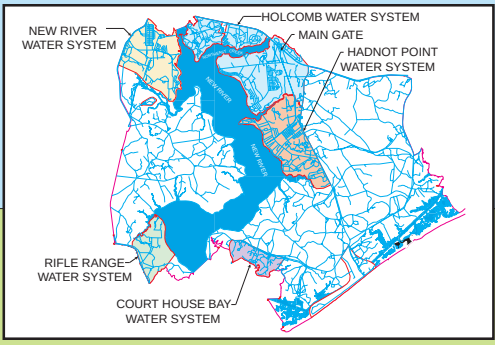
MCB, CAMP LEJEUNE
HADNOT POINT WATER SYSTEM

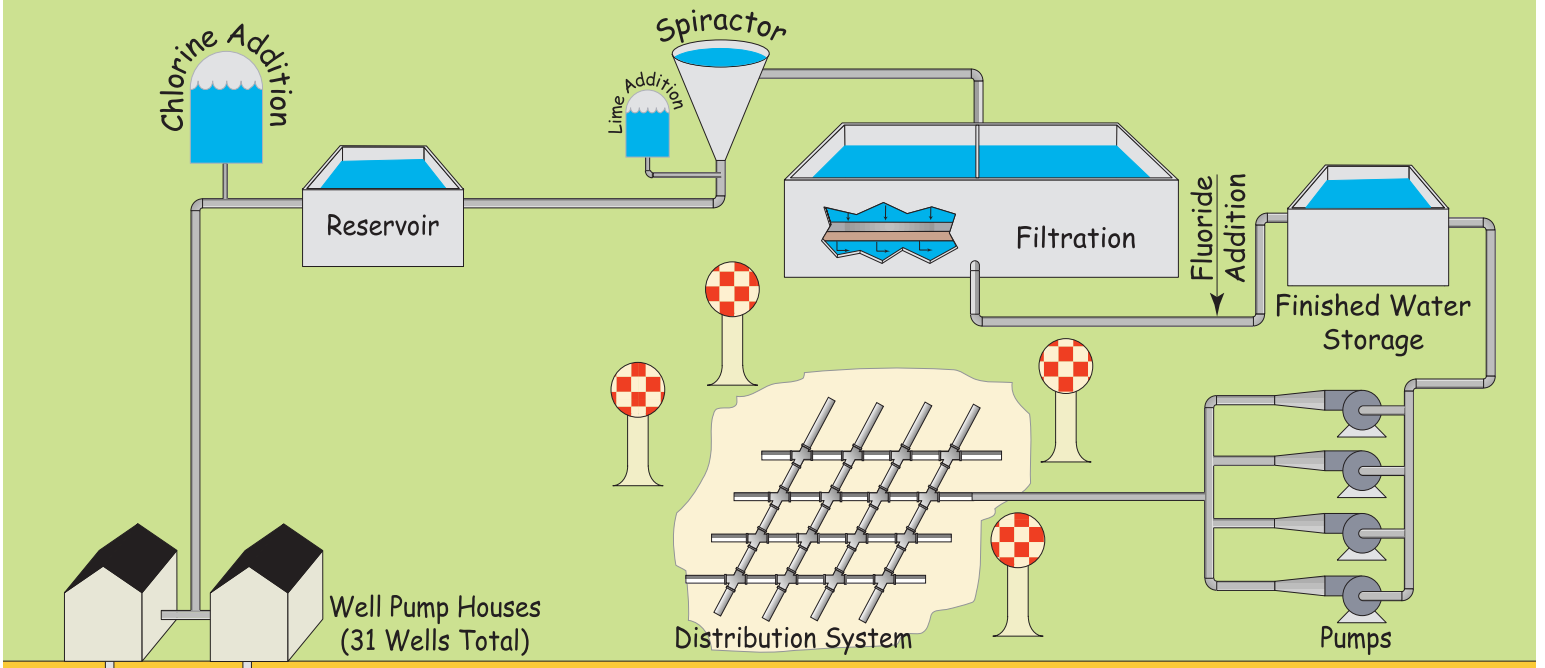
(PWS ID#: 04-67-041)

