

# SUMMARY *of Operations*

2011-2012



JORDAN VALLEY WATER  
CONSERVANCY DISTRICT

***Delivering Quality Every Day***

*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 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
- FY= Fiscal Year
- GWR= Groundwater Rule
- HAA= Haloacetic acid
- HPC= Heterotropic plate count
- JVWCD= Jordan Valley Water Conservancy District
- JVVWTP= Jordan Valley Water Treatment Plant
- M&I= Municipal and industrial
- MG= Million gallons
- MGD= Million gallons per day
- mg/L= Milligrams per liter
- MWD/MWDSLS= Metropolitan Water District of Salt Lake & Sandy
- NTU= Nephelometric turbidity units
- 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
- 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 11/12	FY 10/11	FY 09/10	FY 08/09
Jordanelle Reservoir (Central Utah Project) <sup>a</sup>	41,502	41,711	44,019	42,835
Deer Creek Reservoir (Provo River Project) <sup>b</sup>				
storage	12,140	3,477	7,410	7,061
extra allotment	11,634	5,903	4,360	5,931
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>	1,876	2,623	2,233	1,921
Echo Reservoir <sup>c</sup>	2,982	185	3,822	2,358
Provo River (direct flows)	3,897	8,620	3,482	9,693
Weber River (direct flows)	0	0	673	0
Local Wasatch streams	4,165	2,566	2,227	1,733
Bingham Canyon Water Treatment Plant <sup>d</sup>	3,620			
Groundwater (wells)	12,924	15,250	15,457	9,093
<b>Subtotal for M&amp;I</b>	<b>94,740</b>	<b>80,335</b>	<b>83,683</b>	<b>80,578</b>
<b>Irrigation water supplies</b>				
Jordanelle Reservoir (Central Utah Project) <sup>a</sup>	34	23	46	47
Deer Creek Reservoir (Provo River Project) <sup>b</sup>				
storage	3,706	6,062	5,812	0
extra allotment	1,785	301	3,201	599
leases & purchases	0	0	0	0
temporary Provo River storage	0	0	0	0
Upper Provo River reservoirs <sup>a</sup>	0	0	0	0
Echo Reservoir <sup>c</sup>	17	0	1,452	2,414
Provo River (direct flows; includes PR Aqueduct losses)	17,047	7,962	10,649	9,858
Weber River (direct flows)	0	0	0	0
Utah Lake	12,065	15,115	12,143	14,963
<b>Subtotal for irrigation</b>	<b>34,654</b>	<b>29,463</b>	<b>33,303</b>	<b>27,881</b>
<b>TOTAL ALL SUPPLIES</b>	<b>129,394</b>	<b>109,798</b>	<b>116,986</b>	<b>108,459</b>
<b>M&amp;I water treated or transported for other agencies</b>	<b>4,999</b>	<b>5,384</b>	<b>7,707</b>	<b>5,742</b>
<b>TOTAL ALL WATER</b>	<b>134,393</b>	<b>115,182</b>	<b>124,693</b>	<b>114,201</b>

a- Provo River sources

b- Weber, Duchesne and Provo River sources

c- Weber River sources

d- Treats southwest Salt Lake County groundwater

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 JWVTP and SERVTP.

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

## Water Deliveries

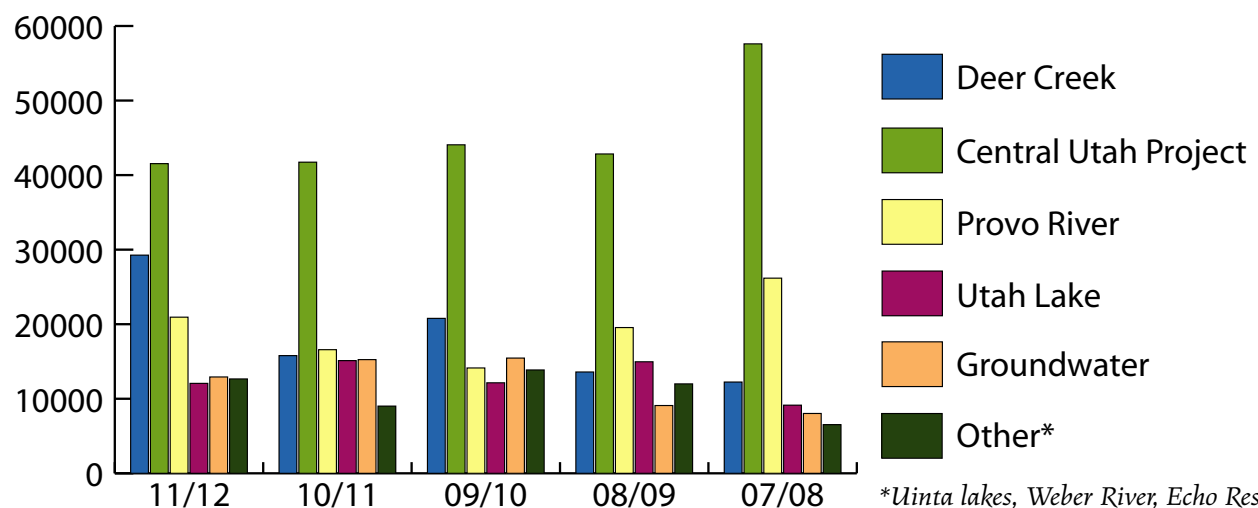
All deliveries in acre feet	FY 11/12	FY 10/11	FY 09/10	FY 08/09
Bluffdale City	1,780	1,615	1,435	1,410
Draper City	3,693	3,151	3,123	3,207
Granger-Hunter Improvement District	21,443	17,123	19,621	17,707
Herriman City	3,273	2,772	2,396	2,165
Hexcel Corporation	719	720	677	720
Kearns Improvement District	8,265	7,746	7,468	7,759
Magna Water Company	834	760	910	764
Midvale City	166	69	106	159
Riverton City	800	443	2,467	775
City of South Jordan	14,482	11,801	11,661	11,327
City of South Salt Lake	1,262	1,069	626	804
Taylorsville-Bennion Improvement District	5,300	4,554	5,030	5,005
Utah State Department of Corrections	598	641	452	577
WaterPro, Inc.	1,382	1,009	981	1,140
West Jordan City	18,226	16,119	16,314	16,419
White City Water Improvement District	0	0	0	0
Willow Creek Country Club	391	309	294	290
<b>TOTAL WHOLESALE</b>	<b>82,614</b>	<b>69,943</b>	<b>73,642</b>	<b>70,543</b>
Jordan Valley WCD retail area (Holladay, Murray, Sandy, South Salt Lake & unincorporated county)	9,465	8,716	8,463	8,984
JVWCD use <sup>a</sup>	553	472	493	472
JVWCD treatment plant losses <sup>b</sup>	2,108	1,204	1,085	579
<b>SUBTOTAL FOR DELIVERIES, USE &amp; LOSS</b>	<b>94,740</b>	<b>80,335</b>	<b>83,683</b>	<b>80,578</b>
<b>Irrigation &amp; raw water delivered</b>				
Utah State Department of Public Safety	10	8	6	9
Staker & Parson Companies	34	43	48	47
Welby-Jacob Water Users Company	34,610	28,508	28,873	25,430
PRWUA canal losses	0	904	4,376	2,395
<b>SUBTOTAL FOR IRRIGATION &amp; RAW WATER</b>	<b>34,654</b>	<b>29,463</b>	<b>33,303</b>	<b>27,881</b>
<b>TOTAL DELIVERED WATER</b>	<b>129,394</b>	<b>109,798</b>	<b>116,986</b>	<b>108,459</b>
<b>M&amp;I water treated or transported</b>				
Metropolitan Water District of Salt Lake & Sandy <sup>c</sup>	4,967	5,379	7,706	5,595
Taylorsville-Bennion Improvement District	23	2	1	106
West Jordan City	9	2	0	41
<b>SUBTOTAL FOR TREATED OR TRANSPORTED WATER</b>	<b>4,999</b>	<b>5,384</b>	<b>7,707</b>	<b>5,742</b>
<b>TOTAL WATER DELIVERED, TREATED OR TRANSPORTED</b>	<b>134,393</b>	<b>115,182</b>	<b>124,693</b>	<b>114,201</b>

# WATER SUPPLY/WATER QUALITY

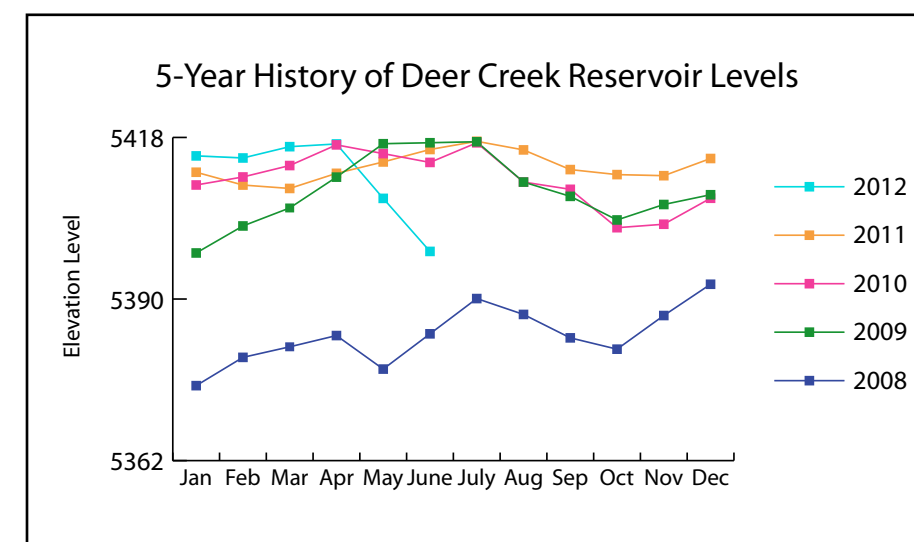
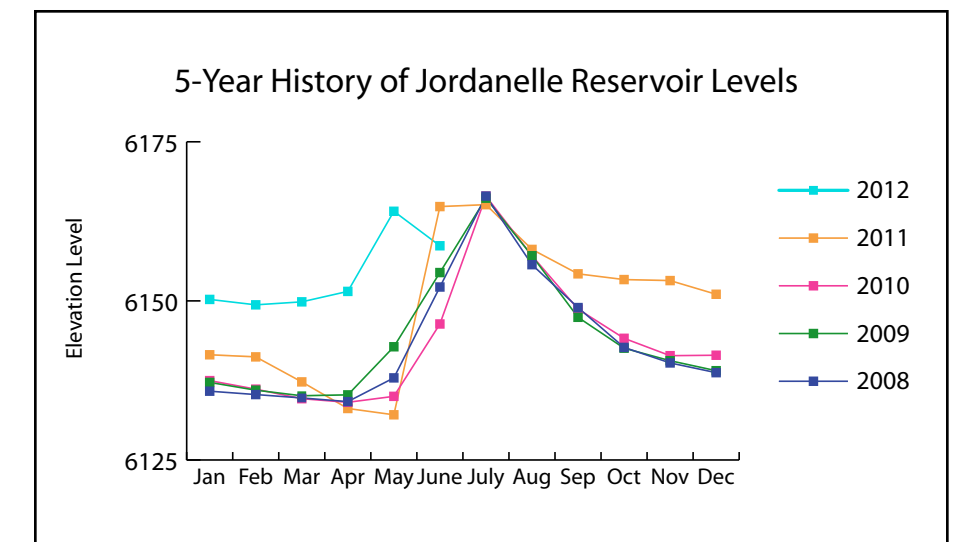
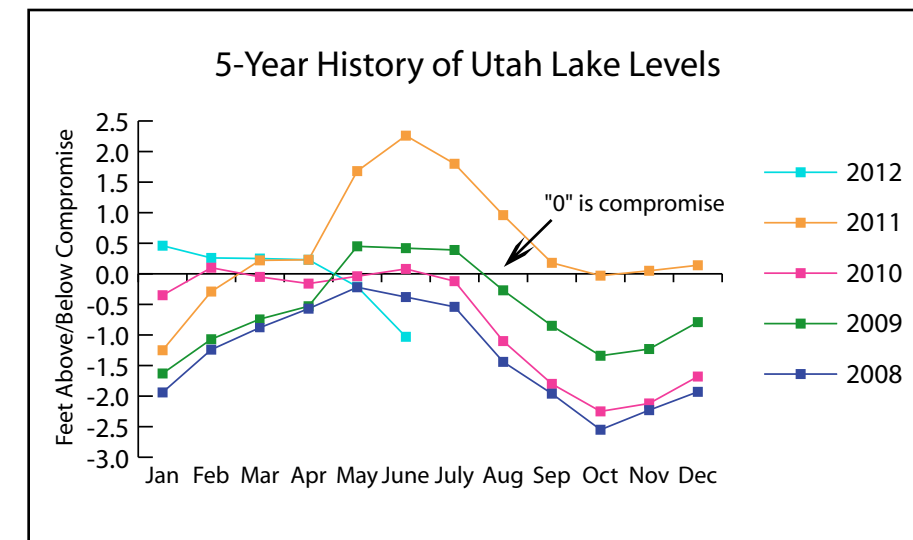
## 5-Year History of Water Source Supplies

