



**TXU Electric**  
**Comanche Peak**  
**Steam Electric Station**  
P.O. Box 1002  
Glen Rose, TX 76043  
Tel: 254 897 8920  
Fax: 254 897 6652  
lterry1@txu.com

**C. Lance Terry**  
Senior Vice President & Principal Nuclear Officer

CPSES-200001074  
Log # TXX-00092  
File # 225

April 27, 2000

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)**  
**DOCKET NOS. 50-445 AND 50-446**  
**ENVIRONMENTAL PROTECTION PLAN**  
**ANNUAL ENVIRONMENTAL OPERATING REPORT FOR 1999**

Gentlemen:

Pursuant to Section 5.4.1 of the Environmental Protection Plan (Appendix B to CPSES Unit 1 and Unit 2 Facility Operating License Nos. NPF-87 and NPF-89, respectively), TXU Electric hereby submits the CPSES 1999 Annual Environmental Operating Report in the attachment to this letter.

If you have any questions, please contact Mr. Bruce Turner at (254) 897-8901.

*JE25*

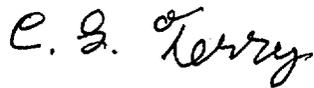
CPSES-200001074

TXX-00092

Page 2 of 2

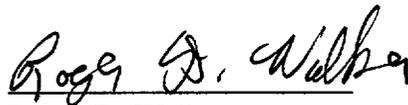
This communication contains no new licensing basis commitments regarding CPSES Units 1 and 2.

Sincerely,



C. L. Terry

By:



Roger D. Walker  
Regulatory Affairs Manager

CLW/grp

Attachment

c - E. W. Merschoff, Region IV  
J. I. Tapia, Region IV  
D. H. Jaffe, NRR  
Resident Inspectors, CPSES

**TU ELECTRIC**  
**COMANCHE PEAK STEAM ELECTRIC STATION**  
**UNITS 1 & 2**  
**1999**  
**ANNUAL ENVIRONMENTAL OPERATING REPORT**  
**(NONRADIOLOGICAL)**  
**FACILITY OPERATING LICENSE NOS. NPF-87 & 89**

## **I. INTRODUCTION**

This report describes implementation of the Environmental Protection Plan (EPP) for the calendar year 1999 as required by Appendix B to Facility Operating License Nos. NPF-87 & 89 for Comanche Peak Steam Electric Station (CPSES) for Units 1 & 2.

During 1999, the CPSES Nonradiological Environmental Monitoring Program was effective in implementing and monitoring all of CPSES's environmental regulatory commitments. Program effectiveness was substantiated by environmental audits conducted in 1999 by in-house compliance visits by Environmental Services (TU Services) and compliance evaluations conducted by the CPSES Nuclear Overview Department. Also, the Texas Natural Resource Conservation Commission (TNRCC) performed regulatory inspections of CPSES's programs pertaining to potable water. No violations or deficiencies were found during these inspections.

## **II. SCOPE**

Section 5.4.1 of the EPP requires that CPSES 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 nonradiological 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 action is 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 noncompliances 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 nonroutine reports submitted in accordance with Subsection 5.4.2 of the EPP.
  - 4. A summary list of National Pollutant Discharge Elimination System (NPDES) permit related reports relative to matters identified in Subsection 2.1 of the EPP which were submitted to the EPA Region VI 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 EPA NPDES station wastewater discharge permit.

### 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 1999. Based on the results of these activities, there were no observed adverse environmental impacts resulting from plant operation during 1999.

#### 1. Groundwater Pumpage

As indicated in Table 1, groundwater pumpage during 1999 averaged 28.6 gals./min. (gpm) or 15,029,300 total gallons withdrawn for the year. This withdrawal rate represents a 23% increase from the 1998 average rate of 23.2 gpm. Groundwater withdrawal was highest in January at 53.9 gpm and lowest in May with an average withdrawal rate of 20.1 gpm.

Groundwater withdrawn during 1999 was used primarily for potable and sanitary purposes with only a very small amount used as make-up to the plant fire protection system. No groundwater was used to supplement the station's Surface Water Treatment System.

