



East Dakota Water Development District
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MINUTES
March 19, 2015

The Board of Directors of the East Dakota Water Development District (EDWDD) held a regular meeting on March 19, 2015, at the EDWDD office in Brookings. Chairman Jarrett called the meeting to order at 9:06 a.m. The following persons attended:

Directors Present

Lois Brown
Mary Ellen Connelly
Gary Duffy
Martin Jarrett
Kay Kassube
John Moes
Jerry Soholt
Janelle Weatherly

Directors Absent

Mark Anderson

Others Present

Scott Anderson, Minnehaha County
Roger Hageman, Lake County
Guanghui Hua, South Dakota State University
Jesse Johnson, SD Corn
Dana Loseke, Friends of the Big Sioux River
John Maursetter, Lake County

Staff Present

Kevin Christenson
Jay Gilbertson
Jeremy Hinke
Deb Springman

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Administrative Items

Approval of Agenda -

Motion by Duffy, seconded by Soholt to approve the agenda as presented. Motion carried unanimously.

Minutes - The Board reviewed the Minutes of the February 17th, 2015, Board meeting.

Motion by Weatherly, seconded by Connelly to approve the Minutes as presented. Motion carried unanimously.

Financial Reports - The Board reviewed the February 2015 financial reports.

Motion by Soholt, seconded by Duffy to accept the February 2015 financial report. Motion carried unanimously. Chairman Jarrett then asked that the report be placed in the District files.

Report of Meetings and Conferences - Director Brown attended the Sioux Empire Water Festival at the University of Sioux Falls on March 17th in Sioux Falls.

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Director Connelly attended a meeting of the friends of the Big Sioux River in Sioux Falls on January 20th and February 24th.

Director Duffy attended the Kingsbury County Commission meeting in DeSmet on February 24th.

Director Moes attended meetings of the Lake Pelican Water Project District on March 17th and the Upper Big Sioux River Watershed Advisory Board meeting on March 18th. He also attended the 2015 Mike Williams Lecture on March 10th. All meetings were held in Watertown.

Director Weatherly attended the Moody County Board of Adjustment meeting on March 3rd, met with Flandreau Santee Sioux Tribe Department of Natural Resources staff on March 11th and stakeholders interested community development on March 12th. All meetings were in Flandreau.

The Manager briefly commented on the following meetings he attended:

1. **February 23** - Ortonville, MN. Upper Minnesota River watershed District public hearing on Whetstone River re-diversion project.
2. **March 2nd** - Ortonville, MN. Upper Minnesota River Watershed Restoration and Protection Strategy (WRAPS) Steering Committee.
3. **March 3rd** - Pierre. House Agriculture and Natural Resources Committee testimony on Senate Bill 2.
4. **March 4th** - Brookings. Brookings County Planning and Zoning Board.
5. **March 9th** - Milbank. Grant County Planning and Zoning Board.
6. **March 10th** - Madison, MN. Lac qui Parle River WRAPS Steering Committee.
7. **March 12th** - Huron. James River Water Development District Board.
8. **March 17th** - Milbank. Grant County Commission.

Upcoming Meetings -

1. **March 20** - Brookings. Brookings County Planning & Zoning Board planning session.
2. **March 25 - 9:00 a.m.** - Environmental Office, Sioux Falls. Central Big Sioux River Watershed Project Steering Committee.
3. **March 26 & 27** - Matthews Training Center, Pierre. SD Board of Water & Natural Resources.
4. **March 30** - Pierre. Final day of the 90th SD Legislative Session.
5. **April 15** - Rapid City. Western South Dakota Hydrology Meeting.
6. **April 16 - 9:30 a.m.** - SD Association of Rural Water Systems Office, 203 West Center Street, Madison. April EDWDD Board of Directors meeting.

Payment Requests - The Manager presented one payment request:

South Dakota Association of Rural Water Systems - At it's December 2014 meeting, the Board committed \$17,000 in District cost-share assistance to South Dakota Association of Rural Water Systems (SDARWS) to be applied toward the costs of acquiring a valve exerciser and vacuum excavator. SDARWS has completed the acquisition of the equipment, and has submitted a payment request for the full amount of the pledged District support. The Manager stated that the request contains documentation of the incurred expenses, and that the request is in order.

