

# GROUNDWATER REDUCTION PLAN MONTHLY OPERATIONS REPORT

GRP Review Committee Meeting April 25, 2016 SJRA Board Meeting April 28, 2016

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### **ACRONYMS AND DEFINITIONS**

### **ACRONYMS**

**AWS** Alternative Water Source

AWWA American Water Works Association

CIP Capital Improvement Project

**ECC** Early Conversion Credits

Geographic Information System

**GRP** Groundwater Reduction Plan

**GPY** Gallons Per Year

**GST** Groundwater Storage Tank

**HSPS** High Service Pump Station

ICO Initial Conversion Obligation

**LSGCD** Lone Star Groundwater Conservation District

**LVGU** Large Volume Groundwater User

MSL Mean Sea Level

ORS Online Reporting System

**RWI / RWPS** Raw Water Intake / Raw Water Pump Station

SCADA Supervisory Control And Data Acquisition

SJRA San Jacinto River Authority

**SWF** Surface Water Facilities (SWTP, HSPS and RWI)

**SWRF** Surface Water Receiving Facilities

**SWTP** Surface Water Treatment Plant

TCEQ Texas Commission on Environmental Quality

TQD Total Qualifying Demand

**TWDB** Texas Water Development Board

### **DEFINITIONS**

GROUNDWATER

REDUCTION PLAN

(GRP)

The document developed and filed with the LSGCD indicating SJRA's plan to reduce the permitted 2009 groundwater pumpage of its GRP Participants by 30%. The GRP is administered by the SJRA, including any supplements,

revisions, or amendments.

GRP ADMINISTRATOR The SJRA General Manager's designee who administers the SJRA Ground-

water Reduction Plan and GRP Contract with GRP Participants.

GRP CONTRACT Contract between the SJRA and a Participant to be included in the SJRA's

efforts to meet the surface water conversion requirements mandated by

the LSGCD.

ICO Adjusted TQD The ICO Adjusted TQD is the total amount of groundwater that can be pro-

duced by all Joint GRP Participants.

JOINT GRP GRP which is prepared to include (takes into account) LVGUs who have

executed a GRP Contract with the SJRA to join the SJRA's GRP. Contracted LVGUs obtain LSGCD groundwater reduction regulation compliance through

the SJRA's Joint GRP without preparing and submitting a GRP.

LARGE VOLUME Any person or entity that, through a single well or a combination of wells,

GROUNDWATER
USER(S) (LVGU)

actually produces or is authorized by permit(s) issued by the LSGCD to produce 10 million gallons or more of groundwater annually on or after

January 1, 2008.

PARTICIPANT(s) Regulated User(s) that enters into and remains subject to a written agree-

ment with the SJRA to be included in the SJRA's GRP and includes the legal

successors or assigns of Participant(s).

**REGULATED USER(S)** Any public or private entity or person that is or becomes subject to the

District Regulatory Plan established by the LSGCD and includes any amend-

ments, revisions or supplements thereto as may be adopted by the LSGCD.

**SJRA GRP Division** Division of the SJRA responsible for GRP compliance, and the management,

administration, operation and maintenance of the surface water facilities

and surface water transmission system.



### 1.0 REPORTED WATER USAGE

For the purpose of the GRP Monthly Operations Report, water usage is separated into two (2) categories; groundwater and alternative water source (AWS), and is tracked on a monthly basis. Pursuant to the GRP Rate Order, Participant water usage must be reported no later than forty-eight (48) days from the end of the month. Water usage is self-reported by Participants through an online reporting system (ORS), TrueBill. The water usage data in Sections 1.1 - 1.4 is as of April 11, 2016 and is self-reported by the GRP Participants.

### 1.1 REPORTED GROUNDWATER USAGE

The amount of groundwater usage reported by GRP Participants for the month of February is **711,999,491** gallons.

### 1.2 REPORTED ALTERNATIVE WATER SOURCE USAGE

For the purpose of this report, reported AWS usage is separated into three (3) categories; surface water, Catahoula Aquifer usage, and reuse. The amount of AWS usage reported for the month of February is **477,680,100** gallons. The AWS data reflected in the tables below are reported by source and Participant for the month of February.

