MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION
SFN 2053 (2/85) 5M

ROLL NUMBER

DESCRIPTION

2020

2007 SENATE APPROPRIATIONS

SB 2020

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 2020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 01-19-07

Recorder Job Number: 1461, 1462

Committee Clerk Signature

Minutes:

Chairman Holmberg opened the hearing on SB 2020, on 01-19-07, indicating the sub-committee on this bill include Senators Fischer, Holmberg, and Robinson.

Dale Frank, ND State Engineer and Chief Engineer, Secretary, State Water Commission, presented written testimony (1, 2) and discussed an organizational overview, a status report on major projects and programs, the current budget, and a discussion of priority issues for the 2007-09 biennium. He highlighted flood control, the Maple River Dam, Devils Lake, the Red River, the water supply, weather modification, the general water management plan, various line items in the budget centering on salaries for administrative and support services as well as water and atmospheric resources. He then discussed the NAWS project, the Devils Lake lawsuit, the Rhineland lawsuit in Canada, the Red River map project and several other topics.

Senator Fischer indicated the Water Commission seems complex and questioned if the staffing was sufficient. The response was that the major concern is to keep long term staff and they do have the ability to handle the projects.

Senator Krauter indicated appreciation for the work of the Water Commission and requested a listing of contract employees within the agency, to share what is happening in Parshall and to share additional information with the atmospheric resource 45 percent reduction and the amount of hail loss and why Bowman has the highest rate in the area.

Other questions included history about the Rhineland lawsuit and what really caused that flooding, what the status is of Stumpf Lake, concerns about ability to complete projects, comment on the Dunn County water access project completion, what the plans are for completion, are we moving ahead with lawsuits, are we coming to new levels of resistance or decision making that needs to be looked at differently,

Jean Waltman, Executive Director, ND Water Coalition, spoke on behalf of **Dennis Hill, Chairman, North Dakota Water Coalition**, and distributed written testimony (4) and a leaflet "Meeting the Challenge V" which contains a brief summary of statewide water supply. Ms. Waltman indicated the water coalition has been in existence for ten years during which time many projects have been completed and projects that are on-going. He then discussed the '97 flood.

Dennis Walaker, Mayor, Fargo, distributed written testimony (5) discussing the 1997 flood and the flood control project together with the specific concerns, We have participated with 3 engineering consultants, FEMA, Cass County SE Cass Water Resource District in replicating the 1997 flood for major impact analysis. We have identified additional project alternatives and have evaluated and modeled them. We've utilized the most recent model of full projections in testing all the alternatives and we also retained an independent pier review engineer. We feel we have the accurate data today to proceed with identifying which option that we prefer. We are forming an advisory committee and when I get back today I'll be signing the letters that go out to the groups of both Cass County, ND, Cass County, Mn, and Moorhead for comments and recommendations. We had a public hearing that about 500 people attended. Attached you will find a summary sheet that our city engineer has prepared. 51 sections of land were covered with the water that was heading toward our city. We are requesting ND cost

participation using the same formula for previous flood control problems, 50% of nonfederal costs. In my opinion the Wild Rice Diversion would be my pick in this group. I support this bill.

Fred Bott, President City Commission of Devils Lake, ND presented written testimony (6) and gave oral testimony in support of the bill. He spoke on the serious challenges that threaten the viability of the City's existing drinking water supply. The City is challenged to meet a stricter drinking water regulation for arsenic. We are currently operating under an arsenic exemption status that was provided by the ND Department of Health. The city needs to have a new water system in place by January of 2009 to remain in compliance with the Safe Drinking Water Act. We have had a great deal of communication with North Dakota's Congressional Delegation regarding the critical nature of our water supply. Recently we were informed that no additional federal funds will be provided this year due to the government operating under a continuing resolution status for the 2007 fiscal year. Therefore, state support of our project is imperative to insure the City can provide a safe, reliable water supply that is affordable to our residents.

Doug Neibauer, Manager of Regional Water system in South Central North Dakota presented written testimony (7) and gave oral testimony in support of the bill. We operate out of Bismarck and serve a population of about 4000 households, basically about 2/3 of Burleigh Co, a little bit of Emmons and Kidder Counties. Our goal is to satisfy the unmet water needs for the cities, rural residences, and bulk commercial-industrial uses in south central North Dakota. A Feasibility and Preliminary report completed in 2002 identifying the need for quality water in the five county area of Burleigh, Emmons, McIntosh, Logan and Kidder Counties, which has support of over 1600 rural residents and 10 cities that deposited a good intention fees to be part of the regional water system that will supply an abundant quality water. This area is the HWY 83 and I-04 corridor that provides the opportunity for good access to transport

commodities, therefore has a high potential for business that will employ an educated and skilled workforce.

Gene Goven from Turtle Lake, ND presented written testimony (8) and gave oral testimony in support of the bill. I am proud to be involved in the development of the North Central Rural Water Consortium, and I am interested in the construction of a rural water pipeline to my home. Poor quality water, lack of water, or the need to haul water makes it difficult for persons to want to work and live in rural North Dakota. Agriculture still remains a key driver of North Dakota's economy.

Melody Kruckenberg CEO of the North Dakota Rural Water Systems Association which serves a membership of approximately 250 cities and 32 rural water systems. I am in support of SB 2020 and particularly interested in the Municipal, Rural, and Industrial (MR and I) funding. Written testimony was also submitted by Alf Dybing from Maddock, ND; Bill Link, Manager Walsh rural Water District; F. Ward Koeser, President of the Board od Commissioners, Williston, ND; McKenzie County Rural Water Distribution System, in support of the bill.

Tiffanie Smith, Beach, ND provided written testimony (10) and gave oral testimony in support of the Southwest Pipe Line and the passing of SB 2020.

Written testimony (11) regarding the Southwest Pipeline Project, allowing completion to the Medora-Beach Service Area and continue construction in the Oliver, mercer, North Dunn Service Area was submitted in support of SB 2020.

Terral Bang, Rancher for Western Dunn County, ND submitted written testimony (12) and gave oral testimony in support of SB 2020. He stated he signed up for rural water in early 1990's and is still waiting. His family deals with both water quality and quantity on a daily basis.

He has 5 wells on his property, but if left untreated the water is deep red in color, smells of sulfur and stains nearly anything it touches.

Ruth Julson, Zap, ND submitted written testimony (13) and gave oral testimony in support of SB 2020 and the Southwest Pipe Line. The community has been waiting for rural water for 15 years, and the hardness of the water is 20 times the maximum recommended level. Her challenge is to get North Dakota "On the Move" by developing the infrastructure needed statewide to deliver an adequate supply of quality water.

Alan Walter, Director of Public Works for the City of Minot, ND presented written testimony (14) and gave oral testimony in support of SB 2020. He reported on the progress of the Northwest Area Water Supply Project (NAWS), stating funding for this project is coming from Federal funds, State Water Commission funds and local funds of 35 percent. He informed the committee that we are in the middle of an EIS, which is the result of the lawsuit from the Manitoba government against NAWS. However, work continues on the project. Minot needs the support of the State Water commission, State legislators and communities to bring the project to a successful conclusion.

Curt Kreun, Grand Forks City Council Member and a Director on the Lake Agassiz Water Authority Board presented written testimony (15) and oral testimony in support of SB 2020. Funding for the Red River Valley Water supply Project is vital to the Red River Valley and the state of ND. He made comments relating to the Corp and the relation of the costs.

Chairman Holmberg asked Mr. Kreun to provide that information for the subcommittee.

Clark Cronquist, Agassiz Water Users District and Lake Agassiz Water Authority Board of Directors provided written testimony (16) and gave oral testimony in support of SB 2020.

Mike Dwyer did not provide written testimony but gave testimony in support of SB 2020. We need to address critical water infrastructure all over our state. We've just completed the

Environmental Impact and we urge you to continue that commitment to further water development in the state because future generations will be grateful that we did this.

Senator Christmann When we do these new projects what kind of a lifespan are we looking at for them, after hearing the Devils Lake testimony that their pipeline is 45 years old and at the end of it's expected life expectancy it makes me wonder about undertaking projects that will be at the end of their expectancy before they are completed?

Mike Dwyer stated that the Red River Valley Water Supply that we hope to have phase one done by the year 2012, as to the lifespan hopefully it will last several decades.

Chuck Fritz, Director of the International Institute presented written testimony (17) and gave oral testimony in support of SB 2020. The Institute was formed after the 1997 flood to do flood research and watershed education for the Red river Basin.

Senator Tallackson had questions regarding the final result and whether some dams would be constructed on the Red River.

Dan Wogsland, Executive Director of North Dakota Grain Growers gave oral testimony in support of SB 2020.

Chairman Holmberg stated the Subcommittee will be looking at this bill. Closed the hearing on SB 2020.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 2020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 02-14-07

Recorder Job Number: 3487

Committee Clerk Signature Alice Delzer

Minutes:

Chairman Holmberg opened the hearing on SB 2020 concerning the Water Commission on February 14, 2007.

Senator Fischer handed out the amendments (1) and explained the amendments to the committee.

Senator Holmberg asked questions regarding the dollar amount in this amendment.

Senator Fischer moved a DO PASS ON THE AMENDMENT. Senator Tallackson seconded. Amendment passed.

Senator Krauter handed out amendment .0102 (2) and explained the amendment to the committee.

Senator Krauter moved a DO PASS ON THE AMENDMENT 78044.102. Senator Tallackson seconded.

Senator Holmberg asked for discussion.

Senator Bowman had questions regarding the property tax on the counties. During this discussion questions were asked of him as to the effect this has on his county.

Senator Krauter stated if people wanted it they needed to pay for it. They have the ability and the resources to do that. It is not a property tax increase when you have money in your county

that you carry over and you got money in savings so the money is there. It is a choice of the people.

Senator Seymour stated he had received emails on this issue and these people want to keep this program.

Senator Wardner had questions regarding the funding; is it a county project. Is it a line item in the budget that the money goes through your County.

Senator Bowman stated they come and meet with the county before they do their budget.

Senator Holmberg asked for a verbal vote for in favor or against the amendment. He then asked the committee to raise their hands signifying their vote; **All in favor of amendment .0102 was 5, all opposed was 8, motion on the amendment did not pass.**

Senator Grindberg had questions concerning the mapping project.

Senator Fischer gave more information regarding the mapping project and dollar amounts that needed to be addressed in the amendment.

Senator Fischer moved a new amendment (104) be drafted by Legislative Council.

Senator Robinson seconded. All in favor say yea. The motion carried.

Senator Fischer moved a DO PASS AS AMENDED, Senator Tallackson seconded.

A roll call vote was taken resulting in 14 yeas, 0 nays, 0 absent. Motion carried. Senator Fischer will carry the bill.

The hearing on SB 2020 closed.

78044.0102
Title.
Fiscal No. 1

Prepared by the Legislative Council staff for
Senator Krauter
February 9, 2007

PROPOSED AMENDMENTS TO SENATE BILL NO. 2020

Page 1, line 2, replace "and" with "to create and enact a new section to chapter 61-04.1 of the North Dakota Century Code, relating to cost-share funding for county weather modification projects;"

Page 1, line 3, after "credit" insert "; and to provide an effective date"

Page 3, after line 10, insert:

"**SECTION 9.** A new section to chapter 61-04.1 of the North Dakota Century Code is created and enacted as follows:

Weather modification funding. The state water commission may not provide cost-share funding for county weather modification projects.

SECTION 10. EFFECTIVE DATE. Section 9 of this Act becomes effective January 1, 2008."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

This amendment provides that the State Water Commission may not provide cost-share funding for county weather modification projects as of January 1, 2008.

Date: 2/14/07
Roll Call Vote #: 1

2007 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2020

Senate Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 78044.0102

Action Taken

Motion Made By Krauter Seconded By Tallackson

Senators	Yes	No	Senators	Yes	No
Senator Ray Holmberg, Chrm			Senator Aaron Krauter		
Senator Bill Bowman, V Chrm			Senator Elroy N. Lindaas		
Senator Tony Grindberg, V Chrm			Senator Tim Mathern		
Senator Randel Christmann			Senator Larry J. Robinson		
Senator Tom Fischer			Senator Tom Seymour		
Senator Ralph L. Kilzer			Senator Harvey Tallackson		
Senator Karen K. Krebsbach					
Senator Rich Wardner					

Total (Yes) 5 No 8

Absent

did not pass

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

Date: 2/14/07
Roll Call Vote #:

2007 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2020

Senate Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Action Taken do pass as Amended 0103 10Y changed later

Motion Made By Fischer Seconded By Tallackson.

Senators	Yes	No	Senators	Yes	No
Senator Ray Holmberg, Chrm	✓		Senator Aaron Krauter	✓	
Senator Bill Bowman, V Chrm	✓		Senator Elroy N. Lindaas	✓	
Senator Tony Grindberg, V Chrm	✓		Senator Tim Mathern	✓	
Senator Randel Christmann	✓		Senator Larry J. Robinson	✓	
Senator Tom Fischer	✓		Senator Tom Seymour	✓	
Senator Ralph L. Kilzer	✓		Senator Harvey Tallackson	✓	
Senator Karen K. Krebsbach	✓				
Senator Rich Wardner	✓				

Total (Yes) 14 No

Absent

Floor Assignment Fischer

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2020: Appropriations Committee (Sen. Holmberg, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (14 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). SB 2020 was placed on the Sixth order on the calendar.

Page 1, line 2, after "commission" insert "; to create and enact a new section to chapter 61-02.1 of the North Dakota Century Code, relating to funding for Grand Forks flood control; to provide legislative intent"

Page 1, line 18, replace "48,263,767" with "48,463,767"

Page 1, line 19, replace "48,539,617" with "48,739,617"

Page 1, line 21, replace "12,676,286" with "12,876,286"

Page 2, line 4, replace "172,154,260" with "172,354,260"

Page 2, line 5, replace "174,610,555" with "174,810,555"

Page 2, line 7, replace "13,687,506" with "13,887,506"

Page 3, after line 10, insert:

"**SECTION 9.** A new section to chapter 61-02.1 of the North Dakota Century Code is created and enacted as follows:

Grand Forks flood control project. Notwithstanding any other provision of law or policy, any existing caps may not be construed to limit access to total state funding of up to fifty-two million dollars for the Grand Forks flood control project.

SECTION 10. LEGISLATIVE INTENT - SOUTHWEST PIPELINE PROJECT FUNDING. It is the intent of the sixtieth legislative assembly that the state water commission dedicate $7,000,000 for work on the southwest pipeline project in Oliver and Mercer Counties."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - Senate Action

	EXECUTIVE BUDGET	SENATE CHANGES	SENATE VERSION
Administrative and support services	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	$200,000	172,354,260
Total all funds	$174,610,555	$200,000	$174,810,555
Less estimated income	160,923,049		160,923,049
General fund	$13,687,506	$200,000	$13,887,506
FTE	84.00	0.00	84.00

Dept. 770 - Water Commission - Detail of Senate Changes

	PROVIDES

	FUNDING FOR MAPPING PROJECT [1]	TOTAL SENATE CHANGES
Administrative and support services		
Water and atmospheric resources	$200,000	$200,000
Total all funds	$200,000	$200,000
Less estimated income		
General fund	$200,000	$200,000
FTE	0.00	0.00

[1] This amendment provides a $200,000 general fund appropriation to the State Water Commission for a mapping project.

This amendment provides legislative intent for the State Water Commission to dedicate $7 million for work on the Southwest Pipeline Project in Oliver and Mercer Counties.

This amendment increases the eligible cost-share for the Grand Forks flood control program in order for the city to access the entire $52 million state share dedicated for the project.

2007 HOUSE APPROPRIATIONS

SB 2020

2007 HOUSE STANDING COMMITTEE MINUTES

, Bill/Resolution No. SB 2020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: March 2, 2007

Recorder Job Number: 4255

Committee Clerk Signature Shirley Branning

Minutes:

Chairman Wald: Called the hearing to order to take up Engrossed SB 2020, North Dakota State Water Commission (NDSWC) by introducing **Dale L. Frink**, North Dakota State Engineer-Secretary to the State Water Commission.

Frink: (See Handout #1, SB 2020, NDSWC) Referring to pages 1-19 and appendices testimony, focusing on a brief organizational overview, a status report on major projects and programs, the current budget, and a discussion of other priority issues for the upcoming biennium was provided. The funding recommendation totals $174,810,555.

Chairman Wald: On the Northwest Area Water Supply (NAWS) in Minot, are you using the old pipe line?

Frink: There is a lawsuit with Manitoba, so the federal government is responsible for building the treatment plant.

Chairman Wald: Is it still in litigation?

Frink: It is in the study phase, there is an Environment Impact Study (EIS) currently underway.

Representative Klein: Where will the water treatment plant be built?

Frink: It has to be on the Missouri River, connecting with the McClusky Canal. The drought disaster livestock program is allocated $1.2m and over 500 applications have been received. The average reimbursement is about $2900.

Chairman Wald: On the drought disaster livestock assistance program, what is the nature of that?

Frink: The purpose is to assist producers in developing a more reliable program. For that reason we encourage wells, hookups to water systems, something that will last.

Chairman Wald: Is this a grant?

Frink: It is a 50% grant program and they can receive up to $3500 and can have up to 3 applications. A bill is being introduced to increase that amount to $4500.

Dam repairs are becoming a high priority in North Dakota and across the nation because they are dated beyond their design life

Continuing with the funding summary, Engrossed Bill 2020 contains the Executive budget recommendations and totals $174m.

Representative Klein: What is the source of the other funds?

Frink: It is the resources trust fund and it is the water development trust fund and is expected to bring in $37m in new revenue. Some payments come from cities like the NAWS fund

The General fund dollars are 13.8m

Chairman Wald: What is the nature of the Williston project?

Frink: They had a major rework of their water treatment plant and the intake had to be reworked. They have a huge sedimentation problem. It was over $20-25m. The project is completed.

Chairman Wald: Sweet Briar Dam, I-94 is the dam, isn't it? Is there any matching highway money? What specifically is the problem?

Frink: The agreement that was signed in the '60s gives the responsibility to Morton County for the dam itself. North Dakota Game and Fish and State Water Commission will try to get find enough money. It is leaking a great deal of water, sink holes are developing, it may need a bridge or I-94 may be in jeopardy.

Chairman Wald: What is the potential of help from the Game and Fish?

Frink: Yes, we are working with Game and Fish. It would take legislative authority Maintaining the professional staff continues to be a challenge because salaries lag behind competitors. In the last 3 years we have lost 3 key engineer managers who were the heads of our design and construction section, head of the NAWS project, head of the SWPL project and others have gone through two or three. The amount of time it takes to issue water permits is up to 1 full year with our current level of staffing.

Representative Klein: How many engineer vacancies do you have at this time?

Frink: Two, we have been able to hire entry level people but most of the time it is a rotating training mission right now as staff are moved around to fill positions.

Chairman Wald: In that $10m out of the equity pool for salaries, I see that you are allocated $138,000. That would be used to attract engineers?

Frink: That will help a great deal, overall, but not with our engineer managers. Lawsuits continue a great deal of time, resources and delays. The NAWS project, Devils Lake, the local municipality of Rhineland, Manitoba and others are still in litigation. There has been tremendous progress in bringing quality water to the State of North Dakota.

Vice Chairman Monson: I noticed a balance of only $1.5m at the end of the biennium in 2009, where we started this biennium with $36m. Will this draw the trust funds down to a level that you won't have money to do projects in the next biennium?

Frink: More money is needed for projects that are held up.

Representative Gulleson: More applications for MR and I than you can actually fund and what are the criteria that you use under that? Where do you think we are in our capability to support those large users of water like the ethanol plants?

Frink: In MR and I we could give out whatever money we had. We haven't on criteria with state dollars, more with federal. The plants are looking for water everywhere

Chairman Wald: Is there impact on South West Pipeline going to Red Trail?

Frink: We are getting close to fully allocating South West Pipeline. We can't add another Red Trail to it.

Jean Walton, Executive Director North Dakota Water Coalition: (See Handouts # 3 and 4, SB 2020, NDSWC) offered testimony on behalf of **Dennis Hill,** Chairman, ND Water Coalition and **Mayor Dennis Walaker**, City of Fargo, Fargo Flood Control.

Mayor Fred Bott, City of Devils Lake, Devils Lake Water Supply: (See Handout #5, SB 2020, NDSWC) provided testimony regarding the water needs in the Devils Lake area.

Representative Klein: What is the proposed source of new water? Has this been checked out, is there sufficient water available?

Bott: It has been checked out, it is not a problem.

Vice Chairman Monson: How many miles is that away, that is a long pipeline.

Bott: Our current pipeline is 18 miles long and the new is 33 miles long. The lake is not a reliable source of water because of the variable levels and arsenic concerns.

Vice Chairman Monson: I assume you looked to the north; there must be some source of water closer than 30 some miles.

Bott: There are water quality issues, flooding and pipeline inspection and repair concerns.

Representative Aarsvold: Would it be more cost effective to expand the Ramsey County Rural Water?

Bott: We would still have to look for a source of funding. It will take two years to complete the pipeline and then deal with the treatment system.

Doug Neibauer, Executive Director, South Central Regional Water District: (See Handout #6, SB 2020, NDSWC) provided testimony related to unmet water needs in this district with low water levels.

Chairman Wald: What is your rate per thousand gallons?

Neibauer: The base rate of $30, the water cost is $4.00 per thousand.

Representative Klein: Where would the new intake be located?

Neibauer: It is constructed already and is north of Bismarck adjacent to Eagles Park.

Vice Chairman Monson: Are you under the MR and I funding portion?

Neibauer: Yes.

Melody Kruckenberg, CEO of the North Dakota Rural Water Systems Association (NDRWSA): (See Handouts #7 and 8, SB 2020, NDSWC) provided testimony on behalf of **Gene Goven**, her own, and others in support of SB 2020.

Terrald Bang, Southwest Pipeline Water Project: (See Handout #9, SB 2020, NDSWC) provided testimony in support of SB 2020.

Chairman Wald: When is that project geared to start?

Bang: Rumor, within the next year and a half.

Representative Klein: What is the chemical that is causing the problem?

Bang: It is basically iron.

Ruth Julson, resident from rural Zap, ND: (See Handout #10 and 11, SB 2020, NDSWC) provided testimony in support of SB 2020.

Alan Walter, Director Public Works for the city of Minot: (See Handout #12, SB 2020, NDSWC) Provided testimony in support of SB 2020, the NAWS project.

David Koland, Secretary/treasurer Lake Agassiz Water Authority (LAWA): (See Handout #1, SB 2020, NDSWC) Provided testimony in behalf of Curt Kreun, Grand Forks City Council/ LAWA Board (See Handout #13, SB 2020, NDSWC) and Clark Cronquist, Director on the Agassiz Water Users District/LAWA Board (See Handout #14, SB 2020, NDSWC).

Representative Brenda Heller, District 33: Spoke in support of SB 2020.

Mike Dwyer, Executive Vice President, North Dakota Water Users Association: (See Handout #15 and 3b, SB 2020, NDSWC) spoke in behalf of the support for SB 2020. He referred to SB 2345, the Red River Valley Water project.

Representative Klein: Is the Red River Valley Water project similar to NAWS and others with a $.01 sales tax.

Dwyer: All the projects are different, some have sales tax. They are doing a bond issue for their $200m local share and pay for it out of water rates.

Senator Tom Fischer, District 44: (See Handout #16 and 17, SB 2020, NDSWC) provided amendment to SB 2020 .0301 and spoke in support of field tiling.

Representative Aarsvold: provided information regarding the outflow concerns.

Chairman Wald: What would the cost be of this project?

Senator Fischer: I have asked for a fiscal note.

Representative Vigesaa, District 23: (See Handouts #18,18a and 18b, SB 2020, NDSWC) spoke in behalf of Reengrossed SB 2020 .0300 related to Stump Lake flooding.

Representative Klein: Mr. Frink, does the water commission have a position on the amendments?

Frink: The issue is staff time. It should be looked at in time and we have the expertise.

Representative Gulleson: Who provides authorization for tiling?

Frink: We require a drainage permit. We want the water resource districts to look at it.

Representative Klein: Are you planning to look at just one specific area where the tiling is installed? You would have to do it in a wider area than just one quarter.

Frink: We would be required to put in some test holes, etc. Staff time is an issue again.

Chairman Wald: Weather modification, $600,000, are you still contracting with that company out of Bowman? Are you still doing cloud seeding? Mostly in the Western part of the state?

Darin Langerud, Director of the Atmospheric Resource Board: Yes

Chairman Wald: Do you have agreements with Montana?

Langerud: Montana has the most stringent regulations in the nation.

Representative Klein: Mr. Frink, Nelson County area, if that were to be funded what area would that come out of?

Frink: The source is not identified

Vice Chairman Monson: New pipeline to Lakota.....could be done a lot quicker.

Frink: Agrees, but pipeline cannot be fixed. There is a difference of opinion as to how it should be done.

Representative Aarsvold: Why wouldn't Lakota chose to do their own as opposed to linking up with Ramsey County?

Frink: Not sure but maybe Lakota felt that they could have less costly water.

Chairman Wald: I am going to appoint a subcommittee of myself, **Representatives Klein and Aarsvold** and of course all members of the committee have their input so with that we stand adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. SB 2020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: March 14, 2007

Recorder Job Number: 5032

Committee Clerk Signature Shirley Banning

Minutes:

Chairman Wald: Called the meeting to order to consider SB 2020 Amendment .0308 that shows a $200,000 reduction that had been put in by the Senate. It is a mapping project and it has already been done, so we can take the money out.

Representative Klein: This is in addition to an existing state program. This over and above, but not an engineering study. Part of it has to do with flood insurance. Move the amendment to SB 2020 .0308.

Representative Aarsvold: Second

Chairman Wald: Voice vote on the amendment carried.

Representative Klein: Move a Do Pass as amended.

Vice Chairman Monson: Second

Chairman Wald: Any further discussion. Call the roll

Vote: 7 Yes, 0 No, 0 Absent Motion Carried Carrier: Chairman Wald

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. SB 2020

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: March 16, 2007

Recorder Job Number: 5223

Committee Clerk Signature Shelly N. Stanek

Minutes:

Chm. Svedjan: This bill was in the Education and Environment section.

Rep. Wald: We are working off of amendments .0308. If you will go to page 1 of the amendments, section 9 and the drainage effects of the water use study. That was requested by Rep. Aarsvold.

Rep. Aarsvold: There was a concern expressed by a number of major uses of rural water systems in ND that the proliferation of grain silage and agricultural land is perhaps impacting the recharge of aquifers in the area of east central ND. As a consequence the water commission was consulted. They said it would be a good idea to look at the impact of that field drainage on aquifers. We heard some pretty startling numbers, perhaps as much as 40 million gallons of water would be drained off at often times and would circulate down to the aquifer to recharge that. This will be a study to determine the impact of that field pile drainage on aquifers in ND.

Rep. Wald: Section 10 addressed the 1 time funding which is in all of our bills. Section 11 is the Sweet Briar Dam project. I think I explained that this morning in the game and fish bill. Again to refresh your memory a little bit, the trigger mechanism here is money coming from the water commission to fix that sweet briar dam. If the money does not come forward from the Water Commission then the Game and Fish money and the $15,000 from Morton County will

not be triggered. Then if you'll go to the detail of changes, we moved $200,000 that the Senate put in. That is reflected in your green sheets. That again is coming out of hide and I understand that most of that has been completed. I might add that there is no bonding this year in this bill that there has been in previous years. The sourcing funds are $69.3 million from the resources trust fund. $40 million from the tobacco trust fund and $13.8 million would come from general fund money. This year all of the administration would come from general fund and not taken out of the water trust fund. We are expecting an amendment shortly that has to do with the last sentence on the bottom of page 2 where I was under the impression that we did not have to make reference to that as the Senate had put in Section 9 in the second engrossment. I see the amendments just landed here

Rep. Wald distributed amendment .0309 (Attachment B).

Rep. Wald: What these amendments will do is restate the language in Section 9 as it relates to the Grand Forks flood control project. There was a reference made in the Senate version that the flood control project should spend $52 million in total. So far about $49.5 million of that project has been expended. This moves it back up to $52 million. There were some percentage changes in the agreement that Governor Schafer had signed with that community. This corrects it and moves it back to the Senate section 9 of the bill and renumbers it.

Rep. Wald motioned to adopt amendment .0309. Rep. Glassheim seconded the motion.

Chm. Svedjan: Is there discussion?

Rep. Carlson: Just so I understand this, we had this budget last time. All administration now is general fund dollars? We started that trend last time, did we not?

Chm. Svedjan: I don't remember.

Rep. Carlson: I think that is important to understand that. I think we did start that trend but I cannot remember for sure. I still need more clarification on that section 9. Our understanding last time was that we were all done. We had completed our obligation for the Grand Forks dyke. Now I see that we are changing the language to allow for more money to go to that. If I'm wrong I will stand corrected. The federal government had their contribution and it was going to be complete. Now we have language that says that.

Rep. Wald: On page 5 of the handout that we were given by the state engineer, it is my understanding that the agreement between Governor Schaefer and the community had a cap of $52 million. That is all we are doing is restating that.

Rep. Glassheim: That is absolutely correct. The costs of the project over the past decade have gone up and down. At one time originally the $52 million was 50% of the local share. After that original agreement the local share went up. 50% would have taken it over that money. Then it was put in down to 45% of the local share in order to bring the total costs back down to the $52 million. Now it has gone up slightly. The 45% which is now in law would give us 49-50 million. This amendment restores it to the $52 million that was the original agreement with Schafer. The cap of $52 million is still there. The final bills aren't in yet. We should be complete with the project by fall. The final one isn't in. This restores it to the $52 million cap. With no percentage of total cost. As it works out, GF will be paying over $80 million. There are some items that aren't chargeable to the state amount. Grand Forks citizens will be paying over $80 million for the project. If this is passed the state will pay over $52 million dollars.

Rep. Carlson: Is $52 million anywhere else in statute besides right here?

Chm. Svedjan: I know we have dealt with that.

Mr. Frink: I believe that $52 million was taken out two years ago. I'm not sure of that.

Don Wolf, Legislative Council: Actually the 45% and the $52 million were both taken out. They were both in SB 2188 but they are both taken out of code now.

Rep. Wald: I have a copy of the agreement between the state water commission and the city of Grand Forks. On page 2 under agreements item 3 says that SB 2188 authorized the commission to issue bonds to finance up to 45% of the non federal Grand Forks portion of the flood control damage reduction costs, not to exceed $52 million.

Rep. Glassheim: I believe that the water commission has still, in its plan, $52 million. This is not new money or would take away from any existing project. It still has the $52 million there. It was also in the original bill 10 years ago. It has been modified 2 or 3 times since then as the costs has gone up or down.

Chm. Svedjan: But the total amount has stayed the same.

Rep. Glassheim: Grand Forks doesn't expect any more than that.

Rep. Wald: There is adequate money in the budget to take them up to $52 million.

The motion to adopt amendment .0309 carried by voice vote and the amendment was adopted.

Rep. Wald motioned for a Do Pass as Amended. Rep. Klein seconded the motion.

Chm. Svedjan: Is there any more discussion?

Rep. Bellew: There is a bill in Human Services right now to change the funding formula and the amount of money that goes into the water development trust fund. If that were to pass, how would that affect this budget?

Rep. Wald: In one of your orange books you can see it. If this bill passes as it is before you, the ending balance would be $1,080,153. The amount of money left in the resources trust fund would be $1,531,575. I have no idea what is going on in Human Services.

Rep. Bellew: I don't know if council has done any analysis on that. If that bill were to pass, it changes the distribution formulas to the school trust fund and the healthcare cut.

Mr. Wolf: I believe the proposal in that bill is 45-45-10 they want to changed it to 42-42-16. The revenues would go down for the water development trust fund in that case. What would happen would be that the commissions list of priorities would have to be adjusted to reflect what is available.

Rep. Aarsvold: It is SB 2276.

Chm. Svedjan: We will take that up next Friday.

Rep. Skarphol: I apologize if I didn't catch the answer. I looked it up and found it for myself.

Rep. Carlson asked how much general fund dollars were being used compared to last. If you look at the first page of the second engrossment, all of it is being shifted to general funds. It amounts to $12,676,000 being spent in this budget in addition to what we spent last time. Section 2 of the bill on line 22, page 1 is the increase in general funds that is being utilized to pay for the administration of the water commission.

Mr. Wolf: There is $3 million in general fund added to this budget for the water supply project.

Rep. Glassheim: I just want to express my gratitude for the people of Grand Forks for the assistance. The flood of 1997 destroyed up to $2 billion worth of values. The assistance is very important to us.

Rep. Nelson: Is there a fiscal note for SB 2276?

Chm. Svedjan: It is being requested but we haven't received it. I recall that a new fiscal note has been requested.

Rep. Nelson: Is it safe to assume that the effect of SB 2276 would be less than the transfer to administration of the general fund from the water commission standpoint?

Chm. Svedjan: The impact of that is that it changes the distribution formula. The distribution goes to those three funds. It really wouldn't change this because the administration comes out of the general fund.

Rep. Nelson: That is what I'm asking. If that bill passes there is going to be less money transferred from the water development fund. They will have a net increase because of the administration transfer to the general fund. They would still come out ahead in that sense. Is that not correct?

Chm. Svedjan: I think it is correct.

Rep. Wald: We could kill the bill and leave it as it is.

Rep. Aarsvold: My recollection is that the water commission sets priorities for the various projects. Should the revenues be inadequate to meet those priorities it would merely adjust the priorities to fully utilize the funds that are available.

Rep. Skarphol: I think Rep. Aarsvold is correct. However, the water commission does try to do some long term planning. They do hope to accomplish things that we as citizens would like them to accomplish. I'm not as comfortable as some with making this change.

Chm. Svedjan: Have you looked at that at all, Mr. Frink? SB 2276 does impact the water commission.

Dale Frink, State Engineer, North Dakota State Water Commission: This is the first I've heard about that bill. I will say that the majority of the money in the fund goes for the repayment of bonds. The bonding capability left in that fund is about $40 million. That is the $40 we have in SB 2245. The intent was to save those moneys until we needed them for this project.

Rep. Skarphol: Have you not anticipated this revenue in designing your bonding? Is the bonding company not also kind of anticipating the change in revenue coming?

Mr. Frink: Yes. The settlement dollars are considered soft by the bonding companies and therefore they are cautious about allowing us the bond. My guess is if we lost this, they would not allow us to bond for that last $40 million.

Rep. Nelson: Can you tell me in the resource trust fund, the money that the water commission gets there is that a payment for bonds as well?

Mr. Frink: No, we have not specifically bonded the resource trust fund. We have named the resource trust fund as a second tier of security for the bonding company.

Rep. Nelson: What is it used for?

Mr. Frink: First of all the current revenues for the resource trust funds are down about $6.5 million probably from the number you have. The significant increase is due to the oil prices. We have already subtracted that.

Rep. Kroeber: The water development trust fund went up by a large percentage, did they not? Which increased the amount of dollars going to your area. Wasn't it like $19-$31 million?

Mr. Frink: That is correct. The schedule is that it's started out at a certain level. Then it jumps up as you can see now for a few years. Then it will drop back down again. So our bonds and bond payments reflect this up and down.

Rep. Skarphol: Their bond payments are designed in anticipation of that change in revenue is the point I've been trying to make so that those dollars are committed.

Mr. Frink: They did have a very significant increase in dollars they owed before the projects. How they used it, I don't know. They do, according to the orange book, they do predict it is going to be relatively stable through 2017 and be significant during 2025.

Chm. Svedjan: I think part of the issue here, I'm not saying this to prejudge SB 2076, and there have been more and more piece of legislation that is being charged against the trust fund. The way that fund looks in the orange book is that we will have a deficit balance there if all that spending is in fact charged to that fund. Consequently the Human Services committee adjusted the distribution rates. That is what that looks like.

Rep. Skarphol: We spent a substantial amount of time last session talking about this issue. I think if we are going to make any changes in that formula that there needs to be a substantial amount of a time spent on insuring we aren't affecting the water projects. They do have a very important priority list for the people in ND.

The motion for a Do Pass as Amended carried by a roll call vote of 23 ayes, 0 nays and 1 absent and not voting. Rep. Wald was designated to carry the bill.

Chm. Svedjan adjourned the meeting.

Handout #16

SB 2020
March 2, 2007

78044.0301
Title.

Prepared by the Legislative Council staff for
Representative Aarsvold and Senator Fischer
February 27, 2007

PROPOSED AMENDMENTS TO REENGROSSED SENATE BILL NO. 2020

Page 1, line 3, remove "and"

Page 1, line 4, after "credit" insert "; and to provide for a study"

Page 3, after line 15, insert:

"**SECTION 10. SURFACE RECHARGE AQUIFER STUDY.** The state water commission shall study, during the 2007-08 interim, the impact of field tile drainage on surface recharge aquifers in this state. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008."

Renumber accordingly

Handout # 18a

SB 2020

78044.0303
Title.

Prepared by the Legislative Council staff

March 1, 2007

PROPOSED AMENDMENTS TO REENGROSSED SENATE BILL NO. 2020

Page 1, line 3, after "control" insert "; to provide legislative intent"

Page 3, after line 15, insert:

"**SECTION 10. LEGISLATIVE INTENT - NELSON COUNTY INFRASTRUCTURE.** It is the intent of the sixtieth legislative assembly that the state water commission provide up to $450,000 for water-related damage to infrastructure in Nelson County."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

This amendment adds an intent section that up to $450,000 be made available from the State Water Commission for water-related damages to infrastructure in Nelson County.

78044.0308
Title.
Fiscal No. 2

Prepared by the Legislative Council staff for
House Appropriations - Education and
Environment
March 13, 2007

PROPOSED AMENDMENTS TO REENGROSSED SENATE BILL NO. 2020

Page 1, line 2, remove "to create and enact a new section to chapter 61-02.1 of the North Dakota Century"

Page 1, line 3, remove "Code, relating to funding for Grand Forks flood control;" and remove "and"

Page 1, line 4, after "credit" insert "; to provide legislative intent; and to provide for a study"

Page 1, line 19, replace "48,463,767" with "49,263,767"

Page 1, line 20, replace "48,739,617" with "49,539,617"

Page 1, line 21, replace "35,863,331" with "36,863,331"

Page 1, line 22, replace "12,876,286" with "12,676,286"

Page 2, line 5, replace "172,354,260" with "173,154,260"

Page 2, line 6, replace "174,810,555" with "175,610,555"

Page 2, line 7, replace "160,923,049" with "161,923,049"

Page 2, line 8, replace "13,887,506" with "13,687,506"

Page 3, replace lines 11 through 15 with:

"**SECTION 9. TILE DRAINAGE EFFECTS ON WATER USE STUDY.** The state water commission shall study, develop, and recommend policies and procedures for assessing the impact of tile drainage on the beneficial use of water by prior water appropriators. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008.

SECTION 10. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $3,000,000 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The state water commission shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

Red River water supply project $3,000,000

SECTION 11. LEGISLATIVE INTENT- SWEETBRIAR DAM PROJECT. It is the intent of the sixtieth legislative assembly that the state water commission provide funding for the sweetbriar dam project. In addition, Morton County shall contribute $15,000 toward the sweetbriar dam project and $1,000,000 shall be made available

from the game and fish fund for the project which is appropriated in section 3 of this Act. The funding from the game and fish fund and Morton County is contingent upon funding being made available for the project by the state water commission during the biennium beginning July 1, 2007, and ending June 30, 2009."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - House Action

	EXECUTIVE BUDGET	SENATE VERSION	HOUSE CHANGES	HOUSE VERSION
Administrative and support services	$2,456,295	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	172,354,260	$800,000	173,154,260
Total all funds	$174,610,555	$174,810,555	$800,000	$175,610,555
Less estimated income	160,923,049	160,923,049	1,000,000	161,923,049
General fund	$13,687,506	$13,887,506	($200,000)	$13,687,506
FTE	84.00	84.00	0.00	84.00

Dept. 770 - Water Commission - Detail of House Changes

	REMOVES FUNDING FOR MAPPING PROJECT [1]	ADDS FUNDING FOR SWEETBRIAR DAM PROJECT [2]	TOTAL HOUSE CHANGES
Administrative and support services			
Water and atmospheric resources	($200,000)	$1,000,000	$800,000
Total all funds	($200,000)	$1,000,000	$800,000
Less estimated income		1,000,000	1,000,000
General fund	($200,000)	$0	($200,000)
FTE	0.00	0.00	0.00

1 The House removed the funding authorized by the Senate for a mapping project.

2 The House added $1 million from the game and fish fund for the Sweetbriar Dam project.

The House added a section identifying one-time funding included in the budget and providing for a report to the 61st Legislative Assembly on the agency's use of the one-time funding.

The House directed the State Water Commission to study tile drainage effects on water use and to report the finding to the Legislative Council by July 1, 2008.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1 million from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project.

The House removed the section providing that the state cost-share for the Grand Forks flood control program is $52 million.

Date: March 14, 2007
Roll Call Vote #:

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. SB 2020 Reengrossed

House **Appropriations Education and Environment Division** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number .0308

Action Taken Do pass as amended

Motion Made By Representative Klein Seconded By Rep. Monson

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:	✓		Representative Aarsvold:	✓	
Vice Chairman Monson	✓		Representative Gulleson	✓	
Representative Hawken:	✓				
Representative Klein:	✓				
Representative Martinson:	✓				

Total (Yes) 7 No 0

Absent 0

Floor Assignment Rep. Wald.

