# MINUTES OF THE JANUARY 11, 2022 BOARD OF DIRECTRS MEETING OF NORTH PLAINS GROUNDWATER DISTRICT

The Board of Directors of North Plains Groundwater Conservation District met in regular session on January 11, 2022, at 9:00 a.m. in the Conference Room in the Richard S. Bowers Water Conservation Learning Center Building at the North Plains Water Conservation Center, 6045 West County Road E., Dumas, Texas 79029-7201. The following persons were present:

#### Members Present at 9:05 a.m.:

Bob B. Zimmer, President; Mark Howard, Vice-President; Zac Yoder, Secretary; Daniel L. Krienke, Director; Harold Grall, Director, and, Justin Crownover, Director.

### Staff present during part or all of the meeting:

Steve Walthour, General Manager; Kirk Welch, Assistant General Manager; Kristen Blackwell, Administration Manager; Odell Ward, Field Operations Manager; and, Krystal Donley, Administrative Assistant.

## Others present during part or all of the meeting:

Allan Frerich;
Kyle Frerich;
Nich Kenny;
Coy Barton Jr., Certified Public Accountant;
Landri Hallford of Coy Barton, CPA; and,
Ellen Orr, Paralegal.

President Zimmer declared a quorum present and called the meeting to order at 9:05 a.m. Director, Mark Howard gave the invocation and President Zimmer, led the pledge.

#### 1. - Public Comment

No Public Comment was made to the Board.

#### 2. - Consent Agenda

The Consent Agenda was discussed by the Board and consisted of: (a) the review and approval of the Minutes of the regularly scheduled Board of Directors Meeting held on November 16, 2021; (b) the review and approval of un-audited District expenditures for November 1, 2021 through December 31, 2021, including the General Manager's expense and activity report; and, (c) the review and approval of payment to Lemon, Shearer, Phillips & Good, P.C. for professional services and out-of-pocket expenses incurred from November 1, 2021 through December 31, 2021, in the amount of \$9,178.91.

Daniel L. Krienke moved to approve the Consent Agenda. Harold Grall seconded the motion, and it was unanimously approved by the Board.

# Action Agenda 3.a. - Consider final compliance approval of water well permits as active and complete wells.

The General Manager reported that District Rule 2.13 provides, after the site inspection is complete, and it is determined that the Well (and all Wells within the Groundwater Production Unit) is/are in compliance with the Rules of the District, and the Well Permit application, the General Manager shall submit the Well Permit to the Board for final compliance approval.

It was noted that 414 non-exempt Well Permits had been issued by the District since January 1, 2021, that 160 Exempt Wells had been Registered since January 1, 2021; and that 258 non-exempt Well Permits had been approved by the Board since January 1, 2021.

The General Manager reported that the District's staff had processed 30 Water Well Permits which are ready for Board consideration and approval. These permits, listed in the table below, represent completed wells that have been inspected and are in compliance with District Rules. The inspections verify that the wells were completed as required by the respective Permits, including proper well location, well classification, maximum yield, and proper installations of check valves and flow meters. Copies of the individual permits were presented to the Board.

Permit Number	Well Class	Ouarter	Section	Block	Survey	NS	EW
DA-11831	C	NE	12	7-T	T&NO	854 N	238 E
DA-11963	В	SE	40	7	CSS	699 S	485 E
DA-12003	В	SW	45	7	CSS	37 S	378 W
DA-12017	В	SE	27	7	CSS	784 S	636 E
HA-11752	D	NE	1	A-6	PSL	1500 N	35 E
HA-11760	C	NE/4	2	5	CSS	853 N	665 E
HA-11761	С	NE/4	2	5	CSS	838 N	240 E
HA-11785	С	SW	4	1	SA&MG	547 S	339 W
HA-11820	С	NW	8	Frazier & Armstrong		675 N	836 W
HA-11841	С	NE	25	14	CSS	38 N	371 E
HA-12000	С	NE	49	13	CSS	261 N	331 E
HN-11743	C	NW	18	P	H&GN	436 N	440 W
HN-12135	D	SW	28	R	В&В	764 S	19 W
LI-11735	С	SE	702	43	H&TC	10 N	632 E
LI-12198	D	NE	1141	43	H&TC	858 N	402 E
MO-11742	C	SE	344	44	H&TC	412 S	870 E
MO-11823	В	NW	415	44	H&TC	340 N	182 W
MO-11829	С	SW	36	3	GH&H	101 S	470 W
MO-12235	С	NE	15	44	H&TC	689 N	731 E
OC-11773	D	NE/4	923	43	H&TC	105 N	110 E
OC-11774	D	NE/4	923	43	H&TC	821 N	242 E
OC-11788	Α	NE	78	11	W Ahrenbeck	460 N	246 E
OC-11799	D	SE	922	43	H&TC	125 S	830 E
OC-11807	D	NE	27	JT	B&B	798 N	290 E
SH-11504	С	NE/4	11	3-T	T&NO	347 N	267 E
SH-11797	В	NE	308	1-T	T&NO	237 N	844 E
SH-11804	В	SW	40	2-B	GH&H	385 S	116 W
SH-11805	В	SE	40	2-B	GH&H	106 S	367 E
SH-11806	В	SE	40	2-B	GH&H	106 S	111 E
SH-11968	С	SW/4	130	1-C	GH&H	341 S	700 W