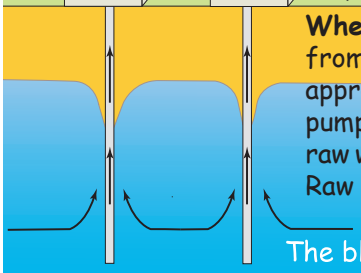
1999 WATER QUALITY REPORT

PROVIDING HIGH QUALITY WATER TO OUR TROOPS AND THEIR FAMILIES

MCB, Camp Lejeune is committed to providing you with drinking water that is safe and reliable. We believe that providing you with accurate information about your water is the best way to assure you that your water is safe. This 1999 Water Quality Report for the Hadnot Point Water System explains where your water comes from and lists all of the contaminants detected in your drinking water. We routinely test your water for over 80 different EPA regulated chemical and microbiological contaminants. **We are happy to report that the concentrations of regulated contaminants detected in the Hadnot Point Water System are less than the Maximum Contaminant Levels (MCL's) prescribed by the USEPA and the State of North Carolina.**







Where does your water come from? The Hadnot Point community water system obtains water from 31 groundwater wells located on Base. Groundwater is pumped from the Castle Hayne aquifer, approximately 183 feet below the ground. This water, which is relatively free of contaminants, is pumped from the wells to a water treatment plant located on the main portion of the base. As the raw water enters the storage reservoir, chlorine is added to protect against microbial contamination. Raw water pumps are used to move the water from the reservoir to a set of large, cone-shaped devices called spiractors. The spiractor is used to soften the water by removing minerals. Lime is added at the bottom of the spiractor to assist in the softening process. The water is then passed through a set of filters, which contain layers of sand and carbon, to remove particles through a process called Filtration. Fluoride (to prevent tooth decay) is added to the water as it is placed in a large storage tank called a clearwell. When customers need water, treated water is pumped from the clear well and distributed throughout the Hadnot Point community water system.

The blue area represents an aquifer, which is a collection of water beneath the ground

Detected Contaminant Table - Results for 1999
(as required by the National Primary Drinking Water Regulation)

Regulated contaminants detected during montoring

Substance	Likely Source	Range[2]	Avg. Level	MCL	MCLG	Unit	Exceeds EPA Stds?
Barium[1]	discharge from drilling wastes, metal refineries, natural deposits	N/A	0.382	2	2	mg/L	no
Fluoride[1]	water additive to promote strong teeth	N/A	0.68	4	4	mg/L	no
Gross Beta[1]	decay of natural and man-made deposits	N/A	2.1	50[3]	0	pCi/L	no
Asbestos[1]	decay of asbestos cement water mains; erosion of natural deposits	N/A	0.11	7	7	MFL	no

Substance	Likely Source	90th percentile	MCL	MCLG	Units	# of sites exceeding AL
Lead[1]	corrosion of household plumbing systems; erosion of natural deposits	15	15 (AL)	0	ppb	5
Copper[1]	corrosion of galvanized pipes; erosion of natural deposits; leaching from wood preservatives	<0.050	1.3 (AL)	1.3	ppm	0

Substance	Likely Source	Range Detected	Highest average	MCL	Units	Exceeds EPA Stds?
Trihalomethanes	by-product of drinking water chlorination	N/A	27.4	100	ppb	no

Substance	Likely Source	Range Detected	Monthly Detections	MCL	Exceeds EPA Stds?
Total Coliforms [4]	Naturally present in the environment	N/A	2	5% of monthly samples are positive	no

[1] Contaminant not tested for in 1999. Contaminant concentration data from 1998 is reported.

N/A = Not applicable

ND = Not detected

[2] Reported contaminant concentration is from one sample

[3] EPA considers 50 pCi/L to be the level of concern for Beta particles

[4] Repeat samples collected within 24 hours were negative for the presence of total coliforms.

Drinking Water and Your Health

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Some people may be more vulnerable to contaminants 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 systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and Center for Disease Control (CDC) provide guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Act Hotline (1-800-426-4791/www.epa.gov/ogwdw).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Definitions

Action Level (AL) - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.
Coliform - A group of bacteria commonly found in the environment. They are an indicator of potential contamination of water. Adequate and appropriate disinfection effectively destroys coliform bacteria.
Disinfection - A process that effectively destroys coliform bacteria.
Contaminant - Any natural or man-made physical, chemical, biological, or radiological substance or matter in water which is at a level that may have an adverse effect on public health, and which is known or anticipated to occur in public water systems.
Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
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.
Nitrates - A dissolved form of nitrogen found in fertilizers and sewage by-products which may leach into groundwater and other water sources. Nitrates may also occur naturally in some waters.
NTU (nephelometric turbidity unit) - A measure of the clarity of water.
Pathogens; disease-causing pathogens; waterborne pathogens - A pathogen is a bacterium, virus or parasite that causes or is capable of causing disease. Pathogens may contaminate water and cause waterborne disease.
pCi/L, picocuries per liter - A measurement of radiation released by a set amount of a certain compound.
pH - A measure of the acidity or alkalinity of water.
ppb, ppm - part per billion, part per million. Measurements of the amount of contaminant per unit of water. One part per million is like one cent in $10,000; one part per billion is like one cent in $10,000,000.
Trihalomethanes (THM) - Four separate compounds (chloroform, dichlorobromomethane, dibromochloromethane, and bromoform) that form as a result of disinfection.
Treatment Technology (TT) - A required process intended to reduce the level of a contaminant in drinking water.
Turbidity - A measure of the cloudiness of water caused by suspended particles.