	11/12	10/11	09/10	08/09	07/08
Deer Creek Reservoir					
Storage	15,846	9,581	13,222	7,061	9,287
Extra allotment	13,419	6,204	7,561	6,530	2,955
Leases and purchases	0	0	0	0	0
Temporary Provo River storage	0	0	0	0	0
Subtotals:	29,265	15,785	20,783	13,591	12,242
Central Utah Project	41,536	41,734	44,065	42,835	57,603
MWD surplus (Little Cottnwd Crk)	0	0	0	0	0
Provo River	20,944	16,582	14,131	19,551	26,177
Uinta lakes	1,876	2,623	2,233	1,921	1,550
Weber River	0	0	673	0	0
Echo Reservoir	2,999	185	5,274	4,772	483
Utah Lake	12,065	15,115	12,143	14,963	9,141
Groundwater	12,924	15,250	15,457	9,093	8,027
Bingham Cyn Water Trt Plant	3,620	3,641	3,457	3,571	3,266
Wasatch mountain streams	4,165	2,566	2,227	1,733	1,226
TOTALS: <sup>a</sup>	125,774	109,840	116,986	108,459	113,980

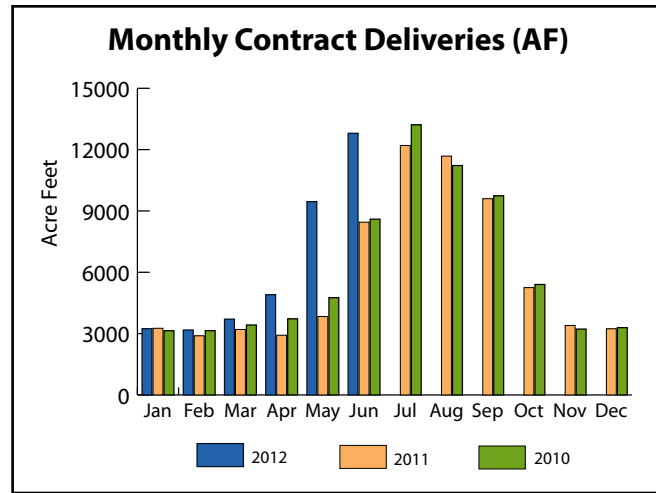
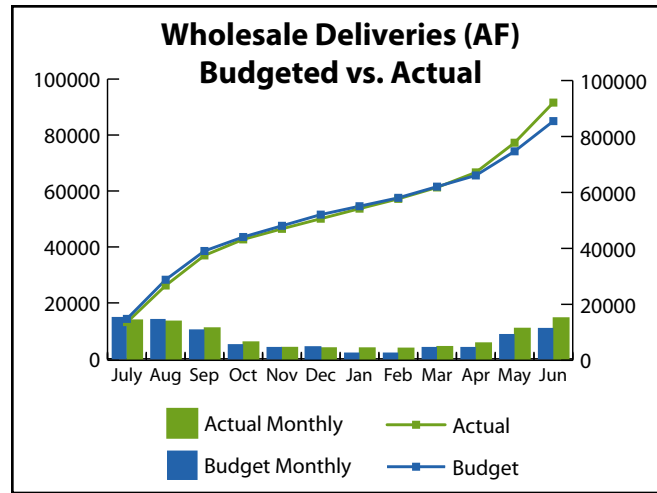
a) Does not include transported water as shown on previous page



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

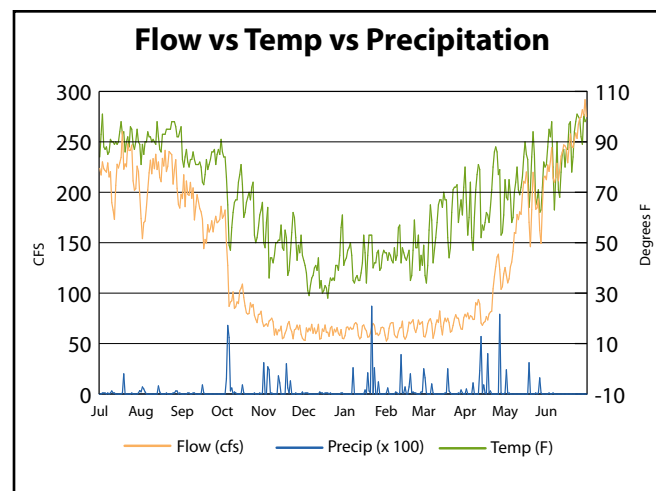
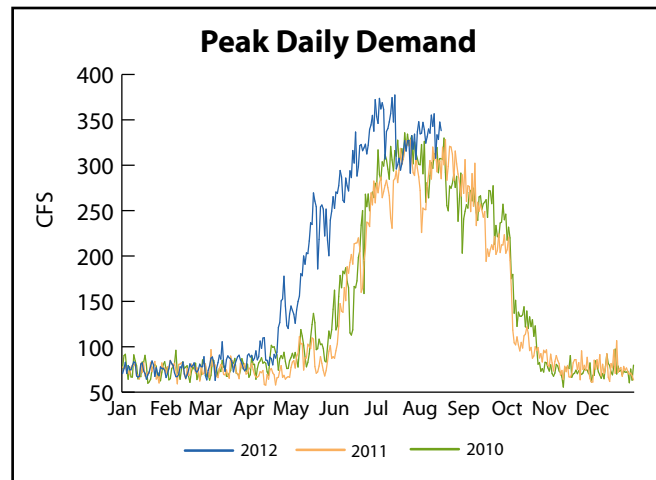
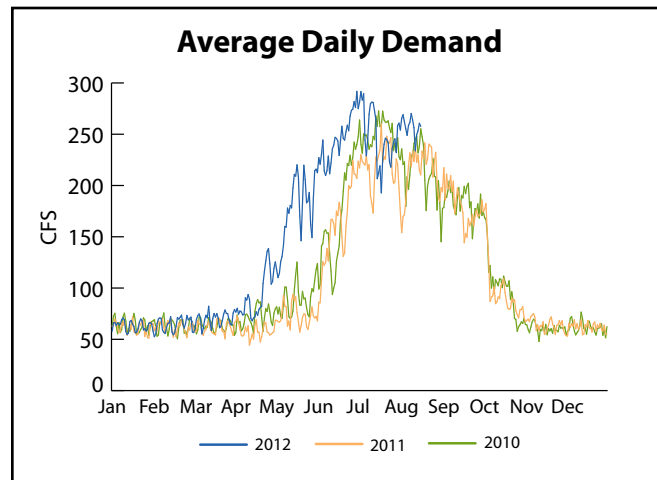


# WATER SUPPLY/WATER QUALITY



Contract deliveries are made to Jordan Valley Water's 17 wholesale member agencies. It is estimated that May and June are higher than previous years because of dry weather conditions.

## Daily System Demands (Calendar Year)



## Treatment General Information

	JVWTP	SERWTP	SWGWTP	TOTALS
	11/12	11/12	11/12	11/12
<u>General information</u>				
Rated capacity (in MGD)	180	20	7	207
Maximum daily effluent flow (in MGD)	157	18	N/A	175
Average daily flow during operation (in MGD)	76	11	N/A	87
Percent of fiscal year in operation	77	82	0	
<u>Plant production in acre-feet</u>				
Total flow into plant	69,587	9,820	N/A	79,407
Plant use & loss	(1,960)	(148)	N/A	(2,108)
Total treated water to distribution or injected	67,627	9,672	N/A	77,299
Combined total treated water to system (acre-feet):				77,299

### Direct Treatment O&M costs

Personnel	\$1,256,998 <sup>a</sup>	\$484,643	\$106,423	\$1,848,064
Chemicals	\$1,011,368	\$220,262	\$4,417	\$1,236,047
Utilities	\$224,044	\$131,407	\$46,034	\$401,485
Other	\$497,233	\$194,488	\$36,707	\$728,428
Total treatment expenses	\$2,989,643	\$1,030,800	\$193,581	\$4,214,024

Treatment O&M cost per acre-foot

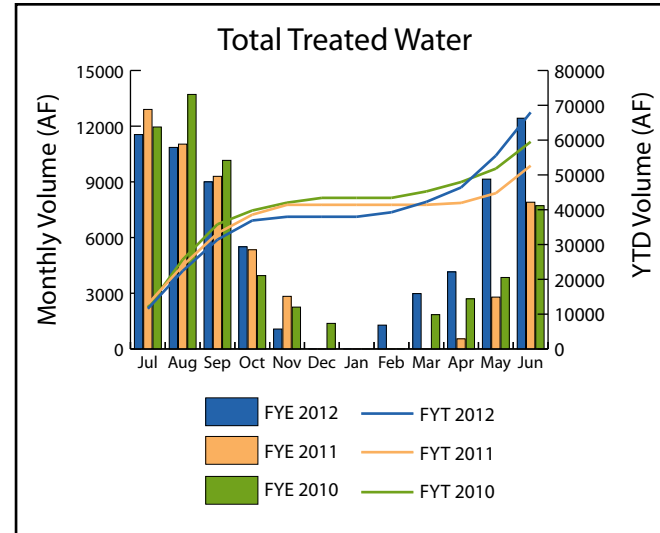
\$44.21      \$106.58

a) Personnel costs for JVWTP include operators, treatment admin, lab, compliance and maintenance staff.

# WATER SUPPLY/WATER QUALITY

## 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.

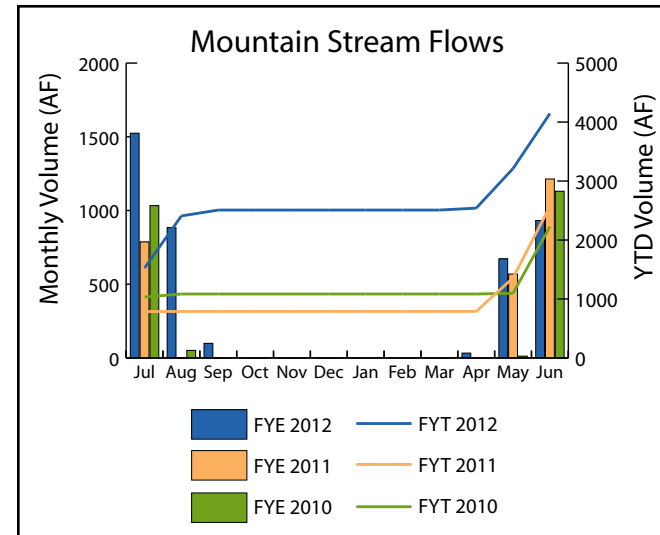
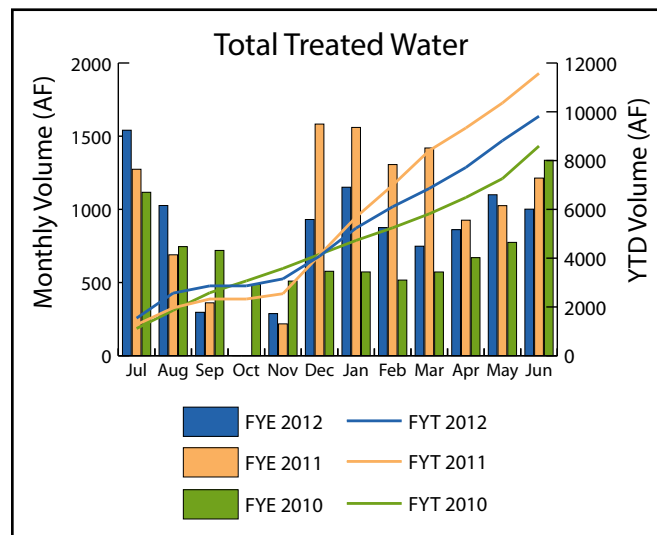


Gaps in graph data indicate the plant was off-line.

