



**GROUNDWATER REDUCTION PLAN**  
***MONTHLY OPERATIONS REPORT***

**SJRA Board  
Meeting  
October 27, 2016**

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# ACRONYMS AND DEFINITIONS

## ACRONYMS

<b>AWS</b>	Alternative Water Source
<b>AWWA</b>	American Water Works Association
<b>CIP</b>	Capital Improvement Project
<b>ECC</b>	Early Conversion Credits
<b>GIS</b>	Geographic Information System
<b>GRP</b>	Groundwater Reduction Plan
<b>GPY</b>	Gallons Per Year
<b>GST</b>	Groundwater Storage Tank
<b>HSPS</b>	High Service Pump Station
<b>ICO</b>	Initial Conversion Obligation
<b>LSGCD</b>	Lone Star Groundwater Conservation District
<b>LVGU</b>	Large Volume Groundwater User
<b>MSL</b>	Mean Sea Level
<b>ORS</b>	Online Reporting System
<b>RWI / RWPS</b>	Raw Water Intake / Raw Water Pump Station
<b>SCADA</b>	Supervisory Control And Data Acquisition
<b>SJRA</b>	San Jacinto River Authority
<b>SWF</b>	Surface Water Facilities (SWTP, HSPS and RWI)
<b>SWRF</b>	Surface Water Receiving Facilities
<b>SWTP</b>	Surface Water Treatment Plant
<b>TCEQ</b>	Texas Commission on Environmental Quality
<b>TQD</b>	Total Qualifying Demand
<b>TWDB</b>	Texas Water Development Board

## DEFINITIONS

<b>GROUNDWATER REDUCTION PLAN (GRP)</b>	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.
<b>GRP ADMINISTRATOR</b>	The SJRA General Manager's designee who administers the SJRA Groundwater Reduction Plan and GRP Contract with GRP Participants.
<b>GRP CONTRACT</b>	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.
<b>ICO ADJUSTED TQD</b>	The ICO Adjusted TQD is the total amount of groundwater that can be produced by all Joint GRP Participants.
<b>JOINT GRP</b>	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.
<b>LARGE VOLUME GROUNDWATER USER(S) (LVGU)</b>	Any person or entity that, through a single well or a combination of wells, 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.
<b>PARTICIPANT(S)</b>	Regulated User(s) that enters into and remains subject to a written agreement with the SJRA to be included in the SJRA's GRP and includes the legal successors or assigns of Participant(s).
<b>REGULATED USER(S)</b>	Any public or private entity or person that is or becomes subject to the District Regulatory Plan established by the LSGCD and includes any amendments, revisions or supplements thereto as may be adopted by the LSGCD.
<b>SJRA GRP DIVISION</b>	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 ten (10) days from the end of the month. This is a new requirement, effective June 23, 2016. Water usage is self-reported by Participants through an online reporting system (ORS), TrueBill. The water usage data in Sections 1.1 - 1.3 is as of October 13, 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 September is **1,099,594,053** 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 September is **683,245,100** gallons. The AWS data reflected in the tables below are reported by source and Participant for the month of September.

#### 1.2.1 Reported Surface Water Usage

Reported Surface Water Usage in Gallons - September 2016	
City of Conroe	142,940,000
City of Oak Ridge North	7,085,000
MSEC - Montgomery Trace/Crown Oaks	37,385,000
Rayford Road MUD	37,347,000
SJRA - The Woodlands	395,778,000
Southern Montgomery County MUD	25,955,000
<b>Total Gallons</b>	<b>646,490,000</b>

#### 1.2.2 Reported Catahoula Aquifer Usage

Reported Catahoula Aquifer Usage in Gallons - September 2016	
City of Willis	10,205,000
Corinthian Point MUD No. 2	3,747,000
Point Aquarius MUD	10,059,000
<b>Total Gallons</b>	<b>24,011,000</b>

