

Annual Report

October 1, 2022 – September 30, 2023

Permian Basin Underground Water Conservation District went through a few changes and updates this year, but overall, we had a successful year. We transitioned from one general manager to another, went through new innovative updates with the District's monitor wells, and finally, approved a budget that places the District in a large taxing status. With the assistance of the District's Board of Directors and the Staff, all our Management Plan objectives were successfully completed!

Mr. Ray Brady, Geologist and Ms. Amy Bush, Hydrologist, with RMBJ Geo, Inc., completed the hydrographs, the trends, and continue to identify the aquifers of the well logs received; all of which provides a basis for determining Desired Future Conditions (DFC). Their continued help with the DFC process, the District Monitor Well Program, and tutorials for the District Data System/ArcGIS have been invaluable. We look forward to their continued work for the District in 2023-2024.

The District Education Coordinator, Brianna Allred, implemented the District's educational programs which included the Scholarship Essay Contest and the 4th & 5th grade Calendar Contest. With the help of Shain Howard, she conducted the Rainwater Harvesting Presentation in September. Brianna also submitted articles to the newspapers as part of the District Management Plan compliance and updated the District's website www.pbuwcd.com and Facebook page with ongoing District activities.

We captured approximately 3,000 gallons of water this fiscal year and currently have approximately 1,550 gallons remaining in the tanks. One of the 50-gallon barrels is being used for demonstration of rainwater harvesting using a down spout and the other two are for demonstrating the use of a rain chain. The Rainwater Harvesting System and the Xeriscape Landscaping are a valuable educational tool as well as an example to the public.

Throughout the year, the District continued to participate in the following additional programs not required by the District Management Plan:

- The Water Quality Project which includes testing the quality of water in water wells located near Salt Water Disposal sites and Oil Well locations. There were 11 of 13 samples in Howard County and 26 of 34 samples in Martin County collected and tested.
- The Additional Monitoring Well Measurement program provides even more data for the District. This year 51 of 54 additional wells in Howard County and 37 of 44 additional wells in Martin County were measured.

Major Capital Items Purchased in 2022-2023:

- 4 Monitor Wells and In-Situ AquaTroll monitoring devices.

All the objectives of the Management Plan have been completed. The files have been copied and filed.

The District will continue with its long range objectives and maintain quality programs that benefit the constituents it serves.

This report is hereby adopted by the Board of Directors on October 19, 2023.

Richie Tubb, President

Raymond Straub Jr., Vice President

Method for Tracking the District's Progress in Achieving Management Goals

The District staff will prepare an annual report to the Board of Directors of the District's performance with regard to achieving management goals and objectives. The report will be maintained on file in the open records of the District.

Actions, Procedures, Performance and Avoidance for Plan Implementation as required by {TWC §36.1071(e)(2)}.

The District will implement the provisions of this plan and will utilize the provisions of this plan as a guidepost for determining the direction or priority for all District activities. All operations of the District, all agreements entered into by the District and any additional planning efforts in which the District may participate will be consistent with the provisions of this plan.

The District has rules relating to the permitting and registration of wells. The rules adopted by the District are pursuant to TWC §36 and the provisions of this plan. All rules will be adhered to and enforced. The promulgation and enforcement of the rules will be based on the best technical evidence available. District rules are available on the District's website at www.pbuwcd.com/files/rules.

The District will seek the cooperation in the implementation of this plan and the management of groundwater supplies within the District. All activities of the District will be undertaken in cooperation and coordinated with the appropriate state, regional or local management entity.

Management Goals and Performance Standards

Goal 1.0 *Providing the Most Efficient Use of Groundwater*

1.01 - Objective - Water Level Monitoring - Annually measure and record water level measurements in a water level monitoring network of the District.

1.01 - Performance Standards

1.01a - The District will maintain a water level monitoring network, annually measure 80% of the wells in the network, and report in the annual report to the Board of Directors.

The District began measuring wells in late December and obtained measurements for 182 of 205, or 88.8%, of the wells in the network. There were 5 well additions and 6 deletions for this program year.

Information regarding the District's water level monitoring program was sent to the Texas Water Development Board.

The water level measurements were also posted on the District's website.

1.02 - Objective - Well Permitting and Well Completion - The District will issue water well drilling permits for non-exempt water wells in accordance with the District's rules.

1.02 - Performance Standards

1.02a - The Board of Directors will vote on approval of permits at the regularly scheduled meeting after the permit has been issued and report the total annual number of issued water well drilling permits in the annual report to the Board of Directors.

Total permits issued - 305

Total registrations issued – 169

19 of these wells were plugged, backfilled, or the permit/registration expired.

Total well validations issued - 48

All wells were inspected with the exception of 23 that are pending inspection.

Permits, inspection reports, and well reports received were placed in the District's files.

Goal 2.0 *Controlling and Preventing Waste of Groundwater*

2.01 - Objective - Laboratory Services

2.01 - Performance Standards

2.01a - The District will provide basic and/or coliform water quality testing upon request, communicate test results to constituents, and report the total annual number of water quality tests performed in the annual report to the Board of Directors.

Total number of constituents requesting a basic test: 8
A breakdown of each individual basic test shows a total of 8 tests performed.

Total number of constituents requesting coliform test: 3
There was 1 positive result found. The constituent was notified, and disinfectant instructions were provided.

The District mailed/emailed a letter and a copy of the test results to all constituents who requested a water analysis and/or a fecal coliform test.