Harold Grall moved to approve all of the well permits on the well permit schedule, noting that the wells are properly equipped and otherwise comply with District Rules. Zac Yoder seconded the motion, and it was unanimously approved by the Board.

# Action Agenda 3.b.- Review and consider approval of District's annual financial report for the year ended September 30, 2021, from Coy Barton, CPA.

Coy Barton, CPA presented the District's Annual Financial Report, which included a Report on Internal Control, Compliance and Other Matters, for the year ended September 30, 2021, and discussed the same with the Board.

Harold Grall moved that the Board approve the North Plains Groundwater Conservation District Annual Financial Report for the year ended September 30, 2021. Mark Howard seconded the motion, and it was unanimously approved by the Board.

#### Action Agenda 3.c.-

Review and consider approval of payment to Coy Barton, CPA for auditing services and preparation of the North Plains Groundwater Conservation District Annual Financial Report for the year ended September 30, 2021.

Coy Barton, C.P.A. had submitted one invoice for auditing services and preparation of the North Plains Groundwater Conservation District's Annual Financial Report for the year ended September 30, 2021, totaling \$22,000.00.

The General Manager had reviewed this invoice for the District's audit for the year ended September 30, 2021, preparation of financial statements, and SAS fraud requirements. The General Manager has determined that the invoice is consistent with the services Coy Barton, C.P.A. has performed for the District's audit. A copy of the invoice was provided to the Board at the meeting.

Justin Crownover moved that the Board authorize the payment to Coy Barton, C.P.A. in the amount of \$22,000.00 for auditing services and preparation of the North Plains Groundwater Conservation District's Annual Financial Report for the year ended September 30, 2021. Mark Howard seconded the motion, and it was unanimously approved by the Board.

#### Action Agenda 3.d. -

Review and consider approval of letter of engagement for audit and non-audit services to be performed by Coy Barton, CPA for the year ending September 30, 2022.

Coy Barton, C.P.A. submitted a letter to the District dated December 10, 2021, confirming his firm's understanding of the audit and non-audit services to be provided to the District for the fiscal year ended September 30, 2022. The letter provides:

- Coy Barton will be in charge of all work performed by Coy Barton, C.P.A.
- Coy Barton, C.P.A. will report on the audit of basic financial statements.
- Coy Barton, CPA will perform additional procedures enabling his firm to issue a second report in which it will test and report on the District's internal controls over financial reporting and the District's compliance with laws and regulations and other matters as required by Government Auditing Standards.

The letter also outlined the responsibilities of the District's management in the auditing process for fiscal year 2021 - 2022.

A copy of the letter from Coy Barton, C.P.A., dated December 10, 2021, was provided to the Board at the meeting.

Daniel L. Krienke moved to approve the letter of engagement for Audit and Non-Audit Services to be performed for the District by Coy Barton, C.P.A. for fiscal year 2021-2022. Harold Grall seconded the motion, and it was unanimously approved by the Board.

Action Agenda 3.e. - Receive report and consider action as needed regarding agriculture water conservation demonstration programs and the North Plains Water Conservation Center.

