

**MINUTES OF A REGULAR MEETING  
OF THE BOARD OF DIRECTORS  
HORIZON REGIONAL M.U.D.**

A regular meeting of the Board of Directors of the Horizon Regional M.U.D. was held on Thursday January 20, 2022, at 6:00 p.m. in person. 14100 Horizon Blvd, Horizon City, Texas, pursuant to notice given in accordance with the law.

The roll was called of the members of the board, to-wit:

Gordon, Jarvis	-	President
Dean Hulsey ( <i>online</i> )	-	Vice President
Florence Thomas	-	Treasurer
Mike Barton	-	Secretary
<i>vacant</i>	-	Assistant Secretary

Director Gordon Jarvis called the meeting to order at 6:00 p.m. A quorum was established. Also attending the meeting were the district's consultants: Account Manager - Charlie McGinnis, Administrative Assistant III - Veronica Saucedo. District Attorney - Alan Petrov. TRE & Associates Inc. - Linda Troncoso, Frank Ortiz, Ricardo Felix. El Paso Disposal - Lorena Quezada, Andy Ponce. P&Q Utilities – Tulia Zepeda, Bonnie Najera, Oscar Pina, Justin Pina. City of Horizon – Teresa Quezada, Michelle Padilla. The Pledge of Allegiance was said with audience participation.

**4. RECEIVE CITIZEN COMMUNICATIONS.**

Mr. Joel Guzman and Mr. Franklin Stubbs with Hunt Communities just wanted to introduce themselves to the Board as they are developing in the MUD over the last few months.

No Action Necessary.

5. **CONSENT AGENDA.**

- A: Consider and Take Action to approve the Payment of Bills and Invoices for Operations and Construction; and to approve the Transfer of Funds.
- B: Consider and Take Action to approve the Financial Statement for the Month Ending December 31, 2021.
- C: Consider and Take Action to Approve the Payment of Bills and the Invoices for Operations and Construction for Spray Field; and to Approve the Transfer of Funds for Spray Field #1.
- D: Consider and Take Action on Pay Estimate No. 8 for Biglon and Duanesburg Force Main Emergency Replacement.
- E: Consider and Take Action on Pay Estimate No. 1 for Elevated Storage Tank #5.
- F: Consider and Take Action on Pay Estimate No's 1 and 2 for Rancho Desierto Bello Unit 15 Phase I Water and Wastewater Improvements.
- G: Consider and Take Action on Pay Estimate No. 4 for Summer Sky Phase II Water and Wastewater Improvements.

Mr. Carlos McGinnis requested to remove item D from consent agenda to be placed on the next agenda.

Motion was made by Director Thomas and seconded by Director Barton to approve the Consent Agenda.

All in favor: 3 ayes.

Opposed: 0 none

Motion passed to approve.

6. **DISCUSSION ON HORIZON VIEW ESTATES SEWER PROJECT.**

Discussion item only. Ms. Troncoso reported they are still communications with the Texas Water Development Board. They are still under review for the confirmation of the ESA. Meanwhile TRE is finalizing the updated feasibility report that will be submitted in February

and are on track with everything else.

No Action Necessary.

7. **CONSIDER AND TAKE ACTION ON MANAGEMENT REPORT RELATING TO MANAGEMENT AND OPERATIONAL ACTIVITIES OF THE DISTRICT.**

Mr. McGinnis presented and discussed the Water System Report for December 2021.

**See attached report.**

Mr. McGinnis also reported the “Silent Beast” had been delivered to the vendor and once it delivered to the office would get it up and running.

Director Jarvis asked Mr. McGinnis why the TDS jumped so high for some of the wells. Mr. McGinnis replied it may have been possible the well was off and when it was turned back on the numbers jumped but stated he would double check the numbers & get back to the board with his findings. Director Jarvis added they would need to figure a way to keep the wells slow running instead of shutting them off to avoid having to membranes.

Director Thomas made a motion to approve the Management Report relating to Management and Operational activities of the district to include collections and write offs. This was seconded by Director Barton.

All in favor: 3 ayes.

Opposed: 0 none

Motion passed to approve.

8. **CONSIDER AND TAKE ACTION ON THE ENGINEERING REPORT RELATING TO CONSTRUCTION AND ENGINEERING ACTIVITIES OF THE DISTRICT.**

Mrs. Linda Troncoso discussed and presented current service commitment applications

and construction activity, then presented a summary of the Engineers Report.

**See attached report.**

As Ms. Troncoso reported on the Horizon City Roadway Projects, Ms. Terry Quezada with the Town of Horizon, updated that construction is scheduled to begin July 2023 instead of June 2023. Ms. Quezada spoke to the board and stated the Town of Horizon City is seeking additional federal funding for this project because the estimated costs are much higher than the budget they currently have. They are looking for funding through the new infrastructure and jobs act. Ms. Quezada stated she didn't know if the district would also want to investigate that funding to see if there was an opportunity to leverage the bonds since there is still hope for the TXDOT funding, she does not know that there will be enough information to warrant their willingness to reimburse the district.

Director Thomas made a motion to approve the Engineering Report relating to construction and engineering activities and was seconded by Director Barton.

All in favor: 3 ayes.  
Opposed: 0 none

Motion passed to approve.

9. **CONSIDER AND TAKE ACTION ON MANAGEMENT REPORT RELATING TO MANAGEMENT AND OPERATIONAL ACTIVITIES OF SPRAY FIELD No.1.**

Mr. Delgadillo was not present to report.

No Action necessary.

10. **CONSIDER AND TAKE ACTION ON, IF NECESSARY, RELATING TO THE LEASE WITH MOONLIGHT P&Q, LLC.**

Ms. Tulia Zepeda presented the board with the monthly report for the past year (2021)

and reported she and Ms. Bonnie Najera would be signing the contract January 21, 2022, at 4 p.m. and Moonlight P & Q Utilities would be changing owners. Ms. Najera reported there was a lot of fixing up, repairs and construction that needs to get done. Ms. Najera requested a waiver for the first year of rent which is \$5,500.00 a month totaling \$66,000.00 for the year to make these repairs and Ms. Najera and company would be putting in an additional \$60,500.00. Director Jarvis interjected stating all the repairs that were being presented i.e., the balcony, the restrooms etc. were all items previously approved upon by the same corporation they are buying into, under the same lease, which had been extended and given considerations had not been maintained by the corporation. Director Jarvis explained to Ms. Najera regarding the outside of the building the district does share the cost which the district is working towards.

No action necessary.

11. **CONSIDER AND TAKE ACTION ON, IF NECESSARY, RELATING TO EL PASO DISPOSAL.**

Director Jarvis requested this item be placed on the agenda as they have gotten a lot of complaints from customers. Ms. Lorena Quezada with El Paso Disposal reported they are working diligently to get their routes back on track. They have had some challenges starting last year with trucks breaking down and having a hard time getting them repaired. This year they had personnel issues with COVID-19. Ms. Quezada did report they had hired new drivers. Ms. Quezada also explained many of the calls they were receiving was because of the holidays so some of the customers were going to get once a week pick up instead of the usual twice a week. Ms. Quezada stated they are adding more routes to alleviate the Wednesday and Saturday pick up, they got some new trucks and have hired new drivers. Ms. Quezada also stated she was working with Mr. McGinnis to be able to update, with a link specific to El Paso Disposal, the Horizon Regional website regarding El Paso Disposal information.

No action necessary.

12. **CONSIDER AND TAKE ACTION ON APPROVAL FOR FINAL PAY ESTIMATE FOR E3 SYSTEM.**

Ms. Troncoso reported this was not a pay estimate but the final purchase order invoice for the completion of their installation in the amount of \$232,599.75 and recommends payment of invoice.