### 1.2.1 Reported Surface Water Usage

Reported Surface Water Usage in Gallons - February 2016					
City of Conroe	147,590,000				
City of Oak Ridge North	3,112,000				
MSEC - Montgomery Trace/Crown Oaks	29,607,000				
Rayford Road MUD	11,371,000				
SJRA - The Woodlands	251,266,000				
Southern Montgomery County MUD	21,560,000				
Total Gallons	464,506,000				

### 1.2.2 Reported Catahoula Aquifer Usage

Reported Catahoula Aquifer Usage in Gallons - February 2016					
City of Willis	7,874,000				
Corinthian Point MUD No. 2	1,961,000				
Total Gallons 9,835,000					

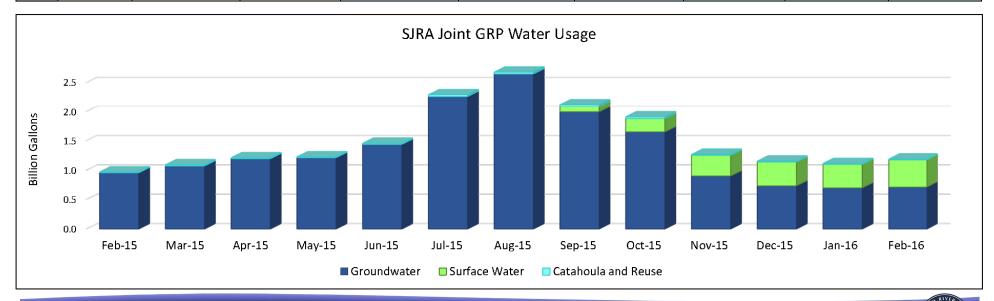
### 1.2.3 Reported Reuse Water

Reported Reuse Water in Gallons - February 2016					
Sequoia—Panther Trails	1,642,000				
Southern Montgomery County MUD	1,697,100				
Total Gallons 3,339,100					

### 1.3 HISTORICAL DATA REPORTED BY PARTICIPANTS

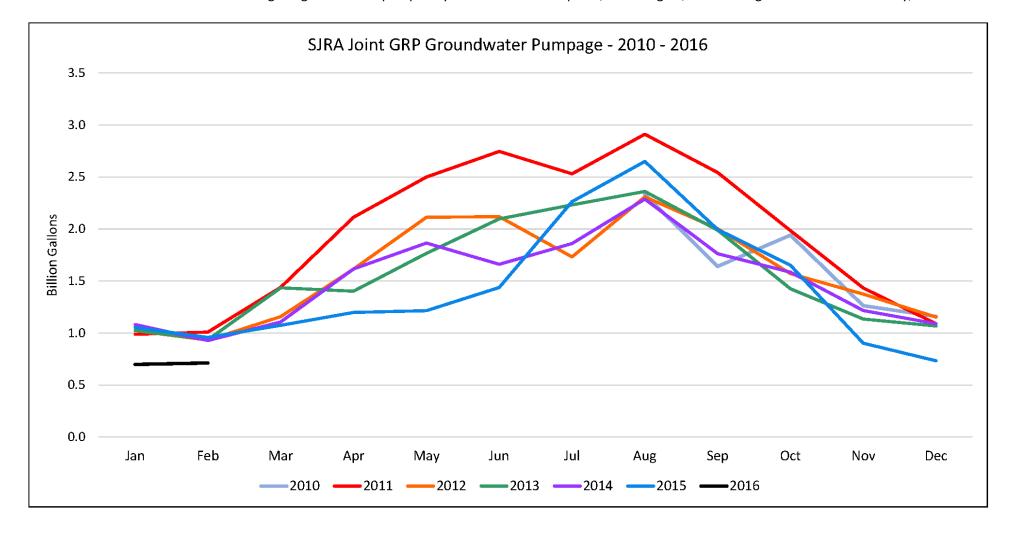
The table and chart below reflect the historical usage of groundwater and alternative water sources for all Joint GRP Participants. For representational purposes, historical surface water usage has been presented independently from other AWS usage.