If the vote is on an amendment, briefly indicate intent:

Do pass as amended

Attachment B

78044.0309
Title.
Fiscal No. 2

Prepared by the Legislative Council staff for
Representative Wald
March 16, 2007

PROPOSED AMENDMENTS TO REENGROSSED SENATE BILL NO. 2020

Page 1, line 3, remove "and"

Page 1, line 4, after "credit" insert "; to provide legislative intent; and to provide for a study"

Page 1, line 19, replace "48,463,767" with "49,263,767"

Page 1, line 20, replace "48,739,617" with "49,539,617"

Page 1, line 21, replace "35,863,331" with "36,863,331"

Page 1, line 22, replace "12,876,286" with "12,676,286"

Page 2, line 5, replace "172,354,260" with "173,154,260"

Page 2, line 6, replace "174,810,555" with "175,610,555"

Page 2, line 7, replace "160,923,049" with "161,923,049"

Page 2, line 8, replace "13,887,506" with "13,687,506"

Page 3, after line 15, insert:

"**SECTION 10. TILE DRAINAGE EFFECTS ON WATER USE STUDY.** The state water commission shall study, develop, and recommend policies and procedures for assessing the impact of tile drainage on the beneficial use of water by prior water appropriators. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008.

SECTION 11. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $3,000,000 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The state water commission shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

Red River water supply project	$3,000,000

SECTION 12. LEGISLATIVE INTENT- SWEETBRIAR DAM PROJECT. It is the intent of the sixtieth legislative assembly that the state water commission provide funding for the sweetbriar dam project. In addition, Morton County shall contribute $15,000 toward the sweetbriar dam project and $1,000,000 shall be made available from the game and fish fund for the project which is appropriated in section 3 of this Act. The funding from the game and fish fund and Morton County is contingent upon funding being made available for the project by the state water commission during the biennium beginning July 1, 2007, and ending June 30, 2009."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - House Action

	EXECUTIVE BUDGET	SENATE VERSION	HOUSE CHANGES	HOUSE VERSION
Administrative and support services	$2,456,295	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	172,354,260	$800,000	173,154,260
Total all funds	$174,610,555	$174,810,555	$800,000	$175,610,555
Less estimated income	160,923,049	160,923,049	1,000,000	161,923,049
General fund	$13,687,506	$13,887,506	($200,000)	$13,687,506
FTE	84.00	84.00	0.00	84.00

Dept. 770 - Water Commission - Detail of House Changes

	REMOVES FUNDING FOR MAPPING PROJECT 1	ADDS FUNDING FOR SWEETBRIAR DAM PROJECT 2	TOTAL HOUSE CHANGES
Administrative and support services			
Water and atmospheric resources	($200,000)	$1,000,000	$800,000
Total all funds	($200,000)	$1,000,000	$800,000
Less estimated income		1,000,000	1,000,000
General fund	($200,000)	$0	($200,000)
FTE	0.00	0.00	0.00

1 The House removed the funding authorized by the Senate for a mapping project.

2 The House added $1 million from the game and fish fund for the Sweetbriar Dam project.

The House added a section identifying one-time funding included in the budget and providing for a report to the 61st Legislative Assembly on the agency's use of the one-time funding.

The House directed the State Water Commission to study tile drainage effects on water use and to report the finding to the Legislative Council by July 1, 2008.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1 million from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project.

Date: 3/16/07
Roll Call Vote #: 1

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2020

House Appropriations Full Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 78044.0309

Action Taken Adopt Amendment .0309

Motion Made By Wald Seconded By Glassheim

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan					
Vice Chairman Kempenich					
Representative Wald			Representative Aarsvold		
Representative Monson			Representative Gulleson		
Representative Hawken					
Representative Klein					
Representative Martinson					
Representative Carlson			Representative Glassheim		
Representative Carlisle			Representative Kroeber		
Representative Skarphol			Representative Williams		
Representative Thoreson					
Representative Pollert			Representative Ekstrom		
Representative Bellew			Representative Kerzman		
Representative Kreidt			Representative Metcalf		
Representative Nelson					
Representative Wieland					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Voice Vote - carries

Date: 3/16/07
Roll Call Vote #: 2

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2020

House Appropriations Full Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 78044.0309

Action Taken Do Pass as amended

Motion Made By Wald Seconded By Klein

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan	✓				
Vice Chairman Kempenich	✓				
Representative Wald	✓		Representative Aarsvold	✓	
Representative Monson	✓		Representative Gulleson	✓	
Representative Hawken	✓				
Representative Klein	✓				
Representative Martinson	✓				
Representative Carlson	✓		Representative Glassheim	✓	
Representative Carlisle	✓		Representative Kroeber	✓	
Representative Skarphol	✓		Representative Williams	✓	
Representative Thoreson	✓				
Representative Pollert	✓		Representative Ekstrom	✓	
Representative Bellew	✓		Representative Kerzman	—	
Representative Kreidt	✓		Representative Metcalf	✓	
Representative Nelson	✓				
Representative Wieland	✓				

Total (Yes) 23 No 0

Absent 1

Floor Assignment Wald

If the vote is on an amendment, briefly indicate intent:

78044.0310
Title.0400
Fiscal No. 2

Prepared by the Legislative Council staff for
Representative Wald
March 16, 2007

PROPOSED AMENDMENTS TO REENGROSSED SENATE BILL NO. 2020

Page 1, line 3, remove "and"

Page 1, line 4, after "credit" insert "; to provide legislative intent; to provide for a study; and to provide for a report to the legislative assembly"

Page 1, line 19, replace "48,463,767" with "49,263,767"

Page 1, line 20, replace "48,739,617" with "49,539,617"

Page 1, line 21, replace "35,863,331" with "36,863,331"

Page 1, line 22, replace "12,876,286" with "12,676,286"

Page 2, line 5, replace "172,354,260" with "173,154,260"

Page 2, line 6, replace "174,810,555" with "175,610,555"

Page 2, line 7, replace "160,923,049" with "161,923,049"

Page 2, line 8, replace "13,887,506" with "13,687,506"

Page 3, after line 15, insert:

"**SECTION 10. TILE DRAINAGE EFFECTS ON WATER USE STUDY.** The state water commission shall study, develop, and recommend policies and procedures for assessing the impact of tile drainage on the beneficial use of water by prior water appropriators. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008.

SECTION 11. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $3,000,000 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The state water commission shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

Red River water supply project	$3,000,000

SECTION 12. LEGISLATIVE INTENT- SWEETBRIAR DAM PROJECT. It is the intent of the sixtieth legislative assembly that the state water commission provide funding for the sweetbriar dam project. In addition, Morton County shall contribute $15,000 toward the sweetbriar dam project and $1,000,000 must be made available from the game and fish fund for the project which is appropriated in section 3 of this Act. The funding from the game and fish fund and Morton County is contingent upon funding being made available for the project by the state water commission during the biennium beginning July 1, 2007, and ending June 30, 2009."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - House Action

	EXECUTIVE BUDGET	SENATE VERSION	HOUSE CHANGES	HOUSE VERSION
Administrative and support services	$2,456,295	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	172,354,260	$800,000	173,154,260
Total all funds	$174,610,555	$174,810,555	$800,000	$175,610,555
Less estimated income	160,923,049	160,923,049	1,000,000	161,923,049
General fund	$13,687,506	$13,887,506	($200,000)	$13,687,506
FTE	84.00	84.00	0.00	84.00

Dept. 770 - Water Commission - Detail of House Changes

	REMOVES FUNDING FOR MAPPING PROJECT [1]	ADDS FUNDING FOR SWEETBRIAR DAM PROJECT [2]	TOTAL HOUSE CHANGES
Administrative and support services			
Water and atmospheric resources	($200,000)	$1,000,000	$800,000
Total all funds	($200,000)	$1,000,000	$800,000
Less estimated income		1,000,000	1,000,000
General fund	($200,000)	$0	($200,000)
FTE	0.00	0.00	0.00

1 The House removed the funding authorized by the Senate for a mapping project.

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The House added a section identifying one-time funding included in the budget and providing for a report to the 61st Legislative Assembly on the agency's use of the one-time funding.

The House directed the State Water Commission to study tile drainage effects on water use and to report the finding to the Legislative Council by July 1, 2008.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1 million from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project.

REPORT OF STANDING COMMITTEE

SB 2020, as reengrossed: Appropriations Committee (Rep. Svedjan, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (23 YEAS, 0 NAYS, 1 ABSENT AND NOT VOTING). Reengrossed SB 2020 was placed on the Sixth order on the calendar.

Page 1, line 3, remove "and"

Page 1, line 4, after "credit" insert "; to provide legislative intent; to provide for a study; and to provide for a report to the legislative assembly"

Page 1, line 19, replace "48,463,767" with "49,263,767"

Page 1, line 20, replace "48,739,617" with "49,539,617"

Page 1, line 21, replace "35,863,331" with "36,863,331"

Page 1, line 22, replace "12,876,286" with "12,676,286"

Page 2, line 5, replace "172,354,260" with "173,154,260"

Page 2, line 6, replace "174,810,555" with "175,610,555"

Page 2, line 7, replace "160,923,049" with "161,923,049"

Page 2, line 8, replace "13,887,506" with "13,687,506"

Page 3, after line 15, insert:

"**SECTION 10. TILE DRAINAGE EFFECTS ON WATER USE STUDY.** The state water commission shall study, develop, and recommend policies and procedures for assessing the impact of tile drainage on the beneficial use of water by prior water appropriators. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008.

SECTION 11. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $3,000,000 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The state water commission shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

Red River water supply project	$3,000,000

SECTION 12. LEGISLATIVE INTENT- SWEETBRIAR DAM PROJECT. It is the intent of the sixtieth legislative assembly that the state water commission provide funding for the sweetbriar dam project. In addition, Morton County shall contribute $15,000 toward the sweetbriar dam project and $1,000,000 must be made available from the game and fish fund for the project which is appropriated in section 3 of this Act. The funding from the game and fish fund and Morton County is contingent upon funding being made available for the project by the state water commission during the biennium beginning July 1, 2007, and ending June 30, 2009."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - House Action

	EXECUTIVE BUDGET	SENATE VERSION	HOUSE CHANGES	HOUSE VERSION
Administrative and support services	$2,456,295	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	172,354,260	$800,000	173,154,260
Total all funds	$174,610,555	$174,810,555	$800,000	$175,610,555
Less estimated income	160,923,049	160,923,049	1,000,000	161,923,049
General fund	$13,687,506	$13,887,506	($200,000)	$13,687,506
FTE	84.00	84.00	0.00	84.00

Dept. 770 - Water Commission - Detail of House Changes

	REMOVES FUNDING FOR MAPPING PROJECT [1]	ADDS FUNDING FOR SWEETBRIAR DAM PROJECT [2]	TOTAL HOUSE CHANGES
Administrative and support services			
Water and atmospheric resources	($200,000)	$1,000,000	$800,000
Total all funds	($200,000)	$1,000,000	$800,000
Less estimated income		1,000,000	1,000,000
General fund	($200,000)	$0	($200,000)
FTE	0.00	0.00	0.00

1 The House removed the funding authorized by the Senate for a mapping project.

2 The House added $1 million from the game and fish fund for the Sweetbriar Dam project.

The House added a section identifying one-time funding included in the budget and providing for a report to the 61st Legislative Assembly on the agency's use of the one-time funding.

The House directed the State Water Commission to study tile drainage effects on water use and to report the finding to the Legislative Council by July 1, 2008.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1 million from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project.

2007 SENATE APPROPRIATIONS

CONFERENCE COMMITTEE

SB 2020

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 2020

Senate Appropriations Committee

☒ Check here for Conference Committee

Hearing Date: 04-12-07

Recorder Job Number: 5956

Committee Clerk Signature

Minutes:

Senator Tom Fischer opened the conference committee on SB 2020.

Representative Wald discussed amendment 0310 section 10 is at the request of Representative Aarsvold.

Representative Aarsvold indicated he discussed with people about the aquifers and the advent of field tile drainage they are concerned about the implications of the water supply in the future.

Senator Fischer asked the state engineer if as a result of this study, will the water commission also discuss drainage and water quality.

The water engineer indicated the intent was to study water drainage not water quality.

Senator Fischer indicated the entire realm of water drainage should be considered. Are there funds that have to be made available?

Representative Aarsvold has also heard the same thing about water going into ditch drainage.

Representative Klein indicated he understood this was not involving the whole valley only one area.

Senator Fischer the only thing I ask is will this be looked at in more then one area does use include quality as well as drainage.

Engineer indicated they just look at water drainage and the Water Department looks at the water quality.

Representative Wald discussed Section 11 is the one time expenditure statement, Section 12 Sweetbriar Dam which ranked #2 and addressed concerns of the Game and Fish Department and both the Game and

Fish and Water Department contributing toward the Dam. If the water commission does not do it, then the other funds would not be triggered. A mapping project was mentioned.

Senator Fischer indicated Renwick Dam was also being addressed.

Chairman Holmberg questioned what would be #1 issue and the response was Pembina County.

Representative Klein indicated the problem with Sweet briar is that it had to be drained down and now game and fish has a prob with fish.

Senator Fischer stated there are all sorts of players involved.

Representative Wald also removes _____

Chairman Holmberg likes how the bill is looking. He requested the House walk through some of the discussion on the mapping project.

Representative Wald indicated the whole issue has become convoluted and we find it in two or three other bills and perhaps OMB could shed light on the issue of mapping.

Tammy stated she can say where the money was and where it is. Before crossover there was $200,000 put in the Water Commission budget; $100,000 was put in emergency services. Both have been removed and in the OMB budget there is a section directing the water commission to use up to $300,000 of their money for the mapping project, contingent on the receipt of federal funds.

Chairman Holmberg if money is not used for the mapping project what would they do with it.

Tammy they would use it for other water project

Representative Klein indicated when we found out it was the adjutant general's budget; he had no idea what it was for and how it got there. Then it was more convoluted when we had the OMB budget and all of a sudden it shows up again.

Senator Fischer indicated the mapping project is a lighter map in the red river basin and will show land surface within six inch increments. It started because there was a benefit to DOT, DM and other agencies for planning to water and road management. That is where it was started it was taken out of

the other two budgets before it was put into OMB. The members of the House field it should not be taken out and was put back in. There is another $100,000 needed as Minnesota and North Dakota are being asked to participate as well as local entities; the red river water shed management district in MN, red river wat manage in ND. It is to be used for flood management in the entire Red River Basin. This was purposely put in several budgets.

Representative Aarsvold has conversed with MN senators and they assured him that the $600,000 is in place. There are cities in the red river valley that have made contributions to the project. The appropriation would be contingent on the federal funds. He indicated he has a letter from the Fargo water institute indicating they have three of our senior legislators working on this in Washington and they feel confident the federal dollars will be available.

Representative Klein questioned is this all out of water commission or will we put general funds in there or where are we going to get the funds.

Senator Fischer indicated that is something that should be discussed. The water commission is taking a direct hit of $300,000 from OMB. I think this should be shared amongst agencies, so it is here to sort out one way or the other.

Representative Klein indicated he just wants to see where it will come from and what are we gong to shortchange.

Senator Fischer indicated there were general funds in the Senate bills and they were converted to the water development special funds.

Representative Klein asked where we are on the water dev trust fund ending balance is.

The Legislative council indicated the Water Development Trust Fund ending balance at the end of the 09 biennium will be $168,541. Representative Klein indicated then it is up

Representative Klein then asked where we are at with other resource trust funds.

Representative Aarsvold indicated Manitoba took on their own portion of the study and it is done.

Representative Wald indicated they have discussed with their leadership a different source or another option such as the not so permanent oil trust fund

Senator Fischer indicated the water commission, historically has been funded out of the general fund.

Senator Fischer adjourned the conference committee on 2020.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. **SB 2020 Conference Committee**

Senate Appropriations Committee

☒ Check here for Conference Committee

Hearing Date: **April 13, 2007 am**

Recorder Job Number: **5995**

Committee Clerk Signature	Alice Delzer (SH)

All Members present:

Chairman Fischer, Sen. Holmberg, Sen Robinson

Rep. Klein, Rep. Aarsvold, Rep. Wald

Chair Fischer: Anything you want to know about the extension service, I have if you want to know about it. I know that Rep. Wald is, one of the discussions we're having is funding sources from other, funding the general administration from another source which we discussed and gently objected to. We're also talking about lighter study and asked for some information. So we have the information we asked for and can pass out. Rep. Wald, you wanted to pass out some things today.

Rep. Wald: The mapping issue, there is $300,000, as you know, we took $200,000 out on the House side. My understanding is that the engineer isn't real hot on that topic, so we want to leave it in the other budget, is it needed? I guess it is from what Rep. Aarsvold is telling us and have not reason to question that, where's it gonna be?

Rep. Aarvold: In defense of the mapping project, I find it a bit interesting that we seem to be the only subdivision that is impacted by this that is not supported, and I have passed out this information in the past. We've seen the ag groups across the valley are very supportive. We look at the major communities, Fargo, Moorhead, Grand Forks, East Grand Forks, Wahpeton,

Breckenridge, West Fargo and so on, and major water sheds are involved, and I would certainly hope that based on that wonderful support we have from neighbors and friends that we could support the measure as proposed. Where we fund it, that's up to the committee. In conversation with folks from Fargo, they are particularly interested and involved. I talked to the folks in Minnesota, the state legislators there who are involved and they're supportive, and it seems to have more applications that I can certainly address here. It's a very sophisticated thing and I'm told that Manitoba has finished their part of the mapping project, and notice on the map on page 4, if you have that hand out with you, it encompasses major portions of ND and MN and even part of SD. We think it's important, the people who are involved seem to be involved, seem to be supportive, qnd any appropriation you take here is taking the course on the federal participation. If they don't get that major piece of the funding puzzle, we are not obligated.

Rep. Klein: Wasn't that originally in the general fund?

Chair Fischer: Yes And it's been moved now to take it out of the trust fund, however, the intent, the beginning of this process was to take it out of several budgets, because there are beneficiaries throughout the state and many agencies, whether it be AG, DOT, DM, or the water commission, there's a portion of this has been done. The Red River Basin commission actually got Canada to pay for some area along the border from MN across Pembina county from north of the border to the Tun [?[River area on highway 5. To map that, so they could deal with the boarder dike issues and get some floor plan management tools in that area to use. When this was flowing, they'll do the whole thing, when you do two contracts and run them into each other, I've seen the results and sometimes, the ledge between the two and that's the reason for that portion for that as well. As far as the basin is concerned, there's a lot of dependence on old information. Some of it has been done, playing both devil's advocate

and support of this is that a lot of people have said, if it's going to be done, it would have been done, well, farmers that know their fields, they have not come forward and there are an awful lot of farmers now in groups of farmers that are supporting it because it would be a wide area rather than a small area-type, the ability to manage water in those areas which is in the basin is a big issue.

I understand where we're at today, I am not in the position I'd like to be in with this the dollars being spread over several agencies. We find ourselves in a position where other people on the spreadsheet are in support of it and I certainly hope that we can support it as well.

Rep. Klein: Are you thinking we could go back to the general fund to fund this?

Sen. Fischer: The thing is, in reality, I think a part of it should be out of the general fund, maybe. I don't think the water commission has a problem funding a portion of it. Even out of the water-development trust fund, or a portion of it. They can get by with $400,000 for this biennium, so if we were to put $200,000 in here and reduce the general fund in the OMB bill to $200,000 and you have the $400,000 total, we'd be in good shape for this biennium, and then there'd be another $200,000 next biennium picked up and that should be amount of another agency. I don't know how Dale feels about them, maybe you want to address that.

Dale: First of all, this is on an issue, I want to sort over. I think the water commission may be the only agency in the state of ND outside of the universities that uses lieder once in a while. We have people working on that in Pembina. A lieder is not easy to use, a lot of times it takes almost as much work to get the data into a contra-mat type format and does go out to survey it, so I have some staff members, they are the ones that are using it. They're not real high on it. The state of ND or MN are highly supportive of it. Some of those people have used it , and I think they're more enthused about the potential. Maybe down the road again, one thing we have going for us, NDSU, anytime you get in some grand students and people like that, you

can use a lot of time, maybe they can make it into a useable product. Water Commission clearly has the potential to use some of that information. It is not as easy to use, you have to make a contra-mat, and it's nice to have data that's plus or minus 6 inches in the Red River Valley. Right now all we have is 2.5 feet which isn't very accurate for that country. But it is NOT easy to use. The water resource district, even though they'd support it, I would say they have "0": chance of using this correctly, but they could hire a consultant.

Rep. Aarsvold: I had recent conversation with several of these folks that are participating, and they say it is a 2 year data gathering and one year compilation, and I don't know what it entails, I'm presuming it would generate the kinds of maps that would be useful for you folks on the water commission, also for these other entities.

Dale: It's also my understanding that it's a $5 million project, $2.5 million would be Federal. And it would split the 2 between ND and the locals and the state. I don't believe that 5 million includes a lot of the data massaging you would need to do. I don't know where that money is going to come from. Also the storage and maintenance on that job. There are legally significant a lot of dollars, they're not exactly included in the $5 million.

Rep. Klein: Is the state water commission in the process of doing this type of work throughout the state, doing the contours and gradation and so forth?

Dale: We work with maps and data all the time, and like we said, we're working with lieder information today in the Pembina county area. But management-type stuff, if we're a-ways away before that's going to be a direct use out of it. Maybe we can with time and technology it will improve. It's not an easy product to use.

Chair Fischer: In the time it has been in the Legislature, I've talked to consultant engineers who are in favor of it, these are people who are hired by water resource districts. One of them that I contacted, that we used a great deal so I don't get a skewed view of it, and they ARE in

favor of it. The city of Fargo uses it, but the mayor, isn't really high on it, and yet, most of the city is done.

Rep. Klein: What most of the state has done, too, the way you have it laid out, isn't it? Aren't you in the process of doing that?

Dale: The entire state has a USGA map. Those contours are in the Red River Valley, they are 5 foot, and then west they are 10 or 20 feet. This is far more accurate than that. This would be, you would fly the entire Red River Valley on both on ND and MN side and you would end up with data points that would be plus or minus 6 inches, which is quite a bit better than a contour map.

Chair Fischer: Aren't you doing some of this in each county that you're doing a better job?

Dale: We're digitizing the flood plain maps, the flood insurance maps which is totally different that this. It would be different. Theoretically we'd be able to use this information to help them improve those maps. It's technology and there have been, the city of Fargo, is one that uses it and they have an easier time with it than we have.

Rep. Wald: When we met last time, I wrote down $300,000 mapping, SB 2015, is the cost $300,000?

A: It is $600,000.

Q: You want $600,000 from the state?

A: Yes

R: Wow.

Rep. Aarsvold: Recent conversations indicate that their needs are about $400,000 for the data gathering, 2/3 of the total costs to ND, and the balance would be for the compilation of data for the 3rd year of the program. So they would certainly satisfied with the $400,000 commitment so they can take care of the data gathering.

Chair Fischer: Rep. Wald didn't mean to mislead you. $400,000 this biennium would take care of our share of the data gathering.

Rep. And then you'd need another $200,000?

Chair Fischer: Then we'd need another $200,000 for the next biennium to finish it up.

C: I believe in the MN side, most everybody provided the full amount.

Chair Fischer: Yes, they'll providing the full $600,000.

Rep. Wald: I have a copy of the most recent copy of the water development trust fund, and on April 5, they had admitting $168,541 anticipating the pending balance, I wonder if we couldn't take the full $100,000 out of that for this biennium and then worry about the $200,000 next time.

Rep. Klein: I think that's what you're looking for this time, $400,000. What about my idea about taking the $200,000 out of the general fund and $200,000 out of the water trust fund?

Chair Fischer: Yes, I hear you. That was the original intent, is $200,000 out of the water commission that Dale and I talked about some time ago. It ended up general funds.

Dale: My original recommendation is that it should not all come from the water commission. DOT has as much intentions as the water commission in my opinion, but, in their opinion they don't think it's worth anything, so that's why I don't have anything yet. There are a lot of people on that list that potentially could use it.

Rep. Klein: We need to move ahead and to do that, I'd say, let's take $200,000 out of the general fund and $200,000 out of the water commission and "GO."

Chair Fischer: Is that a motion?

Rep. Klein: That's a motion.

Sen. Holmberg: Second

Chair Fischer: Discussion?

Roll call for amendment, Passed 5 yea, 1 nay

Chair Fischer: The rest of this budget, I don't know if there are any other issues that we have. There are a couple of them that I do, but I would like to talk to Dale about them. They are on policies and additions that we want to make on them, I'd like to visit with him first and bring him back and have one more meeting on Monday or Tuesday.

Rep. Klein: Clarification on the $200,000 from the water development trust fund, so you want a $400,000 appropriation, $200,000 from the general fund, and $200,000 from the water development fund.

Chair Fischer: Yes

Adjourned

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 2020

Senate Appropriations Committee

☒ Check here for Conference Committee

Hearing Date: 04-23-07

Recorder Job Number: 6307

Committee Clerk Signature

Minutes:

Senator Fischer opened the conference committee on SB 2020 explaining we had already voted on all of the amendments with the addition of the eligibility for application for assistance under the livestock drought program. If someone mails their application in they become eligible. Under the old rule they had to wait for the engineer to respond to the application and they couldn't drill a well prior to that or they would be taken out of eligibility. This doesn't necessarily mean they are eligible because there are other criteria in rule. Because in the western part of the state when well drillers come through they may have to apply and drill the well the next day and the state engineer would still follow their criteria. This would not kick them out of eligibility. They still have the rules to follow as well as the dollars available for the program which are approved by the water commission.

Senator Fisher moved approval of the amendment 0313. Representative Klein seconded. A roll call vote was taken resulting in 6 yes votes. The motion carried.

Representative Klein questioned how much money we are dealing with. The response by water commission was that $1.2 million was authorized and it has become a very popular program. This amendment says you can drill the well without approval and under the current program I have to approve and the first thing I look at is do we have to have enough money.

4-23-07

Senator Fischer indicated the issue is if we don't give permission to the driller when he goes through it he may not be back very soon to give someone water.

Representative Klein moved the House recede from its amendments and adopt amendments for SB 2020, Senator Holmberg seconded. A Roll call vote was taken resulting in 6 yes. The motion carried.

Senator Fischer dissolved the conference committee on SB 2020.

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Fiscal No. 1

Prepared by the Legislative Council staff for
Senator Fischer
April 23, 2007

4-24-07
1 of 3

PROPOSED AMENDMENTS TO REENGROSSED SENATE BILL NO. 2020

That the House recede from its amendments as printed on pages 1194 and 1195 of the Senate Journal and pages 1186 and 1187 of the House Journal and that Reengrossed Senate Bill No. 2020 be amended as follows:

Page 1, line 3, after the second "to" insert "amend and reenact section 61-34-04 of the North Dakota Century Code, relating to eligibility for the drought disaster livestock water assistance program; to" and remove "and"

Page 1, line 4, after "credit" insert "; to provide legislative intent; to provide for a study; and to declare an emergency"

Page 1, line 19, replace "48,463,767" with "49,663,767"

Page 1, line 20, replace "48,739,617" with "49,939,617"

Page 1, line 21, replace "35,863,331" with "37,063,331"

Page 2, line 5, replace "172,354,260" with "173,554,260"

Page 2, line 6, replace "174,810,555" with "176,010,555"

Page 2, line 7, replace "160,923,049" with "162,123,049"

Page 3, after line 15, insert:

"**SECTION 10. AMENDMENT.** Section 61-34-04 of the North Dakota Century Code is amended and reenacted as follows:

61-34-04. Eligibility - Application for assistance. Applicants with livestock water supply problems caused by drought may apply for assistance from the program. An applicant must first apply for water cost-share assistance from the agriculture stabilization and conservation service. If cost-share assistance is denied by the service, the applicant may forward the application to the commission for consideration. An application forwarded to the commission must include a document from the agriculture stabilization and conservation service stating the reason for denial of cost-share assistance. The state engineer shall review all applications received by the commission. Notwithstanding any other provision of law, a water supply project commenced after application for funding is made but without prior approval of the state engineer is eligible for funding from the program. If the state engineer approves an application, the applicant may receive up to fifty percent of the cost of the project, but in no event more than three thousand five hundred dollars. The state engineer shall provide funds for approved applications in accordance with rules and criteria for eligibility and only to the extent that funding is available.

SECTION 11. TILE DRAINAGE EFFECTS ON WATER USE STUDY. The state water commission shall study, develop, and recommend policies and procedures for assessing the impact of tile drainage on the beneficial use of water by prior water

appropriators. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008.

SECTION 12. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $3,000,000 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The state water commission shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

Red River water supply project $3,000,000

SECTION 13. LEGISLATIVE INTENT - SWEETBRIAR DAM PROJECT. It is the intent of the sixtieth legislative assembly that the state water commission provide funding for the sweetbriar dam project. In addition, Morton County shall contribute $15,000 toward the sweetbriar dam project and $1,000,000 must be made available from the game and fish fund for the project which is appropriated in section 3 of this Act. The funding from the game and fish fund and Morton County is contingent upon funding being made available for the project by the state water commission during the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 14. EMERGENCY. Section 10 of this Act is declared to be an emergency measure."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - Conference Committee Action

	EXECUTIVE BUDGET	SENATE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	HOUSE VERSION	COMPARISON TO HOUSE
Administrative and support services	$2,456,295	$2,456,295		$2,456,295	$2,456,295	
Water and atmospheric resources	172,154,260	172,354,260	$1,200,000	173,554,260	173,154,260	$400,000
Total all funds	$174,610,555	$174,810,555	$1,200,000	$176,010,555	175,610,555	$400,000
Less estimated income	160,923,049	160,923,049	1,200,000	162,123,049	161,923,049	200,000
General fund	$13,687,506	$13,887,506	$0	$13,887,506	$13,687,506	$200,000
FTE	84.00	84.00	0.00	84.00	84.00	0.00

Dept. 770 - Water Commission - Detail of Conference Committee Changes

	ADDS FUNDING FOR SWEETBRIAR DAM PROJECT [1]	ADDS FUNDING FOR MAPPING PROJECT [2]	TOTAL CONFERENCE COMMITTEE CHANGES
Administrative and support services			
Water and atmospheric resources	$1,000,000	$200,000	$1,200,000
Total all funds	$1,000,000	$200,000	$1,200,000
Less estimated income	1,000,000	200,000	1,200,000
General fund	$0	$0	$0
FTE	0.00	0.00	0.00

[1] The House added $1 million from the game and fish fund for the Sweetbriar Dam project. The conference committee agreed with this action.

[2] The conference committee authorized $200,000 from the water development trust fund for funding the Red River Basin Mapping Initiative. Reengrossed Senate Bill No. 2020 also includes $200,000 from the general fund, which was added by the Senate, for this project.

The House added a section identifying one-time funding included in the budget and providing for a report to the 61st Legislative Assembly on the agency's use of the one-time funding. The conference committee agreed with this action.

The House directed the State Water Commission to study tile drainage effects on water use and to report the findings to the Legislative Council by July 1, 2008. The conference committee agreed with this action.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1 million from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project. The conference committee agreed with this action.

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number 2020 (, as (re)engrossed): Date: _____

Your Conference Committee Sen. Approp

For the Senate:	4/12	4/13	V/O	For the House:	4/12	4/13	MO
Sen Tom Fischer	✓	✓	✓	Rep Francis Wald	✓	✓	Yes
Sen Ray Holmberg	✓	✓	✓	Rep Mathew Klein	✓	✓	Yes
Sen Larry Robinson	✓	✓	yes	Rep Ole Aarsvold	✓	✓	Yes

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

____ and place _____ on the Seventh order.

____, adopt (further) amendments as follows, and place _____ on the Seventh order:

having been unable to agree, recommends that the committee be discharged and a new committee be appointed.

((Re)Engrossed) _____ was placed on the Seventh order of business on the calendar.

DATE: _____
HOUSE CARRIER: _____ **SENATE CARRIER:** _____

LC NO. of amendment
LC NO. of engrossment
Emergency clause added or deleted
Statement of purpose of amendment 4/13/07

MOTION MADE BY: Klein
SECONDED BY: Holmberg
VOTE COUNT: 5 **YES** / **NO** / **ABSENT**

carried on motion not mbill amendment 200,000 gen fund 200,000 Water from Water Development Trust fund remove lang re OMB - re: money from OMB.

Revised 4/22/05

REPORT OF CONFERENCE COMMITTEE

SB 2020, as reengrossed: Your conference committee (Sens. Fischer, Holmberg, Robinson and Reps. Wald, Klein, Aarsvold) recommends that the **HOUSE RECEDE** from the House amendments on SJ pages 1194-1195, adopt amendments as follows, and place SB 2020 on the Seventh order:

That the House recede from its amendments as printed on pages 1194 and 1195 of the Senate Journal and pages 1186 and 1187 of the House Journal and that Reengrossed Senate Bill No. 2020 be amended as follows:

Page 1, line 3, after the second "to" insert "amend and reenact section 61-34-04 of the North Dakota Century Code, relating to eligibility for the drought disaster livestock water assistance program; to" and remove "and"

Page 1, line 4, after "credit" insert "; to provide legislative intent; to provide for a study; and to declare an emergency"

Page 1, line 19, replace "48,463,767" with "49,663,767"

Page 1, line 20, replace "48,739,617" with "49,939,617"

Page 1, line 21, replace "35,863,331" with "37,063,331"

Page 2, line 5, replace "172,354,260" with "173,554,260"

Page 2, line 6, replace "174,810,555" with "176,010,555"

Page 2, line 7, replace "160,923,049" with "162,123,049"

Page 3, after line 15, insert:

"**SECTION 10. AMENDMENT.** Section 61-34-04 of the North Dakota Century Code is amended and reenacted as follows:

61-34-04. Eligibility - Application for assistance. Applicants with livestock water supply problems caused by drought may apply for assistance from the program. An applicant must first apply for water cost-share assistance from the agriculture stabilization and conservation service. If cost-share assistance is denied by the service, the applicant may forward the application to the commission for consideration. An application forwarded to the commission must include a document from the agriculture stabilization and conservation service stating the reason for denial of cost-share assistance. The state engineer shall review all applications received by the commission. Notwithstanding any other provision of law, a water supply project commenced after application for funding is made but without prior approval of the state engineer is eligible for funding from the program. If the state engineer approves an application, the applicant may receive up to fifty percent of the cost of the project, but in no event more than three thousand five hundred dollars. The state engineer shall provide funds for approved applications in accordance with rules and criteria for eligibility and only to the extent that funding is available.

SECTION 11. TILE DRAINAGE EFFECTS ON WATER USE STUDY. The state water commission shall study, develop, and recommend policies and procedures for assessing the impact of tile drainage on the beneficial use of water by prior water appropriators. The state water commission shall report its findings and recommendations to the legislative council by July 1, 2008.

SECTION 12. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $3,000,000 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The state water commission shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

Red River water supply project $3,000,000

SECTION 13. LEGISLATIVE INTENT - SWEETBRIAR DAM PROJECT. It is the intent of the sixtieth legislative assembly that the state water commission provide funding for the sweetbriar dam project. In addition, Morton County shall contribute $15,000 toward the sweetbriar dam project and $1,000,000 must be made available from the game and fish fund for the project which is appropriated in section 3 of this Act. The funding from the game and fish fund and Morton County is contingent upon funding being made available for the project by the state water commission during the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 14. EMERGENCY. Section 10 of this Act is declared to be an emergency measure."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Water Commission - Conference Committee Action

	EXECUTIVE BUDGET	SENATE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	HOUSE VERSION	COMPARISON TO HOUSE
Administrative and support services	$2,456,295	$2,456,295		$2,456,295	$2,456,295	
Water and atmospheric resources	172,154,260	172,354,260	$1,200,000	173,554,260	173,154,260	$400,000
Total all funds	$174,610,555	$174,810,555	$1,200,000	$176,010,555	175,610,555	$400,000
Less estimated income	160,923,049	160,923,049	1,200,000	162,123,049	161,923,049	200,000
General fund	$13,687,506	$13,887,506	$0	$13,887,506	$13,687,506	$200,000
FTE	84.00	84.00	0.00	84.00	84.00	0.00

Dept. 770 - Water Commission - Detail of Conference Committee Changes

	ADDS FUNDING FOR SWEETBRIAR DAM PROJECT [1]	ADDS FUNDING FOR MAPPING PROJECT [2]	TOTAL CONFERENCE COMMITTEE CHANGES
Administrative and support services			
Water and atmospheric resources	$1,000,000	$200,000	$1,200,000
Total all funds	$1,000,000	$200,000	$1,200,000
Less estimated income	1,000,000	200,000	1,200,000
General fund	$0	$0	$0
FTE	0.00	0.00	0.00

[1] The House added $1 million from the game and fish fund for the Sweetbriar Dam project. The conference committee agreed with this action.

[2] The conference committee authorized $200,000 from the water development trust fund for funding the Red River Basin Mapping Initiative. Reengrossed Senate Bill No. 2020 also includes $200,000 from the general fund, which was added by the Senate, for this project.

The House added a section identifying one-time funding included in the budget and providing for a report to the 61st Legislative Assembly on the agency's use of the one-time funding. The conference committee agreed with this action.

The House directed the State Water Commission to study tile drainage effects on water use and to report the findings to the Legislative Council by July 1, 2008. The conference committee agreed with this action.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1 million from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project. The conference committee agreed with this action.

Reengrossed SB 2020 was placed on the Seventh order of business on the calendar.

2007 TESTIMONY

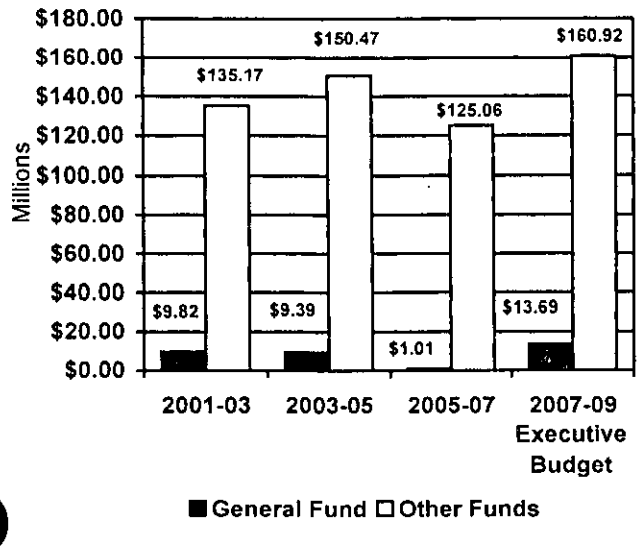
SB 2020

Prepared by the North Dakota Legislative Council staff for House Appropriations
February 23, 2007

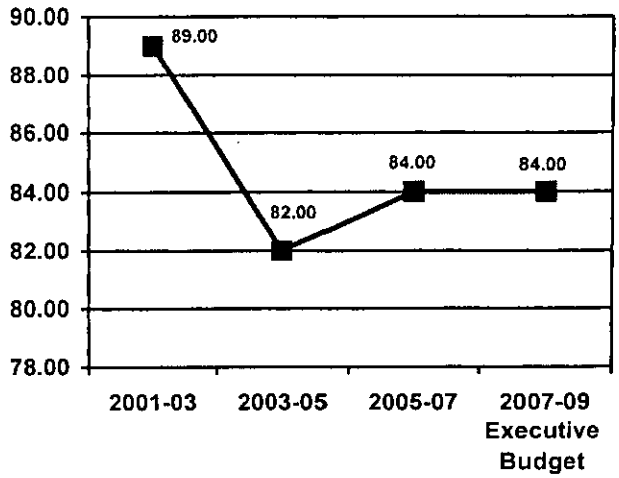
Department 770 - State Water Commission
Senate Bill No. 2020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	84.00	$13,687,506	$160,923,049	$174,610,555
2005-07 Legislative Appropriations	84.00	1,011,220	125,059,718	126,070,938
Increase (Decrease)	0.00	$12,676,286	$35,863,331	$48,539,617

Agency Funding



FTE Positions



First House Action

Attached is a summary of first house changes.

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Provides $6 million of funding, of which $3 million is from the general fund and $3 million is from the water development trust fund, for the Red River Water Supply Project **(executive budget identified as one-time funding)**	$3,000,000	$3,000,000	$6,000,000
2. Provides additional funding from the general fund for State Water Commission administrative expenses to replace funding from the water development trust fund	$9,676,286	($9,676,286)	$0
3. Increases funding for statewide water project grants based on available special funding sources		$25,750,434	$25,750,434
4. Increases funding for other capital payments related to state water projects based on available federal and special funds		$5,753,695	$5,753,695
5. Increases funding from the water development trust fund for bond payments relating to the issuance of bonds in March 2000 ($27.5 million) and June 2005 ($60 million) for total payments of $13,992,714		$4,215,681	$4,215,681
6. Provides funding for a pipe inspection camera		$20,000	$20,000
7. Provides funding for information technology equipment to enhance infrastructure		$30,000	$30,000
8. Increases federal funding for professional services for flood plain mapping		$3,079,245	$3,079,245
9. Increases funding for professional services primarily for the Northwest Area Water Supply and Southwest Pipeline Project		$2,688,234	$2,688,234

Other Sections in Bill

Section 4 of Senate Bill No. 2020 authorizes $69,352,698 from the resources trust fund. Any additional amount in the resources trust fund that becomes available is appropriated to the State Water Commission for the purpose of defraying the expenses of the commission for the 2007-09 biennium.