Nich Kenny presented the following report to the Board:

28 Dec 2021 – NPGCD Water Conservation Center Update Nicholas Kenny, P. E.

#### **Cotton Harvest Results**

Cotton was harvested across the WCC during the week of 8-12 November. All cotton was harvested utilizing Stan Spain's stripper baler. Each bale was weighed using Texas A&M AgriLife's scales. The District's primary cotton effort was the population demonstration on the West Pivot which had 2 replications of planting populations at 45K, 65K, 95K, 110K, and 75K for the field, all planted on 12 May. Dr. Jourdan Bell's RACE Trial was in the South SDI blocks and was planted at 75K on 25 May.

Figure 1: West Pivot cotton harvest details. The variety is Fiber Max 1621 (early maturity, disease tolerant, semi-hairy). Base loan value is \$0.52 and sale price is adjusted to \$1.00 for the sake of this table.

	Lint Yield (lbs / acre)	Turnout (%)	Lint Yield (bales / acre)	Loan Value (\$.52) (cents/lb)	Base Adjusted (\$1.00) (USD/lb)	Lint Revenue per Acre (USD/Acre)		Total Revenue (USD/Acre)	Revenue / Irrigation (USD / Acre-inch)
EP1 - 110K	1540	37.7%	3.079	56.30	\$1.08	\$1,667	\$182	\$1,849	\$183
EP2 - 95K	1490	36.3%	2.981	57.00	\$1.10	\$1,634	\$177	\$1,810	\$179
EP3 - 65K	1518	37.5%	3.036	56.50	\$1.09	\$1,649	_ \$180	\$1,829	\$181
EP4 - 45K	1498	37.8%	2.996	56.55	\$1.09	\$1.629	\$177	\$1,807	\$179
EP Field - 75K	1624	37.7%	3.248	55.35	\$1.06	\$1,729	\$192	\$1,921	\$190
WP Field - 75K	1573	36.1%	3.146	55.25	\$1.06	\$1,671	\$186	\$1,858	\$184
WP-1 - 110K	1227	31.3%	2.453	48.60	\$0.93	\$1,146	\$145	\$1,292	\$128
WP-2 - 95K	1345	32.6%	2.689	48.40	\$0.93	\$1,251	\$159	\$1,411	\$140
WP-3 - 65K	1337	32.7%	2.675	50.35	\$0.97	\$1,295	\$158	\$1,453	\$144
WP-4 - 45K	1280	33.0%	2.560	48.40	\$0.93	\$1,191	\$152	\$1,343	\$133

Figure 2: Nasdaq cotton prices through the  $2^{nd}$  half of 2021. At time of this document, cotton price is \$1.09 / lb.

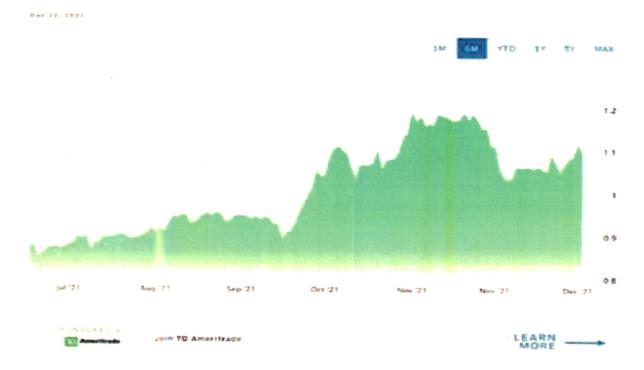


Figure 3: 2021 Cotton irrigation summary at WCC.

~		Irrigation: Acre-Inches							
Cotton - 2021	Plant Date	Rainfall	Pre-Water	In-season	Post Sept 1	Total Irr.	Last Irr.		
West Pivot	12-May	12.1	1.9	5.9	2.3	10.1	23-Sep		
South Drip: Zone 9-10	25-May	10.2	2.3	2.8	1.7	6.8	22-Sep		
South Drip: Zone 11-12	25-May	10.2	2.4	2.8	1.7	6.8	22-Sep		
South Drip: Zone 13-14	25-May	10.2	2.0	2.9	1.4	6.3	22-Sep		
South Drip: Zone 15-16	25-May	10.2	1.9	2.8	1.4	6.1	22-Sep		

Figure 4: 2021 Cotton RACE Trial yield results. The RACE work was performed by Dr. Jourdan Bell and located in the South SDI blocks at WCC. The planting date was 25 May due to May rainfall events.

