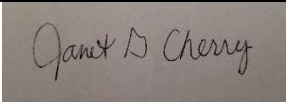


Inspection Date(s):	11/07/2024	
Media Program:	Drinking Water	
Regulatory Program(s)	Safe Drinking Water Act (SDWA)	
System Owner:	City of Odessa	
System Name:	City of Odessa PWS	
System Physical Location:	119 W Fourth St	
(city, state, zip code)	Odessa, TX 79760	
Mailing address:	PO Box 4593	
(city, state, zip code)	Odessa, TX 79760	
County/Parish:	Ector County	
System Phone Number	432-335-4632	
System Contact:	Alex Rowlett	Interim Director of Utilities
	mrowlett@odessa-tx.gov	
System Classification	Community Water System (CWS)	
PWS ID:	TX0680002	
Media Identifier Number:	N/A	
NAICS:	221310	
SIC:	4941	
Personnel participating in inspection:		
Daniel Kim	EPA Region 6	Inspector
Janet Cherry	ERG	Inspector
Jack Fowler	ERG	Inspector
Alex Rowlett	City of Odessa	Interim Director of Utilities
Chastity Tijerina	City of Odessa	Compliance Coordinator
Wray Carpentar	City of Odessa	I&E Technician
Justin Boroff	City of Odessa	SCADA Specialist
Rip Halbaedier	City of Odessa	Plant Supervisor
Nolberto Aguirre	City of Odessa	Cybersecurity Analyst
Saimon Karki	City of Odessa	IT Manager
EPA Lead Inspector Signature/Date		12/5/2024
	Janet Cherry	Date
Supervisor Signature/Date	RUBEN ALAYON-GONZALEZ	Digitally signed by RUBEN ALAYON-GONZALEZ Date: 2024.12.13 10:21:36 -06'00'
	Ruben Alayon-Gonzalez	Date

Section I - INTRODUCTION

PURPOSE OF INSPECTION

On November 7, 2024, United States Environmental Protection Agency (EPA) and the EPA contract inspectors from Eastern Reach Group (ERG) (hereinafter the EPA inspection team) conducted an announced Compliance Evaluation Inspection under Section 1445 of the Safe Drinking Water Act (SDWA), 42 U.S.C. §300j-4, of City of Odessa Public Water System (referred to as the System or City of Odessa) (TX0680002). The inspection process began at approximately 8:00 a.m. on November 7, 2024 and finished at approximately 4:10 p.m.

Daniel Kim of EPA Region 6 and Janet Cherry and Jack Fowler of ERG presented their SDWA inspector credentials to System representatives during the opening conference. The EPA inspection team informed the System representatives that this was an EPA inspection to determine compliance with SDWA Section 1433, which requires community water systems that serve more than 3,300 people to complete a Risk and Resilience Assessment (RRA) and develop an Emergency Response Plan (ERP). The EPA Inspection Team also informed System representatives that they would be conducting a cybersecurity evaluation alongside the Section 1433 review. To facilitate the inspection process, the EPA inspection team used a checklist outlining the requirements of SDWA Section 1433 during the document review. Refer to [Appendix 1, Opening Conference Sign-in Sheet](#).

SYSTEM DESCRIPTION

According to Drinking Water Watch, the System is owned by the City of Odessa, serves a population of approximately 123,334 people, and has 55,910 service connections. The EPA inspection team reviewed the above information with the System during the inspection process via conversations, with the System stating the population was probably closer to 125,000 people. It is a community water system as defined by 40 C.F.R., Part 141 Subpart A. The System serves the City of Odessa plus four other consecutive systems:

- Ector County Utility District (TX0680235)
- Hanna Water Hauler (TX1540021), which sells water to two other systems: AHG Odessa (TX1650182) and Iron Horse Ranch Odessa Lodge (TX0680223)
- Northgate Mobile Home Park (TX0680013)
- Deweys Breakfast Shop (TX0680220)

All raw water is purchased from Colorado River Municipal Water District (CRMWD) (TX0000001) through an agreement between City of Odessa and CRMWD. The raw water source is primarily surface water from Lake Ivie supplemented by the Ward Wellfield, but City of Odessa can also be served surface water from Spence Reservoir (also owned by CRMWD). Lake Ivie is open to the public for recreation and fishing. City of Odessa staff and CRMWD staff meet monthly to discuss planned infrastructure upgrades, review drought contingency plans, and other issues. CRMWD recently improved the dam at Lake Ivie. CRMWD engineering team also provides updates to City of Odessa council.