Director Thomas made a motion to approve the Engineering Report relating to construction and engineering activities and was seconded by Director Barton.

All in favor: 3 ayes.  
Opposed: 0 none

Motion passed to approve.

13. **CONSIDER AND TAKE ACTION ON RECOMMENDATION FOR ACCEPTANCE FOR OPERATIONS AND MAINTENANCE OF E3 SYSTEM ON NORTH POND.**

Ms. Troncoso requested this item be deleted and item number 18 be tabled.

Item tabled no action necessary.

14. **CONSIDER AND TAKE ACTION ON MIRACLE DELIVERY ARMORED SERVICE AGREEMENT.**

Mr. Carlos McGinnis explained this was a renewal of the contract with Miracle Delivery, their service agreement. Mr. McGinnis sent it to Mr. Petrov to review and Mr. Petrov stated the contract was basically the same as the prior year but with a price change

Director Thomas made a motion to approve the service agreement for Miracle Delivery

Armored Service and was seconded by Director Barton.

All in favor: 3 ayes.

Opposed: 0 none

Motion passed to approve.

15. **CONSIDERATION AND TAKE ACTION ON ENGAGEMENT OF ARBITRAGE COMPLIANCE SERVICES FOR UNLIMITED TAX REFUNDING BONDS, SERIES 2012 FINAL AND ACKNOWLEDGE TEC FORM 1295.**

Mr. Alan Petrov explained items 15, 16, and 17 are all audits required by the IRS for the district's bond issues. The district is required to do a five-year audit to ensure they haven't earned arbitrage on the bond issues.

Director Thomas made a motion to approve the engagement of Arbitrage Compliance Services for unlimited tax refunding bonds, series 2012 final and acknowledge TEC form 1295 and was seconded by Director Barton.

All in favor: 3 ayes.

Opposed: 0 none

Motion passed to approve.

16. **CONSIDER AND TAKE ACTION ON ENGAGEMENT OF ARBITRAGE COMPLIANCE SERVICES FOR UNLIMITED TAX BONDS, SERIES 2013 FINAL AND ACKNOWLEDGE TEC FORM 1295.**

Director Thomas made a motion to approve the engagement of Arbitrage Compliance Services for unlimited tax refunding bonds, series 2013 final and acknowledge TEC form 1295 and was seconded by Director Barton.

All in favor: 3 ayes.

Opposed: 0 none

Motion passed to approve.

17. **CONSIDER AND TAKE ACTION ON ENGAGEMENT OF ARBITRAGE COMPLIANCE SERVICES FOR UNLIMITED TAX BONDS, SERIES 2017 AND ACKNOWLEDGE TEC FORM 1295.**

Director Thomas made a motion to approve the engagement of Arbitrage Compliance Services for unlimited tax refunding bonds, series 2017 and acknowledge TEC form 1295 and was seconded by Director Barton.

All in favor: 3 ayes.

Opposed: 0 none

Motion passed to approve.

18. **CONSIDER AND TAKE ACTION ON CHANGE ORDER FOR BIGLON AND DUANESBURG LIFT STATION FORCE MAIN EMERGENCY REPLACEMENT.**

Item tabled.

19. **CONSIDER AND TAKE ACTION ON CHANGE ORDER No. 1 FOR RANCHO DESIERTO BELLO UNIT 15 PHASE 1 WATER AND WASTEWATER IMPROVEMENTS.**

Ms. Linda Troncoso explained this was a change order for water and wastewater project within a defined area of bond location by LTV Rd. It is a development done by SDC development Desert View Homes. Ms. Troncoso stated there is an old AC waterline that



does not fall within the easement and is causing concern that feeds the LTV facility. That waterline needs to be relocated and reconstructed and installed at the expense of the developer that they will seek future reimbursement at a later date. The change order in the amount of \$33,604.00.

Director Thomas made a motion to approve change order No. 1 for Rancho Desierto Bello Unit 15 Phase I water and wastewater improvements and was seconded by Director Barton.

All in favor: 3 ayes.  
Opposed: 0 none

Motion passed to approve.

20. **CONSIDER AND TAKE ACTION TO APPROVE ORDER CALLING BOND ELECTION AND MAINTENANCE TAX ELECTION (SUMMER SKY NORTH DEFINED AREA).**

Mr. Alan Petrov explained this was the next step, after having approved the creation of Summer Sky North defined area back in December, to call an election for them to confirm the defined area and authorize bonds to be issued from that. Once the development is in place the election will take place in May only within that defined area, no one else in the district votes.

Director Thomas made a motion to approve order calling bond election and maintenance tax election (Summer Sky North defined area) and was seconded by Director Barton.

All in favor: 3 ayes.  
Opposed: 0 none

Motion passed to approve.

21. **EXECUTIVE SESSION, AS NECESSARY.**

Director Jarvis had one item and requested the Board members, Director Thomas and Director Barton, Mr. Alan Petrov, Mr. Carlos McGinnis for executive session.

Executive session at 7:22 p.m.


Returned from executive session at 7:35 p.m.

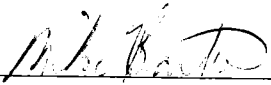
22. **REPORTS AND DISCUSSION OF OTHER MATTERS THAT MAY COME BEFORE THE BOARD.**

Director Jarvis announced he would be going to AWBD midwinter conference and stated he was termed out of AWBD as of June. He stated he has done three two-year terms and will need to have someone else from the board to take that position.

There being no further business before the Board, the meeting was upon motion made by Director Thomas and seconded by Director Barton all in favor and carried, adjourned at 7:37 p.m.

**READ, APPROVED AND ADOPTED THIS 24<sup>th</sup> DAY OF MARCH 2022.**

  
\_\_\_\_\_  
**GORDON JARVIS, PRESIDENT**  
Board of Directors  
Horizon Regional M.U.D.

  
\_\_\_\_\_  
**MIKE BARTON, SECRETARY**  
Board of Directors  
Horizon Regional M.U.D.

CM/VS



**Horizon Regional MUD  
General Manager Reports for the month of  
December 2021  
Board Meeting Date: 1-20-2022**

Reviewed By: Carlos McGinnis  
Date: 01-20-2022



**Inframark LLC**  
14100 Horizon Blvd, Horizon  
City, TX 79928  
United States  
[www.inframark.com](http://www.inframark.com)

## Current Items Requiring Board Approval

Vendor	Amount	WO#	Budget Amount	Description

**Date: 1/20/2022**

**Memorandum for: Board of Director's Horizon Regional MUI**

**From:**

**Subject: General Manager's Executive Summary Report**

Below is a summary of activities since the last board meeting:

### 1) Wastewater Treatment Plant

- a) Digester repairs are scheduled to start.
- b) Belt press has developed leaks on the cylinders and we are pricing out.
- c) We are waiting for parts to be delivered for Main Bar Screen.

### 2) Distribution System – Billing

- a) Replaced 100 residential meters
- b) Repaired 8 streets and 4 meter leaks
- c) Replaced 1 gate valve on Medill Place.

### 3) Collection System

- a) Bain Construction has removed the old A/C Lines for Biglon and Duanesburg.
- b) Bain Construction is working on the new lift station for the Catholic church

**4) Ponds**

- a) Atomizers are running.
- b)

**5) Construction**

- a) Smithco is working on Well 11
- b) Elevated Storage construction has started.

