EAST BAY MUNICIPAL UTILITY DISTRICT

EBMUD WATER QUALITY AND SUPPLY

A SPECIAL REPORT TO OUR CUSTOMERS.

This Special Water Report covers four topics of importance to you. First is the EBMUD Annual Water Quality Report, including the 1996 water quality data, which California water agencies are required to provide to their customers by the state Department of Health Services. Also reported here: important news on steps you may need to take as EBMUD changes from chlorine to chloramine for disinfecting drinking water, an update on our efforts to protect you from drought by increasing our available water supply, and a progress report on our Seismic Improvement Program (SIP), which protects service in seismic emergencies.

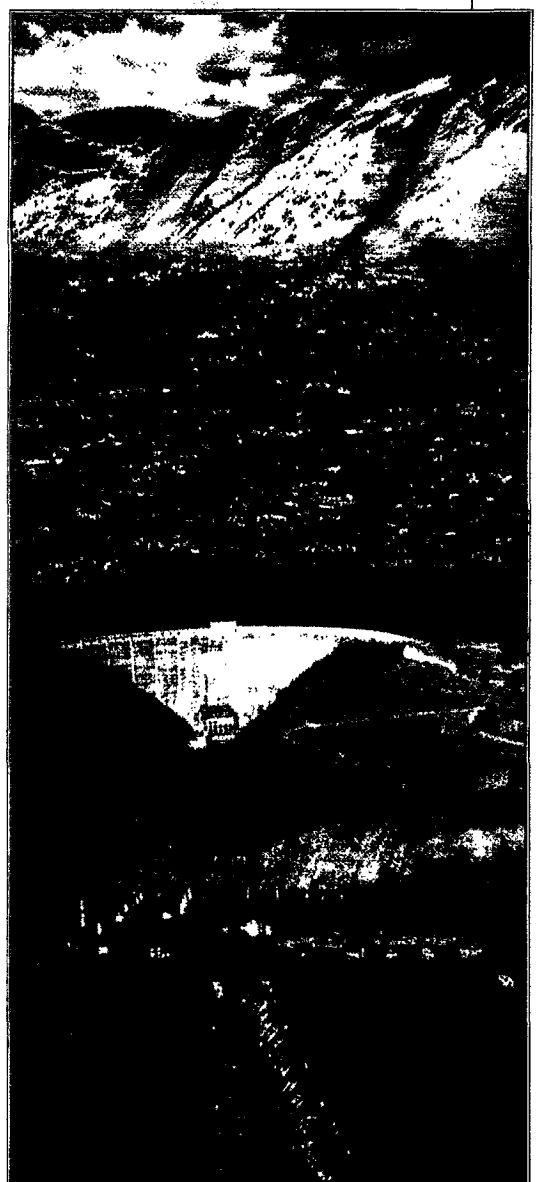
The East Bay Municipal Utility District is improving treatment to make our high-quality water better, progressing well in our efforts to make use of our supplemental water supply from the American River, and working in high gear to protect our water system in case of a major East Bay earthquake.

Most of EBMUD's water starts as snow in the Sierra Nevada, and the rest is rainfall runoff collected in five East Bay reservoirs. Because of this high-quality source, we are able to meet and exceed government water quality standards without significant added treatment. Still, we embarked upon a decade of improvements to our water treatment plants in order to set the highest quality safeguards in place.

Water quantity is as much our job as water quality. Even today, our customers need more water than we can supply during drought. Our Water Supply Management Program adopted in 1993 relies on conservation, recycling and new supply and storage projects to provide water to serve your needs through 2020.

Supplying water also means making sure water delivery pipes, pumps and tanks are in place and working, even in emergencies. We launched a 10-year program to strengthen our facilities and enable us to quickly restore the water you need following a natural disaster.

EBMUD



See the "Making Our Water Better" section inside to learn about an important change coming in water treatment.

Vea la sección titulada "Mejorando Nuestra Agua" para enterarse de un cambio importante en el tratamiento del agua.

查看"讓我們的水質更好"這段內容是有關確知對水質處理的一個重要改變。

Xin xem muc "Bien nuoc ta dung trong lanh hon" ben trong de biet ve su thay doi quan trong sap toi trong viec loc nuoc.

물 처리법상 중요한 변화에 대하여 배우시려면 "메이킹 아워 워터 베터" 섹션란을 보십시오.

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Annual Water Quality Report

EBMUD provides high-quality drinking water to 1.2 million people in 20 cities and 15 unincorporated communities in portions of Alameda and Contra Costa counties. Our Mokelumne River snowmelt flows from 577 square miles of protected Sierra watershed mostly untouched by human activity. From EBMUD's main supply, Pardee Reservoir in the Sierra foothills, three steel pipelines--the Mokelumne Aqueducts--bring the water more than 90 miles across the San Joaquin Valley and Delta to East Bay treatment plants, providing quality that ranks with the best in the world.

This annual report on drinking water quality is required to be mailed to customers in the EBMUD service area by the Office of Drinking Water in the California Department of Health Services. The accompanying table reports the constituents monitored in both untreated and treated water supplies of the East Bay Municipal Utility District.

