

Forest View Acres Water District

Operations Report – September 2022

Prepared by Gabby Begeman -ORC Water Professionals

Arapahoe Water Plant

- The plant effectively produced 47% of demand for September.

Booster Pump Station

- The booster station has had some programming changes performed by Browns Hill.

Distribution

- Monthly routine bacteriological sample taken and was absent for bacteria.
- The routine tank inspection has been performed. The inspection report is attached.
- We have begun to replace the meter endpoints that will expire at the end of 2022. The replacement endpoint spreadsheet will be shared with CRS for updating to the Beacon system.

Surface Water Plant

- The plant produced an effective 53% of demand in September.
- Completed monthly operations report (MOR) for state with no violations.
- The new turbidimeter display unit stopped outputting signals needed for the treatment process. This unit is no longer under warranty and will need to be sent back to HACH for service. This has yet to be serviced.

Production Totals

Year	Month	SWTP Production - BW	% of Total	AWP Production	% of Total	Total Production	Total Water Sold	Percentage Discrepancy	GPD Produced	Average Demand (GPM)
2022	Jan	697,598	35%	1,315,054	65%	2,012,652	1,289,430	35.93%	67088	47
	Feb	1,012,201	70%	425,603	30%	1,437,804	1,149,039	20.08%	47927	33
	Mar	827,884	58%	602,692	42%	1,430,576	1,199,555	16.15%	47686	33
	Apr	927,643	59%	654,296	41%	1,581,939	1,323,806	16.32%	52731	37
	May	1,061,409	39%	1,681,527	61%	2,742,936	1,815,837	33.80%	91431	63
	Jun	32,536	2%	2,076,308	98%	2,108,844	2,090,661	0.86%	70295	49
	Jul	1,455,492	52%	1,362,059	48%	2,817,551	1,882,091	33.20%	93918	65
	Aug	193,675	9%	2,007,894	91%	2,201,569	1,750,601	20.48%	73386	51
	Sep	1,203,355	53%	1,068,339	47%	2,271,694	1,838,422	19.07%	75723	53
	Oct					0			0	0
	Nov					0			0	0
	Dec					0			0	0
Total		7,411,793	42%	11,193,772	58%	18,605,565	14,339,442	22.93%	51682	36

Comments:

Jan suspected overflows of tank increased the discrepancy
 July water leak increased discrepancy

**Inspection Report for
Forest View Acres WD
Monument, CO**



250KG Steel On-Grade Tank

Date Completed: August 18, 2022

Commercial Dive Team:

**Diver – Colin Lafever
Dive Controller – Ceasar Hernandez
Tender – Noah Coleman**

Scope of Work:

Our team completed sediment removal using underwater vacuum equipment. Sediment depth, averaging 1 inch (iron & manganese), was removed from the tank floor. When the cleaning process was finished, a full visual inspection was performed of the tank interior and all interior fixtures. The team also performed a full visual inspection of the tank exterior and all attached fixtures. The details of the inspection findings are included in the report below.

Summary of the Inspection:

Exterior Inspection

1. There was good access to the tank.
2. The foundation was found in good condition with minor voids and hairline racking noted.
3. The wall was found in good condition with minor de-lamination, sags & runs in the coating and 0.01% uniform surface corrosion noted.
4. The overflow was found in good condition with minor de-lamination, moderate sags & runs in the coating and 0.01% uniform surface corrosion noted.
5. The manways were found secure and in good condition with minor de-lamination, oxidation, sags & runs in the coating and 0.01% uniform surface corrosion noted.
6. The ladder was found secure, OSHA approved and in good condition with minor de-lamination, sags & runs in the coating and 0.01% uniform surface corrosion noted.
7. The roof was found in good condition with minor de-lamination, sags & runs in the coating and minor to moderate chalking noted.
8. The hatch was found locked with a gasket in place and in good condition.
9. The vent was found in good condition with minor oxidation, sags & runs in the coating, chalking and 0.01% uniform surface corrosion noted.

