Water Treatment Plant Personnel

The Deer Park Water System is operated and maintained by a staff of qualified and highly dedicated water treatment and system maintenance professionals that are state certified through the TCEQ. The current staff of the Water Treatment Plant are listed below:

Carl Stevens, Supervisor	"B" Certification
Darrell McCoy	"C" Certification
Chris Howland, Operator	"A" Certification
Matt Noland, Operator	"C" Certification
Michael Reid, Operator	"C" Certification
Frank Walker, Lab Technician	"C" Certification
Richard Gaertner, Operator	"C" Certification
Dan Shepherd, Maintenance Technician	

The Birth Place of Texas

City of Deer Park Mission Statement

The mission of the City of Deer Park is to plan and execute activities necessary to provide expected quality services to the citizens so that the opportunity to enjoy a high quality of life is afforded to all.

City of Deer Park
Public Works Department
P.O. Box 700
Deer Park, Texas 77536

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Public Works Department

Water Treatment Plant ✧ 2117 East "X" Street Deer Park, Texas ✧ PWSID TX1010007

2011 Drinking Water Quality Report

The Environmental Protection Agency requires that all water systems inform their customers of the quality of the water that they use. This is a requirement of the Clean Water Act. The following information pertains to the water being produced for consumption by the City of Deer Park for its citizens.

Deer Park Water - Safe To Drink

This brochure has been prepared by the City of Deer Park Public Works Department to help Deer Park residents understand more about the city's drinking water. Much of the information contained in this brochure is based on tests conducted in Jan. 1 - Dec. 31, 2011 by the U.S. Environmental Protection Agency and the Texas Commission On Environmental Quality. We are pleased to report that during that time, the city's drinking water has exceeded the standards established by these two agencies in all tests. The City of Deer Park has operated a Water Treatment Plant since 1989. One of the unique features of Deer Park's Water Treatment Plant is the state approved water bacteriology laboratory operated by Public Works Department staff. Deer Park is one of a very few small cities in Texas to operate such a facility. Each month this lab examines up to three times more water samples than are required by state and federal regulations. Through the aggressive testing program, Public Works Department staff are able to manage the water treatment process more effectively.

This brochure contains a list of constituents found in Deer Park's drinking water and the results of tests conducted to determine the levels of these constituents. We invite you to contact the Water Treatment Plant at 281-478-7204 if you have questions about any of these materials or would like additional information. As it has been for the past twenty-two years, providing safe and reliable drinking water will continue to be the highest priority for the City of Deer Park Public Works Department.

En Espanol: Este reporte le avisa que el departamento de agua de la ciudad de Deer Park continua a proveer agua sona y segura. Para solicitar una copia en espanol, por favor llame al Lupe Garcia - 832-421-7924

Where Do We Get Our Drinking Water?

Deer Park gets surface water from Trinity River via Lake Livingston. This water is purchased from the City of Houston through the Coastal Water Authority. The City of Houston provides an assessment bimonthly of the water that comes from the reservoir, located north of Lynchburg Landing. The water quality assessment aids in planning the proper treatment of the water.

Besides surface water, the City of Deer Park maintains three (3) wells on standby. These wells would be used on an emergency basis if the raw water supply should be interrupted for any reason. These wells draw water from the Gulf Coast Aquifer.

Turning Lake Water Into Drinking Water

Lake water must be treated before it flows through your tap. A large pipe brings the raw water into the plant. The water then undergoes a seven (7) step treatment process:

1. The water is aerated to remove many sources of taste and odor.
2. Chemicals are added to encourage suspended particles in the water to clump together so they become heavy enough to settle to the bottom of the treatment basin.
3. Lime is added to cause dissolved contaminants in the water to settle out.
4. These particles are allowed to settle for several hours.
5. The water is then filtered through more than 3' of coal, sand and gravel.
6. The alkalinity of the water is stabilized so that it will not dissolve metal from plumbing as it passes through the distribution system.
7. The addition of a disinfectant, chloramines (combination of chlorine and ammonia) is added to kill harmful micro-organisms.

Cryptosporidium

Cryptosporidium is a microscopic parasite affecting the digestive tract of humans and animals. It is shed in the feces and when ingested, may result in diarrhea, cramps, fever and other gastrointestinal symptoms.

No specific drug therapy has proven to be effective but people with healthy immune systems usually recover within two weeks. Individuals with weak immune systems, however, may be unable to clear the parasite and suffer chronic and deliberating illness.

There have been no indications that cryptosporidium is present or has been a problem with any water drawn from the Trinity River or any water produced by the City of Deer Park, Surface Water Treatment Plant.

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

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at Call 800-426-4791.

All Drinking Water May Contain Contaminants

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling EPA's Safe Drinking Water Hotline at 800-426-4791.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, may cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Our Drinking Water Is Regulated

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 the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Water Sources

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 substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

We Welcome Your Comments

There are many opportunities available to learn more about the City of Deer Park, Public Works and water quality

- **For questions or concerns about water quality call 281-478-7204**
- **To request a speaker for your group call 281-478-7253**

The Public Works Department is part of city government. City Council meets the first and third Tuesday each month in the Council Chambers at City Hall located at 710 East San Augustine at 7:30 pm.