The average annual pumpage rate of 28.6 gpm for 1999 represents 22.5% 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 18% of the actual average withdrawal rate (158 gpm) reported in the Station's Final Environmental Statement - Operating License Stage (Section 5.3.1.2) of the period 1975 to May 1979.

The combined annual rate for all recorded preoperational groundwater pumpage averaged 68.8 gpm, while the average operational pumpage for the period 1990 through 1999 was 31.2 gpm. Therefore, the average operational rates are 55% less than the groundwater pumpage during the preoperational period. Figure 1 illustrates the annual fluctuation of groundwater withdrawal over the entire preoperational and operational period.

#### 2. Groundwater Levels

As indicated in Table 2, the groundwater level in the on-site observation well OB-3 (intersection of Highway 56 and the Plant Access Road) fluctuated during 1999 from a high level in April of 530.9 ft. Mean Sea Level (MSL) to a low level in September of 522.4 ft. MSL. Overall, the water level in OB-3 during the reporting period (January through December) decreased 4.6 ft. (1.4m).

The 1999 annual average groundwater levels in well OB-3 and OB-4 were 527.3 ft. MSL and 563.9 ft. MSL, respectively. These average levels demonstrated a decrease of 3.7 ft. (1.1m) for OB-3 and a decrease of 4.8 ft. (1.5m) for OB-4 from the respective average 1998 levels (Figure 2).

As indicated in Table 2, the most significant level of decline occurred between the months of July and September. During this period rainfall totaled 1.7 inches<sup>1</sup> while the average rainfall for this period, over a thirty-five (35) year record, totaled 7.6 inches. In addition, the annual total rainfall for 1999 was approximately 13.5 inches less than the annual rainfall for 1998 and was the lowest annual total recorded during the thirty-five (35) year period of record. Consequently, it appears that the decline in groundwater levels between the two reporting periods of 1998 and 1999 was primarily due to the drier conditions in 1999.

3. Surface Water Treatment System Operation

The station's Water Treatment System processed 184,967,300 total gallons (352 gpm) of surface water during 1999 for plant process use. There were no outages during 1999 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	SURFACE WATER PROCESSED (GALS.)
JANUARY	13,945,200
FEBRUARY	12,040,000
MARCH	16,925,700
APRIL	16,556,100
MAY	16,181,100
JUNE	15,771,700
JULY	15,478,500
AUGUST	15,338,100
SEPTEMBER	15,211,300
OCTOBER	16,907,500
NOVEMBER	15,954,600
DECEMBER	14,657,500
TOTAL	184,967,300

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

There were no noncompliances with the requirements of the EPP during the reporting period.

---

<sup>1</sup>Precipitation data as recorded in official records maintained for the U.S. Weather Service by a local observer located in Glen Rose, TX (Somervell County).

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. Nonroutine Reports Submitted In Accordance With Subsection 5.4.2

There were no nonroutine reports submitted under this subsection.

E. NPDES Permit-Related Reports Relative To Matters Identified In Subsections 2.1 and 5.4.1

1. Routine monthly Discharge Monitoring Reports (DMR) for all wastewater outfalls were submitted to the EPA and Texas Natural Resource Conservation Commission (TNRCC) for each month during 1999. The following is a summary list of correspondence pertaining to DMRs and NPDES permit related documents.

MONTH MONITORED	LOG NUMBER/DATE
JANUARY	TXX-99003 - 01-5-99 / "Bio-Monitoring Submission" TXX-99042 - 2-25-99
FEBRUARY	TXX-99077 - 3-25-99
MARCH	TXX-99092 - 4-25-99
APRIL	TXX-99117 - 5-25-99
MAY	TXX-99147 - 6-15-99 / "Bio-Monitoring Submission" TXX-99150 - 6-25-99
JUNE	TXX-99173 - 7-25-99 TXX-99184 - 7-30-99 / "Bio-Monitoring Submission"
JULY	TXX-99197 - 8-25-99
AUGUST	TXX-99215 - 9-25-99
SEPTEMBER	TXX-99233 - 10-25-99
OCTOBER	TXX-99262 - 11-24-99
NOVEMBER	TXX-99278 - 12-14-99 / "Bio-Monitoring Submission" TXX-99276 - 12-22-99
DECEMBER	TXX-00004 - 01-25-00

2. There was one (1) NPDES wastewater discharge permit noncompliance in 1999. The noncompliance pertained to the domestic waste treatment plant (NPDES Outfall 003). This represents a decrease of one noncompliance from 1998.

