NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

# WATER-RELATED TOPICS OVERVIEW COMMITTEE

Monday and Tuesday, June 14-15, 2010
Heritage Hall, Main Building, Lake Region State College
1801 College Drive North
Devils Lake, North Dakota

Senator Tom Fischer, Chairman, called the meeting to order at 9:00 a.m. on Tuesday, June 15, 2010. The committee had earlier conducted a tour of the Devils Lake region on Monday, June 14, 2010.

**Members present:** Senators Tom Fischer, Joan Heckaman, Gary A. Lee; Representatives Rick Berg, Duane DeKrey, Curt Hofstad, Jon Nelson, Darrell D. Nottestad

**Member absent:** Senator Arden C. Anderson

**Others present:** Dave Oehlke, State Senator, Devils Lake

Curtis Olafson, State Senator, Edinburg

Dennis Johnson, State Representative, Devils Lake

Benjamin A. Vig, State Representative, Sharon

Representative Merle Boucher and Senator David O'Connell, members of the Legislative Management, were also in attendance.

See Appendix A for additional persons present.

**It was moved by Representative Hofstad, seconded by Senator Heckaman, and carried on a voice vote that the minutes of the March 15, 2010, meeting be approved as distributed.**

## ECONOMIC AND EMOTIONAL IMPACT OF FLOODING IN THE DEVILS LAKE BASIN

Chairman Fischer recognized Ms. Karen Hausmann, Churchs Ferry. Ms. Hausmann discussed the impact of Devils Lake flooding on agriculture and farmers in the Devils Lake Basin. A copy of her comments is attached as Appendix B. She urged the committee to support investment in projects that will provide current and long-term benefits to the Devils Lake Basin.

Chairman Fischer recognized Mr. Fred Bott, Mayor, Devils Lake. Mr. Bott said Devils Lake flooding is severely impacting the residents of the Devils Lake Basin. He said that although the lives of the residents are not at stake, the livelihood on which the residents depend is. He urged the committee to arrive at short-term and long-term solutions to the Devils Lake flood crisis. He said there is not a long-term solution to the flooding and a 15-year window of opportunity available. He said Devils Lake is facing an imminent flood disaster and that relief for the Devils Lake Basin consists of pumps on the west end of the lake and an outlet on the east end of the lake. He said he has been trying to warn downstream residents that Devils Lake flooding is not only a Devils Lake Basin problem, but if the lake breaks out of the basin, it becomes a catastrophe for downstream residents and all of eastern North Dakota.

In response to a question from Senator O'Connell, Mr. Bott said over $1 billion has been spent on Devils Lake flooding. To date, he said, $54 million has been spent on the Devils Lake embankment, with expansion of the project bringing the total cost of the embankment to $113 million.

Chairman Fischer recognized Mr. Kyle Blanchfield, Devils Lake. Mr. Blanchfield said he and his wife own and operate Woodland Resort, a lakeside hunting and fishing resort. He said he has moved over a dozen buildings and relocated campgrounds and other structures. He said the restaurant at the resort is on its third location, and last year he spent $200,000 on fill to protect the restaurant from the rising lake. He said an outlet must be constructed soon as he and other lake residents are running out of high ground, energy, and money to continue to fight the flood.

In response to a question from Representative Boucher, Mr. Blanchfield agreed that time for additional studies has passed and action must commence. He said if the millions of dollars that have been spent on studies had been put to work on a solution, the Devils Lake Basin would be much better off.

In response to a question from Representative Nelson, Mr. Blanchfield said there is no "magic" optimal lake level. He noted that the meander line is quite low and not the optimum level for the Devils Lake fishery. He said an average level of 1,440 feet mean sea level to 1,445 feet mean sea level may be an appropriate long-term lake level.

Chairman Fischer recognized Mr. Jeff Frith, Manager, Devils Lake Joint Water Resource Board. Mr. Frith discussed flooding in the Devils Lake Basin. A copy of his PowerPoint presentation is attached as Appendix C. He distributed a memorandum (Appendix D) from Mr. Michael Noone to Dale Frink concerning Devils Lake flood infrastructure expenditures, a summary (Appendix E) concerning the economic impact of Devils Lake area flooding, and an informational sheet (Appendix F) entitled *Devils Lake Flood Facts*. He also distributed copies of Landsat images from May 15, 2010, of the Devils Lake Basin area, which are on file in the Legislative

Council office. From 1992 to 2010, he said, Devils Lake has increased from an elevation of 1,422.9 feet mean sea level to 1,451.79 feet mean sea level. During this same period, he said, the area of the lake has increased from 44,935 acres to 169,000 acres.

