# University of Notre Dame

## Annual Drinking Water Quality Report
## 2005 Consumer Confidence Report

The amendments to the 1996 Safe Drinking Water Act require each public water supply to produce a water quality report titled the Consumer Confidence Report (CCR). Following is the University's annual report for the 2005 calendar year.

The University's water system is a privately owned public water supply operated by the Utilities Department. The University's system provides water to the University community and the nearby C.S.C. properties. Questions regarding the system or sampling results can be directed to Paul Kempf, Director of Utilities, 104 Facilities Building, Notre Dame, IN 46556, phone 574.631.0142 or Mike McCauslin, Assistant Director, Risk Management and Safety, 636 Grace Hall, Notre Dame, IN 46556, phone 574.631.5037.

There are currently six wells serving the water system, all located on the campus proper. The water is drawn from deep aquifers surrounded by substantial clay barriers that serve to protect the groundwater supply. We do not believe that our source is vulnerable to contamination. We are also taking steps to ensure that our water source does not become contaminated and are in the final stages of a Wellhead Protection Program. This program assists in defining where the water supply comes from and methods to protect the aquifers from potential contamination.

The sources of drinking water (both tap water and bottled) 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 animal and human activity.

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 the water poses a health risk. More information about contaminants and potential health affects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (1.800.426.4791) or at the EPA's website at www.epa.gov/safewater.

Contaminants that might be expected to be in source water (untreated 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 stormwater runoff, industrial or domestic wastewater discharges, oil, pesticides and herbicides.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production or can come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or are the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly susceptible. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection from Cryptosporidium and microbial contaminants are available from the Safe Drinking Water Hotline (1.800.426.4791) or at the EPA's website at www.epa.gov/safewater.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. In general, if you flush your could tap until the water gets as cold as it is going to get, you will have eliminated the potential metal contamination. Additional information is available from the Safe Drinking Water Hotline (1.800.426.4791) or at the EPA's website at www.epa.gov/safewater.

We have tested for over 150 parameters regulated by the EPA and the State of Indiana. Included in these tests were metals, volatile organics, pesticides, herbicides, synthetic organic chemicals and cyanide.

## Water Quality Data

The table below lists the EPA's regulated and unregulated contaminants detected in the University's drinking water. All of the contaminants are below allowable levels.

Not included in the table are the more than 150 other contaminants including pesticides, herbicides, metals, synthetic organic chemicals, volatile organic chemicals and others which were tested and not detected.

## Regulated at Point of Entry (Well)

| Substance | Highest Level Detected | EPA's MCL | EPA's MCLG | Range | Source of Contamination |
|---|---|---|---|---|---|
| Barium (ppm) | 0.10 | 2.0 | 2.0 | 0.061 - 0.10 | Erosion of natural deposits |
| Nitrate (ppm) | 1.0 | 10 | 10 | 0.13 - 1.0 | Runoff from fertilizer, septic tanks, natural deposits |
| Nickel (ppm) | 0.015 | 0.1 | 0 | 0.0075 - 0.015 | Pipe material, natural deposits |
| Chromium (ppm) | 0.012 | 0.1 | 0.1 | 0.0088 - 0.012 | Erosion of natural deposits |
| Fluoride (ppm) | 1.1 | 4.0 | 4.0 | <0.1 - 1.1 | Runoff from fertilizer, erosion of natural deposits |
| Arsenic (ppm) | 0.0034 | 0.01 | 0.0 | <0.0020 - 0.0034 | Erosion of natural deposits |
| Gross alpha (pCi/L) | 3.8 | 15 | 0 | 1.9 – 3.8 | Naturally occurring |
| Gross beta (pCi/L) | 21.2 | 50 | 0 | 3.2 – 21.2 | Decay of natural and manmade deposits |

## Unregulated Substances

| Substance | Highest Level Detected | EPA's MCL | EPA's MCLG | Range | Source of Contamination |
|---|---|---|---|---|---|
| Sodium (ppm) | 58 | 100 | - | 41 - 58 | Erosion of natural deposits |

## Regulated at User Tap

| Substance | Highest Level Detected | EPA's MCL | EPA's MCLG | Range | Source of Contamination |
|---|---|---|---|---|---|
| Copper (ppb) 90$^{th}$ percentile | 350 | 1300 | 1300 | 5.2 - 350 | Corrosion of plumbing systems |
| Lead (ppb) 90$^{th}$ percentile | 12 | 15 | 0 | <1.0 - 12 | Corrosion of plumbing systems |

## Definitions

MCL: Maximum Contaminant Level (MCL). The highest level of a contaminant allowed in drinking water.

MCLG: Maximum Contaminant Level Goal (MCLG). The level of a contaminant at which there is no known or expected health risk.

ppm: parts per million.

ppb: parts per billion.

90$^{th}$ Percentile: 90% of the samples were below the number listed.

pCi/L: picocuries per liter.

Since 1993, the University has been granted a Standardized Monitoring Framework (SMF 1), monitoring waiver. Due to the high quality of the water, the monitoring frequencies are significantly reduced.