



Naples
Community
Health
Awareness

An important Public Health Evaluation is underway under the guidance of the Navy and Marine Corps Public Health Center. The Public Health Evaluation is designed to evaluate the potential short and long-term health risks associated with living in the Naples area as a result of inadequate trash collection, uncontrolled open burning of uncollected trash, and widespread dumping of waste, including chemical and other hazardous waste.

Launched in 2008, the Public Health Evaluation involves the collection of air, water, soil and soil gas samples from throughout the region to identify whether there are potential health risks.

For details and background information, visit the website listed at the bottom of this page.

Your Health: Facts for Navy Families in Naples

About: Tap Water and Soil Sampling

The U.S. Navy is committed to ensuring our families are safe while serving our country at home or overseas. The following information is provided as part of a wide-ranging effort to understand the health risks of our personnel and families living in Naples, Italy. Currently underway is a comprehensive Public Health Evaluation to assess potential short and long-term health risks associated with living in the Naples area (see sidebar). In line with our commitment to continually share important health information, we encourage you to review the following information.

Why is tap water and soil being sampled?

As part of the Naples Public Health Evaluation, tap water and soil samples are being collected from residences where Navy military and U.S. civilian personnel live to identify whether there are potential health risks associated with living in the Naples area. During Phase I of the Public Health Evaluation, samples were collected from approximately 130 off-base homes. During Phase II, samples will be collected from about 200 off-base homes.

How will the tap water and soil be sampled?

Tap water samples will be collected directly from the kitchen sink tap using the cold water setting. Before sampling, any filters or pretreatment systems will be disconnected or bypassed. One sample will be collected immediately after turning on the cold water. Additional samples will be collected after the cold water has been allowed to run for approximately five minutes to purge the pipes. Labeled sample containers will be filled with the tap water, stored on ice in a cooler and shipped to a laboratory for analysis. Finally, any filters or pretreatment systems that were disconnected will be reconnected after all samples have been collected.

A composite soil sample will be obtained by collecting soil from three to five separate "grab" locations within the grounds surrounding the residence. An equal amount of soil will be collected from each grab location using a clean, disposable hand trowel. The soil will be placed into a container, such as a stainless steel bowl, and thoroughly mixed. Then, the soil will be transferred into labeled sample jars, stored on ice in a cooler and shipped to a laboratory for analysis.

How long will the sampling take?

Tap water and soil sampling at a residence typically take less than one hour.

Does anyone need to be home when the sampling occurs?

Yes. A resident must be home to permit sampling personnel access to the property and to answer a few questions regarding water use and water supply to the home, as well as to sign a consent form to allow sampling.

Who will be doing the sampling?

The sampling technicians will be employees of two companies: Tetra Tech and Sistemi Industriale. Both companies are under contract with the U.S. Navy. Tetra Tech is a U.S. company and leading provider of environmental consulting, engineering and technical services worldwide. Sistemi Industriale is an environmental service company, working as a subcontractor to Tetra Tech, providing translation, technical and logistical support. Technicians will provide residents with identification upon arrival.

What happens after samples are collected from a residence?

Proper collection of soil and tap water samples, laboratory analysis and a thorough evaluation of the data are necessary to develop a scientifically credible risk evaluation. After samples are collected in the field, there are a number of steps that are performed to develop the risk evaluation. These steps are summarized below:

- **Field Sample Documentation:** Field notes and figures are created by the field sampling team to document where the samples were collected and any other information that is relevant to sample collection (e.g., water well location, temperature, precipitation,



For more information contact:

Environmental Health Information Center

U.S. Naval Hospital Naples, Room 1096
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DSN: 314-629-6071

Navy and Marine Corps Public Health Center

620 John Paul Jones Circle, Suite 1100 Portsmouth, VA 23708
757-953-0664
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Naval Support Activity, Naples

Public Affairs Office
PSC 817 Box 40 FPO AE 09622
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wind direction, staining on soil, sources of airborne pollutants [e.g., trash fires]). The samples are then packaged in containers for shipping to a certified environmental laboratory in Germany. Some of the samples must be packed on ice prior to shipping.

- **Laboratory Analysis:** When the samples are received by the laboratory, the laboratory documents that they have received custody, prepare the samples for analysis, conduct the analysis and prepare a detailed report of the information pertaining to the analysis of the samples. The laboratory also performs Quality Assurance/Quality Control (QA/QC) procedures to ensure that the results of the analyses are within the specifications of the analytical method. The sampling data and supporting QA/QC information then are sent to a third party for independent data validation.

- **Independent Data Validation:** Independent data validation is the process of verifying that the laboratory followed the proper analytical method, documented the results and ultimately reported the correct concentration for the environmental sampling results. If discrepancies are found, the sampling data are appropriately modified by the data validator, per U.S. Environmental Protection Agency (USEPA) methodology, and the results are documented in a report.

- **Health Evaluation of the Data:** Upon receipt of the validated data, the risk assessor:
 - Conducts a review of the field sampling notes/figures, laboratory data and data validation report.
 - Contacts the field sampling team, laboratory and/or data validator with any questions regarding how the samples were collected or analyzed. Any discrepancies or issues identified are resolved as appropriate.
 - Loads the validated data into a database and then groups it by location and media sampled.
 - Compares the validated data for approximately 200 chemicals tested for in the soil and tap water samples, respectively to appropriate USEPA standards and risk-based screening

criteria. Hundreds of individual calculations are performed.

- Compares the validated data to naturally occurring background concentrations (e.g., metals) to provide additional information needed to evaluate the results and present them in the proper context.
- Determines which chemicals are responsible for the majority of the risks.
- Evaluates data from multiple residences and locations to identify potential trends.
- Prepares a report that transparently documents the results of the evaluation.

When will the sampling results be available?

Residents will be provided with the testing results of samples collected at their home approximately 12 weeks after the samples are collected.

How will the results be provided?

The Navy will contact residents by telephone after the risk evaluation of the home has been completed to schedule a meeting to provide residents with the testing results of their home and answer any questions.

If results are of concern, when will residents be contacted and who will contact them?

The Environmental Health Information Center (EHIC) will contact residents immediately if testing results show an unacceptable or potentially unacceptable level of contaminants. At that time, a plan of action will be discussed with the resident. Residents may also contact the EHIC for any questions, at 081-811-6071 or in person at Room 1096 of U.S. Naval Hospital Naples.

Proper collection of samples, laboratory analysis and a thorough evaluation of the data are necessary to develop a scientifically credible risk evaluation.