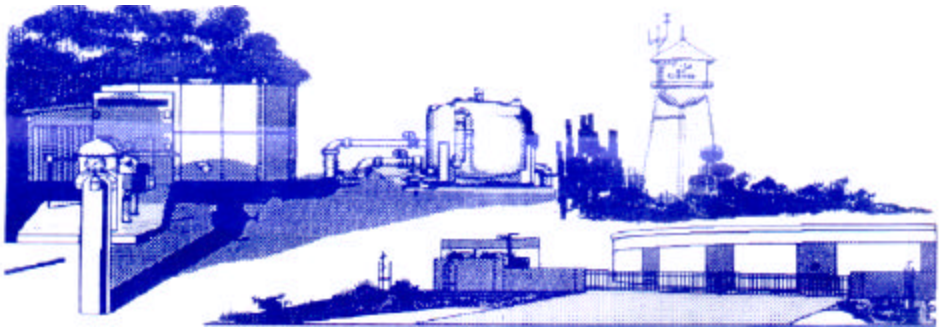

ANNUAL WATER QUALITY REPORT FOR 1997

CITY OF CLOVIS

As a water purveyor, the City of Clovis is responsible for insuring that all domestic water delivered to its customers meets all primary water quality standards required by the State of California. This annual report has been prepared to provide customers with a summary of the quality of water served by the City during the previous calendar year. All of the City's water was obtained from twenty-three (23) groundwater wells located in the City and six (6) groundwater wells located in Tarpey Village. The City regularly monitors all of its water sources by sampling for general physical, general mineral, organic chemicals, inorganic chemicals and radioactivity. In addition, weekly bacteriological sampling of the entire water system also occurs.

System Improvements - During 1997, the water supplied by the City of Clovis was of high quality and was supplied in accordance with all State standards. During the year, the City put two new sources, Wells 28 and 29, into the system. The City continues to make other improvements to the system. Auxiliary power was added at four well sites, making the City's water supply more reliable during power outages. In 1998, auxiliary power will be constructed at an additional two well sites and disinfection facilities at an additional five well sites.

DBCP Update - The City settled its civil suit with the makers of dibromochloropropane (DBCP) during 1997. DBCP was a soil fumigant for parasitic nematode control which was extensively used by agriculture prior to 1978 and is still showing up in our groundwater. The settlement provides funds to provide treatment on wells which exceed the maximum contaminant level for the chemical. The City currently has seven wells with treatment facilities to remove DBCP, with the last one having been added this past year. There are an additional three wells which are inactive due to exceeding the Maximum Contaminant Level for DBCP.

Water Conservation - The City is continuing a program for customers who wish to replace their existing 5 to 7 gallon per flush toilets with ultra-low flow (1.6 gallon) models. Up to $75 rebates are available to customers who replace their old, high flow toilets with ultra-low flow models. The City also has available low flow shower heads and faucet aerators. Call 297-2376 for information on rebates, water use audits and fixture replacement.

Quality Assurance - State law requires each water purveyor to test for a wide range of potential contaminants. Attached for review are listings of the constituents tested for in the water and the range and average of values for each constituent in 1997. If you have any questions regarding water quality, water conservation or repairs please call 297-2376.

EXHIBIT 1

Primary Standards - Mandatory Health Related Standards Established by the State **Department** of **Health Services**

PARAMETER	UNITS see "Notes" below	MAXIMUM CONTAMINANT LEVEL	GROUNDWATER RANGE	WELLS AVERAGE
MICROBIOLOGICAL				
Coliform Bacteria				
Clovis	% Samples	5	0 - 3.92%	1.30
ORGANIC CHEMICALS				
Alachlor	ug/L	2	ND	ND
Atraziue	ug,'L	3	ND	ND
Bentazon	ug/L	1 R	ND	ND
Benzene	ug/l.	1	N D	ND
Carbon Tetrachloride	uglL	0.5	ND	ND
Carbofuran	ug/L	18	ND	ND
Chlorodane	ug/L	0.1	ND	ND
2,4-D	ug/L	70	ND	ND
Dalapon	ug/L	200	ND	ND
Dibromochloropropane (DBCP)	ug/L	0.2	ND - 0.25 *	04
I , 2-D ichlorobenzene	ug/L	60(l	ND	ND
1,4-Dichlorobenzene	ug/L	5	ND	ND
1,1-Dichloroethane	ug/L	5	ND	ND
1,2-Dichloroethane (1,2-DCA)	ug/L	0.5	ND	ND
1,1-Dichloroethylene(1,1-DCE)	ug/L	7	ND	ND
Cis- 1,2-Dichloroethylene	ug/L	6	ND	ND
Trans- l,2-Dichloroethylene	ug/L	10	ND	ND
Dichloromethane	ug/L	5	ND	ND
1,2-Dichloropropane	ug/L	5	ND	ND
I , 3 -Dichloropropene	ug/L	0. 5	ND	ND
Di(2-ethylhexyl) adipate	ug/L	-100	ND	