	Lint Yield (lbs / acre)		Lint Yield (bales / acre)	Loan Value (\$.52) (cents/lb)	Base Adjusted (\$1.00) (USD/lb)	Lint Revenue per Acre (USD/Acre)	Seed Value (USD/Acre)	Total Revenue (USD/Acre)	Revenue / Irrigation (USD / Acre-inch)
ST 4993 B3XF	1195	36%	2.39	57.6	\$1.11	\$1,324	\$156	\$1,480	\$218
FM 2398 GLTP	1171	35%	2.34	57.2	\$1.10	\$1,288	\$153	\$1,441	\$212
FM 1621 GL	1157	35%	2.31	54.52	\$1.05	\$1,213	\$151	\$1,364	\$201
DP 1820 B3XF	1148	36%	2.30	57.28	\$1.10	\$1,265	\$150	\$1,414	\$208
Arm 9442 XF	1115	33%	2.23	55.28	\$1.06	\$1,185	\$145	\$1,331	\$196
NG 3729 B2xf	1106	32%	2.21	56.63	\$1.09	\$1,204	\$144	\$1,349	\$198
NG 3195 B3XF	1081	34%	2.16	57.65	\$1.11	\$1,198	\$141	\$1,339	\$197
NG 3956 B3XF	1048	32%	2.10	53.78	\$1.03	\$1,084	\$137	\$1,221	\$179
DP 2012 B3XF	1035	34%	2.07	57.03	\$1.10	\$1,135	\$135	\$1,270	\$187
NG 3930 B3XF	955	32%	1.91	55.1	\$1.06	\$1,012	\$125	\$1,136	\$167
FM 1730 GLTP	944	32%	1.89	56.53	\$1.09	\$1,026	\$123	\$1,149	\$169

Figure 5: AquaSpy chart from the Cotton 90K seeding treatment in the East side of the West Pivot from 2021. Notice the irrigation events late in the season and the water extraction late into season.

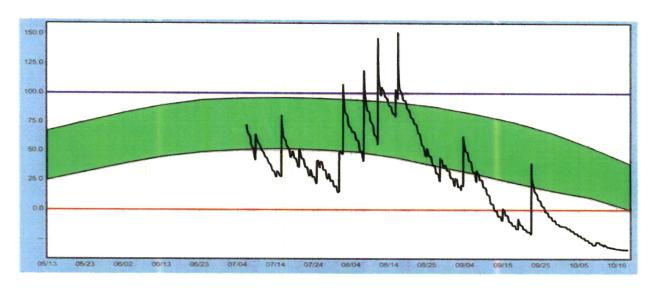
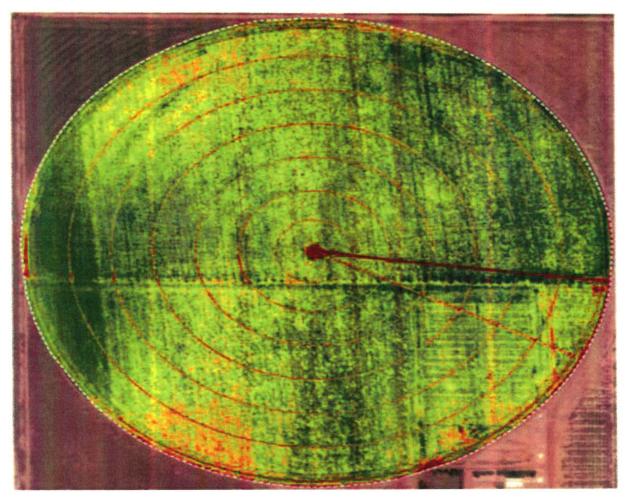


Figure 6: Ceres Colorized NDVI Image from 7 September on the West Pivot Cotton. Notice the East side of the pivot shows a greener color in general indicating more vegetation and vigor.



### **Cotton Agronomy effort in 2022**

The work at the WCC has been unique and productive in terms of validating the Corn and Cotton rotation. This rotation is economical, symbiotic, and feasible. The WCC effort has built a solid background to understand what information is necessary and

unavailable to take the next step towards improved cotton production.

