WHAT ARE SOURCES OF CONTAMINATION TO DRINKING WATER?
THE SOURCES OF DRINKING WATER, BOTH TAPPED AND BOTTLED, INCLUDE RIVERS, LAKES, STREAMS, PONDS, RESEVOIRS, SPRINGS AND WELLS. AS WATER TRAVELS OVER THE SURFACE OF THE LAND OR THROUGH THE GROUND, IT DISSOLVES NATURALLY-OCCURING MINERALS AND IN SOME CASES, RADIOACTIVE MATERIALS AND CAN PICK UP SUBSTANCES FROM THE PRESENCE OF ANIMAL OR HUMAN ACTIVITY.

CONTAMINANTS THAT MAY BE PRESENT IN WATER ARE:
A-MICROBIAL CONTAMINANTS SUCH AS VIRUSES AND BACTERIA WHICH MAY COME FROM SEWAGE TREATMENT PLANTS, SEPTIC SYSTEMS, AGRICULTURAL LIVESTOCK OPERATIONS AND WILDLIFE.
B- INORGANIC CONTAMINANTS, SUCH AS SALTS AND METALS, WHICH CAN BE NATURALLY-OCCURING OR RESULT FROM URBAN STORM WATER RUNOFF, INDUSTRIAL OR DOMESTIC WASTEWATER DISCHARGES, OIL AND GAS PRODUCTION, MINING OR FARMING.
C-PESTICIDES AND HERBICIDES WHICH MAY COME FROM A VARIETY OF SOURCES SUCH AS AGRICULTURAL, URBAN STORM RUNOFF AND RESIDENTIAL USES.
D-ORGANIC CHEMICAL CONTAMINANTS INCLUDING SYNTHETIC AND VOLATILE ORGANIC CHEMICALS WHICH ARE BY-PRODUCTS OF INDUSTRIAL PROCESSES AND PETROLEUM PRODUCTION.
E-RADIOACTIVE CONTAMINANTS WHICH CAN BE NATURALLY-OCCURING OR BE THE RESULT OF OIL AND GAS PRODUCTION AND MINING ACTIVITIES.

IN ORDER TO ENSURE TAP WATER IS SAFE TO DRINK!
EPA PRESCRIBES REGULATIONS WHICH LIMIT THE AMOUNT OF CERTAIN CONTAMINANTS IN WATER PROVIDED BY PUBLIC WATER SYSTEMS. FDA REGULATIONS ESTABLISH LIMITS FOR CONTAMINANTS IN BOTTLED WATER WHICH MUST PROVIDE THE SAME PROTECTION FOR PUBLIC HEALTH.
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 THE 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)

WHO NEEDS TO TAKE SPECIAL PRECAUTIONS?
SOME PEOPLE MAY BE MORE VULNERABLE TO CONTAMINANTS IN DRINKING WATER THAN THE GENERAL POPULATION. IMMUNO-COMPROMISED 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 INFECTION. 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 BY CRYPTOSPORIDIUM AND OTHER MICROBIAL CONTAMINANTS ARE AVAILABLE FROM THE SAFE DRINKING WATER HOTLINE. (800-426-4791)
THE EPA REQUIRES REGULAR SAMPLING TO ENSURE A SAFE DRINKING WATER SUPPLY. THE VILLAGE OF WAVERLY WATER DEPARTMENT CONDUCTED SAMPLING FOR WELL OVER 80 CONTAMINANTS FOR BACTERIAL, INORGANIC, RADIOLOGICAL AND VOLATILE ORGANICS DURING 2007, MOST OF WHICH WERE NOT DETECTED IN OUR WATER SUPPLY. THE EPA REQUIRES US TO MONITOR SOME CONTAMINANTS LESS THAN ONCE PER YEAR BECAUSE THE CONCENTRATIONS OF THESE CONTAMINANTS DO NOT CHANGE FREQUENTLY. SOME OF OUR DATA, THOUGH ACCURATE, ARE MORE THAN ONE YEAR OLD.

