

# GROUNDWATER REDUCTION PLAN MONTHLY OPERATIONS REPORT

GRP Review Committee Meeting June 20, 2016 SJRA Board Meeting June 23, 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

GROUNDWATER

USER(S) (LVGU)

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.

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 June 8, 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 April is **891,004,714** 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 April is **515,678,300** gallons. The AWS data reflected in the tables below are reported by source and Participant for the month of March.

#### 1.2.1 Reported Surface Water Usage

Reported Surface Water Usage in Gallons - April 2016								
City of Conroe	123,275,000							
City of Oak Ridge North	3,748,000							
MSEC - Montgomery Trace/Crown Oaks	22,320,000							
Rayford Road MUD	12,331,000							
SJRA - The Woodlands	310,802,000							
Southern Montgomery County MUD	24,852,000							
Total Gallons	497,328,000							

#### 1.2.2 Reported Catahoula Aquifer Usage

Reported Catahoula Aquifer Usage in Gallons - April 2016						
City of Willis	10,395,000					
Corinthian Point MUD No. 2	2,793,000					
Total Gallons	13,188,000					

#### 1.2.3 Reported Reuse Water

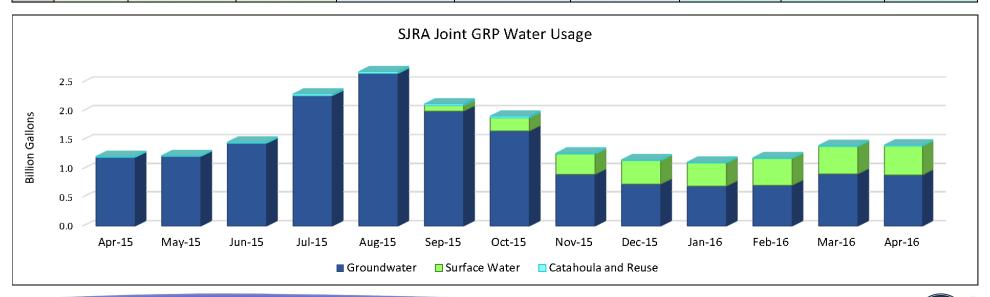
Reported Reuse Water in Gallons - April 2016						
Sequoia—Panther Trails	2,266,000					
Southern Montgomery County MUD	2,896,300					
Total Gallons	5,162,300					



#### 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.

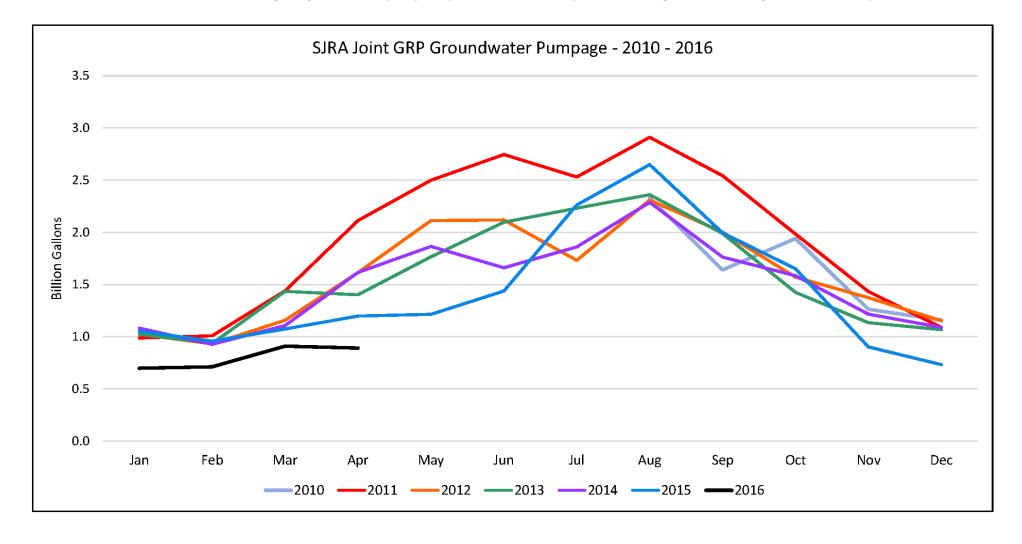
	Reported	Surface Water Us	age in Gallons	Reported G	Froundwater Usage	in Gallons	Reported Catahoula Aquifer and Reuse in Gallons			
	2014	2015	2016	2014	2015	2016	2014	2015	2016	
Jan	0	0	402,401,000	1,081,148,860	1,053,121,573	697,916,241	11,308,000	12,875,000	13,635,800	
Feb	0	0	464,506,000	927,403,262	957,449,001	711,999,491	9,329,000	11,616,332	13,174,100	
Mar	0	0	472,880,000	1,106,284,834	1,073,944,063 909,196,029		12,338,000	17,476,258	15,869,500	
Apr	0	0	497,328,000	1,615,439,368	1,197,285,858	891,004,714	16,715,000	14,505,905	18,350,300	
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	2,261,950,683		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	1,837,115,000	18,055,718,378	17,123,335,624	3,210,116,475	176,826,000	231,666,918	61,029,700	