## Southeast Regional Water Treatment Plant

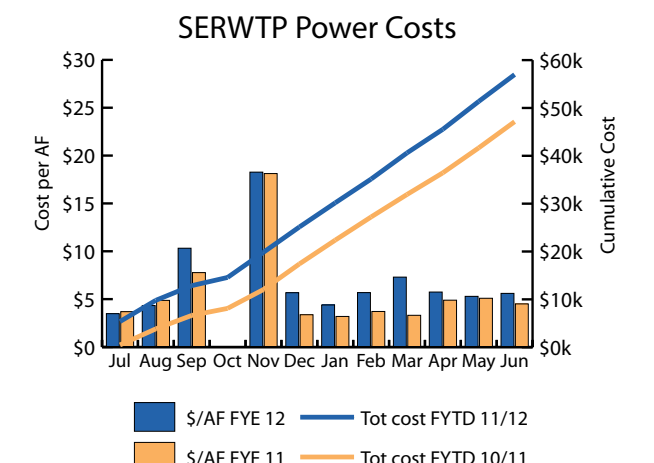
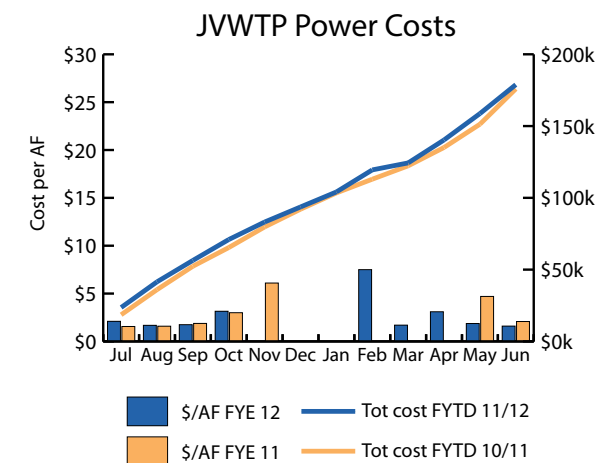
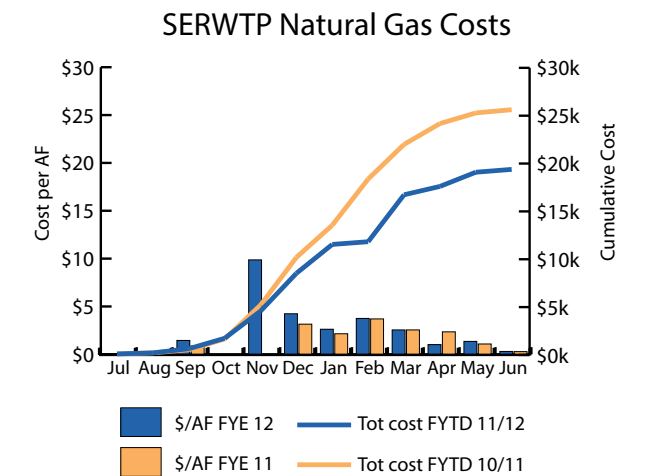
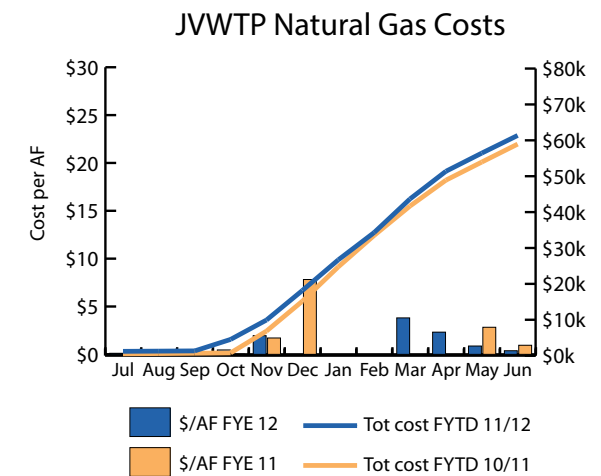
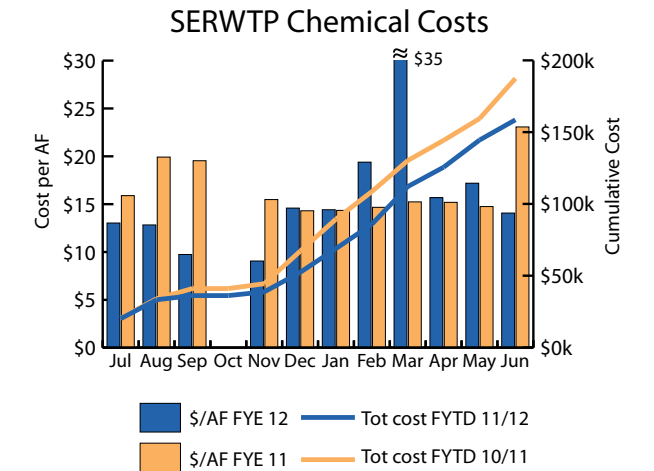
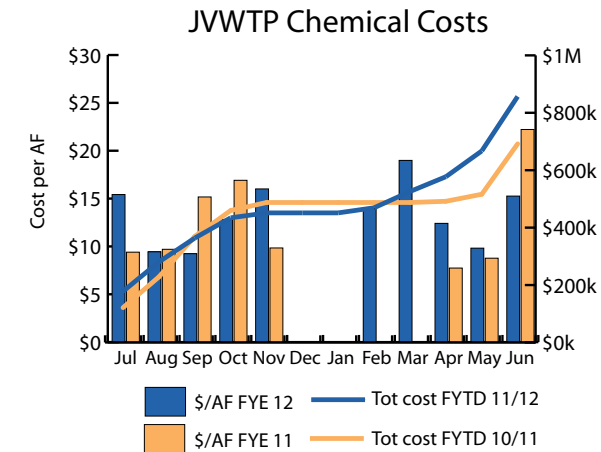
With a rated capacity of 20 MGD, SERWTP uses a unique process of high rate clarification to quickly settle suspended solids. The source water for the treatment plant is obtained from multiple sources. A portion of the water is conveyed through the Salt Lake Aqueduct, with the intake located at the base

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.

## Treatment Costs

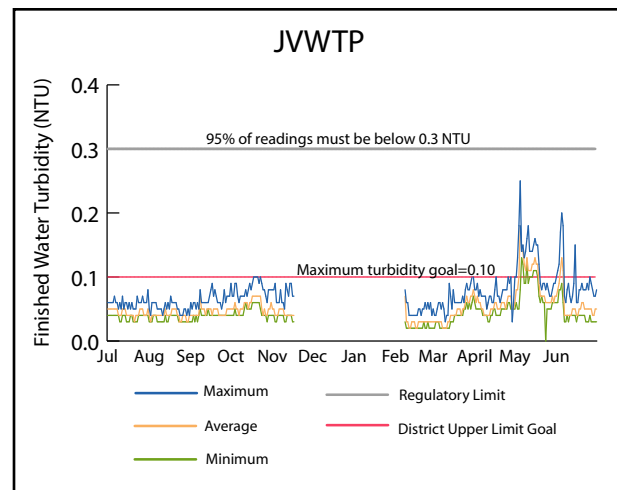


# WATER SUPPLY/WATER QUALITY

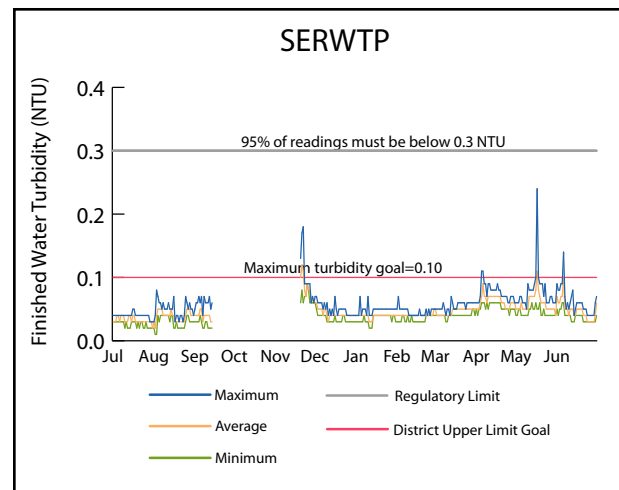
## Turbidity

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

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



Avg finished water turbidity for the year: 0.05 NTU  
 Maximum finished water turbidity: 0.25 NTU  
 Goal achieved for the year: 91.9%  
 Best record for days in operation under 0.10 NTU: 432  
 Days of operation below 0.10 NTU: 16

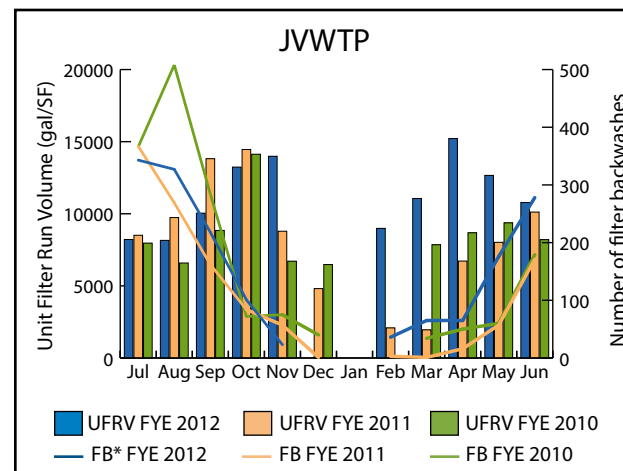


Avg finished water turbidity for the year: 0.05 NTU  
 Maximum finished water turbidity: 0.24 NTU  
 Goal achieved for the year: 98%  
 Best record for days in operation under 0.10 NTU: 732  
 Days of operation below 0.10 NTU: 359

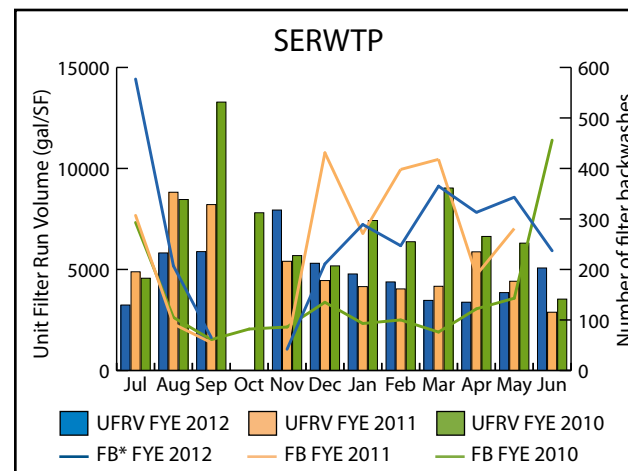
## Filter Performance

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

JWVTP 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: 11,235 gal/sf \*FB=filter backwashes  
 FYE 2011 average UFRV: 8,093 gal/sf  
 FYE 2010 average UFRV: 8,483 gal/sf

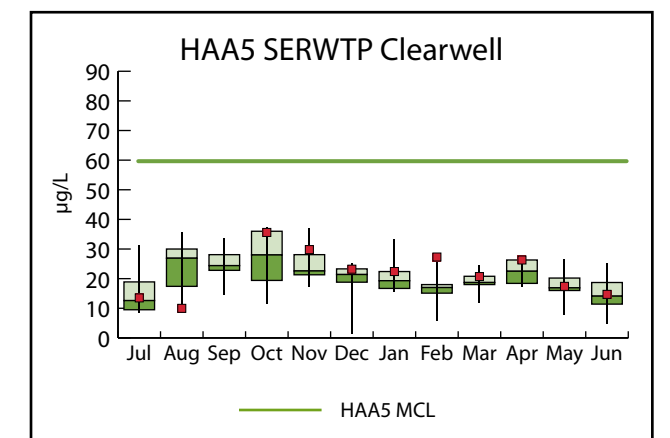
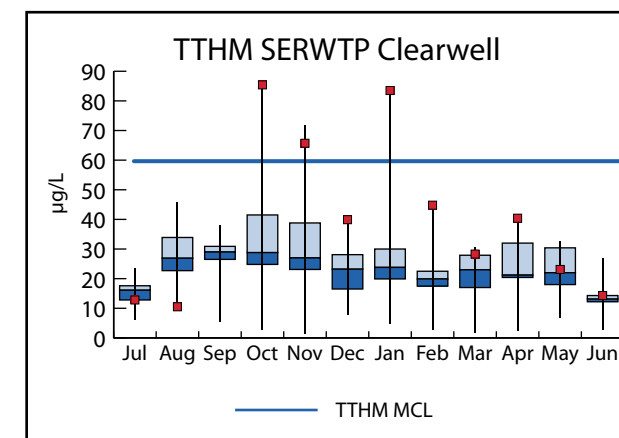
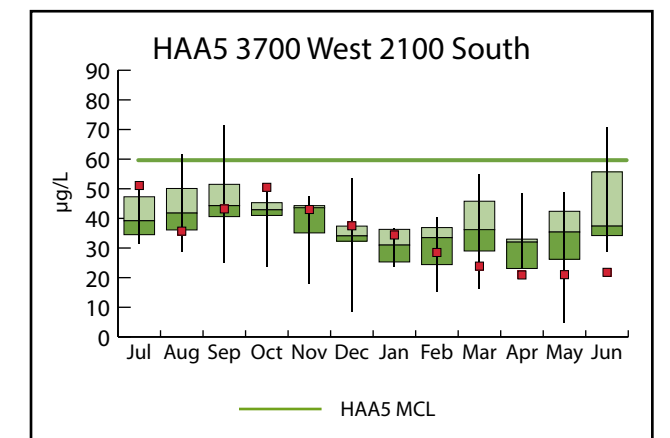
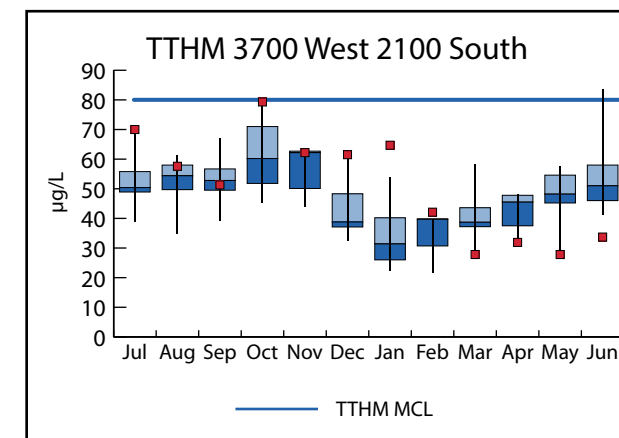
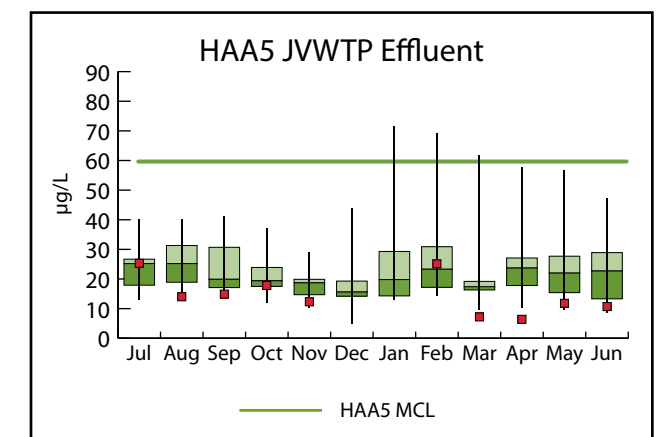
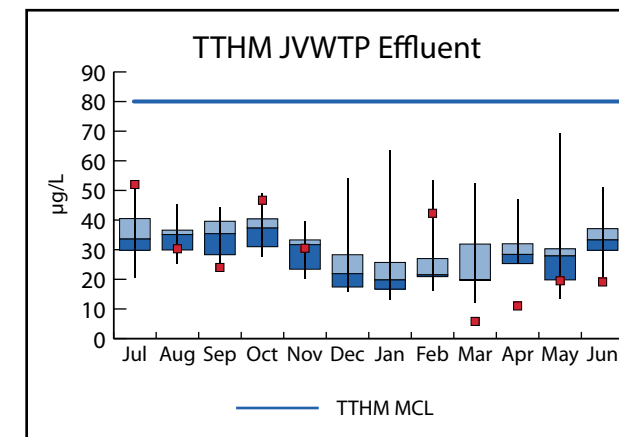
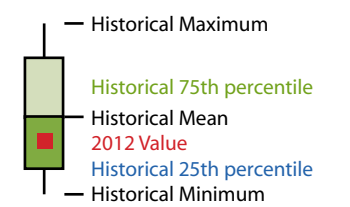


FYE 2012 average UFRV: 4,829 gal/sf \*FB=filter backwashes  
 FYE 2011 average UFRV: 5,209 gal/sf  
 FYE 2010 average UFRV: 7,023 gal/sf

## Disinfection By-product (DBP) Formation

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 JWVTP 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.