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Motion by Duffy, seconded by Moes to authorize payment of \$17,000.00 to SDARWS as requested. The Manager noted that with this payment the District's obligation to this effort will be complete. Motion carried unanimously.

2015 Legislative Session Review

The Manager reviewed the status of, and actions he has taken on, numerous bills he has tracked as the District lobbyist during the ongoing 90th Session of the South Dakota Legislature.

House Bill (HB) 1014 An Act to repeal certain obsolete and unnecessary statutes relating to the Department of Environment and Natural Resources. This bill passed both chambers and was signed by Governor Daugaard on February 17th.

HB 1188, An Act to make an appropriation to the Department of Environment and Natural Resources to develop a hydrologic model of the lower Big Sioux River Basin in southeast South Dakota and to declare an emergency. The bill passed the House, but was tabled in Senate Appropriations on March 9th.

HB 1217, An Act to revise certain provisions regarding the portion of Marshall County located in the James River Water Development District. This bill passed both chambers and was signed by the Governor on March 5th.

Senate Bill (SB) 2 An Act to provide for the establishment of river basin natural resource districts and to repeal certain provisions regarding county drainage management. The bill has passed both chambers, and is awaiting action by Governor Daugaard. The final version does little more than create the nine river basin natural resources districts. A task force is charged with coming up with details on the role, function and powers of these entities.

SB 173, An Act to make appropriations from the water and environment fund, the water pollution control revolving fund subfund, and the drinking water revolving fund subfund for various water and environmental purposes, to revise the state water plan, to increase the authority of the South Dakota Board of Water and Natural Resources to make consolidated water facilities construction program awards, and to declare an emergency. This bill passed both chambers and was signed by the Governor on March 13th.

SDSU CEE Phosphorus Removal Project Update

In October 2013, the District agreed to provide \$6,000 in cost-share assistance to South Dakota State University (SDSU) for a research project entitled, "Nutrient Removal from Agricultural Subsurface Drainage Using Denitrification Bioreactors and Phosphate Adsorbents." Dr. Guanghui Hua, Assistant Professor in the SDSU Civil and Environmental Engineering Department (CEE), is the lead investigator on this project. In October 2014, the Board agreed to provide an additional \$6,000 to be applied toward a second year of this effort, with primary funding coming once again from a grant from the USGS Section 104(b) Program. The project is a laboratory effort to determine the effectiveness of using steel waste products, like mill shavings, to remove dissolved phosphorus from water issuing from agricultural drain tile.

Dr. Hua provided a progress report on the project, describing the activities and results of the first year of the effort. Laboratory results to date suggest that the process is quite effective at removing nutrients, particularly

phosphorus. He also briefed the Board on the plans for the second year of the study. He noted that he has received additional funding from the South Dakota Soybean Council to further expand his efforts. He thanked the Board for its initial support which has been critical in getting the project started.

Project Assistance Requests

SDSU Civil & Environmental Engineering - Dr. Hua presented a request for District cost-share assistance for a project entitled, "Development of Mixed Media Filtration for Stormwater Runoff Treatment in South Dakota." The project would explore options for creating small-scale filtration basins into which municipal stormwater could be directed with a goal of reducing the sediment, nutrient and/or bacteria load they are carrying before they enter a river/stream. The project would consist of laboratory tests to assess the applicability of various media under various conditions. The end product would be recommendations for actual field trials or demonstration projects. Total project costs is estimated at \$120,000.

Primary funding would come from something called the Mountain Plains Consortium (MPC), is a competitively selected university program sponsored by the U.S. Department of Transportation through its Research and Innovative Technology Administration. The consortium includes SDSU, along with universities in Colorado, North Dakota, Utah and Wyoming. MPC funds require a 1:1 match, so to get \$60,000 from this program, Dr. Hua must identify a like amount in non-federal match. At present, SDSU can provide \$40,000, so he is seeking \$20,000 from other sources. He noted that the District was the first entity that has been approached, but it need not be the last.

The Board questioned Dr. Hua about including a field test/demonstration into the project. He said that such an addition would add \$10,000 to the cost of the project. They would also have to identify a community partner for such an effort, but options could likely be found in Brookings, Watertown or Sioux Falls. The Board expressed an interest in the effort, including field trials. They noted that considerable effort (and District support) has been directed toward addressing rural/agricultural sources of pollution, but relatively few projects have targeted urban best management practices. The Manager noted that perhaps a portion of the additional field demonstration costs could be obtained from MPC, and that there may yet be other entities willing to contribute to the overall effort. Municipal storm water discharge has been identified as a common source of impairments for segments of the Big Sioux River, Rapid Creek and other water bodies across South Dakota.