	Reported	Surface Water Us	age in Gallons	Reported G	roundwater Usage	in Gallons	Reported Catahoula Aquifer and Reuse in Gallons			
	2014	2015	2016	2014	2015	2016	2014	2015	2016	
Jan	0	0	402,401,000	1,081,148,860	1,053,121,573	697,916,241	11,308,000	12,875,000	13,635,800	
Feb	0	0	464,506,000	927,403,262	957,449,001	711,999,491	9,329,000	11,616,332	13,174,100	
Mar	0	0		1,106,284,834	1,073,944,063		12,338,000	17,476,258		
Apr	0	0		1,615,439,368	1,197,285,858		16,715,000	14,505,905		
May	0	0		1,864,139,670	1,214,339,213		17,904,000	12,331,000		
Jun	0	0		1,660,110,972	1,437,279,301		13,515,000	17,789,706		
Jul	0	0		1,860,403,649	2,261,950,683		20,530,000	30,200,834		
Aug	0	0		2,287,169,292	2,648,950,746		18,629,000	29,510,064		
Sep	0	94,555,000		1,763,157,393	1,994,471,242		17,319,000	29,794,419		
Oct	0	226,715,000		1,584,949,550	1,650,433,000		14,035,000	29,198,500		
Nov	0	353,189,000		1,215,827,800	901,529,106		12,001,000	13,166,800		
Dec	0	408,797,000		1,089,683,728	732,581,838		13,203,000	13,202,100		
Total	0	1,083,256,000	866,907,000	18,055,718,378	17,123,335,624	1,409,915,732	176,826,000	231,666,918	26,809,900	



### 1.3 HISTORICAL DATA REPORTED BY PARTICIPANTS (cont.)

The chart below reflects historical usage of groundwater pumped by all Joint GRP Participants, since August, 2010 through the month of February, 2016.



### 2.0 LAKE LEVEL IMPACTS

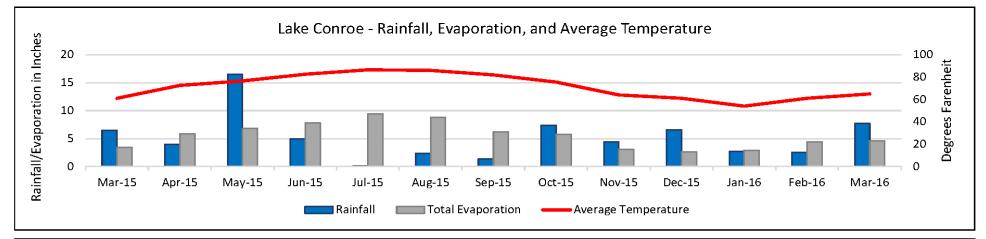
For the purpose of this report, GRP Division staff will monitor and report on several indicators, which impact the lake level of Lake Conroe.

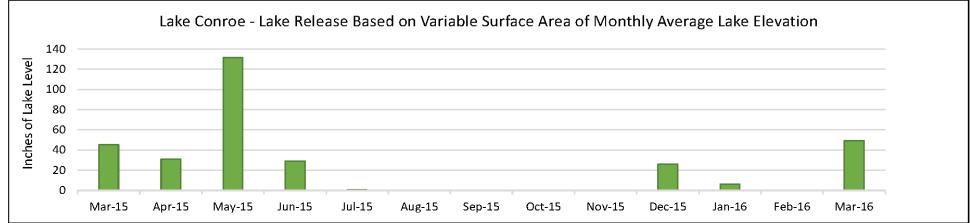
#### 2.1 SURFACE WATER WITHDRAWAL

Surface water withdrawal is the amount of surface water that is metered through the Raw Water Intake. For the purpose of the GRP, the amount of surface water withdrawal for the month of March was **478,950,000** gallons or approximately 0.898 inches.

### 2.2 OTHER IMPACTS

The associated tables reflect other impacts to Lake Conroe and denotes averages and in some cases approximations. Lake Conroe data was provided by the SJRA - Lake Conroe Division.





### 3.0 COMPLIANCE

The following information is related to the Joint GRP's compliance with Lone Star Groundwater Conservation District's (LSGCD) rules and regulations, along with Participant compliance with the GRP Contract.