#### 1.2.3 Reported Reuse Water

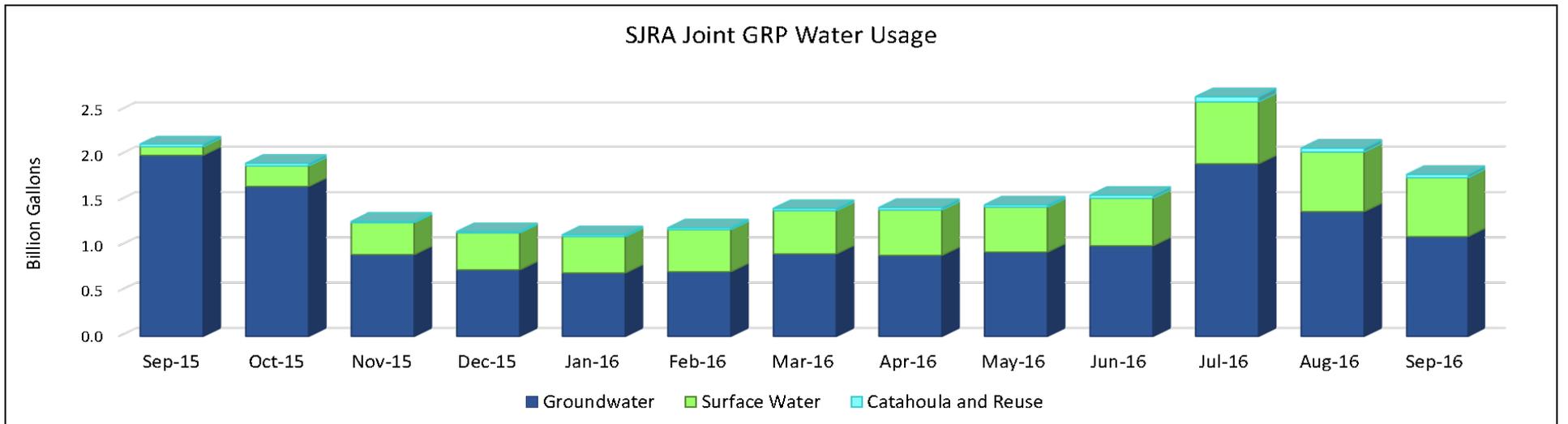
Reported Reuse Water in Gallons - September 2016	
Sequoia - Panther Trails	6,483,000
Southern Montgomery County MUD	6,261,100
<b>Total Gallons</b>	<b>12,744,100</b>