Interior Inspection

1. The interior roof was found in good condition with minor de-lamination, corrosive staining and 0.01% uniform surface corrosion & intergranular corrosion noted.
2. The overflow was found in good condition.
3. The interior wall was found in good condition with minor sags & runs in the coating, micro & macro blistering and minor to moderate sediment staining noted.
4. The floor was found in good condition with minor de-lamination, minor to moderate corrosive & sediment staining and 0.01% rust noduling noted.
5. The manways were found in good condition with minor de-lamination, sags & runs in the coating, heavy sediment staining, 0.01% intergranular corrosion and 0.1% rust noduling noted.
6. The common inlet/outlet was found in good condition with minor micro & macro blistering, minor to moderate sediment staining, moderate sags & runs in the coating and 0.01% uniform surface corrosion noted.
7. The support column was found secure and in good condition with minor sags & runs in the coating, minor to moderate corrosive & sediment staining and 0.1% rust noduling noted.

Recommendations:

1. Continue to schedule a clean and inspect every 3-5 years per AWWA and the State of Colorado recommendations.

Key

Excellent – Like new, no repairs needed

Good – Cosmetic problems, repair if utility wants

Fair – Minor problems, repairs needed

Poor – Major problems, fix now



Inland Potable Services, Inc.

Exterior Inspection Report



Foundation Condition

Foundation Exposed? Y N
 Anchor Bolts Present? Y N
 Corrosion on Anchor Bolts Present? Y N N/A
 Anchor Bolts Loose? Y N N/A
 Cracking Noted In Foundation? Y N N/A
 Spalling Noted? Y N N/A

Summary: The foundation was found in good condition with minor voids and hairline racking noted.



Wall Panel Condition

Coating Condition: Good
 Seams/Welds Condition: Good
 Corrosion Present? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N
 Dents Present? Y N
 Holes Present? Y N
 Signs Of Leaking? Y N

Summary: The wall was found in good condition with minor de-lamination, sags & runs in the coating and 0.01% uniform surface corrosion noted.



Overflow Structure Condition

Coating Condition: Good
 Seams/Welds Condition: Good
 Stand Off Supports Condition: Good
 Corrosion Present? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N
 Directly Connected To Sewer or Drain? Y N N/A
 End Cap Present? Y N
 Hinge and Cap Condition: N/A
 #24 mesh Screen Present? Y N
 Condition: Good

Summary: The overflow was found in good condition with minor de-lamination, moderate sags & runs in the coating and 0.01% uniform surface corrosion noted.



Manway Condition

Coating Condition: Both Good
 Weld/Seam Condition: Both Good
 Corrosion Present? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N

Summary: The manways were found secure and in good condition with minor de-lamination, oxidation, sags & runs in the coating and 0.01% uniform surface corrosion noted



Access Ladder Condition

Ladder Type: Steel welded
 Is Ladder and Safety Climb **OSHA** Approved? Y N
 Is Vandal Guard Present? Y N
 Locked? Y N N/A
 Safety Climb Type: Cage
 Safety Climb Condition: Good
 Is Top Of Tank Easily Accessible? Y N
 Coating Condition: Good
 Seams/Welds Condition: Good
 Stand Off Supports Condition: Good
 Corrosion Present? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N

Summary: The ladder was found secure, OSHA approved and in good condition with minor de-lamination, sags & runs in the coating and 0.01% uniform surface corrosion noted.



Roof Condition

Roof Type: Flat
Coating Condition: Good
Seams/Welds Condition: Good
Corrosion Present? Y N
Oxidation Present? Y N
De-lamination Present? Y N
Low Spots Present? Y N
Holes in Roof? Y N
Cathodic Protection Plates Present? Y N
Sealed Edges: Y N N/A
Loose Plates? Y N N/A
Missing Plates? Y N N/A

Summary: The roof was found in good condition with minor de-lamination, sags & runs in the coating and minor to moderate chalking noted.



