

## 2023 Consumer Confidence Report

### Water System Information

Water System Name: Hay Kingdom

Report Date: 6/20/2024

Type of Water Source(s) in Use: Surface , IID Canal East Highline.

Name and General Location of Source(s) Rose Canal

Drinking Water Source Assessment Information: Imperial Irrigation District Title 22

Time and Place of Regularly Scheduled Board Meetings for Public Participation: NA

For More Information, Contact: Rocky Vandergriff, WTS Inc. 760-427-4235

### About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2023 and may include earlier monitoring data.

### Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse [Enter Water System's Name] a [Enter Water System's Address or Phone Number] para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 [Enter Water System Name] 以获得中文的帮助: [Enter Water System's Address][Enter Water System's Phone Number].

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa [Enter Water System's Name and Address] o tumawag sa [Enter Water System's Phone Number] para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ [Enter Water System's Name] tại [Enter Water System's Address or Phone Number] để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau [Enter Water System's Name] ntawm [Enter Water System's Address or Phone Number] rau kev pab hauv lus Askiv.

## Terms Used in This Report

Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
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 are set by the U.S. Environmental Protection Agency (U.S. EPA).
Maximum Residual Disinfectant Level (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 (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.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)

## Sources of Drinking Water and Contaminants that May Be Present in Source 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, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that 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, that 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, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

## Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

## About Your Drinking Water Quality

### Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

**Table 1. Sampling Results Showing the Detection of Coliform Bacteria**

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	2023 NONE	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

**Table 2. Sampling Results Showing the Detection of Lead and Copper**

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	9/23/2023	5	0 None detected	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	9/23/2023	5	.14	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 3. Sampling Results for Sodium and Hardness**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	07/27/23	130	NA	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	07/27/23	340	NA	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Table 4. Detection of Contaminants with a Primary Drinking Water Standard**

<b>Chemical or Constituent (and reporting units)</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL [MRDL]</b>	<b>PHG (MCLG) [MRDLG]</b>	<b>Typical Source of Contaminant</b>
Arsenic (ppb)	07/27/23	2.3		10	.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppb)	07/27/23	130		1000	2000	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	7/27/2023	160		50	100	Occurs naturally in rocks, animals, plants and soils.
Fluoride (ppm)	07/27/23	.28		2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
TTHM (ppb)	9/21/2023	16		80	NA	Byproduct of drinking water disinfection
HAA5 (ppb)	10/24/2023	67		60	NA	Byproduct of drinking water disinfection

**Table 5. Detection of Contaminants with a Secondary Drinking Water Standard**

<b>Chemical or Constituent (and reporting units)</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>SMCL</b>	<b>PHG (MCLG)</b>	<b>Typical Source of Contaminant</b>
Aluminum Source (ppb)	7/27/2023	640		200	600	Erosion of natural deposits; residue from some surface water treatment processes
Iron Source (ppb)	7/27/2023	680		300	NA	Leaching from natural deposits; industrial wastes
Color (color units)	7/27/2023	30		15	NA	Naturally-occurring organic materials
Odor (ton)	7/27/2023	1		3	NA	Naturally-occurring organic materials
Turbidity (ntu)	7/27/2023	20		5	NA	Soil runoff

Total Dissolved Solids (ppm)	7/27/2023	720		1000	NA	Runoff/leaching from natural deposits
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**Table 6. Detection of Unregulated Contaminants**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Vanadium (ppb)	7/27/2023	51		50	Vanadium exposures resulted in developmental and reproductive effects in rats
Boron (ppb)	7/27/2023	180		1000	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
[Enter Contaminant]	[Enter Date]	[Enter No.]	[Enter Range]	[Enter No.]	[Enter Language]

**Additional General Information on Drinking Water**

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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

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. U.S. EPA/Centers for Disease Control (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).

**Lead-Specific Language:** 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. [Enter Water System's Name] is responsible for providing high quality drinking water but 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

**Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*:** [Enter Additional Information Described in Instructions for SWS CCR Document]

State Revised Total Coliform Rule (RTCR): [Enter Additional Information Described in Instructions for SWS CCR Document]

### Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

**Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
[Enter Violation Type]	[Enter Violation Explanation]	[Enter Duration]	[Enter Actions Taken]	[Enter Language]
[Enter Violation Type]	[Enter Violation Explanation]	[Enter Duration]	Enter Actions Taken	[Enter Language]