#### 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 April, 2016.



#### 2.0 LAKE LEVEL IMPACTS

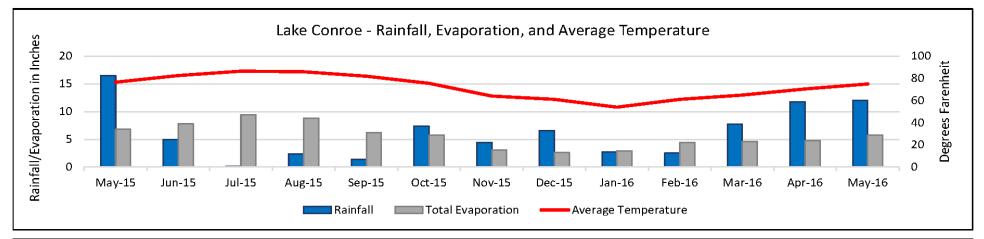
For the purpose of this report, GRP Division staff will monitor and report on several indicators, which impact the lake level of Lake Conroe.

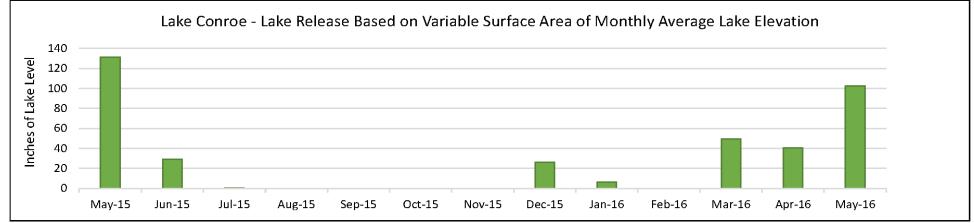
#### 2.1 SURFACE WATER WITHDRAWAL

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 May was **515,020,000** gallons or approximately 0.963 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.

