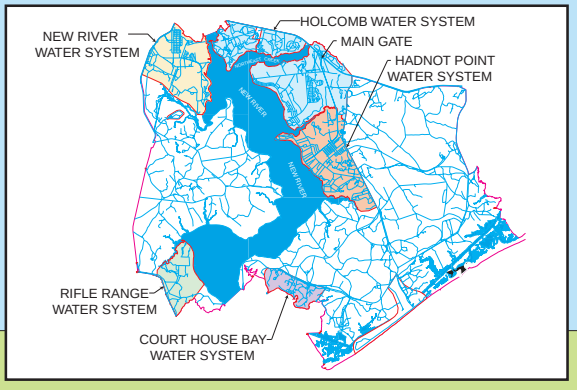
MCB, CAMP LEJEUNE
COURTHOUSE BAY WATER SYSTEM

(PWS ID#: 04-67-047)

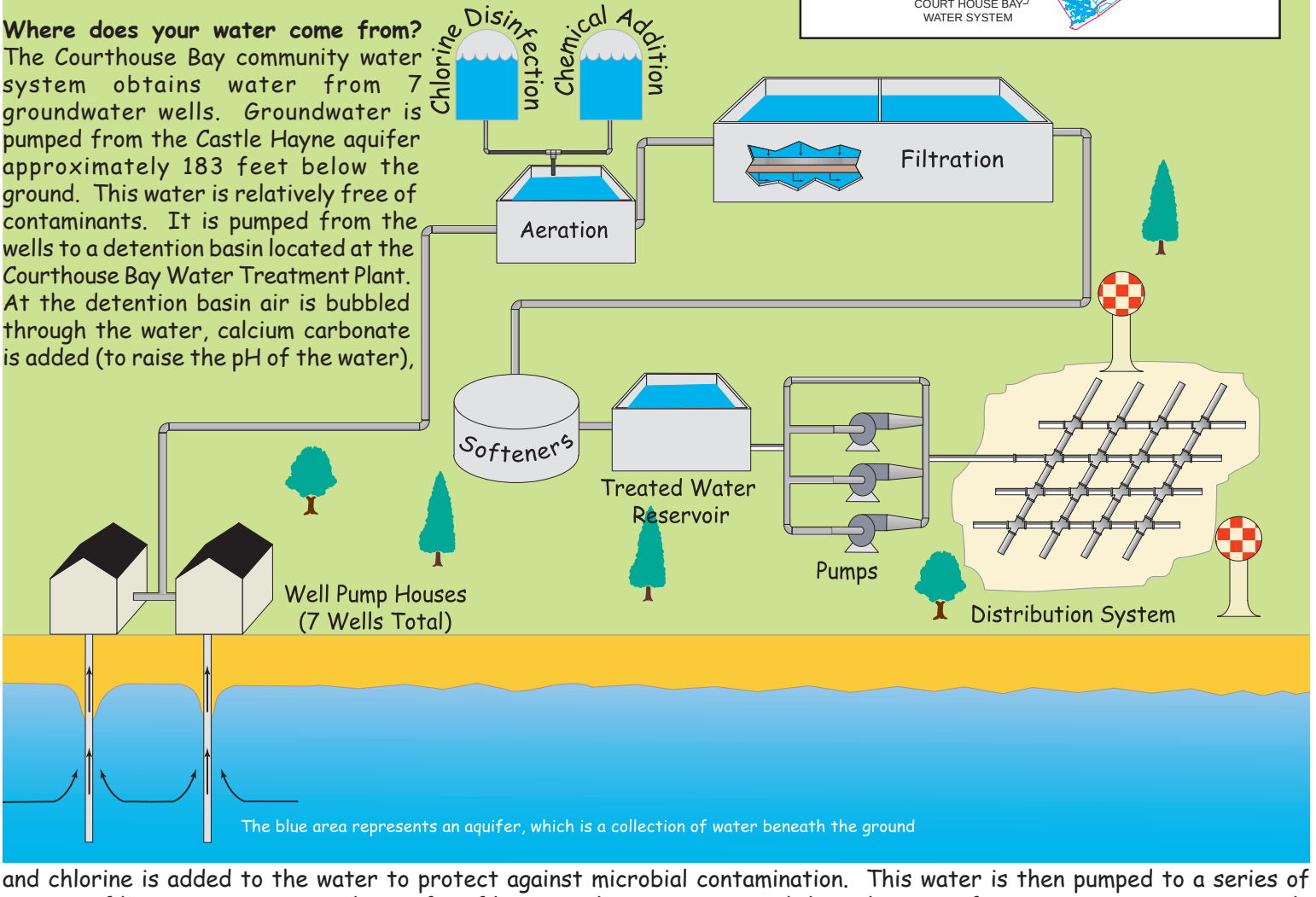
1999 WATER QUALITY REPORT

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 Courthouse Bay Water System will explain 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 Courthouse Bay 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 Courthouse Bay community water system obtains water from 7 groundwater wells. Groundwater is pumped from the Castle Hayne aquifer approximately 183 feet below the ground. This water is relatively free of contaminants. It is pumped from the wells to a detention basin located at the Courthouse Bay Water Treatment Plant. At the detention basin air is bubbled through the water, calcium carbonate is added (to raise the pH of the water),



and chlorine is added to the water to protect against microbial contamination. This water is then pumped to a series of pressure filters to remove particles. After filtration, the water is passed through a set softening units to remove minerals and then is stored in a large reservoir called a clearwell. When you open a faucet or turn on a water hose, treated drinking water from the clearwell is pumped through the distribution system to your taps.

