

2011 SENATE APPROPRIATIONS

SB 2230

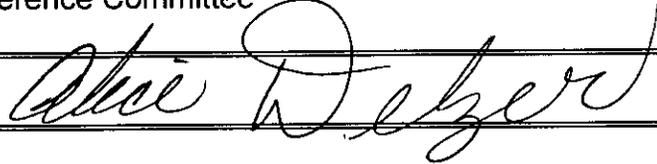
2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee Harvest Room, State Capitol

SB 2230
02-09-2011
Job # 14238

Conference Committee

Committee Clerk Signature



Explanation or reason for introduction of bill/resolution:

An Appropriation to the Department of emergency services to accept federal funding as a result of lake flooding and to provide a grant to a city that has experienced infrastructure damage due to lake flooding and declares an emergency.

Minutes:

See attached testimony.

Chairman Holmberg called the committee to order on Wed, February 9, 2011 at 9:30 am in reference to SB 2230. Sheila Peterson, OMB and Roxanne Woeste, Legislative Council were also present.

Senator Joan Heckaman, District 23, New Rockford testified in favor of SB 2230 Testimony attached # 1. And proposed amendment Testimony attached # 2. There are 3 sections of the bill. This Bill would provide a safety net for the city of Minnewaukan. They are looking at doing a partial relocation of some of the infrastructure and residents for the amount of money. We are looking at federal funds that they are receiving right now. They have received 5.8 million, not sure if all can go for the partial relocation. They need to have the water tower and the lift stations moved. The school as received about 6 million dollars to relocate their school, they have secured their land. The total added together will be ten million dollars; the city is trying to do everything they can to stay under that. It does cost to relocate. Every day I get a reading on the level of Devils Lake and it's rising during the winter. It was up to 14.51.7 it's coming up over the winter. She went over proposed amendment. It removes the name of the city of Minnewaukan from the bill.

V. Chair Grindberg: The bill provides up to 10 million dollars, do you have an update on the revised numbers that are less than ten million dollars; will someone be speaking to that?

Senator Heckaman: They are trying to be as cost efficient as possible. They will be very conservative in what they ask the State to provide. They can't get these funds because they are not under water. They have their engineers that they have been working closely with. They met with Governor's office, two times since they have been in session. The department of emergency services, adjutant general and the Governor's office are all working on this. It is imperative that we have the emergency clause in section 3, without the clause they could not do the work this spring.

Trish McQuoid, Mayor of Minnewaukan testified in favor of SB 2230 Testimony attached # 3 and a booklet – Request for Assistance and Testimony attached # 4, written statement from Mayor McQuoid stating that action needs to be taken now to protect the community, county seat and growing school population from the immediate danger of the closed basin flooding from Devils Lake. We want this bill to serve as a safety net for us. We are asking for this funding incase our other funding will not come through.

Chairman Holmberg: The issues interface with the budget of the adjutant general which has emergency services in it. The bill will be turned over to the sub- committee which consists of Grindberg, Holmberg and Warner.

V. Chair Bowman: I have been up through that community and realize how close the water is, moving toward the center of the city, when you talk about moving different buildings, is the elevation high enough so you don't have to move them again?

Mayor McQuoid: The properties for relocation are at 1480 feet and above. Our engineers are going to give testimony also and he can give you more specific information.

V. Chair Bowman: What about the houses in your community, there are houses that are low, are they going to have to pay the expenses of relocating themselves or is that inclusive in this amount of money?

Mayor McQuoid: Part of that is the acquisition money, that 5.8. She is not sure how much they will be allocated, that is what the money would be used for so those people could use to get their homes relocated to that new area of town.

Senator Christmann: Tell me the size of your school, and geography it serves. All the 300 population towns in my area have lost their schools already. I am wondering about rebuilding a school.

Mayor McQuoid: Part of the situation we have with our school now is, they started out with 200 some children probably 5 years ago and it is on the rise. The last number was two hundred and forty five kids and a waiting list for kids to come to our school. When you look through our briefing document there is some information about our school and how our school rates with the different standards of education levels compared to some of our local schools. That is when they decide

Senator Christmann, how far is it to Devils Lake and what would be the next school?

Mayor McQuoid: Twenty three miles away from Devils Lake, which is full and could not take even part of these children. There is one in Leads, fifteen miles away, full, and one in Maddock, eighteen miles away, it is full, and a school out in Fort Totten, it is overflowing; they would like to send more of the children to us.