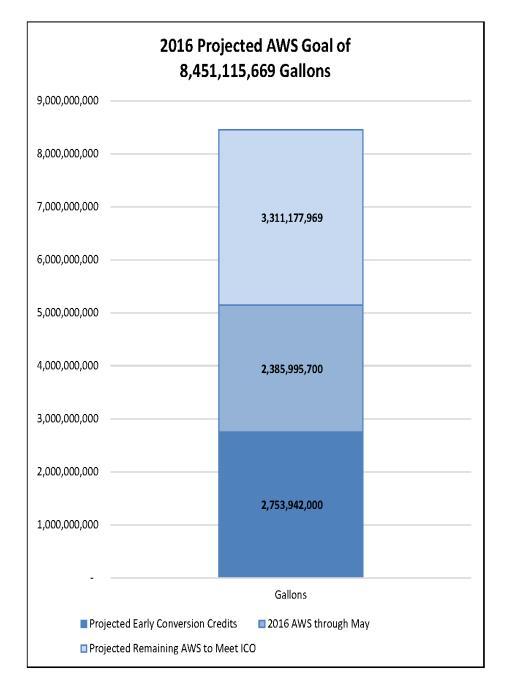
#### 3.1 LONE STAR GROUNDWATER CONSERVATION DISTRICT RE-QUIREMENT STATUS

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					





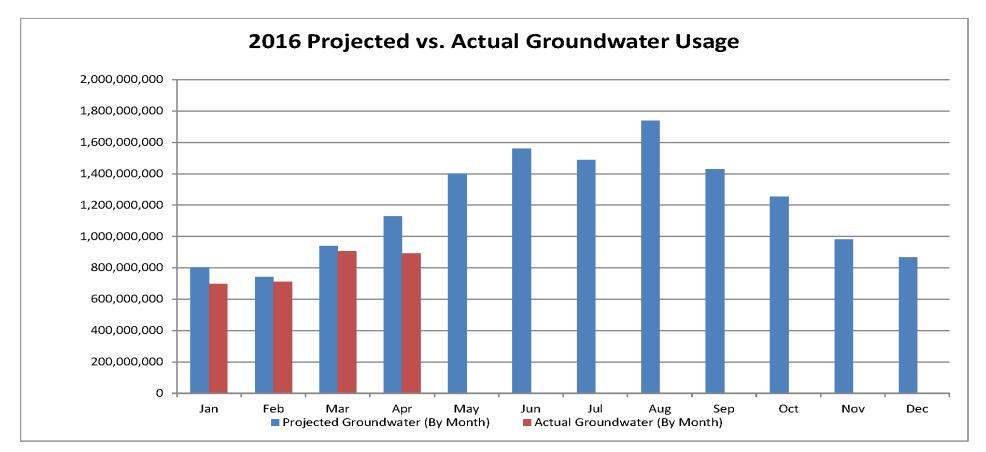
#### 3.3 PARTICIPANTS

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

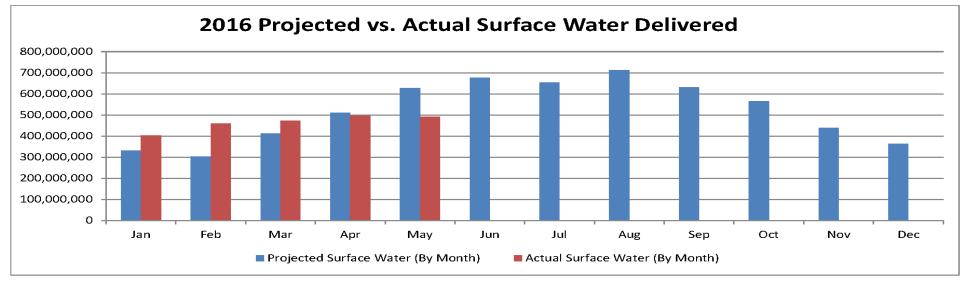
#### 3.4 PROJECTED DATA VERSUS ACTUAL DATA FOR GROUNDWATER USAGE

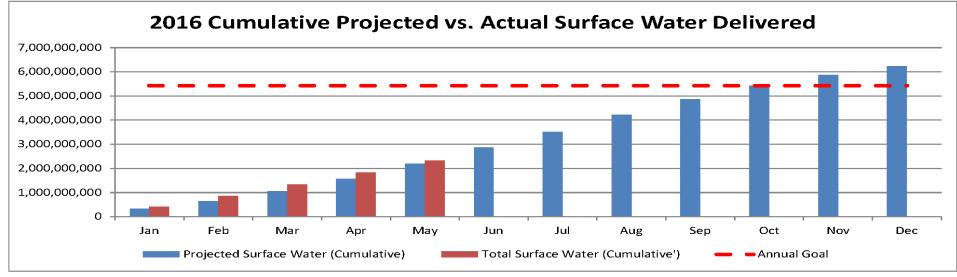
In an effort to comply with LSGCD's rules for groundwater reduction, GRP Division staff tracks groundwater pumpage monthly to ensure that the Joint GRP does not exceed the Participant's total overall ICO Adjusted TQD as referenced in Section 3.1. Conversion status will be evaluated monthly by comparing 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 May, **492,445,000** 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 Nine Months Ending May 31, 2016

