EPA United States Environmental Protection Agency

Region 9 Enforcement and Compliance Assurance Division

INSPECTION REPORT

Inspection Date:	December 17, 2024	**Inspection Announced:** Yes	
Media:	Safe Drinking Water Act		
Regulatory Program(s)	Public Water System Supervision		
Facility or Site Name:	Havasu Water Company		
Facility/Site Physical Location:	148896 Havasu Lake Road		
(city, state, zip code)	Needles, CA 92363		
Mailing Address:	P.O. Box 1690		
(city, state, zip code)	Havasu Lake, CA 29363		
County:	San Bernardino		
Facility/Site Contact:	Jennifer Hodges	President	
	havasuwater@outlook.com		
Facility/Site Identifier:	PWS I.D. 090600202		
EPA Inspectors:			
Christopher Chen (author)	Signature: CHRISTOPHER CHEN Digitally signed by CHRISTOPHER CHEN Date: 2025.02.06 09:07:00 -08'00'		
	ECAD-3-3	Inspector	(213) 244-1853
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Supervisor Review:			
Lawrence Torres	Signature:		
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SECTION I – INTRODUCTION

Purpose of the Inspection

On December 17, 2024, I, Christopher Chen, conducted a public water system supervision inspection of the Havasu Water Company public water system (the "System") to evaluate compliance with the Safe Drinking Water Act (SDWA). This inspection was performed under the authority vested in the Administrator of the United States Environmental Protection Agency (EPA), pursuant to Section 1445(j) of the SDWA 42 U.S.C. § 300j-4(b), to determine compliance with the requirements of the SDWA, 42 U.S.C. § 300f *et seq.* David Parker from the EPA's National Enforcement Investigations Center (NEIC) participated in the inspection.

Opening Conference

At 8:30 am on December 17, 2024, Parker and I (hereafter referred to as "we") arrived at the System's treatment building and met Jennifer Hodges, President of Havasu Water Company (HWC) and Pat Hoban, the System's treatment operator.

We presented our EPA-issued inspector credentials to Hodges and Hoban. I explained that our focus for this inspection was to evaluate the physical assets of the water system, discuss compliance with EPA's administrative orders, and investigate the elevated total trihalomethane levels.

Facility/Site Description

The System, located within the Chemehuevi Indian Reservation in Havasu Lake, California, is owned and operated by Jennifer Hodges. The System (PWS I.D. 090600202) is classified as a community water system serving approximately 361 persons. One surface water intake at Lake Havasu serves the System and has a filtration treatment system. Water is chlorinated before entering the distribution system.

The System was historically regulated by the California State Water Resource Control Board's Division of Drinking Water (DDW) under PWS I.D. CA3610017. Upon determination that the system service area was located within the exterior boundaries of the Chemehuevi Indian Reservation, regulation of the System was transitioned from DDW to EPA on January 1, 2024.

SECTION II – OBSERVATIONS

All the assets were in the same location and was surrounded with security fencing. When we arrived, the gate to the fence was already open. I was unable to verify if the gate was typically locked.

1.1 Surface Water Intake

The System relied solely on one surface water intake, which pulled water from Lake Havasu. The location of the intake within the lake was unknown – Hoban was uncertain how far the intake went and how deep. The intake had one operational pump; Hoban stated the System had a second portable pump at the treatment facility, which could be

connected in an emergency in approximately half-a-day. I observed the back-up pump at the treatment facility. Hoban stated the intake has occasionally sucked in tiny, "fingernail-sized" quagga mussels.

No flow meter was available for the untreated raw water. The old diesel tank located onsite was removed, although some contaminated soil remained. Hoban stated that they intend to remove the remaining contaminated soil soon.

1.2 Treatment Facility

The raw water was first injected with polymer prior to filtration. After the polymer, the water went through three primary filters in parallel – the filters were filled with 50 grit media. One of the three primary filters was shut down at the time of the inspection as this filter was not appropriately filtering the water for a reason yet to be determined. After primary treatment, polymer was injected again before going through stage 2 filtration via two vessels in parallel with 80 grit media. Some of the treatment vessels appeared to have minor leaks even though the plant was not running at the time of the inspection. The media were last replaced over a year ago.