### 1.3 HISTORICAL DATA REPORTED BY PARTICIPANTS

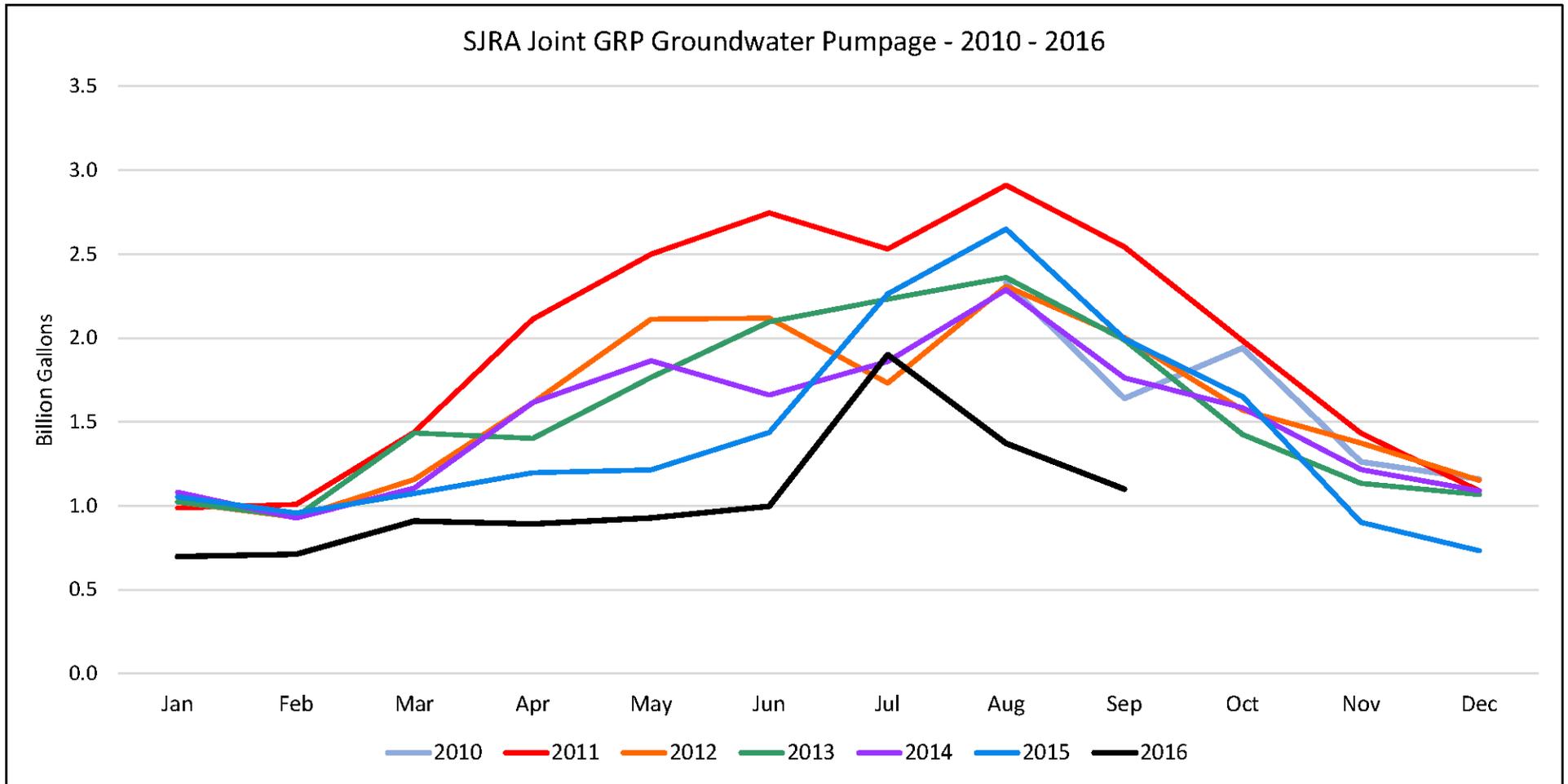
The table and chart below reflect the historical usage of groundwater and alternative water sources for all Joint GRP Participants. For representational purposes, historical surface water usage has been presented independently from other AWS usage. For an accounting of Early Conversion Credits, please refer to Section 2.2.

	Reported Surface Water Usage in Gallons			Reported Groundwater 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	20,047,800
Feb	0	0	464,506,000	927,403,262	957,449,001	711,999,491	9,329,000	11,616,332	21,042,100
Mar	0	0	472,880,000	1,106,284,834	1,073,944,063	909,196,029	12,338,000	17,476,258	24,494,500
Apr	0	0	497,328,000	1,615,439,368	1,197,285,858	892,397,014	16,715,000	14,505,905	27,835,300
May	0	0	492,059,000	1,864,139,670	1,214,339,213	928,947,323	17,904,000	12,331,000	24,949,500
Jun	0	0	520,498,000	1,660,110,972	1,437,279,301	998,493,881	13,515,000	17,789,706	34,617,000
Jul	0	0	692,602,000	1,860,403,649	2,261,950,683	1,900,947,040	20,530,000	30,200,834	57,183,700
Aug	0	0	658,102,000	2,287,169,292	2,648,950,746	1,371,986,438	18,629,000	29,510,064	43,565,800
Sep	0	94,555,000	646,490,000	1,763,157,393	1,994,471,242	1,099,594,053	17,319,000	29,794,419	36,755,100
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	
<b>Total</b>	<b>0</b>	<b>1,083,256,000</b>	<b>4,846,866,000</b>	<b>18,055,718,378</b>	<b>17,123,335,624</b>	<b>9,511,477,510</b>	<b>176,826,000</b>	<b>231,666,918</b>	<b>290,490,800</b>