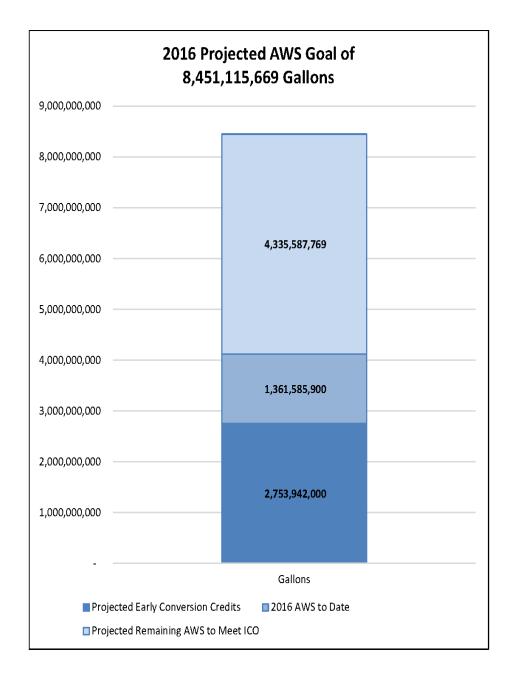
### 3.1 LONE STAR GROUNDWATER CONSERVATION DISTRICT REQUIREMENT STATUS

Per LSGCD rules and regulations, the Joint GRP is required to reduce its overall groundwater pumpage in 2016 to below its Initial Conversion Obligation (ICO) Adjusted Total Qualifying Demand (TQD). Currently, the Joint GRP's Participant's total ICO Adjusted TQD is **14,033,318,008 GPY**. The Joint GRP's Participant's total current projected demand for 2016 is **22,484,433,677 GPY**.

#### 3.2 EARLY CONVERSION CREDITS

Early Conversion Credits (ECC) are earned through LSGCD by the implementation of AWS and surface water until January 1, 2016. ECC are designed to offset any groundwater production amounts in excess of a defined Joint GRP's ICO Adjusted TQD. The Joint GRP applied and was approved by LSGCD to earn ECC by the early delivery of surface water to various GRP Participants. The Joint GRP is also accruing ECC through the City of Willis, who is producing groundwater through Catahoula wells. The Joint GRP will receive two (2) for one (1) credits on both projects (i.e., early surface water delivery and Catahoula wells). The following table represents the estimated ECC that the Joint GRP will receive from LSGCD. It does reflect the two (2) for one (1) credit that will be earned.

Estimated Early Conversion Credits in Gallons through December 31, 2015					
Early Conversion Credits - Surface Water	2,167,336,000				
City of Willis Early Conversion Credits - 2013	17,802,000				
City of Willis Early Conversion Credits - 2014	280,260,000				
City of Willis Early Conversion Credits - 2015	265,908,000				
Total Gallons	2,753,942,000				



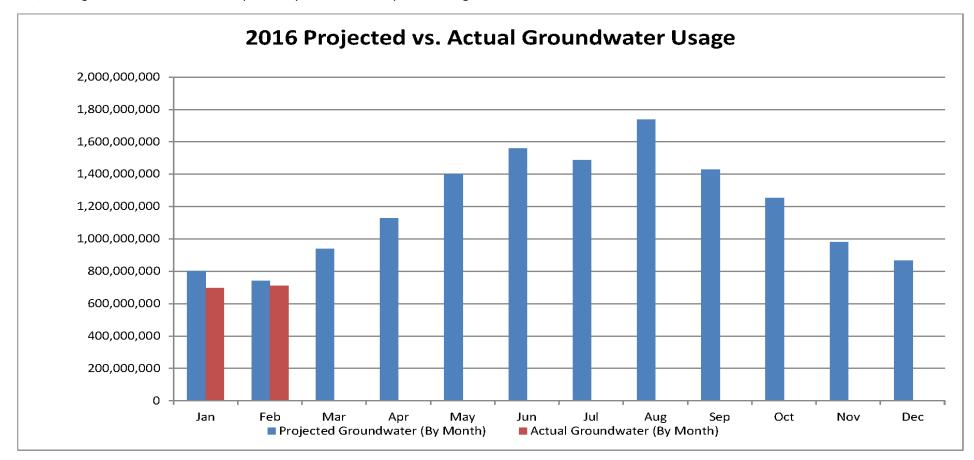
### 3.3 PARTICIPANTS

Following are recently received, new Joint GRP Contracts and/or amendments to existing Joint GRP Contract's exhibits for consideration:

