



Proudly Presented By:

TOWN OF
BEDFORD

ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2006



PWS ID#: 5903418,5930061,5903419,5903478

Continuing Our Commitment

We are pleased to offer you this year's Annual Drinking Water Quality Report. The purpose of this report is to inform you about the safe, dependable drinking water that is delivered daily to our residents. The Town of Bedford's goal is to continually monitor and improve our water resources to ensure the ongoing quality of our drinking water.

If you have any questions about this report or concerns about drinking water, please contact James J. Hahn, P.E., Town Consulting Engineer, at (845) 279-2220.

Community Participation

We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled meetings. The meetings are held at 8:00 p.m. on the first and third Tuesday of each month at the Town House, 321 Bedford Road, Bedford Hills, New York.

Important Health Information

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease-causing microorganisms or pathogens 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 from their health care provider about their drinking water. The U.S. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia*, and other microbial pathogens are available from the Safe Drinking Water Hotline at (800) 426-4791.

Facts and Figures

Consolidated Water District #1

Our water system serves approximately 8,000 people through 2,135 service connections. The total amount of water produced in 2006 was 238 million gallons. The daily average of water treated and pumped into the distribution system is 652,000 gallons per day. Approximately 86% of the total was billed directly to the consumers. The balance of 33 million gallons, or unaccounted for water, was used for firefighting, hydrant use for street sweeping, distribution system leaks, and unauthorized use. In 2006, water customers were charged a combined total of \$969,410.38. The annual water charge per user is based on a sliding scale of water rates. Based on average household metered consumption, the charge for the first 10,000 gallons of water used in a household is \$43.10. The rates increase slightly as water use increases.

The Bedford Farms Water District

The Bedford Farms water system serves approximately 300 people through 82 service connections. The total amount of water produced in 2006 was 7.2 million gallons. The daily average of water treated and pumped into the distribution system is 19,700 gallons per day. Approximately 90% of the total was billed directly to the consumers. The balance of 0.72 million gallons or unaccounted for water, was from distribution system leaks and unauthorized use. In 2006, water customers were charged a combined total of \$28,726.62. The annual water charge per user is based on a sliding scale of water rates. Based on average household metered consumption, the charge for the first 10,000 gallons of water used in a household is \$21.55. The rates increase slightly as water use increases.

Old Post Road Water District

The Old Post Road water system serves approximately 1,500 people through 44 service connections. The total amount of water produced in 2006 was 11.8 million gallons. The daily average of water treated and pumped into the distribution system is 32,300 gallons per day. Approximately 91% of the total was billed directly to the consumers. The balance of 1.06 million gallons, or unaccounted for water, was from distribution system leaks and unauthorized use. In 2006, water customers were charged a combined total of \$22,220.75. The annual water charge per user is based on a sliding scale of water rates. Based on average household metered consumption, the charge for the first 10,000 gallons of water used in a household is \$21.55. The rates increase slightly as water use increases.

Cedar Downs Water District

Our water system serves approximately 175 people through 62 service connections. The total amount of water produced in 2006 was 4.1 million gallons. The daily average of water treated and pumped into the distribution system is 11,200 gallons per day. Approximately 90% of the total was billed directly to the consumers. The balance of 0.4 million gallons, or unaccounted for water, was used for firefighting, hydrant use for street sweeping, distribution system leaks, and unauthorized use. In 2006, water customers were charged a combined total of \$19,533.10. The annual water charge per user is based on a sliding scale of water rates. Based on average household metered consumption, the charge for the first 10,000 gallons of water used in a household is \$43.10. There are slight increases as the water use increases.

Substances That Might Be in 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 can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

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. In order to ensure that tap water is safe to drink, the State of New York and the U.S. EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The New York State's Health Department and the U.S. FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

The New York State (NYS) Department of Health (DOH) has completed a Source Water Assessment Program (SWAP) Report for our systems, based on available information. Possible and actual threats to the drinking water sources were evaluated. The assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. Copies of the assessment can be obtained from the Department of Health.

The susceptibility rating is an estimate of the potential for contamination of the source water; it does not mean that the water delivered to consumers is, or will become, contaminated. See the section entitled Sampling Results for a list of the contaminants that have been detected, if any. The source water assessments provide resource managers with additional information to protect source waters into the future.

Consolidated Water District #1

Our water is derived from three drilled wells. The Source Water Assessment has rated these wells as having a very high susceptibility to microbial contamination and a high susceptibility to nitrates, pesticides, industrial solvents, and other industrial contaminants.