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

Regulated contaminants detected during montoring

Substance	Likely Source	Range	Avg. Level	MCL	MCLG	Unit	Exceeds EPA Standards?
Barium[1]	discharge from drilling wastes, metal refineries, natural deposits	N/A[2]	0.34	2	2	mg/L	no
Fluoride[1]	water additive to promote strong teeth	N/A[2]	0.12	4	4	mg/L	no
Gross Beta[1]	decay of natural and man-made deposits	N/A[2]	1	50[3]	0	mrem/yr	no
Asbestos[1]	decay of asbestos cement water mains; erosion of natural deposits	N/A[2]	0.75	7	7	MFL	no
Pentachlorophenol	Discharge from wood preserving factories	N/A[2]	0.31	1	0	ppb	no

Substance	Likely Source	90th percentile	MCL	MCLG	Units	# of sites exceeding AL
Lead	corrosion of household plumbing systems; erosion of natural deposits	15	15 (AL)	0	ppb	2
Copper	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	Average	MCL	Units	Exceeds EPA Standards?
Trihalomethanes	by-product of drinking water chlorination	57.7-71.3	61.5	100	ppb	no

Unregulated contaminants detected during montoring

Substance	Likely Source	Range	Avg. Level	MCL	Unit	Exceeds EPA Standards?
Bromodichloromethane	By-product from the disinfection of drinking water	ND - 7.8	3.9	none	ppb	no
Chloroform	By-product from the disinfection of drinking water	ND - 27	13.5	none	ppb	no
Chlorodibromomethane	By-product from the disinfection of drinking water	ND - 4	2	none	ppb	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

Drinking Water and Your Health

Inadequately treated water may contain disease-causing organisms. These organisms include bacterial, 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 opulation. 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).

Drinking water, including bottled water, may resonably be expected to contains 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).

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher that at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish 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).

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. A part per million is like one cent in $10,000 and a part per billion 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.

Courthouse Bay Water Treatment Plant

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 delivering it to your tap is 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 Courthouse Bay 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.

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

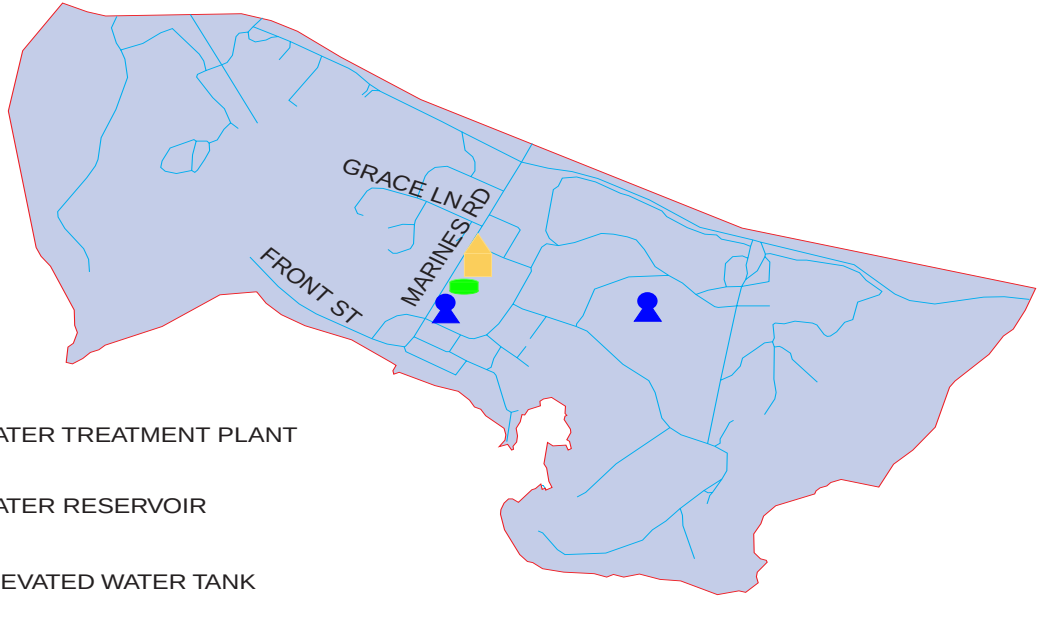
Prepared by AH Environmental Consultants, Inc.

Courthouse Bay Water System

Marine Corps Base
Camp Lejeune, NC

1999
WATER QUALITY REPORT

Areas Included:
Courthouse Bay
Amphibious Area/Boat Basin



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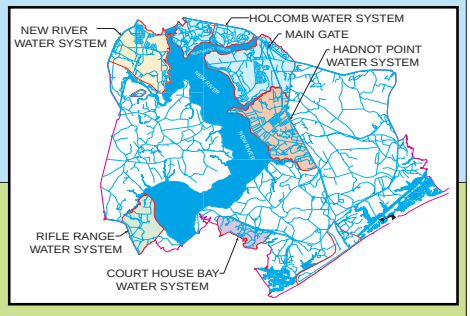
MCB, CAMP LEJEUNE
MCAS, NEW RIVER WATER SYSTEM

