MEMORIAL VILLAGES WATER AUTHORITY
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2007 DRINKING WATER QUALITY REPORT

(Consumer Confidence Report)

January 2007 to December 2007

The United States Environmental Protection Agency (EPA) requires most drinking water suppliers in the country to provide a water quality report to their customers. This annual report concerns the quality of water provided by Memorial Villages Water Authority to the residents of Hedwig , Hunters Creek and Piney Point Villages. Questions concerning this report should be directed to our General Manager, Mr. Mike Montgomery, by calling 713-465-8318.

OUR DRINKING WATER MEETS OR EXCEEDS ALL FEDERAL (EPA) DRINKING WATER REQUIREMENTS. This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in this publication. We hope this information helps you become more knowledgeable about what's in your drinking water. **All drinking water may contain contaminants.** When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, **including bottled water**, may reasonably be expected to contain at least small amounts of some contaminants. **The presence of contaminants does not necessarily indicate that water poses a health risk.** More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. **The following pages** list all of the federally regulated or monitored constituents which have been found in your drinking water. The U.S. E.P.A. requires water systems to test up to 97 contaminants. **Secondary Constituents**: Many constituents (such as calcium, sodium or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called *secondary constituents* and are regulated by the State of Texas, not EPA. These constituents are not causes for health concerns. Secondary constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water. For more information call the Water Authority at 713-465-8318.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

Some people may be more vulnerable to contaminants in drinking water than the general population. **IMMUNO-COMPROMISED PERSONS** such as persons with cancer undergoing **CHEMOTHERAPY**, persons who have undergone **ORGAN TRANSPLANTS**, people with **HIV/AIDS** or other immune system disorders, some **ELDERLY**, and **INFANTS** can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline by calling 1-800-426-4791.

WHERE DOES YOUR DRINKING WATER COME FROM? The source of your tap water comes from more than just one location. In 2007, the Water Authority provided over 78% of its treated drinking water from its five (5) water wells. These wells are all located within the Villages & produce water from the Evangeline Aquifer. This type of water source is commonly referred to as ***groundwater***. The other source of our drinking water comes from the City of Houston (COH). In August of 1998, the Water Authority began purchasing ***blended water***, a combination of ***surface water*** and ***groundwater***, from the COH. ***Surface water*** comes from rivers, lakes, streams, ponds, reservoirs, and springs. The Texas Commission on Environmental Quality (TCEQ) is currently updating a Source Water Susceptibility Assessment of our drinking water and the results will be provided to us this year. The report will describe the susceptibility & type of constituents that may come in contact with your drinking water source based on human activities & natural conditions. For more information on source water assessments and protection efforts at our system, please call 713-465-8318.

SOURCES OF DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases radioactive material, and can pick up contaminants resulting from the presence of animal or human activity.

Contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from agriculture, urban storm water runoff, and residential uses.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.
- Organic chemical contaminants, including synthetic and volatile organic chemicals which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

WHAT YOU NEED TO KNOW TO BETTER UNDERSTAND WHAT IS IN YOUR WATER

Definitions:

Maximum Contaminant Level (MCL): The highest permissible level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no know or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

pCi/l = Pico curies per liter (a measure of radioactivity); **NTU =** Nephelometric Turbidity Units; **ppm =** parts per million or milligrams per liter (mg/l); **ppb** = parts per billion, or micrograms per liter (ug/l): **ppt** = parts per trillion, or nanograms per liter; **ppq** = parts per quadrillion, or picograms per liter; **MFL** = million fibers per liter (a measure of asbestos); **ND** = Not Detected

TABLE I = Information on the ***groundwater*** supplied by the Water Authority as part of its drinking water supply.

TABLE II = Information on the ***blended water*** supplied by Houston to the Water Authority as part of its drinking water supply.

TABLE I - Memorial Villages Water Authority's Groundwater—System I.D. No. 1010146
2007* CONTAMINANTS DETECTED IN YOUR DRINKING WATER; NONE WERE ABOVE THE MCL

INORGANICS

Year/ Range	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of	Source of Constituent
2007-03	Arsenic	3	0	5	10*	0*	ppb	Erosion of natural deposits; Runoff from orchards and from glass and electronics production wastes.
(The arsenic values were effective January 23, 2006. In the event of a violation, you will be notified)*								
2006-04	Barium	0.169	0.047	0.349	2	2	ppm	Erosion of natural deposits; Discharge of drilling wastes and metal refineries.
2005	Fluoride	0.77	0.7	0.9	4	4	ppm	Erosion of natural deposits; Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
2007	Nitrate	0.01	0.01	0.02	10	10	ppm	Erosion of natural deposits. Runoff from fertilizer use; leaching from septic tanks and sewage.
2006-04	Selenium	1.3	0	18.7	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits discharge from mines.
2006-04	Uranium	0.9	0	16.1	30	0	ppb	Erosion of natural deposits.
2006-04	Combined Radium (226 & 228)	0.27	0	0.8	5	0	pCi/L	Erosion of natural deposits.
2006-04	Gross alpha	4.56	0	10.8	15	0	pCi/L	Erosion of natural deposits.
2006-04	Gross beta emitters	4.34	0	15.1	50	0	pCi/L	Decay of natural & manmade deposits
Organic Contaminants								
2007-03	Atrazine	0.02	0	0.4	3	3	ppb	Runoff from herbicide used on row crops.
2003)	Xylenes	0.01	0	0.8	10000	10000	ppb	Discharge from petroleum factories; discharge from chemical factories.
2007-03	Toluene	0.02	0	3.7	1000	1000	ppb	Discharge from petroleum factories.
2007-03	Ethylbenzene	0.03	0	2.4	700	700	ppb	Discharge from petroleum refineries.