### For Water Systems Providing Groundwater as a Source of Drinking Water

**Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples**

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	(In the year) [Enter No.]	[Enter Dates]	0	(0)	Human and animal fecal waste
Enterococci	(In the year) [Enter No.]	[Enter Dates]	TT	N/A	Human and animal fecal waste
Coliphage	(In the year) [Enter No.]	[Enter Dates]	TT	N/A	Human and animal fecal waste

### Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

**Special Notice of Fecal Indicator-Positive Groundwater Source Sample:** [Enter Special Notice of Fecal Indicator-Positive Groundwater Source Sample]

**Special Notice for Uncorrected Significant Deficiencies:** [Enter Special Notice for Uncorrected Significant Deficiencies]

**Table 9. Violation of Groundwater TT**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
[Enter Violation]	[Enter Explanation]	[Enter Duration]	[Enter Actions]	[Enter Language]
[Enter Violation]	[Enter Explanation]	[Enter Duration]	[Enter Actions]	[Enter Language]

**For Systems Providing Surface Water as a Source of Drinking Water****Table 10. Sampling Results Showing Treatment of Surface Water Sources**

Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Alternative Tech P.V. 5 utilizes a chemical coagulation with a contact clarifier and dual media filter.
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to .3 NTU Turbidity to Be Less Than or Equal to 95% of Measurements in a Month] NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU 3 – Not exceed [Enter Turbidity Performance Standard Not to Be Exceeded at Any Time] NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	95%
Highest single turbidity measurement during the year	.3
Number of violations of any surface water treatment requirements	0

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

**Summary Information for Violation of a Surface Water TT****Table 11. Violation of Surface Water TT**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
[Enter Violation]	[Enter Explanation]	[Enter Duration]	[Enter Actions]	[Enter Language]
[Enter Violation]	[Enter Explanation]	[Enter Duration]	[Enter Actions]	[Enter Language]



**Summary Information for Operating Under a Variance or Exemption**

[Enter Additional Information Described in Instructions for SWS CCR Document]

**Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements**

If a water system is required to comply with a Level 1 or Level 2 assessment requirement that is not due to an *E. coli* MCL violation, include the following information below [22 CCR section 64481(n)(1)].

**Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation**

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

The water system shall include the following statements, as appropriate:

During the past year we were required to conduct [Insert Number of Level 1 Assessments] Level 1 assessment(s). [Insert Number of Level 1 Assessments] Level 1 assessment(s) were completed. In addition, we were required to take [Insert Number of Corrective Actions] corrective actions and we completed [Insert Number of Corrective Actions] of these actions.

During the past year [Insert Number of Level 2 Assessment] Level 2 assessments were required to be completed for our water system. [Insert Number of Level 2 Assessments] Level 2 assessments were completed. In addition, we were required to take [Insert Number of Corrective Actions] corrective actions and we completed [Insert Number of Corrective Actions] of these actions.

If the water system failed to complete all the required assessments or correct all identified sanitary defects, the water system is in violation of the treatment technique requirement and shall include the following statements, as appropriate:

During the past year we failed to conduct all of the required assessment(s).

During the past we failed to correct all identified defects that were found during the assessment.

[For Violation of the Total Coliform Bacteria TT Requirement, Enter Additional Information Described in Instructions for SWS CCR Document]

If a water system is required to comply with a Level 2 assessment requirement that is due to an *E. coli* MCL violation, include the information below [22 CCR section 64481(n)(2)].

**Level 2 Assessment Requirement Due to an *E. coli* MCL Violation**

*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were required to complete a Level 2 assessment because we found *E. coli* in our water system. In addition, we were required to take [Insert Number of Corrective Actions] corrective actions and we completed [Insert Number of Corrective Actions] of these actions.

If a water system failed to complete the required assessment or correct all identified sanitary defects, the water system is in violation of the treatment technique requirement and shall include the following statements, as appropriate:

We failed to conduct the required assessment.

We failed to correct all sanitary defects that were identified during the assessment.

If a water system detects *E. coli* and has violated the *E. coli* MCL, include one or more the following statements to describe any noncompliance, as applicable:

We had an *E. coli*-positive repeat sample following a total coliform positive routine sample.

We had a total coliform-positive repeat sample following an *E. coli*-positive routine sample.

We failed to take all required repeat samples following an *E. coli*-positive routine sample.

We failed to test for *E. coli* when any repeat sample tests positive for total coliform.

[If a water system detects *E. coli* and has not violated the *E. coli* MCL, the water system may include a statement that explains that although they have detected *E. coli*, they are not in violation of the *E. coli* MCL.]