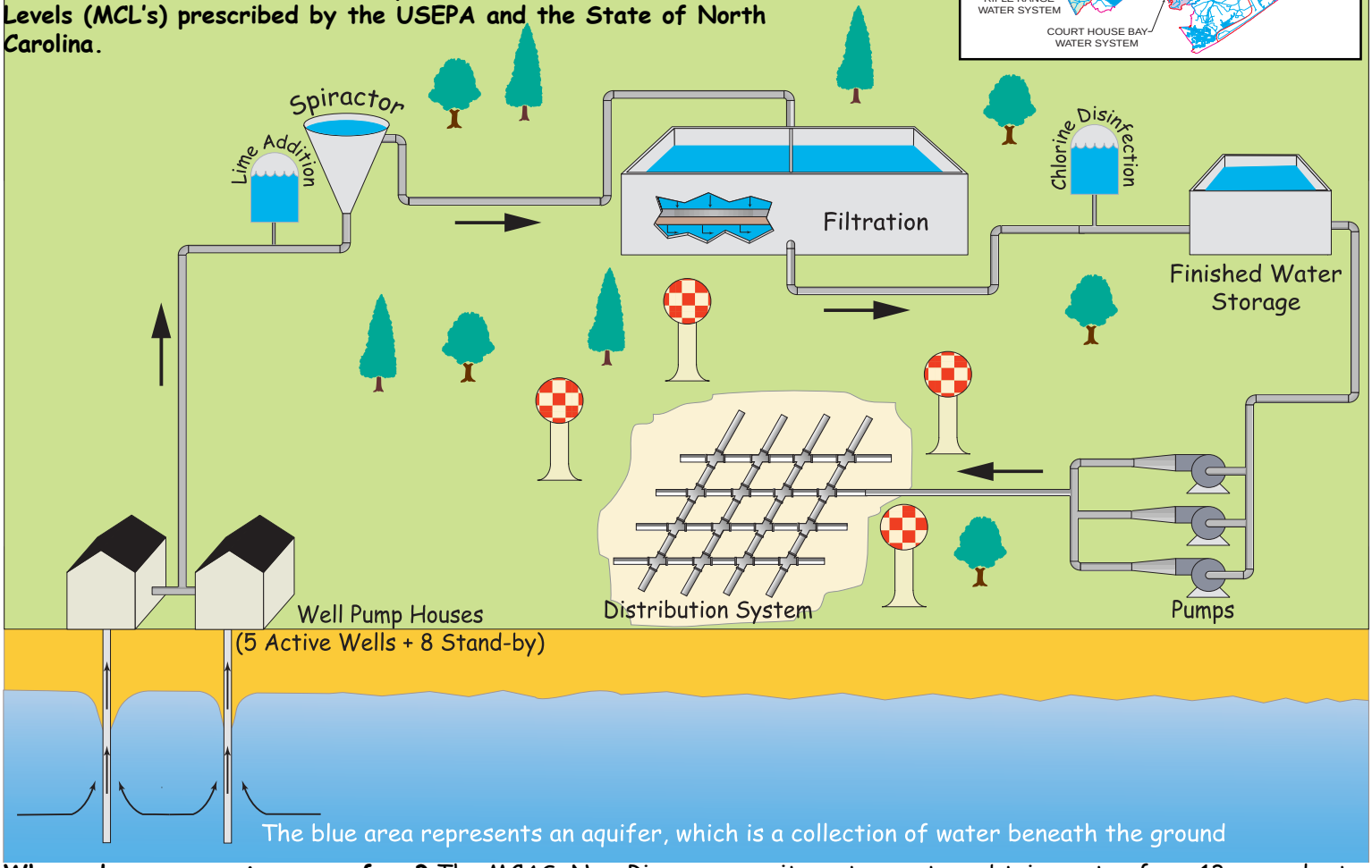
(PWS ID#: 04-67-042)

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 MCAS New River 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 parameters detected in the MCAS, New River 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 MCAS, New River community water system obtains water from 13 groundwater wells located in the Verona Loop area. Groundwater is pumped from the Castle Hayne freshwater aquifer approximately 183 feet below the ground. This water is relatively free of contaminants. It is pumped from the wells to a water treatment plant located on the air station. The water enters the water treatment plant and is pumped into a set of cone-shaped devices called spiractors. The spiractor is used to soften the water by removing minerals from the water. 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. The clean water is then placed in a large storage tank called a clearwell. When water is needed by customers, the water is pumped from the clearwell, chlorine is added (to protect against microbial contamination) and distributed throughout the MCAS New River community water system.

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

Regulated contaminants detected during montoring

Substance	Likely Source	Range	Avg. Level	MCL	MCLG	Unit	Exceeds EPA Standards?
Barium[1]	discharge from drilling wastes, metal refineries, natural deposits	N/A[2]	0.537	2	2	mg/L	no
Fluoride[1]	water additive to promote strong teeth	N/A[2]	0.63	4	4	mg/L	no
Gross Beta[1]	decay of natural and man-made deposits	N/A[2]	4	50[3]	0	pCi/L	no
Dalapon	Runoff from herbicide used on rights of way	N/A[2]	1.2	200	200	ppb	no
Di-2(ethylhexyl)phthalate	Discharge from rubber and chemical factories	N/A[2]	1.8	6	0	ppb	no

Substance	Likely Source	90th percentile	MCL	MCLG	Units	# of sites exceeding AL
Lead[1]	corrosion of household plumbing systems; erosion of natural deposits	13	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 Qtrly Average	MCL	Units	Exceeds EPA Standards?
Trihalomethanes	by-product of drinking water chlorination	49.6-71.0	59.8	100	ppb	no

Substance	Likely Source	Range Detected	Highest Monthly Detections	MCL	Exceeds EPA Stds?
Total Coliforms [4]	Naturally present in the environment	N/A	1	1 positive sample per month	no

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

N/A = Not applicable

[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 a small amount of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

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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 delivering it to your tap is 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 MCAS, New River 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.

