

MINUTES - NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD

APRIL 12, 2021

Chairman Tom Tupa called a telephone conference call meeting of the Atmospheric Resource Board to order at 1:30 p.m. CDT, April 12, 2021.

RECEIVED

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ROLL CALL

Roll call was taken. Members present were Tom Tupa, Chris Theisen, Casey Veil, Thomas Burke, Kyle Wanner, Angela Seligman and Jonathan Kelsch, representing John Paczkowski, P.E., Interim State Engineer.

ND DEPT. OF WATER RESOURCES

Others present were Darin Langerud, Director; Kelli Schroeder, Business Manager; Daniel Brothers, Meteorologist; and Jody Fischer, Weather Modification International (WMI).

MINUTES

IT WAS MOVED BY MR. WANNER AND SECONDED BY MR. VEIL TO APPROVE THE MINUTES OF THE OCTOBER 27, 2020 MEETING AS DISTRIBUTED. ALL MEMBERS VOTED YEA. THERE WERE NO NAY OR ABSTAIN VOTES. MOTION CARRIED 6-0.

FINANCIAL STATUS REPORT

Ms. Schroeder reviewed the financial status report for the period ending February 28, 2021.

2021 NDCMP PERMIT APPLICATIONS

Public Comment

Mr. Langerud informed the Board that the legal notice was published as required by statute for two consecutive weeks in the county newspapers in the target and adjacent counties in March with regard to the permit applications received from WMI. There was a 20-day period for the public to comment following the publication. The comment period ended at midnight April 4, 2021. Public comment was received from 2 individuals and provided to the board via email on April 8th.

This morning via mail, we also received a late letter from the City of Marmarth Flood Control District. They are opposed to operations in their area. However, the City of Marmarth is not in the target or operations area any longer.

In response to a question from Mr. Theisen, Mr. Langerud noted that the program is required by law to go through the permitting process every year. Last year, we received no public comment. The year before that, we received more than a dozen.

In response to a question from Mr. Tupa, Mr. Langerud noted that one of the commenters was new and one has commented in the past.

Weather Modification LLC – NDCMP District 1 & 2

Mr. Langerud reviewed the permit applications for NDCMP Districts 1 and 2 from Weather Modification LLC. He recommended the board approve the permit applications for both Districts 1 and 2 operational areas for the 2021 season.

MR. WANNER MOVED TO ACCEPT THE DIRECTOR'S RECOMMENDATION AND APPROVE THE WEATHER MODIFICATION PERMIT FOR DISTRICT I FOR WEATHER MODIFICATION, LLC, OF FARGO, ND. SECONDED BY MR. BURKE. ALL MEMBERS VOTED AYE. THERE WERE NO NAY OR ABSTAIN VOTES AND NO ABSENCES. MOTION CARRIED 6-0.

MR. THEISEN MOVED TO ACCEPT THE DIRECTOR'S RECOMMENDATION AND APPROVE THE WEATHER MODIFICATION PERMITS FOR DISTRICT II FOR WEATHER MODIFICATION, LLC, OF FARGO, ND. SECONDED BY MR. VEIL. ALL MEMBERS VOTED AYE. THERE WERE NO NAY OR ABSTAIN VOTES AND NO ABSENCES. MOTION CARRIED 6-0.

NORTH DAKOTA CLOUD MODIFICATION PROJECT

Budget

Mr. Langerud reported on meetings with the district weather modification authorities in February and the proposed budget for the 2021 NDCMP, which was included in the board meeting packet. This program will include 5 aircraft – 2 aircraft will be based in Bowman and 2 in Williston and 1 in Stanley. The reduction of 1 aircraft is in response to cost increases and revenue reductions from the counties and county carryover. Total flight hours are being reduced. We are hiring one less radar meteorologist but moving the forecast intern to Stanley to help with radar coverage. Chemical costs were generally in range, except acetone which has nearly tripled in cost.

In response to a question from Mr. Tupa, Mr. Langerud expects following projects to look similar if county participation remains the same. He also noted that this is the final year of the 3-year agreement with WMI. There could be changes in the next negotiated agreement.

County contracts

Mr. Langerud noted that a draft county contract has been prepared to send to the counties. He expects to get them out in the next week or so.

In response to a question from Mr. Kelsch, Mr. Langerud indicated that the project flight hours for 2020 totaled 479.05 hours.

In response to a question from Mr. Tupa, Mr. Langerud indicated that flight hours are very much dependent on weather conditions.

Staffing

Mr. Brothers reported that he and Mr. Schneider are in the process of hiring radar meteorologists and intern meteorologists for this summer. There were 19 applicants for the radar meteorologist positions. The two hired have previously worked for us. These two also have potential to have other opportunities, so they are interviewing 4 additional people for the radar meteorologist positions.

