



**Kenneth J. Peters**  
Senior Vice President  
& Chief Nuclear Officer  
Kenneth.Peters@luminant.com

**Luminant Power**  
P O Box 1002  
6322 North FM 56  
Glen Rose, TX 76043

**T** 254 897 6565  
**C** 817 776 0037  
**F** 254 897 6652

CP-201600389  
Log # TXX-16064

April 28, 2016

ATTN: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT  
DOCKET NOS. 50-445/446  
SUBMITTAL OF THE ANNUAL NON-RADIOLOGICAL  
ENVIRONMENTAL OPERATING REPORT FOR 2015

Dear Sir or Madam:

Luminant Generation Company LLC (Luminant Power) hereby submits for Comanche Peak Nuclear Power Plant (CPNPP), the enclosed copy of the Annual Non-Radiological Environmental Operating Report for the CPNPP Radiological Environmental Monitoring Program. This report is submitted pursuant to Appendix B of the CPNPP Unit 1 and 2 Operating License Nos. NPF-87 and NPF-89. The report covers the period from January 1, 2015 through December 31, 2015 and summarizes the results of measurements and analysis of data obtained from samples collected during this interval.

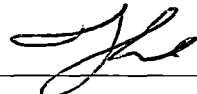
This communication contains no new licensing basis commitments regarding CPNPP Units 1 and 2.

If there are any questions regarding this report, contact Steve Dixon at (254) 897-5482 or Tim Curtis at (254) 897-5660.

Sincerely,

Luminant Generation Company LLC

Kenneth J. Peters

By: 

Thomas P. McCool  
Site Vice President

IEZS  
NRR

U. S. Nuclear Regulatory Commission  
TX-16064  
Page 2  
04/28/2016

Enclosure - Annual Non-Radiological Environmental Operating Report For 2015

c - M. L. Dapas, Region IV  
K. M. Kennedy, Region IV  
M. Watford, NRR  
Resident Inspectors, Comanche Peak

Enclosure 1

Comanche Peak Annual Non-Radiological Environmental Operating Report For  
2015

**LUMINANT POWER**  
**COMANCHE PEAK NUCLEAR POWER PLANT**  
**UNITS 1 & 2**  
**2015**  
**ANNUAL ENVIRONMENTAL OPERATING REPORT**  
**(NON-RADIOLOGICAL)**  
**FACILITY OPERATING LICENSE NOS. NPF-87 & 89**

## **I. INTRODUCTION**

This report describes implementation of the Environmental Protection Plan (EPP) for the calendar year 2015 as required by Appendix B to Facility Operating License Nos. NPF-87 & 89 for Comanche Peak Nuclear Power Plant (CPNPP) for Units 1 & 2.

During 2015, the CPNPP Non-radiological Environmental Monitoring Program was effective in implementing and monitoring all CPNPP environmental regulatory commitments. Program effectiveness in 2015 was substantiated by Luminant Corporate environmental audits and compliance evaluations of the CPNPP Environmental program.

## **II. SCOPE**

Section 5.4.1 of the EPP requires that CPNPP submit to the NRC an Annual Environmental Operating report that shall address the following environmental protection activities:

- A. Summaries and analyses of the results of the environmental protection activities required by Section 4.2 of the EPP, including a comparison with related preoperational studies; operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, a detailed analysis of the data and a proposed course of mitigating actions are required. Section 4.2 of the EPP pertains to results from:
  - 1. Groundwater levels and station water use monitoring.
  - 2. Water treatment facility outages impact assessment and reporting.
- B. The report shall also include:
  - 1. A list of EPP non-compliances and the associated corrective actions.
  - 2. A list of all changes in station design and operation, tests, and experiments made in accordance with Subsection 3.1 of the EPP which involved a potentially significant unreviewed environmental question.
  - 3. A list of non-routine reports submitted in accordance with Subsection 5.4.2 of the EPP.
  - 4. A summary list of Texas Pollutant Discharge Elimination System (TPDES) permit related reports relative to matters identified in Subsection 2.1 of the EPP which were submitted to the Texas Commission on Environmental Quality (TCEQ) during the report period. Subsection 2.1 of the EPP pertains to aquatic matters that are addressed by the effluent limitations, and the monitoring requirements contained in the TCEQ TPDES station wastewater discharge permit.
- C. Additional information added but not required:
  - 1. Squaw Creek Reservoir (SCR) make-up and release data (Figure 3)
  - 2. Annual Rainfall data (Figure 4)

