## Annual **Drinking Water Quality Report** for 2006



PWSID: 0417001

We are pleased to present our Annual Drinking Water Quality Report for 2006, as required by the federal Safe Drinking Water Act.

This "Consumer Confidence Report" is designed to inform you about the quality of your water and services that the Borough supplies to you every day. It shows that our sources of water and water treatment facilities both conform to all federal and state regulations.

Our Water Department is committed to delivering top quality water to every tap. We hope this report will help you appreciate the efforts the Department makes to provide you with a safe, dependable supply of drinking water, to continually improve the water treatment process.

Owing to events involving national security, we have increased security at our facilities and continue to vigilantly protect our water resources.

If you have questions about this report or about the Borough's water supplies, you may:

- Call the Director of Utilities, Joseph R. Keating, at 429-0183 x 122;
- Attend and ask questions at Board of Commissioners' meetings, held in the Borough Hall (Room 102) at 8pm on the second and fourth Tuesdays of each month.
- Contact us directly, at the numbers given below.

Mayor 428-0348

Tish Colombi Ed Bouden Near P. Rocuford Edward F. Borden, Jr Commissioner 354-7700 x 143

Commissioner 547-6017 x 19

### Questions or Concerns?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons - persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly persons, and infants - can be particularly at risk from infections. Such people should seek advice about drinking water from their health care providers.

A copy of Environmental Protection Agency/Centers for Disease Prevention and Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants may be obtained by calling the Safe Drinking Water Hotline: 800-426-4791.

A list of contaminants that were tested for in Haddonfield's water but not detected, and of contaminants that are present at levels below those that can be detected using reliable methods, may be obtained by calling Water Department at 429-0183 x 122.

| Contaminant   | Violation? | Level Detected<br>in Haddonfield's<br>Water | Maximum<br>Contaminant Level | Maximum<br>Contaminant Level<br>Goal | Likely Source of Contamination  |
|---|------------|---|------------------------------|--------------------------------------|---|
| Radioactive Contaminants:<br>Alpha Emitters (Tested 2006) | No         | 2.28 pCi/l                                  | 0.0 pCi/l                    | 15.0 pCi/l                           | Erosion of natural deposits   |
| Inorganic Contaminants:<br>Copper (Tested 2006)           | No         | 90th percentile 0.301 ppm                   | 1.3 ppm                      | Action Level: 1.3 ppm                | Corrosion of household plumbing systems;<br>Erosion of natural deposits; Leaching from<br>wood preservatives                    |
| Lead (Tested 2006)  | No         | 90th percentile 0.001 ppm                   | 0.0 ppb                      | Action Level: 0.015 ppm              | Corrosion of household plumbing systems;<br>Erosion of natural deposits   |
| Fluoride (Tested 2005)                                    | No         | 0.125 ppm                                   | 4.0 ppm                      | 4.0 ppm                              | Erosion of natural deposits; Water additive<br>which promotes strong teeth; Discharge from<br>fertilizer and aluminum factories |
| Nitrate (as nitrogen)                                     | No         | 0.159 ppm                                   | 10.0 ppm                     | 10.0 ppm                             | Runoff from fertilizer use; Leaching from septic tanks, Sewage; Erosion of natural deposits                                     |
| Contaminant Trackwart Su Bradusto                         | Violation? | Range                                       | Annual Rolling<br>Average    | Maximum<br>Contaminant Level         | Likely Source of Contamination  |
| Treatment By-Products: Total Trihalomethanes              | No         | 0.0 to 15 ppb                               | 6.0 ppb                      | 80.0 ppb                             | By-product of drinking water chlorination   |

#### Health Effects

- Alpha Emitters: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
- Barium: Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
- Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the Action Level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the Action Level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their doctor.
- Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get
- Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the Maximum Contaminant Level could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
- Total Trihalomethanes: Some people who drink water containing trihalomethanes in excessof the Maximum Contaminant Level over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
- Lead: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