### 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 September, 2016.



## 2.0 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.

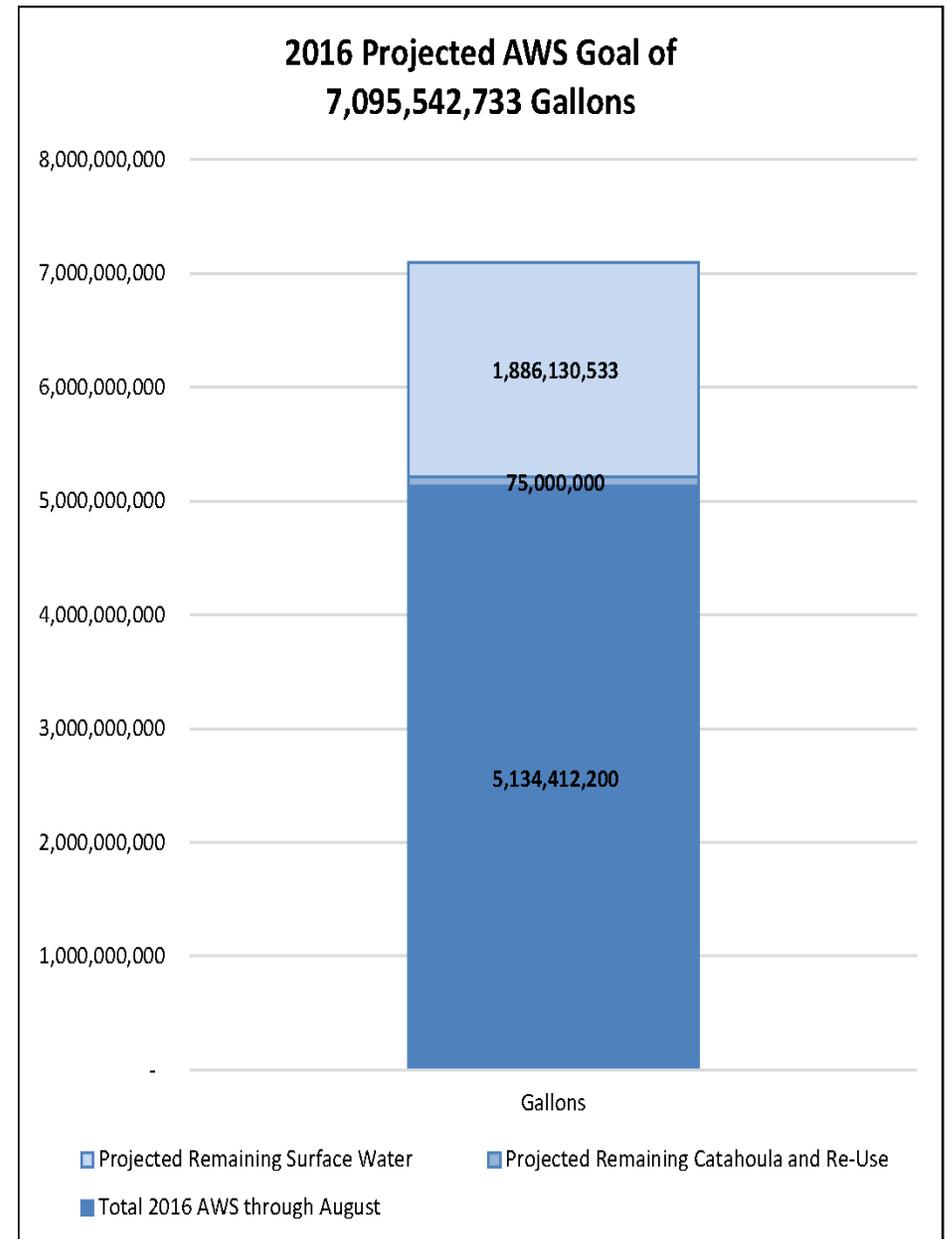
### 2.1 LONE STAR GROUNDWATER CONSERVATION DISTRICT REQUIREMENT STATUS

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 Participants' total ICO Adjusted TQD is **14,023,318,008 GPY**. The Joint GRP's Participant's total current projected demand for 2016 is **21,118,860,741 GPY**.