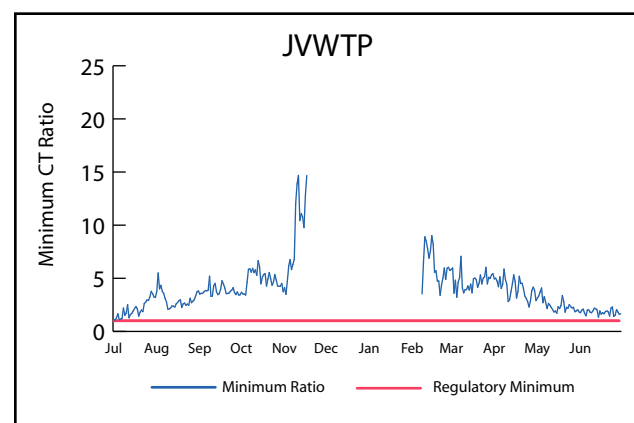
# WATER SUPPLY/WATER QUALITY

## Chlorine Disinfection

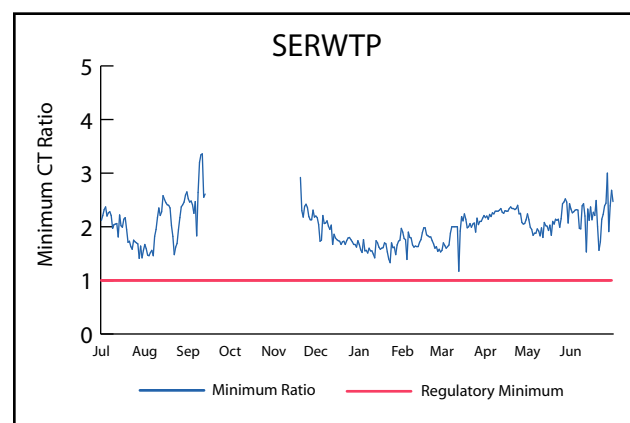
Concentration x time (CT) is a measure of disinfection effectiveness which varies with water temperature, pH and disinfectant. Current regulations require sufficient CT to achieve 99.9 percent inactivation of Giardia and 99.99 percent inactivation of viruses. Compliance is determined by

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.

### Minimum CT Ratio

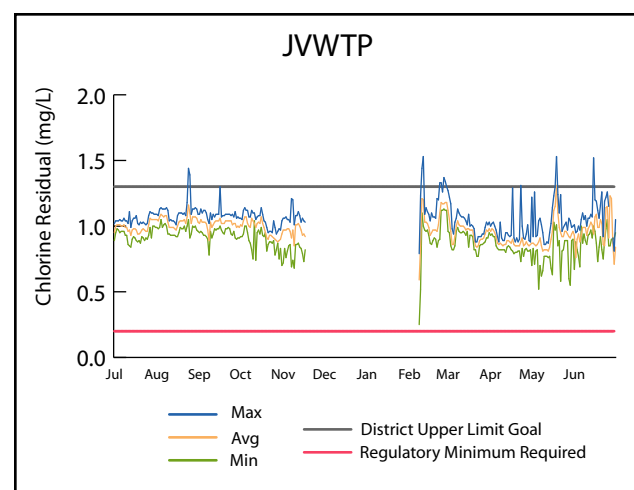


Average CT ratio for the year: 3.91 mg/L  
Minimum CT ratio for the year: 1.05 mg/L

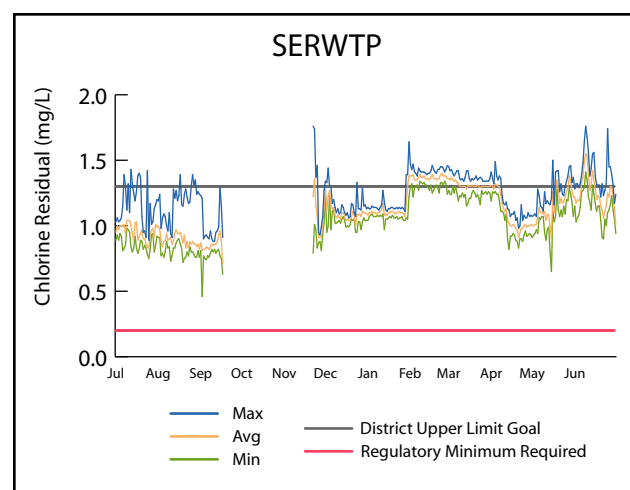


Average CT ratio for the year: 2.01 mg/L  
Minimum CT ratio for the year: 1.17 mg/L

## Chlorine Residual



Average residual for the year: 0.98 mg/L  
Maximum residual: 1.53 mg/L  
Minimum residual: 0.25 mg/L  
Goal achieved for the year: 95%



Average residual for the year: 1.11 mg/L  
Maximum residual: 1.81 mg/L  
Minimum residual: 0.57 mg/L  
Goal achieved for the year: 99%

## Total Coliform Rule & Chlorine Residuals

The Safe Drinking Water Act requires that no more than 5 percent of all samples collected and analyzed in any month may be positive for total coliform, or that no more than one sample be positive when 40 or fewer samples are collected each month. A detectable chlorine residual is required in all distribution systems that provide treated water from a

surface water source or a groundwater source under the direct influence of a surface water source. A 0.2 mg/L chlorine residual is also required at the entry point into the distribution system. Systems without a detectable residual but with heterotrophic plate counts lower than 500 cfu/ml are considered adequately protected.

Month	Samples analyzed*	% Samples total coliform positive	# Samples fecal coliform positive	# HPC Samples Taken	#GWR Samples Taken	Free Chlorine Residual		
						Minimum (mg/L)	Average (mg/L)	Maximum (mg/L)
July	101	0	0	4	16	0.02	0.77	1.33
August	111	1	0	1	35	0.02	0.75	1.37
September	94	0	0	0	23	0.11	0.66	1.30
October	88	0	0	0	5	0.07	0.63	1.21
November	81	0	0	3	36	0.00	0.49	1.15
December	87	0	0	0	32	0.15	0.62	1.31
January	88	0	0	2	27	0.03	0.65	1.39
February	99	0	0	0	20	0.22	0.76	1.35
March	106	0	0	1	5	0.03	0.84	1.46
April	110	0	0	0	4	0.34	0.87	1.37
May	116	1	0	0	8	0.14	0.76	1.29
June	112	0	0	2	15	0.01	0.75	1.20
<b>Totals</b>	<b>1193</b>	<b>2</b>	<b>0</b>	<b>13</b>	<b>226</b>			

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

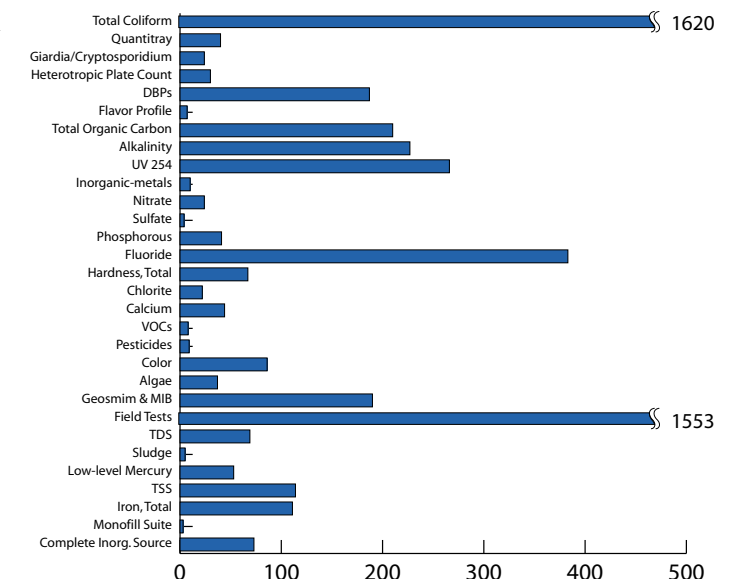
## Total Samples Collected

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. Federal and State Rules and Regulations have been established with public health as the primary objective.

**Total samples collected for FYE 2012: 5,329**

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.
- Sampling Sites = JWWTW, SERWTP, Distribution System, Murdock Canal, mountain streams, Jordan and Provo rivers, and various sites in response to customer calls.





## Fluoride

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	AVG
On-line Analyzers	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L	AVG mg/L
JVWTP	0.61	0.59	0.66	0.68	0.61	*	*	0.81	0.71	0.66	0.75	0.75	
SERWTP	0.75	0.74	0.74	ANW	0.69	0.79	0.77	0.74	0.76	0.68	0.68	0.69	
1145 E. Webster Dr. Well	*	*	*	*	*	*	*	*	*	*	*	*	
1453 E. 9400 S. Well	*	*	*	*	*	*	*	*	*	*	*	*	
1500 E. 8600 S. Well	<b>0.76</b>	<b>0.70</b>	<b>0.53</b>	<b>0.63</b>	<b>0.77</b>	<b>0.84</b>	<b>0.80</b>	<b>0.72</b>	<b>0.53</b>	<b>0.60</b>	<b>0.62</b>	<b>0.60</b>	
1850 E. Newbury Dr. Well	*	*	*	*	0.60	*	*	*	*	*	*	*	
Well Field Collection Station	<b>0.75</b>	<b>0.66</b>	<b>0.52</b>	0.54	0.65	0.65	0.61	0.62	0.37	<b>0.61</b>	<b>0.62</b>	<b>0.55</b>	
275 E. Carol Way Well	*	*	*	*	*	*	*	*	*	*	*	*	
1028 E. College St. Well	*	*	*	*	*	*	*	*	*	*	*	*	
4670 S. 1590 E. Well	*	*	*	*	*	*	*	*	*	*	*	*	
1364 E. 6400 S. Well	0.82	0.90	0.80	*	0.82	0.87	0.90	0.82	*	*	0.79	0.76	
8574 S. Monitor Dr. Well	*	*	*	*	0.99	0.79	0.84	0.91	*	*	*	*	
1330 E. 8200 S. Well	*	*	*	*	*	*	*	*	*	*	*	*	
1300 E. 7000 S. Well	<b>0.79</b>	<b>0.73</b>	<b>0.69</b>	<b>0.59</b>	<b>0.65</b>	<b>0.50</b>	<b>0.44</b>	<b>0.49</b>	<b>0.42</b>	<b>0.40</b>	<b>0.69</b>	<b>0.73</b>	
9390 S. Solena Way Well	*	*	*	*	*	*	*	*	*	*	*	*	
1100 E. 4500 S. Well	0.64	0.70	*	*	*	*	*	*	*	*	*	*	
10730 S. 1300 E. Pump Sta.	0.75	0.72	0.77	0.70	0.73	0.84	0.84	0.82	0.53	0.42	0.63	0.62	
250 E. 11400 S.	0.93	0.77	0.67	0.74	0.72	0.66	0.77	0.79	0.54	0.86	0.75	0.74	
1200 E. 9400 S.	0.73	0.71	0.69	0.64	0.72	0.78	0.77	0.83	0.57	0.59	0.67	0.67	
8200 S. 1300 E.	0.72	0.67	0.62	0.65	0.64	0.75	0.80	0.80	0.52	0.64	0.65	0.64	
300 E. 4500 S.	0.69	0.64	0.60	0.60	0.51	0.49	0.48	0.49	0.64	0.71	0.72	0.68	
9000 S. on JA-2	0.71	0.68	0.83	0.73	0.67	ANW	0.58	0.90	0.76	0.69	0.75	0.76	
Terminal Reservoir	0.73	0.70	0.67	ANW	ANW	ANW	0.40	ANW	ANW	ANW	0.72	0.71	
3200 W. 6200 S.	0.75	0.74	0.65	0.66	0.68	0.65	0.73	0.66	0.72	0.69	ANW	0.74	
Pony Express Vault	0.67	0.67	ANW	0.61	0.60	0.59	0.68	0.76	0.81	0.82	0.68	0.81	
<b>Grab Samples</b>													
2310 Alta Canyon Dr.	0.86	0.76	0.50	0.66	0.92	0.75	0.62	0.77	0.55	0.54	0.58	0.60	
2640 Wren Road	0.72	0.63	0.60	0.60	0.59	0.59	0.67	0.71	0.72	0.73	0.65	0.68	
1348 E. 5360 S.	0.90	0.84	0.56	0.54	0.69	0.68	0.79	0.52	0.41	0.42	0.72	0.70	
6565 S. 1300 W.	0.87	0.56	0.47	0.54	0.71	0.74	0.74	0.72	0.46	0.50	0.75	0.63	
<b>Monthly System Avg</b>	<b>0.76</b>	<b>0.71</b>	<b>0.64</b>	<b>0.63</b>	<b>0.70</b>	<b>0.70</b>	<b>0.69</b>	<b>0.73</b>	<b>0.59</b>	<b>0.62</b>	<b>0.69</b>	<b>0.69</b>	
<b>YTD Combined System AVG</b>													