- Define the cotton growth cycles for the North Plains. This will include remapping of heat units, regional adaptation of heat unit models, and building a solar radiation model. The weather stations at the center will be more utilized.
- 2. Determine the final boll set date and accumulated heat unit range to help define cut-out aids and final irrigation periods.
- 3. Evaluate different planting dates. The 2021 season indicated a much better stand count with a one-week delayed planting. The RACE trial in the South SDI was planted on 25 May, generally yielded greater than 2 bales / acre, and had very good quality premiums.
- 4. We need to establish a dryland check plot to validate the improvement that our marginal irrigation inputs are actually providing above a dryland crop.

Dr. Craig Bednarz (WTAMU) engaged the District on opportunities to participate in the WCC effort. He has a substantial amount of cotton experience from a long period in the seed industry.

The ongoing work at WCC could be used to define "Cotton Agronomy" for the region, answering the questions above within the scope of our demonstration efforts. Dr. Bednarz appears to have a valuable skillset and available time to work on the finer details that have been just out of reach thus far.

The concept is that the District's demonstration efforts continue as currently established to maintain continuity in the corn and cotton rotation on a farm scale level with additional data being extracted from within the demonstrations to address these regional needs.

Dr. Bednarz's time and effort would be funded through his WTAMU program funding.

### **WCC New Well Progress**

The new well at WCC was drilled between 8-12 November. The final depth is 665 ft., and the well was finished with 16'' casing and 200 ft. of  $0.250 \times 0.100 \times 104$ /ft mil-slot perforations.

The well was test pumped on 23 November. The final step-test point indicates the well could produce up to 600 GPM at 549 ft. depth. The constant rate was set at 400 GPM to match the capacity limit of a Class B well. The pumping depth at 400 GPM was 514 ft. which was maintained for 7 hours immediately following the step-test. The test indicates that there will be greater than 100 ft. of water column above the pump at the rated pumping capacity.

The pump selected is a Pump Group 12-stage W10HC with full trim. The pumping conditions are 400 GPM at 630 ft. of total dynamic head. The operating point is to the right side of the pump's maximum efficiency in an ideal location. This pump will be controlled by a Danfoss variable frequency drive, and the final operating condition can be adjusted to remain in Class B regulatory compliance and fit water needs as they vary across the farm.

Figure 7: The current state of the well at WCC. The pump is installed, and the discharge head is aimed SOUTH in preparation for the discharge pipeline to be connected and tied into the mainline.

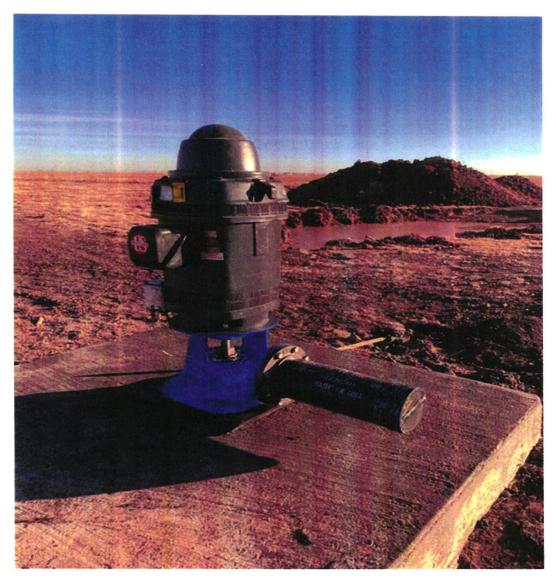


Figure 8: Pump Group 12-Stage W10HC pump curve.