### 2.2 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.

Early Conversion Credits in Gallons through December 31, 2015	
Early Conversion Credits - Surface Water	2,167,334,000
City of Willis Early Conversion Credits - 2013	17,802,000
City of Willis Early Conversion Credits - 2014	280,214,000
City of Willis Early Conversion Credits - 2015	265,908,000
<b>Total Gallons</b>	<b>2,731,258,000</b>



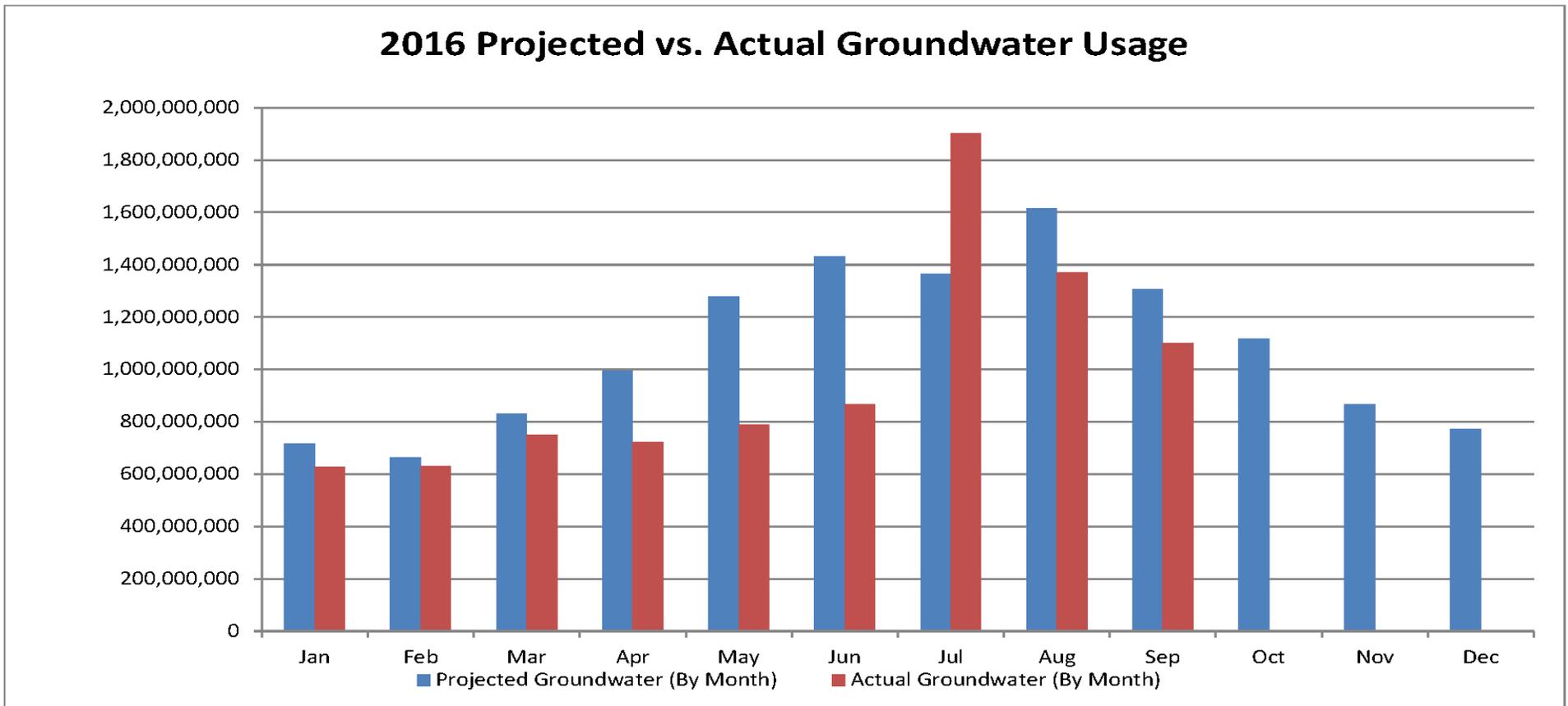
