

MINUTES - NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD

APRIL 12, 2023

Chairman Chris Theisen called the video meeting of the Atmospheric Resource Board (Board) to order at 10:00 a.m. CDT, April 12, 2023.

ROLL CALL

Roll call was taken. Members present were Chris Theisen, District IV; Jessica Magilke, District VI; Thomas Burke, District VII; Kyle Wanner, Director, ND Aeronautics Commission; Rebekah Pfaff, ND Department of Environmental Quality (DEQ); and John Paczkowski, for Andrea Travnicek, Ph.D., Director, ND Department of Water Resources (DWR).

Others present were Darin Langerud, Director; Kelli Schroeder, Program Manager; Mark Schneider, Chief Meteorologist; Daniel Brothers, Meteorologist; Jody Fischer, Weather Modification International (WMI) and Dani Quissell, ND Weather Modification Association.

MINUTES

IT WAS MOVED BY KYLE WANNER AND SECONDED BY THOMAS BURKE TO APPROVE THE MINUTES OF THE NOVEMBER 1, 2022, MEETING AS DISTRIBUTED. ALL MEMBERS VOTED YEA. THERE WERE NO NAY OR ABSTAIN VOTES. MOTION CARRIED.

FINANCIAL STATUS REPORT

Kelli Schroeder reviewed the financial status report for the period ending February 28, 2023.

LEGISLATION

Darin Langerud informed the Board about legislation we are following that directly relates to the ARB division. These include House Bill (HB) 1072, a North Dakota Century Code (NDCC) cleanup bill to correct a reference to our division being a division of the State Water Commission. This was missed during the last session when the agency was changed to the Department of Water Resources. This bill passed both houses and has been signed by the Governor.

HB 1166 was carried primarily by Representative Ruby at the request of some of his constituents who wanted to require North Dakota Cloud Modification Project (NDCMP) participating counties to get approval from non-participating adjacent counties before receiving state cost share funds. There were several amendments and the bill passed

through the House. More amendments were made and passed out of the Senate Agriculture Committee with a 6-0 no recommendation. The committee had 3 Senators in favor of the bill and 3 against. After much debate on the Senate floor, the bill failed to pass by a vote of 14-33.

Senate Bill (SB) 2020 is the DWR budget bill. It includes our division and an optional budget package for a new dual-polarization radar to replace the Bowman radar, a 1974 WSR 74C, which we have been operating since 1997. SB 2020 passed the Senate without changes to our division budget items. It also came out of the House Appropriations subcommittee unchanged for our division. However, the House Appropriations committee sent it back to the subcommittee for additional amendments and committee work. Committee work will be occurring on this bill this afternoon.

If funding for the new radar is approved, it wouldn't be available until July. Langerud doesn't expect to be able to get it set up before spring 2024 as procurement procedures would need to be completed.

2023 NDCMP PERMIT APPLICATIONS

Public Comment

Darin 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 late February and early March regarding the permit applications received from WMI. There was a 20-day period for the public to comment following the publication. The comment period ended March 23, 2023.

One comment was received and provided to the board. The commenter resides in the Marmarth area, which is not in the target or operations area. The District 1 target area, which includes Bowman County and some southeastern Slope townships, does not include a buffer zone in 10 mile statute range around it in North Dakota counties. The area that this letter is from is not affected by cloud seeding, even though they may say the contrary in their letter.

JOHN PACZKOWSKI MOVED TO ACCEPT THE DIRECTOR'S RECOMMENDATION RELATING TO PERMIT APPLICATIONS. SECONDED BY KYLE WANNER. ALL MEMBERS VOTED AYE. THERE WERE NO NAY OR ABSTAIN VOTES. MOTION CARRIED.

Weather Modification LLC – NDCMP District 1 & 2

Darin 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 2023 season.

THOMAS BURKE MOVED TO APPROVE THE WEATHER MODIFICATION PERMIT APPLICATIONS FROM WEATHER MODIFICATION, LLC, OF FARGO, ND. SECONDED BY KYLE WANNER. ALL MEMBERS VOTED AYE. THERE WERE NO NAY OR ABSTAIN VOTES. MOTION CARRIED.

NORTH DAKOTA CLOUD MODIFICATION PROJECT

Budget

Darin Langerud reviewed the draft budget for the NDCMP. Since HB 1166 failed, we expect this project will go forward following the 2022 configuration, including 3 aircraft in the northern district and 2 in the southern. We are in the process of reaching out to the counties with this information.

