



**East Dakota Water Development District
132B Airport Drive
Brookings, SD 57006**

605-688-6741

605-688-6744 Fax

**MINUTES
December 20, 2012**

The Board of Directors of the East Dakota Water Development District (EDWDD) held a regular meeting on December 20, 2012, at the EDWDD Office, 132B Airport Drive, Brookings. Chairman Jarrett called the meeting to order at 1:05 p.m. The following persons attended:

Directors Present

Lois Brown
Mary Ellen Connelly
Vincent Flemming
Martin Jarrett
Roger Scheibe
Jerry Soholt
John Weidler

Others Present

Gary Duffy (Director-Elect), Oldham
Shirley Flemming, Florence
Roger Hageman, Lake County Commission
Galen Hoogestraat, United States Geological Survey
Jesse Johnson, SD Corn
Jeppe Kjaersgaard, SDSU Water Resources Institute
Dana Loseke, East River group, SD Sierra Club
John Maursetter, Lake County
Kerwin Miller, eXpert Company
John Moes (Director-Elect), Florence
Janice Shaeffer, East, Vander Woude, Grant & Company

Directors Absent

Kay Kassube

Staff Present

Kevin Christenson
Jay Gilbertson
Kristi Thielen

Administrative Items

Approval of Agenda

Motion by Weidler, seconded by Flemming to approve the agenda as presented. Motion carried unanimously.

Minutes - The Board reviewed the Minutes of the November 16, 2012 meeting.

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

Financial Reports - The Board reviewed the November 2012 Financial Report.

Motion by Soholt, seconded by Flemming to accept the November 2012 Financial Report. Motion carried unanimously. Chairman Jarrett then asked that the report be placed in the District files.

Report of Meetings and Conferences - Director Connelly attended the October 30th Eastern South Dakota Water Conference in Brookings.

Director Flemming reported on the December 19th meeting of the Lake Pelican Water project District held in Watertown.

Director Scheibe reported on the December 12th meeting of the Central Big Sioux River Watershed Project Steering Committee held in Colman.

Chairman Jarrett reported on the December 13th meeting of the Lake County Clean Water Committee held in Madison.

The Manager commented briefly on the following meetings he attended:

1. November 19 - DeSmet. Sioux Valley County Commissioners Group.
2. November 27 - Pierre. Discussion of long-range conservation funding.
3. December 4 - Pierre. South Dakota Non-Point Source task Force.
4. December 5 - Sioux Falls. South Dakota Association of Rural Water Systems (SDARWS) Policy Committee.
5. December 6 - Sioux Falls. SDARWS Board of Directors.
6. December 8 - Morton, Minnesota. Minnesota River Basin Projects AREA II Legislative Forum.
7. December 11 - Colman. Central Big Sioux River Watershed Project Steering Committee.
8. December 13 - Madison. Lake County Clean water Committee.
9. December 18 - Milbank. Grant County Commission.

Upcoming Meetings -

1. December 21 - 1 p.m. - Sioux Falls. Steering Committee meeting for the SDSU-WRI Winter Manure Management Study.
2. January 4, 2013 - 1:00 p.m. - Various DDN sites. SD Board of Water and Natural Resources.
3. January 8-10 - Ramkota, Pierre. SD Association of Rural Water Systems Annual Meeting and Technical Conference.
4. January 8 - 1:00 p.m. - State Capitol, Pierre. Start of the 2013 Legislative Session.
5. January 9 - 7 a.m. - State Capitol Building. Legislative Breakfast sponsored by EDWDD and other WDDs.
6. January 9 -12 noon - Legion Cabin, Pierre. James River WDD meeting.
7. January 9 - 3:00 p.m. - Pierre. Central Plains WDD Board Meeting.
8. January 14 - 9:00 a.m. - EDWDD Office, Brookings. January 2013 EDWDD Board of Directors Meeting.

Motion by Brown, seconded by Connelly to hold the January 2013 Board of Directors meeting on Monday, January 14th at 9:00 a.m. at the District Office in Brookings. The Manager noted that the Board meeting schedule for the balance of 2013 would be set at the January meeting. Motion carried unanimously.

Payment Requests - The Manager presented the Board with several payment requests:

South Dakota State University (SDSU) Water Resources Institute (WRI) - At the December 2009 meeting, the Board agreed to provide District cost-share assistance for fifty-percent of the water quality analyses, up

to a maximum of \$7,900, conducted as part of an assessment of the impacts of the winter application of manure. In January 2011, WRI requested and received an initial payment of \$3,947 for analyses from 2010. The Manager indicated that the WRI has submitted a request for payment, along with the necessary paperwork, to cover the District share of analytical costs from 2011, totaling \$777. He anticipates a request for 2012 analyses will be submitted early next year.