### 2.3 PARTICIPANTS

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

- N/A

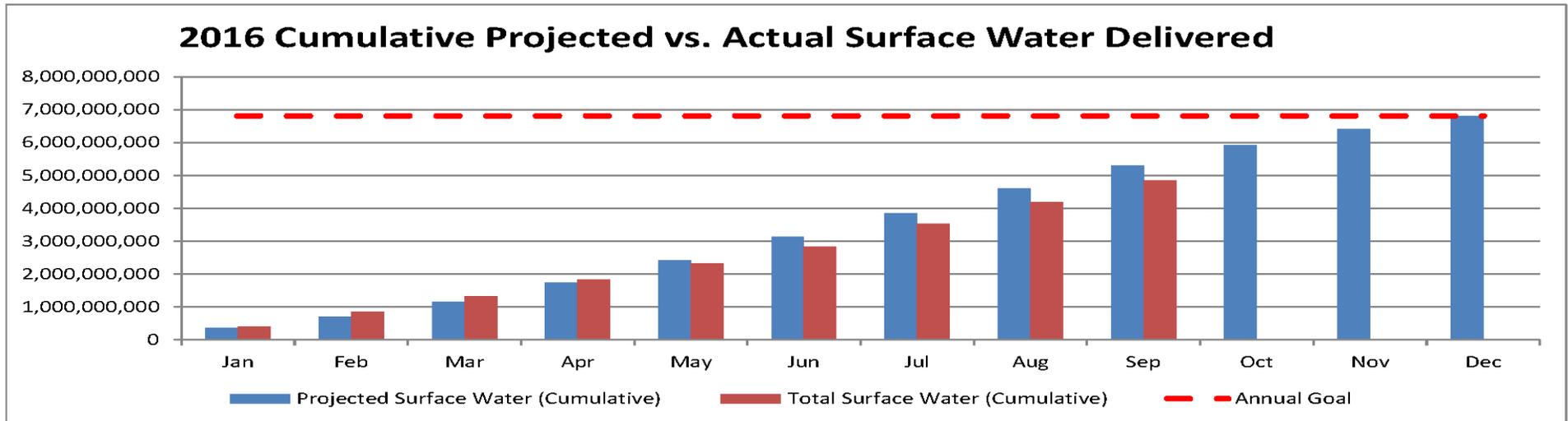
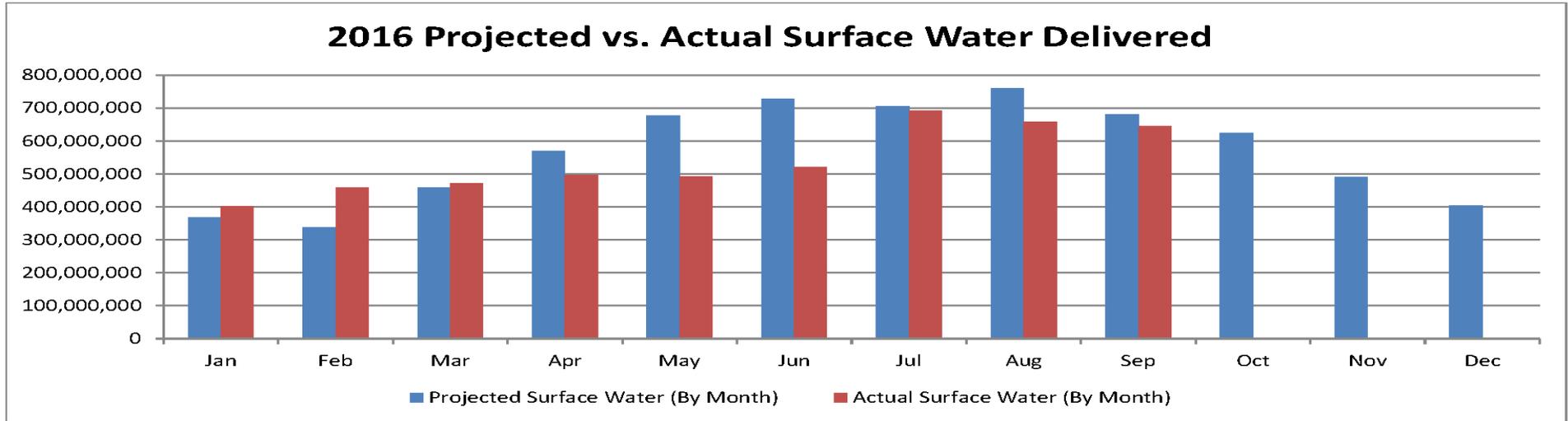
### 2.4 PROJECTED DATA VERSUS ACTUAL DATA FOR GROUNDWATER USAGE

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. Projected surface water demands come from the 2016 Production Schedule. 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.