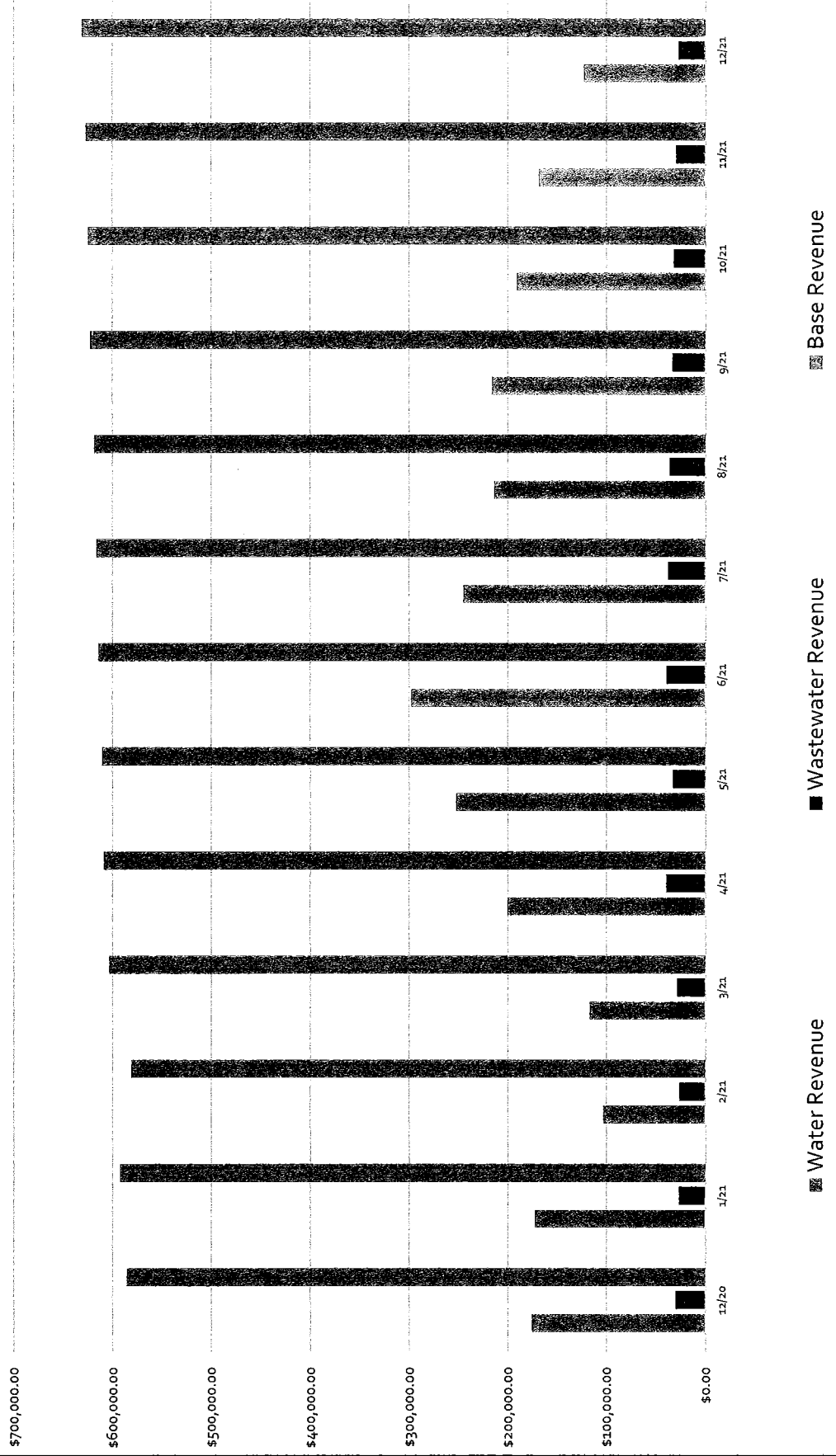
**6) Customer Care**

- a) Assisted 10 Customers with payment plans.
- b) 167 Disconnections were done.

## Billing Summary

Description	Connections	
	Dec-20	Dec-21
Residential	11,377	12,116
Commercial	243	246
Irrigation	54	55
School	20	20
Municipal	16	16
Church	12	12
Bulk Meter	21	23
<b>Total Number of Accounts Billed</b>	<b>11,743</b>	<b>12,488</b>
	<b>Consumption</b>	
Residential	67,138,900	63,996,700
Commercial	4,527,000	4,672,300
Irrigation	1,975,400	1,929,600
School	389,800	760,800
Municipal	1,024,600	628,500
Church	113,200	99,000
Bulk Meter	812,000	2,734,000
<b>Total Gallons Consumed</b>	<b>75,980,900</b>	<b>74,820,900</b>
	<b>Average Consumption</b>	
Residential	5,901	5,282
Commercial	18,630	18,993
Irrigation	36,581	35,084
School	19,490	38,040
Municipal	64,038	39,281
Church	9,433	8,250.00
Bulk Meter	38,667	118,870
<b>Avg Water Use for Accounts Billed</b>	<b>6,470</b>	<b>5,991</b>
Total Billed	\$ 743,108	\$ 784,403
Total Aged Receivables	\$ 996,094	\$ 855,131
Total Receivables	\$ 1,739,202	\$ 1,639,534