CRMWD pumps raw water approximately 150 miles via two 32-inch transmission lines from Lake Ivie to two 80 million gallon (MG) raw water reservoirs located across the street from the City of Odessa's water treatment plant ([Appendix 2, Photograph 1](#)). CRMWD's well water is also conveyed in the transmission lines from Lake Ivie. The City of Odessa owns the two raw water reservoirs, but CRMWD owns all preceding raw water conveyance infrastructure. The 80-MG reservoirs provide approximately 3 days of storage during peak summertime water use and approximately 7 days of storage during wintertime use in the event the CRMWD raw water supply experiences disruptions.

All raw water from CRMWD is treated at the Odessa water treatment plant with coagulation, flocculation, filtration and disinfection before being pumped to the distribution system via seven finished water pumps. City of Odessa water treatment plant operators communicate daily with CRMWD operators on current conditions and flow demands. CRMWD does not provide water quality data to City of Odessa; all raw water is monitored as it enters City of Odessa's water treatment plant. City of Odessa operators monitor raw water turbidity, pH, and temperature and note any changes. As example, an algae bloom is noticed by an increase in pH along with visual observation of algae in the raw water. The water treatment plant operates continuously and is staffed 24 hours per day.

The System is working on its valve exercise and replacement program. The current condition of distribution system isolation valves has resulted in the entire distribution system being shut down to allow water main repairs at certain locations. All valves are inventoried and a contractor is hired to commence isolation valve evaluations and replace valves deemed as inoperable. The valve replacement program will allow the System to better isolate sections of the water distribution system for main repairs and limit the need for future system-wide shut down events during main repairs.

Section II- INSPECTION ACTIVITY SUMMARY

Water Treatment Plant Site Visit

The EPA inspection team walked through portions of the water treatment plant starting at 2:00 PM local time. Photographs taken during the water treatment plant visit are presented in [Appendix 2, Photograph Log](#). At the time of the inspection, the System was undergoing major upgrades at the water treatment plant including rehabilitation of one of the clearwells, upgrade of the SCADA system, renovation of the treatment buildings, upgrade of the chemical feed systems, and construction of new sedimentation basins. The System anticipates that all upgrades will be completed by the end of 2025. These upgrades will allow the water treatment plant to produce 55 million gallons per day of treated water.

The water treatment plant is fenced with a locked gate and video cameras. Water treatment plant operators can view the video feed inside the temporary SCADA room (refer to [Appendix 2, Photograph 2](#)). The water treatment plant is staffed 24 hours per day. Additionally, there are computer stations that authorized staff can access to make PLC changes with login credentials (refer to [Appendix 2, Photograph 3](#)). City of Odessa has approximately 30 days of chemical storage at the water treatment plant.

All treated water is pumped to the distribution system. Seven finished water pumps are located in a separate building at the water treatment plant site. System representatives stated that 3 pumps are

typically operating at a time to meet demands and keep finished water reservoirs full. One of the finished water pumps was offline for repairs during the inspection.

The water treatment plant is equipped with a generator sufficiently sized to run all water treatment plant equipment and finished water pumps (refer to Appendix 2, Photograph 4). The generator is equipped with a 2,000-gallon fuel tank, enough for the generator to operate 24 hours. City of Odessa staff conduct full-load tests of the generator monthly. The City of Odessa also has fueling stations and is in the process of building 5 additional remote fueling stations to improve resiliency. The generator allowed the water treatment plant to remain in service during the February 2021 snowstorm.

The 80-MG raw water reservoirs reside across the street from the water treatment plant and are fenced with a locked gate.

The City of Odessa has a laboratory adjacent to the water treatment plant accredited for coliform sample analysis along with wastewater parameter analyses. The lab can also provide total organic carbon, alkalinity, pH, chlorine residual, and UV254 analysis for the water system for process control purposes.

City of Odessa staff stated that all water system buildings are equipped with intrusion alarms that notify the police immediately. In addition, water treatment plant staff monitor water system facilities equipped with video cameras that transmit video to the water treatment plant. City staff visit all pump stations, booster chlorination facilities, and storage facilities 2 to 3 times per week.

Document Review

The EPA inspection team reviewed the System's RRA and ERP onsite. According to EPA's Shared CROMERR Services (SCS) database, the System most recently certified completion of its RRA and ERP on March 27, 2020 and September 24, 2020, respectively. The System developed its RRA using the American Water Works Association J100 Standard and the EPA's Vulnerability Self-Assessment Tool (VSAT). The System developed a list of 33 critical asset threat-pairs. A separate cybersecurity assessment was also prepared. The System did not include CRMWD assets in the RRA as these assets are owned, operated, and maintained by CRMWD. The System will need to recertify the updated RRA to EPA by March 31, 2025.

