

# **City of Deer Park**

## **Public Works Department**

Water Treatment Plant



2117 East "X" Street Deer Park, Texas



281-478-7205

# **2004 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 1999 - 2003 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. As a result of this approach, the Deer Park Water Treatment Plant has never had a water sample test positive for coliforms.

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 ten years, providing safe and reliable drinking water will continue to be the highest priority for the City of Deer Park Public Works Department.

En Español: Este reporte le avisa que el departamento de agua de la ciudad de Deer Park continua a proveer agua sana y segura. Para solicitar una copia en español, por favor llame al 281-478-7205.

## Where Do We Get Our 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.

### **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 7:30pm.**

## Understanding The Chart

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

**NTU** - Nephelometric Turbidity Units. This is the unit used to measure water turbidity.

**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.

**Action Level** - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**Turbidity** - A measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

**ppm** - Parts per million. One part per million equals one packet of artificial sweetener sprinkled into 250 gallons of iced tea.

**ppb** - Parts per billion. One part per billion is equal to one packet of artificial sweetener sprinkled into an Olympic-size swimming pool.

**Treatment Technique** - A required process intended to reduce the level of a contaminant in drinking water.

**pCi/L** - Picocuries per liter is a measure of radioactivity in water. A picocurie is  $10^{12}$  curies and is the quantity of radioactive material producing 2.22 nuclear transformations per minute.

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

# CONSUMER CONFIDENCE REPORT

YEAR	CONSTITUENT INORGANIC	HIGHEST LEVEL AT SAMPLING POINT	RANGE OF DETECTED LEVELS	MCL	MCLG	SOURCE OF CONSTITUENT
2002	Barium	0.027 ppm	0.0270 - 0.0270	2 ppm	2 ppm	Discharge of drilling waste, refineries or erosion of natural deposits
2002	Fluoride	0.3 ppm	0.2000 - 0.3000	4 ppm	4 ppm	Erosion of natural deposits, discharge from fertilizer and aluminum factories
2002	Nitrate	0.71 ppm	0.6600 - 0.7100	10 ppm	10 ppm	Runoff from fertilizer use, leaching from septic tanks, erosion of natural deposits
1999	Nitrite	0.02 ppm	0.0000 - 0.0200	1 ppm	1 ppm	Runoff from fertilizer use, leaching from septic tanks, erosion of natural deposits

YEAR	CONSTITUENT INORGANIC	HIGHEST LEVEL AT ANY SAMPLING	RANGE OF DETECTED LEVELS	MCL	MCLG	SOURCE OF CONSTITUENT
2000-2001	Atrazine	0.52 ppb	0.4300 - 0.6100	3 ppb	0 ppb	Runoff from herbicide used on row crops
2000-2001	Simazine	0.15 ppb	0.0000 - 0.3000	4 ppb	0 ppb	Runoff from herbicide used on row crops

YEAR	CONSTITUENT	AVERAGE OF ALL SAMPLING POINTS	RANGE OF DETECTED LEVELS	MCL	MCLG	SOURCE OF CONSTITUENT
2003	Total Trihalomethanes	17.975 ppb	11.40 - 33.90	100 ppb	0 ppb	By-product of drinking water chlorination
2003	Total Haloacetic Acids	27.800 ppb	11.40 - 33.90	60 ppb	0 ppb	By-product of drinking water disinfection

YEAR	CONSTITUENT INORGANIC	HIGHEST SINGLE MEASUREMENT	MONTHLY % OF SAMPLES MEETING LIMITS	TURBIDITY LIMITS	UNITS OF MEASURE	SOURCE OF CONSTITUENT
2003	Turbidity	0.09 ntu	100%	0.3 ntu	ntu	Soil runoff

Turbidity has no health effects, however, turbidity may interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

YEAR	SUBSTANCE	90TH PERCENTILE VALUES	SITES EXCEEDING ACTION LEVEL	MAXIMUM CONTAMINATED LEVEL	MAXIMUM CONTAMINATED LEVEL GOAL	POSSIBLE SOURCE OF SUBSTANCE
2001	LEAD (ppb)	0.3000 ppb	0	Action Level = 15	15	Corrosion or Customer Plumbing
2001	COPPER (ppm)	0.0050 ppm	0	Action Level = 1.3	1.3	or Service Connection

YEAR	SUBSTANCE	RANGE OF DETECTION	DEER PARK WATER	PRESENCE IN 5% OF MONTHLY SAMPLES	MAXIMUM CONTAMINATED LEVEL GOAL	POSSIBLE SOURCE OF SUBSTANCE
2002	COLIFORMS	0	0	0	0	Human and Animal Fecal Waste
2002	FECAL COLIFORMS	0	0	0	0	Human and Animal Fecal Waste

### 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. Secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### UNREGULATED CONTAMINANTS

YEAR	CONSTITUENT	AVERAGE OF ALL SAMPLING POINTS	RANGE OF DETECTED LEVELS	REASON FOR MONITORING
2002	Chloroform	8.00	7.0000 - 9.3000	Unregulated contaminant monitoring helps EPA to determine where certain
2002	Bromodichloromethane	1.77	1.7000 - 1.9000	contaminants occur and whether it needs to regulate those contaminants

## **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 debilitating 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 Information For People With Weakened Immune Systems**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 health care providers. APE/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. Call 800-426-4791.

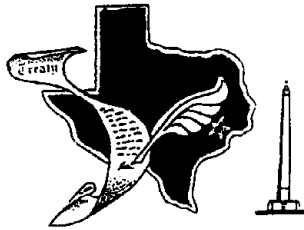
### **All Water**

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.

## 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 TNROC. The current staff of the Water Treatment Plant are listed below:

Jim Crenshaw, Supervisor	"A" Certification
Mario Chapa, "B" Operator	"B" Certification
Chris Howland, "B" Operator	"A" Certification
David Kent, Maintenance Technician	"C" Certification
Robert Koch, "C" Operator	"C" Certification
Michael Reid, "C" Operator	"C" Certification
Norman Cooper, Lab Technician	"B" Certification
Frank Walker, Laborer	"D" Certification
Carl Stevens, "C" Operator	"B" Certification



*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.*