# 12 Billing Month History Revenue by Category

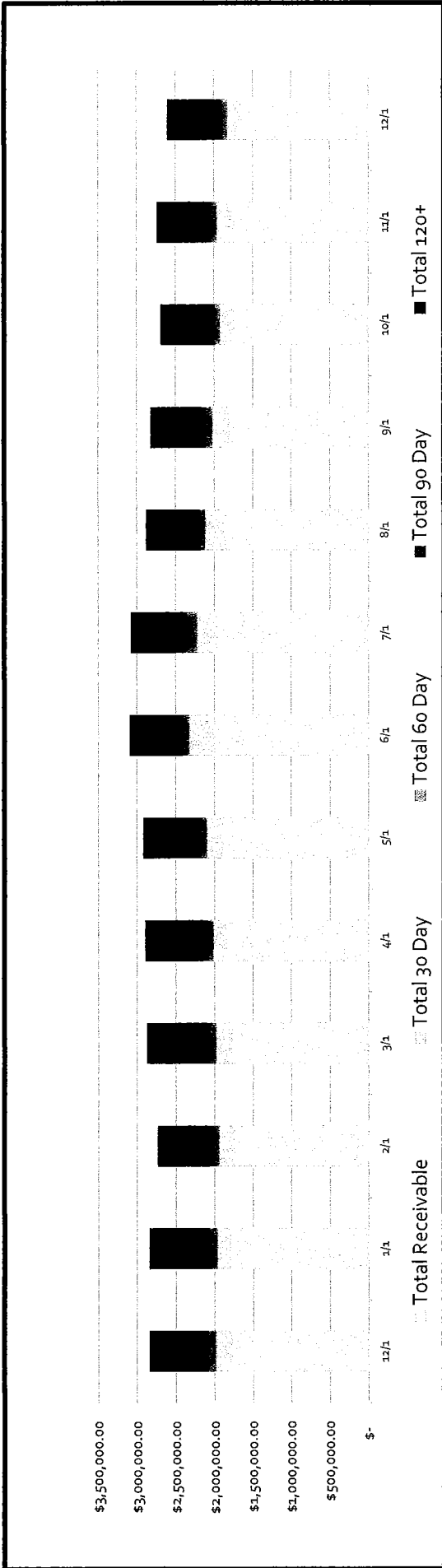


Water Revenue

Wastewater Revenue

Base Revenue

# 12 Month Accounts Receivable and Collections Report



Date	Total Receivable	Total 30 Day	Total 60 Day	Total 90 Day	Total 120+
Dec-20	\$ 1,770,411.56	\$ 207,832.94	\$ 108,237.68	\$ 74,753.10	\$ 681,133.00
Jan-21	\$ 1,786,862.11	\$ 172,835.92	\$ 101,402.21	\$ 60,325.89	\$ 726,213.92
Feb-21	\$ 1,722,490.80	\$ 214,525.76	\$ 82,699.56	\$ 53,867.48	\$ 665,301.95
Mar-21	\$ 1,766,831.02	\$ 207,653.81	\$ 91,445.80	\$ 55,281.36	\$ 751,717.92
Apr-21	\$ 1,838,972.28	\$ 171,883.21	\$ 75,000.39	\$ 49,451.85	\$ 799,714.51
May-21	\$ 1,873,653.31	\$ 221,893.33	\$ 72,858.73	\$ 33,999.47	\$ 717,874.28
Jun-21	\$ 1,987,359.25	\$ 333,419.13	\$ 84,947.49	\$ 25,810.47	\$ 667,246.17
Jul-21	\$ 1,954,940.89	\$ 261,632.63	\$ 147,880.14	\$ 45,113.02	\$ 666,494.70
Aug-21	\$ 1,830,971.29	\$ 284,363.90	\$ 67,383.97	\$ 35,218.35	\$ 665,609.02
Sep-21	\$ 1,799,321.15	\$ 219,560.23	\$ 91,062.29	\$ 32,337.27	\$ 678,542.81
Oct-21	\$ 1,728,773.18	\$ 186,754.08	\$ 69,973.17	\$ 36,193.65	\$ 674,288.07
Nov-21	\$ 1,728,750.15	\$ 229,165.27	\$ 79,548.39	\$ 23,961.91	\$ 680,155.56
Dec-21	\$ 1,639,534.72	\$ 176,096.12	\$ 74,866.58	\$ 31,338.13	\$ 685,024.65

Board Consideration to Write Off

Board Consideration Collections

Delinquent Letter Mailed 1356

Delinquent Tags Hung N/A

Disconnects for Non Payment 167



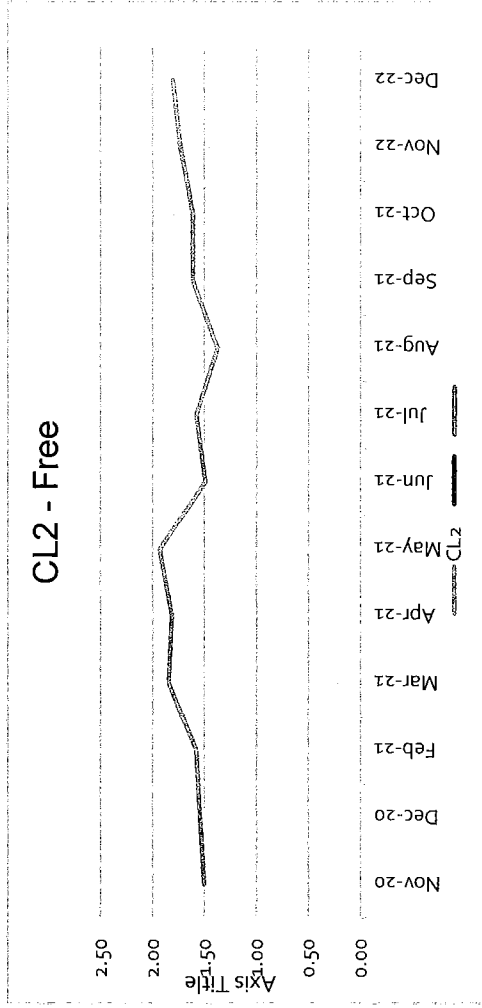


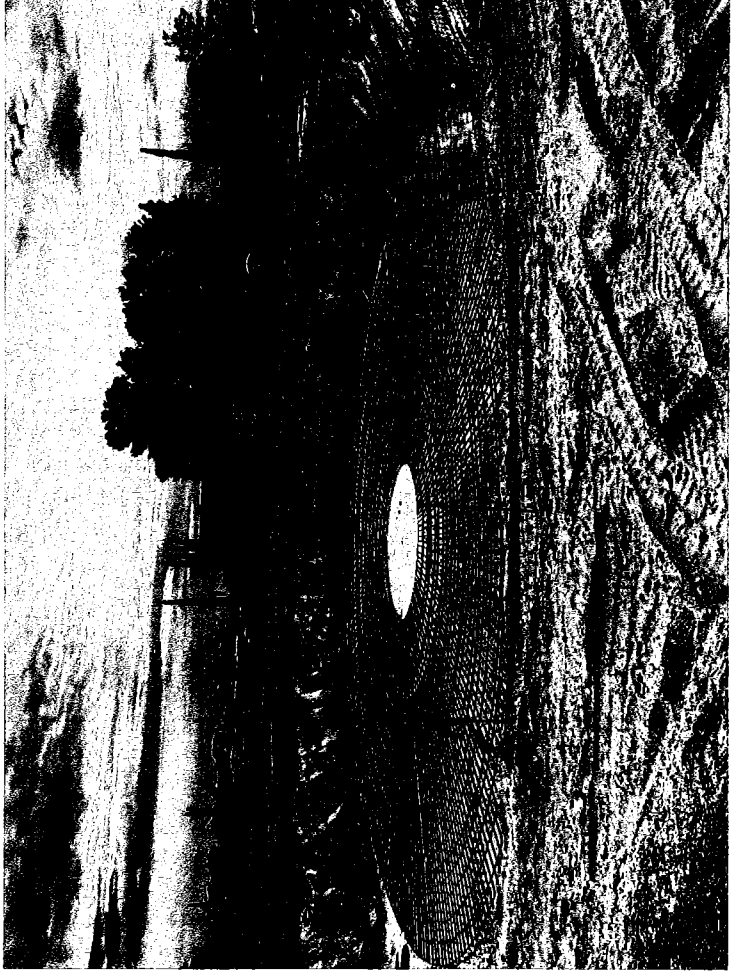
# Water Production and Quality

## Water Quality Monitoring

Current Annual CL2 Avg

Requirements	Min .02	CL2
Date		
Nov-20	1.50	
Dec-20	1.54	
Feb-21	1.58	
Mar-21	1.84	
Apr-21	1.81	
May-21	1.93	
Jun-21	1.49	
Jul-21	1.58	
Aug-21	1.37	
Sep-21	1.61	
Oct-21	1.61	
Nov-22	1.73	
Dec-22	1.80	