Treatment Improvements– Orinda Water Treatment Plant, which serves up to 85% of District customers, is being rehabilitated. To ensure our ability to reliably meet or exceed tough new drinking-water regulations, all of its chemical storage and feed systems are upgraded to the latest technology and computer-controlled operations.

To make water treatment more efficient at lower cost, the Walnut Creek Water Treatment Plant is undergoing filter improvements and expansion of plant production capacity, and improvements in the chemical injection system. An additional water-treatment improvement at all treatment plants will take place with our conversion to chloramine instead of chlorine for disinfecting water supplies (see *MAKING OUR WATER BETTER*, next page).

Careful Monitoring for *Cryptosporidium*– EBMUD is one of 300 water utilities that, along with the American Water Works Association and other organizations, joined with the U. S. Environmental Protection Agency two years ago in the Partnership for Safe Water. The purpose of this voluntary program is to work aggressively to control Protozoa such as *Cryptosporidium*. Outbreaks of *Cryptosporidium* in the water supplies of Milwaukee and other cities in recent years, along with national news coverage, have raised public awareness of this waterborne pathogen.

We began monitoring for *Cryptosporidium* in raw (untreated) water supplies in 1991. In 1994 we strengthened our monitoring program to comply with a proposed rule by the USEPA that is still undergoing discussion before being finally adopted as a drinking-water regulation for *Cryptosporidium*. To date, we have found little or no *Cryptosporidium* present.

EBMUD also has completed a self-assessment of six facilities to study ways to remove particulate matter during water treatment, both to improve treatment efficiency and to assure an effective multi-barrier approach for preventing any breakthrough of *Cryptosporidium* into treated water going to our customers. Our next step under the Partnership for Safe Water is to have internationally recognized water treatment experts provide third-party assessments of our work and help identify any additional preventive measures we might take.

MTBE Monitoring– We have been sampling for methyl tertiary butyl ether (MTBE) in our reservoirs since August 1995. MTBE is a colorless synthetic chemical added to gasoline to improve air quality. The California Department of Health Services (DOHS) adopted a health-based action level for MTBE of 35 parts per billion, including a monitoring requirement, as an unregulated organic chemical in the state drinking-water standards in February 1997. We first detected the chemical in EBMUD water–specifically, San Pablo Reservoir–in July 1996. It is at a level well below the state health action level. EBMUD has detected MTBE in San Pablo Reservoir at barely detectable levels, with the highest concentration at 6 micrograms per liter (6 parts per billion). Following that first detection, we voluntarily began monthly sampling of San Pablo Reservoir to monitor the presence of MTBE, which has only been detected in one other EBMUD drinking-water reservoir. It was detected in Pardee Reservoir at 1.6 parts per billion in April 1997. MTBE also was detected in our Camanche Reservoir, which is a flood-control and stream-management reservoir in the Sierra foothills and does not provide drinking water to users.

We continue monitoring San Pablo Reservoir monthly, and Camanche and Pardee reservoirs quarterly, for MTBE.

continued on page 6

Does your water taste funny? *Is your water pressure low? Is there a leak in your yard? EBMUD water system inspectors can troubleshoot the problem and take steps to solve it.*

MAKING OUR WATER BETTER

A WATER TREATMENT CHANGE IS COMING.

In February 1998, the East Bay Municipal Utility District will begin using chloramine instead of chlorine as its water distribution system disinfectant.

The conversion to chloramine will make our high-quality water even better by significantly reducing and even eliminating the chlorinous taste some customers experience.

Chloramine is a combination of ammonia and chlorine, and is used by about 20% of the water agencies in the United States to disinfect drinking water supplies. A number of Bay Area water agencies, including the Santa Clara Valley Water District, Contra Costa Water District, Alameda County Water District and Marin Municipal Water District, currently use chloramine disinfection.

Why the Change -- We are converting to chloramine to improve the taste of our water, which changed for some customers several years ago, when we increased the amount of chlorine in order to meet a drinking-water regulation called the Total Coliform Rule (TCR). It went into effect in September 1992 and regulates the control of bacteria in drinking-water distribution systems. The TCR is intended to insure a cleaner, safer water supply throughout the country.

Beginning in April 1992, before the TCR became effective and as an interim step, EBMUD considerably increased the chlorine in our water. We then undertook a study to determine the best long-term compliance with the TCR that would meet two additional objectives: 1) significantly diminish or eliminate the chlorine taste and odor experienced by some customers because of the increased chlorine dosage; and 2) help us meet anticipated drinking-water regulations. The study, completed in 1994, recommended the conversion from chlorine to chloramine disinfection as the best way to meet these goals. We then designed and are constructing the facilities required to make the change.

Converting to chloramine will enable EBMUD to make our water taste better, comply with anticipated drinking-water regulations and ensure sustained residual disinfection as the water travels through 3,900 miles of pipeline to homes and businesses. The District has always met or exceeded water quality standards and aims to continue doing so as the anticipated higher standards become effective.