These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state or federal government), hazardous waste sites to the wells, and the fact that a large portion of the assessment area is categorized as an unsewered residential area. The unsewered residential areas can contribute contaminants through the associated industrial activity and low-intensity residential activity in the assessment areas, such as fertilizing lawns. In addition, the wells draw greater than 100 gallons per minute from an unconfined aquifer. While the Source Water Assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

Bedford Farms and Old Post Road Water Districts

As mentioned before, our water is derived from two drilled wells. The Source Water Assessment has rated these wells as having a very high susceptibility to microbials and a high susceptibility to nitrates and industrial solvents. These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state or federal government) to the wells. A large portion of the assessment area is categorized as an unsewered residential area and can contribute contaminants through low-intensity residential activities in the assessment area, such as fertilizing lawns. The high industrial solvent rating is due to hazardous waste sites located in the assessment area. In addition, the wells draw from an unconfined aquifer of high hydraulic conductivity. While the Source Water Assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

Cedar Downs Water District

Our water is derived from two drilled wells. The Source Water Assessment has rated these wells as having a medium-high susceptibility to microbial contamination and nitrates. These ratings are due primarily to the close proximity of a permitted discharge facility (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state or federal government) to the wells, and the fact that a large portion of the assessment area is categorized as an unsewered residential area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity. While the Source Water Assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.



Non-Detected Contaminants

The following are some of the contaminants tested for but not found in the drinking water. A more extensive list of contaminants tested for but not detected is available at the Bedford Water Department.

Consolidated Water District #1

Volatile Organic Compounds include bromodichloromethane, dibromochloromethane, tetrachloroethane, trichloroethane, dichloroethane, dichloropropane, trichlorobenzene, trichloropropane, trimethylbenzene, dichlorobenzene, dichloropropane, butanone (MEK), chlorotoluene, benzene, bromobenzene, bromochloromethane, bromomethane, carbon tetrachloride, chlorobenzene, chloroethane, chloromethane, dichloropropene, dibromoethane, dichlorodifluoromethane, ethylbenzene, hexachlorobutadiene, isopropylbenzene, methyl iso-butyl ketone (MIBK), methyl tert-butyl ether (MTBE), methylene chloride, n-butylbenzene, n-propylbenzene, naphthalene, o-xylene, p & m-xylene, p-isopropyltoluene, SECbutylbenzene, styrene, TERT-butylbenzene, toluene, trans-1,2-dichloroethene, trans-1,3-dichloropropene, trichlorofluoromethane, and vinyl chloride. Haloacetic acids include bromoacetic, bromochloroacetic, chloroacetic, dibromoacetic, and trichloroacetic. Pesticides include aldrin, chlordane, endrin, heptachlor, heptachlor epoxide, lindane, methoxychlor, PCBs, propachlor, and toxaphene. Herbicides include dalapon, DCPA, dicamba, dinoseb, pentachlorophenol, picloram, and silvex.

Bedford Farms Water District, Old Post Road Water District and Cedar Downs Water District includes volatile organic compounds, haloacetic acids, pesticides, and herbicides as listed above.

Where Does My Water Come From?

Consolidated Water District #1

The Town of Bedford has three groundwater sources (wells) to supply drinking water to the Consolidated Water District #1. The main location and description of these water sources is listed below.

Katonah Well. This water supply was discontinued during the 1970s because of the presence of tetrachloroethylene. Tetrachloroethylene is a cleaning solvent used by dry cleaners and is considered a carcinogen. In 1992, a treatment system consisting of two air strippers in series were installed to remove tetrachloroethylene. Every water analysis since the installation of this treatment system showed an undetectable level of tetrachloroethylene in all treatment water.

Harris Road Well. This water supply is located along Harris Road near the Bedford Hills Correctional Facility.

Haines Road Well. This water supply is located along Haines Road near Bedford Hills Memorial Park. The well was taken out of service in 1997 due to high concentrations of manganese. Since then, the well has been treated and is back in use.

These water supplies are disinfected with sodium hypochlorite, which is a chemical that kills bacteria.