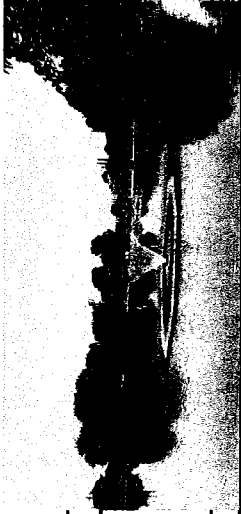


Pictures of Construction of new Elevated Storage

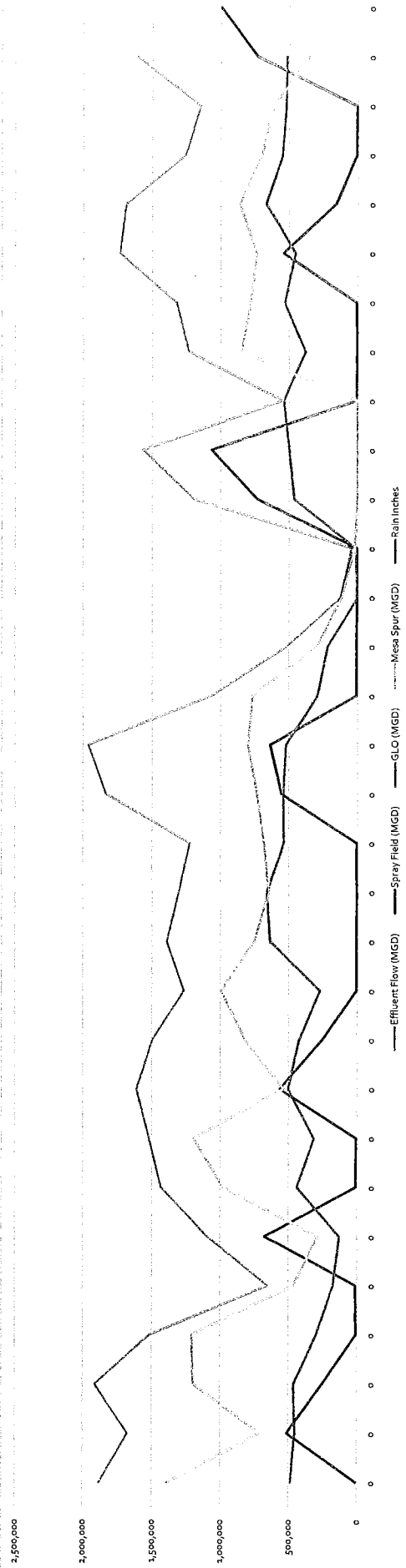
Month	Month	Connection Total	Pumped Water	Sold (1000)	Flushing/District	Gal.s Loss (-)	Water loss %
December 20	12/17/2020	11635	188,270	124,854	50,010	23,943	14.7%
January 21	1/28/2021	11723	173,568	94,483	35,000	18,393	13.3%
February 21	2/25/2021	11724	168,294	78,265	50,010	24,174	10.6%
March 21	3/25/2021	11825	162,714	70,544	45,050	20,283	14.4%
April 21	4/25/2021	11863	160,099	72,542	45,000	20,283	12.5%
May 21	5/27/2021	11958	198,067	102,131	35,000	15,598	9.7%
June 21	6/24/2021	11994	227,874	99,048	55,200	21,815	12.5%
July 21	7/22/2021	12065	150,880	133,333	10,000	35,315	15.5%
August 21	8/26/2021	12122	152,172	118,239	20,000	13,933	9.0%
September 21	9/23/2021	12233	163,518	105,556	40,000	17,962	11.0%
October 21	10/28/2021	12291	139,733	101,250	25,000	13,483	9.6%
November 21	11/30/2021	12424	130,773	85,051	30,000	15,722	12.0%
December 21	12/31/2021	12488	121,828	74,820	30,000	17,008	13.0%



# Wastewater Production and Quality



## Wastewater Flows for the Month of December 2021



### Wastewater Treatment Permit Summary - Month of December 2021

	DISCHARGE	Eff.	ACTUAL	COMPLIANT	PERCENT
Avg. Treated Flow	MGD	3	1.330	Yes	44.3%
Avg. Sprayfield Flow	MGD	3	0.251	Yes	8.4%
Avg. GLO Flow	MGD	3	0.416	Yes	13.9%
Avg. Mesa Spur Flow	MGD	3	0.653	Yes	21.1%
Avg. Other Flow			0.030	N/A	
Avg. cBOD	mg/L	10	6.4	Yes	
Avg. TSS	mg/L	15	5.2	Yes	
Avg. Ammonia Nitrogen NH <sub>3</sub>	mg/L	3	1.85	Yes	
Avg DO	mg/L	7.77	7.26	Yes	
E. coli Bacteria	CFU	126	5.2	Yes	
MIN. PH	STD UNITS	6.0	6.87	Yes	
MAX. PH	STD UNITS	9.0	8.30	Yes	

only applies if discharge

# Inframark

## Leak Report For November

December Report January 10, 2022

Address	Date	Street	Meter	Repaired	Comments
100 Lago Grande	12/1/2021		1	1	Replace with copper
1216 Iguana	12/1/2021		1	1	Replace with copper
14585 Desierto Lindo	12/14/2021		1	1	Replace with copper
1201 Colina Blanca	12/14/2021		1	1	Replace with copper
14516 Encantado	12/14/2021		1	1	Replace with copper
1612 Blackmom	12/22/2021			1	PVC
13575 Hazlewood	12/22/2021			1	PVC
13602 Doncaster	12/22/2021			1	Replace with copper
13633 Hazlewood	12/23/2021			1	Replace with copper
14748 Canyon Breeze	12/28/2021		1	1	Replace with copper
497 Jewelwed Mesa	12/28/2021		1	1	Replace with copper
14748 Canyon Breeze	12/28/2021		1	1	Replace with copper

Street Leaks 8  
 Meter Leaks 4  
**Total 12**

# Inframark

Date: January,15 2022      December's report

## Re: Operations Report for January'Report

### Lift Stations

Barrel Cactus Lift Station	Fully Operational
Benton Lift Station	Fully Operational
Biglon Lift Station	Fully Operational
Duanesburg Lift Station	One pump and Diesel pump for back up
Ellsworth Lift Station	Fully Operational
El Paso Hills Lift Station	Fully Operational
El Paso Hills Relay Station	Fully Operational
El Paso Hills Lift station #2	Fully Operational
Horizon Lift Station	Fully Operational
Notre Dame List Station	Fully Operational
Manor 9 Lift Station	Fully Operational
Section 32 Lift Station	Fully Operational
Veny Webb Lift Station	Fully Operational
Woodale Lift Station	Fully Operational

### Tanks

GST 1	Online as reserve storage for the distribution system
GST 2	Online as primary pumping station and water supply for the distribution system
GST 3	Online with the distribution system
GST 4	Online with the distribution system
GST 5	Online with the distribution system
RWT #1	Online and feeding the RO plant
EST 1	Online with the distribution system
EST 2	Online with the distribution system
EST 3	Online with the distribution system
EST 4	Online with the distribution system

### Wastewater Treatment Plant

5 blowerss are up and running
Waiting on transmission for 2
Hauled 20 loads for sludge

## water wells

Well #1 Fully operational

Well #2 Fully operational

Well #3 Fully operational

Well #4 Fully operational

Well # 5 off line (contractor working on it

Well #6 Fully operational

Well#7 Fully operational

Well #8 off line (contractor working on it

## Pump station # 3

Operational

## Pump station # 4

operational

## Pump station (RAW)

Operational

## RO plant

All concentrators are up and running 32%

RO plant all trains up and running

## RO ponds

Kendrick electric working on #1

## General notes

Replaced 1 Gate valve on Medill Pl and Brill Cir.