New Regulation Expected -- A new regulation, called the Disinfection Byproducts Rule (DBPR) is expected to be promulgated by the U. S. Environmental Protection Agency in the next year or two, and may become effective as soon as the year 2000. It will regulate chemical byproducts called trihalomethanes, or THMs, which are formed when chlorine combines with natural organics in the water. THMs are a suspected carcinogen (cancer-causing agent).

EBMUD more than meets the current federal maximum limit for THMs of 100 parts per billion. The anticipated DBPR--which will lower the maximum THM level to 80 parts per billion--moved us further toward chloramine.

Para obtener información en español sobre este cambio en el tratamiento del agua, llame a EBMUD al 287-1337.

要取得此資訊發行版（中文）有關這項水質處理的改變請電 EBMUD 287-1337

Để nhận tài liệu bằng tiếng Việt về sự thay đổi trong việc lọc nước này, xin gọi cho EBMUD tại số 287-1337.

이러한 물 처리 변화에 대하여 한국어로 출판된 자료를 구하시려면 전화 287-1337 EBMUD로 문의하시기 바랍니다.

Attention: Owners of Live Fish

If you keep live fish as a hobby, maintain koi or goldfish ponds, or have fish tanks in your restaurant or store (including those for live crab, lobster or other seafood), or you're a teacher who occasionally has students keep fish or tadpoles in the classroom, this information is for you.

Beginning no later than February 1, 1998, anyone who keeps or maintains live fish and uses EBMUD water in their tanks, aquariums or ponds will need to use water-treatment products that neutralize the chloramine in the water *before the water is added to the tank.* These neutralizing products are inexpensive and readily available through pet and aquarium stores, as well as from companies that service commercial fish tanks.

Unlike chlorine, chloramine will not dissipate if you let the water stand for a time as a way of ridding the water of disinfectant before adding the water to your aquarium or fish tank. All chloraminated water needs to be treated, or you may harm or even kill your fish.

Chloramine improves water for people, but is harmful if added to your fish tank, pond, aquarium or goldfish bowl.

Protect Your Fish *– By February 1, 1998, restaurants, fish hobbyists and other aquarium and fish tank owners will need to treat EBMUD water to neutralize chloramine before they add water to their fish tanks or ponds. Inexpensive products for this purpose are readily available at aquarium and pet stores, and from companies servicing commercial fish tanks.*

Construction Proceeding *– EBMUD is constructing the necessary facilities in preparation for converting from chlorine disinfection to chloramine disfection for even better high-quality drinking water.*

Industrial Water Users

Some of our industrial customers might need to take steps to be sure their process water meets their needs, when the chloramine conversion occurs. EBMUD's Water Quality Planning staff will be in direct communication with industries this summer about planned changes in our water chemistry to help these customers determine whether they need to take any action.

Research laboratories, pharmaceutical manufacturers and other sensitive industries will receive specific water chemistry information and the name of an EBMUD representative to contact if they have any need for further information.

Certification of Kidney Dialysis Treatment Centers

Dialysis Centers Certified *–Dialysis treatment centers like this one, and hospitals in EBMUD's service area, are all being inspected and certified by the state Department of Health Services before we convert to chloramine, to be sure the water is safe for patients.*

The California Department of Health Services (DOHS) will inspect and certify that all facilities providing kidney dialysis services –dialysis treatment centers and hospitals–have installed and are properly operating appropriate pretreatment systems on their dialysis equipment *before EBMUD's conversion to chloramine.*

DOHS inspection and certification of these facilities and their pretreatment systems ensures the safety of water used in dialysis.

TREATED WATER

Water Quality Constituent	DLR	MCL	UNITS	System-Wide Avg.[A]	Min	Max	Lafayette WTP	Orinda WTP	San Pablo WTP	Sobrante WTP	USL WTP	Walnut Creek WTP
PRIMARY STANDARDS (Health-Related)												
Bacteriological Parameters												
Total Coliforms[B]	NS	5	%	0.26	ND	0.74	N/A	N/A	N/A	N/A	N/A	N/A
Turbidity[C]	NS	1	NTU	0.07	0.04	0.12	0.06	0.08	0.07	0.06	0.07	0.05
Inorganic Parameters												
Aluminum[D]	50	1000	ug/l	69	ND	97	56	97	ND	ND	72	ND
Antimony	6	6	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	2	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Asbestos[E]	0.2	7	mf/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	100	1000	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	1	4	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	1	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	10	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper[D, F]	50	NS	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide: Total	100	200	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	0.1	1.4	mg/l	0.8	ND	0.97	0.88	0.82	0.02	0.86	0.91	0.8
Lead[F]	5	NS	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	1	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	10	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as NO_3	2	45	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sum Of Nitrate + Nitrite as N	0.4	10	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite as N	0.4	1	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	5	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	1	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Parameters												
Benzene	0.5	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.5	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.5	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (1,2-DCA)	0.5	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene (1,1-DCE)	0.5	6	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene(C-1,2-DCE)	0.5	6	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethylene(T-1,2-DCE)	0.5	10	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane(MethyleneChloride)	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene	0.5	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.5	700	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Monochlorobenzene	0.5	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	0.5	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.5	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.5	150	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane (1,1,1-TCA)	0.5	200	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane (1,1,2-TCA)	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	0.5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trihalomethanes		100	ug/l	77	72	79	N/A	N/A	N/A	N/A	N/A	N/A
Freon 11	5	150	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	10	1200	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.5	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	0.5	1750	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND

