INTRODUCTION

To comply with State regulations, Pace University will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, we are proud to report your tap water met all State drinking water health standards. In 2004, we conducted tests for over 630 contaminants. We detected 14 of those contaminants, none at a level higher than the State allows. This report provides an overview of last year’s water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Mr. Dennis MacDougall at Pace University Facilities Management at (914)-923-2840. We want you to be informed about your drinking water.

WHERE DOES OUR WATER COME FROM?

In general, 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 activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department’s and the Food and Drug Administration’s (FDA’s) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Pace University public water system is supplied by five wells (Wells 2, 4, 9, 14, and 15) located within the campus, which are approximately 250 to 300 feet deep and draw water primarily from a bedrock aquifer. In 2004, all wells but Well 15 were out of service. A backup water supply interconnected with The Village of Briarcliff Manor Water Department (VOBM) is available on an as needed basis. We use VOBM water to augment the portion of our water supply that is provided by our wells.

Our water system provides service to approximately three to four thousand consumers on a daily basis. In 2004, the average daily water use on campus was approximately 47,038 gallons/day for an annual total of 17.2 million gallons. Prior to use, the raw well water undergoes the disinfection treatment process, which involves the careful addition of sodium hypochlorite. In 2004, Pace purchased approximately 16.7 million gallons from VOBM, 72,000 gallons from Durkin Water Tank Trucks, with the remainder provided by Well 15. Complete information on water supply and quality from VOBM is available by contacting Mr. George Lackowitz at (914) 962-1500.

The New York State Department of Health (NYSDOH) has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water 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 our wells. 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 section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, a small portion of our water was derived from one of our five drilled wells. The source water assessment has rated all of our wells as having a high susceptibility to nitrates, and a medium-high susceptibility to microbials, 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 and/or federal government) to the wells and low intensity residential activities in the assessment area, such as fertilizing lawns. Our campus wells draw from fractured bedrock and the overlying soils provide adequate protection from potential contamination. 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.

A copy of this assessment, including a map of the assessment area, can be obtained by contacting us, as noted below.

The NYSDOH has evaluated the susceptibility of water supplies statewide to potential contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this public water supply (PWS). This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

This PWS obtains water from the New York City water supply system. Water either comes from the Catskill/Delaware watersheds west of the Hudson River and/or from the Croton watershed in Putnam and Westchester counties. The New York City Department of Environmental Protection (DEP) implements a series of programs to evaluate and protect source water quality within these watersheds. Their efforts focus on three important program areas: the enforcement of strengthened Watershed Rules and Regulations; the acquisition and protection of watershed lands; and implementation partnership programs that target specific sources of pollution in the watersheds.

Due to these intensive efforts, the SWAP methodologies applied to the rest of the state were not applied for this PWS. Additional information on the water quality and protection efforts in these New York City watersheds can be found at DEP's web site [www.nyc.gov/dep/watershed](http://www.nyc.gov/dep/watershed).