I observed that the treatment facility had wooden floor panels that were degraded and falling apart. Most of the ground was wet from multiple leaks. The polymer storage container was much improved compared to the last EPA inspection conducted on December 15, 2023. The treatment facility and backflow did not have a flow meter.

Backwash

A backwash pump was located at the very back of the treatment facility. The pump appeared to have a leak. Hoban stated that they typically ran backwash almost every time the treatment plant was run. Backwash was typically triggered when there was a 15-20 psi pressure differential. Hoban added that the backwash differential was never less than 12 psi, even after a backwash was just completed.

Backwash water was sent to a basin next to the treatment facility. The backwash water would eventually flow into a second basin, and then into the old storage tank, which was heavily corroded and far beyond use for potable water. This old storage tank was physically disconnected from the System.

1.3 Chlorination Shed

The water then exited the treatment facility and was injected with chlorine at an unknown location before entering the finished water storage tank. Hoban stated that the exact injection point was somewhere underground and would require digging up the ground possibly all over the place since the exact layout of the pipes underground were unknown.

The system used chlorine gas, and the active gas cylinder was housed in a chlorination shed. A fan was constantly running and the cylinder was secured. There were also

several chlorine gas cylinders located outside. Most cylinders were empty but there were a couple that appeared to have gas within.

1.4 Storage Shed

The pump controls for the intake were located in this shed but typically the intake pump was manually operated at the intake site. There was equipment stored in the shed, including small liquid sodium hypochlorite containers. The sodium hypochlorite was NSF-certified.

1.5 Storage Tank/Clearwell

The 105,000-gallon storage tank's exterior condition had little evidence of corrosion or vandalism. I did not climb to the roof of the tank. From what I was able to observe from the ground level, the tank vent had a shroud installed to protect the vent from windborne contaminants.

The tank inlet had a sample tap along the piping. The inlet also had a downward facing vent at the top with a screen coarser than 24-mesh. Hoban explained that this vent actually served as an overflow and when there was an overflow event, water would exit this overflow prior to the other overflow that terminated closer to the ground. This overflow had an appropriate screen but did not terminate 12-24 inches above the ground and would feed water directly onto the tank's foundation instead of draining away. The second overflow did not have a splash pad or rip rap but did drain away from the tank foundation and terminated at an appropriate height.

1.6 Pressure Tank

The 10,000-gallon pressure tank did not appear to have much exterior corrosion. I did not observe a pressure relief valve or sight gauge. The entry point to the distribution system (EPDS) was located prior to water entering the pressure tank. Hoban explained that the System had the pressure release valve but wanted to wait to install during a situation when the pressure tank was de-pressurized or when he had additional technicians available to quickly do the work at nighttime. There was no flow meter for the finished water although there was a totalizer after the pressure tank.

1.7 Distribution Pump Station

The pump station had a wooden roof but otherwise had minimal protection from the environment. Only one pump was operational as the other was removed due to poor condition. I observed the new distribution pump, but Hoban explained that he needed additional manpower to install the pump. Until there was additional staff available, he would be unable to move and install the new pump.

1.8 Operations and Management

The System had a back-up generator connected. Hoban stated it was a Multiquip 40kw and was owned by the System. It was last tested on December 10, 2024. Maintenance

was required every 1,000 hours of usage but Hoban anticipated that maintenance would be more frequent than this.

Hoban stated he was onsite once or twice per week, depending on how often the treatment plant needed to be activated. Hoban tried to be onsite any time the plant was activated and estimated he was present 80% of the time. At other times, other uncertified personnel would oversee shutdown of the treatment plant under his direction via text or phone call. I asked about who took the daily chlorine residual readings as he was unable to be onsite most days of the week – Hoban replied that Jennifer Hodges or Judy Childs would collect samples.

Hoban stated Rick Miller, the certified distribution operator on record, generally did not visit the System onsite and could not recall the last time Miller visited. I asked whether Miller could help with some of the physical labor such as installing the new distribution pump – Hoban replied that Miller would likely be unable to assist due to advanced age.