TREATED WATER

Water Quality Constituent	DLR	MCL	UNITS	System-Wide Avg.[A]	Min	Max	Lafayette WTP	Orinda WTP	San Pablo WTP	Sobrante WTP	USL WTP	Walnut Creek WTP
Synthetic Organic Parameters												
Alachlor	1	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	1	3	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bentazon	2	18	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)Pyrene	0.1	0.2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbofuran	5	18	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	0.1	0.1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-D	10	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dalapon	10	200	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloropropane (DBCP)	0.01	0.2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di(2-Ethylhexyl) Adipate	5	400	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di(2-Ethylhexyl) Phthalate	3	4	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dinoseb	2	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diquat	4	20	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endothall	45	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	0.1	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.02	0.05	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Glyphosate	25	700	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	0.01	0.01	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	0.01	0.01	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.5	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	1	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lindane	0.2	0.2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	10	40	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Molinate	2	20	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oxamyl	20	200	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.2	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Picloram	1	500	ug/l	nd	ND	ND	ND	ND	ND	ND	ND	ND
PCBs	0.5	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Simazine	1	4	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thiobencarb[D]	1	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	1	3	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,7,8-TCDD (Dioxin)	5	30	pg/l	NR	NR	NR	NR	NR	NR	NR	NR	NR
2,4,5-TP (Silvex)	1	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
SECONDARY STANDARDS (Aesthetics)[G]												
Aluminum[D]	05	0.2	mg/l	N/A	N/A	0.2	0.1	0.2	0.1	0.2	0.2	ND
Alkalinity-Bicarbonate as $CaCO_3$	NS	NS	mg/l	37	21	120	21	22	64	64	120	22
Alkalinity-Carbonate as $CaCO_3$	NS	NS	mg/l	1	1	2	1	1	2	2	2	2
Alkalinity-Hydroxide as $CaCO_3$	NS	NS	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NS	NS	mg/l	10	5.3	34	5.8	7.3	16.8	17.0	31.0	5.7
Chloride	NS	500	mg/l	N/A	N/A	20	5	5	12	11	20	4
Color	NS	15	units	N/A	N/A	4	3	3	4	4	4	3
Conductivity	NS	1600	umhos/cm	N/A	N/A	384	67	71	260	230	384	68
Copper[D, F]	50	1000	ug/l	N/A	N/A	ND	ND	ND	ND	ND	ND	ND
Hardness, Total	NS	NS	mg/l	42	20	140	20	27	73	72	140	20
Iron	NS	300	ug/l	N/A	N/A	ND	ND	ND	ND	ND	ND	ND
Magnesium	NS	NS	mg/l	2.8	0.8	13.2	1.0	1.0	6.4	6.6	13.2	1
Manganese	NS	50	ug/l	N/A	N/A	7	ND	ND	7	1	ND	ND
MBAS	NS	0.5	mg/l	N/A	N/A	ND	ND	ND	ND	ND	ND	ND
pH	NS	NS	units	8.5	8.0	9.2	8.8	8.5	8.5	8.5	8.2	8.7
Silver	NS	100	ug/l	N/A	N/A	ND	ND	ND	ND	ND	ND	ND
Sodium	NS	NS	mg/l	7.3	1.8	27.6	4.6	2.2	21.4	18.8	25.2	4.0
Sulfate	NS	500	mg/l	N/A	N/A	46.0	3.2	12.0	35.0	38.0	46.0	1.7
Thiobencarb[D]	1	1	ug/l	N/A	N/A	ND	ND	ND	ND	ND	ND	ND
Threshold Odor Number	NS	3	TON	N/A	N/A	3	1.4	ND	3	1.4	1	1
Total Dissolved Solids	NS	1000	mg/l	N/A	N/A	220	41	43	140	140	220	41
Turbidity[C]	NS	5	NTU	N/A	N/A	0.40	0.16	0.22	0.19	0.40	0.16	0.15
Zinc	NS	5000	ug/l	N/A	N/A	14	10	10	14	11	14	12