Access Hatch Condition

Coating Condition: Good
Seams/Welds Condition: Good
Corrosion Present: Y N
Oxidation Present? Y N
De-lamination Present? Y N
Hatch Size: 2 foot round
Riser Height: 4 inches Lid Height: 2 inches
Hatch Locked? Y N

Hinge Condition: Good
Gasket Present? Y N
Intact? Y N N/A
Insects, Dirt Or Debris Present Under Hatch? Y N

Summary: The hatch was found locked with a gasket in place and in good condition.



Vent Condition

Coating Condition: Good
Seams/Welds Condition: Good
Corrosion Present: Y N
Oxidation Present? Y N
De-lamination Present? Y N
#24 Mesh Screen in Place? Y N
Condition: Good

All Openings Sealed? Y N
Cap Condition: Good

Summary: The vent was found in good condition with minor oxidation, sags & runs in the coating, chalking and 0.01% uniform surface corrosion noted.





Inland Potable Services, Inc.

Interior Inspection Report



Roof Condition

Coating Condition: Good
 Welds/seam Condition: Good
 Corrosion Present On Panels? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N

Summary: The interior roof was found in good condition with minor de-lamination, corrosive staining and 0.01% uniform surface corrosion & intergranular corrosion noted.



Overflow Condition

Overflow Location: 1:30 o'clock
 Coating Condition: Good
 Weld/Seam Condition: Good
 Corrosion Present? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N

Summary: The overflow was found in good condition.



Wall Panel Condition

Coating Condition: Good
 Welds/seam Condition: Good
 Corrosion Present On Panel? Y N
 Oxidation Present? Y N
 De-lamination Present? Y N
 Is Biofilm Present: Y N
 Any irregularities or structural deficiencies? Y N

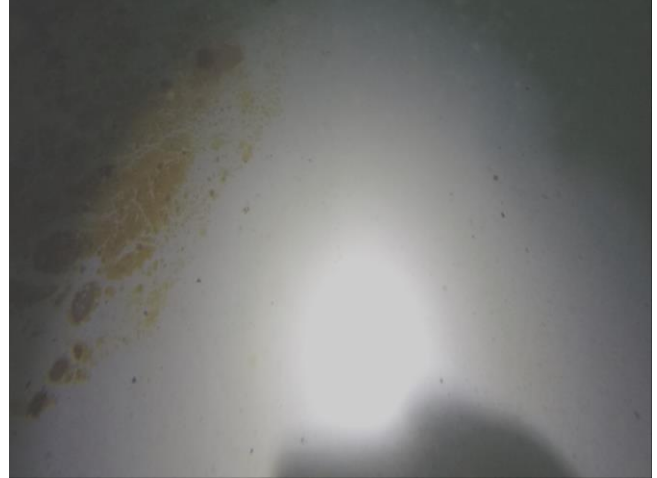
Summary: The interior wall was found in good condition with minor sags & runs in the coating, micro & macro blistering and minor to moderate sediment staining noted.



Floor Condition

Coating Condition: Good
Welds/seam Condition: Good
Corrosion Present? Y N
Oxidation Present? Y N
De-lamination Present? Y N
Any irregularities or structural deficiencies? Y N