• East Montgomery County MUD No. 9

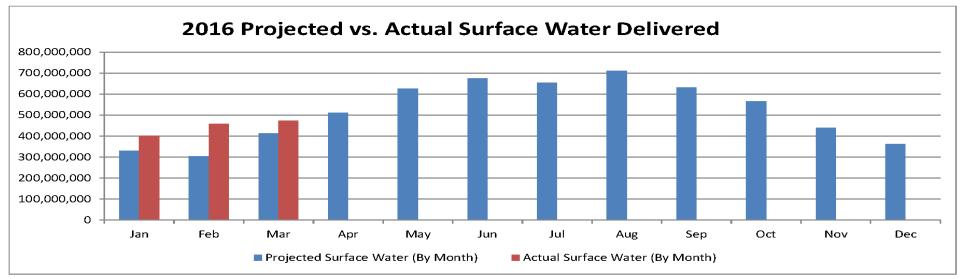
#### 3.4 PROJECTED DATA VERSUS ACTUAL DATA FOR GROUNDWATER USAGE

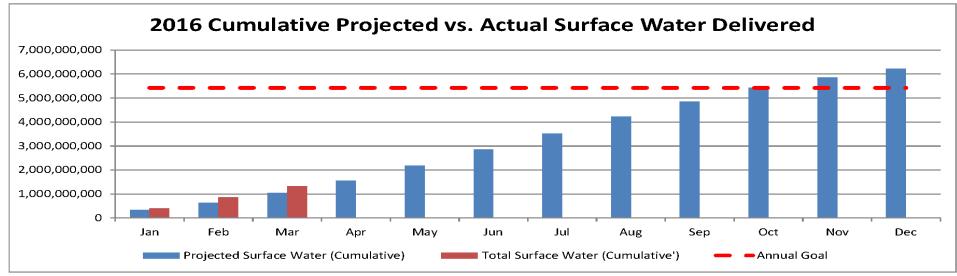
In an effort to comply with LSGCD's rules for groundwater reduction, GRP Division staff tracks groundwater pumpage monthly to ensure that the Joint GRP does not exceed the Participant's total overall ICO Adjusted TQD as referenced in Section 3.1. Conversion status will be evaluated monthly by comparing projected demands with actual groundwater pumpage and surface water delivery. The surface water delivery data for this report comes from SJRA's SCADA system, while groundwater data is self-reported by the GRP Participants through the ORS.



### 3.5 PROJECTED VERSUS ACTUAL DATA FOR SURFACE WATER DELIVERY

The GRP estimates that it will need to deliver **5,425,610,135** gallons of surface water to meet its ICO. This estimate does consider Early Conversion Credits and projected AWS usage by Participants. For the month of March, **473,279,000** gallons of surface water were delivered.





### **4.0 FINANCIAL**

### **4.1 SCHEDULE OF REVENUES AND EXPENSES**

## Schedule of Revenues and Expenses—Actual and Budget For Seven Months Ending March 31, 2016

	Mar	Fiscal Year To Date					Fiscal Budget				
	Actual		Actual		Budget		Variance	% Variance		Total Year Budget	Actual YTD % of Total Year Budget
OPERATING REVENUES											
GRP pumping fees	\$ 1,808,349	\$	17,085,662	\$	14,449,147	\$	2,636,515	18%	\$	29,700,716	58%
GRP Surface Water Sales	1,160,363	Ψ	6,055,272	Ψ.	9,691,930	Ψ	(3,636,658)	(38%)	Ψ	19,939,981	30%
LSGCD revenue	5,555		462,620		601,000		(138,380)	(23%)		1,202,000	38%
Compliance fee revenue	250		250		-		250	100%		-,,	0%
TOTAL OPERATING REVENUES	\$ 2,974,517	\$	23,603,804	\$	24,742,077	\$	(1,138,273)	(5%)	\$	50,842,697	46%
OPERATING EXPENSES											
Payroll & employee benefit expenses	\$ 382.803	\$	2.833.698	\$	3,071,622	\$	237,924	8%	\$	5.310.918	53%
Professional fees	18,580	·	98,873		297,417	·	198,544	67%		505,050	20%
Purchased & contracted services	31,397		620,197		928,769		308,573	33%		1,757,462	35%
Supplies, materials & utilities	514,959		4,133,593		7,928,570		3,794,977	48%		13,008,558	32%
Maintenance repairs, parts & rentals	15,444		54,596		157,500		102,904	65%		270,000	20%
General & administration	41,942		309,004		486,540		177,536	36%		834,069	37%
TOTAL OPERATING EXPENSES	\$ 1,005,124	\$	8,049,961	\$	12,870,418	\$	4,820,458	37%	\$	21,686,057	37%
NON-OPERATING REVENUES & EXPENSES											
Interest on investments	\$ 54.040	\$	207.790	\$	2.304	\$	205,486	8,918%	\$	3,950	5,261%
Other revenues	1,608	•	3,219	•	7,175	•	(3,956)	(55%)	Ψ	12,300	26%
Interest expense	(1,767,161)		(12,372,311)		(12,372,308)		(3)	0%		(21,299,405)	58%
Capital contributions	-		1,327,541		-		1,327,541	100%		-	0%
TOTAL NON-OPERATING (EXCLUDING ITEMS NOT		_	1,021,011				.,,.		_		
BUDGETED)	\$ (1,711,512)	\$	(10,833,761)	\$	(12,362,829)	\$	1,529,068	(12%)	\$	(21,283,155)	51%
NET INCOME (LOSS) (EXCLUDING ITEMS NOT											
BUDGETED)	\$ 257,880	\$	4,720,083	\$	(491,170)	\$	5,211,253	(1,061%)	\$	7,873,485	60%
NON-OPERATING REVENUES & EXPENSES (NOT											
BUDGETED)											
Depreciation	\$ (45,451)	\$	(270,489)	\$	-	\$	(270,489)	100%	\$	-	0%
Amortized debt issuance expense	363		2,539		-		2,539	100%		-	0%
TOTAL NON-OPERATING (NOT BUDGETED)	\$ (45,089)	\$	(267,950)	\$	-	\$	(267,950)	100%	\$	-	0%
NET INCOME (LOSS) (BUDGETED AND NOT											
BUDGETED)	\$ 212,792	\$	4,452,133	\$	(491,170)	\$	4,943,303	(1,006%)	\$	7,873,485	57%