3. There were no on-site spills during 1999 that required reporting in accordance with the TNRCC's 24-hour notification requirements.

**TABLE 1**  
**SUMMARY OF GROUNDWATER PUMPAGE**  
**For 1999**

MONTH	PLANT WELL 1		PLANT WELL 2		NOSF WELL 1		NOSF WELL 2		TOTALS		NO. OF DAYS BETWEEN READINGS
	Total Gals.	Avg. Gals. Per Min.	Total Gals.	Avg. Gals. Per Min.	Total Gals.	Avg. Gals. Per Min.	Total Gals.	Avg. Gals. Per Min.	Total Gals.	Avg. Gals. Per Min.	
January	0	0	2,292,600	51.4	54,600	1.2	58,400	1.3	2,405,600	53.9	31
February	494,200	13.2	460,400	12.3	51,900	1.4	47,500	1.3	1,054,000	28.2	26
March	1,091,300	21.7	190,500	3.8	90,300	1.8	85,000	1.7	1,457,100	25.4	35
April	762,100	19.6	203,500	5.2	34,200	0.9	34,200	0.9	1,034,000	24.8	27
May	749,300	17.9	0	0	43,300	1.0	48,500	1.2	841,100	20.1	29
June	770,700	17.8	0	0	68,700	1.6	71,700	1.7	911,100	21.1	30
July	996,000	21.6	0	0	65,000	1.4	60,200	1.3	1,121,200	24.3	32
August	896,500	20.8	72,200	1.7	81,500	1.9	81,800	1.9	1,132,000	26.2	30
September	0	0	1,478,500	34.2	53,400	1.20	55,300	1.3	1,587,200	36.7	30
October	1,392,000	31.2	600	0.0	41,100	0.9	48,000	1.1	1,481,700	33.2	31
November	932,500	20.9	2,600	0.1	44,500	1.0	40,100	0.9	1,019,700	22.8	31
December	874,400	18.4	0	0	54,900	1.2	55,800	1.2	985,100	20.7	33
<b>TOTAL</b>	<b>8,959,000</b>	<b>17.0</b>	<b>4,700,900</b>	<b>8.94</b>	<b>683,400</b>	<b>1.3</b>	<b>686,500</b>	<b>1.3</b>	<b>15,029,800</b>	<b>28.6</b>	<b>365</b>

**TABLE 2**

**1999 SUMMARY OF GROUNDWATER  
LEVELS IN OBSERVATION WELLS**

MONTH	WELL OB-3 (G-3)		WELL OB-4 (G-4)	
	DEPTH (1)	MSL (2)	DEPTH (1)	MSL (2)
January	264.7	529.1	283.3	564.6
February	264.6	529.3	282.5	565.4
March	264.1	529.7	279.4	568.5
April	262.9	530.9	278.8	569.1
May	263.3	530.5	279.0	568.9
June	263.9	529.9	278.5	569.4
July	264.8	529.0	279.6	568.3
August	268.8	525.0	283.5	564.4
September	271.4	522.4	290.4	557.5
October	270.5	523.3	291.6	556.3
November	270.1	523.7	292.3	555.6
December	269.3	524.5	289.1	558.8

**ANNUAL GROUNDWATER LEVEL CHANGE FOR 1999:**

Well OB-3: 264.7 ft. - 269.3 ft = (-)4.6 ft. = (-)1.4m (Decrease)