### **III. RESULTS OF ACTIVITIES**

- A. As required by Subsection 4.2 of the EPP, the following are summaries and analyses of the environmental protection activities during 2015. Based on the results of these activities, there were no observed adverse environmental impacts resulting from plant operation during 2015.

#### **1. Groundwater Pumpage**

As indicated in Table 2, groundwater pumpage during 2015 averaged 0.137 gals /min. (gpm) or 71900 total gallons withdrawn for the year. This withdrawal rate represents a 51% increase from the 2014. This was due to adding the recreation area restrooms to the system. CPNPP continues to be supplied by Somervell County Water District (SCWD) which started in January 2012. Groundwater withdrawal dropped to <1 gpm after Somervell County Water District (SCWD) became our supplier.

Groundwater withdrawn during 2015 was used primarily for potable and sanitary purposes. No groundwater was used to supplement the station's Surface Water Treatment System.

The average annual pumpage rate of 0.137 gpm for 2015 represents <1% of the predicted operational pumpage (127 gpm) identified in Section 3.3 of the Station's Environmental Report - Operational License Stage. This rate also represents approximately 0.1 % of the actual average withdrawal rate (158 gpm) reported in the Station's Final Environmental Statement - Operating License Stage (Section 5.3.1.2) for the period 1975 to May 1979.

#### **2. Groundwater Levels**

As indicated in Table 1, the groundwater level in the on-site observation well OB-3 (intersection of Highway 56 and the Plant Access Road) fluctuated during 2015 from a low level in September of 603.78 ft. Mean Sea Level (MSL) to a high level in June of 611.76 ft. MSL. Overall, the water level in OB-3 during the reporting period (January through December) increased 3.57 ft. = 1.09 m. The 2015 annual average groundwater levels in wells OB-3 and OB-4 were 608.07 ft. MSL and 549.02 ft. MSL respectively.

3. **Surface Water Treatment System Operation**

The station's Water Treatment System processed **202,445,000** total gallons of surface water during 2015 for plant process use. No outages in 2015 that required reporting in accordance with Section 4.2.2 of the EPP.

The following is a summary list of monthly surface water usage:

Month	Gallons Clarified
January	14,790,000
February	14,187,000
March	15,520,000
April	17,397,000
May	17,172,000
June	16,405,000
July	18,715,000
August	18,715,000
September	17,473,000
October	18,222,000
November	16,554,000
December	17,295,000
<b>Total annual production</b>	<b>202,445,000</b>

B. **EPP Noncompliance and Corrective Actions - Subsection 5.4.1(1)**

There were no non-compliances with the requirements of the EPP during the reporting period.

C. **Changes In Station Design or Operation, Tests, and Experiments Made In Accordance With Subsection 3.1 Which Involved A Potentially Significant Unreviewed Environmental Question.**

There were no changes in station design, operation, tests or experiments conducted during the reporting period that are reportable under this subsection.

D. **Non-routine Reports Submitted In Accordance With Subsection 5.4.2**

None

E. **Texas Pollutant Discharge Elimination System (TPDES) Permit-Related Reports Relative to Matters Identified In Subsections 2.1 and 5.4.1**

1. Routine monthly electronic Discharge Monitoring Reports (netDMR) for all wastewater outfalls were submitted to the Texas Commission on Environmental Quality (TCEQ) for each month during 2015. The following is a summary list of correspondence pertaining to netDMRs and TPDES permit related documents.