Motion by Scheibe, seconded by Weidler to authorize payment \$777 to the WRI as requested. The Manager noted that with this payment a balance of \$3,176 would remain of the District's commitment to this effort. Motion carried unanimously.

South Dakota State University - In October 2011, the District agreed to provide \$60,438 in cost-share assistance to South Dakota State University (SDSU) for a research project entitled, "Agricultural Subsurface Drainage Impacts on Hydrology in Eastern South Dakota." The Manager noted that SDSU has submitted the second request for reimbursement for a total of \$5,478.77, which covers eligible costs incurred in September, October and November of this year. The District previously made a payment of \$6,411.64 for project expenses.

Motion by Connelly, seconded by Soholt to authorize payment \$5,478.77 to SDSU as requested. The Manager noted that with this payment a balance of \$48,547.59 would remain of the District's commitment to this effort. Motion carried unanimously.

USGS Minnesota Water Science Center - At the September 2012 meeting, the Board agreed to provide \$5,339 in cost-share assistance to the United States Geological Survey (USGS) Minnesota Water Science Center for support of two stream gaging stations for Federal Fiscal Year (FFY) 2012 (October 2011 - September 2012). The gages in questions are located on the Whetstone River in Grant County (USGS 05291000) and the Yellow Bank River gage in Lac qui Parle County (USGS 05293000). The Minnesota water Science Center has submitted a request for payment of the District's cost-share.

Motion by Weidler, seconded by Brown to authorize payment \$5,339 to the USGS Minnesota Water Science Center as requested. The Manager noted that this would complete the District's obligation to this effort. Motion carried unanimously.

Lake Madison Development Association - At the April 2011 meeting, the Board agreed to provide \$5,000 in cost-share assistance to the Lake Madison Development Association (LMDA) to support a one-year pilot project to assess the ability of artificial lake circulation devices to reduce biologic sediment and manage algae production in the lake. The total cost of the investigation was \$12,000, with the District providing \$5,000, and Lake County and LMDA providing \$3,500 each. The work has been completed, and LMDA has submitted a request for payment of \$5,000.

Motion by Flemming, seconded by Brown to authorize payment \$5,000 to LMDA as requested. The Manager noted that with this payment, the District's obligation to this effort would be complete. He also noted that a summary of the results of the investigation would be presented later in the meeting. Motion carried unanimously.

Project Assistance Review - The Manager reviewed the status of three projects that had previously received District cost-share assistance. Each project had either been completed and will not be requesting further

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funds, or has failed to request funds in a timely manner. The Manager requested that the Board rescind the balance of District funds (\$4,795 in total) committed to the following projects:

SDSU Cooperative Extension Service watershed publication, \$1,325;
Town of Revillo storm-water facility plan, \$320; and
Drain Tile WQ Study Support, \$3,150.

Motion by Brown, seconded by Weidler to rescind remaining District cost-share assistance grants as requested. Motion carried unanimously.

Appointment of District Legal Counsel - The Manager noted that for many years Alan Glover of Brookings had served as the District's legal counsel. Mr. Glover has recently retired from legal practice, and as such designation of a new District legal counsel is necessary.

Motion by Scheibe, seconded by Brown to appoint Gregg Greenfield, with the Boyce, Greenfield, Pashby & Welk, L.L.P., of Sioux Falls, as District legal counsel for calendar year 2013. Motion carried unanimously.

Appointment of District Legislative Lobbyist - The Manager noted that his current designation as the District's lobbyist to the South Dakota Legislature will expire on December 1, 2012.

Motion by Connelly, seconded by Sohlt to appoint the Manager as District's lobbyist to the South Dakota Legislature during calendar years 2013 and 2014. Motion carried unanimously.

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2011 Fiscal Audit Report

Janice Shaeffer, CPA, with East Vander Woude, Grant and Company, reviewed the Final Audit Report of the District finances during 2011. Copies of the final audit report were distributed to Board members in October. There were no substantial accounting errors or significant problems with the District's fiscal accounts and records. The report had been submitted to the State Department of Legislative Audit and had been accepted.

Motion by Brown, seconded by Connelly to accept and approve the 2011 fiscal audit report. Motion carried unanimously.

The Manager noted that a public notice will be placed in the official newspapers of the District stating that the audit had been completed and was available for examination, as required by South Dakota Codified Law 46A-3D-4.