**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

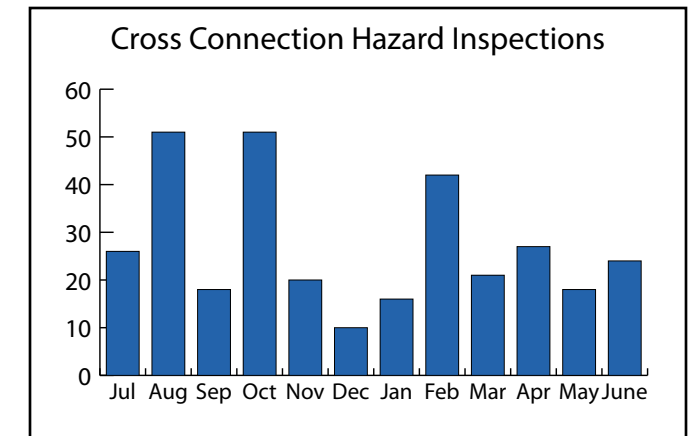
ANW = Analyser Not Working

## Cross Connection Hazard Surveys Completed

Our Cross Connection Control Specialist routinely performs inspections at all non-residential retail customers and Jordan Valley Water facilities. The purposes of these inspections are to identify and prevent potential hazards of cross connections and provide advice on backflow prevention. We also monitor

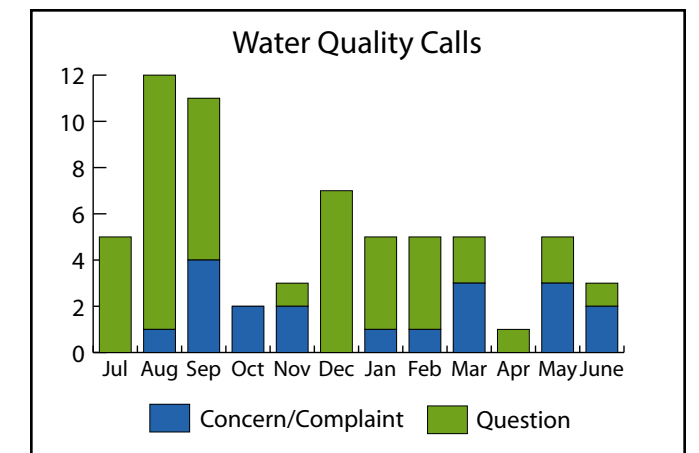
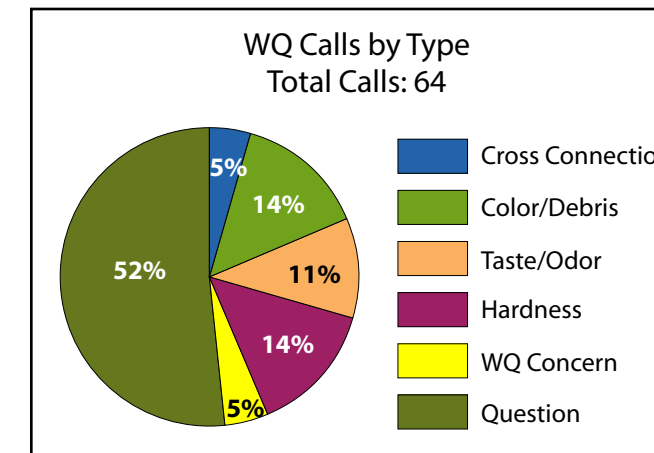
backflow reports from all non-residential customers and conducts backflow assembly tests for all Jordan Valley Water facilities. Staff strives to optimize the frequency of inspections and provide public education, to enhance the program.

Annual Inspection Schedule		
Facility Type	# of Locations	Frequency
Jordan Valley Water facilities	67	1-5 years
Water treatment plants	2	
Well houses	35	
Pump stations	13	
Reservoirs	17	
Backflow assemblies tested	67	Annually
Commercial & Non-residential	1626	1-5 years
Actions Completed FYTD		
Inspections completed	324	
Backflow test reports received	534	



## Water Quality Calls

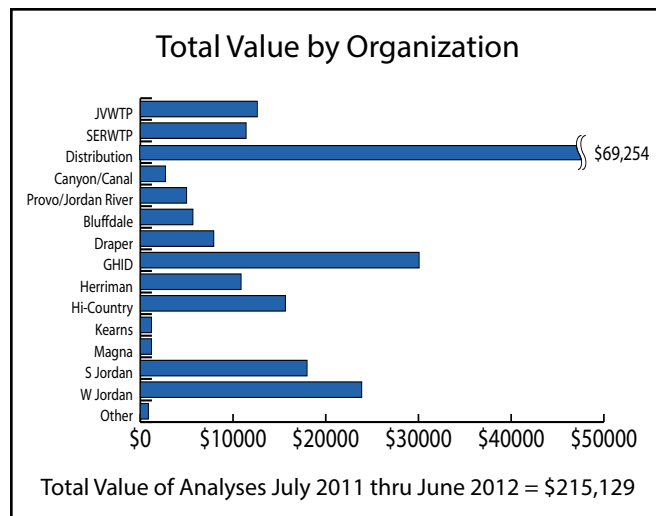
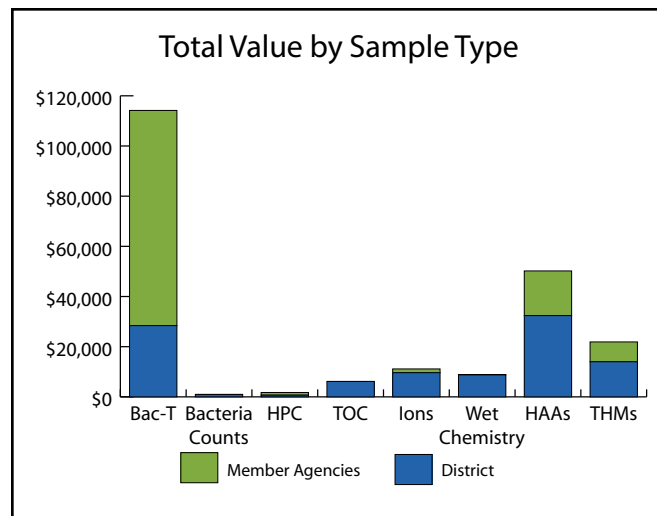
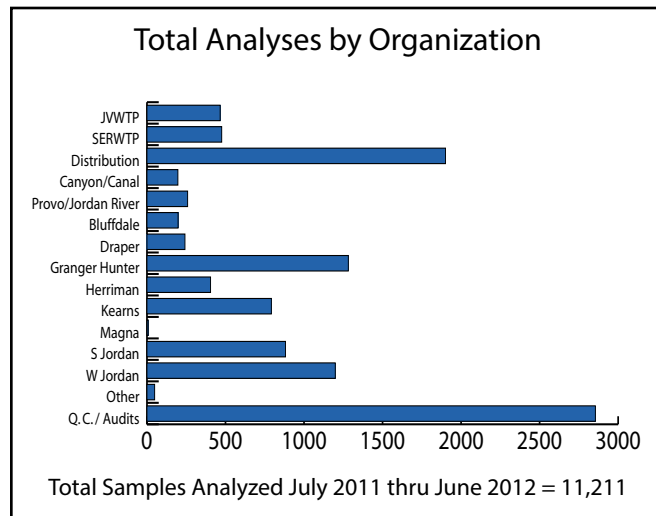
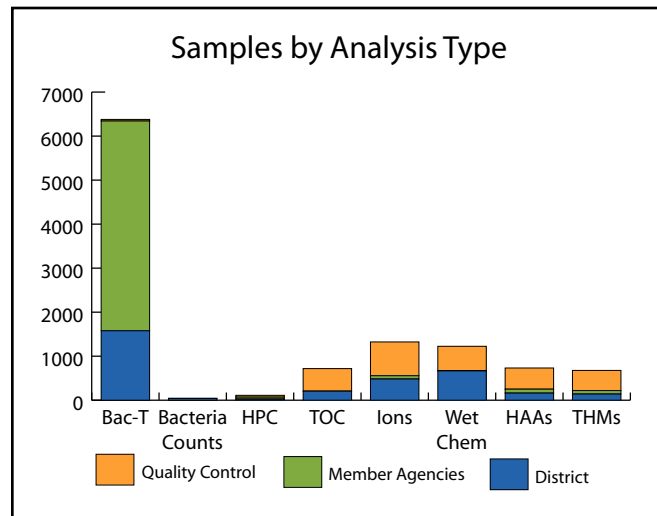
The public perceives water quality as the look, taste and feel of the water. The experience a resident receives when he calls in with a concern, question or complaint about the water determines Jordan Valley Water's credibility in the community. The Water Quality team makes it a priority to personally talk with each customer that calls in. 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.



## 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

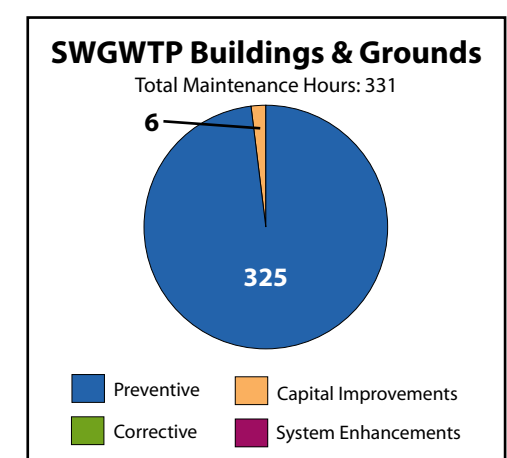
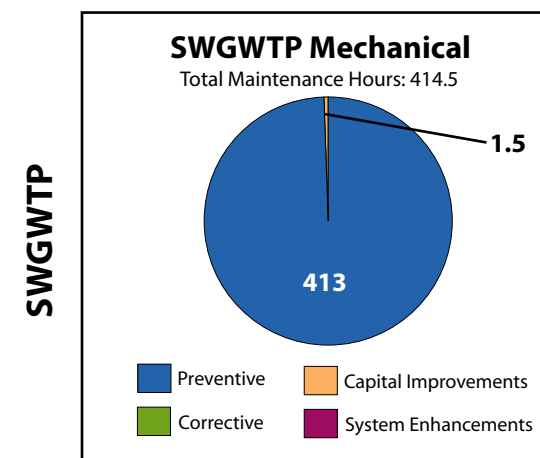
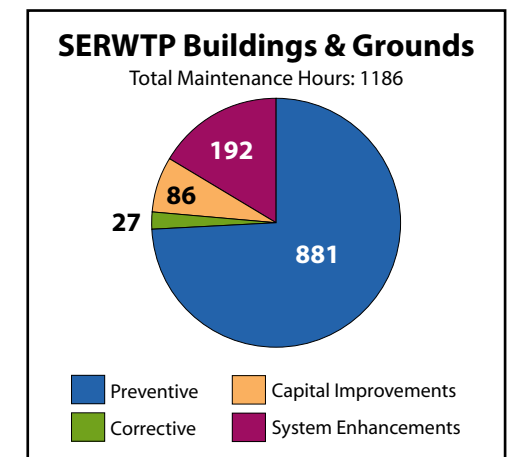
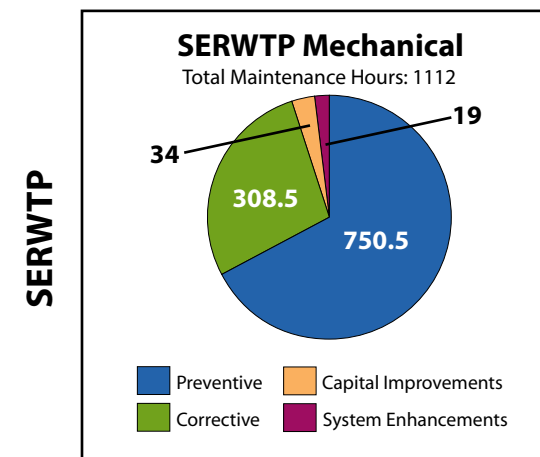
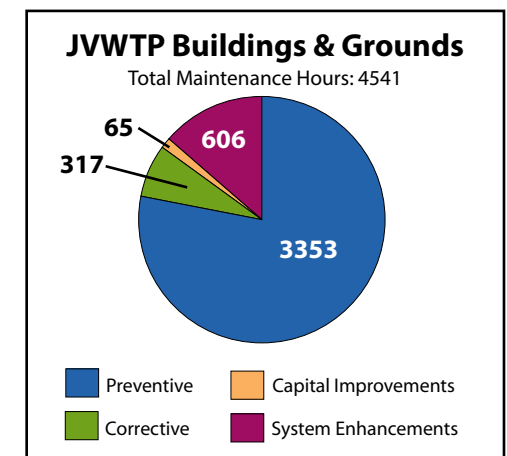
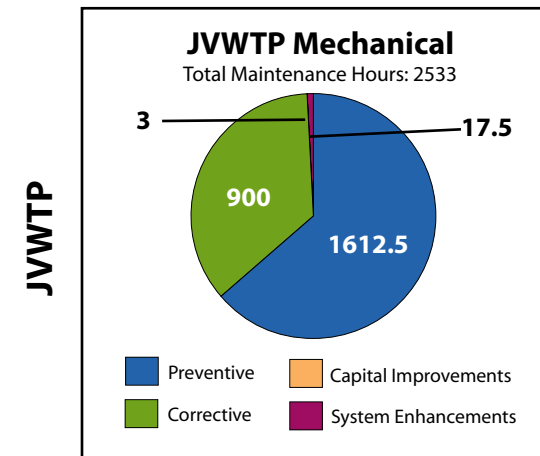
to run every test required for Jordan Valley Water's various monitoring programs, it does maintain certification for the analyses that represent the largest load. The JV Lab also provides analytical services for many of Jordan Valley Water's Member Agencies at discounted prices.