WATER SUPPLY SOURCES

Water Quality Constituent	DLR	MCL	UNITS	Pardee Reservoir	San Pablo Reservoir	USL Reservoir	Briones Reservoir
PRIMARY STANDARDS (Health-Related)[J]							
Inorganic Parameters[K]							
Aluminum[L]	50	1000	ug/l	59	377	297	NR
Antimony	6	6	ug/l	NR	NR	NR	NR
Arsenic	2	50	ug/l	NR	NR	NR	NR
Asbestos[M]	0.2	7	mf/l	ND	ND	ND	ND
Barium	100	1000	ug/l	ND	ND	ND	NR
Beryllium	1	4	ug/l	ND	ND	ND	NR
Cadmium	1	5	ug/l	NR	NR	NR	NR
Chromium	10	50	ug/l	NR	NR	NR	NR
Cyanide: Total	100	200	ug/l	NR	NR	NR	NR
Fluoride	0.1	1.4	mg/l	NR	NR	NR	NR
Mercury	1	2	ug/l	NR	NR	NR	NR
Nickel	10	100	ug/l	NR	NR	NR	NR
Nitrate as NO_3	2	45	mg/l	ND	ND	ND	NR
Nitrite as N	0.4	1	mg/l	NR	NR	NR	NR
Sum Of Nitrate + Nitrite as N	0.4	10	mg/l	NR	NR	NR	NR
Selenium	5	50	ug/l	NR	NR	NR	NR
Thallium	1	2	ug/l	NR	NR	NR	NR
Radiological Parameters[N]							
Total Radium 226 & 228	0.5	5	pci/l	NR	NR	NR	NR
Uranium	2	20	pci/l	ND	ND	ND	ND
Radionuclides: Alpha	1.5	15	pci/l	ND	ND	ND	ND
Radionuclides: Beta	4	50	pci/l	ND	ND	5	4
Tritium	1000	20000	pci/l	ND	ND	ND	ND
Strontium-90	2	8	pci/l	ND	ND	ND	ND
Volatile Organic Parameters[P]							
Benzene	0.5	1	ug/l	ND	ND	ND	ND
Carbon Tetrachloride	0.5	0.5	ug/l	ND	ND	ND	ND
1,2-Dichlorobenzene	0.5	600	ug/l	ND	ND	ND	ND
1,4-Dichlorobenzene	0.5	5	ug/l	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	0.5	5	ug/l	ND	ND	ND	ND
1,2-Dichloroethane (1,2-DCA)	0.5	0.5	ug/l	ND	ND	ND	ND
1,1-Dichloroethylene (1,1-DCE)	0.5	6	ug/l	ND	ND	ND	ND
cis-1,2-Dichloroethylene (C-1,2-DCE)	0.5	6	ug/l	ND	ND	ND	ND
Trans-1,2-Dichloroethylene(T-1,2-DCE)	0.5	10	ug/l	ND	ND	ND	ND
Dichloromethane (Methylene Chloride)	0.5	5	ug/l	ND	ND	ND	ND
1,2-Dichloropropane	0.5	5	ug/l	ND	ND	ND	ND
1,3-Dichloropropene	0.5	0.5	ug/l	ND	ND	ND	ND
Ethyl Benzene	0.5	700	ug/l	ND	ND	ND	ND
Monochlorobenzene (Chlorobenzene)	0.5	70	ug/l	ND	ND	ND	ND
Styrene	0.5	100	ug/l	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.5	1	ug/l	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.5	5	ug/l	ND	ND	ND	ND
Toluene	0.5	150	ug/l	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	70	ug/l	ND	ND	ND	ND
1,1,1-Trichloroethane (1,1,1-TCA)	0.5	200	ug/l	ND	ND	ND	ND
1,1,2-Trichloroethane (1,1,2-TCA)	0.5	5	ug/l	ND	ND	ND	ND
Trichloroethylene (TCE)	0.5	5	ug/l	ND	ND	ND	ND
Freon 11	5	150	ug/l	ND	ND	ND	ND
Freon 113	10	1200	ug/l	ND	ND	ND	ND
Vinyl Chloride	0.5	0.5	ug/l	ND	ND	ND	ND
Xylenes (Total)	0.5	1750	ug/l	ND	ND	ND	ND

TREATED WATER NOTES:

A = All averages, except for total coliforms, are weighted according to individual water treatment plant annual productions. The average for total coliforms is based on straight monthly averages. Minima and maxima are lowest and highest values as defined by State regulations.

B = Total coliform standards were based on presence-absence tests taken in the distribution system. No more than 5 percent of the monthly samples shall be coliform positive.

C = Turbidity (clarity) values for the Primary Standard reflect the annual average of the highest 5 percent observed for each month. Turbidity values for the Secondary Standard reflect the highest value for the year.

D = Aluminum, Copper, and Thiobencarb are regulated with both Primary and Secondary Standards. The Primary and Secondary Standards are based on the annual average level and the highest observed level, respectively, for each treatment plant.

E = Asbestos samples were taken in 1995 as required.

F = Lead and copper results shown are average levels in treated water. Lead and copper are regulated with "Action Levels" based on customer worst-case tap sampling in 1992 instead of MCLs. District results in 1992 for both Lead and Copper complied with the "Action levels" of 15 and 1,300 ug/l, respectively based on the highest 10 percent of results. Customers should note that private plumbing and fixtures may add lead or copper levels above the level delivered by the District. Water from one's hot water system is known to contain elevated levels of lead and copper and its consumption is not advisable. Similarly, selection of faucets and plumbing materials should be based on the use of approved materials for *potable consumption and installed according to local building code practices.*

G = Maximum individual levels are reported for Secondary Standards, except parameters without MCLs where average annual concentrations are used.