Section 5 of Senate Bill No. 2020 authorizes $40,055,999 from the water development trust fund. Any additional amount in the water development trust fund that becomes available is appropriated to the State Water Commission for the purpose of defraying expenses of the commission for the 2007-09 biennium.

Section 6 of Senate Bill No. 2020 authorizes the State Water Commission to carry over unexpended funding authority for grants or water-related projects to the 2009-11 biennium.

Section 7 of Senate Bill No. 2020 authorizes a Bank of North Dakota line of credit of up to $25 million to the State Water Commission for the 2007-09 biennium.

Section 8 of Senate Bill No. 2020 provides a contingent appropriation of $25 million, or so much of the sum as may be necessary, from the water development trust fund, resources trust fund, or other sources to the State Water Commission for repaying the line of credit.

Section 9 of Engrossed Senate Bill No. 2020 increases the eligible cost-share for the Grand Forks flood control program in order for the city of Grand Forks to access the entire $52 million dedicated for the project.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

House Bill No. 1513 - This bill provides that the State Water Commission may establish an emergency municipal drinking water loan program.

Senate Bill No. 2356 - This bill provides a contingent appropriation of $100 million from the general fund to the State Water Commission for water projects. The State Water Commission is to use at least 50 percent of the appropriation for the Red River Water Supply Project. The appropriation is contingent based upon the director of the Office of Management and Budget determining that, based on the July 2008 or November 2008 revenue forecast, the general fund balance is projected to be more than $40 million. The contingent appropriations included in this bill are limited to the balance in excess of $40 million.

ATTACH:1

STATEMENT OF PURPOSE OF AMENDMENT:

Senate Bill No. 2020 - Funding Summary

	Executive Budget	Senate Changes	Senate Version
Water Commission			
Administrative and support services	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	200,000	172,354,260
Total all funds	$174,610,555	$200,000	$174,810,555
Less estimated income	160,923,049	0	160,923,049
General fund	$13,687,506	$200,000	$13,887,506
FTE	84.00	0.00	84.00
Bill Total			
Total all funds	$174,610,555	$200,000	$174,810,555
Less estimated income	160,923,049	0	160,923,049
General fund	$13,687,506	$200,000	$13,887,506
FTE	84.00	0.00	84.00

Senate Bill No. 2020 - Water Commission - Senate Action

	Executive Budget	Senate Changes	Senate Version
Administrative and support services	$2,456,295		$2,456,295
Water and atmospheric resources	172,154,260	200,000	172,354,260
Total all funds	$174,610,555	$200,000	$174,810,555
Less estimated income	160,923,049	0	160,923,049
General fund	$13,687,506	$200,000	$13,887,506
FTE	84.00	0.00	84.00

Department No. 770 - Water Commission - Detail of Senate Changes

	Provides Funding for Mapping Project[1]	Total Senate Changes
Administrative and support services		
Water and atmospheric resources	200,000	200,000
Total all funds	$200,000	$200,000
Less estimated income	0	0
General fund	$200,000	$200,000
FTE	0.00	0.00

[1] This amendment provides a $200,000 general fund appropriation to the State Water Commission for a mapping project.

This amendment increases the eligible cost-share for the Grand Forks flood control program in order for the city to access the entire $52 million state share dedicated for the project.

North Dakota State Water Commission
Testimony Relative to
Senate Bill 2020

Presented to the
Senate Appropriations Committee

Sixtieth Legislative Assembly

January 19, 2007

By Dale L. Frink
North Dakota State Engineer and Chief Engineer-Secretary
to the State Water Commission

NORTH DAKOTA STATE WATER COMMISSION TESTIMONY RELATIVE TO SENATE BILL 2020

PRESENTED TO THE SENATE APPROPRIATIONS COMMITTEE

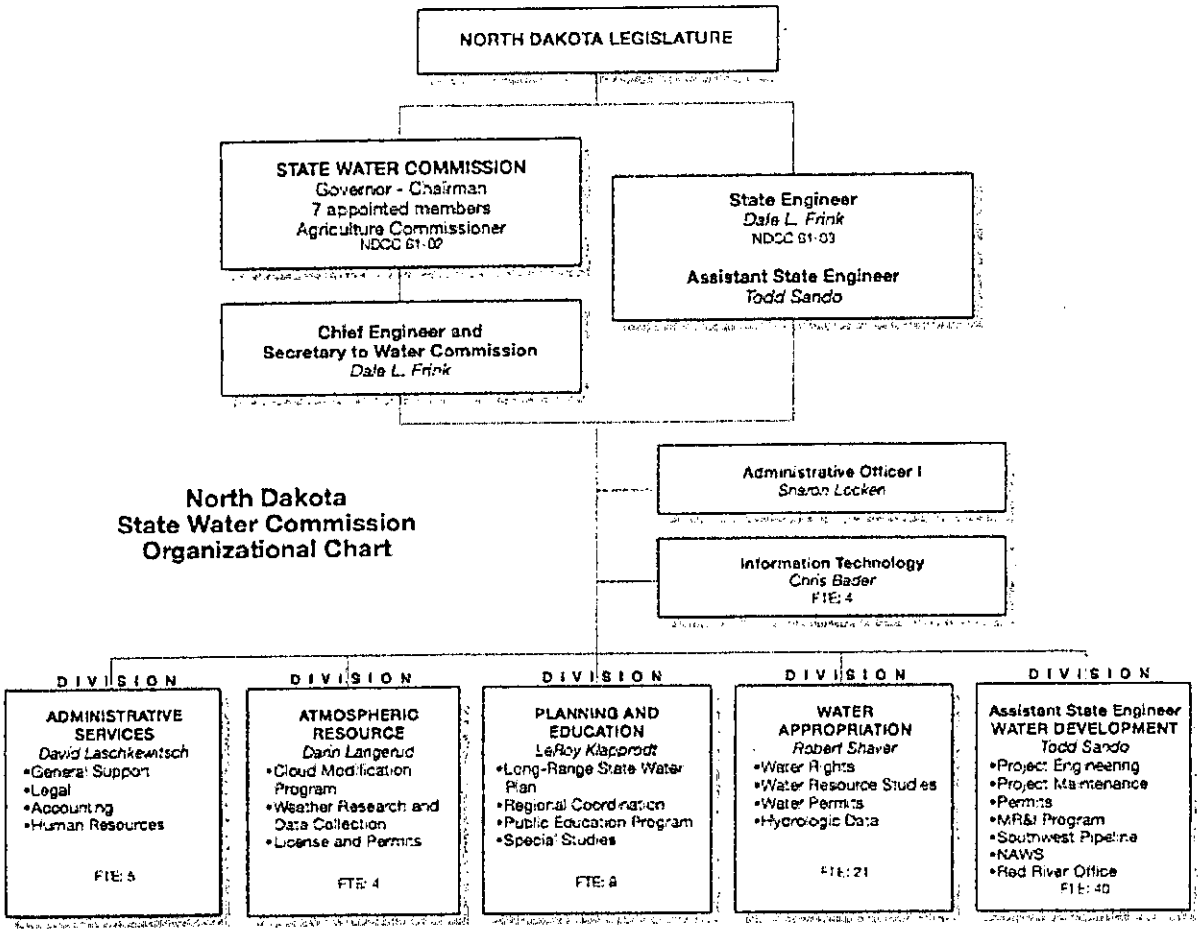
JANUARY 19, 2007

Mr. Chairman, Members of the Senate Appropriations Committee, I am Dale Frink, North Dakota State Engineer and Chief Engineer-Secretary to the North Dakota State Water Commission.

It is my pleasure to appear before you today regarding Senate Bill 2020. My testimony will be presented in three main parts: first, I will provide a brief organizational overview; second, a status report on major projects and programs, as well as our current budget; and finally, a discussion of other priority issues for the upcoming biennium.

ORGANIZATIONAL OVERVIEW

As illustrated by our organizational chart, the State Water Commission is separated into five divisions, with 84 Full Time Employees (FTEs).



The Administrative Services Division, directed by Dave Laschkewitsch, provides support services for the agency.

The Planning and Education Division, directed by Lee Klapprodt, develops and maintains the State Water Management Plan and the agency Strategic Plan; manages the agency's information and education programs; and administers the Drought Disaster Livestock Water Supply Assistance Program.

The Water Appropriations Division, directed by Bob Shaver, is responsible for the processing of water permit applications; water rights evaluations; hydrologic data collection; water supply investigations; and economic development support activities.

The Water Development Division, directed by Todd Sando, is responsible for project engineering and maintenance; Municipal Rural & Industrial (MR&I) program administration; Southwest Pipeline and Northwest Area Water Supply project management; floodplain and sovereign land management; dam safety; Devils Lake outlet operations; and the processing of dam, dike, and drainage permits.

And finally, the Atmospheric Resources Division, directed by Darin Langerud, is responsible for the administration of cloud seeding activities in the state; conducts atmospheric research; and performs weather-related data collection and analysis.

A BIENNIUM OF PROGRESS

In looking back at the 2005-2007 biennium thus far, it has been an eventful period for the Water Commission that was once again marked by tremendous water management and development progress in all parts of the state. But more importantly, as we look ahead, there is still great potential and outstanding opportunities to manage and develop our water resources for current and future generations of North Dakotans. With that, I would like to briefly outline some of our activities from this biennium, along with a brief overview of some future activities in the state.

Flood Control

In flood control efforts, I am pleased to report that construction on the long-awaited Maple River Dam project is substantially complete and it will be ready for operation this spring. Maple River Dam is a 70-foot-high earthen embankment, capable of temporarily retaining 60,000 acre-feet of floodwater in southwest Cass County. This Cass County Joint Water Resource District project is designed to provide flood protection along the Maple, Sheyenne, and Red Rivers.

In the Devils Lake basin, we continued to pursue a comprehensive, three-pronged approach to the area's flood-related problems. Our comprehensive approach continues to include upper basin water management, infrastructure protection, and an outlet to the Sheyenne River.

In August 2005, construction on the state's emergency Devils Lake outlet was completed - on time, and under budget. The outlet is currently sized for 100 cubic feet per second (cfs), but can be expanded to 300 cfs in the future, with modifications. The outlet consists of two pumping plants, approximately 4 miles of pipeline, and 10 miles of open channel. This was a large-scale project, where construction progressed at an astonishing rate. The outlet was operated for a brief period during 2005, but because of water quality constraints on the Sheyenne River, we were not able to pump water during the 2006 operation season.

With regard to upper basin water management, the Water Commission has continued to provide assistance to the Devils Lake Joint Water Resource Board in several ways,

including the implementation of an irrigation test project that is aimed at using upper basin floodwaters for value added agriculture, while helping to reduce inflow into Devils Lake. At the same time, the Commission has continued to fund the Extended Storage Acreage Program to store floodwater in the upper portions of the basin.

Infrastructure protection and relocation efforts have also continued throughout the Devils Lake basin. It is estimated that Devils Lake basin infrastructure repair and replacement costs total about half a billion dollars since the flooding began in 1993.

Moving our attention to other flood control efforts in the Red River basin, significant advances occurred in Grand Forks and East Grand Forks to construct permanent flood protection structures. As the ten-year anniversary of the 1997 flood approaches, I am happy to report that Grand Forks can currently handle a 1997-type flood event with relatively minor preparation (see appendix). In fact, the spring of 2006 brought with it the fifth largest flood event on record, and no sandbags were needed. Of the state's $52 million dollar contribution to the Grand Forks flood control project, about $49 million has been paid to date.

In Wahpeton, Phase I construction of their flood control project has been completed, which includes interior pumping stations, detention ponds, and other interior flood control features. This project is not scheduled for completion until 2010, but the City of Wahpeton has temporary dikes in place that provide significant benefits.

An important flood management effort that has also progressed rapidly in the last few years involves our digital floodplain mapping project. The purpose of this effort is to transfer and update all of North Dakota's paper floodplain maps to a digital format, thus enhancing their availability and usefulness to a broader spectrum of users. Contracts are currently underway to complete this effort in 11 North Dakota counties, with five more to be added in 2007.

Water Supply

In water supply efforts, 2006 was an eventful year for the Southwest Pipeline Project. It was the twentieth year of construction, the fifteenth anniversary of rural water service integration, and the tenth year since transferring management, operations, and maintenance of the project from the Water Commission to the Southwest Water Authority. In addition, the Southwest Pipeline delivered a new record 1.3 billion gallons of water to southwest North Dakota in 2006, and the Red Trail Energy ethanol plant will be a new water user in 2007.

Southwest Pipeline construction efforts so far this biennium have included the Medora-Beach Regional Service Area and the Beulah Interim Service Area projects. These two projects add just over 542 rural users, plus the cities of Beach, Sentinel Butte, Golva, and Zap to the system (see appendix).

In the next biennium, Southwest Pipeline-related efforts will include the completion of the Medora-Beach Phase III project, and the start of construction on the Oliver, Mercer, North Dunn Regional Service Area.

The Northwest Area Water Supply (NAWS) project has substantially completed 47 miles of raw water transmission line between Lake Sakakawea and Minot (see appendix). Although the Manitoba lawsuit is delaying additional work on the raw water treatment and pumping facilities, the court has allowed three new projects around Minot, including a high service pump station, storage reservoirs, and 24 miles of pipe. These projects will allow NAWS to start providing water to the community of Berthold and the North Prairie Rural Water District using Minot's existing water supply. Design work is well underway and two of the projects will be awarded this biennium. The expected schedule is to complete all three of these projects in the next biennum.

The U.S. Bureau of Reclamation has initiated an Environmental Impact Statement to review treatment alternatives to address biota concerns associated with NAWS, which they expect to complete in 2008. Once the EIS and Record of Decision are completed, work can continue on the distribution system and the required pumping and treatment facilities near Max to provide up to 26 million gallons of Missouri River water per day to the communities and rural water systems in the northwest area of North Dakota.

Several projects also progressed under the Municipal, Rural and Industrial (MR&I) water supply program during the 2005-2007 biennium. MR&I program funds were provided for design and/or construction on All Seasons Water Users Systems IV and V; Langdon Rural Water Phase IV; McKenzie Rural Water; Ramsey County Rural Utilities Expansion; Tri-County Water (Grand Forks, Nelson, Ramsey); Williams Rural Water, Phase III; Park River; Stutsman Rural Water District; North Valley Water District; Walsh Rural Water;

and the cities of LaMoure, Park River, Underwood, Pembina, and Williston.

Because of North Dakota's MR&I program, regional and rural water systems have continued to expand throughout the state. As a result of this added assistance, there are now 30 regional water systems in North Dakota providing quality drinking water to 25 percent of the state's population. Over 160,000 residents are served by regional water systems, including 294 cities, 21 subdivisions, and over 100,000 rural residents. Currently, all or part of 47 of North Dakota's 53 counties are served by regional water systems, and most have plans to expand to cover additional areas.

A potentially serious water supply situation for the City of Devils Lake continues to exist, as significant portions of the city's 45-year old water transmission line remains submerged under Devils Lake floodwater – making it inaccessible for maintenance and repair. In addition, the arsenic concentration in the city's water supply exceeds Federal Safe Drinking Water Act (SDWA) standards by 250 percent. The Water Commission has completed a four-year study that identified a safer and more reliable ground water supply.

The Water Commission and Garrison Diversion Conservancy District have continued to work with the U.S. Bureau of Reclamation on the EIS for the Red River Valley Water Supply project. A draft supplemental EIS should be released later this month that will likely name a preferred alternative and a recommendation for biota treatment. The State of North Dakota and the U.S. Bureau of Reclamation have been working with the U.S. State Department and Canada to address concerns regarding biota transfer. We are hopeful that construction can begin as early as 2009.

Assisting cities and rural regional water systems to develop or expand alternative water supplies continues to be an important part of our work. As such, several water appropriation investigations and studies were completed during the biennium. In addition, informal assistance on water rights and water supply problems has been given to numerous municipalities and rural water systems over the last two years.

An issue that continues to be a challenge for our state is the lasting drought that has gripped North Dakota and much of the western United States, particularly in the Missouri River Basin. Runoff in the basin for 2006 totaled 18.5 million acre-feet, which was only 74 percent of normal, making 2006 the seventh consecutive year of less-than-normal runoff. For 2007, the 20 million acre-feet of runoff that is forecasted will only be 79 percent of normal. Thus, there is little relief in sight. For that reason, we will continue to work with municipal, rural, and industrial water users throughout the basin – doing what we can, when we can, to ensure that their basic water supply needs are met.

In a related issue, I would like to address a common question that we frequently receive – that being the amount of water required from the Missouri River system for operation of the Southwest Pipeline, and eventually NAWS and the Red River Valley Water Supply project. With depleted reservoir levels, and the threat of more years of drought yet to come, it seems the perception is that we might be exacerbating an already serious problem. However, I assure you, this is not the case.

The Southwest Pipeline uses just over 20 cubic feet per second or cfs, and NAWS and the Red River Valley Water Supply project will use about 40 and 120 cfs, respectively. Thus, the total water used for all three of these projects would only total about 180 cfs. To put this into perspective, the average flow of the Missouri River at Bismarck is about 23,000 cfs, and the Army Corps frequently operates the Missouri system to meet target flows of 35,000 cfs at Kansas City – just to float barges. Thus, the impact to Lake Sakakawea would mean only inches of water, which is a small price to pay to provide safe and reliable water supplies to hundreds of thousands of our state's citizens.

In an effort to support North Dakota's agricultural producers and struggling rural economies, the State Water Commission continued to operate the reinstated Drought Disaster Livestock Water Supply Assistance Program in response to extreme drought conditions throughout the state. The Water Commission has allocated $650,000 toward that program, and we have received over 500 applications for assistance. The average reimbursement per producer is about $2,900.

Weather Modification

With regard to atmospheric resources efforts, cloud seeding services continued in Bowman, McKenzie, Mountrail, Slope, Williams, and Ward Counties – with the dual purpose of reducing hail and enhancing rainfall. Long-term evaluations indicate that the cloud seeding program reduces crop hail losses by 45 percent, increases rainfall by 5-10 percent, or up to an inch of additional rainfall, resulting in increased wheat yields of 6 percent. The benefit to cost ratio for the program for just agricultural production is 35:1.

The year 2006 was also momentous for the Atmospheric Resource Board's Cooperative Observer Network, as it was their thirtieth year of growing season precipitation data collection. There are currently 778 active volunteer observers throughout the state, and precipitation data and maps can now be easily accessed via the Water Commission website.

General Water Management and Planning

Significant progress was also made on statewide general water management projects. Those efforts included irrigation development, rural ring dike program developments, snagging and clearing efforts, bank stabilizations, dam repairs, and new or reconstructed rural flood control projects to numerous too mention.

It should be noted that dam repairs are becoming a high priority in North Dakota and across the nation. The need for these repairs have come to the forefront because dams that were constructed during the 1960s are approaching their design life, and those that were constructed in the 1930s are now well beyond their design life, and have fallen, in many cases, into serious disrepair.

A recent estimate shows that it will cost about $35 million to repair 134 non-federal dams in North Dakota that have known deficiencies. There are also hundreds of other non-federal dams that were not included in this estimate because they are not regularly inspected by our dam safety staff. An inventory of dams with the highest priority repair needs is attached (see appendix).

Advances to improve management of our state's sovereign land areas also evolved when the Office of the State Engineer recently completed a final draft of a North Dakota Sovereign Land Management Plan. The plan was developed in response to a 2005 Attorney General Opinion that outlined the requirement for such a plan. Sovereign land includes those areas below the ordinary high water mark of navigable lakes and steams. Generally speaking, the Sovereign Land Management Plan outlines the State Engineer's authority to manage sovereign lands, which in many cases are some of the state's most valuable public areas. In addition, the plan includes a number of management recommendations and corresponding action strategies that are aimed at improving our management of this valuable resource.

In technological advancements, the Water Commission completed a total overhaul of our agency website, including, among many other features, a new web-based mapping tool. The new website can be accessed at www.swc.nd.gov.

2005-2007 Funding Summary

To cap off our discussion of activities in the current biennium, I would like to provide a brief summary of 2005-2007 project expenditures. The State Water Commission expended $50 million on water projects through November 2006. It is anticipated that an additional $19 million will be spent through June 2007. About $42 million of the $69 million will come from the Contract Fund, which is made up of a combination of the Resources Trust Fund and the Water Development Trust Fund.

The State Water Commission currently has ten bond issues outstanding on the Southwest Pipeline Project. These have provided the project with $18.7 million, of which $16.9 million remains outstanding. Bond payments are made by the Southwest Water Authority from revenues generated by the pipeline, which include water user fees.

We also have three bond issues outstanding for statewide water development projects. Two issues were used to provide $94.3 million; the other issue was used to partially prepay the first issue to take advantage of reduced interest rates. Outstanding amounts on these issues total $89 million and use the Water Development Trust Fund to make payments. Payments for the 2007-2009 biennium will total $14 million.

SENATE BILL 2020

Senate Bill 2020 contains the executive budget recommendation for the State Water Commission for the 2007-2009 biennium. The recommendation totals $174,610,555.

Administrative and Support Services	$ 2,456,295
Water and Atmospheric Resources	172,154,260
Total	$174,610,555
General Funds	$ 13,687,506
Federal Funds	27,504,199
Other Funds	133,418,850
Total	$174,610,555

Our agency budget contains only two line items. The line item titled Administrative and Support Services contains costs associated with the Administrative and Support Services Division. The line item titled Water and Atmospheric Resources contains costs associated with operation of the Planning, Water Appropriation, Water Development, and

Atmospheric Resources Divisions, as well as all project funding. In the 2005-2007 biennium, only $1 million of the agency's operations were funded with general fund dollars, with the balance coming from the Water Development Trust Fund. For the 2007-2009 biennium, general funds totaling $13.6 million have been included in the executive recommendation. This is an increase of $12.6 million in general funds and restores the majority of the agency's operational costs to general fund dollars as well as providing an additional $3 million for the Red River Valley Water Supply project.

Federal funds totaling $27.5 million have been included in the executive recommendation. This is an increase of $9.8 million from the 2005-2007 biennium. The Map Modernization program is responsible for approximately $3.1 million of this increase. The remaining increases include $5.2 million for the Southwest Pipeline project and $1.5 million for the Northwest Area Water Supply project.

The Resources Trust Fund is projected to bring in $43 million in new revenue this biennium. This is an increase of $23.6 million from the 2005-2007 budgeted revenues, and is based on projections provided by the Office of Management and Budget (OMB). The Water Development Trust Fund is projected to bring in $31.6 million in new revenue this biennium. This is an increase of $10.9 million from the 2005-2007 budgeted revenues. OMB reduced the 2007-2009 estimated revenues from the scheduled payments by 5 percent because the tobacco companies reduced their 2005-2007 payments.

The Commission's 2005-2007 appropriation authorized additional bonding authority of $7 million. The Commission does not anticipate utilizing any of this authority. The executive

budget recommendation does not extend this authority and contains no new bonding authority from the Water Development Trust Fund in the 2007-2009 biennium.

The 2007-2009 North Dakota Water Development Report is provided for your reference. The purpose of this report is: to serve as a supplement to the 1999 State Water Management Plan; to provide up-to-date information regarding North Dakota's current and future water development project needs; to provide current information regarding North Dakota's ability to fund those water development needs; and to serve as a formal request for funding from the Resources Trust Fund.

As indicated in the Water Development Report, the total estimated project and program funding needs submitted by water project sponsors total over $277 million, with state funding needs of about $77 million for the upcoming biennium. Thus, prioritization requires very close coordination with the Governor's Office, State Water Commission members, and the North Dakota Water Coalition.

The following table represents potential priority projects, including estimated expenditures for the 2007-2009 biennium.

Priority Projects	Potential Allocations 07-09 (in millions)
Red River Valley Water Supply	$12.0
Southwest Pipeline Project	$10.0
Northwest Area Water Supply	$5.0
Municipal, Rural, & Industrial	$12.0
Fargo Flood Control	$8.0
Devils Lake Water Supply	$2.0
Irrigation	$2.0
Devils Lake Outlet Operation	$2.0
Weather Modification	$0.6
General Water Management	$10.0
Project Totals	**$63.6**

AGENCY SPECIFICS AND ISSUES: 2007-2009 BIENNIUM

Maintaining the agency's professional staff continues to be a challenge. State employee salaries have always lagged behind the salaries paid by private industry in this region, and the federal government. However, in many cases, state employee salaries are now even behind comparable positions in local government and political subdivisions right here in North Dakota. Our hiring dilemma and retention problems have expanded from entry-level engineers to include Engineer Managers with up to twenty years of experience. In

the past three years, we have lost 6 key Engineer Managers. They include the heads of our Design and Construction, Northwest Area Water Supply, Southwest Pipeline, Regulatory, Floodplain Mapping, and the Devils Lake project. These positions have tremendous responsibilities. For example, the construction costs for both the Northwest Area Water Supply and Southwest Pipeline projects exceed $100 million.

The recent salary increases that were approved by the Legislature during the last Assembly were a step in the right direction, but more needs to be done just to keep up with basic standard of living increases, and to give us hope of retaining our highest skilled professional staff members. For that reason, we have, and will continue to need equity pay increases when appropriate.

Another important staff-related issue involves the amount of time required to issue water permits. The demand for fresh water supplies for irrigation, industrial (ethanol and oil field applications), and municipal and rural water use continues to grow. In some areas, our water resources are approaching or have reached the maximum level of sustainable development. Staff hydrologists must conduct more complex and time consuming analyses than ever before to ensure that we are allocating our water resources in a responsible and sustainable manner, while protecting the rights of other water users. As a result, it often takes up to one full year or more for a single water permit to be issued with our current level of staffing.

Lawsuits also continue to demand a tremendous amount of staff time and resources. As such, I would like to briefly overview the current status of our more pressing lawsuits facing water management today.

The adequacy of the NAWS project Environmental Assessment was challenged in federal court by Manitoba in October 2002. The judge ruled in April 2005 that an injunction stopping all construction activity on NAWS was not appropriate and allowed construction to proceed on the raw water transmission contracts. In February 2006, the federal Solicitor General made the decision not to appeal the lawsuit and Reclamation announced their decision to initiate an Environmental Impact Statement (EIS). In March 2006, a judge approved the state and federal request to proceed with design and construction activities for three NAWS projects around Minot, which will allow NAWS to start serving water to the community of Berthold from Minot's existing water supply. We do not expect additional movement on this lawsuit until Reclamation completes the EIS.

In the Devils Lake area, approximately 90 landowners brought a lawsuit in May of 1999 claiming damages from Devils Lake floodwater. The landowners assert that the state and local water resource districts are responsible for the lake's increase. A 17-day trial was held during the past summer and we expect an initial decision by this coming summer.

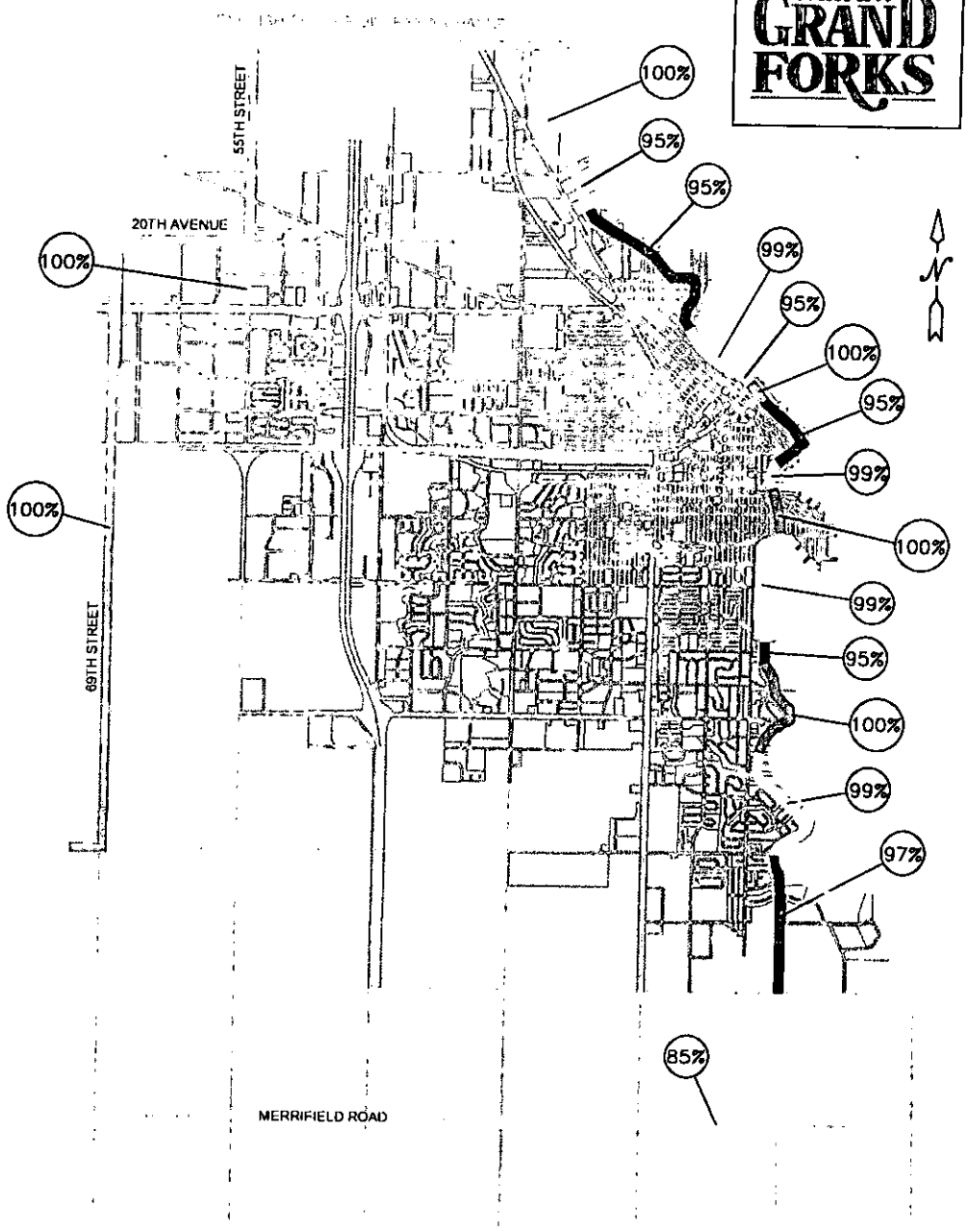
Focusing on the state's Devils Lake outlet, Manitoba has appealed the North Dakota State Health Department's modification of the discharge permit. The North Dakota Supreme Court previously upheld the Department's permit.

The Water Commission has also been sued by the local Municipality of Rhineland, Manitoba, which alleged that the State of North Dakota is partly responsible for unnatural flooding that has occurred in Canada. As a result, the state has had to hire counsel in Canada to represent its interests.

In closing, the State Water Commission has made significant advancements on the Grand Forks and Wahpeton flood control projects, Southwest Pipeline, the Devils Lake outlet, and smaller projects too numerous to mention. But, much remains to be accomplished. With the budget in Senate Bill 2020, I believe the Water Commission will have the ability to continue with our track record of progress.

This concludes my testimony on Senate Bill 2020, and I would be happy to answer any questions that the Committee might have.

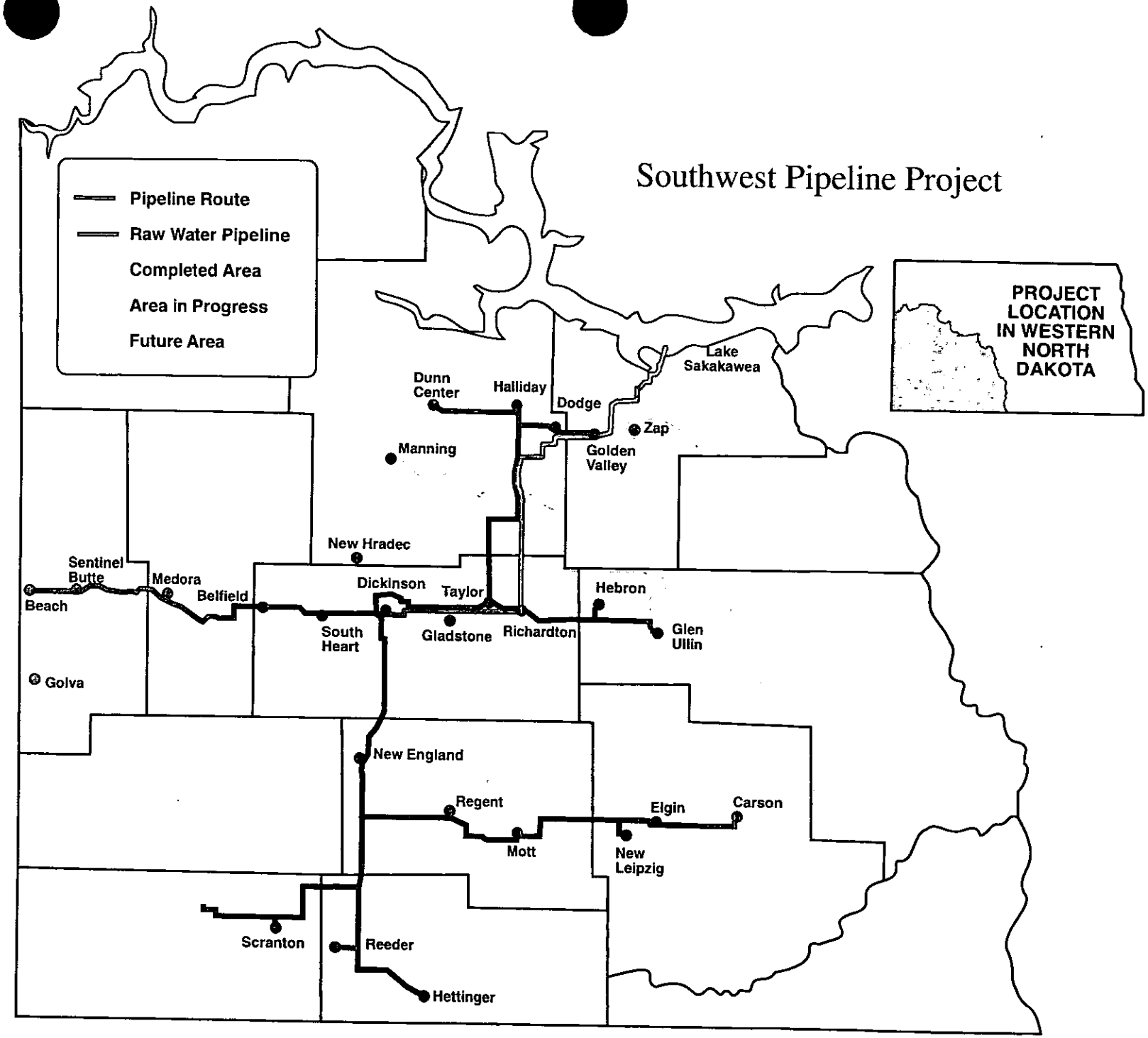
K:\French\Miscellaneous\Flood Protection Maps\Percent Completion Map (Sept 06).dwg

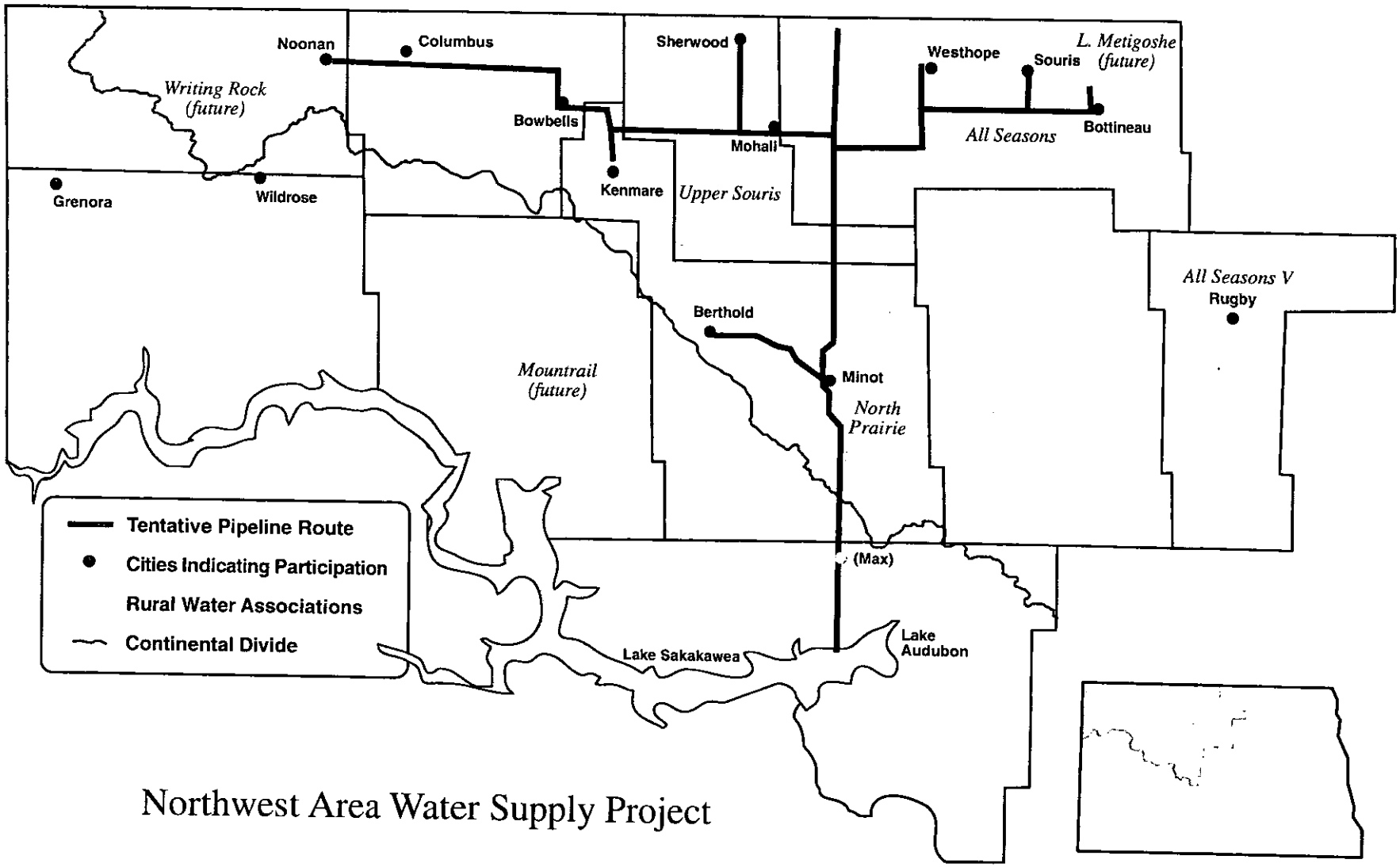


GRAND FORKS PERMANENT FLOOD PROTECTION PROJECT

PHASE I CONSTRUCTION	100% COMPLETE
ENGLISH COULEE DIVERSION	100% COMPLETE
ENGLISH COULEE PUMP STATION	100% COMPLETE
55TH STREET PUMP STATION	100% COMPLETE
PHASE II CONSTRUCTION	99% COMPLETE
PHASE III CONSTRUCTION	95% COMPLETE
PHASE IV CONSTRUCTION	88% COMPLETE

January 18, 2007


Southwest Pipeline Project
Pipeline Route
Raw Water Pipeline
Completed Area
Area in Progress
Future Area
PROJECT LOCATION IN WESTERN NORTH DAKOTA
Lake Sakakawea
Dunn Center
Halliday
Dodge
Zap
Golden Valley
Manning
New Hradec
Sentinel Butte
Medora
Beach
Belfield
Dickinson
Taylor
Hebron
South Heart
Gladstone
Richardton
Glen Ullin
Golva
New England
Regent
Elgin
Carson
Mott
New Leipzig
Scranton
Reeder
Hettinger



Northwest Area Water Supply Project

Dam Repair Needs
Top 15 Highest Priority Dams

Name	County	Owner	Max Dam Height (feet)	Max Pool Volume (ac-ft)	Purpose	Hazard	Year Built	Past SWC Contribution	Major Problems	Minimum Estimated Repair Cost	Maximum Estimated Repair Cost
RENWICK DAM	Pembina	PEMBINA CO WRD (NRCS)	47	8400	Flood Control	High	1962	$ 0	grossly inadequate spillway capacity, erosive spillway, sedimentation	$ 2,300,000.00	$ 5,600,000.00
SWEETBRIAR CREEK DAM	Morton	ND GAME & FISH DEPT	55	10400	Recreation	High	1964	$ 106,014	inadequate seepage control, erosion of embankment material under and around spillway, inadequate spillway capacity, structural stability of stilling basin walls, areas of settlement	$ 1,000,000.00	$ 3,500,000.00
CLAUSEN SPRINGS DAM	Barnes	BARNES CO WRD	48	1275	Recreation	High	1967	$ 33,010	grossly inadequate spillway capacity, steep pipe - slugging, no cradle under RCP, steep slope, thick trees and brush along downstream toe and in groins, seepage, thick stand of trees blocking 75% of emergency spillway width, signs of seepage around outlet pipe, inlet tilted slightly downstream	$ 250,000.00	$ 1,500,000.00
MCGREGOR DAM	Williams	ND GAME & FISH DEPT	43	1490	Recreation	High	1937	$ 41,161	grossly inadequate spillway capacity, old hydrology, hole near bottom of downstream slope above outlet pipe, problems with pipe joints-seepage may be exiting outlet pipe into embankment in a couple of places, large trees in emergency spillway, steep slope, steep pipe - slugging, old low level pipe needs grouted shut, no cradle under RCP	$ 250,000.00	$ 1,500,000.00
MATEJCEK DAM	Walsh	WALSH CO WRD (NRCS)	76	9000	Flood Control	High	1966	$ 0	inadequate spillway capacity	$ 100,000.00	$ 400,000.00
WHITE EARTH DAM	Mountrail	MOUNTRAIL CO WRD	38	4239	Recreation	Significant	1970	$ 244,607	low level gate on downstream end, steep slope, steep pipe - slugging, old hydrology, joint separation in first stage RCP drop inlet, deteriorated seal between the sides of the arch CMP and the concrete floor, many trees in emergency spillway	$ 400,000.00	$ 2,000,000.00
BIG COULEE DAM	Towner	BISBEE & TOWNER CO WRD	36	5103	Recreation	Significant	1968	$ 182,937	problems with seepage around the service spillway, spillway drain pipes displaced, low-level outlet in poor condition (outlet pipe displaced & separated, difficult to operate), spalling & cracking of drop inlet basin walls, brush and willows at mouth of emergency spillway	$ 500,000.00	$ 1,500,000.00
EPPING DAM	Williams	WILLIAMS CO WRD	47	3890	Recreation	Significant	1935	$ 80,687	upstream wing wall cracking and movement, concrete broken off at corner of bridge abutment, drain pipes misaligned behind spillway walls, drainage system, shallow seepage cutoff, displacement of low level outlet pipe behind wall, low level valve difficult to operate, old hydrology	$ 150,000.00	$ 1,000,000.00
SHORT CREEK DAM 1	Burke	ND GAME & FISH DEPT	38	2765	Recreation	Significant	1962	$ 22,607	low level gate on downstream end, low level manhole has hole in downstream side with water running out of hole, cattails clogging spillway approach channel	$ 30,000.00	$ 150,000.00
CAMEL BUTTE DAM	Golden Valley	ND GAME & FISH DEPT	53	1640	Recreation	Significant	1968	$ 5,064	low level gate on downstream end, CMP nearing end of design life, inadequate spillway capacity, seepage	$ 200,000.00	$ 750,000.00
DAUB DAM	Oliver	ND GAME & FISH DEPT	64	1345	Recreation	Significant	1971	$ 4,956	low level valve on downstream end, inadequate spillway capacity, CMP nearing end of design life, toe drains plugged, settlement, steep pipe, steep slopes causing erosion, riprap degrading on upstream slopes	$ 200,000.00	$ 1,500,000.00
CROWN BUTTE DAM	Morton	ND GAME & FISH DEPT	48	1230	Recreation	Significant	1963	$ 45,995	low level valve on downstream end, no cradle under RCP, inadequate spillway capacity, rip rap on upstream slope badly deteriorating, some dissipator blocks missing from stilling basin, toe drain outlets mostly plugged and CMP pipe deteriorating	$ 30,000.00	$ 1,500,000.00
NIEUWSMA DAM	Emmons	EMMONS CO COMM	29	545	Recreation	Significant	1935	$ 3,247	sinkhole on crest, concrete spillway cracking and spalling, seepage through concrete, dead trees on upstream slope, erosion downstream of spillway and behind wingwalls, cattle on dam - cattle trails on downstream slope & completely bare area on left side of spillway	$ 30,000.00	$ 80,000.00
DRAYTON DAM	Pembina	CITY OF DRAYTON	20	12707	Water Supply	Significant	1964	$ 111,819	differential settlement, dangerous roller undertow	$ 500,000.00	$ 2,000,000.00
MCVILLE RAILROAD DAM	Nelson	NELSON COUNTY WRD	37	701	Water Supply	Significant	1910	$ 32,634	stilling basin collapsing, sink holes, seepage, old CMP	$ 150,000.00	$ 500,000.00
									Totals	$ 6,090,000.00	$ 23,480,000.00

Handout #1

SB 2020
March 2, 2007

With the exception of these pages, same given to Senate & House

North Dakota State Water Commission Testimony Relative to Engrossed Senate Bill 2020

Presented to the
House Appropriations Committee
Education and Environmental Division

Sixtieth Legislative Assembly

March 2, 2007

By Dale L. Frink
North Dakota State Engineer and Chief Engineer-Secretary
to the State Water Commission

The State Water Commission currently has ten bond issues outstanding on the Southwest Pipeline Project. These have provided the project with $18.7 million, of which $16.9 million remains outstanding. Bond payments are made by the Southwest Water Authority from revenues generated by the pipeline, which include water user fees.