MCAS, New River Water Treatment Plant

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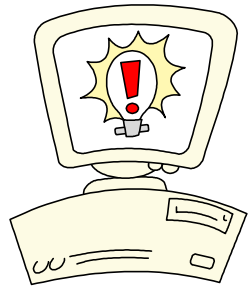

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www.lejeune.usmc.mil/emd

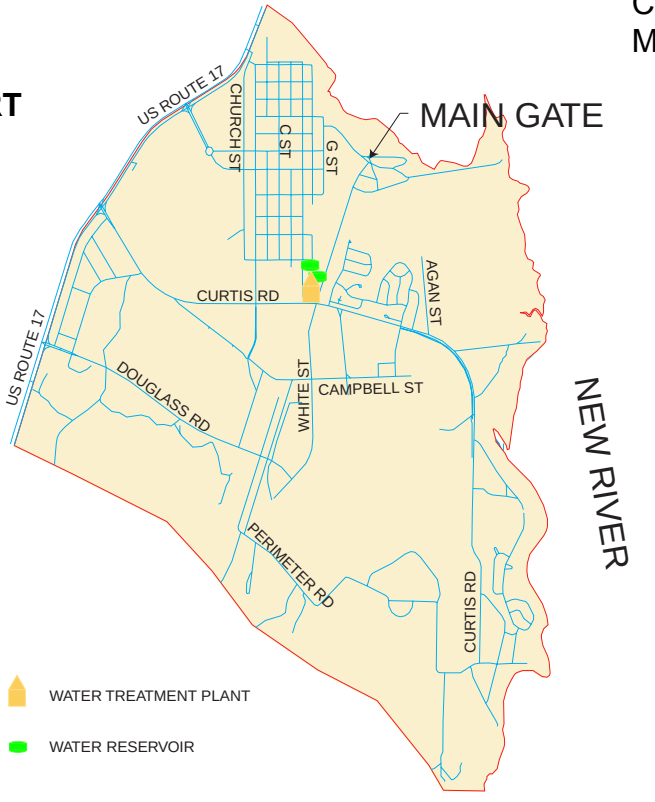
Prepared by AH Environmental Consultants, Inc.

MCAS NEW RIVER WATER SYSTEM

Marine Corps Base
Camp Lejeune, NC

1999
WATER QUALITY REPORT

Areas Included:
Camp Geiger
MCAS New River



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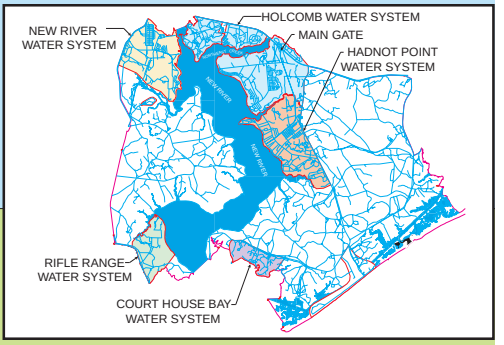
MCB, CAMP LEJEUNE
HADNOT POINT WATER SYSTEM

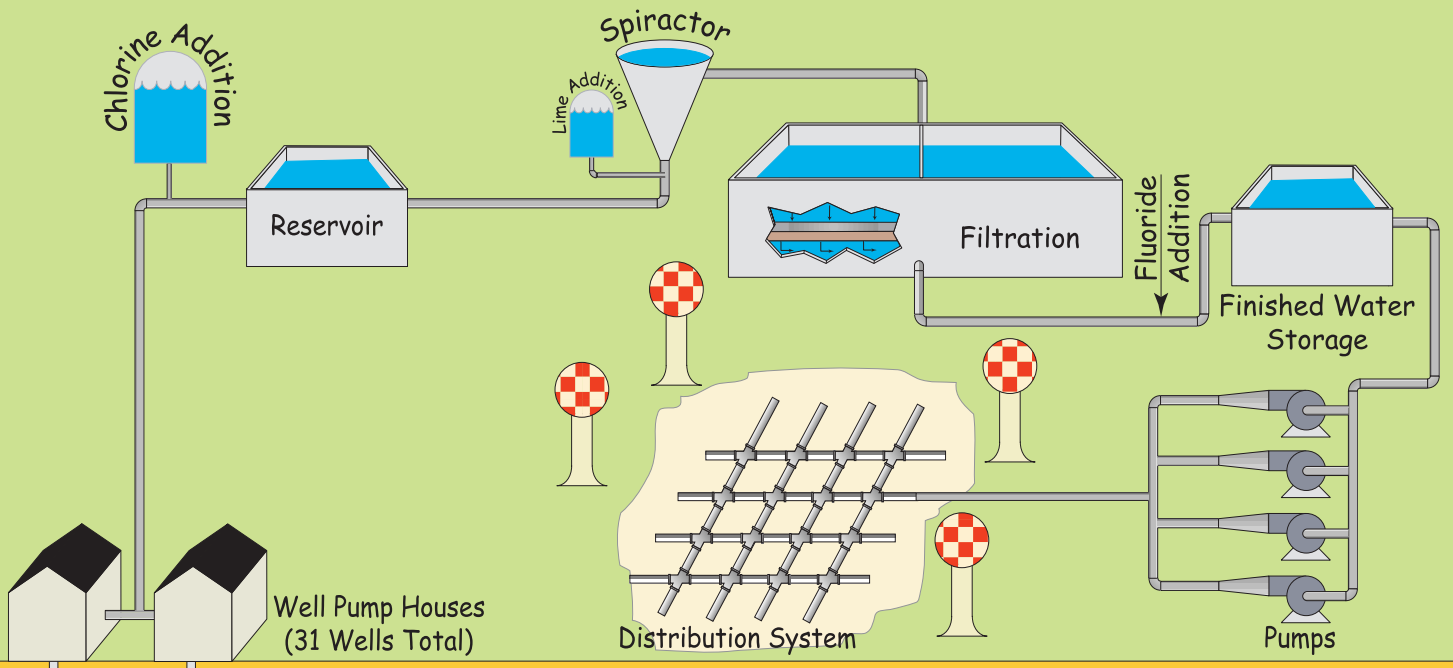
(PWS ID#: 04-67-041)

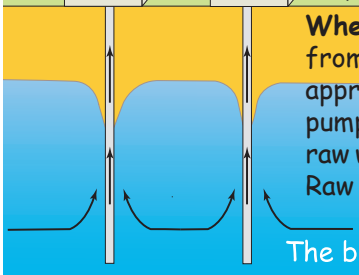
1999 WATER QUALITY REPORT

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.**







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

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.