Month Monitored	Log Number/Date
<b>January</b>	TXE-15031 02/20/2015
<b>February</b>	TXE-15048 03/20/2015
<b>March</b>	TXE-15070 04/20/2015
<b>April</b>	TXE-15080 05/20/2015
<b>May</b>	TXE-15097 06/19/2015
<b>June</b>	TXE-15109 07/20/2015 TXE-15110 07/20/2015 (Bio-monitoring Report)
<b>July</b>	TXE-15123 08/20/2014
<b>August</b>	TXE-15129 09/18/2015
<b>September</b>	TXE-15140 10/20/2015
<b>October</b>	TXE-15152 11/20/2015
<b>November</b>	TXE-15168 12/18/2015
<b>December</b>	TXE-16012 01/20/2016 TXE-16013 01/20/2016 (Bio-monitoring Report)

2. Bio-monitoring was on a semi-annual frequency in 2015. The first half sample was conducted in February and the second in October. All required test were passed satisfactorily for the two test performed in 2015.
3. There were no excursions in 2015 with reference to TPDES wastewater discharge permit.
4. There were fifteen (15) incidental spills in 2015 with none being reportable.  
Petroleum – 11, Sewage – 3, Chemical – 1 and Process Water - 0

- F. Environmental maintains Squaw Creek Reservoir (SCR) for the primary purpose of providing quality cooling water for CPNPP and managing SCR water inventory within operational guidelines for both make-up and release. A secondary function is to minimize removal rate from Lake Granbury during periods of drought or when water conservation measures implemented by the State.



Figures 3 and 4 provide historical data related to SCR net water released and associated rainfall.

Additionally, the overall net make-up and release has an impact on the tritium (H3) concentration in SCR. Taking into account environmental factors, operating SCR at a lower level (between 774' and 775' mean sea level (MSL)) versus at greater than or equal to 775.08' with release over spillway has slightly increased the tritium concentration in SCR. However, this slight increase fluctuates and is basically negligible.

The description of the monitoring and evaluation of tritium impact to Members of the Public is contained in CPNPP 2015 Radiological Environmental Report.

**TABLE 1**

**2015 SUMMARY OF GROUNDWATER  
LEVELS IN OBSERVATION WELLS**

ANNUAL GROUNDWATER LEVEL CHANGE FOR 2015:

Well OB-3: 286.93 ft. – 283.36 ft. = 3.57 ft. = 1.09 m (increase)

Well OB-4: 297.84 ft. – 296.15 ft. = 1.69 ft. = 0.52 m (increase)

**NOTES:**

(1) Depth to water table (ft.)