KEY TO ABBREVIATIONS:

DLR = Detection Level for Purpose of Reporting. Minimum levels of analytical sensitivity as determined by the State Department of Health Services.

MBAS = Methylene Blue Active Substances, a measurement of the presence of detergent compounds. **MCL** = Maximum Contaminant Level

mf/l = million fibers per liter **mg/l** = milligrams per liter

N/A = Not Applicable. See notes for applicable sampling locations and parameters.

ND = Not Detected in samples. Results below DLRs are treated as zero for averages.

NR = Not Required or waivers were granted by the State Department of Health Services.

NS = No Standard **pg/l** = picograms per liter **pCi/l** = picoCuries per liter

NTU = Nephelometric Turbidity Units as a measure of suspended material in the water.

TON = Threshold Odor Number **ug/l** = micrograms per liter

umhos/cm = *micromhos per centimeter*

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C-030181

WATER SUPPLY SOURCES

Water Quality Constituent	DLR	MCL	UNITS	Pardee Reservoir	San Pablo Reservoir	USL Reservoir	Briones Reservoir
Synthetic Organic Parameters							
Alachlor	1	2	ug/l	ND	ND	ND	ND
Atrazine	1	3	ug/l	ND	ND	ND	ND
Bentazon	2	18	ug/l	ND	ND	ND	ND
Benzo(a)Pyrene	0.1	0.2	ug/l	ND	ND	ND	ND
Carbofuran	5	18	ug/l	ND	ND	ND	ND
Chlordane	0.1	0.1	ug/l	ND	ND	ND	ND
2,4-D	10	70	ug/l	ND	ND	ND	ND
Dalapon	10	200	ug/l	ND	ND	ND	ND
Dibromochloropropane (DBCP)	0.01	0.2	ug/l	ND	ND	ND	ND
Di(2-Ethylhexyl) Adipate	5	400	ug/l	ND	ND	ND	ND
Di(2-Ethylhexyl) Phthalate	3	4	ug/l	ND	ND	ND	ND
Dinoseb	2	7	ug/l	ND	ND	ND	ND
Diquat	4	20	ug/l	ND	ND	ND	ND
Endothall	45	100	ug/l	ND	ND	ND	ND
Endrin	0.1	2	ug/l	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.02	0.05	ug/l	ND	ND	ND	ND
Glyphosate	25	700	ug/l	ND	ND	ND	ND
Heptachlor	0.01	0.01	ug/l	ND	ND	ND	ND
Heptachlor Epoxide	0.01	0.01	ug/l	ND	ND	ND	ND
Hexachlorobenzene	0.5	1	ug/l	ND	ND	ND	ND
Hexachlorocyclopentadiene	1	50	ug/l	ND	ND	ND	ND
Lindane	0.2	0.2	ug/l	ND	ND	ND	ND
Methoxychlor	10	40	ug/l	ND	ND	ND	ND
Molinate	2	20	ug/l	ND	ND	ND	ND
Oxamyl	20	200	ug/l	ND	ND	ND	ND
Pentachlorophenol	0.2	1	ug/l	ND	ND	ND	ND
Picloram	1	500	ug/l	ND	ND	ND	ND
Polychlorinated Biphenyl (PCBs)	0.5	0.5	ug/l	ND	ND	ND	ND
Simazine	1	4	ug/l	ND	ND	ND	ND
Thiobencarb [L]	1	70	ug/l	ND	ND	ND	ND
Toxaphene	1	3	ug/l	ND	ND	ND	ND
2,3,7,8-Tcdd (Dioxin)	5	30	pg/l	NR	NR	NR	NR
2,4,5-TP (Silvex)	1	50	ug/l	ND	ND	ND	ND

WATER SUPPLY SOURCE NOTES:

J = Annual averages are shown for particular source water reservoirs.

K = See also Inorganics for the Treated Waters for compliance. Annual averages are shown for all results available.

L = Aluminum and Thiobencarb are regulated with both Primary and Secondary Standards. See Treated Waters for Aluminum and Thiobencarb for compliance.

M = Asbestos monitoring was completed in 1995 as required. Samples are required every nine years.

N = Radiological monitoring is required every four years. Results shown were last sampled in 1995.

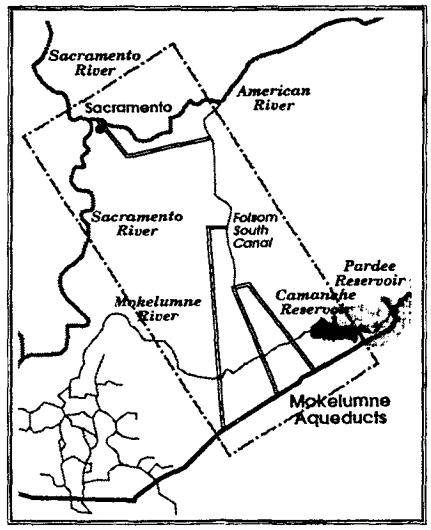
P = See also Volatile Organic Chemical results for Treated Waters.

continued from page 2

Our other reservoirs are designated "non-vulnerable" for MTBE by DOHS, because they are located away from heavy automobile traffic and have no motorized boating activities.