## 2.5 PROJECTED VERSUS ACTUAL DATA FOR SURFACE WATER DELIVERY

The GRP estimates that it will need to deliver **6,813,979,199** gallons of surface water to meet its ICO. The surface water delivery estimate is based on mid-year evaluation of the GRP's actual groundwater usage. The recalculation uses actual groundwater pumpage amounts for January – June and projections for groundwater for July – December. Early Conversion Credits are not considered in the graphs below. For the month of September, **645,668,000** gallons of surface water were delivered.



## 3.0 FINANCIAL

### 3.1 SCHEDULE OF REVENUES AND EXPENSES

#### Schedule of Revenues and Expenses—Actual and Budget For Twelve Months Ending August 31, 2016 (Unaudited)

	Aug	Fiscal Year To Date				Fiscal Budget	
	Actual	Actual	Budget	Variance	% Variance	Total Year Budget	Actual YTD % of Total Year Budget
<b>OPERATING REVENUES</b>							
GRP pumping fees	\$ 3,604,782	\$ 31,535,107	\$ 29,700,716	\$ 1,834,391	6%	\$ 29,700,716	106%
GRP Surface Water Sales	1,651,836	13,234,667	19,939,981	(6,705,314)	(34%)	19,939,981	66%
LSGCD revenue	213,784	884,633	1,202,000	(317,367)	(26%)	1,202,000	74%
Compliance fee revenue	-	750	-	750	100%	-	0%
<b>TOTAL OPERATING REVENUES</b>	<b>\$ 5,470,402</b>	<b>\$ 45,655,158</b>	<b>\$ 50,842,697</b>	<b>\$ (5,187,539)</b>	<b>(10%)</b>	<b>\$ 50,842,697</b>	<b>90%</b>
<b>OPERATING EXPENSES</b>							
Payroll & employee benefit expenses	\$ 452,284	\$ 4,998,453	\$ 5,310,918	\$ 312,465	6%	\$ 5,310,918	94%
Professional fees	299,171	421,627	505,050	83,423	17%	505,050	83%
Purchased & contracted services	244,489	1,217,431	1,757,462	540,031	31%	1,757,462	69%
Supplies, materials & utilities	646,674	8,578,056	13,008,558	4,430,503	34%	13,008,558	66%
Maintenance repairs, parts & rentals	46,489	362,398	270,000	(92,398)	(34%)	270,000	134%
General & administration	68,690	584,825	834,069	249,244	30%	834,069	70%
<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 1,757,796</b>	<b>\$ 16,162,791</b>	<b>\$ 21,686,057</b>	<b>\$ 5,523,267</b>	<b>25%</b>	<b>\$ 21,686,057</b>	<b>75%</b>
<b>NON-OPERATING REVENUES &amp; EXPENSES</b>							
Interest on investments	\$ (2,496)	\$ 353,413	\$ 3,950	\$ 349,463	8,847%	\$ 3,950	8,947%
Other revenues	3,075	6,294	12,300	(6,006)	(49%)	12,300	51%
Interest expense	(1,798,928)	(21,312,914)	(21,299,405)	(13,509)	0%	(21,299,405)	100%
Capital contributions	-	1,327,541	-	1,327,541	100%	-	0%
<b>TOTAL NON-OPERATING (EXCLUDING ITEMS NOT BUDGETED)</b>	<b>\$ (1,798,350)</b>	<b>\$ (19,625,666)</b>	<b>\$ (21,283,155)</b>	<b>\$ 1,657,489</b>	<b>(8%)</b>	<b>\$ (21,283,155)</b>	<b>92%</b>
<b>NET INCOME (LOSS) (EXCLUDING ITEMS NOT BUDGETED)</b>	<b>\$ 1,914,257</b>	<b>\$ 9,866,701</b>	<b>\$ 7,873,485</b>	<b>\$ 1,993,216</b>	<b>25%</b>	<b>\$ 7,873,485</b>	<b>125%</b>
<b>NON-OPERATING REVENUES &amp; EXPENSES (NOT BUDGETED)</b>							
Depreciation	\$ (14,617,314)	\$ (15,142,402)	\$ -	\$ (15,142,402)	100%	\$ -	0%
Amortized debt issuance expense	(49,370)	(102,344)	-	(102,344)	100%	-	0%
<b>TOTAL NON-OPERATING (NOT BUDGETED)</b>	<b>\$ (14,666,683)</b>	<b>\$ (15,244,746)</b>	<b>\$ -</b>	<b>\$ (15,244,746)</b>	<b>100%</b>	<b>\$ -</b>	<b>0%</b>
<b>NET INCOME (LOSS) (BUDGETED AND NOT BUDGETED)</b>	<b>\$ (12,752,427)</b>	<b>\$ (5,378,045)</b>	<b>\$ 7,873,485</b>	<b>\$ (13,251,530)</b>	<b>(168%)</b>	<b>\$ 7,873,485</b>	<b>(68%)</b>