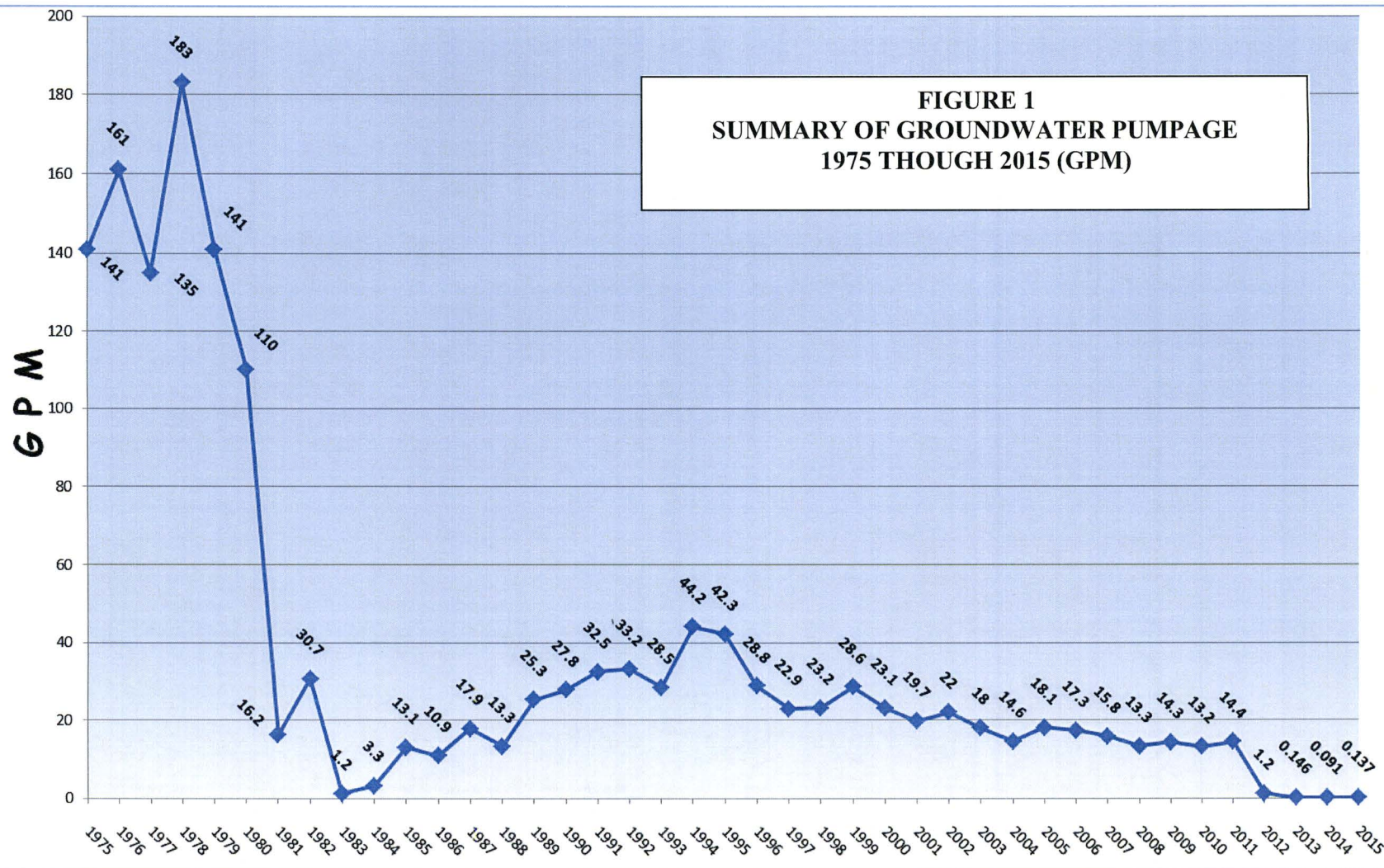
(2) Water table elevation (ft.) Mean Sea Level (MSL)