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

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ND = Not detected

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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).

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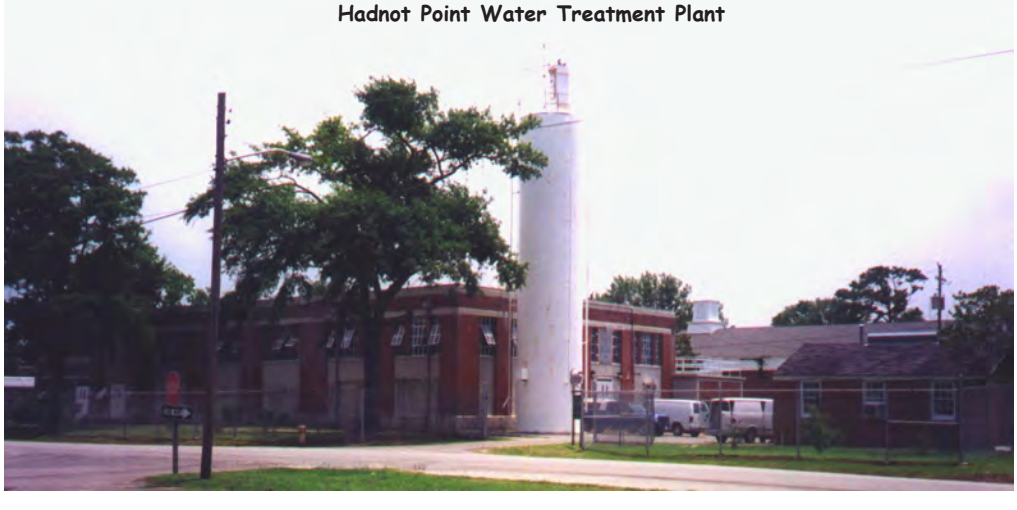
Through uncompromising vigilance, your water is monitored to ensure that it meets all USEPA and North Carolina water quality standards. Water quality is of the utmost importance. However, obtaining the water from the ground, treating it, and then transporting it to your tap are equally important. The 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

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On Base:
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Utilities Branch
Tele: 451-5024

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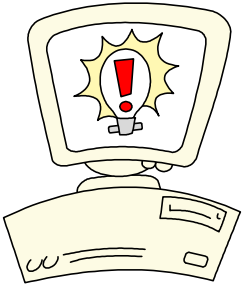


Visit MCB Camp Lejeune's Web Site for additional information sponsored by the Environmental Management Division
www.lejeune.usmc.mil/emd

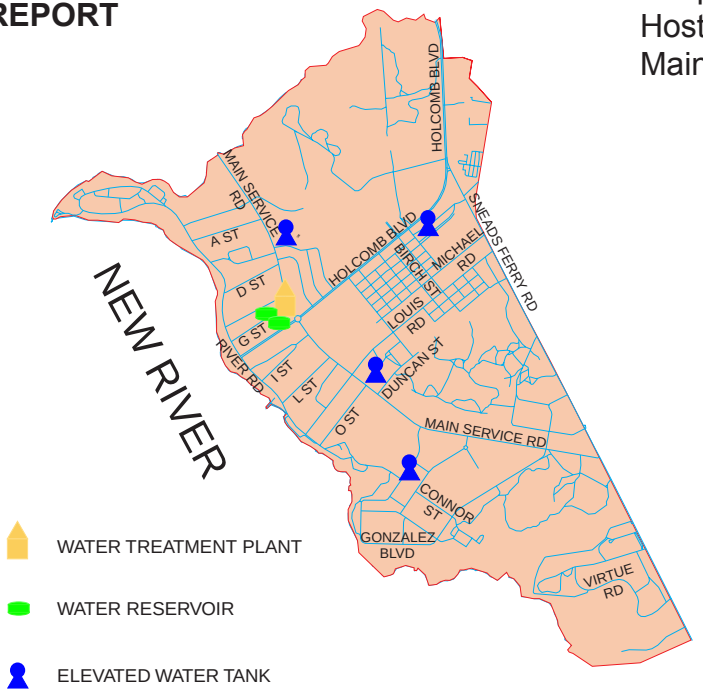
Prepared by AH Environmental Consultants, Inc.

HADNOT POINT WATER SYSTEM

Marine Corps Base
Camp Lejeune, NC

1999
WATER QUALITY REPORT

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



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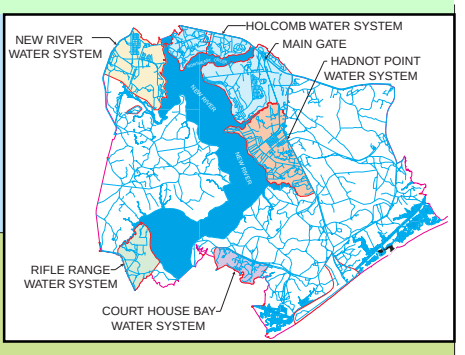
MCB, CAMP LEJEUNE
HOLCOMB BLVD WATER SYSTEM

