



IMMOKALEE
WATER & SEWER
DISTRICT

2023 Annual
Drinking Water
Quality Report



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Excellence in Quality & Service!

CONTINUING TO WORK FOR YOU

The Immokalee Water and Sewer District (IWSD) was created by an Act of the Florida Legislature on July 5, 1978, for the purpose of providing higher quality central water and sewer services to the community of Immokalee, an unincorporated area of Collier County, Florida. The District operates and maintains the water and sewer plants and systems as an Independent Special District of the State of Florida and covers approximately 107 miles within Eastern Collier County. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

This report, required by law, provides data about the quality of the water supplied by IWSD during 2023. We welcome the opportunity to share this information with you. It's important that you know where our water comes from, what it contains and the risks that our water treatment is designed to prevent. We are proud to present our annual water quality report covering the period between January 1 and December 31, 2023.

BOARD MEMBERS:

Joseph Brister, Chair
Anne Goodnight, Vice-Chair
Bonnie Keen, Secretary
Robert Halman, Treasurer

Jack Johnson, Commissioner
Magda Ayala, Commissioner
Vacant, Commissioner

IWSD Water Source

The Immokalee Water & Sewer District customers are fortunate because we enjoy an abundant water supply from sixteen (16) groundwater wells drawing water from the Lower Tamiami aquifer, from which the District is permitted to withdraw 1.26 billion gallons per year. The Carson Road Water Treatment Plant, originally constructed in 1975, draws water from five (5) wells approximately 180- 200 feet deep and currently processes approximately 326.7 million gallons of water annually. The Airport Water Treatment Plant, originally constructed in 1985, currently processes approximately 158.8 million gallons of water annually from the three (3) 180-foot-deep wells located on-site. Our third Water Treatment Plant, JV Warden, draws water from eight (8) wells which are approximately 200 - 315 feet deep and currently processes approximately 323.1 million gallons of water each year. Combined, our treatment facilities currently provide roughly 808.6 million gallons of clean drinking water every year.



Water Treatment Process

Our water treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aerator, which allows for oxidation of the hydrogen sulfide and iron levels that are present in the water. Chloramines (chlorine and ammonia) are then added for disinfection. The water then goes into a ground storage tank from which sediment is removed.

Chloramines may be added again as necessary as a precaution against any bacteria that may still be present. We carefully monitor the amount of chloramines, adding the lowest quantity necessary to protect the safety of your water without compromising taste. Finally, fluoride (used to prevent tooth decay).

Community Involvement & Interest

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. Our Board of Commissioners meet the 3rd Wednesday of each month beginning at 3:30 p.m. at 1020 Sanitation Road, Immokalee, FL 34142 and public input is welcome. For more information about this report, or for any questions relating to your drinking water, please call James Jean-Louis, Water Treatment Plant Supervisor, at (239) 658-3630.

IWSD routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period, of January 1st to December 31st, 2023. Data obtained after January 1, 2023 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

Terms & Abbreviations

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we've provided the following definitions:

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology

Maximum Contaminant Level Goal or 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.

AN EXPLANATION – MCLs are set at very stringent levels. To understand the possible health effects described in many regulated contaminants, a person would have to drink at least two (2) liters of water per day at the MCL for a lifetime to have a one-in-a-million chance of having the described health effect.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Parts per million (ppm) or Milligrams per liter (mg/l): One part by weight of analyte to 1 million parts by weight of the water sample (One part per million is the equivalent of one cent in \$10,000).

Parts per billion (ppb) or Micrograms per liter (ug/l): One part by weight of analyte to 1 billion parts by weight of the water sample (One part per billion is the equivalent of one cent in \$10,000,000).

Picocurie per liter (pCi/L): Measure of the radioactivity in water.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table below are the only contaminants detected in your drinking water.

Water Quality Testing Results

Microbiological Contaminants

No microbiological containments were detected in 2023.

STAGE 1 Disinfectants and Disinfectant By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL or MRDL Violation - Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine and Chloramines (ppm)	Monthly	N	2.3	0.8-3.7	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

STAGE 2 Disinfectants and Disinfectant By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL or MRDL Violation - Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	06/23 09/23	N	10.05	15-15.1	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	06/23 09/23	N	7.45	9.5-5.4	N/A	80	By-product of drinking water disinfection

Inorganic Contaminants¹

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL or MRDL Violation - Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Arsenic (ppb)	04/23	N	0.0005000	0.0005000	0.010	0.010	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	04/23	N	0.023	0.0015 - 0.023	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	04/23	N	0.530	0.260-0.530	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm.
Lead (point of entry before distribution) (ppb)	04/23	N	0.0004400	0.00022-0.00044	0	0.015	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen) (ppm)	04/23	N	0.06	0.01-0.06	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	04/23	N	34.2	13.3-34.2	N/A	160	Saltwater intrusion, leaching from soil

¹ Sampling is required every three years except for Nitrate+Nitrite (Nitrogen), which is required annually.

Volatile Organic Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL or MRDL Violation - Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
1,2-Dichloropropane (ppb)	04/23	N	0.62	0.44-0.62	0	5	Discharge from industrial chemical factories

Synthetic Organic Contaminants including Pesticides and Herbicides

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL or MRDL Violation - Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Dalapon (ppb)	07/23	Y	2.6-3.6	2.6-3.6	200	200	Runoff from herbicide use on right-of-ways

The District is required to sample for chlorinated herbicides every three (3) years. On July 26, 2023, the District sampled for Dalapon at the three (3) water treatment facilities and the results for all three samples were below the maximum contaminant level established by the Environmental Protection Agency and the Florida Department of Environmental Protection. However, the samples showed detectable levels of Dalapon. On April 26, 2024, we became aware that our system recently failed to collect the correct number of drinking water samples for Dalapon. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

We have taken the required samples for Dalapon, and the results were non-detect. We began monitoring quarterly for Dalapon on April 29, 2024, and will continue to monitor on this schedule until we qualify for reduced monitoring.