Expanding the EBMUD Water Supply– The American River

The year is 2020. A serious drought has parched the East Bay. Gardens and parks are a dull, dry brown, and you're asking: "How much water can I save at the kitchen sink and the shower to try keeping my landscape alive?"



EBMUD Water Supply Project Area

Before EBMUD's Water Supply Management Program (WSMP) began work, that scenario was a distinct possibility. Even today, we don't have enough water to serve our customers adequately in droughts and, unless something changed, by the year 2020 we could easily be in the situation described above.

EBMUD has already done a lot to close this water supply gap. To reduce the amount of water customers use today and in the future, we've expanded conservation programs. New programs will supply recycled wastewater for public landscape watering and other uses that now soak up potable water. But reductions in customer demand alone won't solve the problem. We also need new water sources and ways to store excess water in wet years for use in dry years.

Despite very successful water conservation and reclamation programs, EBMUD's Mokelumne River supply is no longer sufficient to handle a major drought. Even the 25% cutbacks imposed in the recent drought would not be able to stretch water resources to all customers in a drought. Rationing of up to 68% would be necessary in the future without additional water supplies.

Regional Water Project – A very promising water supply proposal on the horizon would provide American River water to EBMUD and to the City and County of Sacramento. The water would be taken just upstream of where the American River flows into the Sacramento River. Water for EBMUD's use would then go to the Folsom South Canal, which will be extended to connect with our Mokelumne Aqueducts.

The District, Sacramento County and the City of Sacramento recently reached conceptual agreement on this project to begin planning and environmental work. We will share the costs and workload to develop technical studies, preliminary design and environmental documentation. We plan to finalize work to a level that will permit a go-ahead-to-build by February 1998.

Our agreement with Sacramento only commits us to exploring this option, not to its final execution. Already, work on this potential solution has turned a long tradition of battling with Sacramento over water into a new cooperative relationship. (The county was a plaintiff in the lawsuit which prevented our using our 1970 contract for American River water for more than 20 years.)

The agreement also allows for water not needed by EBMUD to be made available in San Joaquin County or other areas. We have met regularly with San Joaquin representatives to explore the possibilities of banking American River water in county aquifers. That water would be available to

county water districts as well as to EBMUD. No firm plans to reach this goal have been agreed upon, but discussions continue.

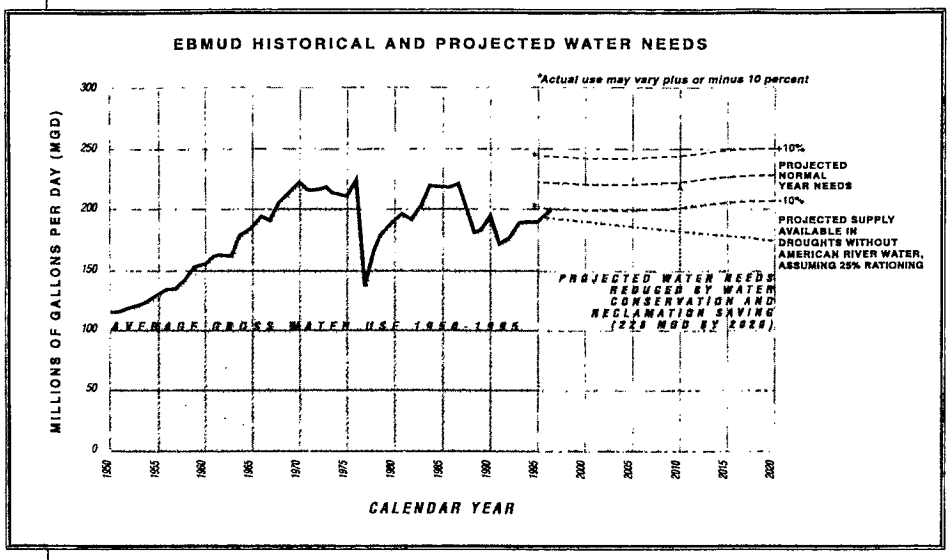
Original American River Connection: EBMUD originally planned and, in an environmental impact report described a District-only American River project. That project would take EBMUD's water higher on the river at Nimbus Dam, where water quality is slightly better. The District-only project does not have the support in the Sacramento community that the joint project has, but it is still under consideration if the joint project plans do not come to fruition.

A project level Draft Environmental Impact Report/Environmental Impact Statement of the EBMUD Supplemental Water Supply Project will be available late this summer. Copies will be available for review at EBMUD's Administrative Center, 375 Eleventh Street in downtown Oakland, and in public libraries.

Other Options – EBMUD is simultaneously studying other water supply options. One of these may be adopted if the Sacramento project is not realized.

A Bigger Pardee Reservoir: We are exploring the possibility of enlarging Pardee Reservoir, if a joint project with Sacramento or groundwater storage in the East Bay or in San Joaquin County should prove unworkable. Enlarging Pardee Reservoir could allow us to store 173,000 more acre-feet of Mokelumne water. This is a "fall-back" alternative which EBMUD would only pursue if the Sacramento project does not proceed as planned.