We also have three bond issues outstanding for statewide water development projects. Two issues were used to provide $94.3 million; the other issue was used to partially prepay the first issue to take advantage of reduced interest rates. Outstanding amounts on these issues total $89 million and use the Water Development Trust Fund to make payments. Payments for the 2007-2009 biennium will total $14 million.

ENGROSSED SENATE BILL 2020

Engrossed Senate Bill 2020 contains the executive budget recommendation for the State Water Commission for the 2007-2009 biennium. The recommendation totals $174,810,555.

Administrative and Support Services	$2,456,295
Water and Atmospheric Resources	172,354,260
Total	$174,810,555
General Funds	$13,887,506
Federal Funds	27,504,199
Other Funds	133,418,850
Total	$174,810,555

Our agency budget contains only two line items. The line item titled Administrative and Support Services contains costs associated with the Administrative and Support Services Division. The line item titled Water and Atmospheric Resources contains costs associated

with operation of the Planning, Water Appropriation, Water Development, and Atmospheric Resources Divisions, as well as all project funding. In the 2005-2007 biennium, only $1 million of the agency's operations were funded with general fund dollars, with the balance coming from the Water Development Trust Fund. For the 2007-2009 biennium, general funds totaling $13.8 million have been included in the Senate-approved budget. This is an increase of $12.8 million in general funds and restores the majority of the agency's operational costs to general fund dollars as well as providing an additional $3 million for the Red River Valley Water Supply project.

Federal funds totaling $27.5 million have been included in the Senate-approved budget. This is an increase of $9.8 million from the 2005-2007 biennium. The Map Modernization program is responsible for approximately $3.1 million of this increase. The remaining increases include $5.2 million for the Southwest Pipeline project and $1.5 million for the Northwest Area Water Supply project.

The Resources Trust Fund is projected to bring in $37 million in new revenue this biennium. This is an increase of $17.6 million from the 2005-2007 budgeted revenues, and is based on projections provided by the Office of Management and Budget (OMB). The Water Development Trust Fund is projected to bring in $31.5 million in new revenue this biennium. This is an increase of $10.8 million from the 2005-2007 budgeted revenues. OMB reduced the 2007-2009 estimated revenues from the scheduled payments by 5 percent because the tobacco companies reduced their 2005-2007 payments.

he following table represents potential priority projects, including estimated expenditures for the 2007-2009 biennium.

Priority Projects	Potential Allocations 07-09 (in millions)
Red River Valley Water Supply	$12.0
Southwest Pipeline Project	$10.3
Northwest Area Water Supply	$5.0
Municipal, Rural, & Industrial	$10.0
Missouri River Management	$0.1
Fargo Flood Control	$8.0
Devils Lake Water Supply	$2.0
Irrigation	$1.4
Devils Lake Outlet Operation	$2.0
Weather Modification	$0.6
General Water Management	$8.0
Project Totals	**$59.4**

The above allocations assume that revenues into the Resources Trust Fund will remain as currently authorized. There are bills under consideration that would reduce revenues to the Resources Trust Fund, and if approved, adjustments would have to be made to the above allocations..

AGENCY SPECIFICS AND ISSUES: 2007-2009 BIENNIUM

Maintaining the agency's professional staff continues to be a challenge. State employee salaries have always lagged behind the salaries paid by private industry in this region, and the federal government. However, in many cases, state employee salaries are now even behind comparable positions in local government and political subdivisions right here in North Dakota. Our hiring dilemma and retention problems have expanded from entry-level engineers to include Engineer Managers with up to twenty years of experience. In the past three years, we have lost 6 key Engineer Managers. They include the heads of our Design and Construction, Northwest Area Water Supply, Southwest Pipeline, Regulatory, Floodplain Mapping, and the Devils Lake project.

Another important staff-related issue involves the amount of time required to issue water permits. The demand for fresh water supplies for irrigation, industrial (ethanol and oil field applications), and municipal and rural water use continues to grow. In some areas, our water resources are approaching or have reached the maximum level of sustainable development. Staff hydrologists must conduct more complex and time consuming analyses than ever before to ensure that we are allocating our water resources in a responsible and sustainable manner, while protecting the rights of other water users. As a result, it often takes up to one full year or more for a single water permit to be issued with our current level of staffing.

Lawsuits also continue to demand a tremendous amount of staff time and resources. As such, I would like to briefly overview the current status of our more pressing lawsuits facing water management today.

The adequacy of the NAWS project Environmental Assessment was challenged in federal court by Manitoba in October 2002. The judge ruled in April 2005 that an injunction stopping all construction activity on NAWS was not appropriate and allowed construction to proceed on the raw water transmission contracts. In February 2006, the federal Solicitor General made the decision not to appeal the lawsuit and Reclamation announced their decision to initiate an Environmental Impact Statement (EIS). In March 2006, a judge approved the state and federal request to proceed with design and construction activities for three NAWS projects around Minot, which will allow NAWS to start serving water to the community of Berthold from Minot's existing water supply. We do not expect additional movement on this lawsuit until Reclamation completes the EIS.

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Focusing on the state's Devils Lake outlet, Manitoba has appealed the North Dakota State Health Department's modification of the discharge permit. The North Dakota Supreme Court previously upheld the Department's permit.

The Water Commission has also been sued by the local Municipality of Rhineland, Manitoba, which alleged that the State of North Dakota is partly responsible for unnatural flooding that has occurred in Canada. As a result, the state has had to hire counsel in Canada to represent its interests.

In closing, the State Water Commission has made significant advancements on the Grand Forks and Wahpeton flood control projects, Southwest Pipeline, the Devils Lake outlet, and smaller projects too numerous to mention. But, much remains to be accomplished. With the budget in Engrossed Senate Bill 2020, I believe the Water Commission will have the ability to continue with our track record of progress.

This concludes my testimony on Engrossed Senate Bill 2020, and I would be happy to answer any questions that the Division might have.

2007-09 North Dakota
State Engineer Recommendations

SWC Revenues:		
Resources Trust Fund	$40,400,000 *	* *New Estimated*
Water Development Trust Fund	$30,000,000 *	*Revenues*
General Fund	$3,000,000	
Available Revenues	**$73,400,000**	
Devils Lake Outlet O&M/Basin Development	$2,000,000	
Devils Lake Water Supply	$2,000,000	
Flood Control Fargo	$8,000,000	
General Water Management	$8,000,000	
Grand Forks	$0	
Irrigation	$1,400,000	
Missouri River Management	$100,000	
MR&I	$10,000,000	
Northwest Area Water Supply	$5,000,000	
Red River Valley Water Supply	$12,000,000	
Southwest Pipeline	$10,300,000	
Weather Modification	$600,000	
Project Subtotal	$59,400,000	
Bond Payments	$14,000,000	
Total Expenditures	**$73,400,000**	

*SWC is now funded as a general fund agency.

Prepared by the North Dakota Legislative Council staff for Representative Wald
April 2007

STATE WATER COMMISSION - SENATE BILL NO. 2020

	FTE	General Fund	Other Funds	Total	Administrative and Support Services	Water and Atmospheric Resources
Executive budget recommendation	84.00	$13,687,506	$160,923,049	$174,610,555	$2,456,295	$172,154,260
State Water Commission - Senate Changes						
Provided funding for a mapping project		$200,000		$200,000		$200,000
Total Senate Changes - State Water Commission	0.00	$200,000	$0	$200,000	$0	$200,000
Senate Version - State Water Commission	84.00	$13,887,506	$160,923,049	$174,810,555	$2,456,295	$172,354,260
Section 1 amounts		$1,011,220	$125,059,718	$126,070,938	$2,180,445	$123,890,493
Section 2 amounts		$12,876,286	$35,863,331	$48,739,617	$275,850	$48,463,767

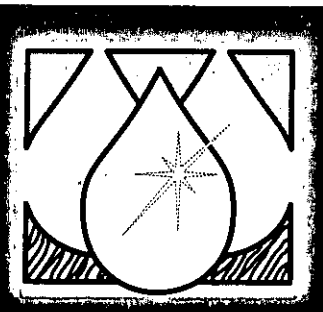
Other Senate Changes:
The Senate increased the eligible cost-share for the Grand Forks flood control program in order for the city to access the entire $52 million state share dedicated for the project.

Senate Version - State Water Commission	84.00	$13,887,506	$160,923,049	$174,810,555	$2,456,295	$172,354,260
State Water Commission - House Changes:						
Removed funding for mapping project added by Senate		($200,000)		($200,000)		($200,000)
Added funding for Sweetbriar Dam project from the game and fish fund			$1,000,000	1,000,000		1,000,000
Total House Changes - State Water Commission	0.00	($200,000)	$1,000,000	$800,000	$0	$800,000
House Version - State Water Commission	84.00	$13,687,506	$161,923,049	$175,610,555	$2,456,295	$173,154,260
Section 1 amounts		$1,011,220	$125,059,718	$126,070,938	$2,180,445	$123,890,493
Section 2 amounts		$12,676,286	$36,863,331	$49,539,617	$275,850	$49,263,767

Other House Changes:
The House added a section identifying one-time funding.

The House directed the State Water Commission to study tile drainage effects on water use and to report the finding to the Legislative Council by July 1, 2008.

The House added legislative intent for the State Water Commission to provide funding for the Sweetbriar Dam project. In addition, Morton County is to provide $15,000 for the project and the House appropriated $1,000,000 from the game and fish fund for the project. The funding from Morton County and the game and fish fund is contingent upon the State Water Commission providing funding for the project.



2007-2009 WATER DEVELOPMENT REPORT

an update to the

1999 State Water Management Plan

December 2006

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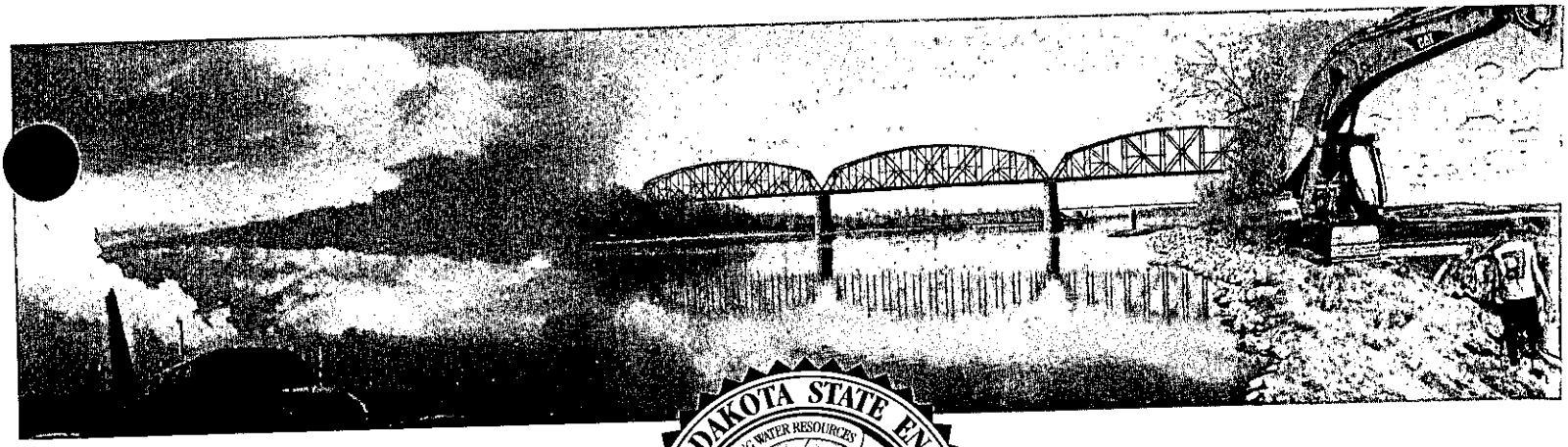


A MESSAGE FROM THE STATE ENGINEER:

I am pleased to present you with the 2007-2009 North Dakota Water Development Report, which is the third and final update of the 1999 State Water Management Plan (SWMP). The specific purposes of this document are outlined in the report, but generally speaking, it provides readers with information on North Dakota's past and current water development efforts, as well as the state's vision for water development in the upcoming biennium and beyond.

Over the course of the last several years, the State of North Dakota has taken an aggressive approach to developing and managing our water resources – most noticeably since the development of the 1999 SWMP. The reason for this tact was twofold. First, tremendous water development needs existed across the state that urgently needed to be addressed, particularly in the areas of flood control and water supply. And second, the Water Commission and it's many constituents and water project supporters uniformly believe that our water resources should be managed and developed for the benefit of as many North Dakotans as possible. It's because of this common commitment that North Dakota's water community has been so successful over the years.

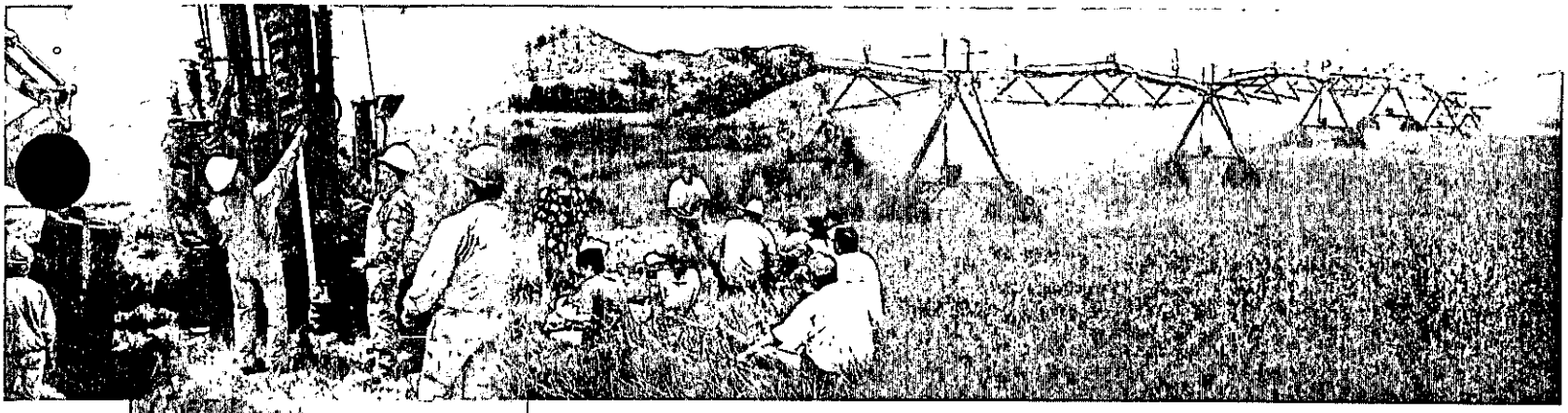
As North Dakota enhances its role in today's diversified global economy, I believe success in our immediate and distant future hinges upon our ability to pursue and advance the state's priority water development projects outlined in this report. From the smallest dam repair, to the largest regional water supply project the state has ever pursued, the Red River Valley Water Supply Project; all serve as important pieces in an overall water management philosophy that is aimed at improving the state's economy and the quality of life for the citizens of this great state.

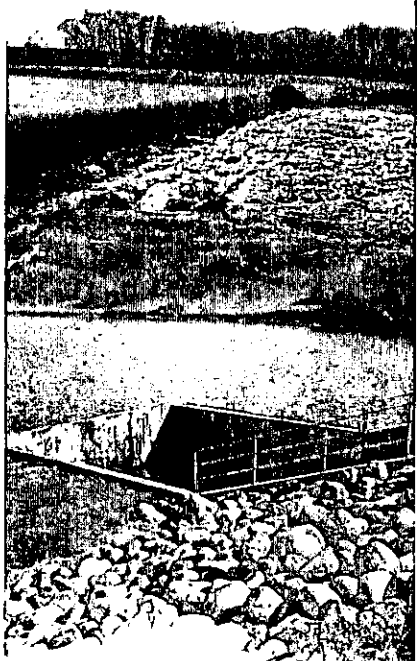
With that, I hope you find the 2007-2009 Water Development Report to be informative, and I appreciate your interest in North Dakota's future water management and development efforts.

Sincerely,

Dale L Frink

Dale L. Frink, P.E.
North Dakota State Engineer





Introduction

Background

In 1999, the North Dakota State Water Commission (SWC or Commission) developed the 1999 State Water Management Plan (SWMP). The 1999 SWMP was by far the most comprehensive effort ever undertaken in North Dakota to identify the water development needs of the state. In response, the Legislature took notice of the state's growing water project needs by passing SB 2188, which set up the Water Development Trust Fund and provided authority to issue up to $84.8 million in bonds to fund water projects statewide. In addition, the passage of House Bill 1475 devoted 45 percent of the state's tobacco settlement to the Water Development Trust Fund.

Then, in 2001, 2003, and 2005, updates and supplements to the 1999 SWMP were developed to provide updated water project information to the 57th, 58th, and 59th Legislative Assemblies. The 2001, 2003, and 2005 Water Development Reports provided updated information regarding the state's water development needs and funding abilities at those times. This report will serve a similar purpose during the 2007-2009 biennium and for the 60th Legislative Assembly.

Purpose and Authority

The purpose of the 2007-2009 Water Development Report is to:

- serve as a supplement to the 1999 SWMP;
- provide up-to-date information regarding North Dakota's current and future water development project needs;
- provide current information regarding North Dakota's revenue sources for water development;
- serve as a formal request for funding from the Resources Trust Fund; and
- provide updated information regarding the Commission's cost-share policies.

By virtue of North Dakota Century Code, Section 61-02-14, Powers and Duties of the Commission; and Section 61-02-26, Duties of State Agencies Concerned with Intrastate Use or Disposition of Waters, the Commission is required to develop and maintain a comprehensive water plan for the sound management of North Dakota's water resources.

Priority Project Updates

Since the completion of the 1999 State Water Management Plan, the State of North Dakota, through the State Water Commission, has seen tremendous progress made in water development in all parts of the state. What is also important to recognize is that many of the state's large-scale water projects progressed despite the many obstacles that often face projects today. The following summary provides an update of progress that has been made and milestones that have been met on several of the state's priority water development efforts over the course of the last four bienniums.

Grand Forks Flood Control

As the ten-year anniversary of the 1997 flood approaches, the City of Grand Forks has made tremendous strides to ready itself for future flood events. And, though some work remains to be completed, Grand Forks could currently handle a 1997-type flood event with the implementation of minor temporary flood control works in a few locations.

The Grand Forks flood control project consists of levees and a floodwall set back from the Red River. In addition, stabilization of an existing dam, removal of a former railroad bridge, interior flood control features, numerous road and railroad closures, extension and expansion of an existing diversion channel, and construction of a new diversion channel with associated structural features, are all part of the project. By the fall of 2006, Phase I construction, the English Coulee Pump Station, and the 55th Street Pump Station were all 100 percent complete; the English Coulee Diversion and Phase II construction were 99 percent complete; and construction of Phase III and IV were 85 and 75 percent complete.

Wahpeton Flood Control

The Wahpeton flood control project consists of a permanent levee system to protect the city, and a flood easement to keep breakout flows from being blocked in the future. Phase I construction has been completed, which includes interior pumping stations, detention ponds, and other interior flood control features. Almost all of Phase II has been designed for a portion of the in-town levee system, with construction anticipated for 2007. Phase III, which includes the remaining levee sections, is scheduled for completion sometime in 2010. Both Phase II and Phase III levee construction efforts must be completed in concert with levee constructions on the Breckenridge, Minnesota side of the Red River.

Maple River Dam

Maple River Dam is located in southeast North Dakota, approximately eight miles north of Enderlin. The dam is scheduled for substantial completion in 2006, and will be operational in 2007. This dry dam is a 70-foot high earthen embankment, capable of temporarily retaining up to 60,000 acre-feet of floodwater. Maple River Dam is designed to provide flood protection along the Maple, Sheyenne, and Red Rivers, and it is the fourth phase completed as part of the Sheyenne River flood control project. The other completed phases are the West Fargo Sheyenne River Diversion, the Horace to West Fargo Sheyenne River Diversion, and the five-foot flood pool raise at Baldhill Dam.

Southwest Pipeline

Since the development of the 1999 State Water Management Plan, a tremendous amount of progress has been made on the Southwest Pipeline Project. From 1999 to 2006, the number of rural water users had increased from just under 1,600 to about 2,900. And, the number of cities and other bulk water users increased from 25 to 43 during that same time period. Once again, in 2005, the Southwest Pipeline pumped more than a billion gallons of water from Lake Sakakawea. As a result

of prolonged drought conditions, particularly during the summer of 2006, preliminary estimates indicate that the Southwest Pipeline's 2006 water use from Lake Sakakwea could increase by almost 20 percent to about 1.35 billion gallons.

The Southwest Pipeline also recently contributed to North Dakota's energy development efforts by providing water to Red Trail Energy, an ethanol plant located in Richardton. When the plant is completed and fully operational in 2007, Southwest Pipeline will provide up to 315 million gallons of raw Missouri River system water annually. With Red Trail's future need for that much water, they will become the second largest water user on the Southwest Pipeline, behind only the City of Dickinson. In comparison, Dickinson currently uses just over 600 million gallons of Missouri River water per year.

Northwest Area Water Supply

In the spring of 2002, construction began on the long-awaited Northwest Area Water Supply (NAWS) project. To date, almost all main transmission pipeline between Lake Sakakawea and Minot has been completed, including about 47 miles of 30 to 36 inch pipeline and isolation vaults. Additional project components to be completed along the main transmission line include an intake at Lake Sakakawea, some level of treatment facility at Max, a control structure at the basin divide, and a 3 million gallon raw water storage reservoir. These future facilities along the main transmission line will require court approval to proceed. Currently, the U.S. Bureau of Reclamation is working to complete an Environmental Impact Statement (EIS) on the project. While the EIS is proceeding, the court has allowed design and construction to proceed on three NAWS projects including: the Minot High Service Pump Station, the pipeline between Berthold and Minot, and the pipeline within Minot.

When completed, NAWS will provide up to 2 million gallons of Missouri River water per day to at least 63,000 citizens of North Dakota. With additional rural development, NAWS could serve as many as 81,000.

Red River Valley Water Supply

The Water Commission has worked in cooperation with the Garrison Diversion Conservancy District, and the U.S. Bureau of Reclamation in the preparation of the Environmental Impact Statement for the Red River Valley Water Supply Project. The Water Commission will continue to provide technical assistance and funding to develop a project that will be capable of meeting the Red River Valley's ever-increasing water supply needs.

Municipal Rural and Industrial (MR&I) Water Supply Program

Because of North Dakota's MR&I program, regional and rural water systems have continued to expand throughout the state. As a result of this added assistance, there are now 32 regional water systems in North Dakota providing quality drinking water to 25 percent of the state's population. Over 160,000 residents are served by regional water systems, including 294 cities, 21 subdivisions, and over 100,000 rural residents. Currently, all or part of 47 of North Dakota's 53 counties are served by regional water systems, and most have plans to expand to cover additional areas.

Just since 1999, MR&I projects have been completed for several water supply systems across the state, including: Langdon Rural Water, Ransom Sargent Rural Water, Rugby (NAWS), All Seasons Water Users District System Five, Glenfield Water Storage, Ramsey County Rural Water, Williams Rural Water, McKenzie County Rural Water, All Seasons Water Users District System Four, Minot (NAWS), Park River, Walsh Rural Water District, Stutsman Rural Water District, Underwood, North Valley Water District, Tri-County Water District, Williston, and LaMoure. In addition, studies were completed to develop improved water supplies at Carrington, Trail Rural Water District, Mountrail Rural Water, North Central Rural Water Consortium, South Central Regional Water District, Southeast Water District, and McLean Sheridan Rural Water.

Devils Lake Flood Control

For more than a decade, flooding in the Devils Lake region has persisted, with little end in sight. In response, the State of North Dakota and the State Water Commission have determined that there is no single solution to the flooding problems in that region. Rather, a three-pronged approach, including infrastructure protection, upper-basin water management, and an outlet to the Sheyenne River, together, are the only means of providing some relief.

A great deal of progress has been made on all three fronts. In recent years, the state has provided assistance to the Devils Lake Joint Water Resource Board to help with the implementation of an irrigation test project that is aimed at utilizing upper basin waters for value added agriculture, while helping to reduce inflow into Devils Lake. At the same time, the Commission has continued to fund the Extended Storage Acreage Program to store floodwater in the upper portions of the basin. In addition, the Water Commission completed an outlet to the Sheyenne River in the summer of 2004. However, outlet operation has been limited due to low flows and poor water quality in the Sheyenne River.

General Water Management

Though larger, higher profile projects get most of the attention across the state, the Water Commission is also constantly cooperating with local sponsors to complete smaller water development efforts. General water management projects include rural flood control projects, snagging and clearing, channel improvements, recreational projects, planning efforts, and special studies. Just since the completion of the 1999 State Water Management Plan, dozens of these projects have been completed each year. And through cooperative efforts with water resource districts and other local entities, the Water Commission will continue to strive to develop relationships and agreements to pursue the development of smaller projects that have big impacts to the communities and regions they benefit.

State Water Development Program

This section will briefly describe the inventory process used by the SWC Planning and Education Division to identify future water project or program funding needs. A discussion will also be provided of current water development activities, as well as project needs for the 2007-2009 biennium and beyond.

The Inventory Process

As part of the SWC's water planning efforts, the Planning and Education Division once again solicited project and program information from potential project sponsors. The results provide the SWC with an updated inventory of water projects and programs that are expected to come forward for SWC cost-share in the upcoming 2007-2009 biennium and beyond. As in the past, the product of this effort, or this report, becomes the foundation that supports the State Water Commission's budget request to the Governor and Legislature.

To obtain updated and new project and program information from sponsors, the Planning and Education Division sent project information forms to county water boards, joint boards, and communities. The managers of major water projects, including the Dakota Water Resources Act - Municipal, Rural, and Industrial Program; Northwest Area Water Supply Project; and Southwest Pipeline Project, were also surveyed. Information requested on the forms included general project descriptions, location, permit information, and identification of potential obstacles, among other basic aspects of the projects.

More importantly, sponsors were asked to assign the most realistic start dates possible to projects they expected to present to the SWC for cost-share consideration - particularly during the 2007-2009 and later bienniums. As part of that effort, project sponsors needed to take into consideration when a funding commitment from the SWC will be needed, and to identify when state dollars will be necessary for projects or programs to proceed.

Table 1: Completed Projects, 2005-2007 Biennium

PROJECT NAME
Traill County Drain #6
Red River Basin Commission Operations (NRFP)
Cavalier/Pembina Drains #2 and #3
Kummer Drain Outlet Improvement Reconstruction
Walsh County Drain #27 Improvement Reconstruction
Traill County Drain #13
ND Natural Resources Trust
Cass County Drain #15
USGS Discharge Measurements on Oak Creek and Tributaries to Lake Metigoshe
English Coulee Diversion Channel to Grand Forks Co. Drain #18
Upper Maple Retention Dam Feasibility Study
Cass County Drain #14
Oak Creek Snagging & Clearing
Walsh County Drain #31 Improvement Reconstruction & Extension
Red River Flood Insurance Mapping & Hydraulic Analysis (Fargo)
Tyrol Lateral Drain #4
Wild Rice Snagging & Clearing
32nd Ave. Fargo Dam Modification
ND Water Education Foundation Tours
Cass County Digital Aerial Survey, Phase I & II Hydraulic Analysis & Mapping
Cass County Swan Creek Diversion
Swan Creek Tributary Channel Improvements
ND Water Resources Research Institute
Coburn Drain #2 Reconstruction
North Cass County Elm River Snagging & Clearing
Richland County WRD Wild Rice River Snagging & Clearing
Red River Basin Commission Mainstem Modeling

Table 2: Currently Active Projects and Funding, 2005-2007 Biennium

PROJECT OR CATEGORY	BUDGET	SWC/SE APPROVED
Grand Forks Flood Control	$ 5,880,375	$ 3,780,375
Wahpeton Flood Control	1,492,560	1,492,560
Grafton Flood Control	500,000	500,000
Fargo Flood Control	8,650,000	2,584,750
MR&I Water Supply	3,183,591	3,009,359
Irrigation Development	1,813,390	1,413,390
General Water Management	13,522,326	9,833,437
Missouri River Management	100,000	100,000
Baldhill Dam Flood Control	376,158	376,158
Maple River Dry Dam	13,421,692	13,421,692
Red River Valley Water Supply	150,000	150,000
Devils Lake Basin Development	600,000	457,631
Devils Lake Dike	3,241,123	3,241,123
Devils Lake Outlet	5,278,383	5,278,383
Devils Lake Outlet Operations	2,100,000	2,100,000
Nelson County Flood Relief	500,000	250,000
Southwest Pipeline	6,942,037	6,600,037
Weather Modification	350,000	350,000
Northwest Area Water Supply	4,983,554	4,983,554
Total Cost	**$ 73,085,189**	**$ 59,922,449**

As the project information forms were received by the SWC, each project is reviewed to determine if the proposed timeframes for project advancement are reasonable and justified by supporting information. After project reviews were completed, the information was transferred into the Planning and Education Division's water project database. This provides the SWC with updated project information for older projects and an accounting of new projects that have developed since the last inventory process, during the 2005-2007 biennium. The result of this inventory process is a comprehensive list of water projects throughout North Dakota that could come forward for new or additional cost-share in future bienniums. As stated earlier, this is an invaluable tool for budget planning purposes both for the SWC and the Legislature.

Project Inventories

The tables shown here will provide an inventory of: completed projects, 2005-2007 biennium (Table 1); currently active projects and funding, 2005-2007 biennium (Table 2); and future water development needs, 2007-2009 biennium (Table 3).

Completed Projects, 2005-2007 Biennium

Table 1 lists the projects, programs, and studies that were completed during the 2005-2007 biennium as of October 2006.

Currently Active Projects, 2005-2007 Biennium

The projects and project categories listed in Table 2 represent water development efforts that are being pursued in the current biennium. Several individual projects are listed in the table. However, a number of others fall under project categories, such as irrigation development or general water management, and therefore, are not individually identified in the table.

Table 2 represents the total 2005-2007 SWC project budget, and what the SWC had approved for project funding just over halfway through

the biennium. As the table suggests, the SWC had approved about 82 percent of the project budget by October 2006.

Water Development Funding Needs, 2007-2009 Biennium

Table 3 contains projects that could move forward and request SWC cost-share in the 2007-2009 biennium. This accounting of projects simply represents a non-prioritized list of needs as submitted by water managers. It does not guarantee, in any way, that all of the projects listed will receive funding.

The list is organized into seven categories based on SWC cost-share policies, including: flood control, irrigation, snagging and clearing, water supply, studies/planning, rural flood control, and multi-purpose projects. The total financial need to implement all of the projects in the 2007-2009 inventory is at least $277 million. The state's share of that total is about $77 million, based on current cost-share requirements. The federal government and local project sponsors would be responsible to make up the balance.

Major Watersheds in North Dakota

It should be recognized that the 2007-2009 totals do not account for projects that may not seek funding in the current 2005-2007 biennium and will carry over to the next biennium. As a result, the actual need for the upcoming biennium has the potential to be greater than portrayed here. In contrast, it should also be noted that water development projects can be delayed as a result of local or federal funding problems, permits, or environmental issues, which can substantially influence the actual need for any given biennium.

Water Development Funding Needs, Beyond 2007-2009

The potential funding need that was reported by project sponsors beyond the 2007-2009 biennium, through 2013, exceeds $340 million in total project costs. Projects included in this timeframe were either identified by project sponsors to move ahead beyond June 30, 2009, or they were placed into a later timeframe by SWC staff based on their knowledge of the project. Of special note, if the Red River Valley Water Supply Project proceeds in the coming years as expected, funding needs in this timeframe will increase dramatically.

Table 3: Water Development Needs in the 2007-2009 Biennium

Flood Control

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Cass	Fargo Southside Flood Control	$ 10,800,000	$ 8,000,000	$ 8,000,000	$ 26,800,000
Red	Cass	Up. Maple River Watershed Floodwater Retention	0	1,450,000	1,450,000	2,900,000
Red	Cass	Swan Creek Watershed Floodwater Retention	0	1,250,000	1,250,000	2,500,000
Devils Lake	Multi-county	Devils Lake Flood Control	0	2,000,000	0	2,000,000
Red	Nelson	Kloten Flood Control	0	8,000	8,000	16,000
Red	Pembina	Renwick Dam Rehabilitation	3,250,000	875,000	875,000	5,000,000
Red	Richland	Wahpeton Flood Control	0	1,000,000	1,000,000	2,000,000
		Total	**$14,050,000**	**$14,583,000**	**$12,583,000**	**$41,216,000**

Irrigation

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Statewide	Multi-county	Irrigation Development	$0	$2,000,000	$2,250,000	$4,250,000
		Total	**$0**	**$2,000,000**	**$2,250,000**	**$4,250,000**

Snagging & Clearing

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Cass	Sheyenne River Snagging and Clearing	$ 0	$ 75,000	$ 225,000	$ 300,000
Red	Cass	Wild Rice River Snagging and Clearing	0	25,000	75,000	100,000
Red	Cass	Red River Snagging and Clearing	0	25,000	75,000	100,000
Red	Cass	Buffalo Creek Snagging and Clearing	0	50,000	150,000	200,000
Red	Cass	Maple River Snagging and Clearing	0	12,500	37,500	50,000
Red	Cass	Rush River Snagging and Clearing	0	12,500	37,500	50,000
Red	Grand Forks	Turtle River Snagging and Clearing	0	93,750	281,250	375,000
Red	Nelson	Sheyenne River Snagging and Clearing	20,000	10,000	30,000	60,000
Red	Richland	Wild Rice River Snagging and Clearing	0	40,000	120,000	160,000
		Total	**$20,000**	**$343,750**	**$1,031,250**	**$1,395,000**

Water Supply

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST*	TOTAL COST
Missouri	Multi-county	South Central Regional Rural Water System	$12,129,500	$5,000,000	$17,129,500	$34,259,000
Missouri	Burleigh	Bismarck Horizontal Collector Well Intake	299,000	0	229,000	528,000
Red	Cavalier	City of Langdon: Mt. Carmel Raw Water 2nd Line	669,900	0	375,300	1,045,200
Red	Dickey	City of Ludden Water Service	250,000	0	631,500	881,500
Missouri	Multi-county	BDW Water System	939,000	0	806,000	1,745,000
Missouri	McKenzie	McKenzie County Rural Water: System II	2,245,250	0	962,250	3,207,500
Missouri	McLean	N. Central Rural Water Consort. - Regional Sys.	7,728,000	1,932,000	4,140,000	13,800,000
Missouri	McLean	City of Garrison Water Storage Improvements	700,000	0	300,000	1,000,000
Missouri	Morton	Mandan Intake Replacement	5,775,000	0	2,475,000	8,250,000
Missouri	Mountrail	Parshall Water Treatment Facility Improvements	3,220,000	0	1,380,000	4,600,000
Red	Nelson	City of Lakota Water Supply	980,000	0	420,000	1,400,000
Red	Pembina	Drayton Dam Section 206 Improvement	323,500	0	0	323,500
Red	Pembina	Drayton Dam Upst.Channel Landslide Blockage	1,040,000	1,000,000	1,000,000	3,040,000
Devils Lake	Ramsey	City of Devils Lake: Emer. Water Source & Treat.	8,000,000	2,000,000	4,000,000	14,000,000
Red	Richland	SEWUD Regional Water Service - Reservoir G	0	0	2,700,000	2,700,000
Missouri	Multi-county	Southwest Pipeline Project	0	10,000,000	0	10,000,000
Souris	Multi-county	Northwest Area Water Supply	11,900,000	5,000,000	13,100,000	30,000,000
Red	Multi-county	Red River Valley Water Supply	0	12,000,000	12,000,000	24,000,000
Red	Traill	City of Hillsboro: Water Dist. System Improvements	0	0	256,425	256,425
Red	Traill	Traill Rural Water - Regional Expansion	0	2,100,000	900,000	3,000,000
Red	Walsh	Grafton Intake Replacement	97,000	0	77,000	174,000
Red	Walsh	Grafton Water Treatment Plant Improvements	2,283,000	0	1,867,000	4,150,000
Red	Walsh	Walsh Regional Water System Improvements	700,000	1,000,000	1,000,000	2,700,000
Missouri	Williams	Williston Regional Water Treatment Plant - Ph. III	2,000,000	2,000,000	18,820,000	22,820,000
Missouri	Williams	Tioga Rural Water	5,849,200	0	2,506,800	8,356,000
		Total	**$67,128,350**	**$42,032,000**	**$87,075,775**	**$196,236,125**

* In some instances, all or portions of local funding for water supply projects may come from the Drinking Water State Revolving Loan Fund, or Rural Development loans.

