



VILLAGE OF LINDENHURST

IEPA FACILITY NO. IL0971000

2013

ANNUAL DRINKING WATER QUALITY REPORT

REPORTING PERIOD FROM JANUARY 1,
2013, TO DECEMBER 31, 2013

www.lindenhurstil.org/2013waterreport



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This report is intended to provide you with important information about your drinking water and the efforts made by the Village of Lindenhurst to provide safe drinking water. The source of drinking water used by the Village of Lindenhurst is Groundwater. For more information regarding this report contact Ms. Vicki VanSlochteren at 847-356-8252. Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

This year, as in years past, your tap water met all United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (IEPA) drinking water health standards. We vigilantly monitor our groundwater supply and are able to report that the water department had no violation of a contaminant level or of any water quality standard in the previous year. This report summarizes the quality of water that we provided last year, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

The IEPA has completed our Source Water Assessment. A summary of this assessment has been included within this report. In order to further reduce the risks of contamination to the facility's groundwater supply, the IEPA has made Source Water Protection recommendations to the Village of Lindenhurst. The Village has addressed these recommendations and annually reviews current practices in order to stay compliant with these recommendations. Further information on our community water supply's Source Water Assessment is available on the United States Geological Survey web site at <http://il.water.usgs.gov> or by calling the Groundwater section of the IEPA at 217-785-4787.

The Village uses groundwater from nine (9) wells that are located within the Village limits. These wells are drilled into sand and gravel aquifers (an aquifer is a geological formation that contains water). Residents should be aware that groundwater is considered hard and could cause white spots on fixtures, dishes, glassware, etc. Groundwater also contains iron, which may leave mineral deposits on clothes, porcelain products and may occasionally cause discolored water. Although water hardness and iron can cause aesthetic concerns with the water, it poses no adverse health effects and is safe to drink.

Source of Drinking Water

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 activity.

Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 USEPA's Safe Drinking Water Hotline at (1-800-426-4791).

In order to ensure that tap water is safe to drink, USEPA 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.

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 system 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. USEPA/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 (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Lindenhurst 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 30 seconds to 2 minutes before using water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to contact the Village Hall or attend a regular scheduled Village Board Meeting (2nd & 4th Mondays each month at 7:00 p.m. at the Village Hall) for additional information or concerns that you may have. The source water assessment for our supply has been completed by the Illinois Environmental Protection Agency. If you would like a copy of this information, please stop by the Village Hall or contact us at 847-356-8252. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois Environmental Protection Agency website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Based on information obtained in a Well Site Survey, published in 1989 by the Illinois EPA, nine potential sources or problem sites were identified within the survey area of Lindenhurst wells. Information provided by the Leaking Underground Storage Tank Section of the Illinois EPA indicated

several additional sites with ongoing remediation which may be of concern. Based on efforts made by the village, we have had all of the underground storage tanks removed. The Illinois EPA has determined that the Lindenhurst Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells. Due to favorable monitoring history, aquifer characteristics, and inventory of potential sources of contamination, our water supply was issued a vulnerability waiver renewal. No monitoring for VOC's, SOC's and cyanide is required between January 1, 2011 to December 31, 2013. Furthermore, in anticipation of the USEPA's proposed Ground Water Rule, the IEPA has determined that the Lindenhurst Community Water Supply is not vulnerable to viral contamination. This determination is based upon the completed evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; a hydrogeologic barrier exists which prevents pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics were not evaluated for this groundwater supply.

Lead and Copper

Definitions: Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

| Lead and Copper | Date | MCLG | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination |
|-----------------|---------|------|-------------------|-----------------|-----------------|-------|-----------|---|
| Copper | 9/26/11 | 1.3 | 1.3 | 0.603 | 0 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead | 9/26/11 | 0 | 15 | 2.47 | 0 | ppb | N | Corrosion of household plumbing systems; Erosion of natural deposits. |

Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some which may require explanation. Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology. Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. NA: not applicable. Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples. Picocuries per liter (pCi/L) is a measure of radioactivity.