Understanding Your Drinking Water

We routinely monitor your drinking water for nearly 80 drinking water contaminants. The contaminants listed in the following tables are the only contaminants detected in your drinking water. All of these contaminants were detected at concentrations well below the USEPA and the State of North Carolina MCLs. For a complete list, contact the MCB, Camp Lejeuene Public Affairs Office.

Through uncompromising vigilance, your water is monitored to ensure that it meets all USEPA and North Carolina water quality standards. Water quality is of the utmost importance. However, obtaining the water from the ground, treating it, and then transporting it to your tap are equally important. The utility staff and personnel from many supporting divisions at MCB, Camp Lejeune, such as the Environmental Management Division, continuously evaluate the complex operations of the water system. Your water system is comprised of a sophisticated water treatment plant, associated instruments, piping systems, pumps, and tanks. The goal of the many people involved with operating the water system is to optimize system performance and to ensure that it operates effectively, efficiently and safely. Annually, numerous system components are cleaned, maintained, replaced, and upgraded when needed. For example, throughout the 74-mile Hadnot Point piping system, old cast iron piping is being replaced by modern PVC piping. Pipe replacement projects ensure that the high quality water produced at the water treatment plant remains that way until it reaches your faucet. This is just another example of our commitment to provide you with the best water available.

Hadnot Point Water Treatment Plant

NEED MORE INFORMATION? - TRY ANY OR ALL OF THE FOLLOWING

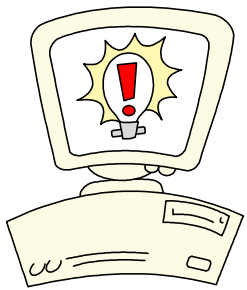
Questions about your 1999 Water Quality Report should be directed to the following:

On Base:
Director
Utilities Branch
Tele: 451-5024

Off Base:
Consolidated Public Affairs Office
Tele: 451-7413 or 7440

USEPA's
Safe Drinking Water HOT LINE
1 (800) 426-4791

Visit the USEPA's Website at:
http://www.epa.gov/safewater



Visit MCB Camp Lejeune's Web Site for additional information sponsored by the Environmental Management Division
www.lejeune.usmc.mil/emd

Prepared by AH Environmental Consultants, Inc.

HADNOT POINT WATER SYSTEM

Marine Corps Base
Camp Lejeune, NC

1999
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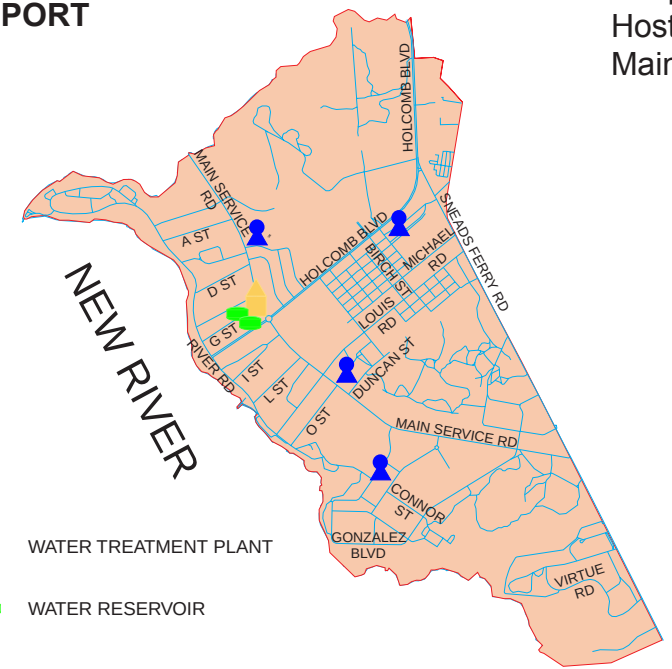
Areas Included:
French Creek Area
Hadnot Point
Hospital Point
Hostess House
Mainside/Industrial Area



WATER TREATMENT PLANT

WATER RESERVOIR

ELEVATED WATER TANK

Printed on Recycled Paper