Studies & Planning

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Pembina	Pembina County Water Management Plan	$ 0	$ 50,000	$ 50,000	$ 100,000
		Total	**$0**	**$50,000**	**$50,000**	**$100,000**

Rural Flood Control

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Cass	Cass County Drain #27	$ 0	$ 100,000	$ 285,000	$ 385,000
Red	Cass	Cass County Drain #NC-1	0	175,000	325,000	500,000
Red	Cass	Cass County Drain #14	0	175,000	325,000	500,000
Red	Cass	Rush River Channel Reconstruction	0	105,000	195,000	300,000
Red	Cass	Red/Wild Rice River Farmstead Ringdikes	0	175,000	325,000	500,000
Red	Cavalier	Billings Lake Channel Project	0	17,500	32,500	50,000
Red	Cavalier	Mt. Carmel Drain #3	0	21,000	39,000	60,000
Red	Cavalier	Mulberry Creek Phase II	0	105,000	195,000	300,000
Red	Cavalier	West Snowflake Creek Phase I	0	70,000	130,000	200,000
Red	Grand Forks	Arvilla Water Diversion Project	0	133,000	247,000	380,000
Red	Grand Forks	Cole Creek Channelization	0	133,000	247,000	380,000
Red	Grand Forks	Hazenbrook Channel & Erosion Control Structure	0	70,000	130,000	200,000
Red	Pembina	Pembina River Setback Dike System	0	105,000	195,000	300,000
Red	Pembina	Tongue River Cutoff	0	122,500	227,500	350,000
Red	Pembina	Drain #64 Drop Structure	0	35,000	65,000	100,000
Red	Pembina	Drain #66 New Outlet	0	66,500	123,500	190,000
Red	Richland	Project #14 Reconstruction	0	105,000	195,000	300,000
Red	Richland	Project #10 Reconstruction	0	245,000	455,000	700,000
Red	Walsh	Walsh County Drain #67A	0	85,000	185,000	270,000
Red	Walsh	Channel 3 Lower Forest River	0	85,000	185,000	270,000
		Total	**$0**	**$2,128,500**	**$4,106,500**	**$6,235,000**

Multi-Purpose

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Statewide	Statewide	Dam Repairs	$ 0	$14,645,300	$8,834,700	$23,480,000
Missouri	Multi-county	Missouri River Management	0	100,000	100,000	200,000
Statewide	Statewide	ND Cloud Modification	0	583,000	1,183,666	1,766,666
Devils Lake	Statewide	Devils Lake Up. Basin Water Utilization Test	1,050,000	780,000	1,170,000	3,000,000
		Total	**$1,050,000**	**$16,108,300**	**$11,288,366**	**$28,446,666**

Table 3 Cont.: Summary of Water Development Needs, 2007-2009

PROJECT CATEGORY	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Flood Control	$ 14,050,000	$ 14,583,000	$ 12,583,000	$ 41,216,000
Irrigation	0	2,000,000	2,250,000	4,250,000
Snagging & Clearing	20,000	343,750	1,031,250	1,395,000
Water Supply	67,128,350	42,032,000	87,075,775	196,236,125
Studies & Planning	0	50,000	50,000	100,000
Rural Flood Control	0	2,128,500	4,106,500	6,235,000
Multi-Purpose	1,050,000	16,108,300	11,288,366	28,446,666
TOTAL	**$82,248,350**	**$77,245,550**	**$118,384,891**	**$277,878,791**

Water Project Funding

North Dakota funds a majority of its water projects through the SWC. Funding that is funneled through the SWC for water development comes from several sources including: the state's General Fund; the Dakota Water Resources Act, Municipal, Rural, and Industrial (MR&I) Water Supply Program; the Resources Trust Fund; and the Water Development Trust Fund. In addition to these sources, the SWC is also authorized to issue revenue bonds for water projects, and the SWC has shared control of the Drinking Water State Revolving Loan Fund. There are also other federal funding sources that will be briefly discussed.

General Fund

The executive budget includes almost $10.7 million general fund dollars for agency operations. This is significant for projects because agency operations had been funded out of the Water Development Trust Fund for the past three bienniums. The trust fund money will now be available for projects. In addition, the executive budget includes $3 million general fund dollars for the Red River Valley Water Supply project.

MR&I

A main source of funding for water supply development in North Dakota is the Municipal, Rural, and Industrial (MR&I) Water Supply Program. The program receives funding though the federal Dakota Water Resources Act which channels grant funding through the Bureau of Reclamation. Rural Development funding through the United States Department of Agriculture has provided the majority of loans to cover the local share of MR&I projects.

The 1986 Garrison Reformulation Act authorized a federal MR&I grant program of $200 million. To date, all of that funding has been obligated. Efforts to obtain additional federal funding authorization for the MR&I program were successful with the passage of the Dakota Water Resources Act of 2000. The Act provides resources for general MR&I projects, the Northwest Area Water Supply Project, the Southwest Pipeline Project, and a project to address water supply issues in the Red River Valley. An additional $600 million was authorized; which includes a $200 million grant for state MR&I, a $200 million grant for Indian MR&I, and a $200 million loan for a Red River Valley water supply.

Annual MR&I funding is dependent upon U.S. Congressional appropriation, and thus, varying annual appropriations result in project delays. As of September 2006, $6.6 million in federal funds had been approved for North Dakota's MR&I program for Federal Fiscal Years 2005 and 2006.

Resources Trust Fund

Section 57-51.1-07.1 (2) of North Dakota Century Code requires that every legislative bill appropriating monies from the Resources Trust Fund (RTF), pursuant to subsection one, must be accompanied by a State Water Commission report. This report, the 2007-2009 Water Development Report, satisfies that requirement for requesting funding from the RTF for the 2007-2009 biennium.

The RTF is funded with 20 percent of the revenues from the oil extraction tax. A percentage of the RTF has been designated by constitutional measure to be used for water-related projects and energy conservation. The SWC budgets money for cost-share based on a forecast of oil extraction tax revenue for the biennium, which is provided by the Office of Management and Budget.

Revenues into the RTF for the 2005-2007 biennium are expected to total $25.8 million. Future revenues from the oil extraction tax are highly dependent on world oil prices, which make it difficult to predict future funding levels. The November 2006 forecasts estimated new revenues of $39.8 million for the 2007-2009 biennium from oil extraction.

Additional new revenue into the RTF will come from Southwest Pipeline reimbursements, MR&I program loan repayments (which amount to $1 million per biennium through year 2017), interest, and oil royalties. Based on the November 2006 projections, the total new RTF revenue available for water development during the 2007-2009 biennium will be about $43 million.

Water Development Trust Fund

Senate Bill 2188 set up a Water Development Trust Fund as a primary means of repaying the bonds it authorized. House Bill 1475 allocated 45 percent of the funds received by the state from the 1998 tobacco settlement into the Water Development Trust Fund.

Revenues into the Water Development Trust Fund for the 2005-2007 biennium are expected to total almost $19.4 million. This represents a reduction from the budgeted amount of approximately $1.2 million. The Office of Management and Budget (OMB)estimates revenues of $31.5 million for the 2007-2009 biennium. OMB reduced the 2007-2009 estimated revenues from the scheduled payments by 5 percent. These payment reduction amounts were made under a provision of the master settlement agreement referred to as the "non-participating manufacturer adjustment."

The non-participating manufacturer adjustment is a provision of the master settlement agreement that requires states to enforce the terms of the settlement agreement with the smaller tobacco companies that were not a part of the original settlement. These requirements include collecting payments from the smaller companies. The payment reductions are being challenged in court.

Revenues are anticipated to return to $33.1 million per biennium for the 2009-2011 through 2015-2017 bienniums and then fall back to $23.6 million for the 2017-2019 through 2023-2025 bienniums. Payments into the fund are scheduled through 2025 at a level based on inflation and tobacco consumption.

Bonding

The SWC has bonding authority (NDCC 61-02-46) to issue revenue bonds of up to $2 million per project. The Legislature must authorize revenue bond authority beyond $2 million per project. In 1991, the Legislature authorized full revenue bond authority for the Northwest Area Water Supply Project, in 1997 it authorized $15 million of revenue bonds for the Southwest Pipeline, and in 2001 it raised the Southwest Pipeline authority to $25 million.

In 1999, the SWC was authorized to issue up to $84.8 million in appropriation bonds under provisions of Senate Bill 2188. The Legislature's intent was to partially fund flood control projects at Grand Forks, Devils Lake, Wahpeton, and Grafton, and to continue funding for the Southwest Pipeline. In March 2000, the SWC issued bonds generating $27.5 million, thus reducing available bonding authority to $57.3 million. Recognizing the need for water development projects in addition to those identified in SB 2188, the 2003 Legislature allowed authority for the unissued $57.3 million to expire, but then authorized $60 million of bonding authority for statewide water development projects. In June 2005, the Commission did issue bonds generating $60 million. The 2005 Legislature also authorized an additional $7 million of bonding authority for statewide water development projects in the 2005-2007 biennium. At the present time the SWC does not anticipate the need to issue these bonds.

Because the tobacco settlement dollars are not projected to remain uniform each year, the SWC set up a repayment schedule to correspond with the projected tobacco receipts. Although the repayment amounts are based on the projected receipts, the scheduled repayments must be made regardless of the actual receipts. Payments for existing water development bonds will be $14 million for the 2007-2009 biennium, however funds must be available to make the August 1, 2009 payment. This payment occurs the second month of the new biennium prior to the receipt of any of that biennium's tobacco settlement dollars. That repayment will be $7.1 million.

Drinking Water State Revolving Loan Fund

An additional source of funding for water supply development projects is the Drinking Water State Revolving Loan Fund (DWSRF). Funding is distributed in the form of a loan program through the Environmental Protection Agency administered by the North Dakota Department of Health (NDDH). The DWSRF provides below market-rate interest loans of 3 percent to public water systems for capital improvements aimed at increasing public health protection and compliance under the federal Safe Drinking Water Act.

The SWC's involvement with the DWSRLF is two-fold. First, the NDDH must administer and disburse funds with the approval

of the SWC. Second, the NDDH must establish assistance priorities and expend grant funds pursuant to the priority list for the drinking water treatment revolving loan fund, after consulting with and obtaining the SWC's approval.

The process of prioritizing new or modified projects is completed on an annual basis. Each year, the NDDH provides an Intended Use Plan, which contains a comprehensive project priority list and a fundable project list. The 2007 comprehensive project priority list includes 90 projects with a cumulative total project funding need of $258.7 million. The fundable list of 26 projects includes $52 million for fiscal years 1997 through 2006. Available funding for the DWSRLF program for 2007 is anticipated to be approximately $8.3 million.

Other Federal Funding

With regard to other federal funding, the U.S. Army Corps of Engineers provides significant assistance to North Dakota for flood control projects. The Environmental Protection Agency, U.S. Bureau of Reclamation, U.S. Geological Survey, and the Natural Resources Conservation Service also contribute to the state's water development efforts in many different ways, including studies, project design, and project construction.

Other Funding Options

In the future, it is expected that the state's ability to fund water development efforts will become more limited as funding sources remain largely the same, while project costs continue to dramatically increase. As such, the State of North Dakota should begin to consider other potential funding sources for water projects, as they have done in the past when needs far exceeded available funding. It was this type of planning that established the Resources and Water Development Trust Funds that have advanced critical water projects in all parts of the state.

Funding Priorities for the 2007-2009 Biennium

This section discusses the state's priority water development efforts and funding for the 2007-2009 biennium. It includes one course of action for water development in North Dakota that is subject to change during the 60th Legislative Assembly and the biennium.

Water Development Priority Descriptions

North Dakota's prioritized water development funding needs are grouped into several main categories in Table 4. Each of those projects and categories is explained hereafter.

Table 4:
2007-2009 Biennium
Water Development Priorities

PRIORITY PROJECTS	(MILLIONS)
Red River Valley Water Supply	$ 12.0
Southwest Pipeline Project	10.0
Northwest Area Water Supply	5.0
MR&I	12.0
Fargo Flood Control	8.0
Devils Lake Water Supply	2.0
Irrigation	2.0
Devils Lake Outlet Operation	2.0
Weather Modification	0.6
General Water Management	10.0
EXPENDITURE TOTAL	**$ 63.6**

Red River Valley Water Supply

With most of the Red River Valley's population relying on the Red River and its tributaries as their sole source of water, the impacts of a prolonged drought would be devastating to that region. And, as the population and economy of the Red River Valley continue to grow at an astonishing rate, the need for a more reliable source of quality water has become more important than ever before.

The United States Bureau of Reclamation is completing the final stages of an Environmental Impact

Statement process that will identify alternatives to meet the Red River Valley's growing municipal, rural, and industrial water supply needs. As that study comes to a close, including the identification of a preferred alternative, North Dakota will need to support the Red River Valley Water Supply project with state funding through the Water Commission of at least $12 million to advance this critical water development effort to the next stage of its evolution.

Devils Lake Outlet Operation

Having completed the Devils Lake emergency outlet in the summer of 2005, it is now necessary for the state to provide funding for the operation and maintenance of the project. It is estimated that these costs will total approximately $2 million per biennium.

The state outlet is currently sized for 100 cubic feet per second (cfs), but could be expanded to 300 cfs in the future with additional work if necessary. The outlet consists of: two pumping plants, one on the Round Lake portion of Devils Lake, and the second near Josephine, North Dakota; approximately 4 miles of pipeline; and 10 miles of open channel.

Southwest Pipeline Project

The $10 million budgeted for the Southwest Pipeline Project will be used, among other things, toward the Environmental Assessment and Preliminary Engineering Report for the Oliver, Mercer, North Dunn Regional Service Area, and to complete as much of the Medora-Beach Phase III project as possible. It is also possible that construction could begin on the Oliver, Mercer, North Dunn Regional Service Area Phase II.

Northwest Area Water Supply

State funding of $5 million for the Northwest Area Water Supply (NAWS) project will go toward design and construction of three large projects around the Minot area. These projects include an 18 million gallon per day high service pump station with 2 million gallons of storage, 4 miles of 24 to 36-inch pipe through the City of Minot, and 21 miles of 10 to 14-inch pipe between Minot and Berthold, which includes two half-million gallon storage reservoirs and two booster stations. The total project cost for these three projects will total approximately $21.2 million, with the difference being covered by the federal government and the City of Minot.

MR&I

Because of North Dakota's MR&I water supply program, regional and rural water systems have continued to be developed or expand across the state. The $12 million that is budgeted could be used toward a number of MR&I projects across North Dakota.

Fargo Flood Control

The $8 million budgeted for Fargo's flood control efforts would pay for a portion of the Fargo Southside Flood Control Project. This would bring the state's total contribution to $16.6 million for flood control efforts in the Fargo area. The total project cost is estimated at $44 million, with $16.6 million coming from the City of Fargo, and the remaining $10.8 million from the U.S. Army Corps of Engineers.

The Southside project will protect portions of south Fargo from flooding from the Red, Wild Rice, and Sheyenne Rivers. A dike and diversion channel will be constructed to intercept overland floodwater south of town. The project will also include backup protection and a pump station at Rose Coulee near Highway 81.

Devils Lake Water Supply

The $16 million Devils Lake Water Supply Project will provide a safe and reliable water supply for the City of Devils Lake. Currently, the city is at risk of losing its water supply due to significant portions of the city's 45-year old water transmission line being submerged by Devils Lake floodwater, making it inaccessible for maintenance and repair.

Devils Lake also needs to develop this water supply project to remain in compliance with federal Safe Drinking Water Act (SDWA) requirements for arsenic. A new water supply must be in place by January 2009 to remain in compliance with SDWA requirements, meaning construction must begin in 2007 to have the project competed within the required timeframe. The $2 million contribution from the Water Commission will supplement local, state, and federal funding sources.

Irrigation

As ethanol plants continue to be developed across the state, the need for increased corn production, supported by irrigation development, will also grow. The $2 million budgeted for irrigation will provide the necessary funding assistance to advance irrigation efforts in areas of need across North Dakota.

Weather Modification

State funding in the amount of $600,000 is budgeted for operational cloud seeding costs with counties participating in the North Dakota Cloud Modification Project. The Atmospheric Resources Board currently cost-shares approximately 35 percent of operational costs, with participating counties paying the remaining 65 percent. This funding level will allow the program to continue its current level of capability for the 2007-2009 biennium.

General Water Management

General water management projects include rural flood control, snagging and clearing, channel improvements, recreational projects, dam repairs, planning efforts, and special studies. Funding for dam repairs is quickly becoming a priority in North Dakota and across the nation with dams that were constructed during the 1960s approaching their design life, and those that were constructed in the 1930s being well beyond their design life, and in many cases, in serious disrepair. It is estimated that dam repairs needed in North Dakota currently total about $33 million, and 15 of the most needed repairs total about $23.5 million. The $10 million that is budgeted for general water management projects will be used to fund a portion of the state's general projects that are ready to proceed during the 2007-2009 biennium.

Appendix

NORTH DAKOTA STATE WATER COMMISSION
COST-SHARE POLICIES, PROCEDURES, AND GENERAL REQUIREMENTS

It is the policy of the State Water Commission that the following categories of projects shall be eligible for cost-sharing, and that the projects are consistent with the public interest to receive cost-share funding from the agency's appropriated funds. Projects that receive Federal Emergency Management Agency funding and/or financial support from the State's Division of Emergency Management Fund are not eligible for funding through the State Water Commission. No funds shall be used in violation of the Anti-Gift Clause of the North Dakota Constitution.

ELIGIBLE ITEMS

It is the policy of the State Water Commission that the following items shall be eligible for cost-sharing upon approval by the State Water Commission:

I. Construction costs, which include but are not limited to, earthwork, concrete, mobilization and demobilization, dewatering, materials, seeding, rip-rap, re-routing electrical transmission lines, moving storm and sanitary sewer systems, and other underground utilities and conveyance systems, irrigation supply works, and other items and services provided by the contractor. The costs must have been incurred after the cost-share approval date.

Preliminary engineering costs preceding the cost-share approval date up to a maximum of two years, and final engineering costs incurred after the cost-share approval date. All preliminary engineering and engineering feasibility studies for flood control projects are exempt from any time restrictions.

The eligibility of certain items for cost-share may be addressed on an individual basis and presented to the State Water Commission for consideration if deemed warranted by Commission personnel.

NON-ELIGIBLE ITEMS

It is the policy of the State Water Commission that the following items shall not be eligible for cost-sharing by the State Water Commission:

I. Acquisition of property interests in fee or easement for projects.

II. Administrative and legal expenses incurred in connection with any project.

III. Maintenance work, deferred maintenance, or repairs on any project, except for maintenance that may be required as a result of an unusual climatological event or dam safety repairs.

IV. Projects that do not receive cost-share approval prior to the commencement of the project.

V. Construction and final engineering costs incurred prior to cost-share approval.

VI. Preliminary engineering costs incurred earlier than two years preceding the cost-share approval date. Flood control projects are exempt.

VII. Funding contributions provided by other entities that reduce the project cost to the applicant.

VIII. Work incurred outside the scope of the project.

IX. Technical assistance provided as in-kind.

The eligibility of certain items for cost-share may be addressed on an individual basis and presented to the State Water Commission for consideration if deemed warranted by Commission personnel.

COST-SHARE APPLICATION AND APPROVAL PROCEDURES

It is the policy of the State Water Commission to provide cost-share funding for water development projects. The State Engineer has the authority to cost-share up to $20,000 without State Water Commission action. Projects estimated in excess of $20,000 must be presented to the State Water Commission for approval.

The following are general cost-share application procedures and requirements for State Water Commission and State Engineer approval:

I. Application Required. The State Water Commission will not consider any request for cost-sharing for water-related projects unless an application is first made to the State Engineer. The applicant must be a federal or state entity, a political subdivision, or a commission legislatively granted North Dakota recognition.

II. Permits. The applicant for cost-sharing must also address the appropriate federal, state, and local permits required. No contract will be initiated until all required permits have been issued.

III. Contents of Application. An application for cost-sharing must be in writing, but is not required to be in a prescribed format. A "North Dakota State Water Commission Project Information and Cost-Share Request Form" is available from the Commission upon request. The application must include the following:

A. Description and location of the proposed project
B. Purpose, goal, objective/narrative of the proposed project
C. Delineation of costs
D. Preliminary designs, if applicable
E. Scope of work for an engineering feasibility study
F. Additional information as deemed appropriate by the State Engineer

IV. Review. Upon receiving an application for cost-sharing, the State Engineer shall review the application and accompanying information. If the State Engineer is satisfied that the proposal meets all the requirements, the State Engineer shall present the application to the State Water Commission for approval (for projects where the state cost-share amount is greater than $20,000), or the State Engineeer may make a determination for approval (state cost-share amount is $20,000 or less). The State Engineer's review of the application will include the following items, and any other considerations that the State Engineer deems necessary and appropriate.

A. If the application for cost-sharing is for project construction, a field inspection will be made, if deemed necessary by the State Engineer. Previous field inspections made by the State Engineer as part of a permit application may satisfy this requirement.

B. Engineering plans and specifications will be reviewed.

C. If the request is for a study, the State Engineer will review the application to ensure that the study qualifies as an eligible study as defined by the State Water Commission.

D. The amount of eligible cost-share will be determined by the project type or the amount requested by the applicant.

V. Notice and Appearance of the Applicant. For projects with an excess state cost-share amount of $20,000, the State Engineer shall place the application for cost-sharing on the tentative agenda of the State Water Commission meeting at which the application will be presented. The State Engineer shall give notice to such applicant when the project will be presented to the State Water Commission.

VI. State Engineer's Recommendation. The State Engineer will make a recommendation to the State Water Commission on an application in excess of $20,000 for state cost-sharing at the meeting of the commission when such application for cost-sharing is presented for approval. No funds will be disbursed until the State Water Commission and applicant(s) have entered into a contract for state cost-share participation.

VII. Litigation. If a project for which an application for cost-sharing has been submitted is the subject of litiga-

tion, the application may be deferred until the litigation is resolved. If a project for which the State Water Commission or State Engineer has approved a cost-sharing request becomes the subject of litigation before the funds approved by the Commission have been disbursed, the State Engineer may withhold such funds until the litigation is resolved.

VIII. Engineering Designs, Plans, and Specifications. Engineering designs, plans, and specifications for the construction of a project must be approved by the State Engineer. The applicant/project sponsor must also comply with the North Dakota Century Code in the soliciting and awarding of bids and contracts, and all federal, state, and local laws.

IX. Cost Sharing By Other Agencies. All applications for cost-sharing shall be reviewed to determine if other local or state agencies are participating in the project costs. If so, the State Water Commission will take this into account, and may reduce the percentage of commission cost-sharing accordingly.

X. Partial and Final Payments. The State Engineer may make partial payment of cost-sharing funds as deemed appropriate. Upon notice by the applicant/project sponsor that all work or construction has been completed, the State Engineer may conduct a final field inspection. If the State Engineer is satisfied that construction has been completed in accordance with the designs, plans and specifications for the project, the final payment for cost-sharing as approved by the State Water Commission shall be disbursed to the project sponsor, less any partial payment previously made. Engineering Feasibility Studies are only entitled to one payment.

XI. Maintenance and Repairs. Except as otherwise provided, the State Water Commission shall require that the applicant for cost-sharing be responsible for maintenance and repairs of the project.

PROJECTS ELIGIBLE FOR COST-SHARE

I. Rural Flood Control Projects. The primary purpose of rural flood control projects is to manage runoff/drainage from agricultural sources or to provide flood control in a rural setting. Typically, rural flood control projects consist of drains, channels, diversion ditches, or ring dikes. The State Water Commission has established design criteria for rural flood control projects. Projects that are managing runoff/drainage from urban sources are not eligible for State Water Commission cost-share participation.

A. Drains, Channels, and Diversion Ditches. The Commission will provide cost-sharing up to 35 percent of the eligible items for the construction of drains, channels, and diversion ditches. Improvement reconstructions are reimbursed at 35 percent, less maintenance per a sediment analysis, or at 30 percent if a sediment analysis is not provided. The cost-share of any one project is capped per biennium. County and township road crossing work that are an integral part of the drains, channels, and diversion ditches and the appropriate costs for engineering work, excluding any land rights, administration and legal costs, are eligible for cost-share. A Water Resource District applying for cost-sharing for a rural assessment-based flood control project must comply with regulatory statutes per the North Dakota Century Code. If an assessment-based rural flood control project is to be established within two or more districts, or the project is sponsored by two or more districts, and financial participation is sought from the State Water Commission, each district involved must join in the application for financial assistance.

B. Ring Dikes. A ring dike program shall be developed and sponsored by a federal, state, or political subdivision consisting of one or more occupied farmsteads and/or rural residences. Ring dikes will receive up to a 50 percent cost-share of the eligible items, limited to a maximum of $25,000 per ring dike. All ring dikes within the program are subject to the Commission's minimum design criteria standards, eligible items, and costs.

II. Water Supply Projects. The State Water Commission will provide cost-sharing for up to 50 percent of the eligible items of any cost-sharing application approved for water supply projects. Theses projects are commonly associated with dams and water retention methods. If sufficient funds are not available for all competing cost-sharing applications, water supply projects for domestic, municipal, and rural uses shall receive highest priority.

III. Flood Control Projects. The State Water Commission will provide cost-sharing for up to 50 percent of the eligible items of any cost-sharing application approved for flood control projects. The nature of these projects is to protect communities from flooding and may include the repair of dams that provide a flood control

benefit. These projects are commonly associated with dams, dikes, levees, diversion channels, water retention structures/methods, dam repairs, drop structures, and miscellaneous flood control programs.

IV. Recreation Projects. The State Water Commission will provide cost-sharing for up to 33.33 percent of the eligible items of any cost-sharing application approved for the purpose of water-based recreation. Various types of projects may constitute a recreation project.

V. Snagging and Clearing. The State Water Commission will provide cost-sharing for up to 25 percent of the eligible items for snagging and clearing on natural streams. Removal of sediment, woody vegetation (snagging and clearing), or waterborne debris from artificial rural flood control projects which has been deposited over a number of years and has reduced the hydraulic capacity of a rural flood control project is not eligible for State Water Commission cost-share participation.

VI. Studies, Reports, Analyses, Surveys, Models, Assessments, and Mapping. The State Water Commission will provide cost-sharing for up to 50 percent of the eligible items of any cost-sharing application approved for studies, reports, analyses, surveys, models, assessments, and mapping projects. The percentage of funds is limited by the maximum cost-share limits of eligible project categories to which the purpose of the project corresponds. A paper and electronic copy of the study, report, analysis, survey, model, assessment or mapping project must be provided to the State Water Commission upon completion. One payment will be reimbursed to the project sponsor upon the copy receiving review and approval from State Water Commission personnel.

A. Engineering Feasibility Studies. An engineering feasibility study identifies a water-related problem and the alternatives/options to solve or alleviate the problem, an evaluation of the alternatives/options for technical, engineering, and financial feasibility, and the selection of an alternative/option.

B. Other Studies, Reports, and Analyses. The purpose of these projects is to gather data and/or accomplish a specific task such as flood insurance studies, hydraulic modeling, and flood insurance mapping projects.

VII. Irrigation. The State Water Commission will provide cost-sharing for up to 40 percent of the eligible items of any cost-sharing application approved for irrigation projects. The cost-share must be limited to supporting the irrigation development efforts of political subdivisions. The items eligible for cost-share are those associated with new central supply works, to include water storage facilities, intake structures, wells, pumps, power units, primary water conveyance facilities, electrical transmission and control facilities, and engineering.

VIII. Bank Stabilization. The State Water Commission will provide cost-sharing for up to 50 percent of the eligible items of any cost-sharing application approved for bank stabilization projects on public lands. Public lands are defined by the State Water Commission as land that all of the public has a right to the use of.

IX. Technical Assistance. The State Water Commission will provide cost-share of up to 50 percent of eligible costs based on the type of project as described above. In some cases a portion of the assistance provided may be in the form of in-kind technical assistance. The cost or value of the technical assistance will count toward the Commission's total contribution. The project sponsor, upon awarding a contract for the construction or other work to be performed for a project in which the State Water Commission is providing technical assistance, shall file a copy of the contract with the State Engineer.

Testimony of
Dennis Hill, Chairman
North Dakota Water Coalition
SB 2020
January 19, 2007

Mr. Chairman and members of the Senate Appropriations Committee:

My name is Dennis Hill, and in addition to being the Executive Vice President of the North Dakota Rural Electric Cooperatives Association, I am the Chairman of the North Dakota Water Coalition. The North Dakota Water Coalition is comprised of more than 30 statewide and regional organizations in North Dakota who have a stake in the critical water needs facing our state. The Water Coalition has joined together so that we are united in our efforts to complete North Dakota's water infrastructure for economic growth and quality of life.

The Water Coalition has been in existence for more than 10 years and in that time we have worked to develop rural and urban flood control, water supply for cities, farms, and industrial opportunities, value-added irrigation, water management, and many other critical water needs. Over the years there have been some monumental projects developed that at times seemed as if they would never be finished. However, Maple River Dam and Grand Forks flood control projects are near completion. The Devils Lake outlet is finished, and we now need to look at funding to alleviate the water supply issue as a direct result of this flooding, along with the growing needs facing NAWS, the Southwest Pipeline and the Red River Valley Water Supply.

Water supply projects throughout the state include large regional projects such as South Central Regional Water District and North Central Rural Water Consortium. These projects are bringing smaller systems together to consolidate in order to provide service to unmet areas that couldn't afford it otherwise. I have already mentioned the Southwest Pipeline and NAWS, and a major new challenge such as the Red River Valley Water Supply Project.

The Water Coalition asks for your continued support for a budget that allows for adequate funding to meet the critical water needs of North Dakota.

Thank you.

(4)

Meeting the *Challenge* V

As we look toward the future, it seems there is much left to do in water. Yet at the same time, when we look at all that's been accomplished — we've met some of our goals.

Grand Forks flood control is near completion. The Devils Lake outlet is constructed and is adapting to meet the necessary requirements to be operational. Southwest Pipeline Project has put more than 3,000 miles of pipeline in the ground and now serves more than 3,000 rural customers and 24 cities.

However, we still have critical water development needs in North Dakota. Some needs have existed for quite some time, such as Northwest Area Water Supply (NAWS), and some are new challenges, such as the Red River Valley Water Supply Project. The Red River Valley is growing and the water supply demands [illegible] this growth must be developed.

[illegible] of these critical water priorities [illegible] stages of progress. After [illegible] you'll see we must complete North Dakota's water infrastructure for economic growth and quality of life.

The North Dakota Water Coalition continues to work together to build a better tomorrow.

— Dennis Hill
Chairman, North Dakota Water Coalition

Statewide Water Supply

Red River Valley Water Supply

The Red River Valley faces a water supply crisis. The future of this region hinges on a reliable, quality water supply for residents and industries alike. If a drought occurred today, citizens in the Valley who depend on the Red and Sheyenne Rivers for their drinking water supply would be in serious trouble. Without a plan in place to supplement existing supplies, this area would suffer devastating consequences, including a massive economic loss which would affect the entire state. Lake Agassiz Water Authority, Garrison Diversion Conservancy istrict, the N.D. State Water Commission and Gov. Hoeven recognize this critical need, id have chosen a solution that would transport treated Missouri River water eastward. ith little remaining groundwater supplies available, this plan is the Valley's best portunity to sustain its population and attract new businesses.

Photo courtesy of the Institute for Regional Studies, NDSU, Fargo.

Northwest Area Water Supply (NAWS)

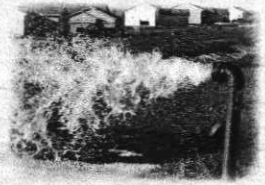
The Northwest Area Water Supply (NAWS) pipeline component from Minot to Lake kakawea is coming to completion this year. The judge overseeing the biota transfer lawsuit with Manitoba has approved additional construction around Minot and to the community of Berthold, which will be the emphasis in design and construction activities in 2006 through 2008. As these are completed, additional expansions of the NAWS system to outlaying communities using Minot's water treatment plant will be pursued. During this same period from 2006 through 2008, a federal Environmental Impact Statement (EIS) will be prepared to evaluate treatment options to address the biota transfer issue, as the judge did not believe these were adequately addressed in the Environmental Assessment. Following completion of the EIS, the intake, pumping, and treatment system will designed and constructed. Current projects approved by the judge have estimated nstruction costs of $21 million. Construction costs to serve the entire project area are timated around $145 million. The project receives federal funding and a 35 percent cost are from local sales tax in Minot.

MR&I

The Municipal, Rural and Industrial (MR&I) program helps provide a reliable, high ality and affordable water supply to North Dakota residents, farms, schools, hospitals d industries along with Indian reservations. In order to meet the growing statewide ter needs, the Garrison Diversion Conservancy District and the State Water Commission working cooperatively to solve water quality and quantity problems. In addition to the uth Central Regional Water District and North Central Rural Water Consortium projects, rrent MR&I projects include an expansion of the Walsh Rural Water District, upgrading rastructure for the Trail Rural Water District and a water treatment plant upgrade and pansion for the city of Williston. Much more than a matter of convenience, clean, reliable ter can mean the difference between success and failure for much of North Dakota.

South Central Regional Water

South Central Regional Water District is continually expanding and is currently providing water to about 4,000 households/farms in Burleigh County. The district is now expanding to include Emmons, McIntosh, Logan, and Kidder counties. A Preliminary Engineering & Feasibility report, completed in June 2002, identifies unmet water needs to 10 cities and over 1,600 rural hookups in the five county area. This project will include more than 10,500 people in these communities who signed an application of interest and paid a good intention fee to receive quality water from a regional water supply.



A reliable quality water supply would correct the shortage of water and the predominant poor quality, including local arsenic concerns. This area is one of the few areas in North Dakota that does not have a rural water supply available and has experienced extreme drought conditions for several years, depleting stock dams and some of the ground water supplies.

South Central Regional Water D[illegible]ct needs $1[illegible] million over the next biennium to continue progress in north Burl[illegible] County f[illegible] rvice to the city of Wilton and surrounding rural areas. This also includes a new source and water treatment facility in Emmons County, which will ultimately provide quality water to Braddock, Hazelton, Linton, Strasburg, Hague, Ventura, Ashley, Wishek, Napoleon, and rural users in Emmons, McIntosh, and Logan counties.

Indian MR&I

The critical water needs for the North Dakota Indian reservations are currently not being met. Since the passage of the Dakota Water Resources Act (DWRA) in 2000, a minimal amount of federal funding has been appropriated and does not meet the immediate needs of tribal members across the State of North Dakota.

The four reservations have formed the North Dakota Tribal and State Water Alliance group to unify efforts to ensure future funding for all of our tribal and state water needs. We also coordinate efforts with adjacent water organizations, consortiums and incorporated cities within the reservations.

The tribes continue to aggressively pursue avenues through the U.S. Congress, Office of Management and Budget, Department of Interior, and North Dakota's legislative process to help the tribes and state obtain the authorized, but not yet appropriated, funding for MR&I projects.

North Central Rural Water Consortium

North Central Rural Water Consortium was formed in 2001 by three separate rural water districts and two Native American reservations located in north central North Dakota. Although we retain separate identities, our collaboration across borders brings quality water to rural North Dakota in an efficient and cost-effective manner.

Working independently, we were unable to adequately grow to provide service to those in need. The price tag was just too high. Working together, it is now economically feasible. By collaborating, we will be able to provide water to 2,100 additional families, farms, ranches and businesses.

We plan to utilize existing infrastructure to its maximum potential for all parties. This infrastructure is a valuable resource which has already been paid for by each entity, and can be utilized more efficiently by working together.

We believe this approach to water development could be successfully applied in rural areas improving the efficiencies and economic viability of water development programs nationwide. In the true spirit of America's heartland, neighbor helping neighbor, everyone accomplishes more!

Southwest Pipeline Project

Southwest Pipeline Project (SWPP) is the first large multi-county regional rural water project developed in the state. Significant progress has been made over the course of the past 20 years with 28 communities and more than 3,000 rural customers receiving a reliable supply of high quality water processed by a single water treatment plant.

Looking to the future, the ultimate goal is to reach out to those who patiently wait for project completion. This includes the final regional phase of construction, the Oliver-Mercer-North Dunn (OMND) phase, which is a $35 million project. For the 2007-2009 biennium, $7.9 million is needed to complete Phase 3 of the Medora-Beach regional phase, of which Phase 2 is currently under construction. About $12 million dollars is needed for the project to move forward with OMND Phase 2 in the 2007-2009 biennium.

Devils Lake Water Supply

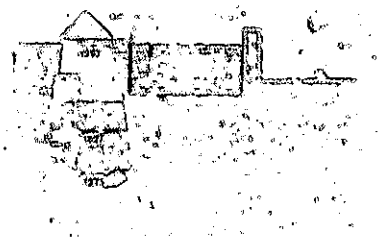
With the rise of Devils Lake, nearly six miles of the city's aging water supply line are covered by significant amounts of lake water. Since the supply line is the city's only source of water, a failure within the portion covered by the lake could leave Devils Lake residents without an adequate water supply. This issue, coupled with the need to meet new Safe Drinking Water Act standards for arsenic, has prompted the city to develop plans for a new water supply.

Funding remains a top priority for this much-needed project. The new water supply must be operational by January 2009 for the city to remain in compliance with the Safe Drinking Water Act.

Flood Control

Grand Forks Flood Protection

The flood control project has been a city and state priority since the flood of 1997. As we near the 10th anniversary of the flood, we are happy to report that the flood control project is nearing completion. The project is expected to have all the critical flood protection features in place by the end of 2006. This means we will have a functioning system for any flooding which might occur in the spring of 2007.



Construction activities during 2007 will be focused on the finishing touches of the project. Primarily this will be the establishment of turf and replacing roadway surfaces. Final punch list items and Corps of Engineers documentation should wrap up in late 2007 or early 2008.

The spring flood of 2006 was only six feet short of the 1997 flood. This put our flood control project to a pretty good test. We are pleased to report that the completed portions of the project performed well. We estimate the flood control project saved $3 million of emergency funds to federal, state and local governments in 2006.

Previous authorizations of funding from the State appear to be sufficient to complete the project. Carryover of previous authorizations is all that will be needed in the next biennium.

The City wishes to thank all of you who helped in making this project become a reality.

Fargo Flood Protection

The last major city located along the Red River of the north not to have overland flood protection is Fargo. A plan is being developed, which calls for a dike and diversion channel to be constructed two to four miles south of Fargo's city limits. Estimated cost of this project ranges from $49 to $70 million, depending on the outcome of the final site designation of the dike/diversion.

Federal funds totaling $11.5 million have been dedicated to this project. Another $15 million has been pledged to the project by the State of North Dakota. Local matching funds will also be used for this project. A public hearing process of the alternative sites is the final step before this project begins construction.

General Water Management

Every North Dakota region and county has projects included in the State Water Management Plan. The State Water Commission provides support for these water management and development projects, which require cost-sharing with local entities, primarily water resource districts. Joint water boards are playing a key role in these water management projects. Water resource district managers are appointed by commissioners, and are the local entities responsible for water management in Dakota. Drainage, flood control, recreation, water distribution and studies are key issues. These projects are very beneficial to local communities.

Irrigation

North Dakota has about 250,000 acres of irrigation. Irrigation provides increased job opportunities, tax revenues, personal income, and economic benefit to communities.

The North Dakota Irrigation Association has developed a Strategic Plan for Irrigation Development in North Dakota, which identifies an additional 350,000 acres of irrigation that could be developed utilizing available ground water and surface water sources, without an impact to existing water uses.

The recent expansion of the ethanol industry, along with increased markets in the areas of irrigated malt barley, alfalfa, vegetables, corn, and oilseeds, all provide new irrigation opportunities in North Dakota. Irrigation development requires a partnership of federal, state and local support, and private initiatives. Marketing, project development, irrigation research, funding and financing, energy alternatives, and communication are all key ingredients for strengthening and expanding irrigation for economic growth. State support of irrigation initiatives will provide exciting new opportunities in agriculture across North Dakota.

Missouri River

In 2005, water resource districts along the Missouri River entered into a joint powers agreement, creating the Missouri River Joint Water Board.

It is the intent of these water boards to jointly exercise their powers to provide a cooperative and coordinated effort in addressing the management, conservation, protection, development, and control of water resources in the Missouri River Basin.

Weather Modification

Cloud seeding has been conducted over parts of western North Dakota for nearly 50 years. The North Dakota Cloud Modification Project (NDCMP) currently includes Bowman, McKenzie, Mountrail, part of Slope, Ward and Williams counties encompassing approximately 6.7 million acres in western North Dakota.