They had 31 intern meteorologist applications and are interviewing 10 of them. They hope to have hiring completed within 2.5 weeks.

In response to a question from Mr. Tupa, Mr. Brothers indicated that sometimes meteorology applicants are from UND. However, applicants can be from all over the country. We've been getting several applicants over recent years from Valparaiso University.

Ms. Schroeder reported having 29 applicants for the 6 intern co-pilot positions. Out of all 29 applicants, only 3 had not taken the Applied Weather Modification class at UND. Six individuals were hired but one just backed out today. This will not be a problem as there were 8 remaining interviewees who are acceptable.

In response to a question from Mr. Tupa, Mr. Brothers indicated that finding housing in the oil fields has not been as big of an issue in recent years.

LEGISLATIVE UPDATE

Mr. Langerud updated the Board on current legislation affecting the division. HB 1020 is the Water Commission budget bill. We do not expect any changes to what we submitted for a budget request for the upcoming biennium.

In response to a question from Mr. Tupa, Mr. Langerud indicated that no members of the public testified regarding our division on the budget bill hearing.

The other bill affecting our division is HB 1353. This bill renames the State Water Commission to the Department of Water Resources and adds an agency director position. The director would be appointed by the Governor with the approval of the Water Commission. This bill has passed both the House and Senate. There were a couple of minor changes that will need to be approved by the House. But it sounds like it will pass. This bill should take effect August 1st.

In response to a question from Mr. Tupa, Mr. Langerud noted that HB 1353 will affect our division in that the new director position would serve on our board instead of the State Engineer.

COOPERATIVE OBSERVER NETWORK UPDATE

Mr. Brothers reported that there are currently 470 precipitation observers. Of those, 169 are reporting online and 187 report snowfall amounts. Precipitation maps are on our website, including monthly and seasonal maps.

INTEGRATION OF METEOROLOGICAL AND SOIL SENSORS WITH PRESENS

Mr. Langerud reported a slow decline of volunteers for the precipitation network. We are considering a field test this summer with integrating some remote rain gauge locations through the PRESENS system developed by the Water Commission. PRESENS is a data logging system originally designed for making ground and surface water measurements remotely. It has the capability of integrating additional sensors. We will integrate some remote tipping bucket gauges and soil moisture and temperature sensors on some of the sites. This will give us an opportunity to fill some gaps in our data network and collect some data that will be important for understanding the amount of precipitation we are receiving. Also, it will help to know what the soil conditions are, not only during the growing season but also during the winter months. It will help us determine when the frost comes out and things like that which are important for trying to forecast flooding events, etc. We are working with the IT and Water Appropriations divisions on this field project.

In response to a question from Mr. Tupa, Mr. Brothers indicated that the best way to recruit new observers is word of mouth from current observers. Otherwise, Mr. Brothers researches land ownership information for the areas that have less coverage and then

sends recruitment letters to people who live in those areas. He has success this way with about 1 out of 25 recruitment letters.

In response to a question from Mr. Tupa, Mr. Langerud indicated that the PRESENS footprint is very small. It is all set up on a post. One post holds the communications box, a small solar panel and then the sensors and gauges. It uses very low power. The battery system is robust but small. The PRESENS system has been field tested for 2 years already with a couple of hundred sites around the state.

In response to a question from Mr. Tupa, Mr. Langerud indicated that we haven't been involved in any of the site selection up to this point. But he would imagine that any sites on private land would require landowner permission. Some are likely on public land or right of way also. We are going to look at existing sites first to see if those would work to fill in the gaps of our network.

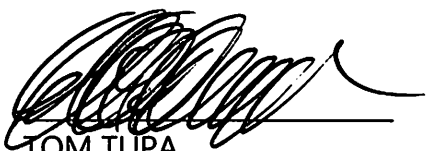
~~In response to a question from Mr. Tupa, Mr. Langerud reported that the PRESENS devices are maintained by the Water Commission field crew.~~

In response to a question from Mr. Tupa, Mr. Langerud indicated that he could bring an example of these systems to a meeting. There is already information about the current PRESENS equipment and locations on the agency web site.

In response to a question from Ms. Seligman, Mr. Langerud indicated that there have not been any inquiries from counties to join the project due to the ongoing drought. Last week, the Governor and Agriculture Commissioner announced they are restarting the Drought Disaster Livestock Water Supply Program. This is a cost share program run by the Water Commission to help ranchers in times of drought. We do not have direct involvement in that program, but we do monitor the drought conditions and have offered assistance to the Water Commission division that manages the program.

Our next meeting date is tentatively set for Tuesday, October 26, 2021 in the afternoon. We hope to be able to do that meeting in person.

Being no further business, the meeting adjourned at approximately 2:22 p.m.



TOM TUPA
CHAIRMAN



CHRIS THEISEN
SECRETARY