collides with anything that causes damage to the vehicle or the object hit; or that results in medical expenses or bodily injury for anyone involved.

### Vehicle Crash Types 08/09 - 12/13

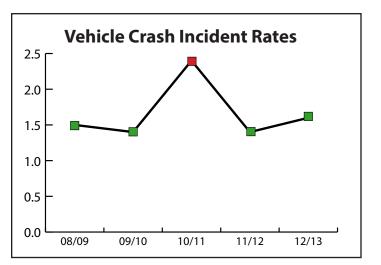


### **Vehicle Crash Incident Rates**

Fiscal Year	# of Miles Driven	# of Crashes	Incident Rateª	District Cost <sup>b</sup>
2008/2009	669,875	10	1.5	\$17,464
2009/2010	649,242	9	1.4	\$15,899
2010/2011	658,284	16	2.4	\$24,801
2011/2012	663,313	9	1.4	\$5,999
2012/2013	615,138	10	1.6	\$2,852

a- Total crashes x 100,000, divided by "# of miles driven."

b-Total cost for all repairs and medical expenses paid by JVWCD or its insurance carriers for all parties involved.



### **Vehicle Crash Incident Rates by Department**







# **Retail System Connections Information**

Retail service connections	2012/2013	2011/2012	2010/2011	2009/2010	2008/2009
Residential (single family or duplexes)	7,723	7,695	7,665	7,664	7,625
Large water users* ("900" accounts)	837	843	835	834	829
Active retail connections as of year end	8,560	8,538	8,500	8,498	8,454
Fire lines	260	240	240	240	235
TOTAL CONNECTIONS	8,820	8,778	8,740	8,738	8,689
Increase/decrease in active retail connections	42	38	02	49	10

\*Large water users include apartments and commercial & industrial businesses.

## Review of 2012/2013 Budget

	2012/2013	Preliminary Actual*	
Sources of funds	Budget	as of 6/30/2013	<u>% FYTD</u>
Wholesale water sales	\$30,744,410	\$34,347,763	112%
Retail water sales	4,888,351	5,485,624	112%
Tax revenue	13,617,738	13,547,624	99%
Interest income	618,833	681,236	110%
Misc. operating & non-operating revenue	1,242,500	1,014,656	82%
Connection/development fees	135,708	202,916	150%
Capital projects fund (gross)	18,841,261	14,118,067	75%
Total sources	\$70,088,801	\$69,397,886	99%
Uses of funds			
Water purchases	\$8,451,761	\$8,751,517	104%
Operation & maintenance expenses	7,330,942	7,003,902	96%
General & administrative expenses	3,453,310	3,049,944	88%
Personnel expenses	13,019,690	12,648,462	97%
Capital projects fund (gross)	18,841,261	14,118,067	75%
Total uses	\$51,096,964	\$45,571,892	89%
Net operating revenues	\$18,991,837	\$23,825,994	125%
Debt service payments	(14,846,637)	(15,040,471)	101%
Debt service coverage ratio	1.28	1.58	
Amount available to transfer to reserves Total from operations *Preliminary numbers pending audit.	\$4,145,200	\$8,785,523	212%