In response to a question from Senator Heckaman, Mr. Frith said an east-end outlet would reduce flooding in the northwest portion of the Devils Lake Basin.

In response to a question from Representative Nelson, Mr. Frith said irrigation is not an adequate means of flood mitigation.

Chairman Fischer recognized Mr. Doug Boknecht, Clinical Social Worker and Assistant Regional Director, Lake Region Human Service Center, Devils Lake. Mr. Boknecht discussed the emotional impact of Devils Lake flooding and the impact to the Devils Lake community of continued Devils Lake flooding. A copy of his written comments is attached as Appendix G.

Chairman Fischer recognized Mr. Nels Halgren, Manager, Greater Ramsey Water District, Devils Lake. Mr. Halgren discussed the challenges facing the Greater Ramsey Water District in supplying water and sewer services in the face of rising lake levels. A copy of his written comments is attached as Appendix H and a graph showing sewer flows and lake elevations is attached as Appendix I.

In response to a question from Senator Heckaman, Mr. Halgren said his budget for treating water has increased from $30,000 to $60,000 per year as a result of Devils Lake flooding.

In response to a question from Representative Hofstad, Mr. Halgren said homeowners may have several options if the Greater Ramsey Water District is no longer able to serve them. He said homeowners may install a personal septic system if the available ground can handle the system without water intrusion or the homeowner may install a holding tank that must be pumped weekly.

Chairman Fischer recognized Mr. Dick Johnson, Director, Lake Region Regional Law Enforcement Center, Devils Lake. Mr. Johnson said the center provides 911 services for the six counties in the Devils Lake Basin. He discussed problems of emergency responders, law enforcement, and fire departments responding to emergencies in the face of closed roads and roads that are underwater. He said there have been instances in which dispatchers had sent emergency vehicles onto roads that had become submerged since the last time the road situation was updated. He said this creates a very dangerous situation for responders as well as delays that may be life-threatening.

Chairman Fischer recognized Ms. Elvera Snyder, Lake Region Regional Law Enforcement Center, Devils Lake. Ms. Snyder detailed individual cases involving emergency responders and road closures in the Devils Lake Basin. In the last several years, she said, at least six traffic fatalities have resulted from individuals driving into water or the lake. She said emergency responders are under increasing stress as a result of trying to navigate emergency vehicles around road closures, submerged roads, or roads that may be water-damaged and unable to support the weight of an emergency vehicle.

In response to a question from Senator Heckaman, Senator Oehlke said that before 1999 the Federal Emergency Management Agency (FEMA) allowed individuals who were within 30 days of being flooded from the rising waters of Devils Lake to collect flood insurance and to use the proceeds to move their homes. He said FEMA changed this policy in 1999. Under current procedures, he said, a dwelling must be inundated for 90 days before the flood insurance policyholder may collect from the policy.

## STATE WATER COMMISSION

Chairman Fischer recognized Mr. Todd Sando, Assistant State Engineer, and Director, Water Development Division, State Water Commission. Mr. Sando discussed the state response to Devils Lake flooding and distributed a summary (Appendix J) of upper basin storage studies, a summary (Appendix K) of the procedure to identify drained wetlands in the Devils Lake Basin, a summary (Appendix L) of the available storage acreage and extended storage acreage programs, a summary (Appendix M) of the State Water Commission's 1998 Devils Lake Basin wetland drainage study, and a summary (Appendix N) of the Devils Lake Outlet operation. He said the State Water Commission has been working on Devils Lake flood issues since 1993. He said the State Water Commission has adopted a three-pronged solution to Devils Lake flooding composed of upper basin storage, infrastructure protection, and removal of water from Devils Lake. He said the Devils Lake Outlet is operating at 100 cubic feet per second and will soon be increased to 250 cubic feet per second. He said the cost of upgrading the outlet from 100 cubic feet per second to 250 cubic feet per second was $16 million. He said all permits are in place, and all downstream water quality and flood constraints have been resolved.