IF PRESENT, ELEVATED LEVELS OF LEAD IN DRINKING WATER CAN CAUSE SERIOUS HEALTH PROBLEMS, ESPECIALLY IN PREGNANT WOMEN AND YOUNG CHILDREN. LEAD IN DRINKING WATER IS PRIMARILY FROM MATERIALS AND COMPONENTS ASSOCIATED WITH SERVICE LINES AND HOME PLUMBING. THE WAVERLY WATER PLANT IS RESPONSIBLE FOR PROVIDING HIGH QUALITY DRINKING WATER BUT WE CANNOT CONTROL THE VARIETY OF MATERIALS USED IN PLUMBING COMPONENTS. WHEN YOUR WATER HAS BEEN SITTING FOR SEVERAL HOURS, YOU CAN MINIMIZE THE POTENTIAL FOR LEAD EXPOSURE BY FLUSHING YOUR TAP FOR THIRTY SECONDS TO TWO MINUTES BEFORE USING WATER FOR DRINKING OR COOKING. IF YOU ARE CONCERNED ABOUT LEAD IN YOUR WATER, YOU MAY WISH TO HAVE YOUR WATER TESTED. A LIST OF LABS CERTIFIED IN THE STATE OF OHIO, TO TEST FOR LEAD, MAY BE FOUND AT (www.epa.state.oh.us//ddagw) OR BY CALLING 614-644-2752. INFORMATION ON LEAD IN DRINKING WATER, TESTING METHODS, AND STEPS YOU CAN TAKE TO MINIMIZE EXPOSURE IS AVAILABLE FROM THE SAFE DRINKING WATER HOTLINE AT 800-426-4719 OR www.epa.gov/safewater/lead

VILLAGE OF WAVERLY WATER DEPARTMENT
211 WEST NORTH ST
P.O. BOX 228
WAVERLY, OHIO 45690

WATER QUALITY 2017

INTRODUCTION

THE VILLAGE OF WAVERLY WATER DEPARTMENT HAS PREPARED THIS 2017 WATER QUALITY REPORT PER OHIO E.P.A. REGULATIONS AND THE SAFE DRINKING WATER ACT OF 1996.

INCLUDED WITHIN THIS REPORT WILL BE GENERAL HEALTH INFORMATION, A CONTAMINANT LIST, HOW TO PARTICIPATE IN DECISIONS CONCERNING YOUR DRINKING WATER, AND HOPEFULLY SOME USEFUL INFORMATION REGARDING YOUR WATER.

IN 2002, THE OHIO E.P.A. CONDUCTED A SOURCE WATER ASSESSMENT ON THE VILLAGE OF WAVERLY'S WELL FIELD. THEY REACHED THIS CONCLUSION, QUOTE:
THE AQUIFER THAT SUPPLIES DRINKING WATER TO THE VILLAGE OF WAVERLY HAS A HIGH SUSCEPTIBILITY TO CONTAMINATION, DUE TO THE SENSITIVE NATURE OF THE AQUIFER IN WHICH THE DRINKING WATER WELLS ARE LOCATED AND THE EXISTING POTENTIAL CONTAMNANT SOURCES IDENTIFIED.
THIS DOES NOT MEAN THAT THIS WELL FIELD WILL BE CONTAMINANTED, ONLY THAT CONDITIONS ARE SUCH THAT THE GROUND WATER COULD BE IMPACTED BY POTENTIAL CONTAMINANT SOURCES. FUTURE CONTAMINATION MAY BE AVOIDED BY IMPLEMENTING PROTECTIVE MEASURES. MORE INFORMATION IS AVAILABLE BY CALLING 947-4996.

THE VILLAGE OF WAVERLY WATER PLANT HAS A CURRENT, UNCONDITIONED LICENSE TO OPERATE OUR WATER SYSTEM.

SOURCE OF WATER INFORMATION

THE VILLAGE OF WAVERLY HAS TREATED AND TESTED WATER AT IT'S PRESENT LOCATION ON 220 EAST, SINCE 1969. THE WATER PLANT RECEIVES IT'S WATER FROM THE TEAY'S VALLEY AQUIFER BY WAY OF THREE 70 FOOT DEEP WELLS. THE RAW WATER IS APPROXIMATELY AT A HARDNESS OF 400 PPM OR 23.4 GRAINS PER GALLON WITH A PH OF 7.2.