Participating counties fund two-thirds of project costs with the state cost-sharing one-third. Independent evaluations indicate the NDCMP has reduced crop-hail damage by 45 percent and increased rainfall by approximately 10 percent. NDCMP costs for the current biennium are estimated at $1.3 million. A 1998 economic evaluation by Leistritz and Sell at NDSU indicated $24 million in additional economic activity in the target areas, putting the NDCMP benefit-to-cost ratio at 37 to 1.

Handout #8

SB 2020

Same to Senate

Testimony of Melody Kruckenberg, CEO

ND Rural Water Systems Association

Senate Bill 2020

House Appropriations Education and Environment Committee

Sakakawea Room

March 2, 2007

Chairman Wald and members of the committee, my name is Melody Kruckenberg. I am the CEO of the North Dakota Rural Water Systems Association (NDRWSA) which serves a membership of approximately 250 cities and 32 rural water systems.

As a member of the ND Water Coalition, the NDRWSA is committed to completing North Dakota's water infrastructure for economic growth and quality of life. Today I am submitting written comments and testimony from several of our member systems in support of SB 2020 and in particular the Municipal, Rural, and Industrial (MR&I) funding.

In addition to the South Central Regional Water District (SCRWD) and the North Central Rural Water Consortium (NCRWC) projects, current MR&I projects include an expansion of the Walsh Rural Water District (project update attached), upgrading infrastructure for the Trail Rural Water District, water treatment plant expansion for McKenzie County Rural Water (project summary attached), and a water treatment plant upgrade and expansion for the City of Williston (letter attached).

These projects are designed to meet similar needs. Those needs include water quality and quantity. On the water quality side, the projects will help communities comply with non-funded federal mandates required by the Safe Drinking Water Act, including arsenic levels, nitrates, uranium, and radon. Quality issues also include water very high in sodium, sulfates,

iron, and manganese. On the quantity side…many families do not have a potable source of water and even in this day and age must haul water for their families and livestock.

Meeting the demands of repairing and replacing aging infrastructure is taking its toll on many small and rural water systems. Another major challenge facing rural and small water systems is the ever increasing rural to urban migration, which continues to decrease the population base and which adds to the cost to the individual consumer. Are people living in these sparsely populated areas any less deserving of quality water? Of course not, but it does offer a challenge in finding affordable ways to bring that water to them. I won't lie, these projects are expensive to fund and without any MR&I funding the cost to the consumer is just too much for the average family to afford.

The MR&I money has been used wisely in the past and has been an investment in the future of North Dakota. Every rural water system that has ever been built in our state is still operating. They are providing safe, clean water to their customers, reducing their debt, putting money in reserve, complying with every state and federal regulation, and doing so with a stable prudent rate structure. Not only do rural water systems serve rural customers, they also provide water to approximately 300 communities and numerous subdivisions.

With that said, the NDRWSA fully supports SB 2020 and urges a "do pass" recommendation. Thank you for giving me the opportunity to testify and provide written testimony on behalf of the members of the NDRWSA in support of SB 2020.

POST OFFICE BOX 1306
WILLISTON, NORTH DAKOTA 58802-1306
PHONE (701) 577-8100
FAX (701) 577-8880
TDD (800) 366-6888
(State Relay)

CITY OF **Williston** NORTH DAKOTA

January 16, 2007

Same letter to House

Senate Appropriations Committee
State Capitol
Bismarck, North Dakota

Dear Senator Holmberg and Committee Members:

The City of Williston fully supports SB 2020, which provides funding for the State Water Commission. It is critical to have funding for MR&I projects to help North Dakota communities comply with federal mandates for safe drinking water. The City of Williston has counted on MR&I funds which were committed for construction of a new water treatment plant. Because we have only received 20% of the MR&I funds committed, interest costs are much higher than originally planned. Williston residents have already experienced three sizable increases to their water rates; without the MR&I funds, more increases will be inevitable.

We urge a "Do Pass" recommendation for SB 2020.

Sincerely,

E. Ward Koeser
President of the Board of Commissioners

January 16, 2007

Melody Kruckenberg, CEO
ND Rural Water Systems Association
2718 Gateway Ave., Suite 201
Bismarck, ND 58503-0585

Re: Water Supply Improvements Project-Walsh Rural Water District

Dear Melody:

Walsh Rural Water District (WRWD) is writing to keep you informed as to the progress and funding status of the WRWD and Park River (PR) Regional Water Supply Project (RWSP).

The RWSP is being constructed in phases to facilitate the different loan and grant funding agencies and programs consisting of MR&I funds, STAG funds, and the NDDWSRF loan program. This overall project is at different levels of construction and currently is approximately 30 percent complete based on the status of the following phases:

- PR Phase I: Raw Water Wells, Raw Water Transmission Pipeline, and Transfer Booster Station is 100 percent complete and in the process of being closed out.

- PR Phase II: Park River Water Treatment Plant (WTP) renovations and improvements project is in the process of being Bid with an anticipated completion date in 2008.

- WRWD Phase I: Transmission Pipeline from the WTP to WRWD's Reservoir 4 is under construction and approximately 80 percent complete with an anticipated completion date in July of 2007.

- WRWD Phase II: Internal pipeline modifications, interconnections, and Reservoir retrofitting of the Walsh system to facilitate the use of treated water from the WTP is scheduled for a 2007 Bid with an anticipated completion date in 2008.

WRWD is seeking additional MR&I funding in the amount of $1,000,000 to meet the increases in construction costs being experienced in recent bids and also due to the elimination of the FY2007 STAG funding (Earmarks) previously announced for the FY2007 budget. Without the availability of the anticipated STAG dollars the grant funding level for this project will drop from 55 percent to approximately 27 percent. WRWD is seeking the additional MR&I funding to get the grant level back to approximately the 55 percent, which will keep the project debt service costs to the users at approximately $8.00/user/month, a 35 percent increase in water rates.

As you are well aware, the Earmarks that have been secured by our congressional delegation historically have made a very significant difference for water development projects in the State. WRWD will continue to work with the delegation to obtain the original requested STAG funding and if successful would make use of the STAG funding before the use of any additional MR&I funding.

WRWD appreciates your support and would like to thank you for your past funding support on this very important project. Please call 701-352-3915 with any questions or requests for additional information.

Sincerely,

Bill Link, Manager Walsh Rural Water District

(7)

Testimony on SB 2020
Hearing Date: January 19, 2006
By: Douglas Neibauer, Executive Director- South Central Regional Water District

I am Douglas Neibauer, I manage a regional water system in South Central North Dakota, which provides water to part of Burleigh County and a small service area in Emmons, and Kidder Counties and I ask for your support on Senate Bill 2020. South Central Regional Water District is a constantly growing regional water system and at present is providing quality water to over 4000 households. In 2007-2009, with the help of the MR&I funding, the district is extending service to the City of Wilton and the surrounding rural community in North Burleigh County in two phases of construction at a cost of approximately $27 Million. The District is securing loans for 70-75 % of this cost. The project includes a new water source from the Missouri River and a surface water treatment plant. The water intake is utilizing a new technology developed that draws water from beneath the riverbed through directional drilled wells, this procedure was preferred to eliminate the current low water intake problems being experienced on the Missouri River system. The water treatment plant currently under construction will use Membrane Filtration to purify the water to meet EPA water quality standards.

This is a start of the South Central Regional Water District's goal adopted in December 2000, which is to satisfy the unmet water needs for the cities, rural residences, and bulk commercial-industrial uses in south central North Dakota. A Feasibility & Preliminary report completed in 2002 identifying the need for quality water in the five county area of Burleigh, Emmons, McIntosh, Logan and Kidder Counties, which has support of over 1600 rural residents and 10 cities that deposited a good intention fees to be part of regional water system that will supply an abundant quality water. This area is the Hwy 83 and I-94 corridor that provides the opportunity for good access to transport commodities, therefore has a high potential for business that will employ an educated and skilled workforce. The 2007-2009 projects will start the five county regional water supply project that will remedy the current water shortage and quality problems. When completed we can all witness the many benefits quality water will bring to this area. Water development is wise investment for ND's future quality of life and economic viability. Thank you for the opportunity to testify in support of SB 2020.

Handout # 6

SB 2020

South Central Regional Water District

Quality On Tap!
Our Commitment Rural | Our Profession Water

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Bismarck, ND 58502-4182
(701) 258-8710 • Fax (701) 223-6041
Email: bwuc@btinet.net
scwbilling@btinet.net
scrw@btinet.net

Testimony on SB 2020 before the House Appropriations Committee
Hearing Date: March 2, 2007
By: Douglas Neibauer, Executive Director- South Central Regional Water District

Good Morning! I am Douglas Neibauer and I am please to have the opportunity to give testimony in support of SB 2020 before the House Appropriations Committee members.

I manage a regional water system in South Central North Dakota, which provides water to part of Burleigh County and small service areas in Emmons, and Kidder Counties. South Central Regional Water District is a constantly growing regional water system and at present is providing quality water to over 4000 households. In 2007-2009, with the help of the MR&I funding, the district is extending service to the City of Wilton and the surrounding rural community in North Burleigh County in two phases of construction at a cost of approximately $27 Million. The District has the financial resources of securing loans for 70-75 % of this cost. The project includes a new water source from the Missouri River and a surface water treatment plant. The water intake is utilizing a new technology developed that draws water from beneath the riverbed through angle drilled wells that are extended about 20 feet below the river, this procedure was preferred to eliminate the current low water intake problems being experienced on the Missouri River system. The water

treatment plant currently under construction will use Membrane Filtration to purify the water to meet EPA water quality standards.

With MR&I funding the South Central Regional Water District's goal adopted in December 2000, which is to satisfy the unmet water needs for the cities, rural residences, and bulk commercial-industrial uses in south central North Dakota can finally get a start. The Feasibility & Preliminary report completed in 2002 identified the need for quality water in the five county areas of Burleigh, Emmons, McIntosh, Logan, and Kidder Counties, and has support from over 1600 rural residents and 10 cities that deposited good intention fees to be part of regional water system, which will supply abundant quality water. This area is the Hwy 83 and I-94 corridor that provides the opportunity for good access to transport commodities, therefore has a high potential for business that will employ an educated and skilled workforce. With the states help of approximately $6.8 million investment on this $27 million regional water supply extension we can improve the quality of life and economic viability of more area in rural North Dakota. When completed we can all witness the many benefits quality water will bring to this area.

Thank you for the opportunity to testify in support of SB 2020.

(8)

Testimony of Gene Goven, Turtle Lake, ND

Senate Bill 2020

Senate Appropriations Committee

Birnhyld-Haugland Room

January 19, 2007

Senate & House

Good morning Chairman Holmberg and committee members. I am Gene Goven from Turtle Lake. I am here today in support of Senate Bill 2020.

I am proud to have been involved in the development of the North Central Rural Water Consortium. This is a partnership of three rural water districts in north central North Dakota, including North Prairie Rural Water District in Minot, Central Plains Water District in Fessenden and McLean-Sheridan Rural Water District in Turtle Lake. These systems are partnering to bring a reliable source of quality water to areas where previous construction was considered not feasible.

My farmstead lies within one of those "gap" areas, on the fringes of McLean-Sheridan Rural Water District's service area. Construction of a rural water pipeline to my home was not feasible when McLean-Sheridan worked independently. However, as a consortium, construction is now feasible.

This is exciting news to my neighbors and I who have waited for quality water for more than 10 years. As we anxiously await, we have all installed expensive in-home water filtration and conditioning systems. In fact, due to the recent drought, I was also forced to install water pipeline in several pastures for my livestock. We could no longer wait for pipeline construction.

My situation in rural North Dakota is not unique. As I travel across the state presenting grazing management seminars, I hear from countless producers facing similar situations. Poor quality water, lack of water or the need to haul water makes it difficult for individuals who want to live and work in rural North Dakota.

As a farmer, I have learned that if I have a chain with a weak link, I need to fix it immediately in order for it to remain strong and viable as a unit. Things fall apart at the weakest link. I believe this analogy can be applied to the economic status of rural areas still waiting for a supply of quality water. Are we the weak link that is being overlooked? As out-migration continues in rural North Dakota, farmsteads with a supply of quality water will remain occupied and viable.

Agriculture remains a key driver of North Dakota's economy. A reliable and plentiful source of quality water will enable our rural economy to flourish and farm families to stay on the land. Quality water is critical to the growth of North Dakota. Please support Senate Bill 2020.

Testimony of Alf Dybing, Maddock, ND

Senate Bill 2020

Senate Appropriations Committee

Birnhyld-Haugland Room

January 19, 2007

Senate Sworn to the House

Good morning Mr. Chairman and committee members. I am Alf Dybing, from Maddock, North Dakota and I am asking for your support of Senate Bill 2020.

Well water in north central North Dakota from Minnewaukan to Esmond is marginal in quality and supply. As a board member of Central Plains Water District, I have personally visited with a majority of the people in this area about their unique water situations. Well water here is dark and high in iron, manganese and sulfates. There are other wells in the area that have arsenic levels above the EPA maximum contaminant level concentrations. Many families have to haul water for drinking and other household uses. They are in serious need of potable water.

In 1995, a rural water construction feasibility study was conducted for southern Benson County through northern Rolette County. Three sections of that study area have been constructed. The area from Minnewaukan to Esmond has not been constructed. With adequate funding, this area could be served by the North Central Rural Water Consortium and Central Plains Water District. The need is great. The demand is immediate. One section of the study area, from Oberon to Minnewaukan, has a 100 percent sign-up.

As you may already know, the North Central Rural Water Consortium is a partnership between three neighboring rural water systems – Central Plains Water District, North Prairie Rural Water District and McLean-Sheridan Rural Water District. By working together, we are able to deliver an adequate supply of quality water to the unserved portions of our collective service area. Please support SB 2020 so that we can bring a reliable source of potable water to my community.

Testimony for 2007 – 2008 State Water Commission Funding Proposal/NAWS

I am Alan Walter, Director of Public Works for the City of Minot. As you know, Minot is committed to and extremely interested in the Northwest Area Water Supply Project.

The Northwest Area Water Supply Project is alive and well. We are currently developing and, propose to bid, three phases of the NAWS project in 2007. Funding for this is coming from Federal funds, State Water Commission funds and local funds of 35 percent. Minot is being asked to underwrite the availability of funds so the project can continue. Minot (and the northwest area of North Dakota) realizes how important this water project is and is willing to do this.

In the 2007–2008 biennium, the State Water Commission has programmed $5 million for the continued support of NAWS. The importance of the continued funding for progress for NAWS is shown by the work contemplated in several of the cities to be served by NAWS. Kenmare is proposing close to a $2 million project to address their arsenic problem. Mohall is looking at considerable improvements to their system to keep their water supply and Bottineau has spent close to $1 million to update their water system. The EPA rules continue to march on. It is of utmost importance that this water system of North Dakota is built so we can deliver quality water and, thus, quality of life to the citizens of our State.

As you know we are in the middle of an EIS, which is the result of the lawsuit from the Manitoba government against NAWS. The Manitoba government was joined by other entities to stop NAWS progress until we had taken a "hard look" at the Environmental Assessment that was accomplished

before the project was begun. So we are in the middle of the EIS, which was called for by the lawsuit based on the judge's decision.

Work however continues on the project. It is important for you to know that Minot and the northwest area communities understand the reason for the lawsuit and the reason for the judge's decision. However, because of the needs for water in the outlying regions of north central North Dakota, NAWS must proceed. We anticipate further clearance from the judge for continuing the NAWS project. It is our hope that the NAWS project would be able to continue to the north to the Minot Air Force Base and beyond with the judge's approval if the EIS drags out longer than anticipated.

With all this being said Minot needs the support of the State Water Commission, needs the support of the State legislators and the support of the communities to bring the project to a successful conclusion. To do that we need the $5 million budgeted in the State Water Commission budget in this biennium. We expect to receive continued support through the State Water Commission financing for the NAWS project in future bienniums. This will enhance the federal funds for NAWS. Minot supports the State Water Commission budget as proposed and looks forward to the day when the ribbon cutting ceremony can be attended by all of you upon the completion of NAWS. The opening of the spigots at all the outlying areas delivering good potable water from the Missouri River to homes in Mohall, Columbus, Bottineau, Westhope, Kenmare, Berthold and all points in between and beyond will be a day to celebrate.

Thank you Mr. Chairman, I am available for any questions.

Handout # 12

SB 2020
March 2, 2007

115 West 6th Street
Bottineau, ND 58318-1393
Phone: (701) 228-3232
FAX: (701) 228-2543

City Of Bottineau North Dakota

The City, also in January 2004, contracted with AE2S to begin design work on an interim iron / manganese filtration plant. This process involves putting a pilot plant on line following completion of these two wells. It will also include site location and residuals management. This work is scheduled to begin in early June of this year.

Conclusion:

The City of Bottineau will continue to utilize the existing wells that test low in uranium content and will develop at least two new additional wells to provide water to an interim iron / manganese filtration plant. With delivery of NAWS water on the horizon, and financial assistance limited or not available, softening of the water either with lime or membrane technology was not deemed feasible at this time. Estimated cost of this interim facility is $1.5 to $1.7 million.

It must be emphasized that the design of this plant is for interim use only! Major modifications would need to be made to the design and or the plant itself if it is to be utilized beyond 10 to 15 years. In addition, it will only remove the iron and manganese from the water supply. Residents of Bottineau will have to continue to tolerate the excessive hardness, Total Dissolved Solids and high sulfate levels inherent in this existing supply in hopes that NAWS delivery becomes a reality.

The City of Bottineau would like to express its' appreciation to Dan Schaefer and All Seasons Water Users District in that they not only contributed monetarily, but in addition, provided valuable information to this process. Regretfully, the apparent interim answer for the City of Bottineau does not provide an immediate benefit to ASWUD.

2007 Update:

In 2006, construction was completed on an interim iron/manganese removal facility and it has been operating well since it's commissioning in late summer. We did however receive notification that water samples that had submitted to the State Health Department for routine compliance testing were now in violation of the Radionuclide Rules as they pertain to "Alpha Emitters". It should be noted that up until last year, there was not a testing methodology for "Alpha Emitters" available for water with high amounts of Total Dissolved Solids (TDS) such as Bottineau currently has. In other words, we are again out of compliance with the drinking water standards and are working with the various agencies to attempt to become compliant as we PATIENTLY wait for NAWS to bring Missouri River water to our community.

Sincerely:

David Caroline

David Caroline – Utilities Chairman
City of Bottineau

(1.) *A Hydrogeologic Analysis To Determine The Sustained Yield Of The Bottineau Municiple Well Field and All Seasons Rural Water Systems I and II, Bottineau North Dakota Robert R. Shaver – North Dakota Water Commission 2002*

SOUTHWEST WATER AUTHORITY

History and Status of the Southwest Pipeline Project

1971: West River Diversion study

1975: West River Diversion proposal

1977: Southwest Area Water Supply study

1981: Resources Trust Fund established

1983: Legislature appropriates $6 million for final design and initial construction

1984: Water permit for 17,100 acre-feet approved

1986: Basin Electric and SWC agree on joint use of the water intake facility

Southwest Pipeline Project (SWPP) groundbreaking

Garrison Diversion MR&I funding program established

1989: Project integrated - urban and rural service combined to save money

1991: Dickinson receives water

Southwest Water Authority (SWA) created; three rural water associations dissolve: Southwest Rural Water (Bowman, Adams, Slope and Hettinger Counties), incorporated in 1979 and dissolved in 1990; Stark, Billings, and Dunn, incorporated in 1982 and dissolved in 1992; and Golden Valley, incorporated in 1982 and dissolved in 1993

1992: First rural customers receive water

1994: Ten cities and 200 rural customers receive water

1995: Nine hundred rural customers and four cities receive water

Hettinger and Reeder cited by EPA for fluoride violation

1996: Transfer of O&M functions for SWPP from SWC to SWA

Raw water line, water treatment plant, cathodic protection upgrades

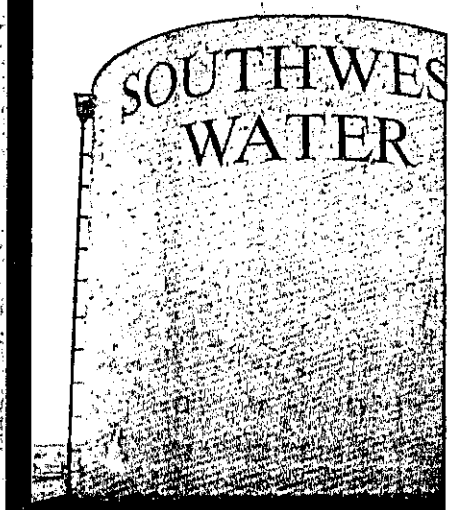
Jung Lake Service Area constructed

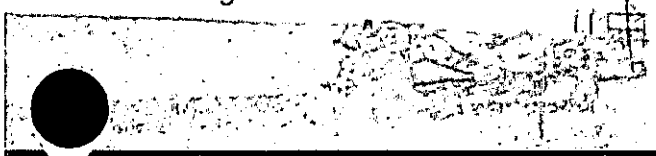
USDA-RD cost-shares for Hettinger-Reeder Phase

1997: North Dakota Legislature approves revenue bonding program for SWPP and allows construction of the Hettinger-Reeder Phase

Bucyrus tank constructed

Hettinger and Reeder receive water





SOUTHWEST PIPELINE PROJECT

We are made wise not by the recollection of our past, but by the responsibility for our future.

- George Bernard Shaw

History and Status of the Southwest Pipeline Project, cont'd

1998: Garrison Diversion MR&I funds Hebron-Glen Ullin Phase
Hebron receives water
SWPP funds end from Garrison Diversion MR&I
Jung Lake elevated tank and pump station placed in service

1999: City of Glen Ullin receives water
Additional rural service to Hebron-Glen Ullin and Hettinger-Reeder Service Areas
North Dakota Legislature funds Mott-Elgin Service Area
USDA-RD cost-shares for Mott-Elgin Phase
Passage of Senate Bill 2188 allows new construction, creates a Water Development Trust Fund and authorizes SWC to issue bonds
Hebron, Bucyrus and Three Pockets Service Areas constructed
New chloramination facility at the Dodge Pump Station constructed

2000: Transfer of O&M functions from Dickinson Water Treatment Plant to SWA
Influent piping upgrade of the Water Treatment Plant
Burt and Hebron tank constructed
Southeast Jung Lake and south Hebron Pockets constructed
Elgin, Carson and New Leipzig receive water

2001: Mott-Elgin Service Area constructed
Prairie Learning Center receives water
Twin Buttes (Scranton-Bowman) Service Area construction begins

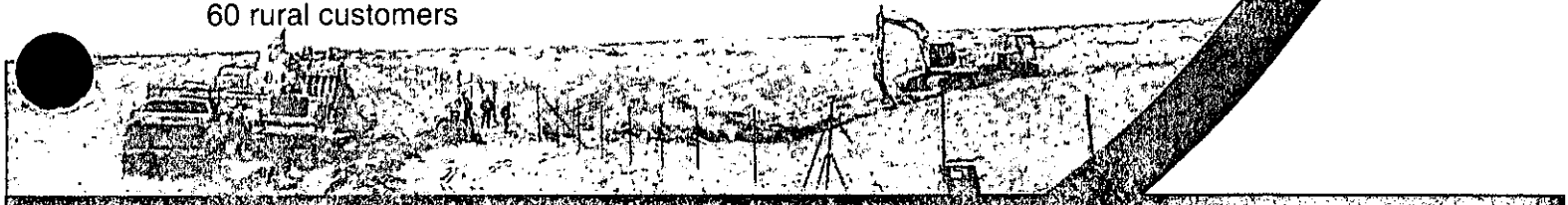
2002: Scranton receives water
Twin Buttes Reservoir constructed
Second New England Reservoir constructed

2003: Scranton-Bowman Service Area completed
Funding secured and construction begins on Phase I Medora-Beach Service Area

2004: Phase I of Medora-Beach Service Area constructed
Beach, Sentinel Butte, Medora and 70 rural customers recieve water

2005: Funding secured for Phase II of Medora-Beach, Morton County and Beulah Interim Service Areas
Home on the Range receives water

2006: City of Golva and approximately 400 rural customers in the Medora-Beach and Morton County Service Areas receive water
Beulah Interim Service Area construction completed - with service to Zap and 60 rural customers



Noteworthy Accomplishments

Dry conditions allowed construction to proceed, without interruption, in three regions of the SWPP 12-county service area.

Medora-Beach Service Area: As of October 16, 2006, approximately 98 per(of the pipeline had been installed for Contract 7-8B, the Beach, Golva, Fryburg Service Areas. Even more exciting was that approximately 96 percent of the services were installed with the contractor turning 175 connections over to the SWA for service. The city of Golva was turned over for service September 11, 2006, with connection scheduled for October 26, 2006. With completion required by July 15, 2007, construction is well ahead of schedule.

Morton County: Service to eastern Morton County is being made possible through a unique bulk water service agreement between SWA and the Missouri West Water System (MWWS). Under the agreement, SWA purchases water from MWWS and delivers that water to customers in eastern Morton County. As of October 16, 2006, all of the 172 miles of pipeline was installed in Morton County, with 65 customers turned over for service.

Beulah Interim Service Area: A similar agreement was reached with the city of Beulah, on an interim basis, to serve approximately 60 rural customers and the city of Zap. Under this agreement, SWA purchases water from the city of Beulah until service can be provided by SWPP's Oliver, Mercer, North Dunn Phase. As of October 1, 2006, approximately 10 miles of pipeline and 17 services were installed.

Red Trail Energy LLC: SWA, SWC and Red Trail Energy LLC, an ethanol plant near Richardton, North Dakota, entered into raw and treated water contracts. When the plant is fully operational, they will utilize a minimum of 200 million gallons of raw water annually boosting them to SWPP's second largest user, behind the city of Dickinson.

Pasture Taps: Sustained drought conditions in the region prompted livestock producers to look for alternative water sources. Out of 484 sign-ups in the current construction areas, 100 were pasture taps. Morton County had the greatest percentage of pasture taps, with one in three.

Strategic Plan: Updated in 2003, SWA continued to work on a long-range strategic plan. A primary topic of discussion was securing funding to complete the SWPP using traditional and nontraditional sources.

Public Information: SWA celebrated Drinking Water Week in May setting up educational displays at Prairie Hills Mall and downtown Dickinson. Quarterly newspaper advertisements were placed to illustrate the need for quality water and educate area residents on SWPP's progress.

"Make A Splash" Water Festival: The 7th Annual "Make A Splash" Water Festival was held September 21-22, 2006, at the Dickinson Recreation Center. Approximately 500 fifth grade students from 23 schools attended. Another 600 individuals attended "Family Night." Fourteen instructors presented water-related topics.

Changing of the Guard: In June, 2005, manager/chief executive officer, Ray Christensen announced his retirement, effective July 1, 2007. At the September board meeting, directors unanimously voted to promote chief financial officer/ administrator Mary Massad to manager/chief executive officer upon his retire

Southwest Pipeline Project

Funding Sources through September 30, 2006

State Funding (in millions of dollars)	
Resources Trust Fund	$ 45.6
Water Development Trust Fund	$ 7.3
Subtotal	$ 52.9
Grants	
Garrison Diversion Conservancy District Municipal Rural & Industrial Fund	$ 69.7
USDA-Rural Development	$ 11.3
Natural Resources Conservation Service PL566	$ 0.9
Subtotal	$ 81.9
State Revolving Loan Funds	
Public Revenue Bonds	$ 7.0
USDA-Rural Development	$ 10.1
ND Drinking Water Revolving Loan Fund	$ 1.5
Subtotal	$ 18.6
Total Funding	

Southwest Water Authority

2006 Progress Report

SOUTHWEST WATER AUTHORITY

Celebrating Milestone Anniversaries

The road has been long, but the results...oh so sweet. This past year, the Southwest Pipeline Project (SWPP) and the Southwest Water Authority (SWA) celebrated three milestone anniversaries, the:

20th year of construction,

15th anniversary of rural service integration and

10th year of transferring management, operations and maintenance of the SWPP from the ND State Water Commission (SWC) to the SWA.

Construction of the SWPP began in 1986. Throughout the past 20 years, we have made great strides in delivering an adequate supply of quality water to each of the 12 counties of SWA. We are proud to serve the communities and rural customers and are fully-committed to completing this project, including service to Oliver, Mercer and North Dunn Counties.

Fifteen years ago, in 1991, rural water service was integrated into SWPP's overall construction plan. That same year, SWPP began serving Dickinson, the system's largest user. Today we serve approximately 2,600 rural customers, as well as 27 cities in 10 of the 12 counties included in the SWPP service area in southwest North Dakota.

In 1996, management, operations and maintenance of the SWPP were transferred from the ND State Water Commission (SWC) to SWA. In the decade that has ensued, SWA has enjoyed the same positive track record established by SWC with limited service interruptions and smooth operations.

As we look to the future, we see construction nearing completion. Only a small portion remains of the Medora, Beach, Morton Phase. Once completed, we will focus our attention on the Oliver, Mercer, North Dunn Phase.

As we work toward completion, our vision sustains us. For us, "people and business succeeding with quality water" is an attainable dream. This dream becomes reality when an adequate supply of quality water is delivered to all communities, rural residences and businesses that truly need it.

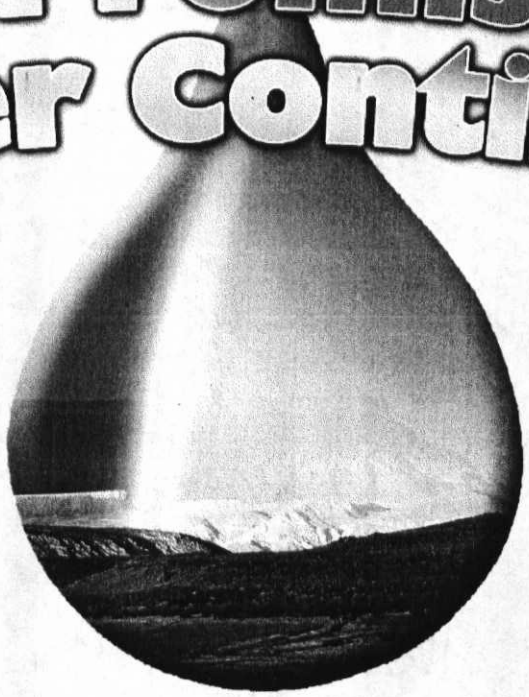
Phased Development Plan

Current Development Phase:
Medora, Beach, Morton Phase.....West

Next and Final Development Phase:
Oliver, Mercer, North Dunn Phase.....North

Never consider the possibility of failure; as long as you persist, you will be successful.
- Brian Tracy

The Promise of Water Continues



With 28 communities and over 3,000 rural customers served, we are working toward completion of the Southwest Pipeline Project. Governor Hoeven's budget would allow us to complete the Medora-Beach Service Area and continue construction in the Oliver, Mercer, North Dunn Service Area, which is the final phase of construction. This is an area that has patiently waited over 15 years for service.

Residents of the Medora-Beach and Oliver, Mercer, North Dunn Service Areas battle an inadequate supply of poor quality water. These are their stories:

North Dakota on the move. . .

My husband, Randi, our two sons, Randi Jr., age ten, Roman, age seven and I moved back to North Dakota, from the Twin Cities in August, 2006, searching for a better life for our family.

Leaders talk about North Dakota being a state "On the Move." How can that be when basic quality of life needs – such as an adequate supply of quality water – are not being met? As a mother, it is so painful to hear my son say, "Mommy, you're not going to make me bathe in that poison, are you?" They are so scared of our well water that they will not even use it to brush their teeth. Each morning, they take their toothbrushes to the water cooler, draw some safe water and then scurry back to the bathroom to finish brushing their teeth.

I grew up in Ohio. My mother lives in southern Ohio, 50 miles from the closest town. She has rural water. My aunts and uncles live in an area of West Virginia's Appalachian Mountains that is only accessible by four-wheeler and they have rural water. It is shocking to me that in the 21st century in North Dakota, we are still waiting for quality water in our homes.

I challenge you to get North Dakota "On the Move" by developing the infrastructure we need statewide to deliver an adequate supply of quality water.

- Ruth Julson, Zap, ND

SOUTHWEST WATER AUTHORITY

Ranchers need quality water

My family and I ranch 16 miles northwest of Killdeer, near the Killdeer Mountains in western Dunn County. We deal with both water quality and quantity issues daily. Untreated, the water pumped from our five wells is deep red in color, smells of sulfur and stains nearly everything it touches. We currently depend on an in-house treatment system that helps remove the color and hardness. This requires about five bags of coarse crystal salt per month.

Our son and his wife, who are partners in the cattle operation, recently built a brand new home on the ranch. They were unable to install a similar system before they moved into their new home. In less than six months, the water has stained their new porcelain bathtub, toilet and bathroom fixtures red and turned my daughter-in-law's blonde hair strawberry red. This water is corrosive and wears out pumps in ten years or less. We always purchase an extended warranty on pumps and have had to replace several, as well as quite a few feet of well pipe over the years.

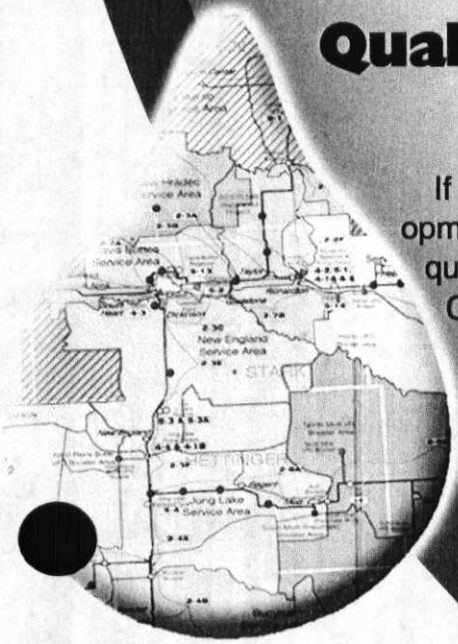
Water supply is also problematic. We have five wells on the place that are about 280 feet deep. They each pump between four and one-half and five gallons per minute – barely enough to keep up with our 500 head cattle operation.

We would really like to see the Southwest Pipeline Project constructed in our area. Please support statewide water infrastructure.

- Terrald and Carol Bang, Killdeer, ND

"We initially signed up for the Southwest Pipeline Project in the 1980s and patiently await service. Please support water development statewide and in southwest North Dakota."

Quality water aids economic development



If you drive across the Morton County line into Oliver County, you'll see development stop right along Highway 25, just into Oliver County. I believe access to quality water is a significant determinant in this [lack of development]. Morton County has access to quality water through both the Southwest Pipeline Project and Missouri West Water System. Oliver County does not have access, yet.

I will definitely connect to the pipeline. Not only will it provide an adequate source of quality water, but a good supply, as well. For our domestic use, it will eliminate our expensive reverse osmosis/iron filter/water softening system.

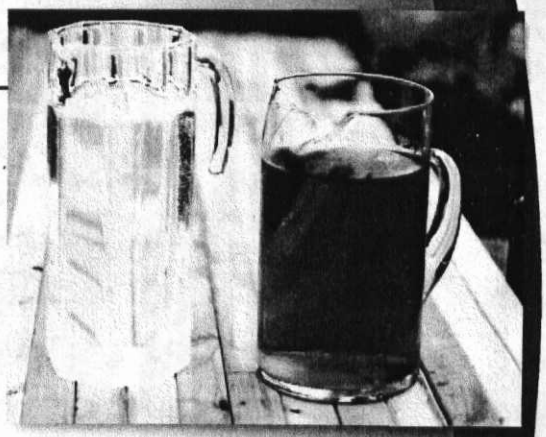
- Duane Maier, New Salem, ND

New Salem to Belfield. . . water quality poor

Our water is brown, smelly and not usable for washing white clothes or drinking and has been like this since the 1980s. We have tried many different remedies, including an iron filter, chlorine tablets, Hilex, you name it. These options last for about three to five months, but are not permanent. We have also explored more permanent solutions such as a reverse osmosis system for our entire house, at a price tag of $7,800.00. After researching it a bit more, we determined there just isn't a system that can handle our water.

Our water quality problems are compounded by water supply problems. It would sure be nice to connect to the Southwest Pipeline Project. We are signed up for a standard connection for the house and pasture taps for the livestock.

- Kevin and Penny Hoesel, Hannover, ND



These pitchers graphically represent water quality issues in southwest North Dakota. Shown at the left is a pitcher filled with water from the Southwest Pipeline Project and at the right, well water. Although groundwater quality varies throughout the region, water near New Salem looks much like the pitcher on the right.

New Salem is included in the final construction phase of the Southwest Pipeline Project.

Cleaner appliances, healthier home

We live eight miles north of Belfield, along Highway 85. Until the Southwest Pipeline Project arrived, December 15, 2006, the water from our 30 foot deep well was full of iron, minerals and had a slight odor. In fact, I had to periodically clean the water heater due to buildup. As I did, all sorts of black gunk would flow forth. Our well water stained the inside of our dishwasher and toilet tanks black. You can imagine how excited we are that the project has finally arrived! It is great!

- Roger and Bernadette Kiwimagi, Belfield, ND

Ten year old Randi Julson, Jr. chooses bottled water over well water to brush his teeth. Well water at the Julson household, north of Zap, is 20 times higher in Total Dissolved Solids than the maximum recommended level. These "solids" collect quickly on fixtures and appliances and have impeded spigot rotation of the kitchen faucet.

SOUTHWEST WATER AUTHORITY

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Southwest Water Authority

Shawn (5) and Sierra (3) Smith, of rural Beach ran through the sprinklers for the first time in 2006, thanks to the arrival of the Southwest Pipeline Project. Before connecting to the pipeline, the Smith family hauled all of their water from Beach.

Young families hauling water. . .

As a farm wife and mother of three, I spent most of the past five years raising a family in a home without water. We hauled it from town. My husband spent countless evenings and days off running back and forth from town hauling water. We looked forward to seeing him at night, only to watch him pull in the yard and leave with the water truck.

We quickly learned to ration our water supply: short showers, three inch baths, no garden, lawn, baby pools, sprinklers or slip-n-slides.

Families the size of mine go through lots of laundry. Sometimes, it seemed I needed a conveyer belt running from the hamper to the laundry room. Before I could begin, I had to ask my husband Andrew to check the cistern and tell me how many loads I could do.

Now, we have water from the Southwest Pipeline Project and we are truly grateful. We connected to the project last fall and my children ran through sprinklers for the first time. I am now able to keep up with the laundry, though it still feels funny not asking "How many loads can I do?" We are able to drink our water right out of the faucet and all of our fixtures are cleaner. Now, my children love their baths, and most of all, we all love having Andrew around lots more!

- Tiffanie Smith, Beach, ND

Water to the west. . .

In the early 1980s he could be found in a tan pickup truck, driving from neighbor to neighbor, excitedly telling them of a project that would bring quality water to their farmsteads.

Today, Myran Burian still touts the value of quality water and anxiously awaits Southwest Pipeline Project's arrival at his ranch in Dunn County. "Water in western Dunn County is marginal in quality. People around here have three types of water: brown, poor-quality or none at all." Several of Burian's neighbors haul drinking water from town. Others simply use the brown water they pump from their wells, more than 400 feet underground.

To Burian, quality water is affordable. "I pay $52.00 a month for satellite television. A water bill for a family of two or three is only going to be about $45.00 a month. What a value!"

Myran, wife Kaye, son Paige, daughter-in-law Brenda and three granddaughters, raise a commercial herd of 300 black and red Angus cattle west of Killdeer, North Dakota.

- Myran and Kaye Burian, Manning, ND

#10

VERBAL TESTIMONY

OF

TIFFANIE SMITH
BEACH, NORTH DAKOTA

SUBMITTED TO
NORTH DAKOTA SENATE APPROPRIATIONS COMMITTEE

ON
SENATE BILL 2020 - STATE WATER COMMISSION APPROPRIATION

JANUARY 19, 2007
8:30 a.m. (CST)

BISMARCK, NORTH DAKOTA

Good Morning Mr. Chairman and members of the committee. I am Tiffanie Smith, you may have heard my husband Andrew's story before, and there are some things that I would like to add to it. I'm a farmwife and a stay-at-home mother of three children, Shawn 5, Sierra 2 and Evan 1 10 months old.

I have spent most of the past five years raising a family in a home that does not have water. Andrew hauled our water from town with a water truck to our cement cistern. It wasn't possible for me to haul the water, because the water truck wouldn't safely hold my children since there wasn't room for their car seats.

Therefore we learned to budget our water supply. Quick showers that you shut the water off in-between rinses, three inch baths, no garden, lawn, baby pools, or slip-n-slides. Andrew had to haul water during the nicer months late at night or all day long on the few free days he would get, during the winter months he dodged blizzards and sub-zero North Dakota temperatures, freezing valves on our water truck did complicate things.

Since we stored our water in a cement cistern, our water supply wasn't the cleanest, so we bought drinking water. That I would have to haul from town myself, except in four three gallon containers, and a few gallon jugs.

Families go through a lot laundry, mine needs a conveyer belt from the dirty clothes hampers to the laundry room. Before I could do laundry, I had to ask Andrew to "check the cistern and how many loads could I do?"