In response to a question from Representative Hofstad, Mr. Sando said the State Water Commission has determined that the maximum flow in the upper Sheyenne River is 600 cubic feet per second. He said the maximum flow normally occurs in the spring, which is a constraint on operation of the Devils Lake Outlet. As water levels in the upper Sheyenne River decrease into the summer, he said, the outlet flows may be increased.

In response to a further question from Representative Hofstad, Mr. Sando said the upper Sheyenne River is navigable and thus the state owns the riverbed to the ordinary high-water mark. However, he said, if the state were to increase flows from the outlet to bring the upper Sheyenne River above 600 cubic feet per second, the state would have to purchase flood easements from downstream landowners.

In response to a question from Representative Nelson, Mr. Sando said water quality constraints prevent water being removed through the Tolna Coulee. A better option, he said, may be to remove water from east Devils Lake as that water is of a better quality.

Chairman Fischer recognized Mr. Lee Klapprodt, Director, Planning and Education Division, State Water Commission. Mr. Klapprodt reviewed upper basin storage initiatives. He said there are a large number of drains in the upper basin of Devils Lake. However, he said, most of these drain small temporary wetlands into larger permanent wetlands, and the vast majority of drains do not contribute to the increasing level of Devils Lake. Concerning the available storage acreage and extended storage acreage programs, he said, the State Water Commission originally set aside $3 million for the program. He said the available storage acreage program expended $2.6 million in acquiring 159 contracts on 12,950 acres of land. He said the tracts varied in size from 2 acres to 860 acres in size and held an estimated 20,500 acre-feet of water. Due to the high cost and short-term nature of the available storage acreage program, he said, the State Water Commission changed its approach by creating an extended storage acreage program. He said the extended storage acreage program provides for 10-year water storage contracts and is more efficient and cost-effective than the available storage acreage program. He said approximately 1,000 acre-feet of water is stored on 338 acres under the extended storage acreage program.

## ENVIRONMENTAL HEALTH SECTION, STATE DEPARTMENT OF HEALTH

Chairman Fischer recognized Mr. L. David Glatt, Chief of the Environmental Health Section, State Department of Health. Mr. Glatt discussed water quality issues of Devils Lake. A copy of Mr. Glatt's PowerPoint presentation is attached as Appendix O, and a document entitled *Chemical, Physical and Biological Characterization of Devils Lake 1995-2009* prepared by the Division of Water Quality, State Department of Health, is on file in the Legislative Council office. He said the federal Clean Water Act, which the state has chosen to enforce, is designed to protect beneficial and designated uses of water. He said these beneficial and designated uses are municipal, agricultural, industrial, aquatic life, and recreational uses. One way this is done, he said, is to identify standards and classifications for each stream in the state. He said the State Department of Health does this by utilizing best available science and also site-specific criteria. He said the department's permitting programs focus on appropriate controls, assimilative capacity, and discharge limitations. He said the department recently increased the allowable sulfate level for the upper reach of the Sheyenne River to Bald Hill Dam from 450 milligrams per liter to 750 milligrams per liter for all designated uses except municipal use. However, he noted, there are no municipal water users on the upper reaches of the Sheyenne River. He said the standard on the Red River is 250 milligrams per liter, and the objective at the Canadian border is also 250 milligrams per liter.

In response to a question from Representative Berg, Mr. Glatt said the increase in the sulfate level from 450 milligrams per liter to 750 milligrams per liter was carefully studied by the department and based upon the best available scientific evidence. He said the federal Environmental Protection Agency (EPA) is reviewing this determination, and the state has probably gone as far as it can go in increasing the sulfate level for the upper reaches of the Sheyenne River.

In response to a question from Senator Heckaman, Mr. Glatt said if the state of North Dakota did not enforce the Clean Water Act standards, the state would be subject to fines and possible criminal action. In addition, he said, EPA could withdraw primacy for enforcement of environmental statutes and regulations in North Dakota and assume enforcement responsibility.