The System use to have two technicians to help with physical labor and maintenance but had to dismiss them allegedly due to drug usage. Advertisements have been posted about open positions, but the System had not been able to secure additional labor to help with maintenance projects such as installing the distribution pump or the pressure release valve at the pressure tank.

1.9 Sampling Results

Hoban used a handheld colorimeter to collect chlorine residuals and collected pressure readings from throughout the distribution system. Precise addresses were not included to protect privacy. We attempted to collect a chlorine residual reading from a home at the very far end of the distribution system at the end of Everet Road – we were unable to access the home but Hoban and Parker agreed that it was unlikely the home had a detectable chlorine residual as the sample from Malamedia and Everet was only 0.03 mg/L. I observed that the colorimeter reagents had not expired but the turbidity reagents had expired in November 2024.

Sample Location	Chlorine Residual (mg/L)	Pressure (psi)
EPDS	1.0	68
Desert View Lane	0.11	42
Malamedia and Everet Rd	0.03	42
Showboat Road	0.16	58

1.10 Disinfection Byproduct Formation

We discussed the following concepts with System representatives at the closeout meeting as potential approaches to help mitigate the formation of disinfection by-products (DBPs) in the system:

- Exploring the benefits of an established flushing program to move water through the distribution system, thereby reducing water age while increasing chlorine residuals. The System has conducted flushing immediately prior to DBP sampling but did not produce a flushing plan during the inspection. There was no flushing plan or flushing records to demonstrate flushing was a routine part of the distribution system's operations and maintenance.
- Investigating the potential benefits of installing pipe loops to eliminate dead ends in the distribution system.
- Considering the benefits of operational practices which could include:
    - Pumping from the source at night during times of the year with high public use near the intake to increase raw water quality;
    - Considering the use of alternative coagulants which might be more effective at DBP control; and
    - Operating the water plant more frequently while maintaining lower storage tank levels in order to reduce water age in the distribution system.

Other approaches were discussed such as in-tank aerators and mixers, but System representatives generally considered these options as cost prohibitive and not feasible.

SECTION III – AREAS OF CONCERN

The presentation of areas of concern does not constitute a formal compliance determination or violation.

1. The System continued to exceed the maximum contaminant level for TTHMs.
2. The System did not have a certified distribution operator onsite to manage distribution duties.
3. The System's certified treatment operator was not present for all essential operations and maintenance of the treatment system.
4. Chlorine residual readings were below 0.2 ppm at multiple locations within the distribution system, and potentially not detectable at the very end of the distribution system.
5. The System has attempted to flush the distribution mains prior to DBP sampling but did not have an established flushing plan and flushing records to demonstrate this flushing was part of its routine operations.
6. The surface water intake only had one functional pump.
7. The intake pump, its piping, and the retaining wall did not have supports to ensure structural integrity.
8. While the intake location's diesel tank was removed, contaminated soil remained near Lake Havasu's shore.
9. The storage tank's second overflow screen at the inlet line was higher than the recommended 12-24 inches above the surface and did not have drainage away from the foundation of the storage tank.
10. The storage tank's foundation along the southern end had gaps from the ground.