## 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



## Conservation Garden Park

Phases 2 and 3 of the Conservation Garden Park Expansion Project are largely complete. Phase 2 included a new entrance and parking lot as well as a bridge across the creek near the entrance. Phase 3 is the Education Center which unofficially opened in 2012. The official opening will occur in summer 2013 when the classrooms are no longer occupied by Jordan Valley Water administrative staff. The building is designed to LEED Platinum standards which is the highest level of 'green' building currently obtainable. The building includes interactive exhibits, office space and classrooms. Plans are under-way 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 2011, nearly 20,000 walked its paths.

## Community Outreach

Throughout 2012, 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 first annual Plant Sale held in June 2012, and to launch the new Jordan Valley Home & Garden Club, which meets monthly in the Education Center.

## Fundraising Efforts

The 2011-2012 fiscal year included the ongoing capital campaign for unfinished garden exhibits and Education Center interpretive elements. Fundraising efforts yielded:

FY 2010 - 2011		
Type	Donor	Total Amount
CASH	Multiple	\$ 133,572
IN=KIND	Multiple	\$ 28,260

## 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 will be tested and certified by UNLA and a network of partners will work to promote QWEL certified landscapers to the general public.

## 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 project, including costs and anticipated potential water savings to be achieved as a result of their project. The four agencies listed below completed projects in 2012. Kearns Improvement District also offered a toilet replacement program using Jordan Valley grant funds from the Division of Drinking Water.

Granger Hunter Improvement District  
 South Jordan City  
 City of South Salt Lake  
 WaterPro

Examples of projects include a toilet replacement program, "smart" controller rebates, public education programs and irrigation system upgrades for public parks. As in years past, Jordan Valley will continue to require ongoing reporting and water use tracking.

## Waterwise Landscaping Classes

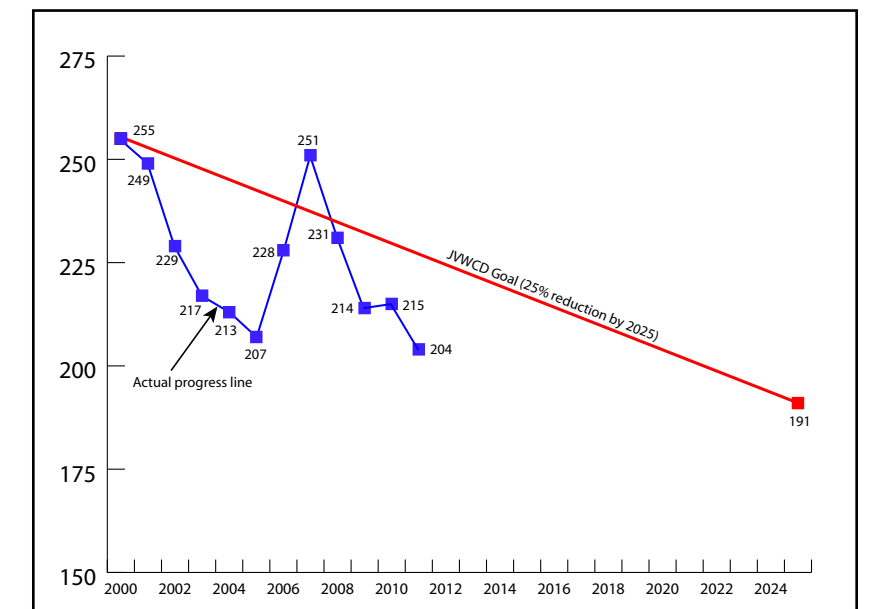
Each year Jordan Valley Water hosts a series of landscape classes centered on water efficient landscape principles. These classes are generally free to the public and the topics are geared toward home owners. The schedule is available on the web at [www.SlowTheFlow.org](http://www.SlowTheFlow.org), the Garden Park web site ([www.ConservationGardenPark.org](http://www.ConservationGardenPark.org)), and the Now Playing Utah website ([www.NowPlayingUtah.com](http://www.NowPlayingUtah.com)). Class schedules were distributed as a bill insert to a large portion of Jordan Valley's service area. Examples of 2012 class topics include drip irrigation, landscape design, pruning, maintenance, and plant selection. 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 the Waterwise Landscaping Classes as of June 30:

Year	Number of Classes	Avg # of Participants	Total Participants
2005	13	28	369
2006	14	29	411
2007	21	23	474
2008	18	29	518
2009	23	22	501
2010	20	19	377
2011	14	47	651
2012	19	42	803
<b>Total classes (since 2004):</b>	<b>147</b>	<b>29</b>	<b>4,271</b>

## Long-Term Water Conservation Goal

Jordan Valley Water Conservancy District has a long term goal to decrease per capita water usage 25% by 2025. Continued progress toward that goal was made in 2011-2012 as water usage dropped from an average of 215 gallons per day per person to 204 gallons per day per person.



## Well Summary

	Location	Well Capacity (cfs)	Avg Production (cfs)	Days of Operation	Annual Production (AF)	Total Power Cost	Average Cost/AF	Water Level (feet above pump)		
								Max	Min	Avg
1	2500 E. Creek Rd	5.35	2.96	323.30	1,990.80	\$86,882.58	\$43.64	87	59	69
2	1787 E. Creek Rd	5.01				\$2,183.51		159	159	159
3	7751 S. 1300 East	4.01	2.66	26.50	140.30	\$11,473.83	\$81.78	153	133	144
4	7750 S. 1000 East	3.11	2.38	6.00	28.40	\$18,175.66	\$639.99	218	128	182
5	8200 S. 1000 East	2.01				\$1,140.96		183	164	175
6	7700 S. 700 East	5.57	4.07	74.00	586.80	\$37,657.31	\$64.17	213	162	193
7	8201 S. 700 East	2.23	1.92	31.70	127.90	\$13,657.24	\$106.78	247	184	221
8	1200 E. 9400 South	1.78				\$1,799.77		172	152	165
9	1364 E. 6400 South	6.00	3.94	231.30	1,724.90	\$75,346.26	\$43.68	224	170	195
10	8651 S. 1300 East	4.00				\$149.96		174	174	174
11	8184 S. 1330 East	7.00	4.10	32.00	260.70	\$16,909.12	\$64.86	227	185	215
12	1307 E. 6860 South	4.70				\$1,234.78		181	181	181
13	9125 S. 500 West	2.01				\$899.13		97	97	97
14	2090 E. 8600 South	2.45				\$2,039.44		137	136	137
15	1500 E. 9400 South	9.50				\$1,587.86		168	155	162
16	1530 W. 14600 South	4.46				\$1,672.99		144	139	143
17	300 E. 4500 South	0.70				\$1,026.35		200	200	200
18	9390 Solena Way	4.80				\$960.21		123	119	121
19	2300 E. 9800 South	4.12	3.17	1.00	6.30	\$9,563.51	\$1,518.02	157	137	154
20	1155 E. Webster Dr.	6.50	8.93	1.80	31.10	\$30,724.61	\$987.93	176	152	170
21	9003 S. Quail Hollow	2.20	2.38	129.00	609.90	\$48,916.23	\$80.20	199	127	168
22	1600 E. Siesta Drive	9.60	9.02	100.80	1,778.20	\$86,583.54	\$48.69	214	172	190
23	1526 E. 8600 South	8.50	8.47	1.90	32.70	\$16,960.56	\$518.67	186	153	176
24	8518 S. 960 East	6.00	5.52	137.20	1,581.90	\$100,360.15	\$63.44	203	108	166
25	1159 E. 4500 South	2.20	1.60	68.10	217.20	\$15,970.67	\$73.53	246	179	213
26	1850 E. Newbury Dr.	8.90	6.43	18.70	238.60	\$33,540.22	\$140.57	165	111	148
27	275 E. Carol Way	2.89				\$2,904.47		376	355	358
28	4670 S. 1590 East	3.78				\$2,167.83		410	410	410
29	1028 E. College Dr.	4.01				\$2,007.78		367	367	367
30	1784 E. Creek Rd	7.13	7.60	117.30	1,803.40	\$105,306.24	\$58.39	385	297	337
31	8578 S. Moniter Dr.	8.00	8.24	84.70	1,398.40	\$105,683.29	\$75.57	102	79	92
32	Prison Well*	0.89	0.74	152.00	224.56	*	*	N/A	N/A	N/A
Totals/Averages:		148.52	4.90	81.49	12,557.50	\$835,486.06	\$64.80			

\*Owned by the Utah State Department of Corrections (not included in Totals/Avg). 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			\$2,193.34		
2	4500 S. 4800 West	49	1625	200	14.21	3,065.10	\$63,190.22	\$20.62	159
3	6200 S. 3200 West	46	1500	180	15.58	13,257.30	\$207,439.33	\$15.65	365
4	3600 W. 10200 South	45	1900	350	8.38	4,221.90	\$174,634.11	\$41.36	209
5	5700 W. 10200 South	22	750	240	5.85	1,274.70	\$54,867.48	\$43.04	172
6	5820 S. 3800 West	25	650	180	8.90	2,869.80	\$50,048.81	\$17.44	174
7	110 E. 11400 South	24	1200	320	7.15	749.20	\$36,357.35	\$48.53	30
8	11574 S. 2580 East	4	170	260					
9	15305 S. 3200 West	8	400	280	3.24	404.31	\$11,728.78	\$29.01	351
10	3145 W. 11400 South	42	900	110	8.68	5,743.48	\$100,139.65	\$17.44	170
11	10730 S. 1300 East	22	400	100	8.53	430.60	\$15,101.72	\$35.07	32
12	13400 S. 3300 West	30	2400	495	9.65	1,819.00	\$107,920.58	\$59.33	165
13	3200 W. 11800 South	36	3000	495	30.96	7,939.60	\$403,297.17	\$50.80	285
14	6924 Old Bingham Hwy	20	800	280	7.11	30.79	\$10,754.80	\$349.30	8
Totals/Averages:		385	15,995	268	10.69	41,805.78	\$1,237,673.34	\$29.55	177

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

## Aquifer Storage & Recovery and Conjunctive Management

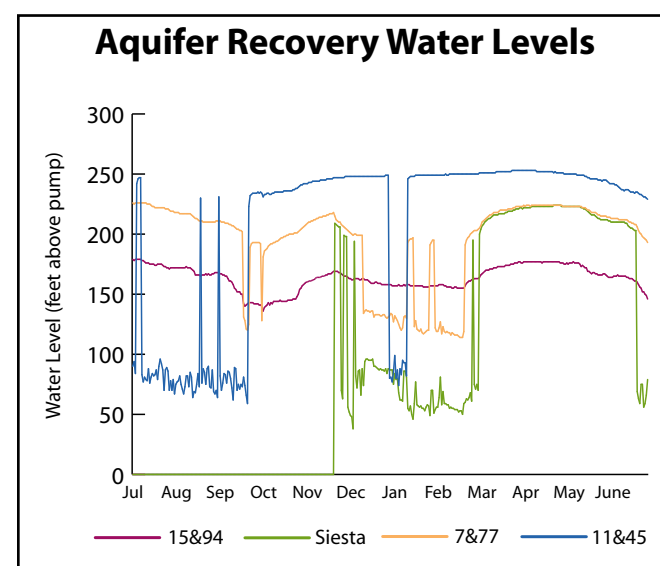
	Injected for underground storage (acre-feet)		108th So. (north flow)	Total	Net Saved <sup>a</sup>	Total Well Production
	33" System	16" System				
Jul		192.73	1,231.40	1,424.13	1,231.40	683.00
Aug		73.69	929.40	1,003.09	929.40	1,199.50
Sep			412.80	412.80	412.80	998.60
Oct			748.69	748.69	748.69	252.60
Nov			399.08	399.08	399.08	1,981.10
Dec			199.73	199.73	199.73	2,354.30
Jan			10.84	10.84	10.84	2,436.00
Feb			506.79	506.79	506.79	1,283.20
Mar			614.66	614.66	614.66	255.00
Apr			617.90	617.90	617.90	199.00
May			526.99	526.99	526.99	335.70
June			656.03	656.03	656.03	954.70
<b>Yearly Totals</b>	<b>0.00</b>	<b>266.42</b>	<b>6,854.31</b>	<b>7,120.73</b>	<b>6,854.31</b>	<b>12,932.70*</b>

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

### ASR Water Quality Summary

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

a) 10800 S. 1300 E. is the flow control/pump station on the 30-inch 1300 East pipeline between 11400 South and 9400 South. This pipeline and station allow Jordan Valley Water to convey water from either of its treatment plants to areas that before could only be fed by running wells (or buying water from MWDSLS). Any water from the treatment plants serving areas north through this station is considered "saved water" in Jordan Valley Water's conjunctive management agreement with Central Utah Water Conservancy District.