PARAMETER	UNITS	MAXIMUM CONTAMINANT LEVEL	GROUNDWATER RANGE	WELLS AVERAGE	
1.1,2,2-Tetrachloroethane	ug/L	1	ND	ND	
Tetrachloroethylene (PCE)	ug/L	5	NO	ND	
Thiobencarb	ug/L	70	ND	ND	
Toluene	ug/L	150	ND	ND	
Total Tri halomethanes	ug/L	100	ND	ND	
Toxaphene	ug/L	3	ND	ND	
2,4.5-TP (Silvex)	ug/L	50	ND	ND	
1.2,4-Trichlorobenzene	ug/L	70	ND	ND	
1,1,1-Trichloroethane	ug/L	200	ND	ND	
1,1, 2-Trichloroethane	ug/L	5	ND	ND	
Trichloroethvlene (TCE)	ug/L	5	ND	ND	
Trichlorofluoromethane (Freon 11)		ug/L	150	ND	ND
Tnchlorotrifluoroethane (Freon 13)		ug/L	1200	ND	ND
Vinyl Chloride (VC)	uglL	0.5	ND	ND	
Total Xvlenes	ug/L	1750	ND	ND	
INORGANIC CHEMICALS					
Aluminum	ug/L	1000	ND	ND	
Antimony	ug/L	6	ND	ND	
Arsenic	ug/L	50	ND - 5	1	
Barium	ug/L	1000	ND - 140	14	
Benvllium	ug/L	4	ND	ND	
Cadmium	ug/L	5	ND	ND	
Chromium	ug/L	50	ND - 11	ND	
Cyanide	ug/L	200	ND	ND	
Fluoride	mg/L	1.6	0 - 0.3	0.1	
Mercun	ug/L	2	ND	ND	
Nickel	ug/L	100	ND - 14	1	
Nitrate (as NO,)	mg/L	45.0	ND - 26	14	
Nitrite (as N)	mg/L	1.0	ND	ND	
Selenium	ug/L	50	ND	ND	
Thallium	ug/L	2	ND	ND	
RADIOACTIVITY					
Gross Alpha Activity	pCi/I.	15	-0.9 - 4.04	1.17	
SECONDARY STANDARDS					
Chloride	mg/L	500	0 - 25	7	
Color	Units	15	ND - 17	5	
Copper	ug/L	1000	ND	ND	
Foaming Agents (MBAS)	mg/L	0.5	ND	ND	
Iron	ug/L	300	ND - 580	28	
Manganese	ug/L	50	ND	ND	
Odor Threshold	Units	3	ND - 3	1	
pH	Units	6.5 - 8.5	7.29 - 7.89	7.6	
Silver	ug/L	10()	ND	ND	
Specific Conductance	micromhos	16()0	130 - 540	305	
Sulfate	mg/L	500	0 - 47	13	
Total Dissolved Solids	mg/L	1000	96 - 360	192	
Turbiditv	NTU	5.0	ND - 1.1	.2	
Zinc	ug/L	5000	N -D	ND	

PARAMETER	UNITS	MAXIMUM CONTAMINANT LEVEL	6k0UNDVVAI ER RANGE	~~ ELLJ AVERAGE
ADDITIONAL CONSTITUENTS ANALYZED				
Aggressiveness Index	Units	None	11 -12	12
Total Alkalinity (as CaC03)	mg/L	None	53 - 230	125
Bicarbonate (HC03)	mg/L	None	53 - 280	143
Calcium	mg/L	None	8.2 - 48	24
Carbonate (C03)	mg/L	None	ND - 2.4	ND
Hardness (as CaC03)	mg/L	None	38 - 250	119
Hydroxide	mg/L	None	ND	ND
Lead	ug/L	None	ND	ND
Magnesium	mg/L	None	-i.3 - 32	15
Methyl tertiary-butyl ether (MTBE)	ug/L	None	ND	ND
Potassium	mg/L	None	2 - 5	3
Radon 222	pCi/L	None	318 - 1365	630
Sodium	mg/L	None	11 - 33	20

NOTES

mg/L	= milligrams per liter (parts per million)
ug/L	= micrograms per liter (parts per billion)
pCi/L	= pico Curies per liter
NTU	= nephelometric turbidity unit
ND	= non detectable

= includes values for raw water at untreated wells and after treatment at wells with wellhead treatment

MAXIMUM CONTAMINANT LEVEL - the maximum allowable concentration of a contaminant.

GROUNDWATER WELL RANGE - this denotes the range of the analyses from individual well samples with the exception of "Microbiological" which is a range of values of analyses collected from the entire distribution system.

GROUNDWATER WELL AVERAGE - this is the weighted average (proportioned to the amount of production from each source) of the analyses from each well which was operated during the year.

SECONDARY STANDARDS - these are aesthetic standards established by the State of California, Department of Health Services.

In addition to the above constituents, the City of Clovis has conducted monitoring for 50 additional organic chemicals for which the California Department of Health Services and the USEPA have not yet set standards and all results were below detection levels unless otherwise noted. For additional water quality information contact Lisa Koehn. Assistant Public Utilities Director at 297-2376.