2.02 - Objective - Open or Uncovered Wells

2.02 - Performance Standards

2.02a - The District will inspect any open or uncovered wells found or reported each year, insure that a found or open hole is properly closed according to statute to prevent potential contamination of the aquifer, and report the total annual number of open or uncovered wells in the annual report to the Board of Directors.

This year, there was 1 open or uncovered hole reported. The owners were notified and upon second inspection all were found to be in compliance. There are no known open holes at this time.

2.03 - Objective - Salt Water Disposal Well Monitoring

2.03 - Performance Standards

2.03a - The District will inspect 80% of known salt water disposal wells for indications of pollution potential and report in the annual report to the Board of Directors.

The District began inspection of known Salt Water Disposal (SWD) wells in the District in June. The Field Tech inspected 161 SWD sites, or 100%, of the known SWD sites and entered the well monitoring observations in forms on the laptop field computer. There were no SWDs found to have a leak outside the berm.

The Administrative Assistant downloaded the information into the District computer database. All new or changed SWD information was printed and entered into the SWD Well notebook, along with the list of SWDs for 2022-2023 and a printed report showing all SWD Inspection Site information.

A total of 5 new SWDs were added to the program this year. Maps and pictures of these new locations were entered into the District database, printed and added to the Salt Water Disposal Well Monitoring Notebook.

5 SWD were dropped from the program this year.

Goal 3.0 *Drought Conditions* - Drought information by the Texas Water Development Board (TWDB) is available online:
<http://waterdatafortexas.org/drought>

3.01 - Objective - Drought Education

3.01 - Performance Standards

3.01a - The District will monitor the drought conditions and submit a minimum of one article annually to a newspaper of general circulation within the District focused on water conservation tips and drought awareness if necessary. The annual numbers of articles submitted to the newspaper will be reported in the annual report to the Board of Directors.

The District staff monitored the Palmer Drought Severity Index (PDSI) monthly. Maps were printed and filed in the Drought Notebook. An article regarding drought was sent to, and published in, the Martin County Messenger. The article included conservation tips for in and around the home. A copy of the published newspaper article was filed in the Drought Notebook.

Goal 4.0 *Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement and Brush control where appropriate and cost effective. (36.1071(a)(7))*

4.01 - Objective - Conservation

4.01 - Performance Standard - Each year the District will provide a minimum of one educational material regarding water conservation to public schools within the District and report it in the annual report to the Board of Directors.

The District supplied a total of 1,400 Take Home Folders to Forsan, Grady, Sands and Stanton School Districts. The take-home folders included the District's information as well as *water conservation messages* to provide students with ideas of how to conserve water.

4.02 - Recharge Enhancement - A review of past work conducted by others indicates this goal is not appropriate at present; therefore this goal is not applicable.

4.03 - Objective - Rainwater Harvesting - provide and distribute literature on rainwater harvesting and promote the conservation and efficient use of water.

4.03 - Performance Standard - Each year the District staff will submit a minimum of one article on rainwater harvesting to a newspaper of general circulation located within the District and report it in the annual report to the Board of Directors.

The District submitted a Rainwater Harvesting article to the Martin County Messenger and the Big Spring Herald. Copies of the articles were placed in the Rainwater Harvesting Notebook. An article on Rainwater Harvesting was also posted on the District's website.

The District also held a Rainwater Harvesting Workshop which educated the public further on rainwater harvesting. The guests were taken around the outside of the building to see the rain barrels and different forms of rainwater harvesting done on site.

4.04 - Precipitation Enhancement - A review of past work conducted by others indicates this goal is not appropriate at present; therefore this goal is not applicable.

4.05 - Objective - Brush Control - provide and distribute literature on brush control and promote the conservation and efficient use of water.

4.05 - Performance Standard - Each year the District staff will submit a minimum of one article on brush control to a newspaper of general circulation located within the District and report it in the annual report to the Board of Directors.

The District submitted a Brush Control article to the Martin County Messenger and the Big Spring Herald. Copies of the articles were placed in the Brush Control Notebook. An article on brush control promoting conservation and efficient use of water was also posted on the District's website.

Goal 5.0 *Desired Future Conditions adopted by the District*

5.01 - Objective - *Calculate Annual Drawdown*

5.01 - Performance Standards

5.01a. - The District will calculate the average annual drawdown using the results of annual water level measurements to ensure they are meeting the desired future conditions listed in the earlier section of this plan. These results will be reported in the annual report to the Board of Directors.

The District provided the annual average drawdown results to the Board of Directors during a board meeting.

The District calculated the average annual drawdown from 2022-2023. The average annual drawdown results for the District: -1.93'

5.01b - The District will also submit an article detailing the average drawdown results to at least one newspaper of general circulation within the District each year.

The District submitted the average drawdown results to the Martin County Messenger and the Big Spring Herald. Copies of the articles were placed in the Water Level Average Report Notebook of the District.

Goals Determined not to be Applicable to the District

The following goals referenced in Chapter 36, Texas Water Code, have been determined not applicable to the District;

- TWC §36.1071 (a) (3) Controlling and preventing subsidence
- TWC §36.1071 (a) (4) Addressing conjunctive surface water management issues
- TWC §36.1071 (a) (5) Addressing natural resource issues
- TWC §36.1071 (a) (7) Addressing recharge and precipitation enhancement issues