The hardest part for my children and me living on a limited water supply was not seeing their father when he wasn't working, because he spent his day home running back and forth to town

hauling water. They would look forward to seeing him at night only to see him pull in the yard and leave with the water truck.

We now have Southwest Pipeline Project Water. Though we still tend to conserve water, we are thoroughly grateful. We were hooked up last fall, and my children got to run through the sprinklers, and now realize that they have a function and were not just a decoration for the shed. I am able to keep up on the laundry, though it feels funny not asking "How many loads?" We drink our water right out of the faucet; everything is cleaner from sinks at my house to automatic livestock waters at Andrew's parent's farm.

My children love their baths and most of all we all enjoy having Andrew around more.

We sincerely appreciate your past support of water projects including the Southwest Pipeline Project and ask for your support of SB2020 so others statewide can enjoy all that comes with a dependable supply of quality water. We now know, first hand, the impact it has had on our family's quality of life.

(12)

VERBAL TESTIMONY

OF

Same given to House

TERRALD BANG
WESTERN DUNN COUNTY, NORTH DAKOTA

SUBMITTED TO
NORTH DAKOTA SENATE APPROPRIATIONS COMMITTEE

ON
SENATE BILL 2020 - STATE WATER COMMISSION APPROPRIATION

JANUARY 19, 2007
8:30 a.m. (CST)

BISMARCK, NORTH DAKOTA

Good Morning Mr. Chairman and members of the committee. My name is Terrald Bang. My family and I ranch 16 miles northwest of Killdeer, near the Killdeer Mountains in western Dunn County. We deal with both water quality and quantity issues on a daily basis.

If left untreated, the water pumped from our five wells is deep red in color, smells of sulfur and stains nearly anything it touches. We currently depend on an in-house treatment system that helps remove the color and hardness. This requires about five bags of course crystal salt per month.

Our son and his wife, who are partners in the cattle operation, recently built a brand new home on the ranch. They were unable to install a similar system before they moved into their new home. In less than six months the water has stained their new porcelain bathtub, toilet and bathroom fixtures red and turned my daughter-in-law's blonde hair strawberry red. This water is very corrosive and wears out pumps in ten years or less. That is why we always purchase the extended warranty on the pumps. We have had to replace several pumps and quite a few feet of well pipe over the course of the years.

Water supply is also problematic. We have five wells on the place that are about 280 feet deep. They each pump between four and one-half and five gallons per minute – barley enough to keep up with our 500 head of cattle.

Initially, my dad and I signed up for water in the early 1990's, thinking that this would be the answer to our problems. We have been waiting quite a while and would really like to see the Southwest Pipeline Project become reality in our area.

We are not alone in our quest for quality water. From the west to the east, north to the south, North Dakotans are faced with water quality and supply problems. Please support developing statewide water infrastructure and SB2020.

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VERBAL TESTIMONY

Same given to House

OF

RUTH JULSON
ZAP, NORTH DAKOTA

SUBMITTED TO
NORTH DAKOTA SENATE APPROPRIATIONS COMMITTEE

ON
SENATE BILL 2020 - STATE WATER COMMISSION APPROPRIATION

JANUARY 19, 2007
8:30 a.m. (CST)

BISMARCK, NORTH DAKOTA

Good morning Mr. Chairman and members of the committee. My name is Ruth Julson of rural Zap, North Dakota. My husband, Randi, our two sons, Randi Jr., age 10, Roman, age seven, and I moved back to North Dakota in August, 2006, searching for a better life for our family. We wanted our children to grow up near relatives – cousins and grandparents.

Upon moving back to North Dakota from the Twin Cities, we purchased a small property six miles north of Zap. We knew at the time of purchase we could not drink or cook with our well water. The hardness level in my water is 20 times the maximum recommended level. It leaves a crusty film on our washing machine and its buildup stops our kitchen faucet from turning.

After researching in-house water treatment systems and the cost of digging a new well, we determined the most plausible option for us is to wait for construction of the Southwest Pipeline Project. While I have only been waiting since August, others in the area have waited more than 15 years. I am here today asking for your support of all rural water projects in North Dakota, including the Southwest Pipeline Project.

We talk about North Dakota being a state on the move. How can that be when basic life needs – such as an adequate supply of quality water – are not being met? As a mother, it is so painful to hear my son say: "Mommy, you're not going to make me bathe in that poison, are you?" They are so scared of our well water that they will not use it to even brush their teeth. Each morning, they take their toothbrushes to the water cooler, draw some safe water and then scurry back to the bathroom to finish brushing their teeth.

I grew up in Ohio. My mother lives in southern Ohio – 50 miles from the closest town. She has rural water. My aunts and uncles live in an area of the Appalachian Mountains of West Virginia

that is only accessible by four-wheeler. They have rural water. It is shocking to me that in the 21st Century in North Dakota, many still await quality water in their homes.

I challenge you to get North Dakota "on the move" by developing the infrastructure needed statewide to deliver an adequate supply of quality water. Please support SB2020 so rural water projects statewide, including the Southwest Pipeline Project, can move forward, reaching out to those citizens like myself and others who patiently wait for quality water. I applaud the state for the effort being put forth to meet statewide water project needs.

(16)

Testimony by Clark Cronquist, Director
Lake Agassiz Water Authority

To the

Senate Appropriations Committee
Hearing

Bismarck, North Dakota
January 19, 2007

Chairman Holmberg, members of the committee, thank you for the opportunity to testify on Senate Bill 2020, the State Water Commission appropriations bill. My name is Clark Cronquist, and I serve on the Agassiz Water Users District and the Lake Agassiz Water Authority Board of Directors.

Providing a reliable, high quality and affordable water supply to the Red River Valley is an issue I take seriously. The Red River Valley Water Supply Project is important not only for the Red River Valley, but for the entire state of North Dakota.

Future growth, not only population growth, but growth for industry hinges on providing and delivering a reliable, high quality and affordable water supply to the Red River Valley. Almost all the groundwater in the Red River Valley is fully appropriated. This is a significant issue since there are not any reliable surface water supplies in the valley. The Red River, the main surface water supply, is prone to going dry during long-term droughts. Therefore, growth of any water dependent industry, especially the ag processing industry, is limited without new water supplies.

In addition, without this project, aquifers that are currently used for irrigation would have to be converted to municipal use; a practice that is common throughout the western United States. We need to protect our current agricultural water uses. We also need to help bolster our ag processing industry by providing a much needed new water supply. Without it, new ag processing industries, such as ethanol and biomass, will not be able to locate in the Red River Valley – North Dakota's ag producing heartland.

For these reasons, it is important for you to approve funding for State Water Commission budget, which includes funding for the Red River Valley Water Supply Project.

Again, thank you for allowing me to testify today.

15

Testimony by Curt Kreun, Council Member
Grand Forks City Council

To the
Senate Appropriations Committee
Hearing

Bismarck, North Dakota
January 19, 2007

same given to the House

Mister Chairman, members of the committee, thank you for this opportunity to testify on Senate Bill 2020 being considered by your committee. My name is Curt Kreun; I am a Grand Forks City Council member and a Director on the Lake Agassiz Water Authority Board.

Funding for the Red River Valley Water Supply Project is vital to the Red River Valley and the state of North Dakota. This project will assume a reliable, high quality and affordable water supply for the Red River Valley. Without this project, during a 1930s-type drought the valley will not have enough water to sustain itself. Our studies state that there would be an economic impact of $2 billion a year, every year of a 1930s-type drought. One only needs to think back to the flood of 1997 to be reminded of the devastating consequences a natural disaster has on a community and region.

Development of a reliable water supply is a requirement for future industrial growth in the valley. We are aware of industry actively looking for location in the valley. Water is a key issue and a controlling factor governing if, and where, they may be able to locate. Value added agricultural processors, such as Simplot in Grand Forks, are critical to the agricultural economy of the area.

Last summer, the Red River Valley experienced what could be the first year of a continued drought. As many of you know, the Missouri River is in its seventh year of drought. The Red River Valley does not have enough water to sustain itself during a long-term drought.

It is important to keep this project on schedule. It will be at least six years from today before we can deliver water to the Red River Valley. The Governor's budget includes $12 million for this crucial water supply project. It is essential to our communities; to our region; and to our state to secure a reliable water supply for the Red River Valley.

Again, thank you for allowing my testimony to be heard today.

Handout # 14

Testimony by Clark Cronquist, Director
Lake Agassiz Water Authority

To the

House Appropriations Education and Environment Division
Committee Hearing

Bismarck, North Dakota
March 2, 2007

Chairman Wald, members of the committee, thank you for the opportunity to testify on Senate Bill 2020, the State Water Commission appropriations bill. My name is Clark Cronquist, and I serve on the Agassiz Water Users District and the Lake Agassiz Water Authority Board of Directors.

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Future growth, not only population growth but growth for industry, hinges on providing and delivering a reliable, high quality and affordable water supply to the Red River Valley. Almost all the groundwater in the Red River Valley is fully appropriated. This is a significant issue since there are not any reliable surface water supplies in the valley. The Red River, the main surface water supply, is prone to going dry during long-term droughts. Therefore, growth of any water dependent industry, especially the Ag processing industry, is limited without new water supplies.

Without this project, aquifers that are currently used for irrigation would have to be converted to municipal use; a practice that is common throughout the western United States. We need to protect our current agricultural water uses. We also need to help

bolster our Ag processing industry by providing a much needed new water supply. Without it, new Ag processing industries, such as ethanol and biomass, will not be able to locate in the Red River Valley – North Dakota's Ag producing heartland.

Relating to my own experience, Agassiz Water Users' water supply is from a small aquifer, and in the years 1980 and again in 1988, the water level in that aquifer dropped to a level where the pumps nearly reached the point of not being able to supply water to the system. Since Agassiz Water Users inception, many people have developed small, family-type operations that depend on a stable, dependable supply of water from this system; that is why I am supporting the Red River Valley Water Supply Project.

It is important for you to approve funding for the State Water Commission budget, which includes funding for the Red River Valley Water Supply Project.

Again, thank you for allowing me to testify today.

Handout #15

RED RIVER VALLEY WATER SUPPLY

WATER REQUIREMENTS, FUNDING, TIMETABLE

1. WATER REQUIREMENTS

NAWS – 20,000 acre-feet
SWPP – 12,000 acre-feet
RRVWSP – 88,000 acre-feet
Total = 120,000 acre-feet

Percentage of Water Available –
A. Lake Sakakawea Storage @18 million acre-feet = .667%
B. Missouri River Flow @16 million acre-feet = .75%

2. FUNDING: TOTAL ESTIMATED COST-$600 MILLION

SB 2345

I. Federal Share $200 million (loan)
II. Local Share $200 million (water service contract bonds)
III. State Share $200 million
A. $100 million – MR&I Program
B. $40 million – WDTF Bonding
C. $30 million – RTF (cash)
D. $30 million – General Fund (cash)

3. PHASES

Phase I – $400 million –	Funding
Pipeline to Lake Ashtabula	$200 million local
Treatment (Federal Cost-not	$100 million state
Included in the $400 million)	$100 million federal (loan)

Phase II –$200 million –	Funding
Wahpeton	$100 million state (MR&I)
Grafton Intake	$100 million federal (loan)
Rural Water Supply	

4. TIMETABLE FOR STATE FUNDING

Phase I – 6 years

a. 2007-13 State Funds – $100 million
A. $40 million-Bonding
B. $30 million-General Fund
C. $30 million-Resources Trust Fund
b. 2007-09 $12 million + Bonding Authority (SB 2345)
c. 2009-13 $48 million ($24 million RTF/$24 million GF)

- *Allows state MR&I in Phase II ($100 million)*
- *Realizes significant construction cost savings*
- *Balances federal and state obligation*
- *MR&I requires local match/shared with tribes*

Phase II – 4 years

a. 2013-17+
b. State MR&I Program - $100 million

Testimony

Senate Bill 2020

Friday, January 19, 2007

International Water Institute
Red River Basin Mapping Initiative

Mr. Chairman and committee members,

Good morning. My name is Chuck Fritz, I am the Director of the International Water Institute. The Institute was formed after the 1997 flood to address watershed mapping, research, and education needs in the Red River Basin. The Institute and representatives from the Red River Valley Sugar Beet Growers Association, the ND Soybean Growers Association, ND Grain Growers Association, ND Farmers Union, Cass County, Greenway on the Red, Ulteig Engineers, and Precision Partners are here to provide testimony in support of a Red River Basin project to collect and disseminate high-resolution elevation data.

The Red River Basin Mapping Initiative has four main objectives:

1. The development of a seamless bare earth digital elevation model with 15 centimeter vertical and 1 meter horizontal accuracy for the entire US portion of the Red River Basin
2. The collection of high resolution imagery over selected areas of the Red River Basin
3. The development of a public web-based data archival and dissemination system
4. Public Outreach

The need for high resolution elevation data was identified by the International Joint Commission, the International Flood Mitigation Initiative, and other water management organizations shortly after the 1997 flood. In 1997 – and still today, elevation data in the Red River Basin consists of 10 to 30 meter models which are based on existing USGS topographic maps – many of which date back to the 1950s. The unique geography of the Red River Basin compromises the usefulness of these existing elevation datasets and their application to water resources management and planning, flood forecasting, civil works project development, and precision agriculture.

The Red River Basin Mapping Initiative is expected to cost 5 million dollars. Proposed one-time project funding is split equally between federal and local partners. The local $2.5 million dollar commitment is apportioned between ND and MN, ND local, MN local and major communities along the Red River of the North.

Only very recently has this initiative gathered momentum. Over the past 4 months, funding commitments totaling over $660,000 have been received from local entities in Minnesota and North Dakota. To date, committed funding partners include the cities of

Fargo and Moorhead, the MN Red River Watershed Management Board, and the Buffalo Red Watershed District. We are seeking $600,000 from North Dakota and Minnesota for this initiative. Minnesota Senators Keith Langseth and Rod Skoe are introducing funding language in St. Paul at the current legislative session. We hope ND will also support this important initiative.

In closing, the Red River Basin Mapping Initiative is supported by numerous water management organizations, Fargo, Moorhead, legislators in Minnesota, and grower organizations across the Red River Basin. Publicly available high-resolution elevation data addresses a documented basin-wide need and will provide numerous and profound benefits to basin residents, decision-makers, and producers. We strongly urge members of this committee to support this basin-wide project.

Thank You.

BASIN MAPPING INITIATIVE

Project goal: to develop and deliver a seamless high-resolution digital elevation map of the entire Red River Basin (RRB) to basin resource managers, decision-makers, and residents.

The unique geography of the RRB compromises the usefulness of standard national coverage topographic data sets (i.e. United States Geological Survey Quadrangle Maps) and their application to the decision-making process of the region. Accurate topography is essential to developing disaster resiliency – our ability to predict, understand, respond, and change behavior of affected residents. Accurate topographical information also greatly enhances the abilities of today's decision makers and resource managers and provides the foundation for developing innovative, effective, and defendable resource management strategies.

PROJECT SPECIFICATIONS

The preferred scope includes the entire U.S. portion of the (including the Devils Lake Basin). This approach would maximize the economy of scale benefits and result in consistent end products because the collect would be to one specification and use the same LIDAR sensors.

Data will be collected to FEMA flood plain mapping standards. The International Water Institute will develop a request for proposals, ensure data specifications are met, and contract with the private firm selected to perform the LIDAR data collection.

Deliverables include:

- Bare earth Digital Elevation Model
  - Data points representing latitude, longitude and elevation at the earth's surface (15cm RMSE, 1m horizontal RMSE).
- An open web-based data archival, management, and distribution system using the Red River Basin Decision Information Network (www.rrbdin.org).
- Digital imagery.

Project start date (data collection) is anticipated for spring of 2007. Project length from implementation to completion is expected to last 36 months.

PROJECT BENEFITS

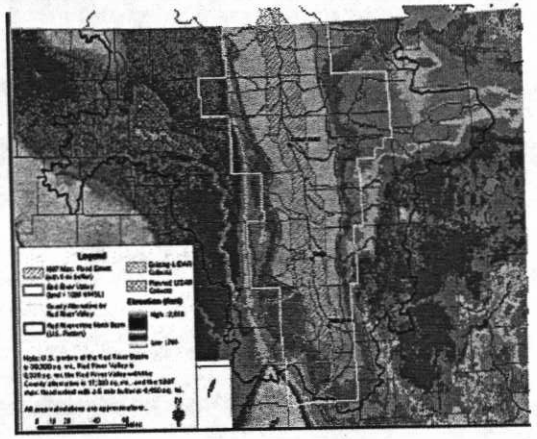
Benefits for resource managers, decision-makers, and residents of the RRB will be profound; enhancing resiliency, capacity, performance, and efficiency at every level of decision-making in each jurisdiction. Known benefits from high resolution data include:

- More accurate flood plain maps
  - Flood damage mitigation
  - Increased flood and drought resiliency
  - Targeted restoration activities
- Enhanced planning and project development
  - Transportation infrastructure
  - Land use management
  - Human development
- Detailed surface hydrologic and hydraulic modeling
- More efficient natural resources management
- Innovative tools for conflict resolution
- Problem identification
- Increased agricultural productivity
- Credible flood damage and natural resource enhancement project site selection criteria
  - Enhanced project evaluation tools
- Major cost reduction in all civic projects

Future applications using high resolution topographic data are boundless and limited only by our ability to comprehend how these data will eventually be integrated with new technologies and used to make decisions that enhance the lives of RRB residents.

PROJECT COST

Estimated cost for bare-earth DEM: $3.743 million - assuming $95/mile^2 with a land surface area of roughly 39,400 miles^2 (including the Devils Lake Basin)



Estimated cost for data quality assurance quality control: $750,000 assuming 20 survey points/land cover class and 5 land cover classes/county

Estimated cost for project management and data archival and dissemination: $507,000 assuming 1.5 FTE (Project Manager), 1.2 FTE (Admin. Support) and 2.0 FTE (GIS/Network specialist)

Total Anticipated Project Cost: $5.0 million (50/50 local/federal cost sharing)

NEXT STEPS

The International Water Institute will continue to develop the necessary funding partnerships at the state, federal, and local level. Expected project start date is spring of 2007.

FAQS

What is a Digital Elevation Model (DEM)?

Data points representing latitude, longitude, and elevation are combined to create a digital representation of the earth's surface.

What is LIDAR?

LIDAR - Light Detection and Ranging is an integration of airborne laser and global position system (GPS) technology. Laser pulses are directed at the earth's surface (early spring or late fall) from equipment aboard an airplane or helicopter flying a predetermined grid over an area of interest. The laser reflections are recorded and the range is calculated from the instrument's orientation in space and the time required for the laser light to travel back to the aircraft.

How accurate is the information collected using LIDAR technologies?

Accuracy is directly related to the altitude of the aircraft and the power of the laser. The current standard:

- Vertical
  - Bare earth: 15 cm (0.492 feet) Root Mean Square Error (RMSE)
  - Vegetation: 27 cm (0.886 feet) RMSE
- Horizontal
  - 1.0m (3.28 feet) RMSE

Are there proven technologies to store and distribute these large scale databases?

Yes. There are numerous public and private examples of models to store and disseminate large amounts of spatial data. The Red River Basin Decision Information Network (RRBDIN) was developed to serve this function (www.rrbdin.org).

PARTNERS

To date the International Water Institute has received financial commitments totaling over $660,000 from the following entities:

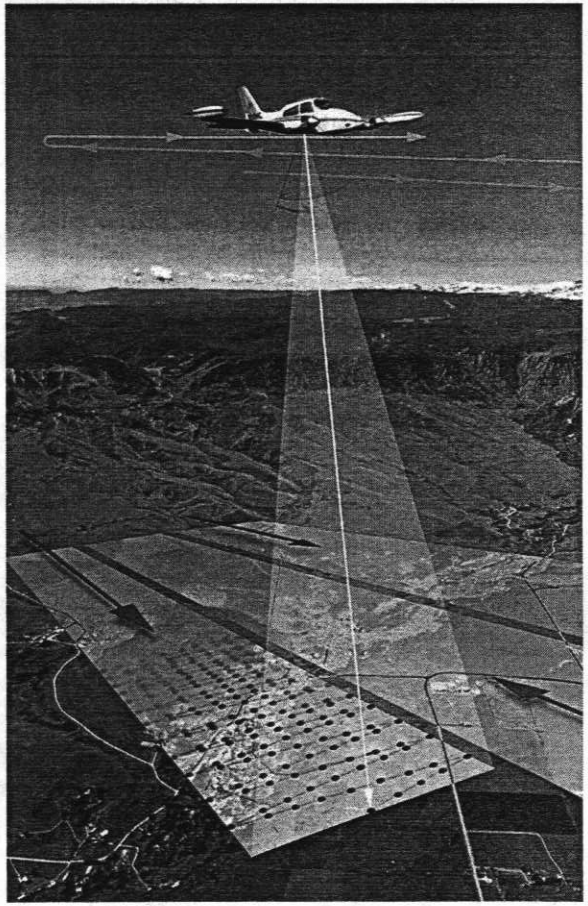
- Red River Watershed Management Board
- Buffalo Red Watershed District
- City of Fargo, ND
- City of Moorhead, MN

InternationalWaterInstitute
Flood research and watershed education for the Red River Basin
1805 Research Park Drive
Fargo, ND 58105
Phone (701) 231-9747
Fax (701) 231-5613

RED RIVER BASIN MAPPING INITIATIVE

"REDEFINING THE LANDSCAPE"

LIDAR Digital Elevation Model



Source: Gary Elwell HKM Engineering, Inc. & Becky Morton Horizons, Inc.

InternationalWaterInstitute
Flood research and watershed education for the Red River Basin

RED RIVER BASIN MAPPING INITIATIVE

Availability of good information lies at the heart of effective and equitable decision making (Allen and Kilvington 1999)

INTRODUCTION

The purpose of this document is to propose a plan and implementation strategy for a Red River Basin Mapping Initiative to develop a high resolution digital elevation model (DEM) for the Red River of the North Basin (RRB) south of the U.S./Canada border using Light Detection and Ranging (LIDAR).

BACKGROUND

Highly accurate DEMs and associated imagery are essential to improving disaster preparedness, protecting existing infrastructure, evaluating and planning flood and drought damage mitigation projects, enhancing agricultural production, and strengthening decision-making capacity at all levels of government. Current technology allows for efficient collection and processing of high-resolution elevation data across large land areas through the use of airborne LIDAR and digital photography platforms. Local, state, and federal agencies have successfully used LIDAR technology to develop DEMs on an incremental (project specific) basis in the RRB; however, there is currently no basin-wide seamless high resolution elevation dataset. These and other successful projects in the US and elsewhere have demonstrated the efficacy, need, and benefits for basin-wide DEM development in this region.

Standard national elevation and topographic data available for the RRB consist of 10 meter or 30 meter elevation models which are based on existing US Geological Survey (USGS) 7.5 minute topographic maps. However, the Red River Basin's unique geography with large areas of very low relief compromises the usefulness of standard national coverage topographic data sets and their application to local, state, regional, and national decision-making processes (IJC 2000). Accurate topography has numerous applications, some of which are fundamental to developing disaster resiliency – our ability to predict, understand, respond, and change behavior before, during, and after disaster events – in the Red River Basin. Accurate topographical information also greatly enhances capacity of today's decision makers and resource managers and provides a crucial foundation for developing innovative, effective, and defendable natural resources and flood and drought mitigation strategies.

The need for accurate topographic data in the RRB has been established by a number of organizations following the devastating flood of 1997.

- The International Joint Commission (IJC) formed the Red River Basin Task Force to assess causes and effects from the 1997 flood. The Task Force made a series of risk reduction recommendations including the need to collect high resolution topographic data and develop a consolidated digital database aimed at improving regional forecasting and modeling capabilities (IJC 2000).
- The US Federal Emergency Management Agency funded the International Flood Mitigation Initiative (IFMI) in 1998. IFMI was charged with developing a series of recommendations aimed at reducing damages from future floods in the RRB. IFMI identified the need for more accurate topographic information and formed the International Water Institute to coordinate research, mapping, and education within the RRB (IFMI 2000).
- The Province of Manitoba concluded there was a compelling need for accurate topographic information after the 1997 flood and funded a large scale LIDAR project for areas south of Winnipeg. The DEM was developed and used in a web-based decision support system that increases access to vital information on flood management and preparedness for the general public, decision-makers, and emergency management personnel (Manitoba 2004).
- The US Army Corps of Engineers conducted a study to evaluate the need for high resolution digital elevation data collection in the RRB. The report concluded that a data collection plan for securing LIDAR should be developed to compliment the Canadian approach (USACOE 2004).

Eventually, we must expect that all areas of the RRB will someday have high-resolution information. The use of proven technologies and known economies of scale associated with collecting this information provide sound logic for a basin-wide collection project. The cities of Fargo, ND and Moorhead, MN and other state and local partners have funded a number of LIDAR collects in and around the municipal areas. The level of effort

necessary to merge LIDAR data from the various collection efforts is considerable and costly; even when the information was collected by the same vendor at different times (Bittner 2006). In addition to the mapping efforts in Fargo, ND and Moorhead, MN, there are a number of relatively small scale DEM projects that have been completed or are currently underway. In recent months over $650,000 has been committed to disparate small-scale DEM projects in the Red River Basin. Although the accuracy and deliverables specified for these projects appear to be comparable, the costs range from $165/square-mile (Busing 2006) to over $350/square-mile Basin (Yohe 2006 and Oosterveen 2006).

There are also a number of statewide digital elevation projects such as North Carolina and Iowa which demonstrate the economies of scale and the need for a coordinated DEM effort in the Red River Basin (Ensminger 2006). The lessons learned from these larger-scale projects and the other smaller-scale mapping initiatives in the region will ensure data accuracy requirements are met (through third party benchmark surveys and validation) and provide a working model for data archival and dissemination of the information via the Internet. Most importantly, these efforts magnify the importance of a coordinated and large-scale collection effort that maximizes the return on investment of public funds.

BENEFITS

The Red River Basin Mapping Initiative has a documented need and benefit to basin residents and decision-makers. The benefits will be extensive and profound; enhancing resiliency, capacity, performance, and economic efficiency at every level of decision-making in North Dakota, Minnesota, and Manitoba. Known uses and benefits of high-resolution elevation data include:

- Increased agricultural productivity
    - Precision agriculture, fertility mapping, micro-drainage, updated soil mapping units, erosion mitigation, culvert sizing, identify lime/saline areas, carbon sequestration prioritization
- Enhanced flood and drought damage mitigation
    - Enhanced flood and drought forecasting, more accurate flood plain maps, flood prevention and flood plain management, powerful decision-making tools for residents and decision makers
- Enhanced planning and project development
    - Transportation infrastructure, land use management, flood storage volume calculations, project alternatives analysis, flood storage pool impacts, preliminary design and quantity cost estimate, wetland and stream restoration, riparian zones, site prioritization for runoff storage and natural resources enhancement, archeology, dam rehabilitation and breach analysis studies, confined animal feeding operation placement
- Detailed surface hydrologic and hydraulic modeling
    - Base layer for accurate modeling (i.e. HEC-RAS, Win-TR-20, FLO-2D, MIKE 11, and NRSC Hydro), permit reviews, drained area delineations, supplement river cross section data, water quality modeling, sediment and erosion analysis, debris flow hazard, landform and surface feature identification and extraction, calculate sheet and rill erosion, water risk assessment
- Ecological monitoring
    - Reference site assessment and selection, grass buffer strips, field data collection, basin studies, resources and watershed evaluations, gully and stream channel erosion and deposition, forestry management
- Conflict resolution
    - Problem identification, terrain visualization, landform positioning and identification

The high resolution elevation data will result in substantial cost reductions for all civil works projects. LIDAR data is known to reduce FTE time and costs on transportation projects (NCRST-E 2006). The MN Wild Rice Watershed District (WRWD) recently completed a smaller-scale LIDAR project with other local governmental partners. The WRWD expects to save over $20,000 in preliminary survey costs this year alone (Bentz 2006). According to engineers from the Red River Watershed Management Board's Technical Advisory Committee, high-resolution LIDAR information would save a minimum of $10,000 on a "typical" flood damage reduction project (larger-scale projects would realize even higher cost savings). Most importantly, high resolution LIDAR information would reduce the number of "false" project starts, strengthen the decision-making process, and enable

project planning and conceptual design to occur at a much more accurate scale which would further reduce costs (Dalager 2006 and Anderson 2006).

High resolution topography is also a fundamental piece of information needed for precision farming. A publicly funded LIDAR collect would reduce the cost of implementing precision farming systems on private operations in the Red River Basin collection area by half. Precision farming is a fast growing industry that has consistently been shown to decrease water pollution, increase yields resulting in an economic benefits of approximately $40/acre/year, and reduce inputs by approximately $12/acre/year. Return on investment for the sugar beet industry alone could be expected to exceed $500,000/year (Nesbitt 2006).

Future applications using high resolution topographic data are limited only by our ability to comprehend how these data will eventually be integrated with new technologies and used to make decisions that enhance the regional economy and lives of RRB residents.

STRATEGY

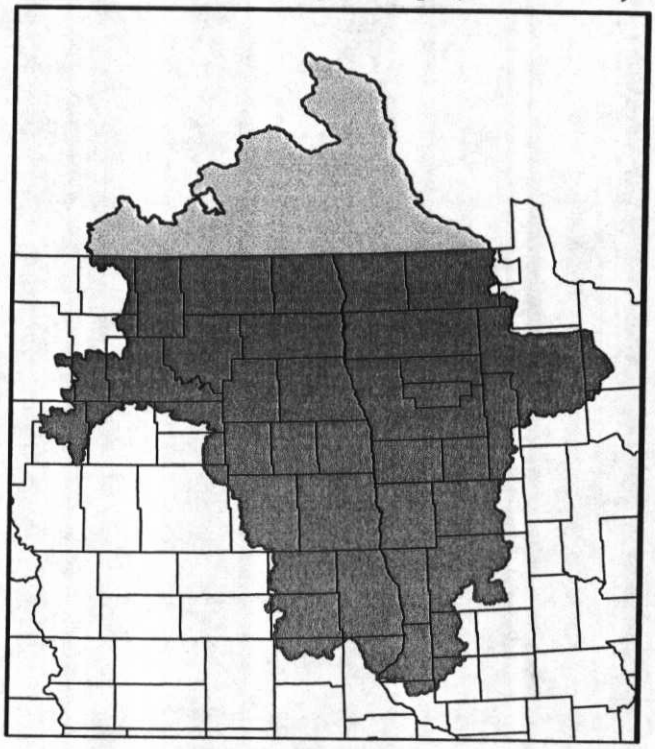
The International Water Institute (Institute) will act as project manager and convene a Red River Basin Mapping Initiative Steering Committee to provide project oversight and management direction. The Steering Committee will be responsible for developing and submitting a request for proposals and the final selection of the vendor and third party verifier. The Steering Committee will work with the project manager and the entity contracted to perform the third party validation and quality assurance quality control to make final approval for all products submitted for payment by the chosen mapping vendor. The Steering Committee will also be responsible for developing appropriate data storage, maintenance protocols, and distribution mechanism through the Red River Basin Decision Information Network. The Committee will include selected members of the Red River Watershed management Board's Technical Advisory Committee, selected members from ND and MN agencies, and representatives from other local, regional, and federal agencies that are funding partners.

PROJECT SCOPE AND DELIVERABLES

The Red River Basin Mapping Initiative planned collection area (Figure 1) consists of 39,400 square miles and includes the entire US portion of the Red River Basin (including Devils Lake). The project has 4 proposed main deliverables:

1) Bare earth digital elevation model
2) Digital orthophotography/imagery
3) Data archival and dissemination
4) Public outreach

Figure 1. Project Geographic Scope (USCOE 2004).



The bare earth DEM will consist of 15cm vertical and 1m horizontal accuracy. All spatial products will meet or exceed US Federal Emergency Management Agency standards for flood plain mapping (FEMA 2006) and the Federal Geographic Data Committee standards for geospatial metadata (FGDC 2006). All groundwork work needed to collect the information and ensure desired specifications will be the responsibility of the vendor. Deliverable quality assurance - quality control will be ensured through contracts with a third party and extensive ground surveys. We anticipate that the ground truth surveys will include 100 points/county (20 point per land cover class and 5 land cover classes per county).

The scope and resolution of digital orthophotography/imagery collection will be determined by the Steering Committee. We anticipate the imagery deliverable will not exceed the expected total project cost; however, the extent of imagery coverage will depend on available funds and the wishes of the local funding partners. If bids exceed the expected project cost, the Institute will work with local, state, and federal partners to prioritize areas for imagery collection and proceed accordingly.

The US Department of Agriculture collects imagery through their National Imagery for the Nation Program (NAIP). NAIP makes available national imagery that includes the Red River Basin. The information is updated annually (USDA 2006). Depending on the final project budget and the responses to the request for proposals, the NAIP may provide an alternative avenue for project partners to obtain digital imagery.

Technologies for storing and disseminating digital elevation and photography are proven and well established. The Red River Basin Decision Information Network (RRBDIN) will be used for data archival and dissemination. RRBDIN is hosted by the Institute and partners at North Dakota State University (NDSU). The Internet site was developed to serve as a one-stop-shopping for information in the Red River Basin. Spatial products from the Red River Basin Mapping Initiative will be stored on a dedicated server and delivered through the Internet free of charge. NDSU will provide operation and maintenance services and the necessary bandwidth for disseminating the information. The Steering Committee will decide which mapping products will be made available based on user needs and budget constraints. We expect to prepackage the spatial products (which will include at a minimum the raw point data, bare earth DEM and some extent of imagery) to facilitate access and deliverability via the Internet.

The Institute and partners at NDSU would be responsible for data storage and dissemination. The Institute will work with the Steering Committee to develop acceptable protocols for future updates to the seamless RRB DEM. Although most of the rural areas collected would not need updating in the foreseeable future, LIDAR information collected in and near municipal areas will need to be re-collected periodically. In many cases, small changes on the landscape (i.e. new levy construction/expansion) could be manually inputted by manipulating the DEM on a desktop computer. Future updating of larger areas that would require re-flying and LIDAR data collection would be the responsibility of the entity seeking the new information.

Public outreach will include brochures and media products to inform residents and decision-makers of the Basin Mapping Initiative products and explain how the information will be used in the Red River Basin. A series of focus group meetings will be held with engineers, and researchers, and floodplain managers to obtain feedback and comments on the outreach products as well as the web-based dissemination system.

PROPOSED/EXPECTED BUDGET

The project budget was developed after numerous consultations with representatives from private LIDAR vendors, civil engineers, project managers of large and small scale LIDAR projects that have been completed and are being planned in the US and Canada, and agency representatives from the USGS and other federal agencies (Table 1).

The budget was developed with the assumption that each component of the project would be sub-contracted through the International Water Institute as a separate and independent deliverable. The budget includes resources for the Institute and partners to develop the web accessible data archival and dissemination system through the Red River Basin Decision Information Network or other appropriate publicly accessible vehicle that would be determined by the Steering Committee. Initiative partners may also choose to host the relevant spatial information on other established platforms.

The proposed funding formula identifies 6 main partners (Minnesota Local, Minnesota State, North Dakota Local, North Dakota State, Red River Basin major cities, and the Federal Government). The Institute has recently secured formal commitments in the amount specified from Watershed Districts in Minnesota and the cities of Fargo, ND and Moorhead, MN (Table 2). These committed partners have expressed their desire for a basin-wide DEM effort and believe the proposed project scope will provide the greatest future return on

investment of public funds. The Institute hopes to have the funding partnerships committed by the spring of 2007.

Table 1. Proposed Budget.

Red River Basin LIDAR Project - US portion of the Red River Basin (including the Devils Lake Basin) 39,400 square miles - assumes a 2-year project timeline

	Objectives						Budget Summary Breakout	
1	Collect bare-earth DEM/digital orthophotos							
2	Develop data archival and dissemination capacity					Subawards	IWI	$361,902
3	Quality assurance/quality control						LIDAR	$3,743,000
4	Outreach and education						Project tech partner	$180,099
							Third Party Verification	$725,000
								$5,000,001
	IWI Personnel	% FTE	Salary	Fringe (30%)	Total			
3,2	Web development	Hourly	$42,129	$12,639	$54,768			
1,2,3,4	Senior Project Manager	1.5	$105,000	$31,500	$136,500			
2,3,4	Secretarial/Admin Support	1.2	$28,000	$8,400	$36,400			
			$175,129	$52,539	$227,668			
	Travel		Miles	Rate/mile	Total			
1,2,3,4			3571	0.41	$1,500			
	Equipment		# unit	Cost/unit	Total			
2	Terrabyte Server		1	$10,000	$10,000			
2,3,4	Supplies/Other (Brochure, CDROM, Promo, workshop)				$10,000			
		Subtotal			$249,168			
	Subcontract		Salary	Fringe	Total			
2	Salaries (Programmer)	2	$80,000	$24,000	$104,000			
			Miles	Rate/mile	Total			
1,2,3	Travel		3,571	$0.41	$1,500			
1,3	Materials and Supplies				$10,000			
	F&A (40%)				$64,599			
		Subtotal			$180,099			
1	Data collection (LIDAR/Digital Orthophotos)		Sq. Miles	Cost/sq. mile	Total			
			39,400	$95	3,743,000			
3	Survey/Engineering	RRB Counties	Points	Cost/point	Total			
		29	100	$250	$725,000	(N. Carolina Example - 20 points/landcover class - 5 landcover class/county)		
		Subtotal			$4,648,099			
	Total Direct Costs				$249,168			
	F & A (includes 34.34% of first 25,000 subcontracts)				$102,734	2 sub awards - >$25,000 each - NDSU (or other) and engineering firm		
	Total Project Costs				$5,000,001			

Table 2. Proposed Funding Formula.

Total Project Cost	$5,000,000						
			Scenario 1				
			50%:50%				
Cost Allocation			Total	Percent	Authorized	Date	
Federal Government			$2,500,000	0.5	Pending		
North Dakota			$600,000	0.25	Bill introduced (Senator Tom Fisher)		
Minnesota			$600,000	0.25	Bill introduced (Senator Keith Langseth)		
North Dakota Local			$550,000	0.25	Pending		
Buffalo Red Watershed District			$50,000	0.01	X	9/25/2006	
MN Local (RRWMB)			$500,000	0.25	X	8/15/2006	
Sub-Total			$4,800,000	1.51			
Remaining			$200,000	0.05			
			75%:25%				
Cities	Population	Percent	Total				
Fargo	90,599	0.44	$88,118		X	8/15/2005	
Moorhead	32,177	0.16	$31,296		X	10/2/2006	
Grand Forks	48,231	0.23	$46,910		Pending		
East Grand Forks	7,536	0.04	$7,332		Pending		
Wahpeton	8,586	0.04	$8,351		Pending		
Breckenridge	3,559	0.02	$3,462		Pending		
West Fargo	14,940	0.07	$14,531		Pending		
Sub-Total	205,630	1	$200,000		Pending		
Total Income	$5,000,000		Total Income Secured 1/2007			$1,969,414.*	
						* assumes ND and MN bill passage	
Organizations in support							
ND Soybean Growers Association							
Red River Valley Sugar Beet Growers Association							
MN Wheat Growers							

For More Information Contact:
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Telephone: (701) 231 – 9747/Fax: (701) 231- 5613

FREQUENTLY ASKED QUESTIONS

What is LIDAR?

LIDAR - Light Detection and Ranging integrates airborne laser and global position system (GPS) technologies. Laser pulses are directed at the earth's surface from equipment aboard an airplane or helicopter flying a predetermined grid over an area of interest. The reflections are recorded and the range is calculated from the instrument's orientation in space and the time required for the reflected laser light to travel back to the aircraft.

Is the LIDAR data collection the only task for generating a DEM?

No. LIDAR data is processed in three stages:

1- Preprocessing
2- Computer surfacing
3- Manual editing

Final products are generated based on the objectives of the collect. Each of these stages has its own specific set of tasks and level of effort (cost) to complete.

How accurate is the information collected using LIDAR technologies?

Accuracy is directly related to the altitude of the aircraft and the power of the laser. Standard accuracies of most recent collects meet or exceed:

- Vertical
  - Bare earth: 15 cm (0.492 feet) Root Mean Square Error (RMSE)
  - Vegetation: 27 cm (0.886 feet) RMSE
- Horizontal
  - 1.0 m (3.28 feet) RMSE

All Red River Basin Mapping Initiative data will meet or exceed the US Federal Emergency Management Agency standards for flood plain mapping <http://www.fema.gov/plan/prevent/fhm/LIDAR_4b.shtm>.

How much data is colleted?

The size of the data set is considerable and depends on the extent of the region being flown. As a general rule, one day of flying/data collection (using a 50 - 150 KHz laser) results in 150 – 200 million elevation points or roughly 1 gigabyte of LIDAR, GPS, and Inertial Measurement Units (IMU) data.

Are there proven hardware and software technologies to manage and disseminate these large-scale data sets?