CONSUMER CONFIDENCE REPORT

COLIFORM BACTERIA

MAX CONTAMINATION LEVEL GOAL	TOTAL COLIFORM MAX CONTAMINANT LEVEL	HIGHEST NO. OF POSITIVE	FECAL COLIFORM OR E. COLI MAX CONTAMINANT LEVEL	TOTAL POSITIVE E. COLI OR FECAL COLIFORM SAMPLES	VIOLATION	POSSIBLE SOURCE OF SUBSTANCE
0	1 positive monthly sample	0	0	0	N	Human and Animal Fecal Waste

LEAD AND COPPER

DATE Sampled	CONTAMINANT	MCLG	ACTION LEVEL	THE 90TH PERCENTILE	NUMBER OF SITES EXCEEDING ACTION LEVEL	UNIT OF MEASURE	VIOLATION	SOURCE OF CONSTITUENT
9/9/2010	Copper	1.3	1.3	0.0761	0	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
9/9/2010	Lead	0.0	15	0.5950	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.

"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, but 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 or at http://www.epa.gov/safewater/lead."

REGULATED CONTAMINANTS

DATE COLLECTED	CONTAMINANT	HIGHEST LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCL	UNIT OF MEASURE	VIOLATION	SOURCE OF CONSTITUENT
2010	Haloacetic Acids (HAA5)	14	5.900	16.100	60	ppb	N	By-product of drinking water disinfection.
2010	Total Trihalomethanes (TThm)*	14	4.900	34.400	80	ppb	N	By-product of drinking water chlorination.

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

INORGANIC CONTAMINANTS

DATE COLLECTED	CONTAMINANT	HIGHEST LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCL	MCLG	UNIT OF MEASURE	VIOLATION	SOURCE OF CONTAMINANT
2010	Antimony	LLTDL	0.0000	0.0000	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
2010	Arsenic	LLTDL	0.0000	0.0000	10	0	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
2010	Barium	0.0325	0.0312	0.0325	2	2	ppm	N	Discharge of drilling wastes, Discharge from metal refineries; Erosion of natural deposits.
2010	Beryllium	LLTDL	0.0000	0.0000	4	4	ppb	N	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace and defense.
2010	Cadmium	LLTDL	0.0000	0.0000	5	5	ppb	N	Corrosion from galvanized pipes; Erosion of natural deposits, Discharge from metal refineries; runoff from waste batteries.
2010	Chromium	LLTDL	0.0000	0.0000	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
2010	Fluoride	0.4000	0.3200	0.4000	4	4	ppm	N	Erosion of natural deposits, Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2010	Mercury	LLTDL	0.0000	0.0000	2	2	ppb	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
2010	Nitrate (as Nitrogen)	0.2900	0.1400	0.2900	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate Advisory - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant, you should ask advice from your health care provider.

2010	Nitrate (as Nitrogen)	0.020	0.0200	0.0200	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2010	Selenium	LLTDL	0.0000	0.0000	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
2010	Thallium	LLTDL	0.0000	0.0000	2	0.5	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; Drug factories

RADIOACTIVE CONTAMINANTS

DATE COLLECTED	CONTAMINANT	HIGHEST LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCL	UNIT OF MEASURE	VIOLATION	SOURCE OF CONSTITUENT
2010	Beta/Photon Emitters	5	0	5	4	Mrem/yr	N	By-product of drinking water disinfection.
2010	Gross Alpha Excluding Radon and Uranium	LLTDL	0	0	15	pCi/L	N	By-product of drinking water chlorination.

SYNTHETIC ORGANIC CONTAMINANTS

DATE COLLECTED	CONTAMINANT	HIGHEST LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCLG	MCL	UNIT OF MEASURE	VIOLATION	SOURCE OF CONSTITUENT
2010	2,4,5-TP (Silvex)	LLTDL	0.000	0.000	50	50	ppb	N	Residue of banned herbicide.
2010	2,4-D	LLTDL	0.000	0.000	70	70	ppb	N	Runoff from herbicide used on row crops.
2010	Alachor	LLTDL	0.000	0.000	0	2	ppb	N	Runoff from herbicide used on row crops.
2010	Atrazine	0.240	0.220	0.240	3	3	ppb	N	Runoff from herbicide used on row crops.
2010	Benzo(a)pyrene	LLTDL	0.000	0.000	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines.
2010	Carbofuran	LLTDL	0.000	0.000	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
2010	Chlordane	LLTDL	0.000	0.000	0	2	ppb	N	Residue of banned termiticide.
2010	Dalspon	1.200	0.000	1.200	200	200	ppb	N	Runoff from herbicide used on rights of way.
2010	Di (2-ethylhexyl) adipate	LLTDL	0.000	0.000	400	400	ppb	N	Discharge from chemical factories.
2010	Di (2-ethylhexyl) phthalate	LLTDL	0.000	0.000	0	6	ppb	N	Discharge from rubber and chemical factories.
2010	Dibromochloropropane (DBCP)	LLTDL	0.000	0.000	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
2010	Dinoseb	LLTDL	0.000	0.000	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.