The System maintains hardcopies of its ERP. The ERP addressed responses to the 33 critical asset threat-pairs identified in the RRA. Updated System contact information for the ERP was provided as separate documents. The ERP contained mutual aid agreements with nearby entities. The ERP was dated March 2020. The System will need to recertify the updated ERP to EPA by September 30, 2025.

Section III – OBSERVATIONS

Texas Administrative Code, Title 30, Part 1, §290.44 (d) (5) states: "The system shall be provided with sufficient valves and blowoffs so that necessary repairs can be made without undue interruption of service over any considerable area and for flushing the system when required. The engineering report shall establish criteria for this design."

AWWA Management Standard, G200-15 Distribution Systems Operation and Management, 4.2.5.1

states: “The utility shall have a valve-exercising program. This program shall follow AWWA Manual M44 and the manufacturer’s recommended procedures”

Observation 1. System representatives stated lack of operating isolation valves within the distribution system resulted in a system-wide shutdown to facilitate a recent water main repair. At the time of the inspection, the System was working on a valve assessment and replacement program to address this issue but did not have a formal valve exercising program.

Section IV – CLOSING CONFERENCE

The EPA inspection team held a closing conference with System personnel at 3:35 PM on November 7, 2024, at the water treatment plant conference room. The EPA inspection team discussed preliminary observations identified during the field component of the inspection. The EPA inspection team reiterated to the System representatives that these preliminary observations were not compliance determinations. Preliminary observations shared during the closing conference are subject to further investigation by EPA upon the review of additional records and documentation. Therefore, this inspection report may include observations that were not identified at the time of the closing conference.

Observations are described in Section III. Observations regarding the cybersecurity practices were shared with the System verbally. The inspection concluded at approximately 4:10 PM.

Refer to Appendix 3, Closing Conference Sign-In Sheet.

Section V – FOLLOW-UP

No additional information was requested or received by EPA after leaving the System on November 7, 2024.

Based on EPA Inspection Team’s review of the 2020 RRA, the following are offered for System consideration for the next 5-year RRA certification cycle ending on March 31, 2025:

- Given the extensive water treatment plant and associated SCADA system improvements currently in progress, the updated RRA should include the operational technology (OT) assets and other assets installed as part of the upgrades.
- The System should work with CRMWD to better share source water monitoring data at Ivie Lake and the wells.
- The System should investigate the ability to have interconnections with City of Midland in the event CRMWD sources are off-line for an extended period.

Based on EPA Inspection Team’s review of the 2020 ERP, the following are offered for System consideration for the next 5-year RRA certification cycle ending on September 30, 2025:

- The ERP did not have a specific response for main breaks but the System has a separate standard operating procedure (SOP) for main break responses. The SOP did not include procedures for a system-wide water service shutdown, which has been required recently for main breaks due to inoperable isolation valves.
- The ERP did not have a specific response for loss of a finished water storage tank.
- The ERP contact information requires updates to reflect current staff. Updated staffing lists were provided during the inspection in separate printouts, but specific response activities also need to have the most current staff listed.
- The ERP should be updated to reflect the water treatment plant and SCADA system upgrades once these improvements are completed.
- The System should train all new staff about the ERP and provide ongoing training for existing staff.

Section VI- LIST OF APPENDICES

Appendix 1: Opening Conference Sign-in Sheet

Appendix 2: Photograph Log

Appendix 3: Closing Conference Sign-in Sheet

Appendix 1: Opening Conference Sign-in Sheet

City of Odessa, TX SDWA AWIA Focused Inspection Kickoff Meeting

Date: 11/07/2024

Name	Affiliation, Title	Email Address	Phone Number
Janet Cherry	ERG/Inspector	janet.cherry@erg.com	360-370-8971
Jack Fowler	ERG/Inspector	jack.fowler@erg.com	240-418-2080
Daniel Kim	EPA RB / Inspector	kim.daniel@epa.gov	214-665-6671
Alex Rowlett	City of Odessa	mrowlett@odessa-tx.gov	432-335-4632
Chastity Tijerina	City of Odessa, Compliance Coordinator	cfranco@odessa-tx.gov	432-335-4633
Justin Boroff	City of Odessa, SCADA Specialist	Jboroff@odessa-tx.gov	432-335-4646
Nolberto Aguirre	City of Odessa	naguirre@odessa-tx.gov	432-257-0976
Saimon Kariki	City of Odessa/Cyber Security	SKariki@odessa-tx.gov	-

Appendix 2: Photograph Log

Unless otherwise indicated herein, all photographs were taken by Jack Fowler of ERG during the inspection. The displayed date and time are the local time (CST unless otherwise noted). Photographs were not manipulated beyond minor cropping for sizing and adding labels or callouts to draw attention to the subject of the photograph.