## **3.0 FINANCIAL**

### **3.1 SCHEDULE OF REVENUES AND EXPENSES**

#### **Schedule of Revenues and Expenses—Actual and Budget For One Month Ending September 30, 2016**

Due to the end of the Fiscal Year and its processes, Schedule of Budget Variances will not be provided for the month of September, 2016 in this report, however next month's report will include both September and October activities.



### 3.2 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 August.

#### For Twelve Months Ending August 31, 2016 (Unaudited)

Category	(in thousands) YTD - Driver	August 2016	FYTD 2016	
GRP Pumping Fees	Groundwater pumpage more than budgeted due to reduced Surface water delivery.	47	1,834	
GRP Surface Water Sales	Surface water delivery less than anticipated.	(739)	(6,705)	
LSGCD Revenue	Quarterly Billing of LSGCD pass through charges less than budgeted.	(86)	(317)	
Payroll and related expenses	Budgeted positions not filled as scheduled.	(36)	312	
Professional Fees	Professional fees less than budgeted.	(261)	83	
Purchased & Contracted Services	Purchased and contracted services below budgeted. Quarterly LSGCD Regulatory fees less than rate budgeted.	6 104	124 416	
Supplies, Materials, Utilities, Maintenance, Repairs, Parts & Rentals	Fuel, office supplies, phones, recruiting and misc. expenses less than budgeted.	(8)	456	
	Chemicals-Aggregate usage of Chemicals lower than expected.	6	575	
	GAC Replacement- Timing of replacement and life expectancy of material different than budgeted	850	813	
	Utilities-Electricity costs lower than expected	178	1,588	
	COH Reservation Fee less than budgeted		281	
	SJRA Reservation Fee more than budgeted due to lower Supply Use	(1)	(216)	
	SJRA Supply Use Fee less than budgeted	117	934	
	Maintenance repairs, parts & rentals expense more than budgeted due to unexpected pipeline repair	(24)	(92)	
	General & Administration	Allocated labor and related expenses less than budgeted, anticipated a quicker rate of growth than has been actualized.	1	249
	Non-Operating	Interest/Investment Income	(3)	349
Other Revenues		2	(6)	
Bond interest expense		(14)	(14)	
Capital Contribution		-	1,328	
Depreciation expense		(14,617)	(15,142)	
Bond Issuance Cost Amort expense		(49)	(102)	
		<u>(14,527)</u>	<u>(13,252)</u>	



### 3.2 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 September.

**For One Month Ending September 30, 2016**

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## 4.0 DIVISION UPDATES

### 4.1 DROUGHT CONTINGENCY PLAN TRIGGERS/STATUS

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

### 4.2 PUBLIC RELATIONS ACTIVITIES

Event	Type	Location	Date	Participants
West Harris County Regional Water Authority	Tour	GRP Surface Water Treatment Facilities	9/8/2016	GRP Staff, WHCRWA staff and AECOM staff
MUD Director Tour	Tour	GRP Surface Water Treatment	10/20/2016	GRP Staff and Mud Directors

### 4.3 UPCOMING ACTIVITIES.

Event	Type	Location	Date	Participants
Magnolia West High School	Tour	GRP Surface Water Treatment Facilities	11/15/2016	GRP Staff, Students and Teaching staff from Magnolia West High School
Legislative Group	Tour	GRP Surface Water Treatment	11/16/2016	GRP Staff and various members of the Legislative Group

## 5.0 SURFACE WATER WITHDRAWAL

### 5.1 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 September was **652,250,000** gallons or approximately 1.23 inches.

For further detail on lake level impacts, please refer to the Lake Conroe Division Monthly Update.