SYNTHETIC ORGANIC CONTAMINANTS (continued)

DATE COLLECTED	CONTAMINANT	HIGHEST LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCLG	MCL	UNIT OF MEASURE	VIOLATION	SOURCE OF CONTAMINANT
2010	Endrin	LLTDL	0.000	0.000	2	2	ppb	N	Residue of banned insecticide.
2010	Ethylene dibromide	LLTDL	0.000	0.000	0	50	ppt	N	Discharge from petroleum refineries.
2010	Heptachlor	LLTDL	0.000	0.000	0	400	ppt	N	Residue of banned termiticide.
2010	Heptachlor epoxide	LLTDL	0.000	0.000	0	200	ppt	N	Breakdown of heptachlor.
2010	Hexachlorobenzene	LLTDL	0.000	0.000	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.
2010	Hexachlorocyclopentadiene	LLTDL	0.000	0.000	50	50	ppb	N	Discharge from chemical factories.
2010	Lindane	LLTDL	0.000	0.000	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
2010	Methoxychlor	LLTDL	0.000	0.000	40	400	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
2010	Oxamyl (Vydate)	LLTDL	0.000	0.000	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
2010	Pentachlorophenal	LLTDL	0.000	0.000	0	1	ppb	N	Discharge from wood preserving factories.
2010	Picloram	LLTDL	0.000	0.000	500	500	ppb	N	Herbicide runoff
2010	Simazine	0.100	0.080	0.100	4	4	ppb	N	Herbicide runoff
2010	Toxaphene	LLTDL	0.000	0.000	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.

VOLATILE ORGANIC CONTAMINANTS

DATE COLLECTED	CONTAMINANT	HIGHEST LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCLG	MCL	UNIT OF MEASURE	VIOLATION	SOURCE OF CONTAMINANT
2010	1,1,1-Trichloroethane	LLTDL	0.000	0.000	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
2010	1,1,2-Trichloroethane	LLTDL	0.000	0.000	3	5	ppb	N	Discharge from industrial chemical factories.
2010	1,1-Dichloroethane	LLTDL	0.000	0.000	7	7	ppb	N	Discharge from industrial chemical factories.
2010	1,2,4-Trichlorobenzene	LLTDL	0.000	0.000	70	70	ppb	N	Discharge from textile-finishing factories.
2010	1,2-Dichloroethane	LLTDL	0.000	0.000	5	5	ppb	N	Discharge from industrial chemical factories.
2010	1,2-Dichloropropane	LLTDL	0.000	0.000	0	5	ppb	N	Discharge from industrial chemical factories.
2010	Benzene	LLTDL	0.000	0.000	0	5	ppb	N	Discharge from factories; Leaching from gas storage tanks and landfills
2010	Carbon Tetrachloride	LLTDL	0.000	0.000	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
2010	Chlorobenzene	LLTDL	0.000	0.000	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
2010	Dichloromethane	LLTDL	0.000	0.000	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
2010	Ethylbenzene	LLTDL	0.000	0.000	700	700	ppb	N	Discharge from petroleum refineries.
2010	Styrene	LLTDL	0.000	0.000	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills.
2010	Tetrachloroethylene	LLTDL	0.000	0.000	0	5	ppb	N	Discharge from factories and dry cleaners.
2010	Toluene	LLTDL	0.000	0.000	1	1	ppm	N	Discharge from petroleum factories.
2010	Trichloroethylene	LLTDL	0.000	0.000	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
2010	Vinyl Chloride	LLTDL	0.000	0.000	0	2	ppb	N	Leaching from PVC piping; Discharge from plastics factories.
2010	Xylenes	LLTDL	0.000	0.000	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.
2010	cis-1,2-Dichloroethylene	LLTDL	0.000	0.000	70	70	ppb	N	Discharge from industrial chemical factories.
2010	o-Dichloroethylene	LLTDL	0.000	0.000	600	600	ppb	N	Discharge from industrial chemical factories.
2010	p-Dichlorobenzene	LLTDL	0.000	0.000	75	75	ppb	N	Discharge from industrial chemical factories.
2010	trans-1,2-Dichloroethylene	LLTDL	0.000	0.000	100	100	ppb	N	Discharge from industrial chemical factories.

TURBIDITY

TURBIDITY	LIMIT (TREATMENT TECHNIQUE)	LEVEL DETECTED	VIOLATION	SOURCE OF CONTAMINANT
Highest Single Measurement	1 ntu	0.31 NTU	N	Soil runoff.
Lowest Monthly % Meeting Limits	0.3 ntu	100%	N	Soil runoff.

Understanding The Chart

This list explains the terms that are used in the following chart

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

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Level Lower Than Detected Level (LLTDL) - The levels are lower than detected levels.

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 known or expected risk of health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm - Parts per million. One ounce in 7,350 gallons of water.

ppb - Parts per billion. One ounce in 7,350,000 gallons of water.

N/A - MCL not applicable - not regulated. Special monitoring requirements.

ppt - Parts per trillion, or nanograms per liter)

Average - Regulatory compliance with some MCLs are based on running annual average of monthly samples.