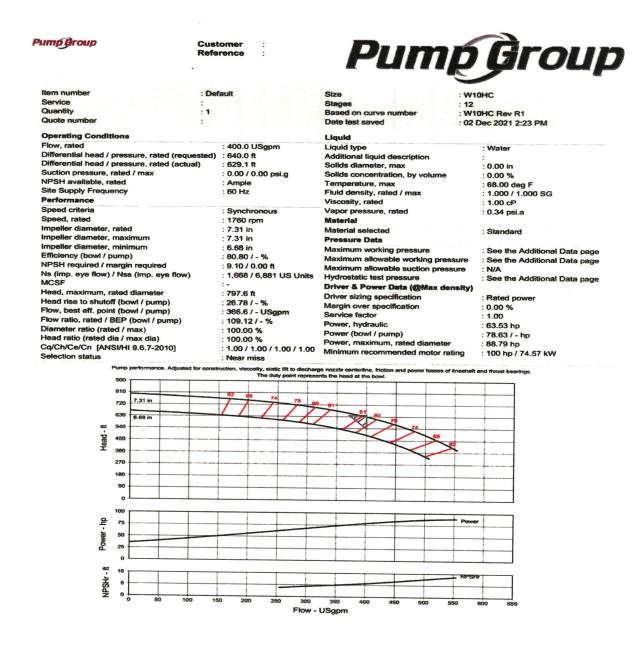


Figure 9: Multi-Speed Performance Curve for a Pump Group 12-Stage W10HC pump curve. This curve represents the pumping conditions at various operating points, demonstrating expected production at different RPM / Hertz points with the VFD.

:Hydro Resources :Mike Thelander

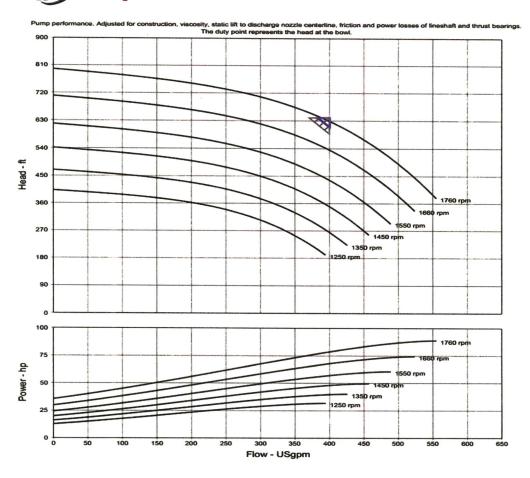
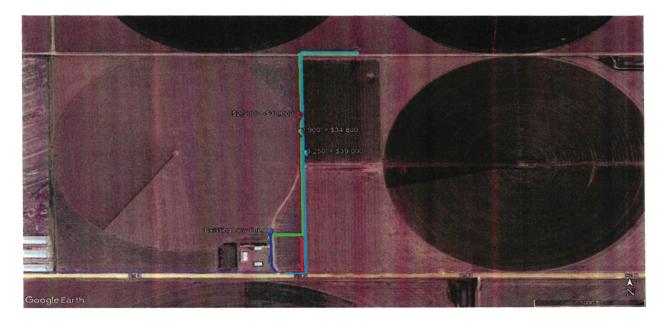


Figure 10: Rita Blanca electrical alignment to allow power to be delivered to Dee Vaughan's property north of the WCC. Poles were set previously based on an earlier alignment. A cost-share on the common overhead line will save the District approximately \$20K in the project. This portion of the project is in process.



Mark Howard moved that the District pursue the cotton agronomy effort further with Dr. Bednarz. Justin Crownover seconded the motion, and it was unanimously approved by the Board.

Assistant Manager, Kirk Welch, presented the following report to the Board:

#### **Master Irrigator**

Registration is open for the Master Irrigator Class of 2022 to be held at the O'Loughlin Center in Spearman. The Outreach Team has contacted people who were interested in participating in the past but were unable to. The Outreach Team has contacted all of the graduates from the 2021 class to remind them that they have until May 1, 2022, to submit projects for cost share.

The dates for the 2022 Master Irrigator have been set as follows:

Session 1: March 23, 2022 Session 2: March 30, 2022 Session 3: April 6, 2022 Session 4: April 13, 2022

## Action Agenda 3.f. - Receive report regarding 2021 Annual Production Reporting.

Kristen Blackwell presented the following report:

Approximately 2,953 production reports for 2021 were sent to producers via mail or email by November 28, 2021. Mrs. Blackwell stated that as of January 11, 2022, approximately 100 Annual Production Reports had been received and entered by District staff.