Lead and Copper (Tap Water)***2

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Exceeded - Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	07/23	N	0.32	0	0	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	07/23	N	0.00097	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

*** Lead - 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. We are 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 30 seconds to 2 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. 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) 426-4791 or at www.epa.gov/safewater/lead.

²Sampling for lead and copper is required every three (3) years

Contaminants

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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Per- and polyfluoroalkyl substances (PFAS), are man-made and include thousands of PFAS chemicals, and they are found in many different consumer, commercial, and industrial products. The EPA and its water partners are working hard to answer critical questions about PFAS.

For decades, several companies have manufactured chemicals called per- and polyfluoroalkyl substances (PFAS), including PFOA and PFOS, that have been used to make nonstick cookware, water-repellent clothing, stain resistant fabrics and carpets, some cosmetics, some firefighting foams, and products that resist grease, water, and oil.

These companies have known since at least the 1960s that PFOA and PFOS are persistent in the environment, biomagnify and bioaccumulate, and pose risks to human health. Nevertheless, they continued to knowingly manufacture, market, and sell these chemicals without disclosing to the public and government regulators the hazards they pose to human health and the environment. According to the EPA, scientific research suggests that exposure to certain levels of PFAS, including PFOS and PFOA, may lead to adverse health outcomes, the full extent of which are still not yet known. Studies have shown there is a probable link between exposure to certain PFAS and health conditions, such as high cholesterol, kidney cancer, thyroid disease, testicular cancer, ulcerative colitis, and pregnancy-induced hypertension and preeclampsia.

In 2023, Immokalee Water & Sewer District became aware of unregulated contaminants in its groundwater sources through the required Fifth Unregulated Contaminant Monitoring Rule (UCMR-5). UCMR 5 requires sample collection for 30 chemical contaminants beginning in 2023 using analytical methods developed by the EPA and consensus organizations. This action provides the agency and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water.

The District hired counsel to pursue litigation against several defendants, including 3M Company, Chemours and DuPont, for the companies' roles in contaminating the District's water sources. The lawsuit will seek damages to compensate the District for the costs related to PFAS contamination of its groundwater system, including the investigation, monitoring, treatment, testing, remediation, removal, and disposal of PFAS-contamination.

The District is currently acquiring an engineering firm to design and construct improvements to its water treatment plants to remove and dispose of unregulated contaminants.

Unregulated Contaminants	Dates of sampling (mo/yr)	MCL or MRDL Violation - Y/N	Level Detected	Range of Results	MCL or MRDL	Likely Source of Contamination
Perfluorobutanesulfonic 1 Acid (PFBS)	08/23	N	0.0017	0.001-0.0017	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorododecanoic acid (PFDoA)	08/23	N	0.001	0.001	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorohexanoic acid (PFHxA)	08/23	N	0.001	0.001	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorotetradecanoic acid (PFTA)	08/23	N	0.0027	0.0027	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorotridecanoic acid (PFTrDA)	08/23	N	0.0023	0.0023	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluoroundecanoic acid (PFUnA)	08/23	N	0.0007	0.0007	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant
PFOS	08/23	N	0.0013	0.0013	N/A	Discharge and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, included production of moisture and oil resistant coating on fabrics and other materials like firefighting disposal of product containing these products.
Perfluorohexane sulfonic acid (PFHxS)	08/23	N	0.001	0.001	N/A	Manmade chemical; used in products to make them stain, grease, heat and water resistant



Substances That Could Be in Water

To ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the number of certain contaminants in water provided by public water systems. The Food and Drug Administration (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 at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Please DO NOT FLUSH your unused/unwanted medications down toilets or sink drains. For more information, please click <http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm>.

In Conclusion

The Immokalee Water and Sewer District team has worked hard on developing and implementing our Vision, Core Values, and Communication/Behavior Agreement. Based on this foundation, a strategic plan has been developed to include five (5) strategic goals: *Infrastructure Development, Employee Development, Community Engagement Development, Process Improvement Development, Capital Improvement Plan, and Natural Systems*. You may access the plan at: www.immokaleewatersewer.com/about-us/strategic-plan



VISION STATEMENT

"Excellence in Quality and Service"

CORE VALUES

Teamwork • Initiative • Accountable
Thoroughness • Loyalty • Commitment • Integrity

COMMUNICATION / BEHAVIOR AGREEMENT

We agree to:

- Maintain dignity, respect and confidentiality.
- Be optimistic, open-minded, innovative, and flexible
- Praise and recognize achievements in genuine, simple way.
- Keep healthy humor alive and maintain a professional environment.
- Define roles and responsibilities of the various positions and work within them.
- Hold regularly scheduled staff meetings.
- Be dedicated to excellence in our performance, fulfill our responsibility and "get it done".
- Be supportive of one another at work and back each other up.
- Give full attention to person you are communicating with.
- Learn/Teach - if you don't know it, learn it; if you do know it, teach it.
- Balance written communication with face to face communication.
- Deliver excellent customer service to one another and to those we serve outside the department.