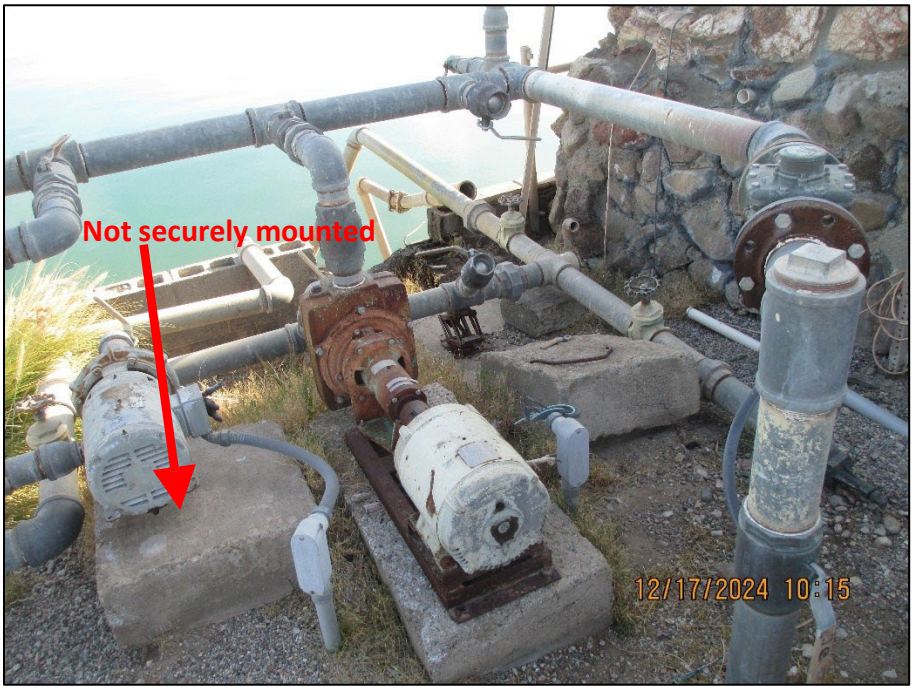
11. The System's active chlorine injection point was at an unknown location after filter treatment but before the water entered the storage tank. The active injection point location could not be found and may not be easily found.
12. The polymer injection containers had an unprotected seal where the injection line entered the polymer container.
13. The wooden floor panels of the treatment facility were degrading due to water leaks.
14. A couple of the filters for the surface water treatment were leaking.
15. The treatment system did not have auto-dialers to notify System personnel of incidents such as high/low chlorine or high turbidity.
16. The pressure tank did not have a pressure relief valve or sight gauge.
17. The System only had one active booster pump, which was leaking.
18. The system did not have any flow meters, including missing flow meters for the raw water inlet, finished water outlet, and backwash.
19. A liquid sodium hypochlorite container and treatment filter media were stored in direct sunlight instead of under shade or a location protected from environmental conditions.
20. The System had expired turbidimeter reagents.
21. The security fencing had a gap that needed repairs.

SECTION VI – LIST OF APPENDICES

Appendix 1 – Photograph Log

Appendix 1: Photograph Log

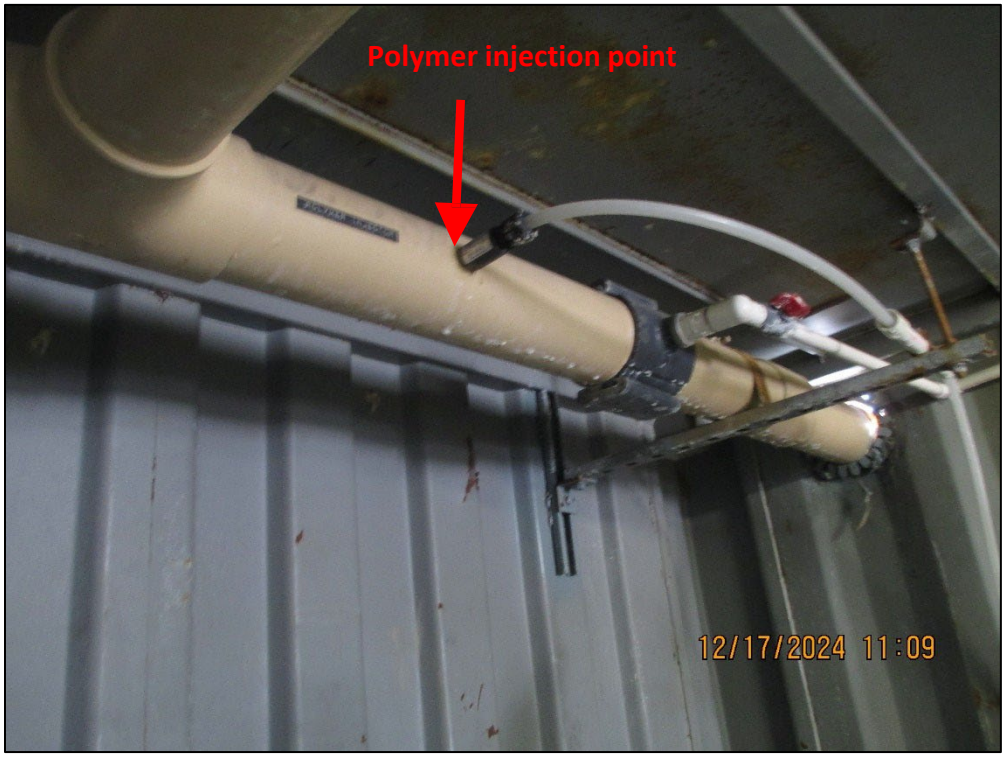
Photograph 1. The surface water intake had one functional pump. This pump was not securely mounted below.