Motion by Connelly, seconded by Kassube to allocate up to \$30,000 in District cost-share support in support of the proposed activity, with up to \$20,000 to be applied toward the proposed as presented, and up to \$10,000 to be applied toward a demonstration pilot project of the study recommendations. Further, the Manager is directed to work with Dr. Hua to solicit support from additional partners to offset District costs for the primary laboratory project and the proposed field demonstration. Motion carried unanimously.

United States Geological Survey - The Manager presented a request for District cost-share assistance from the United States Geological Survey South Dakota Water Science Center (USGS). At its May 2014 meeting, the Board agreed to partner with the City of Sioux Falls and USGS to install and operate a real-time monitoring station for nitrates in the Big Sioux River near the Sioux Falls airport. The pilot project involved the installation of a nitrate monitoring probe near the drinking water intake on the river north of the airport, with the probe to be operational from early June through the fall. Initial installation and 2014 operational costs were \$21,000, split evenly between the three entities (\$7,000 each). A report on the results of the first year of the project will be presented at the May 2015 meeting.

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In the interim, the USGS has proposed to operate the station during the 2015 field season, at a total cost of \$9,000. The City of Sioux Falls will once again be an equal partner, so each entity would be asked to commit \$3,000 for 2015 operational costs.

Motion by Moes, seconded by Duffy to allocate up to \$3,000 in District cost-share support in support of the 2015 operational costs for the real-time nitrate monitoring effort as described, and to authorize the Chairman to execute a joint funding agreement with the USGS for such purpose. Motion carried unanimously.

District Updates

2015 Field Season Activities - The Manager reviewed his proposed efforts to gather water quality information from rivers and streams within the District during the 2015 field season. The work would largely match efforts began in 2014, which were developed in discussions with SD DENR, along with the sponsors of the regional watershed implementation projects. The effort re-established water quality monitoring sites at a range of locations previously sampled as part of prior investigations, and increased the frequency of visits to active sites. The sampling will take place in both the Big Sioux River and Minnesota River watersheds. He indicated that the watershed projects (Big Sioux River, Upper Big Sioux River and Northeast Glacial Lakes) are all willing to contribute to the costs of this effort. The work will include sampling and discharge measurements at several locations on the lower Big Sioux River in Lincoln and Union Counties. The costs for this work, which will take place wholly outside of the District, will be covered by the Big Sioux River Watershed Project. The work will also include continuation of sampling at sites on Skunk Creek under contract with SD DENR.

In addition to continuing the 2014 sampling efforts, the Manager stated that he proposed to add new activities in 2015. Recent developments in Iowa have raised interest/awareness in the levels of nitrate in rivers and streams impacted by agricultural drainage. He proposed to increase the frequency of nitrate sampling from every other week to weekly at all river/stream sampling sites.

The Manager indicated that the growing interest in large-scale animal feeding operations, primarily dairies, has raised concerns about possible water quality impacts. In response to such concerns, the Grant County Commission has requested District assistance in monitoring the upper Big Sioux River, where two 5,000 head dairies are proposed. Data from a single state monitoring site (WQM BSA 1) would be augmented with three (3) additional sites.

Lastly, a request has been received from the conservation districts in Lake and Moody Counties to monitor water quality in Bachelor Creek. The waterway above the community of Colman was ditched in the 1920s to facilitate drainage, but it has fallen into disrepair. An effort is underway to rehabilitate the ditch, and the districts want to know if there will be any water quality impacts. A monitoring site on the creek will be established south of Colman.

The Manager indicated that he estimated the overall costs of the such efforts would be \$28,000, and requested that the Board set aside this amount to cover anticipated expenses. The funds would be applied toward necessary supplies and materials, travel and analytical costs.

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Motion by Duffy, seconded by Kassube to allocate \$28,000 in District project assistance funds for 2015 District water quality monitoring activities, and to authorize expenditure as necessary, as requested. Motion carried unanimously.

Adjournment

There being no further District business, Chairman Jarrett declared the meeting adjourned at 12:17 p.m.

John Moes, Secretary

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