Specifically, this PWS obtains its water from Croton watershed in Putnam and Westchester counties. The reservoirs in this mixed land use area are moderately shallow with various degrees of development along their shorelines. The main water quality concerns associated with land cover is residential developments and its associated waste water discharges, which can contribute microbial contaminants, pesticides, and algae producing nutrients. However, advanced treatments which reduce contaminants are in place for most of these discharges. There are also a number of other discrete facilities, such as landfills, chemical bulk storages, etc. that have the potential to impact local water quality, but large scale water quality problems associated with these facilities are unlikely due to the size of the watershed surveillance and management practices. In addition, the shallow nature of the reservoirs, along with excess
algae nutrients and the presence of wetlands in the watershed, contribute to periods of elevated water color and disinfection by-product precursor levels.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, Pace routinely tests your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, radionuclides, and synthetic organic compounds (i.e., pesticides, herbicides, and dioxin). The table presented below depicts which compounds were detected in your drinking water. The State allows us to test 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.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline (800-426-4791), the New York State Health Department at (518- 402-7650) or the Westchester County Department of Health at (914-813-5000).
### Table 1. Summary of Detected Compounds.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation? Yes/No</th>
<th>Date of Sample</th>
<th>Level Detected</th>
<th>Unit Measurements</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL, TT, or AL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>No</td>
<td>Year 2003</td>
<td>0.846&lt;sup&gt;b&lt;/sup&gt;</td>
<td>ug/L</td>
<td>0</td>
<td>15</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits.</td>
</tr>
<tr>
<td>Copper</td>
<td>No</td>
<td>Year 2003</td>
<td>0.019&lt;sup&gt;c&lt;/sup&gt;</td>
<td>mg/L&lt;sup&gt;g&lt;/sup&gt;</td>
<td>1.3</td>
<td>1.3</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.</td>
</tr>
<tr>
<td>Nitrate (as N)</td>
<td>No</td>
<td>10/28/2004</td>
<td>0.24</td>
<td>mg/L&lt;sup&gt;g&lt;/sup&gt;</td>
<td>NA</td>
<td>10</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</td>
</tr>
<tr>
<td>Chloride</td>
<td>No</td>
<td>10/28/2004</td>
<td>27.1</td>
<td>mg/L&lt;sup&gt;g&lt;/sup&gt;</td>
<td>NA</td>
<td>250&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Naturally occurring or indicative of road salt contamination</td>
</tr>
<tr>
<td>Iron</td>
<td>No</td>
<td>10/25/2004</td>
<td>66</td>
<td>ug/L</td>
<td>NA</td>
<td>300&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Naturally occurring</td>
</tr>
<tr>
<td>Sodium</td>
<td>No</td>
<td>10/25/2004</td>
<td>14</td>
<td>mg/L&lt;sup&gt;g&lt;/sup&gt;</td>
<td>NA</td>
<td></td>
<td>Naturally occurring; Road salt; Water softeners; Animal waste</td>
</tr>
<tr>
<td>Sulfate</td>
<td>No</td>
<td>10/28/2004</td>
<td>9.66</td>
<td>mg/L&lt;sup&gt;g&lt;/sup&gt;</td>
<td>NA</td>
<td>500</td>
<td>Naturally occurring</td>
</tr>
<tr>
<td>Manganese</td>
<td>No</td>
<td>10/22/2004</td>
<td>16.5</td>
<td>ug/L</td>
<td>NA</td>
<td>300&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Naturally occurring; Indicative of landfill contamination</td>
</tr>
<tr>
<td>Barium</td>
<td>No</td>
<td>10/22/2004</td>
<td>0.013</td>
<td>mg/L&lt;sup&gt;g&lt;/sup&gt;</td>
<td>2</td>
<td>2</td>
<td>Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits</td>
</tr>
<tr>
<td>Total Trihalomethanes</td>
<td>No</td>
<td>8/9/2004</td>
<td>77.9</td>
<td>ug/L</td>
<td>NA</td>
<td>80</td>
<td>By-product of drinking water chlorination&lt;sup&gt;h&lt;/sup&gt;.</td>
</tr>
</tbody>
</table>

See footnotes on last page
### Table 1. Summary of Detected Compounds, continued.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation?</th>
<th>Date of Sample&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Level Detected</th>
<th>Unit Measurements</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL, TT, or AL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloacetic Acids</td>
<td>No</td>
<td>8/5/2004</td>
<td>34 ug/L</td>
<td>NA</td>
<td>60</td>
<td>By-product of drinking water chlorination&lt;sup&gt;h&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Gross Alpha</td>
<td>No</td>
<td>Quarterly in 2004</td>
<td>0 to 4.2 pCi/L</td>
<td>0</td>
<td>15</td>
<td>Erosion of natural deposits</td>
<td></td>
</tr>
<tr>
<td>Combined Radium-226 and 228</td>
<td>No</td>
<td>Quarterly in 2004</td>
<td>0 to 3.12 pCi/L</td>
<td>0</td>
<td>5&lt;sup&gt;g&lt;/sup&gt;</td>
<td>Decay of natural deposits and man-made emissions</td>
<td></td>
</tr>
<tr>
<td>Uranium</td>
<td>No</td>
<td>Quarterly in 2004</td>
<td>0 to 1.2 ug/L</td>
<td>0</td>
<td>30&lt;sup&gt;h&lt;/sup&gt;</td>
<td>Decay of natural deposits and man-made emissions</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1 Footnotes:**