THE WATER IS PUMPED TO A TANK CALLED A CLARIFIER. THERE IT IS MIXED WITH A LIME SLURRY WHICH RAISES THE PH TO AROUND 10.5. THIS IN TURN REDUCES THE HARDNESS TO AROUND 120-180 PPM OR 7.0 -10.5 GRAINS PER GALLON . FROM THE CLARIFIER IT IS GRAVITY FED TO A RECARBONATION TANK. HERE IT IS MIXED WITH CARBON DIOXIDE. THIS STABILIZES THE WATER TO A PH OF AROUND 8.5. THIS WATER IS THEN RUN THROUGH RAPID SAND FILTERS TO ELIMINATE ANY PARTICLES LEFT OVER FROM THE TREATMENT PROCESS. THEN IT GRAVITY FEEDS TO A 200,000 GALLON CLEARWELL. CHLORINE AND FLUORIDE ARE ADDED FOR BACTERIA AND TEETH, RESPECTIVELY. HIGH SERVICE PUMPS THEN PUMP THE FINISHED PRODUCT TO OUR .5 MILLION GALLON WATER TOWER ON GRANDVIEW AVE. FROM THERE IT IS PUMPED, BY BOOSTER PUMPS, TO OUR 1 MILLION GALLON WATER TANK ON 220 WEST. BOTH TANKS THEN GRAVITY FEED WATER TO RESIDENTS AND COMMERCIAL SITES FROM BOTH TANKS. WHILE THIS PROCESS IS GOING ON, PLANT PERSONNELL ARE RUNNING TESTS ON THE WATER IN OUR CERTIFIED LAB TO ENSURE WE MEET ALL OF EPA'S GUIDELINES IN THE YEAR OF 2017. THIS MEANT THE TREATMENT AND TESTING OF JUST OVER 213 MILLION GALLONS OF WATER FOR OUR COMMUNITY.

WHO DO I CALL?

PUBLIC PARTICIPATION AND COMMENTS ARE ENCOURAGED AT REGULAR MEETINGS OF THE VILLAGE COUNCIL. THESE MEETINGS TAKE PLACE EVERY 1ST AND 3RD TUESDAY OF THE MONTH AT THE STUDIO LOCATED AT 201 WEST NORTH ST. ALL OTHER QUESTIONS MAY BE ANSWERED AT THE FOLLOWING NUMBERS:

BILLING	TREATMENT	DISTRIBUTION
947-4888	947-4996	941-0109
947-2951		

FYI

FOLLOWING IS A LIST OF THE AVERAGES FOR THE YEAR OF THE DIFFERENT PARAMETERS OF THE VILLAGE OF WAVERLY WATER:

HARDNESS-149 PPM OR 8.7 GRAINS PER GALLON

TOTAL ALKALINITY- 53 PPM

PH-8.6

WEB SITES OF INTEREST

CITY OF WAVERLY-city of waverly.net

OHIO EPA-www.epa.state.oh.us

STATE OF OHIO-www.ohio.gov

CONTAMINANTS (UNITS)	MCLG	MCL	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINATION
INORGANIC CONTAMINANTS							
LEAD	0	AL=0.0155 MG/L	0.0000 MG/L	N/A	NO	2017	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS
	OF 20 SAMPLES, 0 WAS FOUND TO HAVE LEAD LEVELS IN EXCESS OF LEAD ACTION LEVEL OF 15 PPB						
COPPER	1300	AL=1.350 MG/L	0.0127 MG/L	N/A	NO	2017	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS
	OF 20 SAMPLES, 0 WAS FOUND TO HAVE COPPER LEVELS IN EXCESS OF THE ACTION LEVEL OF 1300 PPB						
TOTAL COLIFORM BACTERIA (TC)	0	1	0	N/A	NO	2017	NATURALLY PRESENT IN THE ENVIRONMENT
FECAL COLIFORM / E. COLI	0	1	0	N/A	NO	2017	HUMAN AND ANIMAL FECAL WASTE
FLUORIDE (PPM)	4mg/l	4 mg/l	1.02 mg/l	.80 - 2.00 mg/l	NO	2017	EROSION OF NATURAL DEPOSITS. WATER ADDITIVE THAT PROMOTES STRONG TEETH. DISCHARGE FROM FERTILIZER AND ALUMINUM PLANTS
NITRATE (PPM)	10mg/l	10 mg/l	0.410 mg/l	N/A	NO	2017	RUNOFF FROM FERTILIZER USE. EROSION OF NATURAL DEPOSITS
BARIUM (PPM)	2mg/l	2 mg/l	.00792 mg/l	N/A	NO	2016	DISCHARGE OF DRILLING WASTES. DISCHARGE FROM METAL REFINERIES. EROSION OF NATURAL DEPOSITS.
ARSENIC (PPB)	0	10 ug/l	BDL < 3.00 ug/l	0 - 3.00 ug/l	NO	2017	ERROSION OF NATURAL DEPOSITS; RUNOFF FROM ORCHARDS; RUNOFF FROM GLASS AND ELECTRONICS PRODUCTION WASTES.
RADIOLOGICAL CONTAMINATS							
COMBINED RADIUM (PCI/L)	0	5	<1 PCI/L	N/A	NO	2010	EROSION OF NATURAL DEPOSITS
ALPHA EMITTERS (PCI/L)	0	15	<3 PCI/L	N/A	NO	2010	EROSION OF NATURAL DEPOSITS
RESIDUAL DISINFECTANTS							
TOTAL CHLORINE (PPM)	MRDL=4	MRDLG=4	1.65 mg/l	1.00 – 2.00 mg/l	NO	2017	WATER ADDITIVE TO CONTROL MICROBES
VOLATILE ORGANIC CONTAMINANTS							
TRIHALOMETHANES (PPB)	N/A	80 ug/l	26.99 ug/l	21.91 – 32.07 ug/l	NO	2017	BY-PRODUCT OF DRINKING WATER CHLORINATION
HALOCETIC ACIDS (PPB)	N/A	60 ug/l	2.034ug/l	1.571 – 2.497 ug/l	NO	2017	BY-PRODUCT OF DRINKING WATER CHLORINATION

DEFINITIONS OF SOME TERMS FOUND WITHIN THIS REPORT

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG): THE LEVEL OF A CONTAMINANT IN DRINKING WATER BELOW WHICH THERE IS NO KNOWN OR EXPECTED HEALTH RISK. MCLG'S ALLOW FOR A MARGIN OF SAFETY.

MAXIMUM CONTAMINANT LEVEL (MCL): THE HIGHEST LEVEL OF CONTAMINANT THAT IS ALLOWED IN DRINKING WATER. MCL'S ARE SET AS CLOSE TO MCLG'S AS POSSIBLE, USING THE BEST AVAILABLE TREATMENT TECHNOLOGY.

ACTION LEVEL (AL): THE CONCENTRATION OF A CONTAMINANT WHICH , IF EXCEEDED, TRIGGERS TREATMENT OR OTHER REQUIREMENTS WHICH A WATER SYSTEM MUST FOLLOW.

PARTS PER MILLION (PPM): UNITS FOR MEASURING THE CONCENTRATION LEVEL OF A CONTAMINANT. A PART PER MILLION CORRESPONDS TO ONE GRAIN IN ONE MILLION GALLONS OF WATER.

PARTS PER BILLION (PPB): UNITS FOR MEASURING THE CONCENTRATION LEVEL OF A CONTAMINANT. A PART PER BILLION CORRESPONDS TO ONE GRAIN IN 1 BILLION GALLONS OF WATER.

THE < SYMBOL: A SYMBOL WHICH MEANS LESS THAN. EXAMPLE: A RESULT OF < 5 MEANS THE LOWEST LEVEL THAT A CONTAMINANT COULD BE TESTED FOR WAS A 5.

BDL: BELOW DETECTABLE LIMIT. THE CONTAMINANT MEASURED IS BELOW THE LOWEST THRESHOLD AT WHICH A MEASURING DEVICE CAN DETECT.