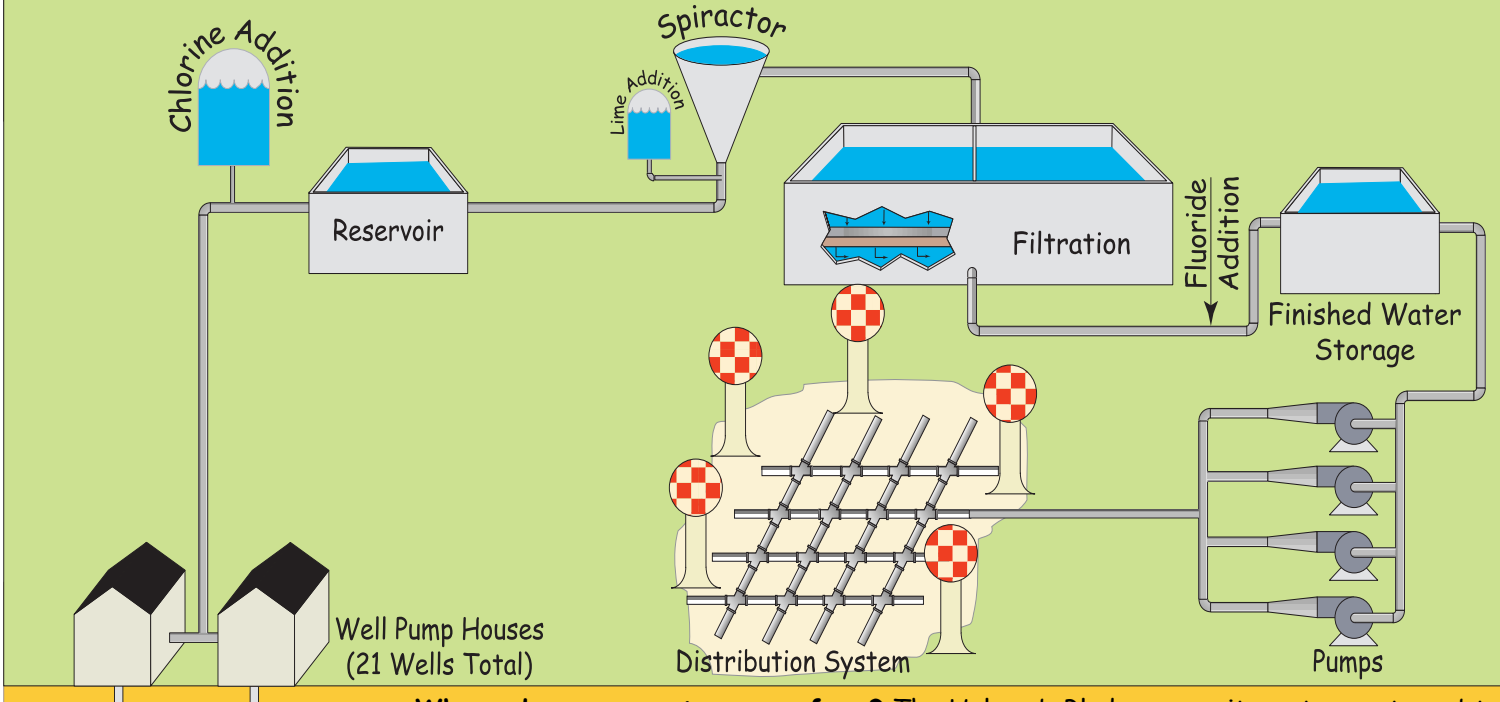
(PWS ID#: 04-67-043)

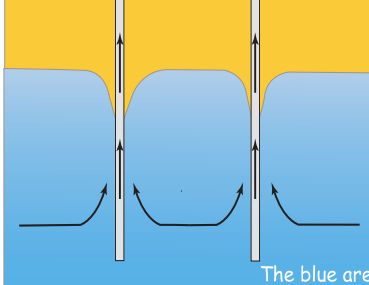
1999 WATER QUALITY REPORT

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 Holcomb Boulevard 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 parameters detected in the Holcomb Blvd. Water System are less than the Maximum Contaminant Levels (MCL's) prescribed by the USEPA and the State of North Carolina.**







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

Where does your water come from? The Holcomb Blvd. community water system obtains water from 21 groundwater wells located on Base. Groundwater is pumped from the Castle Hayne freshwater 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 near the main gate of the Base. As the water enters the water treatment plant it is chlorinated to protect agains microbial contamination and placed into a storage reservoir. From the storage reservoir the water is moved 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 aid 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 and then the clean water is placed in a large storage tank called a clearwell. When water is needed by customers, it is pumped from the clearwell and distributed throughout the Holcomb Blvd. community water system.

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. A part per million is like one cent in $10,000 and a part per billion 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 Lejeune 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 delivering 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 Holcomb Blvd. 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.

Holcomb Blvd. Water Treatment Plant

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

Regulated contaminants detected during montoring

Substance	Likely Source	Range	Avg. Level	MCL	MCLG	Unit	Exceeds EPA Standards?
Barium[1]	discharge from drilling wastes, metal refineries, natural deposits	N/A[2]	0.441	2	2	mg/L	no
Fluoride[1]	water additive to promote strong teeth	N/A[2]	0.93	4	4	mg/L	no
Gross Beta[1]	decay of natural and man-made deposits	N/A[2]	2.3	50[3]	0	pCi/L	no
Dalapon	Runoff from herbicide used on rights of way	N/A[2]	1.3	200	200	ppb	no

Substance	Likely Source	90th percentile	MCL	MCLG	Units	# of sites exceeding AL
Lead	corrosion of household plumbing systems; erosion of natural deposits	15	15 (AL)	0	ppb	5
Copper	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 Standards?
Trihalomethanes	by-product of drinking water chlorination	N/A	37.3	100	ppb	no

[1] Contaminant not tested for in 1999. Contaminant concentration data from 1998 is reported.
N/A = Not applicable

[2] Reported contaminant concentration is from one sample

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

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, which 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 amount 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).

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher that at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish 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).