County contracts

Darin Langerud noted that a draft county contract has been reviewed by the DWR's attorney. We plan to complete county contracts in the next few weeks.

Langerud indicated that we had provided a budget option to show the counties the cost if HB 1166 passed and there was no cost share available when we met with them in February. He noted that it would not be their preference to operate without cost share and it would cause real difficulties. Budgeting on the county level happens in July for the upcoming calendar year. At that time, this bill was not on the radar for the counties and therefore the additional funds were not included in their budgets.

Staffing

Kelli Schroeder reviewed the status of hiring intern co-pilots. There were 9 applicants for 5 positions. This will be a difficult decision because the applicants are very good candidates. Promotional activities will continue at the University of North Dakota (UND) for the pilot internship.

Mark Schneider reported hiring returning staff members for the 2 radar meteorologist positions. Mark and Daniel Brothers are conducting interviews for the 3 intern meteorologist positions. They hope to have everyone hired by the end of this week or early next week.

Schneider noted that we rarely get applicants from UND for the radar and intern meteorologist positions, despite being well advertised with UND professors. Most applicants are from around the country. However, we are finding that our meteorology staff recently has been heading to UND for graduate work.

Seeding agent and supplies procurement

Mark Schneider reviewed remaining chemical inventory from last year and discussed procurement of chemicals. Due to the remaining inventory, we will not be purchasing additional silver iodide, ammonium iodide, or sodium perchlorate. We also have plenty of flares on hand. We will soon be purchasing acetone. Dry ice purchases will start just before June 1 and continue throughout the project. We are anticipating purchasing 19,000 pounds of dry ice over the summer.

Schneider indicated that we do not typically see supply chain issues with our chemical procurement. However, with more volatile fuel prices, we do receive bids that include variable fuel and transportation surcharges.

COOPERATIVE OBSERVER NETWORK UPDATE

Daniel Brothers reported that there are currently 423 active precipitation observers, a loss of about 70 observers. Additional recruiting activities will be done. We have 174 observers who reported snow last year and that appears to be steady. There are 159 reporting online.

He noted that maps are available on the web site. February maps should be up later this week or early next week. Then March maps will follow. He hopes to have a seasonal compilation map on the web site by the end of next week.

INTEGRATION OF METEOROLOGICAL AND SOIL SENSORS WITH PRESENS

Daniel Brothers reviewed DWR's Pushing REmote SENSors (PRESENS) system and integration of meteorological and soil sensors on 14 of the DWR's 300 sites. Our goal is to add an additional 30-40 meteorological and soil sensors this coming season.

Langerud reported that there are fewer people living in rural areas and people aren't as willing to volunteer as much as we used to see. One of the ways that we're trying to combat that and to be able to collect data in areas where we don't have volunteers is by using these remote sensing opportunities.

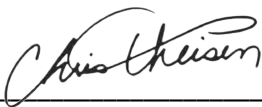
Additionally, a data point that's been lacking in the state is soil moisture and soil temperature data. The North Dakota Agricultural Weather Network (NDAWN) has several sites installed around the state, so we're looking at locations where we can augment that and provide additional information. We've had conversations with the NDAWN group, so we're not going to replicate each other's efforts. Our goal is to get 30 to 40 more installations out this year and continue that over time to try to get a better sense of what's happening with precipitation, especially convective precipitation. You need a dense network for that. And then with better understanding of soil temperature and moisture, this will help with agriculture along with flood forecasting.

Langerud indicated that there are the issues with collecting soil data in right-of-way areas such as DOT sites. We've had some discussions with the Souris River Basin group, in north central North Dakota, about instrumenting that watershed to try help them understand spring runoff. We have installed four sites up there already, and we're hoping to install two or three more again this summer to help with that effort.

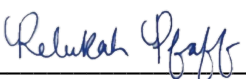
Most of the PRESENS units are using cellular communications, but the board has been designed and configured to also be able to use satellite communications in areas where there's no cellular service. These units can be programmed to transmit as frequently or as infrequently as required. This is changed through firmware updates sent out from Bismarck. The agency is still working on getting a publicly available interface to access the PRESENS data.

JOHN PACZKOWSKI MOVED TO ADJOURN THE MEETING. SECONDED BY REBEKAH PFAFF. ALL MEMBERS VOTED AYE. THERE WERE NO NAY OR ABSTAIN VOTES. MOTION CARRIED.

Being no further business, the meeting adjourned at approximately 10:55 a.m.



CHRIS THEISEN
CHAIR



REBEKAH PFAFF
SECRETARY

Transcribed by Kelli Schroeder