Yes. There are numerous public and private examples of models to store and disseminate large amount of spatial data. Minnesota has developed the Minnesota Geographic Data Clearing House <http://www.lmic.sate.mn.us/chouse/index.html> and the Data Deli <http://deli.dnr.state.mn.us/>. North Dakota has developed its own GIS Data Hub <http://www.state.nd.us/gis/>. Perhaps most notable is the USGS's Earth Observation and Science <http://edc.usgs.gov/> and North Carolina's web-based flood plain mapping center <http://www.ncfloodmaps.com/default_swf.asp> that was developed following a recently completed statewide LIDAR and DEM development project as a result of Hurricane Floyd. The Red River Basin Decision Information Network (RRBDIN) was developed to serve as a one-stop mapping and information system <http://www.rrbdin.org>. RRBDIN is currently housed at North Dakota State University and is a recognized basin-wide website established to disseminate GIS data in a decision support context.

Has high resolution elevation data been collected in other areas of the Red River Basin?

Yes, there have been a number of LIDAR collects in the U.S. portion of the Red River Basin <http://www.rrbdin.org/data/LIDAR.jsp>. To date, the largest single data collection effort in the RRB has occurred in Manitoba <http://geoapp.gov.mb.ca/website/rrvfp/>. The Energy and Environmental Research Center is currently post collection processing data collected from the Forest River Watershed in North Dakota (roughly 6,000 miles^2). Efforts currently underway include portions of the Red River Valley in MN (Busing 2006) and an area in the Pembina River watershed along the US and Canada border (Yohe 2006).

CITATIONS

Allen, W. and M. Kilvington. 1999. "Why Involving People is important: the forgotten part of environmental information system management." Landcare Research, NZ. *Proceedings: 2nd International Conference on Multiple Objective Decision Support Systems for Land, Water and Environmental Management* (MDOSS '99) Brisbane, Australia, 1-6 August 1999.

Anderson, Charlie. 2006. Personal Communication, Red River Watershed Management Board Technical Advisory Committee Engineer, JOR Engineering, Alexandria, MN.

Bentz, Jerry. 2006. Personal Communication, Wild Rice Watershed Engineer, Houston Engineering, Inc., Fargo, ND.

Bittner, Mark. 2006. Personal Communication, City Engineer, City of Fargo, ND.

Busing, Aaron. 2006. Personal Communication, Project Engineer, MN DNR Red River Valley LIDAR Pilot Project, US Army Corps of Engineers, St. Paul, MN.

Dalager, Nathan. 2006. Personal Communication, Red River Watershed Management Board Technical Advisory Committee Engineer. HDR Engineering, Thief River Falls, MN.

Ensminger, Chris. 2006. Personal Communication, Project Manager Iowa Statewide Mapping Project, Iowa Department of Natural Resources, Des Moines, IA.

Federal Emergency Management Agency (FEMA). 2006. *Appendix B. Geospatial Data Accuracy Standards.* <http://www.fema.gov/pdf/fhm/lidar_4b.pdf>. Online October , 2006.

Federal Geographic Data Committee (FGDC). 2006. *Geospatial Metadata Standards.* <http://www.fgdc.gov/metadata/geospatial-metadata-standards>. Online November 2006.

International Joint Commission (IJC). 2000. *Living with the Red: a Report to the Governments of Canada and the United States on Reducing Flood Impacts in the Red River Basin.* <http://www.ijc.org/php/publications/html/living.html>. Online November 2004.

International Flood Mitigation Initiative (IFMI). 2000. *International Flood Mitigation Initiatives for the Red River Basin.* <http://www.agree.org/upload/projects/IFMI%20Update.pdf>. Online November 2004.

Manitoba 2004. Red River Valley Flood Protection. <http://geoapp.gov.mb.ca/website/rrvfp/>. Online November 2004

National Consortium on Remote Sensing in Transportation – Environmental Assessment. (NCRST-E). 2006. Economic Benefits of Remote Sensing in transportations: Case Studies of Environmental Analysis in Transportation Planning. <http://www.ghcc.msfc.nasa.gov/land/ncrst/rscostbene.html>. Online November 2006.

Nesbitt, Jeff. 2006. Personal Communication, Owner and Chief Executive Officer, Precision Partners, Inc., Fergus Falls, MN.

Oosterveen, John. 2006. Personal Communication, Agriculture and Agri-Food Canada, Winnipeg, MB.

United States Army Corps of Engineers (USACOE). 2004. Basin-level Digital Elevation Models Availability and Applications: The Red River of the North Basin Case Study. *IWR Report 04-R-1.* U.S. Army Corps of Engineers Civil Works Research and Development Program. Washington D.C.

US Department of Agriculture (USDA). 2006. Arial Photography Field Office. <http://165.221.201.14/NAIP.html>. Online November 2006.

Yohe, Lance. 2006. Personal Communication, Executive Director, Red River Basin Commission, contract manager for the Pembina River LIDAR Project. Moorhead, MN.

Testimony

Senate Bill 2020

Friday, January 19, 2007

International Water Institute
Red River Basin Mapping Initiative

Mr. Chairman and committee members,

Thank you for the opportunity to testify on this important issue. My name is Jeffrey Nesbitt. I own a Precision Agriculture consulting and mapping company called Precision Partners, Inc. Precision Partners incorporated as a North Dakota company in 1997 to provide farmers and those who provide services to farmers with GPS based solutions that help improve profitability through precise management of yield variability within a field. Ten years later, Precision Partners is an industry leader in providing products that save input costs while improving yield and crop quality in corn, wheat, barley, corn, edible beans, sugar beets, and potatoes. Over 250,000 acres of variable rate prescriptions were written by my company in 2006 for fields in nine states. Over 100,000 acres are applied in North Dakota and western Minnesota alone.

One of our most effective products uses survey grade elevation data with remote sensing of vegetation from satellites to manage fertility and micro drainage. This product currently relies on a survey to be collected of the field topography by either a topographical data ground collection or from data collected from highly accurate auto steering GPS. This data is then used to build plans that improve fertility management practices that prevent over application or to improve micro drainage plans.

The benefits of this product are well documented. Due to the increasing cost of Natural Gas in the recent past, our fertilizer program is saving North Dakota farmers $12.12 per acre on average. We are able to show marked improvement in revenue due to increased yield and quality of $20.00 to $50.00 per acre depending on the crop we are managing.

Benefits to growers through are micro drainage program are well documented. Proper management of water improves yield and quality dramatically while saving associated costs of harvest and insurance costs. We have documented benefits of $50.00 per acre due to these improvements.

Our programs have great benefit to the environment and society as well. In crop year 2005, our products removed over 1000 tons of nitrates from the Red River Basin. In 2004 the Risk Management Agency reported paying in excess of $80,000,000 for water caused crop damage in North Dakota. Proper micro drainage planning lowers the risk of large payouts such as this.

The challenge that we face in the growth and adoption of these programs is collecting topography data on a large scale economically. Farmers pay more for

the services that we provide because of the necessity of a field by field collection of data. A basin wide LiDAR collect would not only make the local survey unnecessary, it would allow us to make plans that measure and manage effects downstream.
Recently, my company became a tenant of NDSU's Small Business Incubator in NDSU's Research Park in Fargo. We have also committed money and in kind expertise for the development of NDSU's proposed Precision Agriculture Center of Excellence. It is our intent to work closely with the University to establish existing technology training and new technology development to provide these beneficial products to growers throughout the state. This LiDAR collect will allow a much larger group of farmers to experience those benefits at a reasonable and economical cost.

I appreciate the time and efforts by the legislature to help provide this important technology to the people of North Dakota. This testimony is a brief definition of the opportunities provided by this technology. Please feel free to contact me with any questions or clarifications you might wish.

Respectfully Submitted by:

Jeffrey Nesbitt
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Testimony
In support of the
Red River Basin Mapping Initiative

On behalf of **Greenway on the Red**
Senate Bill 2020
Friday, January 19, 2007

Chairman Fisher and Committee Members:

Thank you for the opportunity to provide input on behalf of the Greenway on the Red, in support of the **Red River Basin Mapping Initiative** of the International Water Institute, to collect and disseminate high-resolution elevation data across the Basin.

My name is Genevieve Thompson. I coordinate the Greenway on the Red, which was formulated by the International Flood Mitigation Initiative in response to the devastating Red River flood of 1997. The mission of the Greenway is to link the people and communities of the Red River Basin from Lake Traverse (SD) to Lake Winnipeg through the establishment of a 600-mile continuous Greenway along the Red River and its tributaries. The primary objective of the Greenway is to mitigate flood damage. In so far as the Greenway entails the protection and restoration of riparian and wetland areas in the floodplain, it also contributes to water quality protection and channel stability in the Red River. In addition it provides contiguous wildlife habitat and related recreational benefits, with associated economic/community-strengthening contributions throughout the Basin.

Implementation of the Greenway on the Red will be significantly enhanced by the basin-wide collection and dissemination of high-resolution elevation data, as proposed by the Red River Basin Mapping Initiative of the International Water Institute. An essential first step in Greenway implementation is the assessment and inventory of ongoing Greenway efforts, together with a preliminary analysis of impaired sites. Ongoing data needs also include spatial analysis of adjacent land use, hydrologic soils and drained/existing wetlands, and slopes and elevations relative to the river. Digital elevation models (DEM) of sufficient resolution are essential to prioritize Greenway sites and maximize cost-effective flood resiliency.

Existing basin-wide digital elevation mapping is at a scale that is incapable of detecting the subtle topological variation of the Red River Basin, as depicted by the image on the left, which shows our region as indistinctly gray. As illustrated by the right-hand image, the Red River Basin Mapping Initiative will provide the Greenway, as well as many other stakeholders in the Red River region, with the high resolution elevation data that will help ensure that the limited resources available to the Greenway for flood protection and resiliency are directed to the areas that will provide the most cost- and resource-effective benefits to the Red River Basin. Thank you for your potential support of this critically important request.

January 19, 2007

Testimony before the Agriculture Committee
Brynhild Haugland
Tom Fisher, Chairman

Senate Bill 2020 – Relating to Red River Basin Mapping Initiative

Chairman Aylmer [redacted] and members of the committee, my name is Jared Hagert, President of the ND Soybean Growers Association. I am here today to show my Board's support of the Red River Basin Mapping Initiative project.

The North Dakota Soybean Grower's Association supports funding of the Red River Basin Mapping Initiative because it performs three major functions:

1. **The project provides a seamless topographical map of the entire RRV Basin.**

   Since most of our membership is located in the RRV Basin, this information would be valuable because it allows access to high quality data that is uniform in nature. This information would allow producers and non-producers alike to make common sense decisions on a variety of projects including surface drainage and flood plain management.

2. **The project would be an effective tool for Townships and Counties located in the RRV Basin.**

   This project would be a great asset to add to the toolbox of Township Board members, County Commissioners, and Water Board members

alike. With this information they would have the data to make informed decisions in their communities related to zoning or culvert sizing.

3. This information will allow all agricultural producers thru precision farming systems to reduce input costs and increase overall productivity and profitability of their farming operations.

Are there any questions?

Thank you for you time today.

MOORHEAD
MINNESOTA
500 Center Avenue, Box 779 • Moorhead, MN 56561
(218) 299-5166 • TDD/Relay 711
www.ci.moorhead.mn.us

October 2, 2006

Charles Fritz
Director, International Water Institute
1805 Research Park Drive
North Dakota State University
Fargo, ND 58102

RE: Red River Basin Digital Elevation Model Project Funding

Dear Chuck:

The City of Moorhead supports the development of a digital elevation model for the Red River Basin and the funding proposal prepared by the International Water Institute to complete the project.

To that end, we will request that the City Council allocate $31,296 in the City's 2008 annual budget to fund the City's contribution to the project.

If I can be of further assistance, please let me know.

Sincerely,

Robert A. Zimmerman, Ph.D., P.E.
City Engineer

REPORT OF ACTION

PUBLIC WORKS PROJECTS EVALUATION COMMITTEE

Project No.

Type: Resolution of Support
Red River Basin Digital Elevation Model

Location: Red River Basin

Date of Hearing: 09/06/05

Routing	Date
City Commission	9/12/05
PWPEC File	X
Project File	
Petitioners	Charles W. Fritz
David W. Johnson	

Since the 1997 Red River flood, a number of groups have been pursuing the development of a comprehensive digital elevation model (DEM) of the Red River Basin. Good elevation data is critical in making good decisions for flood emergency planning and flood plain management. The City of Fargo was fortunate to have a DEM available in preparation for and recovery from the 1997 flood. The International Joint Commission (IJC) recommended DEM collection in their 1997 flood report. The International Flood Mitigation Initiative (IFMI) also recommended proceeding with a basin wide project. The Red River Basin Institute, International Water Institute (IWI) and Energy and Environmental Research Center (EERC) all have been supportive of the effort.

A number of smaller scale DEM projects have been completed recently and a number are in the planning stage. Agencies involved in these DEM projects include the cities of Fargo and Moorhead, FEMA, Corps of Engineers, MN DNR, Buffalo Red Watershed District, Cass and Clay Counties, SE Cass Water Resource District, ND SWC, EERC and others. The Province of Manitoba, following the 1997 flood, completed a comprehensive DEM collection for the Red River flooded areas.

The cost of a basin wide DEM collection is in the $10 to $12 million range. Finding funding has been an obvious challenge.

The IWI has been soliciting federal, state and local partners in an effort to move forward with a DEM project.

On a motion by Dennis Walaker, seconded by Mark Bittner, the Committee voted to recommend approval of a Resolution of Support for a basin wide DEM project.

RECOMMENDED MOTION
Approve Resolution of Support for Red River Basin Digital Elevation Model collection project.

PROJECT FINANCING INFORMATION:
Recommended source of funding for project: Storm Sewer Utility

	Yes	No
Developer meets City policy for payment of delinquent specials		N/A
Agreement for payment of specials required of developer		N/A
30% escrow deposit required		N/A

COMMITTEE

	Present	Yes	No	Unanimous
				X
Pat Zavoral, City Administrator	X	X		
Jim Gilmour, Planning Director	X	X		
Bruce Hoover, Fire Chief	X	X		
Mark Bittner, City Engineer	X	X		
Robert Wetton, City Engr/Utilities	X	X		
Dennis Walaker, Public Works Operations Director	X	X		
Steve Sprague, City Auditor				

ATTEST:

Mark H. Bittner
City Engineer

Red River Watershed Management Board

Basin DEM Project
Resolution of Support

Whereas, there is a documented need in the Red River of the North Basin to acquire high resolution topographic data and develop a seamless digital elevation model that can be used for a wide variety of resource management planning, project development, and decision support purposes; and

Whereas, there are economies of scale when collecting high resolution digital elevation data and there are a number of smaller high resolution collection projects being planned in the Red River Basin by the Minnesota Department of Natural Resources, the International Joint Commission, and the State Water Commission and others; and

Whereas the Red River Watershed Management Board includes membership from eight watershed districts in Minnesota who will benefit from high resolution digital elevation data; and

Whereas the entire Red River of the North basin (US) high resolution elevation and modeling project is expected to cost approximately $4.5 - $5.0 million dollars.

Therefore be it resolved that the Red River Watershed Management Board seeks to acquire high resolution elevation data for the US portion of the Red River of the North Basin and will make available up to $500,000 (or 10% of the total project cost, whichever is less) for a high resolution data collection and digital elevation model project beginning in the spring of 2007; and

Therefore be it further resolved that the availability of Red River Watershed Management Board funds will be contingent on a matching financial commitment from North Dakota and other state, federal and local partners representing lands outside of the Red River Watershed Management Board who will benefit from the digital elevation model.

Therefore be it further resolved that the Red River Watershed Management Board directs the Technical Advisory Committee to develop a request for proposals describing the scope and technical components of a basin digital elevation model for the Red River of the North Basin.

Adopted 8-15-06

P.O. Box 763 • Detroit Lakes, MN 56502-0763
www.rrwmb.org • PH: (218) 844-6166 • FAX: (218) 844-6167

BUFFALO - RED RIVER WATERSHED DISTRICT

BARNESVILLE, MINNESOTA 56514
123 FRONT STREET SOUTH — P.O. BOX 341 PHONE 218 354-7710

September 27, 2006

Charles W. Fritz, Director
International Water Institute
1805 Research Park DR
North Dakota State University
Fargo, ND 58102

RE: Red River Basin Mapping Initiative

Chuck,

Enclosed, as approved by the Board of Managers, Buffalo-Red River Watershed District (BRRWD), at their meeting held in Barnesville on 9/25/06, please find Resolution No. 06-01, supporting your efforts regarding the above.

Please keep us apprised of the development status. We look forward to partnering with the International Water Institute (IWI) in this regard. If the project is completed, it will be a very beneficial tool for the BRRWD regarding water management.

If you should have questions or comments concerning the above or enclosed, please feel free to contact this office.

Sincerely,

BUFFALO-RED RIVER

Bruce E. Albright
Office Administrator

BEA/jj
Encl: As noted above

RESOLUTION #06-01

Whereas, there is a documented need in the Red River of the North Basin to acquire high resolution topographic data and develop a seamless digital elevation model (DEM) that can be used for a wide variety of resource management planning, project development, and decision support purposes; and

Whereas, there are economies of scale when collecting high resolution digital elevation data, and recognizing that there has been a number of smaller high resolution collection projects conducted in the Red River Basin by the Minnesota Department of Natural Resources, the International Joint Commission, the State Water Commission, and others; and

Whereas, the Buffalo-Red River Watershed District (BRRWD) encompasses approximately 1,760 square miles within the Red River of the North Basin and whose residents would benefit from high resolution digital elevation data; and

Whereas, for the entire Red River of the North Basin (US), a high resolution elevation and modeling project is expected to cost approximately $4.5-$5.0 million;

Therefore, be it resolved that the BRRWD seeks to participate in acquiring high resolution elevation data for the US portion of the Red River of the North Basin and will make available $50,000 for a high resolution data collection and DEM project beginning in the spring of 2007; and

Therefore, be it further resolved that BRRWD's financial commitment to the basin DEM project will be contingent on the BRRWD's future funding availability and proportionate financial commitments from other local, state, and federal partners representing lands outside of the BRRWD who will also benefit from the DEM, with the understanding that if this project moves forward, final costs to the various participants will be based on a proportionate share.

Adopted the 25th day of September, 2006, by the Board of Managers, BRRWD, at their meeting held in Barnesville.

Roger C. Ellefson
Chairman

ATTEST:

Bruce E. Albright
Bruce E. Albright
Administrator

NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION
1411 38nd Street S Ste 3, Fargo, ND 58103-6304 • (701) 239-7194 • Fax (701) 239-7191

December 21, 2006

Charles Fritz
Director, International Water Institute
1805 Research Park Drive, NDSU
Fargo, ND 58102

Dear Mr. Fritz,

The North Dakota Soybean Growers Association is committed to increasing the profit potential for ND soybean producers. The International Water Institute's Red River Basin Mapping Initiative will develop and deliver seamless high resolution digital elevation data. These high-resolution elevation data are essential to developing precision agriculture systems that are proven to increase yields and profit margins of producers.

The ND Soybean Growers Association strongly supports the Red River Basin Mapping Initiative. Please feel free to contact us if we can assist in your efforts. We look forward to hearing from you.

Sincerely,

Jared Hagert
President
North Dakota Soybean Growers Association

PRINTED WITH SOY INK

North Dakota Farmers Union
PO Box 2136 • Jamestown ND 58402-2138 701-252-2341 • 800-366-8331 www.ndfu.org

CARBON CREDIT PROGRAM

National Farmers Union Carbon Credit Program
Dale Enerson, Director denerson@ndfu.org
Connie Sova, Associate csova@ndfu.org

January 10, 2007

Dear Mr. Fritz,

The ND Farmers Union is committed to the prosperity of family farms, ranches, and rural communities. The collection and distribution of high-resolution elevation data in the Red River Basin would result in a number of benefits for our members in eastern ND including flood damage reduction and drought management, increased field productivity, and better on-farm resource management.

In addition, we are working with producers to help them market carbon offsets on the Chicago Climate Exchange. Additional high quality imagery will help in determining exact land descriptions and characteristics to further facilitate trading for producers in this area. Through National Farmers Union we are also helping producers in Minnesota with carbon sequestration efforts, so this could have whole basin impacts.

We strongly support the International Water Institute's efforts to collect and disseminate high-resolution elevation data through Red River Basin Mapping Initiative.

Please keep us comprised of progress. We look forward to working with you on this important initiative.

Sincerely,

Dale Enerson, Director
National Farmers Union Carbon Credit Program
North Dakota Farmers Union
PO Box 2136
Jamestown, ND 58402-2136

1-07 Senator Rod Skoe & Senator Keith Langseth

A bill for an act

relating to appropriations: appropriating funds for the Red River Basin initiative and the development of high-resolution digital elevation model (DEM).

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. [DIGITAL ELEVATION MODEL]

$600,000 is appropriated in fiscal year 2007 from the general fund to the to the commissioner of natural resources to assist in the development and implementation of a high-resolution digital elevation model for the Red River Basin.

PROJECT SUMMARY

PROJECT: McKenzie County Rural Water Distribution System – System II
PROJECT SPONSOR: McKenzie County Water Resource District
DATE: January 18, 2007

Project Purpose:

Existing groundwater supplies in eastern McKenzie County, including the Fort Berthold Indian Reservation (FBIR), are of extremely poor quality and unreliable quantity. As a result, many residents obtain drinking water from alternative sources (haul water or buy bottled water) due to poor quality or no water during extended dry periods. Common water quality complaints include: (1) extremely high sodium concentrations; (2) very high sulfate concentrations (laxative effect); (3) hydrogen sulfide odors (rotten egg smell); (4) high hardness; and (5) stained fixtures due to high iron concentrations.

The unreliability and high mineral concentrations of groundwater supplies in eastern McKenzie County also have significant impacts on commercial and industrial interests in the region. Many ranchers are required to haul water to pastures with no water supplies or water supplies cattle will not drink. Oil production is also limited in areas where highly mineralized groundwater is used for oil production operations. Highly concentrated salt waters accompany crude oil and are extracted along with the oil during production. High quality fresh water is pumped down the well to limit precipitation of salts on the well head. Higher quality fresh water used for this application can increase instantaneous production flow rates as well as the total volume of oil recovered from individual wells.

Project Progress to Date:

In 2003, the Three Affiliated Tribes (TAT) and the District began negotiating a water purchase agreement in cooperation with the US Bureau of Reclamation. In July 2004, a water purchase agreement was executed by the respective parties, becoming one of the first such agreements in the nation where a Tribal water supply system would be serving an off-reservation system. Execution of the agreement allowed the FBRWS to move forward with the first phase of an expansion project to provide water service to the northwest portion of the Fort Berthold Indian Reservation (FBIR) while including capacity in transmission mains, pump stations, and storage facilities to serve the District. The District cost shared with the FBRWS for this project, with 70 percent of the funds provided through a Federal MR&I grant and the remaining funds cost shared between McKenzie County and Hess Corporation.

Upon successful negotiation of the water supply contract with the TAT, the District began water supply contract negotiations with Hess Corporation to supply an oil production facility near the FBIR boundary. As part of the agreement negotiated with the TAT, the minimum capacity to be contracted by the District is 20,000 gallons per day to prevent water quality deterioration in water mains up-sized to serve the District. The District contracted with Hess to meet this requirement of the water purchase agreement with the TAT and executed a water purchase agreement with Hess in late 2004. In 2005, the District began constructing a pipeline from the Reservation boundary to Hess' facility, with water service being provided to Hess in November 2005. Shortly after water delivery began to Hess' facility, representatives from Hess expressed their appreciation and gratitude for the improved water quality and inquired about an increased delivery rate.

The FBRWS's Four Bears Water Treatment Facility, which serves as the water supply for the northwest portion of the FBIR as well as the District, is currently undertaking an intake improvements project. Dropping water elevations on Lake Sakakawea have forced the FBRWS to extend the intake for the Four Bears Water Treatment Facility further out into Lake Sakakawea at an estimated cost of $1,500,000, delaying other FBRWS projects. The TAT originally requested a cost share from the District, anticipated not to exceed $375,000, based on the capacity the District will receive from the facility. However, difficulties experienced during construction of the intake improvements may increase the District's cost share to approximately $450,000.

Project Elements to be Completed:

The District is limited to the 20,000 gallons per day currently contracted for with the TAT due to limited treatment capacity of the Four Bears Water Treatment Facility. The facility is to be expanded; however, the expansion of the Four Bears facility is the third in-line of several FBRWS water projects awaiting funding. As such, the timeline of that expansion is unclear due to uncertain funding levels for the FBRWS. The FBRWS also plans a second project to provide water service to additional residents located throughout the northwest portion of the FBIR. However, recent discussions have been held with FBRWS representatives at which they indicated their willingness to reprioritize their construction schedule and fast tract the expansion of the Four Bears Water Treatment Facility provided the District and FBRWS can find funding for the project.

Upon completion of the expansion project for the Four Bears Water Treatment Facility, or a defined timeframe for its expansion, the District will be able to move into the design phase and ultimately complete construction of the proposed distribution system (transmission pipelines, storage reservoir, and pumping stations) to serve eastern McKenzie County. During completion of a Feasibility Study to examine the economic viability of the District's proposed system, the system was divided into four phases due to assumed funding levels. Each phase would be constructed during one construction season; however, the size of the proposed system is such that it could reasonably be constructed in one phase over two years if sufficient funding is initially available for the project.

Total Estimated Project Cost (January 2007): **$7,840,000**

SOUTHSIDE FLOOD CONTROL
CITY OF FARGO

Testimony for the Senate's Appropriation
Senate Bill 2020

Same / given to House

Dennis R. Walaker
Mayor

On behalf of the City of Fargo, this indeed is a pleasure and an honor to be here today. Thank you for your consideration.

The 1997 flood was a trial for everyone in the Red River Valley. Since 1997 we have watched as other areas have achieved flood control across our State, such as Wahpeton, Devils Lake and Grand Forks. We have addressed many of the issues in our community, but now we are requesting North Dakota support and funding for the South Fargo Flood Control Project.

It's almost 10 years since the event of 100 years. We have worked hard, employed the best experts, and had peer review from what I consider the best expert. We have data which has taken time to develop and what we believe to be accurate.

In response to public comments received since initial concepts were proposed, the City has expended considerable time and expert resources to address and respond to concerns.

1. Participated with three engineering consultants, FEMA, Cass County and SE Cass Water Resource District in replicating the 1997 flood event for project impact analysis.
2. Identified additional project alternatives that were thoroughly evaluated and modeled.
3. Utilized most recent model and flood flow projections in testing all alternatives.
4. Retained an independent peer review engineer.
5. Recently retained a separate consulting firm to model river system with an unsteady state format to compare with the current FEMA steady state river models.
6. In the process of forming a project advisory committee comprising of local area jurisdictions from both Cass County, North Dakota and Clay County, Minnesota, Moorhead, etc. for receiving comments and recommendations.
7. Continue to remain active and committed in development of upstream flood storage projects that will provide benefits to Fargo and other cities. Future upstream storage, if achieved in the future, will be compatible with the proposed alternatives but will not eliminate the need for the proposed project in South Fargo.

Attached to this testimony you find the following information:

1. Summary sheet stating the need, status, funding and anticipated schedule.
2. 1997 flood pictures showing extensive overland flooding. The bottom picture shows flooding within City limits between 40th and 52nd Avenue south near Centennial Elementary School and Rose Creek Golf Course.
3. Map of 1997 submerged areas south of Fargo.
4. Comparison of Alternatives
5. Maps of alternatives under consideration.

The City has conducted a series of information meetings to solicit comments and recommendations. It is our goal to have the City Commission rank the Alternatives on February 26 for more detailed analysis of the top ranking alternatives, with preferred alternative selection by May 7, 2007.

We are requesting ND cost participation using the same formulas for previous flood control projects (50% of the non-federal costs).

In my opinion, we are leaning towards the Wild Rice Diversion because of the benefits of the paralleling diversion channel which limits impact on river stage levels. This alternative carries an estimated total cost of $66 million with a ND share of $32 million, of which $6 million has previously been allocated to the project, leaving a balance of $26 million the City is requesting from the State over the next four years. The benefits are significant for the City's ability to provide permanent and secure flood protection to existing homes, schools, and continue growth.

In closing, I would like to thank you for your consideration of ND funding participation commitment to complete this needed project.

I have presented a large amount of information for review. If there are questions I, along with City Engineer, Mark Bittner and City Administrator, Pat Zavoral are available to respond.

Thank you.

Fargo Southside Flood Control Project

5

Need

- A large area of Fargo south of I-94 is in jeopardy of overland flooding from the Wild Rice River similar to that which occurred in 1997.
- The City of Fargo is the last Red River Valley community to receive federal and state funding for completion of flood control improvements in response to the 1997 flood.

Status

- Four alternatives have been evaluated and are being presented for consideration:
  1. Wild Rice River Levee Alternative — $45 to $50 million
  2. 70th Avenue South Outlet Alternative — $75 to $80 million
  3. Rose Coulee Outlet Alternative — $95 to $100 million
  4. Wild Rice River Diversion Alternative — $70 to $75 million
- Hydraulic analysis for project alternatives completed for Red and Wild Rice Rivers and distributed for agency review.
- Concurrently with project analysis FEMA contractors have been working on Flood Insurance restudies for portions of the Red, Wild Rice, Sheyenne and Maple Rivers.

Funding

Federal

- FEMA has approved 9.5 million in HMGP funds towards an earlier version of the 70th Avenue South outlet alternative. An additional $1.5 million in HMGP funding ($11 million total) may be assigned to the project subject to FEMA completion of the environmental assessment of the selected alternative.

Local

- Local funding to come from the following sources:
  1. Infrastructure sales tax
  2. Storm sewer utility
  3. Special assessment
- ND has committed $6.0 million to the project. Additional State funding will be requested during the 2007 and 2009 legislative sessions. State funding assumptions based on 50% funding of non-federal costs.

Alternate	Wild Rice Levee (Million)	70th Avenue South Outlet (Million)	Rose Coulee Outlet (Million)	Wild Rice Diversion (Million)
Base Cost	$41	$71	$91	$66
Upstream Protection Allowance	$9	$9	$9	$9
Total Estimated Cost	$50	$80	$100	$75
Federal	$11	$11	$11	$11
Non Federal Costs	$39	$69	$89	$64
50% - Local	$19.5	$34.5	$44.5	$32
50% - ND	$19.5	$34.5	$44.5	$32
ND funding committed	$6	$6	$6	$6
ND funding requested	$13.5	$28.5	$38.5	$26
2007 – 2009	$8	$8	$8	$8
2009 – 2011	$5.5	$20.5	$30.5	$18

Schedule

City Commission preliminary ranking of alternatives	February 26, 2007
Public input meetings for selected alternative	March - April, 2007
City Commission selection of preferred alternative	May 7, 2007
Project design and permitting	May - December 2007
Right-of-way acquisition	July 2007 - May 2008
Bid opening	February 2008
Construction	April 2008 - August 2010
Functional completion	April 2010
Final completion	September 1, 2010

Southside Flood Control

Comparison of Alternatives

Alternative	Wild Rice Levees			70th Avenue South Outlet			Rose Coulee Outlet			Wild Rice Diversion		
Total Estimated Cost	$45 to $50 million			$75 to $80 million			$95 to $100 million			$70 to $75 million		
Federal	$11 million			$11 million			$11 million			$11 million		
Non Federal Cost	$34 to $39 million			$64 to $69 million			$84 to $89 million			$59 to $64 million		
50% - Local	$17 to $19.5 million			$32 to $34.5 million			$42 to $44.5 million			$29.5 to $32 million		
50% - ND	$17 to $19.5 million			$32 to $34.5 million			$42 to $44.5 million			$29.5 to $32 million		
ND Funding Committed	$6 million			$6 million			$6 million			$6 million		
ND Funding Requested	$11 to $13.5 million			$26 to $28.5 million			$36 to $38.5 million			$23.5 to 26 million		
2007-2009	$8 million			$8 million			$8 million			$8 million		
2000-2011	$3 to $5.5 million			$18 to $20.5 million			$28 to $30.5 million			$15.5 to $18 million		
Area Protected	2nd largest area protected			Slightly smaller area			Slightly smaller area			Largest area protected		
Road Structures Box Culverts	1			4			3			5		
Bridges	0			4			6			2		
River Structures Box Culverts	2			2			2			2		
Total Structures	3			10			11			9		
Pump Stations	2			3			3			3		
Levee's (Miles)	11.7			21.9			27.8			16.1		
Diversion Channel (Miles)	0			6.6			9.5			6.8		
Right-of-Way	Acres	Parcels		Acres	Parcels		Acres	Parcels		Acres	Parcels	
Urban Platted	0.05	1		0.05	1		15.36	49		1.11	2	
Urban Unplatted	13.99	3		13.99	3		104.94	21		14.61	3	
Rural Developed	34.01	18		34.53	24		37.66	20		65.01	35	
Rural Undeveloped	209.67	72		575.68	82		397.2	90		389.81	33	
Total	257.72	94		624.25	110		555.16	180		470.54	73	
Structures (Homes)												
Severance of Development Land	Low			High			High			Moderate		
River Hydraulic Impacts												
New Acres Inundated												
100 Yr - North Dakota												
100 Yr - Minnesota												
Operation Risk	Low			Moderate			High			Moderate		
Construction Complexity	Low			Moderate			High			Moderate		
Operations & Maintenance	Lowest			2nd highest			Highest			2nd lowest		
Red River Stage Impact (Inches)	1997 Flood	50 Yr Flood	100 Yr Flood	1997 Flood	50 Yr Flood	100 Yr Flood	1997 Flood	50 Yr Flood	100 Yr Flood	1997 Flood	50 Yr Flood	100 Yr Flood
At Rose Coulee	1.4"	0.0"	0.0"	1.4"	0.0"	0.0"	1.3"	0.0"	0.0"	1.4"	0.0"	-0.6"
At Briarwood	4.3"	0.2"	4.8"	4.3"	-3.7"	4.8"	-0.2"	0.2"	0.0"	3.0"	-1.0"	-1.4"
At 76th Avenue South	4.8"	0.2"	5.6"	3.2"	-4.8"	4.0"	-0.7"	-1.3"	0.1"	1.8"	-2.5"	-2.5"
At Wild Rice River	4.9"	0.2"	6.0"	1.1"	-5.3"	2.2"	-1.0"	-3.6"	0.1"	0.2"	-4.2"	-2"
At Hwy 16	3.8"	0.2"	3.1"	0.7"	-3.5"	1.7"	-0.7"	-2.4"	0.1"	0.1"	-2.8"	-1"
At Oxbow	1.3"	0.0"	0.8"	0.4"	-1.3"	0.5"	-0.1"	-1.0"	0.0"	0.1"	-1.1"	0.4"
At Hwy 18	1.1"	0.1"	0.7"	0.1"	-1.1"	0.4"	-0.2"	-0.7"	0.1"	0.0"	-0.9"	0.2"
Wild Rice River Stage Impact (Inches)	1997 Flood	50 Yr Flood	100 Yr. Flood	1997 Flood	50 Yr Flood	100 Yr. Flood	1997 Flood	50 Yr Flood	100 Yr. Flood	1997 Flood	50 Yr Flood	100 Yr. Flood
Hwy 81	5.4"	0.2"	6.0"	1.1"	-3.6"	2.2"	-1.2"	-5.3"	0.1"	-0.1"	-4.2"	-2"
Hwy 14	5.8"	-0.4"	6.0"	-1.2"	-4.3"	2.2"	-2.5"	-4.2"	0.1"	-2.4"	-5.2"	-2"
Hwy 16	4.3"	0.1"	0.3"	0.5"	-1.2"	-1.0"	-0.1"	-1.2"	-1.0"	0.5"	-1.6"	-1.2"
I-29	6.2"	0.2"	1.2"	1.8"	-1.1"	-0.5"	1.3"	-1.1"	-0.5"	3.2"	-0.7"	0.4"
Drain 47	4.9"	0.1"	1.0"	1.6"	-0.5"	-0.4"	1.2"	-0.5"	-0.4"	2.3"	-0.4"	0.6"
Hwy 18	0.6"	-0.1"	0.0"	0.1"	-0.1"	-0.1"	0.1"	-0.1"	-0.1"	0.4"	-0.1"	-0.1"
Hwy 46	-0.1"	-0.1"	0.0"	0.0"	-0.1"	-0.1"	0.0"	-0.1"	-0.1"	0.1"	-0.1"	-0.1"

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January 18, 2007

Same to Given to the House

Chairman Holmberg & Senate Appropriation Members:

Thank you for the opportunity to speak to you today. My name is Fred Bott and I am speaking on behalf of the City of Devils Lake regarding the serious challenges that threaten the viability of the City's existing drinking water supply. The City of Devils Lake understands how important water projects are to communities and the State of North Dakota, which is why we support the proposed list of water projects.

The construction of the levee around the City has protected most of the City's infrastructure, but the majority of its water transmission pipeline lies outside the protection of the levee. In fact, approximately six miles of transmission pipeline, along with numerous gate valves, air release valves, and blow-off discharges, are covered by the waters of Devils Lake. This causes great concern because we are unable to perform the desired level of routine maintenance and inspection of the system, which is 45 years old and nearing the end of its design life. If a waterline break or valve failure were to occur anywhere within the six miles of submerged pipeline, the City would be without an adequate water supply.

The City is also challenged to meet a stricter drinking water regulation for arsenic. The City's supply is currently three and one-half times the allowable limit and we are currently operating under an arsenic exemption status that was provided by the ND Department of Health. Since the maximum exemption period is three years, the City needs to have a new water system in place by January of 2009 to remain in compliance with the Safe Drinking Water Act. With an anticipated two year construction timeframe, the City must begin construction this year to ensure we meet the 2009 deadline. Other challenges associated with our water system include the long-term viability of our existing supply and easement renewal concerns regarding the current pipeline route.

The ND Department of Health understands the seriousness of our water supply challenges. This is evident in the project funding priority list developed by the Department of Health for use in administering the Drinking Water State Revolving Fund (DWSRF) loan program. The City of Devils Lake has ranked at or near the top of the priority list developed by the Department of Health each of the last five years.

We have had a great deal of communication with North Dakota's Congressional Delegation regarding the critical nature of our water supply, but to date only $1.6 million in federal funds have been secured. This is only 10% of the estimated $16 million project cost. Recently we were informed that no additional federal funds will be provided this year due to the government operating under a continuing resolution status for the 2007 fiscal year. Therefore, state support of our project is imperative to insure the City can provide a safe, reliable water supply that is affordable to our residents.

Thank you for the work completed to date in helping our community address flooding issues caused by the ever-expanding lake. Your efforts are greatly appreciated.

Fred Bott, President
Devils Lake City Commission

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Handout #18b

SB 2020
March 2, 2007

Rep. Don Vigesaa

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Auditor: Ruth M. Hatten

City Superintendent
Norris Severtson

January 4, 2007,

City of Lakota Raw Water Line and Lagoon Update

The City of Lakota in 1978 constructed a raw water line from the well site in the Pekin area to the city treatment plant east of Lakota a distance of approximately 16 miles. This line is 10" PVC gasketed pipe. The pipe parallels North Dakota State Highway # 1 about 225' east of the centerline of the old roadbed through Stump Lake.

In 1979 according to the USGS web site the elevation of East Stump Lake was 1384 feet above sea level. This is the same level as the PVC pipe 8' below ground level in the coulee area.

Today with the Stump Lake at 1444.42 feet above sea level the pipe is 60.5' under the water surface at the deepest point and under water for approximately 2800'. When Stump Lake and Devils Lake elevations level off using 1448 feet above sea level, the pipe will be under water for a distance of 2850' at a depth reaching up to 64.5'.

If the lakes were to continue to rise to the outflow elevation we would have over 3000' under water at depths to 76' below the water surface.

As this is presently the only source of water for the City of Lakota we are concerned for the integrity of the 26 year old pipe not designed for under water crossing. The depth and length of the water crossing would make leak detection difficult and repair impossible.

We contracted a Water Supply Evaluation study from the engineering firm of Bartlett & West, Bismarck, ND. The results of that study showed the Stump Lake reroute and retaining our own water supply as the least cost alternative. This study cost $17000.00.

We have an engineers estimate of the cost of the line reroute of $266,200.00, we have applied for 2007 fiscal year federal funding at 55% of the project costs. This funding was approved by the appropriations committee in 2007 but the appropriations bill was not voted on by

the 109th Congress and thus not signed into law. A continuing appropriations bill was passed that would fund programs to February 15th, 2007 at 2006 levels. One other item affecting this funding is the fact that it is considered an earmark and the 110th Congress is currently considering earmark reform, this could impact any earmark funding considered for the 2007 appropriations and because of the continuing funding there may not be any action on the bill until the February deadline.

We have however finalized the planning and will be signing the contracts for the water control updates which should help the raw water line by stabilizing the water pressure in the pipe alleviating the water hammer putting less stress and movement on the pipe. We are hoping to have this project completed by June. The price for the control project is $45,000.00.

The total local money needed will be approximately $328,000, ($182,000 if the federal funding would materialize). We have been in contact with the Nelson County Water Board for funding as part of a Nelson County package and we are actively searching for more funding sources.

On the sewer issue we have finished the planning, secured the funding and signed the construction contracts for 2 additional lagoon cells. The cells are moved back from Jones Lake and at a higher elevation than the lake, the existing cell will be utilized as the 3rd cell.

Norris Severtson
Superintendent
City of Lakota