| 2013 Regulated Contaminants | | | | | | | | |
|---|-----------------|------------------------|--------------------------|-----------------------|----------|-------|-----------|---|
| | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination |
| Disinfectants and Disinfection By-Products | | | | | | | | |
| Chlorine | 12/31/13 | 1 | 0.8 - 1.234 | MRDLG = 4 | MRDL = 4 | ppm | N | Water additive used to control microbes. |
| Haloacetic Acids (HAA5) | 2013 | 12 | 8.2 - 21 | No goal for the total | 60 | ppb | N | By- product of drinking water disinfection. |
| Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future. | | | | | | | | |
| Total Trihalomethanes (TTHM) | 2013 | 45 | 34.64 - 44.8 | No goal for the total | 80 | ppb | N | By- product of drinking water disinfection. |

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants

| | | | | | | | | |
|--|---------|-------|--------------|---|-----|-----|---|--|
| Arsenic | 8/22/12 | 1.3 | 0 – 1.3 | 0 | 10 | ppb | N | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. |
| <p>While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral, known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.</p> | | | | | | | | |
| Barium | 8/22/12 | 0.073 | 0.045 -0.073 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Fluoride | 8/22/12 | 0.966 | 0.885 -0.966 | 4 | 4.0 | ppm | N | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Sodium | 8/22/12 | 39 | 24 – 39 | | | ppm | N | Erosion from naturally occurring deposits; Used in water softener regeneration. |

The following Inorganic Contaminants are not currently regulated by the USEPA. However, the state regulates them.

| | | | | | | | | |
|-----------|---------|-------|-----------|-----|-----|-----|---|---|
| Iron | 8/22/12 | 0.55 | 0 - .055 | | 1.0 | ppm | N | Erosion of natural deposits. |
| Manganese | 8/22/12 | 6.1 | 0 – 6.1 | 150 | 150 | ppb | N | Erosion of natural deposits. |
| Zinc | 8/22/12 | 0.022 | 0 – 0.022 | 5 | 5 | ppm | N | Naturally occurring; discharge from metal |

Radioactive Contaminants

| | | | | | | | | |
|-------------------------|---------|------|------------|---|---|-------|---|-----------------------------|
| Combined Radium 226/228 | 4/11/11 | 1.08 | 1.08– 1.08 | 0 | 5 | pCi/L | N | Erosion of natural deposits |
|-------------------------|---------|------|------------|---|---|-------|---|-----------------------------|

Unregulated Contaminant Monitoring Rule (UCMR3)¹

| Contaminant | Year Sampled | Amount Detected (average) | Range of Detections (lowest – highest) | Typical Source | Health Effects |
|-------------|--------------|---------------------------|--|--|--|
| Chlorate | 2013 | 200.5 ug/l | 81-320 ug/L | Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide. | RfD: 0.03 mg/kg/day associated with enlarged thyroid and mineralization (Office of Pesticide Programs) |
| Chromium 6 | 2013 | 0.04 ug/l | 0.04 ug/L | Naturally occurring element; used in making steel and other alloys; used for chrome plating, dyes, and pigments, leather tanning, and wood preservation. | RfD: – 0.005 mg/kg/day (IRIS, 1998) (basis for MCL) – 0.003 mg/kg/day (IRIS, 2005) (basis for HRL) – Draft RfD: 0.0009 mg/kg/day associated with intestinal lesions (IRIS, Draft 75 FR 60454) Draft Slope Factor: 0.5 (mg/kg/day)-1 (IRIS, Draft 75 FR 5) |
| Molybdenum | 2013 | 33.54 ug/l | 18.0-52.5 ug/L | Naturally-occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenum trioxide used as a chemical reagent. | RfD: 0.005 mg/kg/day (IRIS) associated with increased uric acid levels EPA Cancer Class: D – not classifiable as to human carcinogenicity |
| Strontium2 | 2013 | 1190.86 ug/l | 1100.1-1248.1 | Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions. | RfD: 0.6 mg/kg/day associated with rachitic bone (rickets) (IRIS) EPA Cancer Class: D – not classifiable as to human carcinogenicity |

¹Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. A maximum contaminant level (MCL) for these substances has not been established by either state or federal regulations, nor has mandatory health effects language.