Aldo Navarrete



## TOTAL WATER PRODUCTION BY DAY

For December 2021

DAY	Total Pumpage From All Wells	Daily Total To Tanks	Chlorine Used	System Residuals by Site Number	GST#2A Residual
				Site #	
1	4,742,346	3,711,100	250	20	1.67
2	5,236,794	4,430,400	250	21	1.71
3	4,204,677	3,303,300	250	22	1.44
4	3,740,765	3,189,100	250	23	1.55
5	5,603,340	4,542,200	250	24	1.38
6	4,351,543	3,598,800	250	25	2.00
7	5,293,478	4,677,700	250	26	1.99
8	4,691,677	4,050,400	250	27	1.45
9	4,338,297	3,660,400	250	28	1.67
10	4,563,261	3,764,400	250	29	1.91
11	5,450,209	4,969,000	250	30	1.85
12	3,938,836	2,966,800	250	31	2.18
13	4,606,043	3,991,500	250	32	1.88
14	4,145,651	3,625,400	250	33	2.02
15	6,070,383	5,517,800	250	34	1.79
16	5,350,158	4,588,300	250	35	1.67
17	4,238,180	3,625,900	250	36	2.02
18	6,031,457	5,452,800	250	37	1.93
19	3,192,749	2,177,400	250	38	1.86
20	4,583,731	3,995,900	250	39	1.96
21	4,952,890	4,113,600	250	40	1.66
22	3,785,690	3,184,900	250	1	1.47
23	6,717,447	5,645,900	250	2	1.87
24	4,643,840	3,329,800	250	3	1.68
25	5,509,691	4,589,400	250	4	1.71
26	4,039,400	3,651,200	250	5	1.59
27	3,493,151	3,113,200	250	6	1.99
28	5,163,652	4,679,400	250	7	1.83
29	3,604,984	2,499,100	250	8	1.88
30	4,651,194	3,997,100	250	9	2.10
31	3,898,543	3,186,600	250	10	1.99
<b>TOTAL</b>	144,834,057	121,828,800	7750		
	AVG. DAILY USE		3,930,000		1.80
	MAX. DAILY USE		5,645,900		2.18
	MIN DAILY USE		2,177,400		1.38

**RO Concentrator**  
For December 2021

Date	Feed Brine to Concentrators	Permiate to GST 2	Total Reject to Evap Ponds
1	1,404,100	372,887	1,031,213
2	1,092,300	285,951	806,349
3	1,238,600	337,224	901,376
4	775,600	223,917	551,683
5	1,467,700	406,550	1,061,150
6	1,019,800	267,071	752,729
7	808,500	192,761	615,739
8	890,200	248,961	641,239
9	885,400	207,465	677,935
10	1,093,000	294,099	798,901
11	743,100	261,890	481,210
12	1,212,300	240,227	972,073
13	816,400	201,895	614,505
14	740,200	219,909	520,291
15	725,800	173,229	552,571
16	1,003,800	241,967	761,833
17	842,200	229,876	612,324
18	897,800	319,160	578,640
19	1,225,600	210,208	1,015,392
20	759,500	171,643	587,857
21	1,142,400	303,095	839,305
22	820,200	219,450	600,750
23	1,190,900	119,351	1,071,549
24	1,379,000	64,975	1,314,025
25	1,316,500	396,207	920,293
26	598,500	210,254	388,246
27	698,300	318,397	379,903
28	799,900	315,620	484,280
29	1,415,500	309,655	1,105,845
30	954,400	300,292	654,108
31	1,009,400	297,468	711,932
	30,966,900	23,005,246	

**WASTEWATER TOTALS FOR MONTH**  
**For December 2021**

DAY	TOTAL INFLUENT	EFFLUENT PUMPAGE			TOTAL EFFLUENT
		SPRAY FIELD	GLO	MESA SPUR DRAIN	
1	2,531,000	8,769	486,000	1,387,816	1,882,585
2	2,301,000	512,960	456,000	708,900	1,677,860
3	1,707,000	254,045	463,000	1,196,100	1,913,145
4	1,706,000	8,044	300,000	1,209,275	1,517,319
5	2,056,000	11,489	177,000	463,500	651,989
6	3,285,000	676,079	130,000	288,589	1,094,668
7	2,368,000	10,493	442,000	979,360	1,431,853
8	1,506,000	7,033	318,000	1,194,500	1,519,533
9	2,699,000	567,227	505,000	540,000	1,612,227
10	2,086,000	253,040	424,000	818,324	1,495,364
11	1,174,000	3,313	273,000	992,149	1,268,462
12	2,525,000	5,088	636,000	749,630	1,390,718
13	2,701,000	4,615	659,000	643,218	1,306,833
14	2,452,000	4,349	539,000	680,605	1,223,954
15	2,160,000	557,694	543,000	732,294	1,832,988
16	2,388,000	637,774	524,000	799,294	1,961,068
17	2,189,000	5,695	292,000	763,253	1,060,948
18	2,189,000	5,905	219,000	291,231	516,136
19	1,624,000	4,470	0	116,984	121,454
20	2,621,000	6,051	16,000	22,308	44,359
21	2,230,000	731,374	462,000	24	1,193,398
22	2,596,000	1,067,023	499,000	97	1,566,120
23	2,278,000	7,826	542,000	0	549,826
24	1,343,000	5,237	382,000	847,094	1,234,331
25	2,109,000	7,642	535,000	779,230	1,321,872
26	1,888,000	542,921	456,000	736,519	1,735,440
27	2,837,000	158,507	669,000	861,444	1,688,951
28	2,323,000	7,979	553,000	696,283	1,257,262
29	2,202,000	6,762	524,000	615,685	1,146,447
30	2,244,000	730,864	518,000	357,078	1,605,942
31	1,842,000	995,062	363,000	1,086,563	2,444,625
	<u>68,160,000</u>	<u>7,805,330</u>	<u>12,905,000</u>	<u>20,557,347</u>	<u>41,267,677</u>

Percent of permitted to Spray Field 50.4%

Percent of permit to GLO 41.6%

Percent of permitted effluent from STP 44.4%

Percent of permitted effluent to Mesa Spur Drain 22.8%

average treated Effluent 133120000.0%

Effluent Outfalls 2 & 3																		
Date	Influent			DO	pH	TSS	TSS	NH <sub>4</sub> NO <sub>3</sub>	NH <sub>4</sub> NO <sub>3</sub>	Lbs/Day	mg/L	CBOD	CBOD	Free Cl <sub>2</sub> Res	E. Coli	TDS	Flow	
	BOD	pH	TSS															mg/l
12/1/2021			7.89															0.96896
12/2/2021	310		7.5		<5	<29.9	4.03	24.10	10.2	61.00				2.43			0.717045	
12/3/2021			7.1											2.05			0.308044	
12/4/2021														2.62			0.188489	
12/5/2021			6.9											2.42			0.806079	
12/6/2021	408		6.5		<5	<13.6	2.02	5.48	7.02	19.03				1.65	1		0.452493	
12/8/2021			6.4											2.85	3		0.325033	
12/9/2021	258		6.6		<5	<28.2	<0.5	<2.82	3.5	19.76				2.02	1		1.072227	
12/10/2021			6.4											1.7			0.67704	
12/11/2021														2.49	5.1		0.276313	
12/12/2021														2.62			0.641088	
12/13/2021			6.4											3.27			0.663615	
12/14/2021	194		6.5		<5	<45.9	<0.5	<4.59	7.6	69.77				1.98	1		0.543349	
12/15/2021			6.4											2.16	4.1		1.100694	
12/16/2021	372		6.5		5.2	12.9	0.504	1.25	6.4	15.89				1.56	4.1		1.161774	
12/17/2021			7.5											1.66	25.3		0.297695	
12/18/2021														2.96	<1		0.224905	
12/19/2021														1.88			0.00447	
12/20/2021			7											3.01			0.022051	
12/21/2021	478		6.4		<5	<65.3	0.504	6.58	7.04	91.95				2.83	2		1.193374	
12/22/2021	376		6.52		<5	<22.9	2.02	9.26	6.2	28.43				2.01	<1		1.566023	
12/23/2021			6.74											2.59	<1		0.549826	
12/24/2021			6.81											3.31	<1		0.387237	
12/25/2021														2.36	<1		0.542642	
12/26/2021														1.8			0.998921	
12/27/2021			7											2.5			0.827507	
12/28/2021	374		6.7		<5	<22.1	2.07	9.16	4.2	18.59				3.03	<1		0.560979	
12/29/2021			6.7											1.64	<1		0.530762	
12/30/2021	160		7.1		<5	<56.6	<0.5	<5.66	5.2	58.90				2.8	<1		1.248864	
12/31/2021			7.2											2.78	<1		1.358062	
Min	160		6.4		<5	<0.2	<0.500	<0.02	<2	<0.07				1.56	<1		0.00447	
Max	478		7.89		5.2	12.9	4.03	24.10	10.2	91.95				3.31	25.3		1.566023	
Avg	325.6		6.7982		5.20	12.9	1.858	9.31	6.37	42.59				2.376	5.2		0.673852	