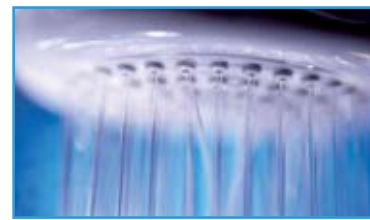
Bedford Farms and Old Post Road Water Districts

The Bedford Farms Water District has groundwater sources (wells) to supply drinking water to the district. The two wells are shallow, gravel-packed wells. Each well has the potential of pumping 150,000 gallons per day. These water supplies are disinfected with sodium hypochlorite, which is a chemical that kills bacteria but is totally harmless to humans in the concentrations in your water supply. This water supply was rehabilitated in 1996 and an air stripper was installed in 1998.

Every water analysis since the installation of the stripper showed an undetectable level of tetrachloroethylene. The Old Post Road Water District is considered a consecutive water system and obtains treated water from the Farms Water District.

Cedar Downs Water District

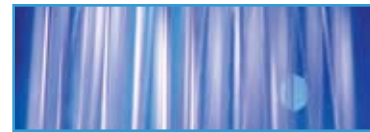
Cedar Downs Water District has two deep-rock groundwater sources (wells) to supply drinking water to the Cedar Downs Water District. Well #1 has a daily capacity of 50,000 gallons, and Well #2 has a daily capacity of 30,000 gallons. There is also a connection to the adjacent New Castle/Stanwood water supply system, which is used during emergencies and when repair work is performed on the Cedar Downs system. The New Castle/Stanwood water is treated, processed, and disinfected with chlorine gas prior to distribution. The Cedar Downs water supply is disinfected with sodium hypochlorite, which is a chemical that kills bacteria.



Water Conservation

As a consumer you can participate in our water conservation effort. The following are some ideas that can be directly applied to your individual homes:

1. Use water-saving, flow-restricting shower heads and low-flow faucets (aerators);
2. Replace your toilet with a low flush model;
3. Water your garden and lawn only when necessary. Remember that a layer of mulch will help retain moisture;
4. Water your lawn after 6:00 p.m.;
5. When washing your car don't let the hose run continuously; and
6. When brushing your teeth, shaving, or shampooing, avoid running the water unnecessarily.



Sampling Results

The table at right shows a sampling of only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

As shown in the table at right, manganese is near the MCL for Bedford Consolidated Water District. The Food and Nutrition Board of the National Research Council determined an estimated safe and adequate daily dietary intake of manganese to be 2,000-5,000 ppb for adults. However, many people's diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetables or are vegetarians. The infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and manganese. Excess manganese produces a brownish color in laundered goods and impairs the taste of tea, coffee, and other beverages. Concentrations may cause a dark brown or black stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes. These may slough off, causing brown blotches on laundered clothing or black particles in the water. The Town is required to notify residents that the concentration of chloride in drinking water exceeds the maximum contaminant level (MCL) of 250 ppm. Chlorides usually have no health effects. The MCL for chloride is the level above which the taste of water may become objectionable. In addition to the adverse taste affects, high chloride concentration levels in the water contribute to the deterioration of domestic plumbing and water heaters. Elevated chloride concentrations may also be associated with the presence of sodium in drinking water. Sodium has been linked to heart and kidney disease. Sodium chloride may impart a salty taste at 250 ppm; however, calcium or magnesium chloride are not usually detected by taste until levels of 1,000 ppm are reached.

System Improvements

Bedford Consolidated Water District #1

Various water valves throughout the district were replaced. The Town is continuing work on a water treatment facility which would supply water to the entire district.

Farms and Old Post Road Water District

The Town installed new water mains on Locust Drive, David Lapley Road, Jefferson Lane and East Way. The Town is in the process of finalizing plans for a new water storage tank in the Old Post Road water district.

Cedar Downs Water District

The Town is in the process of completing plans for a proposed connection to the New Castle Water District and upgrading existing piping in the district.