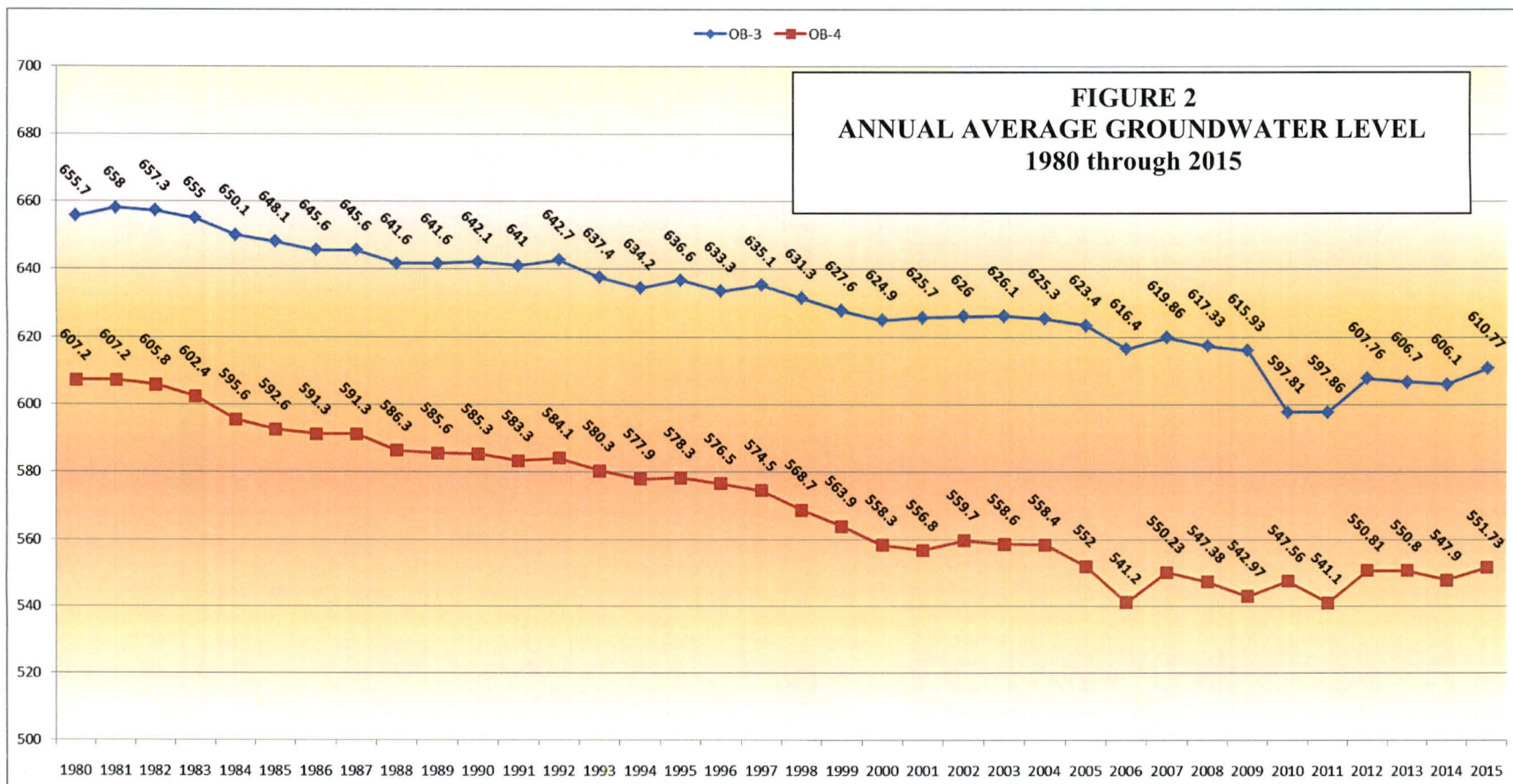
MONTH	WELL OB-3 (G-3)		WELL OB-4 (G-4)	
	DEPTH (1)	MSL (2)	DEPTH (1)	MSL (2)
January	286.93	607.2	297.84	550.04
February	286.38	607.75	297.34	550.54
March	285.91	608.22	296.05	551.83
April	284.94	609.19	295.45	552.43
May	282.71	611.42	292.23	555.65
June	282.37	611.76	292.51	555.37
July	285.45	608.68	299.72	548.16
August	288.17	605.96	304.86	543.02
September	290.35	603.78	307.71	540.17
October	289.45	604.68	305.88	542.00
November	286.71	607.42	300.54	547.34
December	283.36	610.77	296.15	551.73

## Annual Production Well Report for Recreation/Training System

Month	Well Reading Last Day of Month (gallons)	Monthly Well Total (gallons)	Well Cumulative Total (gallons)	Number Days/Month	Total Days/Year	Gallons Per Day (average)	Monthly GPM	Yearly Cumulative GPM
January	177500	6100	6100	31	31	196.77	0.137	0.1366
February	187300	9800	15900	28	59	350.00	0.243	0.1871
March	196300	9000	24900	31	90	290.32	0.202	0.1921
April	206400	10100	35000	30	120	336.67	0.234	0.2025
May	212600	6200	41200	31	151	200.00	0.139	0.1895
June	214400	1800	43000	30	181	60.00	0.042	0.1650
July	218400	4000	47000	31	212	129.03	0.090	0.1540
August	223400	5000	52000	30	242	166.67	0.116	0.1492
September	232100	8700	60700	31	273	280.65	0.195	0.1544
October	236100	4000	64700	31	304	129.03	0.090	0.1478
November	240600	4500	69200	30	334	150.00	0.104	0.1439
December	243300	2700	71900	31	365	87.10	0.060	0.1368
<b>Totals</b>			<b>71900</b>		<b>365</b>			<b>0.1368</b>