Local Underground Storage: We are studying the potential for storing American and Mokelumne water underground in our own service area. The wells would be deep enough to prevent mixing with surface water and contaminants, allowing us to extract virtually the same high-quality water we put in.



SIP Program Report

The Seismic Improvement Program (SIP) is beginning its third year of a ten-year plan of work to retrofit EBMUD's water distribution system, rather than waiting to repair it after a major earthquake hits. This will help restore our communities and recover the regional economy as quickly as possible, following a major East Bay earthquake. Just as homeowners go through their homes bolting, strapping and strengthening equipment and foundations, EBMUD is strengthening its facilities, but on a much larger scale. Examples of some of our seismic improvement projects:

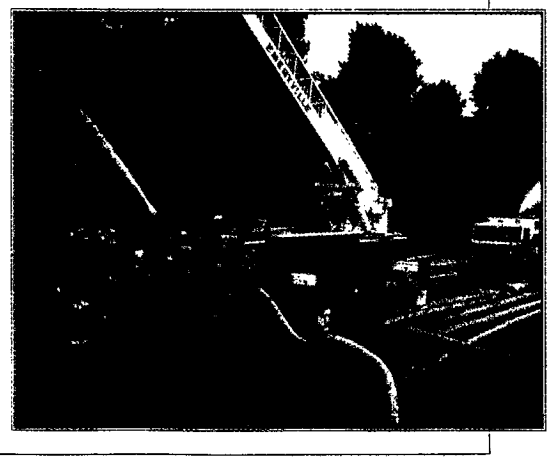
By-Pass System to Help Firefighting – EBMUD's water distribution system, which includes 3,900 miles of pipelines, crosses earthquake faults at many locations. An earthquake can rupture these pipes, cutting off the water supply.

Installing by-pass valves and pipeline connections at key locations allows crews to shut off water mains ruptured by an earthquake and restore water flow by reconnecting undamaged parts of the system. By-pass valves and pipeline connections are being installed on 20 of our most critical water mains. When a break occurs, portable hoses can quickly be connected to provide water service and firefighting capability, until permanent repairs can be made.

SIP Reservoir Program—Water storage reservoirs in neighborhoods hold supplies of treated water for delivery to customers and for fighting fires. Ground shaking can damage these concrete and steel tanks, spilling the water they contain or disconnecting the pipes that join the tanks to the distribution system.

All of EBMUD's 175 tanks were evaluated after the Loma Prieta earthquake. Eighty were recommended for retrofits under the Seismic Improvement Program. While many tanks are vulnerable to damage in a major earthquake, upgrading at least one key tank in each neighborhood (two for large areas) will help improve post-earthquake fire service and make customer service more reliable until the remaining tanks can be restored.

Portable Pipelines – *After the first fault crossing project was completed, local fire departments participated in a demonstration with portable pipelines as shown in the foreground of this photo.*

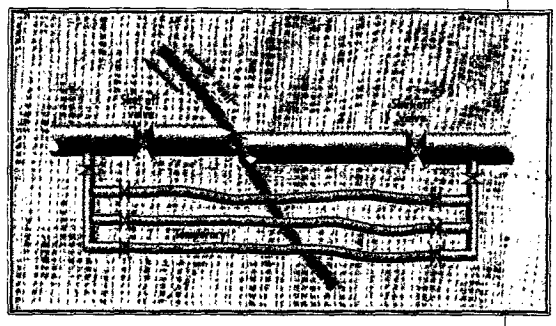


Seismic upgrades are complete or underway at 21 tanks throughout our service area.

Treatment Plant Retrofits–A program for seismic retrofit of five of our six water treatment plants began in December 1996 and will be completed by July 1997. Nearly complete is work at the El Sobrante, Lafayette, Orinda, Upper San Leandro and San Pablo water treatment plants. Seismic work at the Walnut Creek Water Treatment Plant will be included in major renovations under a separate program.

Building and Equipment Anchorage–Anchoring buildings and equipment is an effective, low-cost method to substantially and quickly improve pumping plants. By spending a few thousand dollars now to secure equipment that would cost a million dollars or more to replace, our customers will more likely have water available after a major earthquake.

Our water distribution system is already stronger because of work accomplished over the past two years. Every seismic improvement project completed makes the system that much more reliable. EBMUD is the first water utility to undertake a seismic retrofit program of this size. We know a major earthquake is in our future; what we don't know is when and where.



Bypass valves can temporarily restore the water supply through flexible hoses.

Reservoir Upgrades *– This reservoir is being wrapped in cables to keep it from failing in an earthquake. EBMUD's Seismic Improvement Program is upgrading water system facilities so that we can restore normal service quickly after a major quake.*

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About this Report

This Special Water Report, including our Annual Water Quality Report mandated by the state Department of Health Services to be mailed to customers, was produced and mailed to residences and businesses in EBMUD's service area at a cost of $.28 per copy. Direct mailing of this report allows EBMUD to provide virtually all of its customers with information they should have about drinking-water quality, system reliability and supply in a cost-efficient manner.

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