Regulated Substances			Cedar Downs Water District			Consolidated Water District #1			Farms Water District				
Substance (Unit of Measure)	MCL [MRDL]	MCLG [MRDLG]	Date Sampled	Amount Detected	Range Low-High	Date Sampled	Amount Detected	Range Low-High	Date Sampled	Amount Detected	Range Low-High	Violation	Typical Source
1,1,1-Trichloroethane ¹ (ppb)	5	NA	NA	NA	NA	05/09/05	0.73	NA	NA	NA	NA	No	Discharge from metal degreasing sites and other factories
1,2-Dichloroethane ² (ppb)	5	NA	NA	NA	NA	05/09/05	0.7	NA	NA	NA	NA	No	Discharge from industrial chemical factories
Barium (ppm)	2	2	04/28/06	0.155	NA	04/19/06	0.244	NA	04/27/06	0.132	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta Particle/Photon Activity [from manmade radionuclides] ³ (pCi/L)	50	0	11/20/06	13.44 ⁴	8.31–13.44 ⁴	03/08/04	10.5	NA	03/15/04	6.6	NA	No	Decay of natural deposits and man-made emissions
Chloride (ppm)	250	NA	04/27/06	59.2	NA	09/12/06	263	215–323	04/27/06	109	NA	Yes ⁵	Naturally occurring or indicative of road salt contamination
Chlorine ⁶ (ppm)	[4]	[4]	NA	NA	NA	2005	0.6	NA	2006	0.65	0.5–0.8	No	Water additive used to control microbes
Chromium (ppb)	100	100	04/27/06	5.4	NA	08/01/03	23.3	NA	04/27/06	5.8	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Color (Units)	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	No	Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant by-products such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural
Combined Radium [226 and 228] (pCi/L)	5	0	12/11/06	3.468 ⁴	1.04–4.32 ⁴	02/25/04	0.2	NA	NA	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2.2	NA	04/27/06	0.140	NA	03/08/06	0.117	NA	NA	NA	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Gross Alpha Activity [including radium 226 but excluding radon and uranium] (pCi/L)	15	0	2006	6.95	1.88–6.95	08/18/04	1 ⁷	NA	02//25/04	1.1	NA	No	Erosion of natural deposits
Iron (ppb)	300	NA	NA	NA	NA	04/19/06	41.3	NA	NA	NA	NA	No	Naturally occurring
Manganese (ppb)	300	NA	04/27/06	23.7	NA	03/15/06	213	NA	04/14/03	1.4	NA	No	Naturally occurring; Indicative of landfill contamination
Nitrate (ppm)	10	10	02/07/06	0.23 ⁸	NA	03/08/06	6.87	6.87–6.87	02/24/06	3.55	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	1	1	02/07/06	0.01 ⁸	NA	NA	NA	NA	02/14/05	0.01	0.01–0.01	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

REGULATED SUBSTANCES			Cedar Downs Water District			Consolidated Water District #1			Farms Water District				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Selenium (ppb)	50	50	NA	NA	NA	03/08/06	1.1	NA	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium ⁹ (ppm)	(see footnote)	NA	04/27/06	18.5	NA	03/08/06	95.1	NA	04/27/06	43.4	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)	250	NA	04/27/06	30.4	NA	03/08/06	48.1	NA	04/27/06	33.7	NA	No	Naturally occurring
Tetrachloroethylene [PCE] ¹⁰ (ppb)	5	NA	NA	NA	NA	01/05/06	21	NA	03/06/06	4.2	NA	No	Discharge from factories and dry cleaners; Waste sites; Spills
Total Trihalomethanes [TTHMs] (ppb)	80	NA	09/05	10	NA	04/13/06	30.4	NA	03/06/06	0.78	NA	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter
Uranium (ppb)	30	0	11/17/06	ND	ND–0.37	02/25/04	0.5	NA	NA	NA	NA	No	Erosion of natural deposits
Zinc (ppm)	5	NA	04/23/06	0.0239	NA	03/08/06	0.025	NA	04/27/06	0.021	NA	No	Naturally occurring; Mining waste

Tap water samples were collected from sample sites throughout the communities

			Cedar Downs Water District			Consolidated Water District #1			Farms Water District			Old Post Road Water District				
SUBSTANCE (UNIT OF MEASURE)	AL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE) /RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE) /RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE) /RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE) /RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper ¹¹ (ppm)	1.3	1.3	07/05	0.06515/0.0483–0.0737	0/5	07/04	0.469/0.027–0.831	0/20	07/05	0.0764/0.034–0.0801	0/5	05/06	0.142/0.0161–0.602	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Lead ¹¹ (ppb)	15	0	07/05	1.45/ND–1.6	0/5	07/04	6.4/ND–10	0/20	07/05	1.2/ND–1.85	0/5	05/06	7.0/ND–16.3	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

			Cedar Downs Water District			Farms Water District		
SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Nickel (ppb)	04/25/06	2.0	NA	04/28/06	2.9	NA		

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

MRDL (Maximum Residual Disinfectant Level):
The highest level of a disinfectant allowed in

drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk

to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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