	May	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	\$ 2.587.800	\$	21,502,210	\$	19,805,345	\$	1.696.865	9%	\$	29,700,716	72%
GRP Surface Water Sales	1,544,488	•	8,565,199	*	13,290,947	•	(4,725,748)	(36%)	•	19,939,981	43%
LSGCD revenue	208,229		670,849		901,500		(230,651)	(26%)		1,202,000	56%
Compliance fee revenue			250		-		250	100%		-	0%
TOTAL OPERATING REVENUES	\$ 4,340,517	\$	30,738,509	\$	33,997,792	\$	(3,259,283)	(10%)	\$	50,842,697	60%
OPERATING EXPENSES											
Payroll & employee benefit expenses	\$ 391,371	\$	3,605,928	\$	3,903,948	\$	298,019	8%	\$	5,310,918	68%
Professional fees	7.096	*	107.905	*	375,250	*	267,345	71%	*	505,050	21%
Purchased & contracted services	244.584		901.232		1.323.096		421.864	32%		1,757,462	51%
Supplies, materials & utilities	487,118		5,128,075		9,423,056		4,294,981	46%		13,008,558	39%
Maintenance repairs, parts & rentals	39,475		130,049		202,500		72,451	36%		270,000	48%
General & administration	49,608		411,117		625,552		214,435	34%		834,069	49%
TOTAL OPERATING EXPENSES	\$ 1,219,253	\$	10,284,307	\$	15,853,402	\$	5,569,096	35%	\$	21,686,057	47%
NON-OPERATING REVENUES & EXPENSES											
Interest on investments	\$ 11,527	\$	251,822	\$	2,962	\$	248,860	8,401%	\$	3,950	6,375%
Other revenues	- 11,021	Ψ	3.219	Ψ	9.225	•	(6,006)	(65%)	۳	12.300	26%
Interest expense	(1,785,419)		(15,943,149)		(15,943,147)		(2)	0%		(21,299,405)	75%
Capital contributions	-		1,327,541		-		1,327,541	100%		-	0%
TOTAL NON-OPERATING (EXCLUDING ITEMS NOT			.,,.				1,021,011		_		
BUDGETED)	\$ (1,773,892)	_\$_	(14,360,567)	\$	(15,930,960)	\$	1,570,393	(10%)	\$	(21,283,155)	67%
NET INCOME (LOSS) (EXCLUDING ITEMS NOT											
BUDGETED)	\$ 1,347,372	_\$_	6,093,635	\$	2,213,430	\$	3,880,205	175%	_\$_	7,873,485	77%
NON-OPERATING REVENUES & EXPENSES (NOT BUDGETED)											
Depreciation	\$ (86,570)	\$	(398,349)	\$	_	\$	(398,349)	100%	\$	_	0%
Amortized debt issuance expense	363	Ψ	3.265	Ψ	_	Ψ	3,265	100%	Ψ	_	0%
TOTAL NON-OPERATING (NOT BUDGETED)	\$ (86,208)	\$	(395,084)	\$	-	\$	(395,084)	100%	\$	-	0%
NET INCOME (LOSS) (BUDGETED AND NOT											
BUDGETED)	\$ 1,261,165	\$	5,698,552	\$	2,213,430	\$	3,485,121	157%	\$	7,873,485	72%



#### **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 May.

#### For Eight Months Ending May 31, 2016

Category	YTD - Driver	May 2016	FYTD 2016
GRP Pumping Fees	RP Pumping Fees Groundwater pumpage more than budgeted due to reduced Surface water delivery.		1,697
GRP Surface Water Sales	Surface water delivery less than anticipated.	(473)	(4,725)
LSGCD Revenue	Quarterly Billing of LSGCD pass through charges less than budgeted.	(93)	(231)
Payroll and related expenses	Budgeted positions not filled as scheduled.	25	298
Professional Fees	Professional fees less than budgeted.	31	267
Purchased & Contracted Services	Purchased and contracted services below budgeted.	6	110
	Quarterly LSGCD Regulatory fees less than rate budgeted.	104	312
Supplies, Materials, Utilities, Maintenance, Repairs, Parts & Rentals	Fuel, office supplies, phones, recruiting and misc. expenses less than budgeted.	46	369
	Chemicals-Aggregate usage of Chemicals lower than expected.	38	472
	GAC Replacement - GAC Replacement not yet necessary	-	1,700
	Utilities-Utility costs lower than expected	135	1,052
	COH Reservation Fee less than budgeted	-	281
	SJRA Reservation Fee more than budgeted	(12)	(204)
	SJRA Supply Use Fee less than budgeted	116	625
	Maintenance repairs, parts & rentals expense less than budgeted.	(17)	72
General & Administration	Allocated labor and related expenses less than budgeted,		
	anticipated a quicker rate of growth than has been actualized.	19	214
Non-Operating	Interest/Investment Income	12	249
Tron operating	Other Revenues	(1)	(6)
	Bond interest expense	-	- (0)
	Capital Contribution	_	1,328
	Depreciation expense	(86)	(398)
	Bond Issuance Cost Amort expense	-	3
		(565)	3,485

#### **4.3 CAPITAL ASSET PURCHASES**

For the month of May, a Fluke Thermal Imager in the amount of \$7,209.99 was purchased as an asset addition.

## **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**

There were no public relations activities to report.

#### **5.3 UPCOMING ACTIVITIES**

There are currently no upcoming activities scheduled.