Chairman Holmberg: Some of us have in mind what happened after a tornado, in Northwood, where they built a school bigger, in hopes another town would decide to join them. Are you building a bigger school in hopes to get students from reservation schools with heavy Native American population?

Mayor McQuoid: The building plan for the school right now is to be larger to accommodate more children, to take the overflow from Devils Lake and Fort Totten.

V. Chair Grindberg: Based on the planning and the physical infrastructure decision of moving this and that, we hope you planned well enough. What we end up approving and going forward with this is it will be a permanent fix and that the lake doesn't go any higher.

Mayor McQuoid: We have accounted for that, we have taken all these things into account. Making sure we are high enough, making sure there is enough property to move these homes moved this summer. We have accommodated so that we can remain with our lagoon system, and so it can be a gravity feed. We can remain with the well we have for the city but need a new water tower, but we have looked at everything. We have been able to accomplish this on our own, but this spring, we need help.

Senator O'Connell: What's the time line for the school? The water is up to the road.

Mayor McQuoid: I have a letter that I am going to address today for the Army Core of Engineers, to get a partial dike system to protect the School. The student will not be able to move into new school by next fall, we will need two years.

Erik Gilbertson, Kadrmas, Lee & Jackson testified in favor of SB 2230 Testimony attached # 5.

V. Chair Bowman: When you talk about relocating the school you will still have extra costs, unless everyone relocates, if it keeps flooding, you will delay the time of when everyone will have to move out and have a new city, is that in the planning stages?

Erik Gilbertson: This is phase one, all of this to be the new Minnewaukan, the funding that we are requesting to keep the existing town going, that buys us time. We don't believe there is enough money to pick up the entire town and move it. We are hearing the gloom and doom that the lake will not stop, but it may stop. We believe the rest of the homes and businesses should be safe for a couple of years.

Senator Wanzek: What is the elevation of the new Minnewaukan?

Erik Gilbertson: The lowest part is 14.80; we are 22 feet higher than the outlet.

Senator Warner: What will be left of old Minnewaukan when you get done? It could become a small resort core, to vacation, but not if there is a school sitting under water or a gas station leaking fuel. Is there some mitigation plan to clean up the old town?

Erik Gilbertson: The way the hazard mitigation grant program works is that it has to include demolition of all structures. In order to collect on the flood insurance you have to demo the structure also. I believe underground storage tanks are in that mix with the flood insurance.

Senator Warner: Would it be easier to do this before they go under water?

Erik Gilbertson: Of course.

Senator Warner: Is there a legal barrier?

Erik Gilbertson: The program they are going in is called hazard mitigation. The traditional flood insurance programs are after the fact, after the water hits the house.

Senator Christmann: When the water tower and lift stations need replacing the plan from the community is to build them new for the new Minnewaukan and do we have to build a new set up that type of infrastructure for those people in the middle that are going to continue to work in the old Minnewaukan?

Erik Gilbertson: The plan would be to construct a new water tower at the new town site and they would connect water lines between the two. The lift stations we would have to reconstruct new ones in the old town.

Senator Fischer: On page twelve, the map of the new Minnewaukan along with the area of the old Minnewaukan, I am wondering if that "L" shape in the section east of the new Minnewaukan are those the lagoons?

Erik Gilbertson: Yes, they are about elevation of 14.6.

Senator Fisher: Do they have to be reconstructed then too. How much of that infrastructure will be inundated at 14.58?

Erik Gilbertson: The lagoons will be above the elevation, about 2 feet.

Senator Fischer: Two feet of wave action coming off the lake, is there a risk to the lagoon and the infrastructure and what is left in Minnewaukan?

Erik Gilbertson: If the lake reaches the full capacity at 14.58 the lagoons may be vulnerable as would the remainder of town. That is where it becomes a phase approach with possibly the center core of town needed to be relocated in four or five years, if the lake continues to rise.

V. Chair Bowman: In the past I've heard testimony on this bill. When I was first elected here, we were trying to get water into Devils Lake. It is interesting on how over a period of time things change.

Mayor McQuoid: I attended a meeting at Devils Lake with Water Commission Board and the Army Core of Engineers and the Water Commission Board is working on an east end outlet, they have the west end outlet. They are hoping to have that going next fall, it is prudent that they get it done; it could be disastrous. They are working on a plan to get the underground piping in for an outlet and they plan on having that going next fall. We should never have to reach that 14.58 point. We have other people working at to getting the water off the lake.