## NATIONAL WEATHER SERVICE

Chairman Fischer recognized Mr. Mark Ewens, Data Acquisition Program Manager, National Weather Service, Grand Forks. Mr. Ewens discussed weather conditions and cycles in the Devils Lake Basin and presented a PowerPoint presentation (Appendix P). For the short-term summer of 2010 and the winter outlook for 2010-11, he said, it appears there will be a transition from the current cold and damp conditions to milder and dryer conditions. However, he said, the current "wet cycle" should persist over the next one-year to five-year range.

## UNITED STATES GEOLOGICAL SURVEY

Chairman Fischer recognized Mr. Skip Vecchia, Statistician, United States Geological Survey, Bismarck. Mr. Vecchia discussed future flood risk for the Devils Lake Basin. He said the length of time of each dry cycle and each wet cycle is unpredictable. Also, he said, the time at which a cycle will change from a wet cycle to a dry cycle is also unpredictable. However, he said, wet periods occur approximately once every 150 years and last approximately 30 years.

Concerning the chances of an uncontrolled spill from the east end of Devils Lake, Mr. Vecchia said projections calculated by the United States Geological Survey show that without an outlet, there is a 14 percent chance of an uncontrolled release from the east end of Devils Lake. The outlet, he said, cuts this probability in half and thus is very effective in lessening the probability of an uncontrolled spill. However, he said, it would take a very large outlet to reduce the probability to zero. Under most scenarios, he said, sulfate is constraining the operation of the

outlet. He said establishing an outlet further north on the west end of Devils Lake, such as Pelican Lake, would ameliorate the sulfate problem.

Chairman Fischer recognized Representative Hofstad. Representative Hofstad said the State Department of Health should begin the process of establishing different triggers at which the volume of water in the outlet will be increased.

Chairman Fischer recognized Mr. Francis Schneider Jr. Mr. Schneider said because the steps taken to date have been so long in coming, the resultant flood impacts are now inevitable. The solution, he said, is to operate the outlet at maximum capacity, release water through the Tolna Coulee, and to stretch water quality constraints.

Chairman Fischer recognized Mr. Joe Belford, Board of Ramsey County Commissioners, Devils Lake. Mr. Belford thanked the committee for visiting Devils Lake. He thanked state officials for their work on the Devils Lake flood problem and urged the State Water Commission to increase the capacity of the west-end outlet as soon as possible.

Chairman Fischer recognized Mr. Arne Berg, State Water Commission, Devils Lake. Mr. Berg noted that many landowners in the Devils Lake Basin are storing water on their land as a result of the flood. He said landowners should be compensated for their inundated land, and the resources trust fund would be an appropriate source of state funds for this purpose.

Chairman Fischer recognized Mr. Lee Gessner. In addition to resolving the flood problem, Mr. Gessner said the committee and state must also determine an appropriate operating level for the lake. He suggested that 1,446 feet mean sea level may be an appropriate level. He said this level would protect most roads and improve transportation in the Devils Lake Basin.

Chairman Fischer recognized Representative Boucher. Representative Boucher distributed a memorandum (Appendix Q) concerning flooded agricultural lands and properties in the Devils Lake Basin.

## STAFF DIRECTIVES

Representative Berg requested that Bank of North Dakota officials review programs that may be available to Devils Lake Basin homeowners facing inundation.

Representative Berg requested that the Legislative Council staff review the statutory and administrative rules provisions limiting the deepening of drains to the level of the drain at statehood.

**It was moved by Representative Berg, seconded by Representative Hofstad, and carried on a roll call vote that the Legislative Council staff be requested to prepare a bill draft directing the State Water Commission to construct a control structure on the east end of Devils Lake.** Senators Fischer, Heckaman, and Lee and Representatives Hofstad, Berg, Nelson, and Nottestad voted "aye." No negative votes were cast.

Representative Berg said an east-end control structure would not only alleviate the flooding caused by Devils Lake but also would protect downstream residents from a catastrophic uncontrolled release from Devils Lake.

Senator Heckaman requested that the bill draft contain an emergency clause.

Representative Hofstad requested that the State Water Commission staff prepare a list of options for controlling an uncontrolled release from Devils Lake listing the positive and negative aspects of each option.

No further business appearing, Chairman Fischer adjourned the meeting at 4:00 p.m.

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Jeffrey N. Nelson
Committee Counsel

ATTACH:17