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

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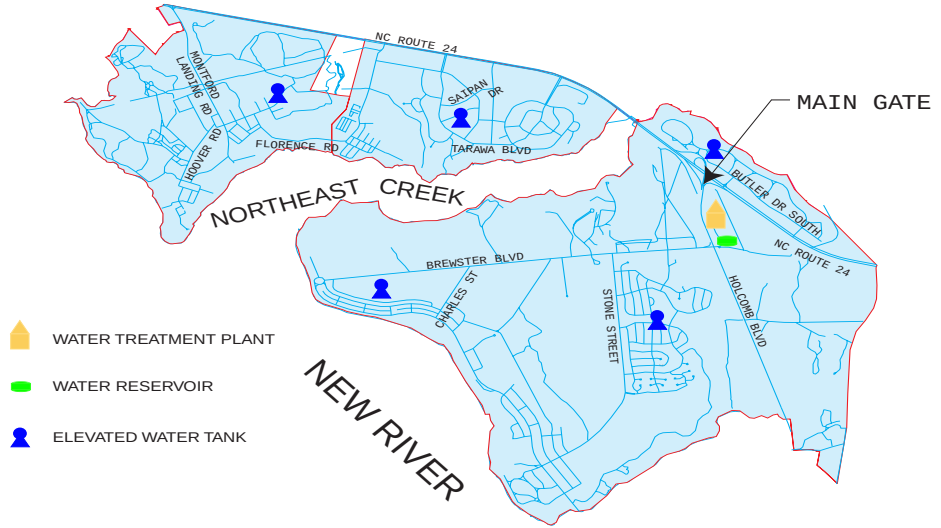
Prepared by AH Environmental Consultants, Inc.

HOLCOMB BLVD WATER SYSTEM

Marine Corps Base
Camp Lejeune, NC

1999
WATER QUALITY REPORT

Areas Included:
Berkeley Manor
Camp Johnson
Knox Housing Park
Midway Park
Naval Hospital
Paradise Point
Tarawa Terrace
Watkins Village



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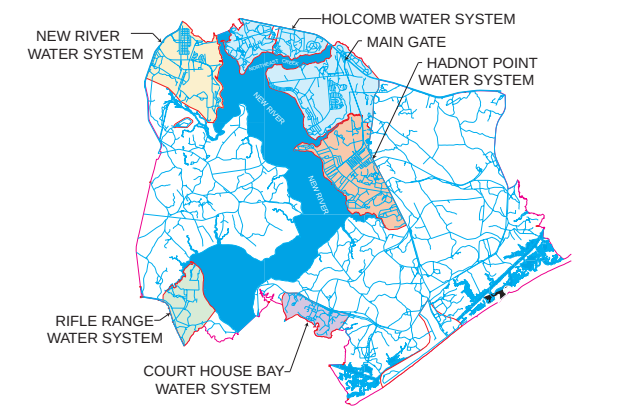
MCB, CAMP LEJEUNE
RIFLE RANGE WATER SYSTEM

(PWS ID#: 04-67-046)