Permit Limits

Parameter	15	375	3	75	10	250	126
Daily Avg.							
7-Day Avg.	25		6		15		
Daily Max	6		10		25		399
Daily Min	4	9	N/A		N/A		4

### Logsheet for Horizon Well 1B

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/1/2021				
12/2/2021				2150
12/3/2021				
12/4/2021				
12/5/2021				
12/6/2021				1888
12/7/2021		152		
12/8/2021				1825
12/9/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021		156		
12/14/2021				1811
12/15/2021				1868
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				2557
12/21/2021		149		
12/22/2021				2567
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021		157.00		2519.00
12/28/2021				
12/29/2021				2555.00
12/30/2021				
12/31/2021				

### Logsheet for Horizon Well 2B

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/1/2021				2286
12/2/2021				2196
12/3/2021				
12/4/2021				
12/5/2021				
12/6/2021				1648
12/7/2021				
12/8/2021				1818
12/9/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021				
12/14/2021				1630
12/15/2021				
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				2284
12/21/2021				
12/22/2021				2323
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021				2377
12/28/2021				
12/29/2021				2262
12/30/2021				
12/31/2021				

### Logsheet for Horizon Well 3B

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/1/2021				
12/2/2021				
12/3/2021				
12/4/2021				
12/5/2021				
12/6/2021				
12/7/2021				
12/8/2021				
12/9/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021				
12/14/2021				
12/15/2021				
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				
12/21/2021				
12/22/2021				
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021				
12/28/2021				
12/29/2021				
12/30/2021				
12/31/2021		Well #3 off		

### Logsheet for Horizon Well 4

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/1/2021				
12/2/2021				1878
12/3/2021				
12/4/2021				
12/5/2021				
12/6/2021				1359
12/7/2021				
12/8/2021				
12/9/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021		186		
12/14/2021				1592
12/15/2021				1360
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				1802
12/21/2021		193		
12/22/2021				1907
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021		194		1942
12/28/2021				
12/29/2021				1867
12/30/2021				
12/31/2021				



### Logsheet for Horizon Well 5

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/01/2021				
12/02/2021				
12/03/2021				
12/04/2021				
12/05/2021				
12/06/2021				
12/07/2021				
12/08/2021				
12/09/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021				
12/14/2021				
12/15/2021				
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				
12/21/2021				
12/22/2021				
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021				
12/28/2021				
12/29/2021				
12/30/2021				
12/31/2021		Well #5 off		

### Logsheet for Horizon Well 6

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/01/2021				
12/02/2021				2669
12/03/2021				
12/04/2021				
12/05/2021				
12/06/2021				1928
12/07/2021		98		
12/08/2021				1820
12/09/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021		99		
12/14/2021				1878
12/15/2021				1885
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				2707
12/21/2021		104		
12/22/2021				2617
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021		102		2677
12/28/2021				
12/29/2021				2621
12/30/2021				
12/31/2021				

### Logsheets for Horizon Well 7

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/01/2021				
12/02/2021				3456
12/03/2021				
12/04/2021				
12/05/2021				
12/06/2021				
12/07/2021				
12/08/2021				1951
12/09/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021				
12/14/2021				1901
12/15/2021				1968
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				3670
12/21/2021				
12/22/2021				2883
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021				
12/28/2021				
12/29/2021				2889
12/30/2021				
12/31/2021				

### Logsheet for Horizon Well 8

Date	Well #1 lvl Drawdown	Well #1 lvl Pumping	Well #1 lvl Static	TDS mg/l
12/01/2021				
12/02/2021				
12/03/2021				
12/04/2021				
12/05/2021				
12/06/2021				
12/07/2021			98	
12/08/2021				
12/09/2021				
12/10/2021				
12/11/2021				
12/12/2021				
12/13/2021			101	
12/14/2021				
12/15/2021				
12/16/2021				
12/17/2021				
12/18/2021				
12/19/2021				
12/20/2021				
12/21/2021			101	
12/22/2021				
12/23/2021				
12/24/2021				
12/25/2021				
12/26/2021				
12/27/2021			96	
12/28/2021				
12/29/2021				
12/30/2021				
12/31/2021		Well #8 off		





Engineering Solutions

**MEMORANDUM**

**Via E-Mail**

**TO:** Horizon Regional Municipal Utility District  
Board of Directors

**FROM:** Linda Troncoso, P.E.

**DATE:** January 20, 2021

**SUBJECT:** January 20, 2021 Board Meeting  
Engineer's Report  
TRE Job No.: 1277-7388-54

---

The following is a brief summary of the major activities that TRE & Associates, LLC. (TRE) has been involved in since the District's last regular Board meeting.

**Service Commitments Currently Under Review**

See attached summary.

**Plans Under Review**

See attached summary.

**Projects Under Construction**

See attached summary.

**Horizon City Roadway Projects**

TRE is continuing to coordinate with the Town of Horizon on future roadway widening and rehabilitation projects. Regular meetings are now being held to discuss upcoming projects including the potential TIRZ and the improvements on both Darrington and Pawling/Oxbow.

TRE and Inframark have met with the Town and TxDOT in December and January regarding Darrington and Horizon Blvd reconstruction in December and are continuing to address specific line replacement and relocation requirements as part of the project scope. The project is currently scheduled to have a 90% set of drawings by April 2022 with possible letting January 2023. Construction is anticipated to be June 2023 – May 2025. TRE is currently coordinating with TxDOT for possible relocation funding based upon deeds and the method of conveyance for Horizon Blvd right of way to TxDOT.

### **County Roadway Projects**

Coordination with the County and the Camino Real Regional Mobility Authority is ongoing for upcoming projects.

### **Elevated Storage Tanks and Water Model Update**

The Notice to Proceed was issued on December 8, 2021 and construction has commenced. Pay Estimate Number 1 is on the agenda for approval at this BOD meeting. The subcontractor for the waterline installation is scheduled to begin mobilization next week.

### **Two Water Wells for RO Supply**

The pumps have been set in Well Nos. 10 and 11. EPE is scheduling to begin power installation. Change Order No. 2 is on the agenda for the BOD's approval at this meeting. The contractor will be back on site to complete Well 11 on January 31, 2022.

### **4.2 MGD RO Plant Expansion and Permit Amendment**

The design survey is complete and the components for the new RO plant will be designed in conjunction with the evaluation for RO concentrate disposal. The General Permit for the RO Plant is approved. TRE is coordinating with Inframark for the autopsy of membranes at the existing RO plant as well as water samples from the feed water to establish design parameters for the RO plant expansion.

### **RO Concentrate Disposal Management**

TRE received the sample information for permitting submittals from the TCEQ and is preparing the permit application for submittal by mid-February.

The final payment for the second E3 system is on the agenda for approval at the BOD meeting.