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

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



## Inspections/Locations Summary

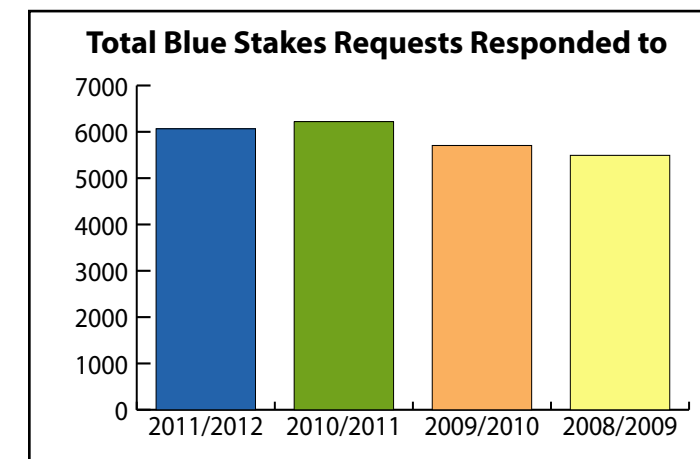
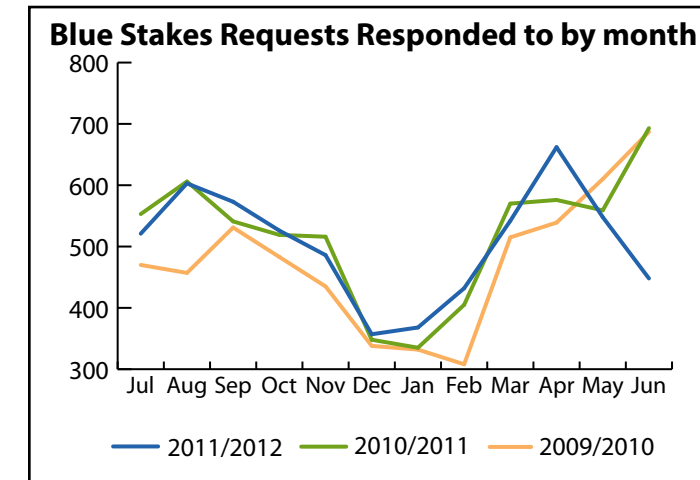
	Blue Stakes Requests	Blue Stakes Responded	Water Crossings	Sewer Crossings	Storm Drain Crossings	Gas Crossings	Power/Com Crossings
July	1509	521	3	8	1	2	6
Aug	1575	603	8	1	1	2	5
Sept	1381	573	4	1	5	3	6
Oct	1300	526	3	1	3	2	4
Nov	1048	486	14	2	4	2	6
Dec	820	357	1	2	2	2	7
Jan	752	368	0	3	2	2	4
Feb	929	432	1	1	2	1	6
Mar	1213	542	1	3	3	4	7
Apr	1641	662	2	2	3	2	3
May	1739	548	3	1	6	7	23
Jun	1387	448	2	3	3	4	12
<b>Totals</b>	<b>15,294</b>	<b>6,066</b>	<b>42</b>	<b>28</b>	<b>35</b>	<b>33</b>	<b>89</b>

	Fire Lines Installed	Hydrants Installed	Connections Installed*	Hot Taps Performed	Scheduled Shutdowns**
July	1	0	0	1	7
Aug	0	2	14	1	0
Sept	0	1	3	1	7
Oct	0	2	21	0	2
Nov	0	0	0	0	0
Dec	0	0	0	0	0
Jan	0	0	0	0	0
Feb	0	1	16	0	0
Mar	0	0	0	0	4
Apr	0	1	8	0	0
May	0	1	0	1	2
Jun	0	0	0	0	3
<b>Totals</b>	<b>1</b>	<b>8</b>	<b>62</b>	<b>4</b>	<b>25</b>

\*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

Size of Line	Linear feet of pipe	Miles of pipe	# of Valves
2 inch	200	0.04	77
3 inch - 4 inch	35,707	6.76	235
6 inch	369,003	69.89	1,234
8 inch	192,196	36.40	493
10 inch	38,749	7.34	105
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
<b>Totals</b>	<b>1,513,823</b>	<b>286.71</b>	<b>2,646</b>
Total fire hydrants			<b>1,332</b>

Updated 8/06/12

Update includes:

- Wallace/Stratton (5600 S./5115 S.)
- Highland Lake (920 E. 5750 S.)
- Revere (5600 S./5115 S.)
- 900 East replacement (I-215/5290 S.)
- Terra Sol PUD (300 E. Penny Ave.)

**Capital Projects**

A summary of the projects which were completed by the Engineering Department in 2011-2012 are shown on Jordan Valley Water's web site under "Engineering Projects" (<http://www.jvwcd.org/projects/default.aspx>). The Completed Project Reports for 2011-2012 are listed on the right side of the site.

Projects completed this year include:

- 10200 South Pipeline
- 3200 West Pipeline
- 900 East Distribution Pipeline Replacement
- Murray & Holladay Distribution Pipeline Replacements
- JWTP Chlorine Dioxide Project
- Replacement Particle Counters for JWTP, SERWTP, and SWGWTP
- SERWTP Electrical Stand-by Generator
- Southwest Aqueduct Reach 2
- Welby Jacob Headworks Automation



Photos, top to bottom:

- Construction of the Southwest and Jordan Aqueduct interconnect vault at JWTP
- 11400 South 3200 West Control Vault
- Installing generator at SERWTP

**Property Acquired FY 11/12**

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

**Water Rights Acquired 11/12**

	Yield (Acre Feet)
Utah Lake Irrigation Stock	N/A
Jordan River Rights	N/A
Provo River Irrigation Stock	41.71
Provo Reservoir Contained Water Stock*	5,680.07

\*Contained water stock acquired April 1, 2010 - June 30, 2012



## Personnel - Employee History

	Calendar Year 2012	Calendar Year 2011	Calendar Year 2010	Calendar Year 2009	Calendar Year 2008
Full-time authorized positions:	136	136	136	135	135
Part-time positions:	4	5	5	5	3
New positions authorized:	0	0	1	0	2
			Water Supply Maintenance Lead		1) Lead Conservation Garden Horticulturist 2) Facilities Maint. Grounds Supervisor
Turnover - # of Terminations	not yet available	3	8	9	10
Turnover rate:	not yet available	2.17%	5.6%	6.4%	7.14%
Employees per 1,000 AF of water delivered:		1.01	1.18	1.08	1.18
AF delivered per employee:		988	847	923	846

## Personnel Costs

History of Salary Increases (effective date)	July 2012	July 2011	July 2010	July 2009	July 2008	July 2007
COLA	0.0%	0.0%	0.0%	0.0%	3.2%	1.0%
Merit (avg)/or step	2.5% or step	2.96%	0.0%	3.0% or step	1.1%	3.5%
- merit range	0 to 4.76%	0% to 6.62%	N/A	2.86% to 4.52%	N/A	0% to 8.5%

Personnel Budget	2012/2013	2011/2012	2010/2011	2009/2010	2008/2009	2007/2008
Salary & benefits	\$12,959,432	\$12,642,170	\$12,580,562	\$12,270,722	\$11,485,853	\$10,343,991
Increase over previous year	2.51%	0.49%	2.53%	6.83%	11.04%	3.4%

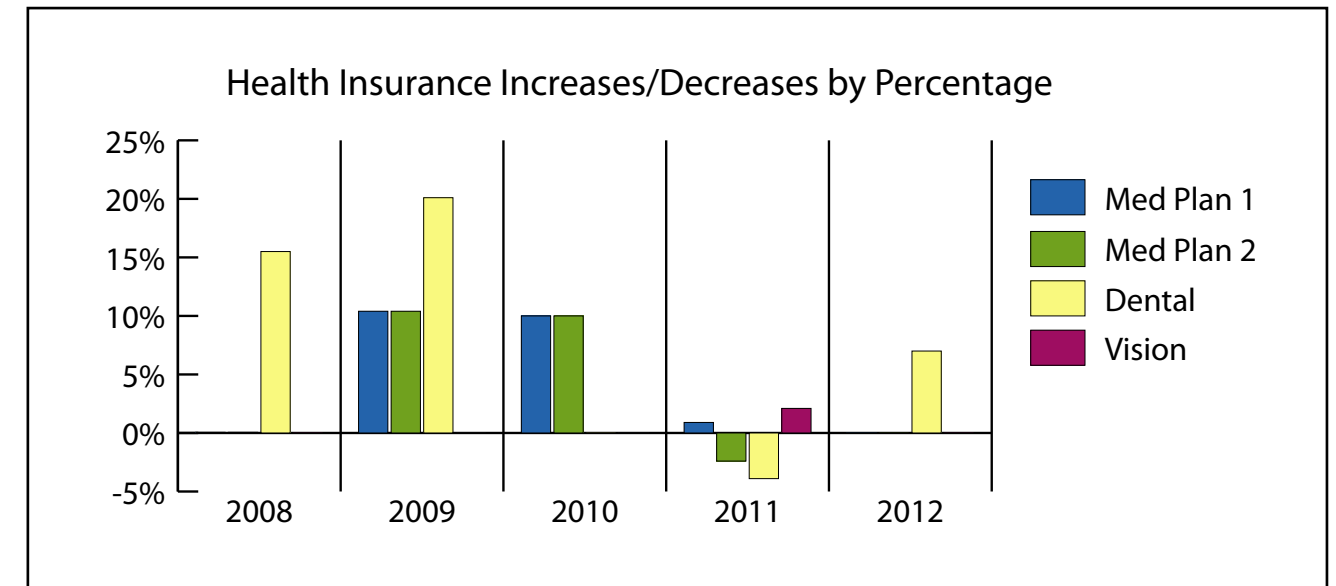
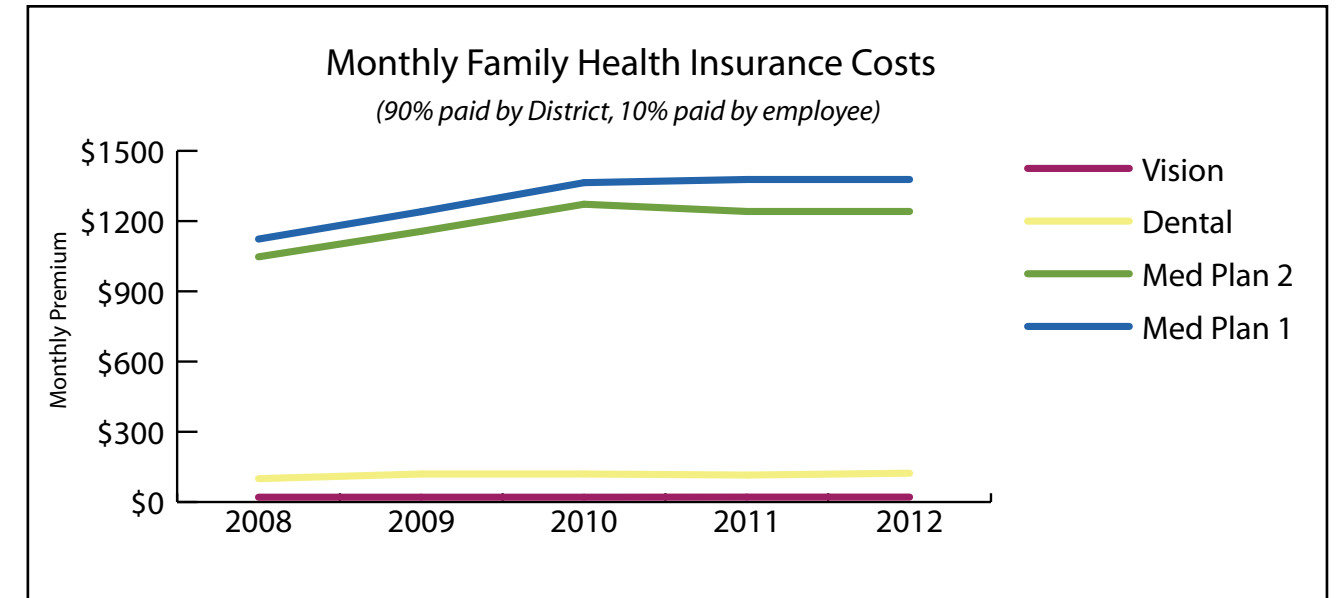
Health Insurance Plan & Costs: (see charts next page)	Calendar 2012	Calendar 2011	Calendar 2010	Calendar 2009	Calendar 2008	Calendar 2007
<b>Medical Plan 1 (monthly premium)</b>	SelectHealth	SelectHealth	ValueCare	ValueCare	ValueCare	ValueCare
- Single	\$467.20	\$467.20	\$462.50	\$420.50	\$380.80	\$380.60
- 2-party	\$1,004.30	\$1,004.30	\$994.30	\$903.90	\$818.70	\$818.20
- Family	\$1,377.70	\$1,377.70	\$1,364.20	\$1,240.10	\$1,123.20	\$1,122.50
Increase over previous year	0.0%	0.9%	10.0%	10.4%	0.06%	14.1%