Maximum Residual Disinfectant Level Systems submit disinfection data on the Disinfection Level Quarterly Operating Report (DLQOR)

Year	Disinfectant	Average Level	Min Level	Max Level	MRDL	MRDLG	Units	Source of Disinfectant
2007	Free Chlorine	1.17	0.02	2.8	4.0	<4.0	ppm	Disinfectant used to control microbes.

Disinfection By-Products Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2006	Total Haloacetic Acids	14.9	10.4	17.5	60	ppb	Byproduct of drinking water disinfection.
2007	Total Trihalomethanes	1.7	0	2.8	80	ppb	Byproduct of drinking water disinfection.

UNREGULATED CONTAMINANTS: These are disinfection byproducts & there is no MCL for these at the entry point to distribution.

Year	Constituent	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Constituent
2007-03	Dibromomethane	0.01	0	2.3	ppb	Byproduct of drinking water disinfection.
2007-03	Chloroform	3.03	0	72	ppb	Byproduct of drinking water disinfection.
2007-03	Bromoform	1.02	0	19	ppb	Byproduct of drinking water disinfection.
2007-03	Bromodichloromethane	2.08	0	42	ppb	Byproduct of drinking water disinfection.
2007-03	Dibromochloromethane	1.78	0	34	ppb	Byproduct of drinking water disinfection.

Turbidity: 2007—Highest Sample = 0.20 Lowest Monthly % Meeting Limits=100% Turbidity Limit=0.3 NTU—Comes from soil runoff.

TOTAL COLIFORM: Highest Monthly No. of Positive Samples = 1, MCL=2 or more in single month: Units=Present—Naturally present

FECAL COLIFORM: REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA VIOLATIONS.

UNREGULATED INITIAL DISTRIBUTION SYSTEM EVALUATION FOR DISINFECTIONBYPRODUCTS:
WAIVED OR NOT YET SAMPLED

COLIFORM BACTERIA are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. **TURBIDITY**—has no health effects. However, it can interfere with disinfection & provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms including bacteria, viruses & parasites that can cause nausea, diarrhea & associated headaches.

TABLE I — CONTINUED - Memorial Villages Water Authority's Groundwater—System I.D. No. 1010146
2007* CONTAMINANTS DETECTED IN YOUR DRINKING WATER; NONE WERE ABOVE THE MCL

Secondary and Other Regulated Constituents (No associated adverse health effects)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2006-04	Aluminum	0.003	0	0.057	.05	ppm	Abundant—naturally occurring element
2005	Bicarbonate	295	273	338	N/A	ppm	Corrosion of carbonate rocks such as limestone.
2006-04	Calcium	33.2	10.2	70	N/A	ppm	Abundant—naturally occurring element.
2005	Chloride	46	44	49	300	ppm	Abundant—naturally occurring element; used in water purification byproduct of oil field activity.
2006-04	Copper	0.002	0	0.011	1	ppm	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives.
2004	Hardness as Ca/Mg	134	107	167	N/A	ppm	Naturally occurring Calcium & magnesium.
2006-04	Iron	0.044	0	0.193	0.3	ppm	Erosion of natural deposits; iron or steel water delivery
2006-04	Magnesium	5.6	2.8	12.8	N/A	ppm	Abundant naturally occurring element.
2006-04	Manganese	0.0062	0	0.0331	.05	ppm	Abundant naturally occurring element.
2006-04	Nickel	0.001	0	0.003	N/A	ppm	Erosion of natural deposits.
2005	pH	7.5	7.4	7.6	7	units	Measure of waters corrosivity.
2006-04	Sodium	77	22	135	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
2005	Sulfate	12	5	16	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2005	Total Alkalinity as $CaCO_3$	242	224	277	N/A	ppm	Naturally occurring in mineral salts.
2005	Total Dissolved Solids	334	315	373	1000	ppm	Total dissolved mineral constituents in water.
2006-04	Total Hardness as $CaCO_3$	105	37	227	N/A	ppm	Naturally occurring calcium.
2006-04	Zinc	0.003	0	0.133	5	ppm	Moderately abundant naturally occurring element used in metal

LEAD and COPPER

Year	Constituent	The 90th Percentile	No. of Sites Exceeding AL	Action Level	Unit of Measure	Source of Constituent
2006	Lead	6.4	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits
2006	Copper	0.126	0	1.3	ppm	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

LEAD in Drinking Water: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, it cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (1-800-426-4791) or by logging on to EPA's web site at: **http://www.epa.gov/safewater/lead**

PUBLIC PARTICIPATION OPPORTUNITIES FOR MEMORIAL VILLAGES WATER AUTHORITY

BOARD MEETINGS: 1ST Tuesday of the month

LOCATION: 8955 Gaylord Drive, Houston, 77024

TIME: 7:00 p.m.