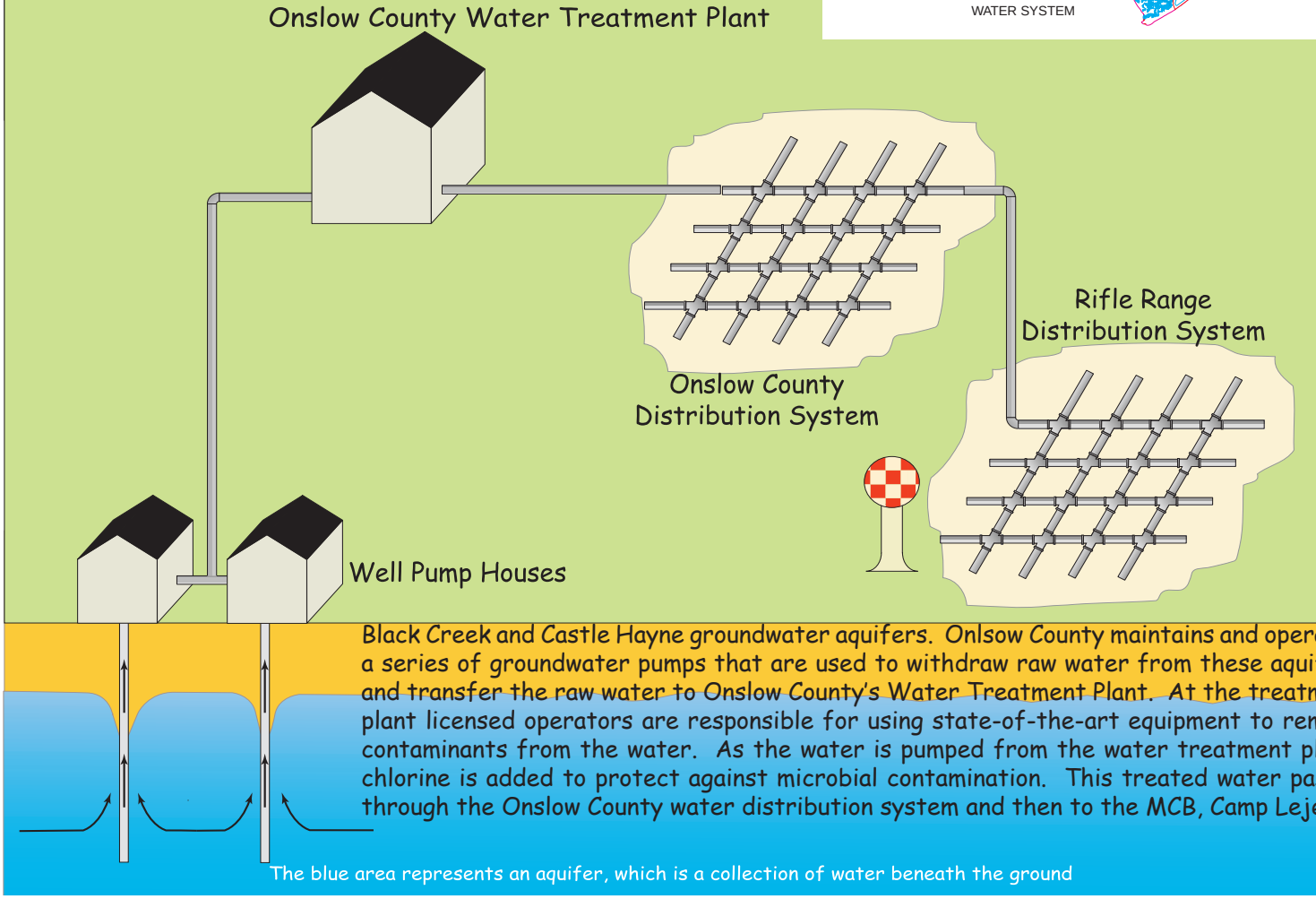
1999 WATER QUALITY REPORT

PROVIDING HIGH QUALITY WATER TO OUR TROOPS AND THEIR FAMILIES

MCB, Camp Lejeuene 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 will explain where your water comes from and lists all of the contaminants detected in your drinking water. Important health related information concerning your drinking water is also contained in this report.



The MCB, Camp Lejeune Rifle Range Water System is supplied drinking water from Onlsow County. Onslow County obtains raw water from the Black Creek and Castle Hayne groundwater aquifers. Onlsow County maintains and operates a series of groundwater pumps that are used to withdraw raw water from these aquifers and transfer the raw water to Onslow County's Water Treatment Plant. At the treatment plant licensed operators are responsible for using state-of-the-art equipment to remove contaminants from the water. As the water is pumped from the water treatment plant, chlorine is added to protect against microbial contamination. This treated water passes through the Onslow County water distribution system and then to the MCB, Camp Lejeune Rifle Range Water System. Onslow County and MCB, Camp Lejeune are both responsible for testing your water supply to ensure that it is safe to drink. We are happy to report that of the more than 80 contaminants that the water was tested for during the 1999 monitoring period, none of the contaminants were detected at concentrations that exceeded the Maximum Contaminant Levels set by the United States Environmental Protection Agency or the State of North Carolina.



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

Regulated contaminants detected during montoring

Substance	Likely Source	Range	Avg. Level	MCL	MCLG	Unit	Exceeds EPA Standards?
Fluoride[1]	water additive to promote strong teeth	0.76-1.08	0.94	50	N/A	ppm	no

Substance	Likely Source	Range Detected	Highest average	MCL	Units	Exceeds EPA Standards?
Trihalomethanes	by-product of drinking water chlorination	65.8-73.0	69.4	100	ppb	no

Substance	Likely Source	90th percentile	MCL	MCLG	Units	# of sites exceeding AL
Lead	corrosion of household plumbing systems; erosion of natural deposits	5	15 (AL)	0	ppb	2
Copper	corrosion of galvanized pipes; erosion of natural deposits; leaching from wood preservatives	0.325	1.3 (AL)	1.3	ppm	0

Unregulated contaminants detected during montoring

Substance	Likely Source	Range	Avg. Level	MCL	Unit
Bromodichloromethane[1]	By-product from the disinfection of drinking water	0.9 - 8.2	4.6	none	ppb
Chloroform[1]	By-product from the disinfection of drinking water	1.3 - 53.5	27.4	none	ppb
Sulfate[1]	Leaching from naturally occurring mineral deposits	N/A[2]	4	none	ppm

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Drinking Water and Your Health

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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. Contaminants that have been identified in your drinking water include barium, fluoride, gross beta, lead, copper, and total trihalomethanes. All of these contaminants were detected at concentrations well below the USEPA and the State of North Carolina MCLs.

Rifle Range Elevated Drinking Water Storage Tank

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 delivering it to your tap is 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 Rifle Range 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.

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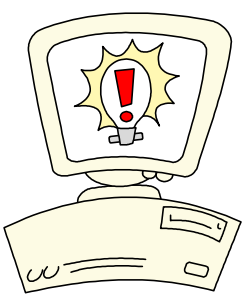

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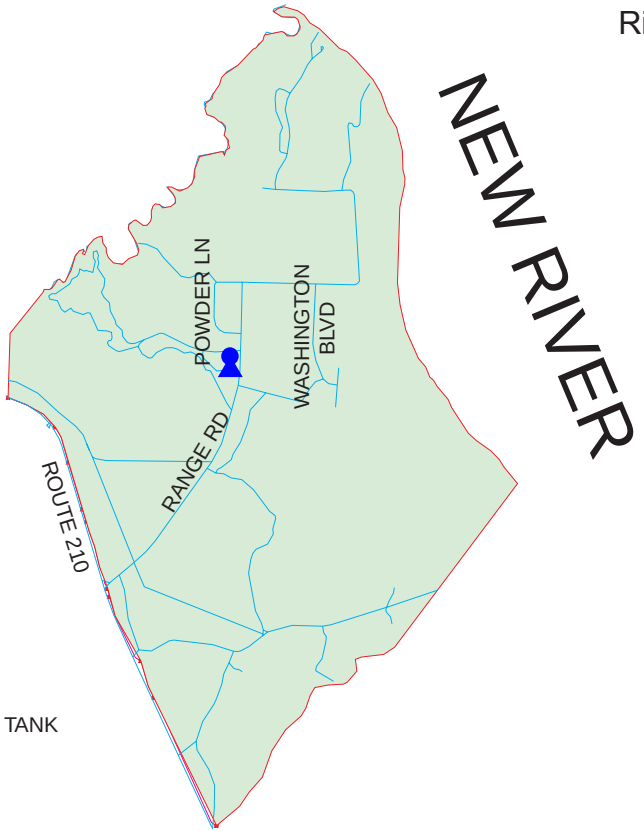
RIFLE RANGE WATER SYSTEM

Marine Corps Base
Camp Lejeune, NC

1999
WATER QUALITY REPORT

Area Included:
Rifle Range



ELEVATED WATER TANK

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