Large Concentrated Animal Feeding Operation Siting Project

Earlier in the year the District had supported a pilot project conducted by the First District Association of Local Governments (FDALG) to identify potential locations with Brookings and Moody Counties for large-scale animal feeding operations. Locations identified in the study would meet all the requisite set back and other local zoning and permit requirements, and also be located within reasonably close proximity to the basic infrastructure needs (roads, power and water) of such facilities. The end product was intended to be

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a starting point for potential development of such facilities in locations that did not immediately require variances from local standards.

The Manager stated that Todd Kays, FDALG Executive Director, has been approached by representatives of the Sioux Falls Development Foundation (SFDF) about the development of similar information for Minnehaha and Lincoln Counties. He has developed a proposal which includes a scope of work and a budget. In this proposal, the costs would be shared equally between the District, SFDF and a regional cheese processor (Agropur Incorporated of Hull, Iowa). The total cost for this effort would be \$18,000 (\$6,000 for each cooperator). The District would act as the primary contractor with FDALG.

Director Connelly expressed a level of concern about the District becoming involved in an effort that might be construed to provide an unfair operational advantage to a private company (Agropur). The Manager noted that as with the comparable material developed by First District for Brookings and Moody Counties, the end products of this action would be readily available to any and all interested parties. The District would be the prime contractor, and as a public entity, all of its records and reports are available to anyone. He stated that if ready public access to this information is not acceptable to either the Sioux Falls Development Foundation or Agropur, then he would assume the Board would justifiably reconsider its support for such an action.

The Manager also noted that he had been in discussion with FDALG staff about how the information about water availability was obtained and presented for these efforts. Through the first few iterations of this activity, it is becoming increasingly clear that this information presents the greatest challenges. Mr. Kays concurs, and the Manager and FDALG staff will update and improve the process for subsequent efforts.

Motion by Scheibe, seconded by Brown to act as the primary contractor for the proposed activity, and to provide the \$6,000 in funds identified in the proposal, contingent on the two sub-contractors (Sioux Falls Development Foundation and Agropur Inc.) providing like amounts of support and otherwise abiding by the conditions of the proposal. Motion carried with Directors Brown, Flemming, Scheibe, Soholt and Weidler, along with Chairman Jarrett supporting, and Director Connelly abstaining.

USGS Stream Flow Trends Assessment

Galen Hoogestraat, hydrologist with the United States Geological Survey (USGS) South Dakota Water Science Center in Rapid City briefed the Board on the status of their evaluation of long-term stream and river gages in eastern South Dakota. At the May 2012 meeting, the Board agreed to provide funding for the study, entitled *Assessment of Climatic Effects on Streamflow Characteristics in eastern South Dakota*, to examine the records of long-term river gaging stations to assess whether or not variability in flow/discharge could be wholly attributed to climate (precipitation) or if other factors, such as land-use changes, might have impacts. The total project cost would be \$45,500, with the District providing \$25,000, with the balance coming from USGS. Work on the study began this past summer, and is scheduled to be completed in April 2013.

Mr. Hoogestraat explained that there were rising trends in mean daily stream flow for most gages in eastern South Dakota over the past 60 years. To evaluate whether these trends could be explained by precipitation and/or other factors, they were looking at the long-term records from ten (10) gaging stations in the watersheds of the Minnesota, Big Sioux, Vermillion and James Rivers (listed below).

<u>Gage Number</u>	<u>River/Location</u>	<u>Watershed</u>
05291000	Whetstone River nr. Big Stone City	Minnesota River
06471500	Elm River near Westport	James River
06477500	Firesteel Creek near Mt Vernon	James River
06478500	James River near Scotland	James River
06478540	Little Vermillion River near Salem	Vermillion River
06478690	West Fork Vermillion near Parker	Vermillion River
06479438	Big Sioux River near Watertown	Big Sioux River
06481000	Big Sioux River near Dell Rapids	Big Sioux River
06481500	Skunk Creek at Sioux Falls	Big Sioux River
06485500	Big Sioux River at Akron, IA	Big Sioux River

He reviewed the various procedures and statistical analyses that were used to evaluate the stream gage records (flows measured in cubic feet per second (cfs) moving past the gage location) and precipitation records for the watersheds. While further analyses will be conducted as part of the investigation, Mr. Hoogestraat did provide the Board with some qualified preliminary results. The analyses suggest that for smaller watersheds, such as the Big Sioux River above Watertown or the Little Vermillion River, stream flow trends over the period of record are explained quite well by precipitation alone. However, precipitation alone does not fully account for the increasing trends in larger basins, such as the Big Sioux River at Akron, IA, or the James River at Scotland. He noted that for much of the recent past (1980 to 2011), precipitation alone accounts for the streamflow trends, suggesting that impacts due to changes in land use reflect actions taken in the early part of the record.