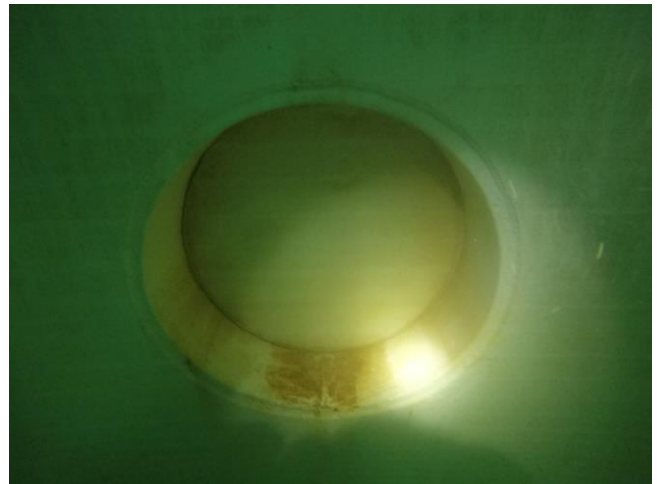
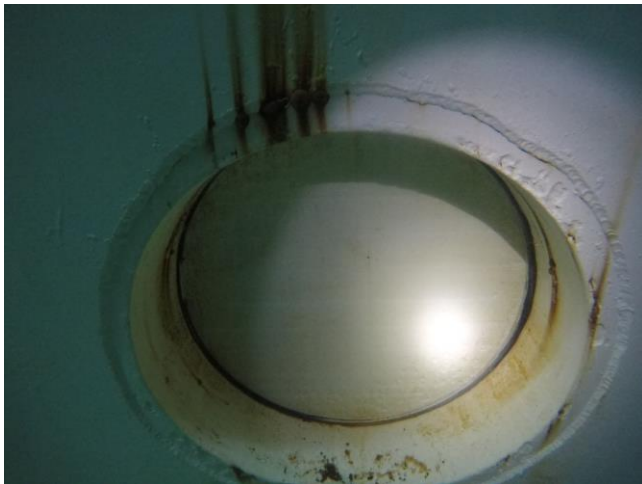
Summary: The floor was found in good condition with minor de-lamination, minor to moderate corrosive & sediment staining and 0.01% rust noduling noted.



Manway Condition

Manway Location(s): 1 o'clock & 7 o'clock
Coating Condition: Both Good
Weld/Seam Condition: Both Good
Corrosion Present? Y N
Oxidation Present? Y N
De-lamination Present? Y N

Summary: The manways were found in good condition with minor de-lamination, sags & runs in the coating, heavy sediment staining, 0.01% intergranular corrosion and 0.1% rust noduling noted.



Inlet and Outlet Condition

Common Inlet/Outlet? Y N Location: 6 o'clock
Coating Condition: Good
Weld/Seam Condition: Good
Corrosion Present? Y N
Oxidation Present? Y N
De-lamination Present? Y N

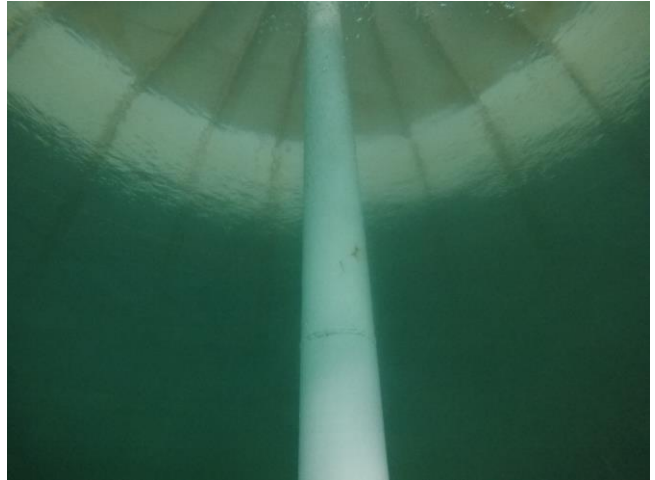
Summary: The common inlet/outlet was found in good condition with minor micro & macro blistering, minor to moderate sediment staining, moderate sags & runs in the coating and 0.01% uniform surface corrosion noted.



Support Column Condition

Number Of Columns: 1
Coating Condition: Good
Welds/seam Condition: Good
Corrosion Present? Y N
Oxidation Present? Y N
De-lamination Present? Y N

Summary: The support column was found secure and in good condition with minor sags & runs in the coating, minor to moderate corrosive & sediment staining and 0.1% rust noduling noted



Tank Layout

Quadrant #4

Quadrant #1

Access Hatch

Manway

Overflow

Center Vent

Support Column

Manway

Inlet/Outlet

Quadrant #3

Quadrant #2