<sup>a</sup> As listed above, the WCDOH requirements specify that certain parameters may be monitored at a frequency of less than once per year because the concentrations of these contaminants do not change frequently and therefore data more than one year old remains representative of water quality. In these instances, the most recent detection is reported.

<sup>b</sup> The level presented represents the 90<sup>th</sup> percentile of the 20 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 20 samples were collected at your water system and the 90<sup>th</sup> percentile value was closest to the third highest value. The action level for copper was not exceeded at any of the sites tested.

<sup>c</sup> The level presented represents the 90<sup>th</sup> percentile of the 20 samples collected. The action level for lead was not exceeded for the 20 sites tested.

<sup>d</sup> The MCL for chloride is the level above which the taste of water may become objectionable. In addition to the adverse taste effects, 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.

<sup>e</sup> The sum of iron and manganese (if both are present) cannot exceed 500 parts per billion.

<sup>f</sup> Water containing more than 20 mg/L of sodium should not be used for drinking by people with severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people with moderately restricted sodium diets.

<sup>g</sup> Milligrams per liter (mg/l) or parts per million (ppm).

<sup>h</sup> Additional source of these THMs and Haloacetic acids is from the chlorination of Village of Briarcliff Manor (VIBM) source water from the Croton aqueduct.
Monitoring Frequency:

As the State regulations require, Pace routinely tests your drinking water for numerous contaminants. With the exception of the above, none of these compounds we analyzed for were detected in your drinking water. Monitoring the quality of the campus water supply, as required by WCDOH, is as follows:

- **Total Coliform Bacteria, heterotrophic plate count, e. coli bacteria** – four samples per month
- **Organic Chemicals (includes THMs)** – one sample every 18 months
- **Nitrate/Nitrite** – one sample per year
- **Inorganic Parameters** - one sample per year
- **Lead/Copper** - one sample every three years
- **Synthetic Organic Compounds (Pesticides/Herbicides)** - one sample every eighteen months
- **Radiological Parameters (i.e., gross alpha/gross beta)** – one sample collected from each active supply well at a frequency of once every four years

Definitions:

**Aquifer**: A saturated, permeable geologic unit that can transmit significant quantities of underground water.

**Contaminant**: Any physical, chemical, microbiological, or radiological substance or matter in water.

**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.

**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.

**Action Level (AL)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

**Milligrams per liter (mg/l)**: Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Micrograms per liter (ug/l)**: Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

**Picocuries per liter (pCi/L)**: A measure of the radioactivity in water.
INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand-washing practices are poor.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised 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. 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 (800-426-4791).
IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?
During 2004, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish
Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

French
Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu’un qui le comprend bien.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?
Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

♦ Saving water saves energy and some of the costs associated with both of these necessities of life;
♦ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
♦ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water you are is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

♦ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
♦ Turn off the tap when brushing your teeth.
♦ Report faucet leaks to the Pace University Buildings and Grounds Department at (914) 923-2725. Just a slow drip can waste 15 to 20 gallons a day. With your cooperation, we can save almost 6,000 gallons per year.
Report toilet leaks to the Pace University Buildings and Grounds Department at (914) 923-2725. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. With your cooperation, we save more than 30,000 gallons a year.

CLOSING

Thank you for allowing us to continue to provide our campus community with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our students, faculty, and site personnel. We ask that all our consumers help us protect our water sources, which are the heart of our campus. Please call our office if you have questions.