Photograph 2. The leaking diesel tank near Lake Havasu's shore was removed but contaminated soil remained.

Photograph 3. The raw water sample tap before the water entered the treatment facility was threaded.

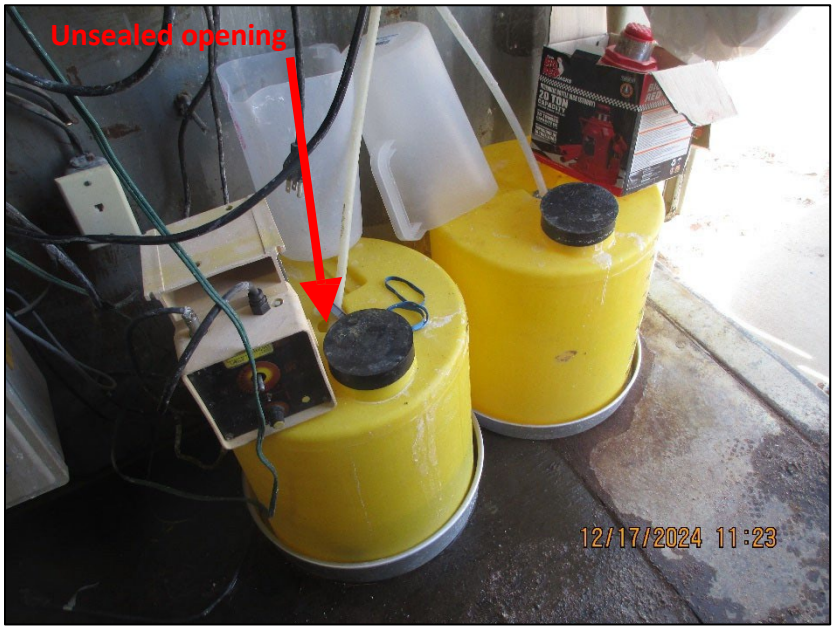
Photograph 4. The first polymer injection point before the water went through the filters.



Photograph 5. The backwash pump is at the front of the photograph. The filters extend towards the entrance.

Photograph 6. A couple of filters were leaking and the ground was wet throughout most of the facility.

Photograph 7. The polymer containers were more secure than the last EPA inspection. Openings where the injection lines enter were not fully protected.



Photograph 8. A jug of liquid sodium hypochlorite was stored outside and exposed to light instead of stored indoors.

Photograph 9. The extra filter media was stored outside and exposed to the environment instead of protected in an indoor setting.

Photograph 10. The storage tank's inlet line had an overflow line connected which was too high above the ground and would lead to water flooding around the tank's foundation instead of draining away.

Photograph 11. The storage tank's foundation had gaps along the southern portion.

Photograph 12. There was one functional distribution pump, which showed signs of minor leaking. The other pump was fully removed at the time of the inspection.

Photograph 13. Security fencing near the storage tank was not fully protective.

Photograph 14. Chlorine gas cylinders, even if most were empty, were stored in direct sunlight instead of indoors or under shade.

Photograph 15. The System had a back-up generator on-site.

Photograph 16. The turbidity standard reagents were expired in November 2024.