# Action Agenda 3.g. - Receive a report and consider action on landowner notification for entry onto land for the purposes provided by Texas Water Code Section 36.123

The General Manager stated that over the past few years, property owners, operators and designated representatives have requested that the District inform them when District staff is going to enter a property. Until recently District personnel have kept a simple list of those who wished to be informed and have made it a goal to contact the listed representative when we need to do an inspection. However, to tie the person requesting the notice to the appropriate property, the General Manager, proposes using the attached form for an owner or operator to complete so the District can better track and honor the request.

According to Texas Water Code 36.123, District personnel have the right to enter land for its regulatory purposes. Section 36.123 is as follows:

Sec. 36.123. RIGHT TO ENTER LAND. (a) The directors, engineers, attorneys, agents, operators, and employees of a District or water supply corporation may go on any land to inspect, make surveys, or perform tests to determine the condition, value, and usability of the property, with reference to the proposed location of works, improvements, plants, facilities, equipment, or appliances. The cost of restoration shall be borne by the District or the water supply corporation.

(b) District employees and agents are entitled to enter any public or private property within the boundaries of the District or adjacent to any reservoir or other property owned by the District at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the District. District employees or agents acting under this authority who enter private property shall observe the establishment's rules and

regulations concerning safety, internal security, and fire protection and shall notify any occupant or management of their presence and shall exhibit proper credentials. The District adopted District Rule1.8. Authority to Enter Land based on TWC Section 36.123 as follows:

- Chapter 36 of the Texas Water Code grants the District the authority to enter real Property at reasonable times for the purpose of inspecting and investigating conditions relating to compliance with any Rule, regulation, permit, or other Order of the District including, but not limited to:
  - A. Inspecting a proposed Well site, and any existing Well, or Wells;
  - B. Determining the pumping capacity of any Well, or Wells;
  - C. Reading or interpreting any Meter, wire box or other instrument used to measure production of Water from any Well or Wells;
  - D. Collecting samples to be used in Groundwater quality programs;
  - E. Testing the pump and the power unit of any Well or Wells;
  - F. Inspecting real Property for sources of potential or actual Pollution:
  - G. Performing any other reasonable and necessary inspections and/or tests that may be required to collect Groundwater information; and
  - H. Enforcing the Rules of the District.
- Employees of agents acting under this authority who need to enter "restricted
  access" to real property or structures shall observe the establishment's rules and
  regulations concerning safety, biological security, internal security, and fire
  protection, and shall notify any occupant or other Person having apparent legal
  authority of their presence.
- 3. An application for a permit may be suspended or canceled by the Board if the Applicant refuses to grant the District's employees access to real property to gather information necessary to complete the application.
- 4. The operation of any Well may be enjoined by the District immediately upon refusal to grant the District's employees access to real property as provided above.
- 5. District employees or agents of the District entering real property pursuant to this Rule shall exhibit proper identification upon request.

The General Manager requested that the Board review a document presented by the General Manager to the Board for the Board to provide input regarding District staff entering property for the purposes of carrying out District Rule 1.8 as authorized by TWC § 36.123.

Allan Frerich, doing business as Frerich Farms, addressed the Board regarding District personnel entering his property and provided the District with a copy of the Operational Rules and Regulations of Frerich Farms.

## Action Agenda 3.h. - Receive report and consider action regarding compliance matters before the District.

The General Manager reported that there was no compliance or contested matters to be discussed with the Board.

Action Agenda 3.i. - Executive Session - Section 551.071 of the Texas Government Code.

None.

Discussion Agenda 5. - Discuss Items for Future Board Meeting Agendas and Set Next Meeting Date and Time.

By consensus, the Board set its next regular Board meeting on February 8, 2022, at 9:00 a.m.

Discussion Agenda 4.c. - General Manager's Report.

Steve Walthour presented a report to the Board, which included the General Manager's activity summary, the District's activity summary, general Well inspections, capped Wells, predrill inspections and post-drill well inspections as of December 2021, and upcoming meetings and conferences.

Discussion Agenda 4.a. - Director Reports regarding meetings and/or seminars attended, weather conditions and economic development in each Director's precinct.

District Director reports were presented to the Board regarding meetings and/or seminars attended, weather conditions and economic development in each Director's precinct.

Discussion Agenda 4.b. - Committee Reports.

No Committee reports were presented to the Board.

Agenda 6. - Adjournment.

There being no further business to come before the meeting, President Zimmer adjourned the meeting at 11:07 a.m.

Bob B. Zimmer, President