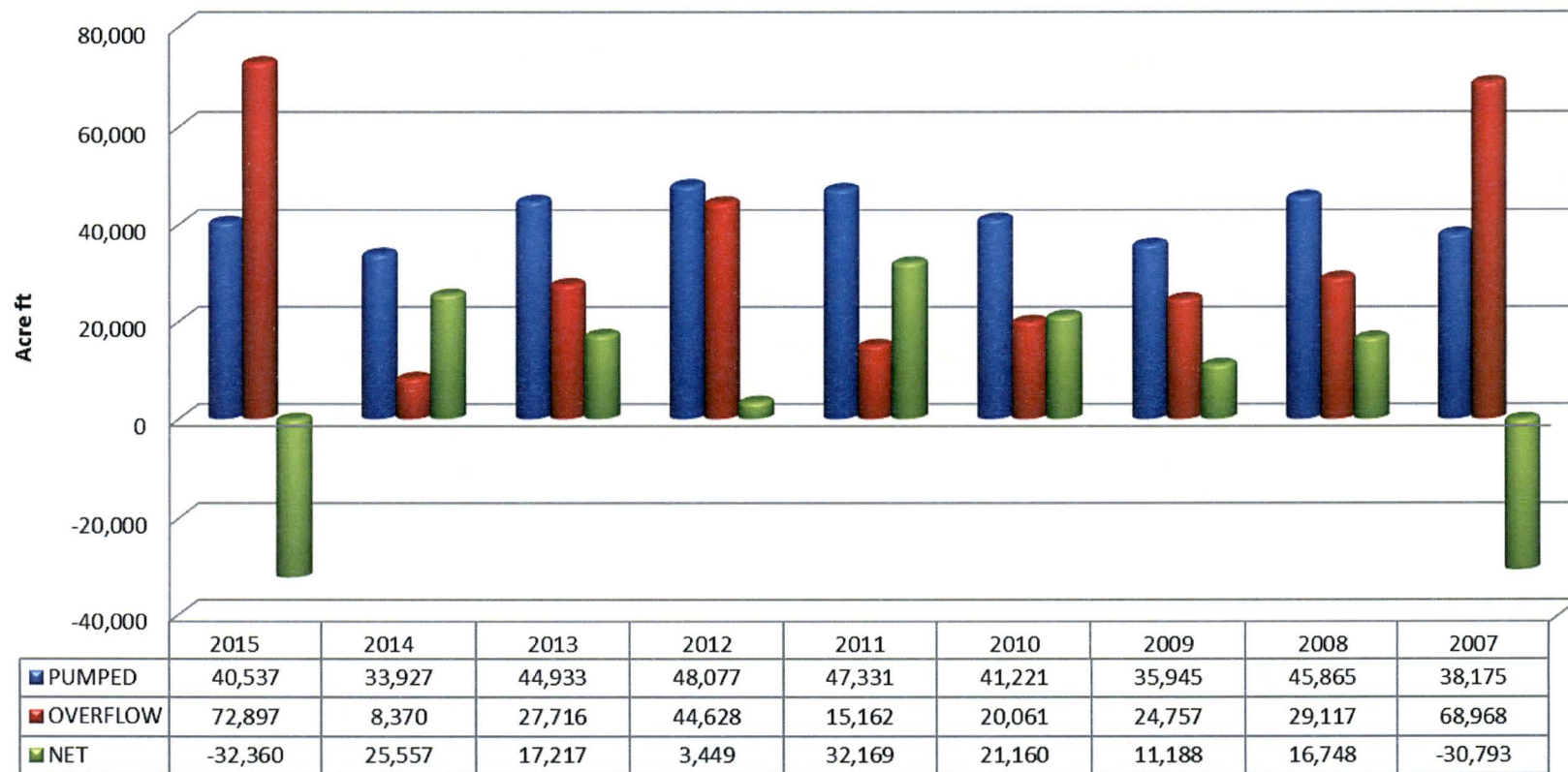
**NOTE:** All other site wells plugged







**Figure 3**  
**SCR Makeup/Release 2007-2015**



**Figure 4**  
**Annual Rainfall**