Not all photographs taken during the inspection are included in the Photograph Log.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Location: City of Odessa Public Water System		
City of Odessa	County: Ector	State: Texas



Photograph 1. 11/7/2024 15:30 DSC05788.JPG

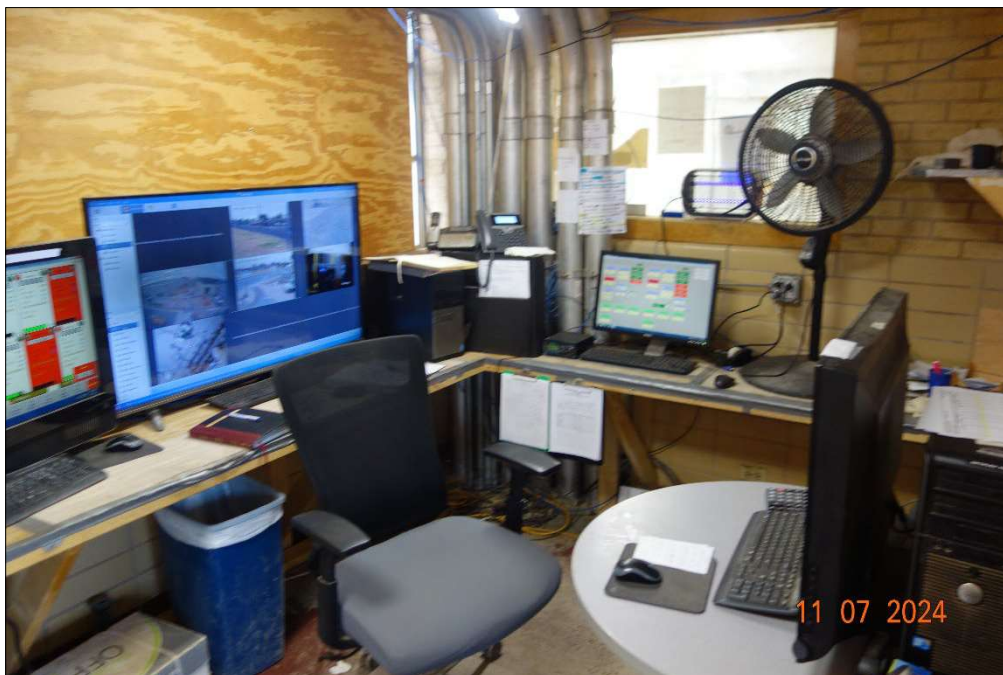
Description: Water Treatment Plant. The 80 MG raw water reservoirs are located directly across the street from the treatment plant.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Location: City of Odessa Public Water System		
City of Odessa	County: Ector	State: Texas



Photograph 2. 11/7/2024 14:49 DSC05773.JPG

Description: Water Treatment Plant. The temporary SCADA control room is locked when not in use. Changes to the SCADA system require login credentials.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Location: City of Odessa Public Water System		
City of Odessa	County: Ector	State: Texas



Photograph 3. 11/07/2024 14:49 (time displayed is EST) P1010139.JPG

Description: Water Treatment Plant. A PLC access location. Changes to the PLC login require login credentials.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Location: City of Odessa Public Water System		
City of Odessa	County: Ector	State: Texas



Photograph 4. 11/7/2024 14:54 DSC05774.JPG

Description: Water Treatment Plant. The treatment plant generator can operate the entire plant at full capacity. The buried fuel storage tank provides 24 hours of operating capacity.

Appendix 3: Closing Conference Sign-in Sheet

City of Odessa, TX SDWA AWIA Focused Inspection Exit Meeting			Date: 11/07/2024
Name	Affiliation, Title	Email Address	Phone Number
Janet Cherry	ERG / Inspector	janet.cherry@ery.com	360-870-8971
R. P. D. HALBAEDER	PLANT SUPERVISOR	RHALBAEDER@odessa.tx.gov	432-969-3519
Chastity Tijerina	Compliance Coordinator	cfanco@odessa.tx.gov	432-335-4633
Wray Carpenter	ITE Tech	wcarpenter1@odessa.tx.gov	432-258-2160
Alex Rowlett	City of Odessa / Interim Director	rowlett@odessa.tx.gov	432-335-4632
Justin Boroff	CITY OF ODESSA / SCADA SPECIALIST	JBOROFF@odessa.tx.gov	432-335-4646
Daniel Kim	EPA RB / Inspector	Kim.Daniel@epa.com	214-665-6671
Jack Fowler	ERG / Inspector	jack.fowler@ery.com	240-418-2080