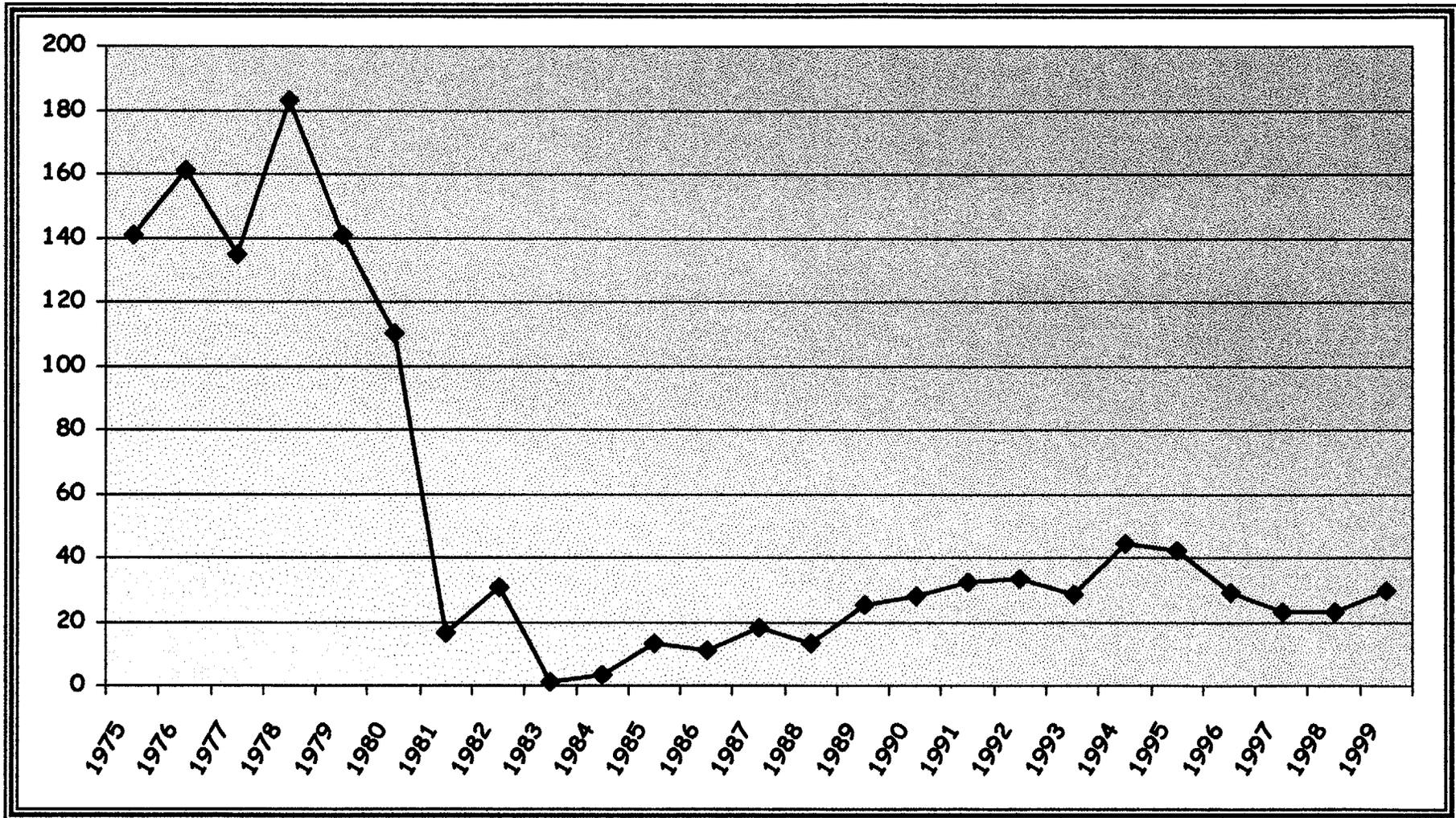
Well OB-4: 283.3 ft. - 289.1 ft = (-)5.8 ft. = (-)1.8m (Decrease)

**NOTES:**

- (1) Depth to water table (ft.)
- (2) Water table elevation (ft.) Mean Sea Level (MSL)