### **Wastewater Treatment Plant Expansion Design and Major Permit Amendment**

TRE has initiated the design and is working with Inframark regarding specification, design, and integration of necessary components. The design survey is complete. The new wastewater treatment plant permit was issued on September 3, 2020. TRE is currently evaluating the cost benefits of the two WWTP location alternatives for review by the BOD at a workshop in February 2022.

### **Wheeler Well No. 8 and 5 Rehabilitation**

Well No. 8 rehabilitation has been completed and test pumping indicates that the well is no longer pumping sand. TRE is working to confirm recommended pumping rates and depth of the pump. Following the rehabilitation, well 5 has continued to pump sand and is being evaluated for additional recommendations at this time.

TRE & Associates, LLC

HRMUD Engineering Report  
January 20, 2022  
Page 3 of 3

**Duanesburg Force Main Emergency Repair**

Bain Construction has completed the repaving and is nearing completion of the disposal of the existing AC force main in Horizon Boulevard.

**Duanesburg Lift Station Rehabilitation**

The design survey has been received and the plans for the rehab have been initiated. The rehabilitation project is scheduled to advertise on Sunday, January 30, 2022 for award at the February 2022 BOD meeting.

**Wastewater Treatment Plant Digester Emergency Repair**

Contracts have been executed and material submittals are under review for the repair.

Linda Troncoso will be at the December BOD meeting to address any questions or comments you may have regarding these and any other items.

**GLO Lift Station Repair**

Specifications are being prepared at this time to define the rehabilitation scope.

Attachment

cc: Mr. Charlie McGinnis, General Manager; HRMUD  
Mr. John M. Jansing, Jr., P.E.; TRE & Associates, LLC  
Mr. Adrian H. Rosas, P.E.; TRE & Associates, LLC



**TRE & ASSOCIATES, LLC (revised 1/20/22)**  
**COMMITMENT APPLICATIONS**

<b>Job #</b>	<b>Job Title</b>	<b>Date Received</b>	<b>Additional Info Request</b>	<b>Commitment Letter Released</b>	<b>Committed LUE's WW</b>	<b>Committed LUE's Wtr</b>	<b>Comments</b>
1277-12119	HCU52 -BLK 382 and 385	11/10/2021		11/11/2021		5	approved
1277-12099	Horizon City Unit 91 - 6 lots	7/20/2021			0	6	approved
1277-12120	Darrington Eastlake Commerical Unit Four	10/11/2021		11/10/2021	33	33	approved
1277-12134	Jack in the Box - 13640 Horizon Blvd	9/30/2021		11/10/2021	15	15	approved
1277-11235	Horizon Hills Church	10/13/2021		12/6/2021	0	1	approved
1277-12136	TxDOT Horizon Blvd Irrigation	11/8/2021		12/22/2021		24	approved
1277-12152	905 Linwood	11/17/2021		12/9/2021	1	1	approved

**TRE & ASSOCIATES, LLC (revised 1/20/22)**  
**HR - CONSTRUCTION REVIEW**

Job #	Job Title	Commitment Letter Released	Plans Received	Plan Comments Sent	Plan Approval	Comments
1277-11838	Horizon City Unit 91 - 22 lots	1/17/2020	12/16/2019	2/14/2020- 1st set 7/24/20 - 2nd set		awaiting revised plans
1277-11850	13300 Horizon Boulevard	2/20/2020	4/30/2020	6/3/2020		awaiting revised plans
1277-12036	283 South Darrington	5/25/2021	5/17/2021 4th - 1/7/22	6/8/2021	1/11/2022	approved
1277-12059	HC Unit 91 Blk 791-792	6/9/2021	4/15/2021 6/29/21 2nd set	6/11/2021- 1st set 7/9/21- 2nd set 8/5/21 - 3rd set	9/9/2021	approved
1277-12051	Polar Services Center	7/19/2021	10/7/2021			corresponding with engineer
1277-11852	Painted Desert at Mission Ridge Unit 4	7/19/2021	7/9/2021 2nd - 9/20/21 3rd 10/8/21	7/29/2021 2nd - 10/8/21	10/14/2021	approved
1277-12119	HCU52 -BLK 382 and 385	11/10/2021	11/10/2015		11/11/2021	approved
1277-12120	DECU4 - 13649 Eastlake-Shopping	11/10/2021	10/11/2021	11/11/2021		awaiting revised plans
1277-12134	Jack in the Box - 13640 Horizon Blvd	11/10/2021	9/30/2021	11/23/2021		awaiting revised plans

**TRE & ASSOCIATES, LLC (revised 1/20/22)**  
**CONSTRUCTION OBSERVATION**

<b>Job #</b>	<b>Job Title</b>	<b>Plan Approval</b>	<b>Construction Start Date</b>	<b>Comments</b>
1277-12011	Horizon Mesa Self Storage	10/26/2021		awaiting construction start
1277-12020	Corcoran Park Restroom	10/20/2021	10/21/2021	under construction
1277-11903	Summer Sky Unit 2	9/16/2020	6/28/2021	under construction
1277-11864	West Eastlake Estates Unit Two	3/5/2020	3/21/2021	under construction
1277-12059	HC Unit 91 Blk 791-792	9/9/2021	10/7/2021	under construction
1277-11852	Painted Desert at Mission Ridge Unit 4	10/14/2021		awaiting construction start
1277-11864	West Eastlake Estates Unit Two	3/5/2020	3/21/2021	under construction
1277-12036	283 South Darrington	1/11/2022		awaiting construction start
1277-12119	HCU52 -BLK 382 and 385	10/14/2021		awaiting construction start

**TRE & ASSOCIATES, LLC (revised 1/20/22)**  
**HR - APPROVED UTILITY SERVICE COMMITMENTS**

Job #	Job Title	Commitment Letter Released	Committed LUE's WW	Committed LUE's Wtr	Plan Approval	Comments
1277-11838	Horizon City Unit 91 - 22 lots	1/17/2020	0	22		awaiting revised plans
1277-11864	West Eastlake Estates Unit Two	2/24/2020	118	118	3/5/2020	under construction
1277-11896	Rancho Desierto Bello Unit 13 Phase II	5/20/2020	82	82	4/22/2020	awaiting accept
1277-11903	Summer Sky Phase 2	5/20/2020	215	215	9/16/2020	under construction
1277-12011	Horizon Mesa Self Storage	2/17/2020	3	3	10/26/2021	approved
1277-12020	Corcoran Park Restroom	3/5/2021	1	1	10/20/2021	approved
1277-12036	283 S. Darrington	5/22/2021	1	1		awaiting revised plans
1277-12051	Polar Services Center	7/19/2021	5	5		under review
1277-11852	Painted Desert at Mission Ridge Unit 4	7/19/2021	276	276	10/14/2021	approved
1277-12119	HCU52 -BLK 382 and 385	11/11/2021	0	5		awaiting revised plans
1277-12120	Darrington Eastlake Commerical Unit Four	11/10/2021	33	33		awaiting revised plans
1277-12134	Jack in the Box - 13640 Horizon Blvd	11/10/2021	15	15		under review
1277-11235	Horizon Hills Church	12/6/2021	1	1		awaiting plan submittal
1277-12136	TxDOT Horizon Blvd Irrigation	12/22/2021	0	24		awaiting revised plans
1277-12152	905 Linwood	12/9/2021	1	1		awaiting plan submittal
1277-12059	HC Unit 91 Blk 791-792	6/9/2021	0	11	9/9/2021	approved

**TOTAL OUTSTANDING COMMITMENTS**

751

813