Mr. Hoogestraat indicated that they anticipated having the final report on this effort completed in the coming months, in time to meet the agreed delivery date of April 30, 2013.

Bio-Sediment Reduction Pilot Project

In April 2011, the District agreed to provide cost-share assistance to the Lake Madison Development Association (LMDA) for a one-year pilot project to assess the ability of artificial lake circulation devices to reduce biologic sediment and manage algae production in the lake. Kerwin Miller, with The eXpert Company, provided a summary of the study results.

Mr. Miller explained that the intent was to accelerate the natural degradation of accumulated organic material by aerobic bacteria in the bay. To accomplish this, three solar-powered circulators were installed that bring oxygen-poor water from the bottom of the bay to the surface, where it would pick up oxygen before circulating back to the bottom. He noted that prior to the initiation of the test in June 2012, there was approximately 2.5 feet of accumulated organic matter at the bottom of the bay. By late October, this had been reduced by roughly 1 foot. They estimate that the three circulators impact about 10 acres of the bay, so the loss of 1 foot represents about 16,000 cubic yards of material. Mr. Miller stated that measurements of bottom sediment and other tests will continue through June 2013.

District Project Updates

Central Big Sioux River Watershed Project II - Water Quality Monitoring - The Manager presented a summary of the past two years of water quality sampling conducted by District staff in support of the Central Big Sioux River Watershed Project II. Samples are collected at 14 sites; 13 on the Big Sioux River between

Estelline and Brandon and one on Skunk Creek in Sioux Falls. The sites are ones that have all been previously monitored as part of earlier assessments of the watershed. A variety of parameters were measured in the field, with samples also submitted to the State Health Laboratory to be tested for total suspended solids (TSS) and *E. coli* bacteria. Five monthly samples were collected and analyzed in 2011, and seven monthly samples collected and analyzed in 2012.

The Manager presented the following preliminary conclusions based on the results:

1. Total Suspended Solids: A number of samples collected from the Big Sioux River exceeded the acute (grab sample) TSS standard of 158 milligrams per liter (mg/L). However, for the segment between Brookings and Flandreau, over fifty-percent (50%) of the samples exceeded the chronic TSS standard of 90 mg/L. Samples collected below Flandreau had generally lower TSS values, with only limited violation of the applicable standards. TSS does appear to be a problem in the river for fish life above Flandreau, but not below. The slack water behind the dam on the Big Sioux River at Flandreau may well be creating a sediment sink.
2. *E. coli* Bacteria: Fewer than ten percent (10%) of samples collected on the river above Egan exceeded the applicable Limited-Contact Recreation acute standard of 1,178 colony forming units per 100 milliliters of sample (cfu/100ml). However, the levels generally increase from north to south. Below Trent, greater than 10% of the samples exceed the applicable Immersion Recreation standard of 235 cfu/100 ml, with greater than 25% exceeding the chronic standard of 126 cfu/100 ml. Bacteria levels are an issue as both the upper Big Sioux River watershed and Skunk Creek contribute loads to the river below Dell Rapids where the more stringent Immersion Recreation standard is in place.
3. Dissolved Oxygen: Only a small number of samples had less than the established minimum of 5.0 milligrams per liter. Dissolved oxygen levels do not appear to be an issue in the river or Skunk Creek for fish life, immersion- or limited-contact recreation based on this limited sample set.

The Manager noted that sampling in 2013 would be expanded to include a number of additional sites in the Skunk Creek watershed, and perhaps some additional sampling targeting the TSS issues noted between Brookings and Flandreau.

Central Big Sioux River Watershed Project II - Public Opinion Survey - The Manager noted that at the June 2012 meeting, the Board agreed to provide funding for a public opinion survey of attitudes toward various water quality issues in the Big Sioux River watershed. The survey is a repeat of a similar survey conducted in 2006. However, as there were potential changes to the survey language being discussed, and some concern expressed by some of the partners in the Central Big Sioux River Watershed Project II, the Board stipulated at the time that it wanted to have the opportunity to review the proposed final language of the survey before it was conducted.

The Manager presented the Board with what he proposed to be the final questionnaire, with changes to questions 10a and 21. After some discussion, the Board agreed on the final wording of these questions. No other changes were made to the questions from the original survey.

Motion by Brown, seconded by Connelly to approve the changes, and to authorize the Manager to have the survey conducted in early 2013. Motion carried unanimously.

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Adjournment

There being no further District business, Chairman Jarrett declared the meeting adjourned at 4:55 p.m.

Roger Scheibe, Secretary

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