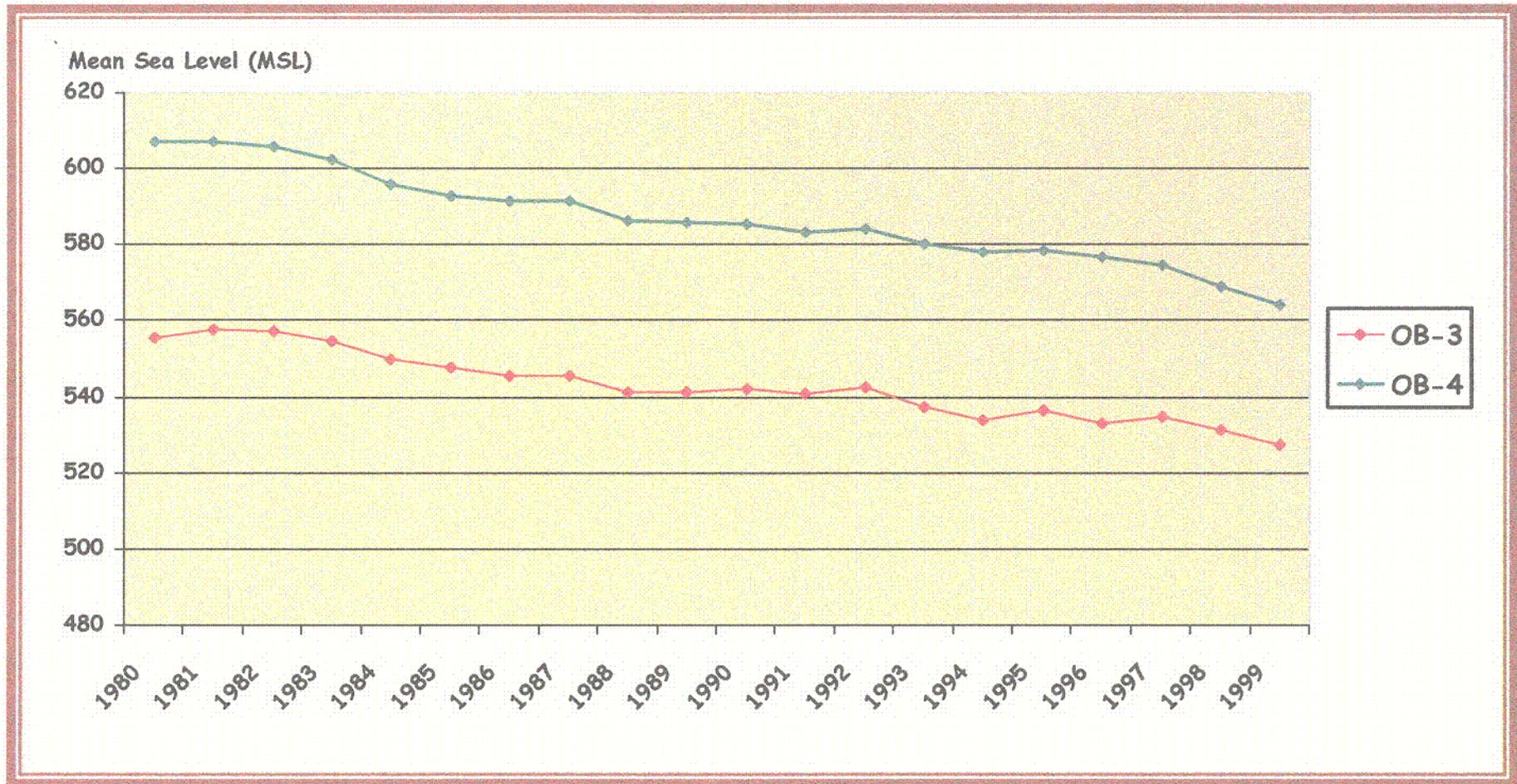
**FIGURE 1**  
**SUMMARY OF GROUNDWATER PUMPAGE**  
**1975 THROUGH 1999 (GPM)**

**Annual Groundwater Pumpage**



1. 2/8/90 - Unit #1 Operational. Discontinued using treated surface water for potable use.
2. 2/2/93 - Unit #2 Operational

FIGURE 2  
ANNUAL AVERAGE GROUNDWATER LEVEL  
1980 through 1999



C-1