V. Chairman Bowman closed the hearing.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

SB 2230
02-21-2011
Job # 14782 (Meter 13.53)

Conference Committee

Committee Clerk Signature

Explanation or reason for introduction of bill/resolution:

A Roll call vote on Lake flooding and grant to city – Minnewaukan Department emergency Service

Minutes:

You may make reference to "attached testimony."

Chairman Holmberg called the committee back to order in reference to SB 2230.

V. Chair Grindberg moved Do Not Pass. Seconded by Senator Warner.

Chairman Holmberg stated 2230 is the Minnewaukan bill.

Senator Robinson: Do we know what the plans are for Minnewaukan?

V. Chair Grindberg: The latest information I have is that the actual estimated costs had dropped from \$10 million to \$8.8 or \$8.5 million, somewhere in that range of which state funding would be 50% of that.

Senator Robinson asked about the balance. There was more discussion on this.

Major General David Sprynczynatyk: The current cost estimate for the Minnewaukan project is approximately \$8 million. One of the things we have been doing is working with the community and others to try to identify all of the sources of funds that might be available because there are federal programs and there may be other state programs that are available to assist. Our best estimate is that the cost to the Disaster Relief Fund would not exceed \$4 million. And the delayed Bill does include the references to situations similar to Minnewaukan and will allow us to use the Disaster Relief Fund for it.

Chairman Holmberg: Any other discussion. **Would you Call the Roll on a DO NOT PASS ON SB 2230. This should be handled on the calendar after SB 2016.**

A Roll Call vote was taken. Yea: 10; Nay: 3; Absent 0. V. Chair Grindberg will carry the bill. The hearing was closed on SB 2230.

Date: 2-21-11
Roll Call Vote # 1

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2230

Senate Appropriations Committee

Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: Do Pass Do Not Pass Amended Adopt Amendment
 Rerefer to Appropriations Reconsider

Motion Made By Grindberg Seconded By Wardner

Senators	Yes	No	Senators	Yes	No
Chairman Holmberg	✓		Senator Warner		✓
Senator Bowman	✓		Senator O'Connell		✓
Senator Grindberg	✓		Senator Robinson		✓
Senator Christmann	✓				
Senator Wardner	✓				
Senator Kilzer	✓				
Senator Fischer	✓				
Senator Krebsbach	✓				
Senator Erbele	✓				
Senator Wanzek	✓				

Total (Yes) 10 No 3

Absent _____

Floor Assignment Grindberg

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

REPORT OF STANDING COMMITTEE

SB 2230: Appropriations Committee (Sen. Holmberg, Chairman) recommends **DO NOT PASS** (10 YEAS, 3 NAYS, 0 ABSENT AND NOT VOTING). SB 2230 was placed on the Eleventh order on the calendar.

2011 TESTIMONY

SB 2230

SB 2230-Senator Heckaman's Testimony

Chairman Holmberg and members of the Appropriations Committee.

I am Senator Joan Heckaman from New Rockford and I represent District 23. I am here to introduce SB 2230 to you this morning.

SB 2230 would provide a safety net for the city of Minnewaukan. This city sits at the west end of Devils Lake. While I will leave most of the testimony to others here today, I want to discuss a few aspects of this bill and also distribute an amendment that should improve this bill.

Since the rise of Devils Lake starting in the 90's, Minnewaukan has done all it financially can to save the city, the homes of the residents, and businesses. Minnewaukan is not a large entity. In fact, its size is exactly why it is possible to do a partial relocation of some of the infrastructure and residences for this amount of money.

Section 1 of the bill allows the Department of Emergency Services to accept federal funds up to \$10,000,000 for the purpose of providing assistance for infrastructure and relocation costs to Minnewaukan.

Section 2 of this bill appropriates out of the general fund a sum or so much as is necessary to supplement the federal funds so the total is up to \$10,000,000. These funds would also be distributed through DES. This allows the city to have matching funds available so it can accept federal funds. So this becomes a difficult call for your committee as the amount in Section 2 is unknown at this time. Maybe some of the speakers can give you a more certain amount.

For the committee's information, Minnewaukan has not been sitting idle during these years. They have tried every avenue possible to secure these funds without asking the legislature.

The amendment I am passing out addresses a change in wording. After this bill was drafted, I received some information that lead to the development of the amendments. Specific cities cannot be named in legislation, so with the help of some of the stakeholders and legislative council, I believe these amendments will provide appropriate language to secure the funding for the city of Minnewaukan.

That concludes my formal remarks and I would stand for any questions, but others present may be able to answer your questions more clearly than I can.

SB 2230

Good morning Chairman Holmberg and members of the Senate Finance Committee. For the record my name is Trish McQuoid and I am the Mayor of Minnewaukan. I am here today to testify in favor of Senate Bill 2230.