Medical Plan 2 (monthly premium)	SH HDHP	SH HDHP	HealthWise	HealthWise	HealthWise	HealthWise
- Single	\$420.80	\$420.80	\$431.30	\$392.10	\$355.10	\$354.90
- 2-party	\$904.70	\$904.70	\$927.20	\$842.90	\$763.40	\$762.90
- Family	\$1,241.10	\$1,241.10	\$1,272.00	\$1,156.30	\$1,047.30	\$1,046.70
Increase over previous year	0.0%	-2.4%	10.0%	10.4%	0.06%	12.0%

Dental Plan (monthly premium)	EMI	EMI	Aetna Dental	Aetna Dental	Delta Dental	Delta Dental
- Single	\$36.10	\$33.70	\$37.29	\$37.29	\$31.05	\$28.36
- 2-party	\$76.80	\$71.75	\$78.52	\$78.52	\$65.40	\$56.63
- Family	\$123.20	\$115.10	\$119.77	\$119.72	\$99.76	\$86.37
Increase over previous year	7.0%	-3.9%	0.0%	20.1%	15.5%	-37.9%

Vision Plan (monthly premium)	Self Insured	Self Insured	Self Insured	Self Insured	Self Insured	Self Insured
- Single	\$7.00	\$7.00	\$6.97	\$6.97	\$6.97	\$6.97
- 2-party	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
- Family	\$21.00	\$21.00	\$20.56	\$20.56	\$20.56	\$20.56
Increase over previous year	0.0%	2.1%	0.0%	0.0%	0.0%	-33.0%

## Personnel - History of Insurance Costs



## Safety Track 2011-2012

### 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	1	0	0	0	0	0	0	0	0	0	0	1
OSHA recordable injuries	0	1	0	0	0	1	0	1	1	1	0	1	6
Vehicle crashes	1	1	2	0	0	1	1	0	0	0	2	1	9

Days since last Lost Time Injury: **313** (8/22/11) Best record for Lost Time Injury: **576**  
 Days since last Vehicle Crash: **18** (6/12/12) Best record for Time Without a Vehicle Crash: **128**

Fiscal Year Totals			
10/11	09/10	08/09	07/08
2	1	1	1
2	5	9	9
16	9	10	11

### Distribution Department Safety Track Summary

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYT
Lost time injuries	0	1	0	0	0	0	0	0	0	0	0	0	1
OSHA recordable injuries	0	1	0	0	0	0	0	1	1	1	0	1	5
Vehicle crashes	1	0	1	0	0	0	0	0	0	0	2	0	4

Days since last Lost Time Injury: **313** (8/22/11) Best record for Lost Time Injury: **1,058**  
 Days since last Vehicle Crash: **32** (5/29/12) Best record for Time Without a Vehicle Crash: **427**

Fiscal Year Totals			
10/11	09/10	08/09	07/08
0	1	0	1
0	2	5	7
10	6	3	8

### 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	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: **549** (12/29/10) Best record for Lost Time Injury: **1,365**  
 Days since last Vehicle Crash: **549** (12/29/10) Best record for Time Without a Vehicle Crash: **549**

Fiscal Year Totals			
10/11	09/10	08/09	07/08
1	0	0	0
1	1	0	1
2	0	2	1

### 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	0	0
Vehicle crashes	0	1	1	0	0	1	1	0	0	0	0	0	4

Days since last Lost Time Injury: **1,174** (4/13/09) Best record for Lost Time Injury: **3,581**  
 Days since last Vehicle Crash: **179** (1/31/12) Best record for Time Without a Vehicle Crash: **1,044**

Fiscal Year Totals			
10/11	09/10	08/09	07/08
0	0	1	0
0	1	4	0
2	2	4	2

### 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	1	0	0	0	0	0	0	1
Vehicle crashes	0	0	0	0	0	0	0	0	0	0	0	1	1

Days since last Lost Time Injury: **522** (1/25/11) Best record for Lost Time Injury: **2,719**  
 Days since last Vehicle Crash: **18** (6/28/12) Best record for Time Without a Vehicle Crash: **2,544**

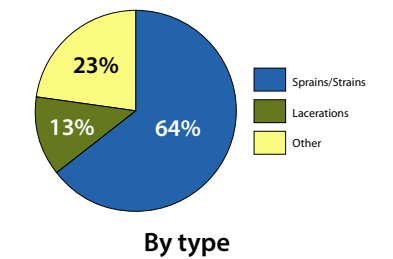
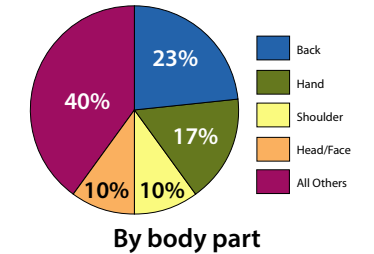
Fiscal Year Totals			
10/11	09/10	08/09	07/08
1	0	0	0
1	1	0	1
2	1	1	0

## 2011/2012 OSHA Recordable Injuries<sup>a</sup>

Date	Type of Injury	Light duty restriction (days)	Days away from work	Total PTD (Workers Comp)	Dept
08/22/11	Back Strain	110	103	\$37,866	Dist
12/13/11	Arm Strain	0	0	\$3,992	Admin
02/28/12	Tooth Fracture	0	0	\$2,297	Dist
03/20/12	Knee Strain	89	0	\$4,921 <sup>b</sup>	Dist
04/18/12	Concussion	0	0	\$3,953	Dist
06/06/12	Arm Strain	24 <sup>b</sup>	0	\$1,088 <sup>b</sup>	Dist
<b>Total</b>	<b>6</b>	<b>223</b>	<b>103</b>	<b>\$54,117</b>	

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.

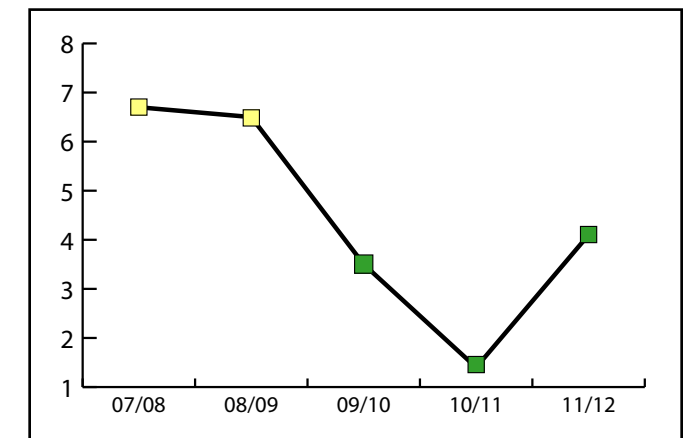
### OSHA Recordable Injuries 07/08-11/12



## OSHA Recordable Injury Incident Rates

Fiscal Year	Avg emp hrs wrkd <sup>a</sup>	# of Injuries	Incident Rate <sup>b</sup>	Total PTD (Wkrs Comp)
2007/2008	270,000	9	6.7	\$66,591
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

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

	07/08	08/09	09/10	10/11	11/12	5-yr avg
Admin	2.1	0.0	1.9	1.9	1.9	1.6
Distribution	10.4	14.6	4.1	0.0	10.0	7.8
Treatment	3.3	0.0	3.1	3.1	0.0	1.9
Water Supply	0.0	40.0	10.0	0.0	0.0	10.0

## Performance Measures

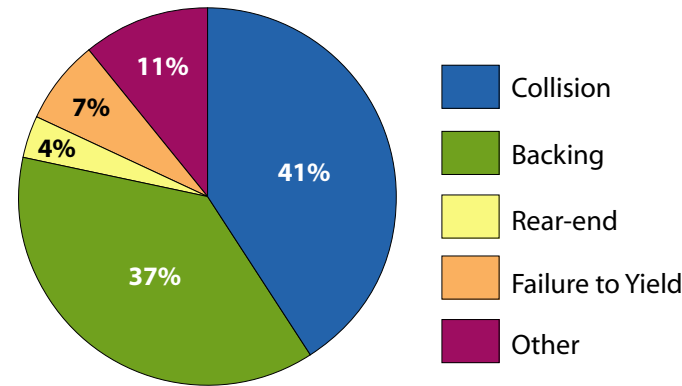
- Less than 5.7
- 5.7 - 8.0
- Greater than 8.0

## 2011/2012 Vehicle Crashes<sup>a</sup>

Date	District Cost	Type	Dept
07/13/11	\$1,072	Backing	Dist
08/29/11	\$586	Backing	WS
09/29/11	\$1,432	Collision	Dist
09/29/11	\$820	Collision	WS
12/21/11	\$1,272	Other	WS
01/03/12	\$101	Backing	WS
05/08/12	\$0	Backing	Dist
05/24/12	\$716	Collision	Dist
06/12/12	\$0	Collision	Admin
<b>Cost FYTD</b>	<b>\$5,999</b>		

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.

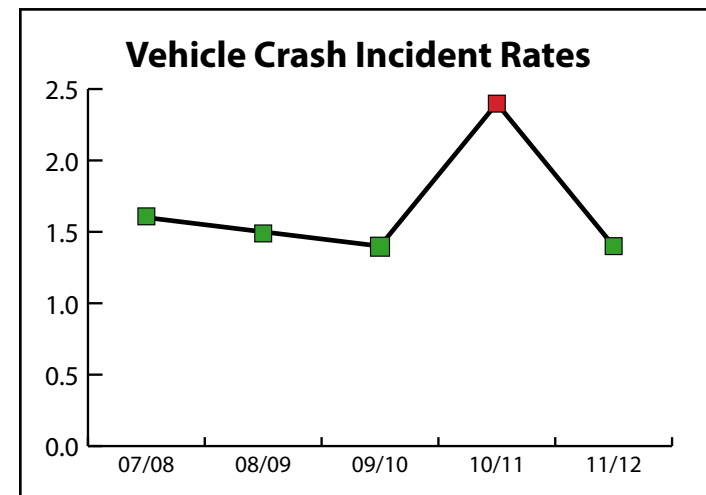
## Vehicle Crash Types 07/08 - 11/12



## Vehicle Crash Incident Rates

Fiscal Year	# of Miles Driven	# of Crashes	Incident Rate <sup>a</sup>	District Cost <sup>b</sup>
2007/2008	674,505	11	1.6	\$6,812
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

a- Total crashes x 100,000, divided by "# of miles driven."  
b- Total cost for all repairs and medical expenses paid by JWCD or its insurance carriers for all parties involved.



## Vehicle Crash Incident Rates by Department

	07/08	08/09	09/10	10/11	11/12	5-yr avg
Admin	0.0	1.1	1.1	2.3	1.1	1.1
Distribution	2.4	0.9	1.8	2.9	1.1	1.8
Treatment	1.2	2.5	0.0	2.3	0.0	1.2
Water Supply	1.3	2.6	1.5	1.4	2.9	1.9

## Performance Measures

- Less than 1.8
- 1.8 - 2.3
- Greater than 2.3

## Retail System Connections Information

Retail service connections	2011/2012	2010/2011	2009/2010	2008/2009	2007/2008
Residential (single family or duplexes)	7,695	7,665	7,664	7,625	7,601
Large water users* ("900" accounts)	843	835	834	829	850
Active retail connections as of year end	8,538	8,500	8,498	8,454	8,451
Fire lines	240	240	240	235	228
<b>TOTAL CONNECTIONS</b>	<b>8,778</b>	<b>8,740</b>	<b>8,738</b>	<b>8,689</b>	<b>8,679</b>
Increase/decrease in active retail connections	38	02	49	10	65

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

## Review of 2011/2012 Budget

Sources of funds	2011/2012 Budget	Preliminary Actual* as of 6/30/2012	% FYTD
Wholesale water sales	\$30,854,768	\$33,441,341	108%
Retail water sales	4,831,581	4,800,589	99%
Tax revenue	12,630,693	13,371,871	106%
Interest income	567,333	619,336	109%
Misc. operating & non-operating revenue	1,941,239	1,240,463	64%
Connection/development fees	180,245	178,950	99%
Capital projects fund (gross)	<u>46,020,813</u>	<u>46,544,248</u>	<u>101%</u>
<b>Total sources</b>	<b>\$97,026,672</b>	<b>\$100,196,798</b>	<b>103%</b>
<b>Uses of funds</b>			
Water purchases	\$8,282,053	\$8,464,527	102%
Operation & maintenance expenses	6,068,768	5,678,234	94%
General & administrative expenses	3,896,719	2,896,693	74%
Personnel expenses	12,709,428	12,342,762	97%
Capital projects fund (gross)	<u>46,020,813</u>	<u>46,544,248</u>	<u>101%</u>
<b>Total uses</b>	<b>\$76,977,781</b>	<b>\$75,926,464</b>	<b>99%</b>
Net operating revenues	\$20,048,891	\$24,270,334	121%
Debt service payments	<u>(14,661,316)</u>	<u>(14,743,311)</u>	<u>101%</u>
Debt service coverage ratio	1.37	1.65	
Amount available to transfer to reserves			
Total from operations	\$5,387,575	\$9,527,023	177%

\*Preliminary numbers pending audit.