### **4.2 CLARIFICATION OF ACTUAL AND BUDGET VARIANCES**

Following is a schedule with an explanation of budget variances related to the SJRA GRP Division's Fiscal Year 2016 operating budget (revenue and expenditures) for the month of March.

### For Seven Months Ending March 31, 2016

Category	YTD - Driver	March 2016	FYTD 2016
GRP Pumping Fees	Groundwater pumpage more than budgeted due to reduced Surface water delivery.	(186)	2,636
GRP Surface Water Sales	Surface water delivery less than anticipated.	(180)	(3,637)
LSGCD Revenue	Quarterly Billing of LSGCD pass through charges less than budgeted.	6	(138)
Payroll and related expenses	Budgeted positions not filled as scheduled.	33	238
Professional Fees	Professional fees less than budgeted.	25	198
Purchased & Contracted Services	Purchased and contracted services below budgeted. Quarterly LSGCD Regulatory fees less than rate budgeted.	9 -	101 208
Supplies, Materials, Utilities, Maintenance, Repairs, Parts & Rentals	Fuel, office supplies, phones, recruiting and misc. expenses less than budgeted.	25	277
	Chemicals-Aggregate usage of Chemicals lower than expected.	(23)	429
	GAC Replacement- GAC Replacement not yet necessary	-	1,700
	Utilities-Utility costs lower than expected	67	829
	COH Reservation Fee less than budgeted	-	281
	SJRA Reservation Fee more than budgeted	(15)	(178)
	SJRA Supply Use Fee less than budgeted	25	457
	eq:maintenance repairs, parts & rentals expense less than budgeted.	7	103
General & Administration	Allocated labor and related expenses less than budgeted,		
	anticipated a quicker rate of growth than has been actualized.	28	178
Non-Operating	Interest/Investment Income	53	205
,	Other Revenues	1	(4)
	Bond interest expense	-	- '
	Capital Contribution	-	1,328
	Depreciation expense	(45)	(270)
	Bond Issuance Cost Amort expense	-	2
		(170)	4,943

### **4.3 CAPITAL ASSET PURCHASES**

For the month of March, there were no asset additions.

### **5.0 DIVISION UPDATES**

### **5.1 DROUGHT CONTINGENCY PLAN TRIGGERS/STATUS**

The GRP has not implemented any stages of its Drought Contingency Plan.

### **5.2 PUBLIC RELATIONS ACTIVITIES**

Event	Туре	Location	Date	Participants
American Public Works Association Tour	Tour	3/23/2016		GRP Staff and American Public Works Association members
CISD - College Park Academy of Health and Science	Tour	GRP Surface Water Treatment Facilities 3/23/2016 GI		GRP Staff, College Park students and faculty
Woodlands Joint Powers Agency and MUD Directors Tour	Tour	3/29/2016		Woodlands Joint Powers Agency Personnel and MUD Directors
Coastal Water Authority Tour	Tour	GRP Surface Water Treat- ment Facilities	3/30/2016	GRP Staff and members of the Coastal Water Authority
Covenant Christian School	Tour	GRP Surface Water Treat- ment Facilities	4/14/2016	GRP Staff, Covenant Christian School students and faculty
CISD - Conroe High School Academy of Health and Science	Tour	GRP Surface Water Treat- ment Facilities	4/14/2016	GRP Staff, Conroe High School Students and faculty

### **5.3 UPCOMING ACTIVITIES**

There are currently no upcoming activities scheduled.