#### **Definitions and Explanations**

- · Maximum Contaminant Level Goal (MCLG). 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.
- Maximum Contaminant Level (MCL). The highest level of a contaminant that is allowed in drinking water. MCLs are set at very stringent levels, as close to the MCLGs as feasible using the best available treatment technology. To give perspective to the possible health effects described for many regulated constituents: A person would have to drink two liters of water every day at the Maximum Contaminant Level for a lifetime to have a one-in-a-million chance of having the described health effect.
- Maximum Residual Disinfectant Level (MRDL). 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.
- Maximum Residual Disinfectant Goal (MRDG). The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- Treatment Technique. A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- pCi/l = Picocuries per liter. A measure of the radioactivity in water.
- ppm: Parts per million. One ppm corresponds to one minute in two years.
- mg/l = Milligrams per liter. Same as ppm.
- Action Level. This is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- ppb = Parts per billion. One part per billion corresponds to one minute in 2,000 years.

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. Since the test results for Haddonfield water were so good, we received monitoring waivers for all of these types of contaminants.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

# Special Considerations Regarding Children, Pregnant Women, Nursing Mothers, and Others

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body-weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is sufficient toxicity information for a chemical [e.g. lack of data on reproductive or developmental effects], an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. For nitrate and lead, effects on infants and children are the health endpoints upon which the standards are based.

#### Nitrate

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 agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

#### Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your hole may be higher than in other homes in the community as a result of materials used in your home plumbing. If you are concerned about elevated lead levels in your home water, you may with to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline: 800-426-4791.

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.

Contamination that may be present in source water include:

- 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 projection, mining, or farming.
- Pesticides and herbicides, which may come from sources such as agriculture, urban stormwater runoff, and residential uses.
- 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 stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## Haddonfield-Specific Information

#### Service Area

Borough of Haddonfield, Borough of Tavistock, and fringe areas of certain bordering towns.

#### Sources of Water

Most of the water we use in Haddonfield comes from the Potomac Raritan Magothy Aquifer, which is over 500 feet deep. This water is pumped to the surface by wells.

Our alternate source of water, which is mandated by the State of New Jersey, is New Jersey-American Water Company. Their water comes from wells that are similar to ours and from treated water drawn from the Delaware River.

#### Treatment of Water

Before it is distributed to our customers, the raw water is aerated, filtered, and chlorinated. Our Water Treatment Facility is controlled by a computerized SCADA system that has been designed to operate our equipment efficiently and economically.

### Distribution of Water

Our distribution system is in good condition. It consists of more than 50 miles of water mains, a 400,000 gallon standpipe, 500,000 gallons of underground storage in use (and 500,000 gallons of underground storage in reserve), more than 300 fire hydrants and more than 4,500 water service lines.

#### Notes

The NJ Department of Environmental Protection (NJDEP) has issued Source Water Assessment Reports and Summaries for Haddonfield's water system and NJ-American Water Company. They are available at www.state.nj.us/dep/swap/ or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5500.

The potential for contamination of source water in Haddonfield's three wells was determined to be as follows:

| Cai | tegory     | Susceptibility | Category                          | Susceptibility |
|-----|------------|----------------|-----------------------------------|----------------|
| •   | Pathogens  | Low            | <ul> <li>Inorganics</li> </ul>    | Medium         |
| •   | Nutrients  | Low            | <ul> <li>Radionuclides</li> </ul> | s Medium       |
| •   | Pesticides | Low            | <ul> <li>Radon</li> </ul>         | Low            |
| •   | VOC's      | Low            | <ul> <li>DBP's</li> </ul>         | Medium         |

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination.

Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

#### Test Results for 2006

Federal and State laws require us to routinely monitor the constituents of our drinking water. The table shows the results of our monitoring for the period of January 1 to December 31, 2006. It shows that Haddonfield's water quality meets or exceeds all Federal and State requirements. Simply put – our water is safe

As water travels underground or over land it can pick up substances or contaminants such as microbes, inorganic chemicals, organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, contains at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk.

Although our monitoring and testing detected some levels of contaminants, the Environmental Protection Agency has determined that our water is safe at these levels.

# PLEASE DO NOT WATER between 6am and 6pm



Please help the Water Department even out the peaks and valleys of demand. Limit watering. Water early. Or water late.



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## Borough of Haddonfield

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