FOR INFORMATION CALL: 713-465-8318

VISIT OUR WEB SITE AT: WWW.MVWA.ORG

ARSENIC: While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

NITRATE: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. If you are caring for an infant, ask for advice from your health care provider.

The Water Authority conducts more tests on its drinking water than is required by either the TCEQ or the EPA and obtains regular water quality reports from the City of Houston on the water they provide to us. In 2007, the City of Houston's drinking water met or exceeded all State and Federal requirements. Over the past 10 years more than 7 million dollars has been spent on our water supply system. These expenditures have included the installation of surface water transmission lines, replacement and upgrading of old water lines, the addition of new fire hydrants and, upgrading components for improved reliability. The Board and employees of the Water Authority take very seriously the trust you have placed in us to insure that your water is safe.

THE WATER AUTHORITY IS COMMITED TO PROTECTING YOUR DRINKING WATER

TABLE II - City of Houston: Surface Water supplied to Memorial Villages Water Authority

Houston's entry points (EP) 001 and 101, East Water Purification Plants I & II Respectively — Houston's Main System I.D. No. 1010013

2007* CONTAMINANTS DETECTED IN YOUR DRINKING WATER; **NONE WERE ABOVE THE MCL**

INORGANICS

Year	Constituent	EP 001	EP 101	Unit of Measure	Source of Constituent
2007	Fluoride	0.85	0.9	ppm	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2007	Nitrate	0.96	1.0	ppm	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks and sewage.
2005	Arsenic	<2.0	<2.0	ppb	Erosion of natural deposits; Runoff from orchards from orchards and from glass and from electronic production waste.
(* *New arsenic values were effective January 23, 2006. In the event of a violation, you will be notified)*					
2005	Barium	0.05	0.05	ppm	Erosion of natural deposits; Discharge of drilling wastes and metal refineries.
2005	Combined Radium (226 & 228)	<1.0	<1.0	pCi/l	Erosion of natural deposits.
2005	Alpha Emitters	<2.0	<2.0	pCi/l	Erosion of natural deposits.
2005	Beta Emitters	5.5	5.5	pCi/l	Erosion of natural deposits.

ORGANICS

Year	Constituent	EP 001	EP 101	Unit of Measure	Source of Constituent
2007	Atrazine	0.34	0.2	ug/L	Runoff from herbicide used on row crops.

SECONDARY and OTHER REGULATED CONSTITUENTS

Year	Constituent	EP 001	EP 101	Unit of Measure	Source of Constituent
2007	Bicarbonate	81	88	ppm	Corrosion of carbonate rocks such as limestone.
2007	Chloride	36	36	ppm	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries.
2007	Total Alkalinity as $CaCO_3$	66	72	ppm	Naturally occurring soluble mineral salts.
2007	Sulfate	71	82	ppm	Naturally occurring; common industrial byproduct byproduct of oil field activity.
2007	Total Dissolved Solids	270	244	ppm	Total dissolved mineral constituents in water.
2007	pH	7.4	7.5	units	Measure of waters corrosivity.

REGULATED DISINFECTION BY-PRODUCT

Year	Constituent	EP 001	EP 101	Unit of Measure	Source of Constituent
2007	Chloroform	36	36	ug/L	Byproduct of drinking water disinfection.
2007	Bromodichloromethane	12	9	ug/L	Byproduct of drinking water disinfection.
2007)	Dibromochloromethane	1.9	1.1	ug/L	Byproduct of drinking water disinfection.
2007	Bromeform	<0.5	<0.5	ug/L	Byproduct of drinking water disinfection.
2007	Dibromomethane	<1.0	<1.0	ug/L	Byproduct of drinking water disinfection.

LEAD and COPPER

Year	Constituent	The 90th Percentile	No. of Sites Exceeding AL	Action Level	Unit of Measure	Source of Constituent
2003	Lead	4.4000	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits
2003	Copper	0.1050	0	1.3	ppm	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

Turbidity: Year	Average for Entry 001	Range for Entry 001	Average for Entry 101	Range for Entry 101	Unit of Measure
2007	0.05	0.02-0.19	0.04	0.02-0.10	NTU

Additional information concerning the City of Houston's Water Quality may be obtained by calling the Water Authority at 713-465-8318 or the Water Production Branch of the Department of Public Works, City of Houston at 713-842-4001.