I have handed out a copy of our briefing document. The people of Minnewaukan are faced with a life altering situation that has exhausted us of every feasible option to preserve our community. As you are all well aware, the city of Minnewaukan is threatened by the Devils Lake disaster in a way that we have dreaded for years. Over the past two years the lake has risen four feet, with another ~~two~~^{3' 1/2 of now,} or more feet predicted for this year. The lake is showing a two foot per year trend and it is inevitable that the spring melt of 2012 will be the make or break point for our town. With the spring 2011 thaw upon us in just a few short weeks, it is already becoming all too real that when the spring 2011 and 2012 forecasts come to fruition if adequate action is not taken now, Minnewaukan will cease to exist.

It is evident that the city has no option other than to partially relocate the community. The school has secured funding to construct a new building and will begin construction at the new town site this spring. The new site that has been identified is located 1 1/2 miles North West of the current city. Due to the urgency of the situation in Minnewaukan, expansion of the community's infrastructure and site development must begin as soon as possible. The city has been working closely with the ND interagency team led by Department of Emergency services to initiate the relocation process and mitigate the hazard for the remaining high parts of town. The current relocation plan will relocate all properties below 1,460 feet.

Minnewaukan is the county seat and the only community on the west end of the lake. Minnewaukan city leaders, Kadrmas, Lee & Jackson and state and federal agencies have all been working together to identify every possible alternative funding option available to the city. FEMA recently reinstated \$5.8 million of 2009 disaster funds that had been allocated to North Dakota. Although the \$5.8 million is available in ND, it is not 100% certain if Minnewaukan will be able to access the funds. As will many of the other funding programs the community is working with, FEMA's Hazard Mitigation Grant Program has a significant number of requirements that the city must adhere to on a tight timeline. The timing issue is itself another large hurdle the community is working through.

The city is actively pursuing all funds available, but with the short legislative window, it is now that we must ask the state to create a program such as that proposed by Senate Bill 2230 to serve as a safety net for communities such as Minnewaukan in the event that alternative funding sources would fall through or the community does not meet the eligibility or timing requirements set by the various programs. If action is not taken by the legislature now to set up a safety net program, and the city's funding efforts to date don't come through, the will come, the session will be out and the city will face the high probability of losing its 300+ citizens and city once 1,458 is reached.

Action is needed now to protect the community, county seat and growing school population from the immediate danger of the closed basin flooding from Devils Lake.

Thank you for your time and concern over the flooding in our region. I would be happy to answer any questions you may have.

* Chairman + then Senator

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Erik Gilbertson Testimony

February 9, 2011

SB 2230

Over the last 18 years Devils Lake has tripled in size and risen nearly 30 feet. The lake was over 3 miles east of town, but today the lake has encroached within 100 feet of the Minnewaukan School. The latest outlook from the National Weather Service dated January 27th 2011, shows ~~a 90% chance that Devils Lake will rise an additional 2.7 feet to 1454.3, a 50% chance that the lake will rise to 1455.0, and a 10% chance that the lake will rise to 1456.3.~~ The current conditions, 10% outlook, 90% outlook, and the overflow elevation at the Tolna Coulee (1458.0) are depicted in Exhibit 1: Inundation Levels, of the 'Minnewaukan Flood Impacts' document. The exhibit shows the probable impacts to the school, homes and businesses located in the low lying areas of town. Also shown on the exhibit are the locations of the city water tower and three lift stations. The projected lake levels could endanger the city water and sewer systems this summer or in the near future if the lake continues to rise. Failure of the city water or sewer system will affect all the properties in town, not just the low lying properties.

The city has initiated a plan for a partial relocation of town. This plan would start the process to relocate all properties below the elevation of 1460.0 to a new town site (see Exhibit 3: New & Existing Minnewaukan). The existing town above 1460.0 would remain intact and would consist of the Benson County Courthouse, the downtown business district, and various residential properties. Phase 1 of the new town would consist of the school property, approximately 25 residential lots, and approximately 2 commercial lots (see Exhibit 6). The new town would utilize the existing water treatment plant and sewage lagoons, which are located on high ground between the two town sites. As the lots are filled, additional portions of the new town will be constructed for home and business relocations. The city has committed to purchase 20 acres with another 40 acres available for future growth. The city is applying funding for the structure acquisitions and relocations. At this time \$5.8 million in FEMA Hazard Mitigation Grant Program (HMPG) funds have been reinstated to the State from which Minnewaukan is applying.

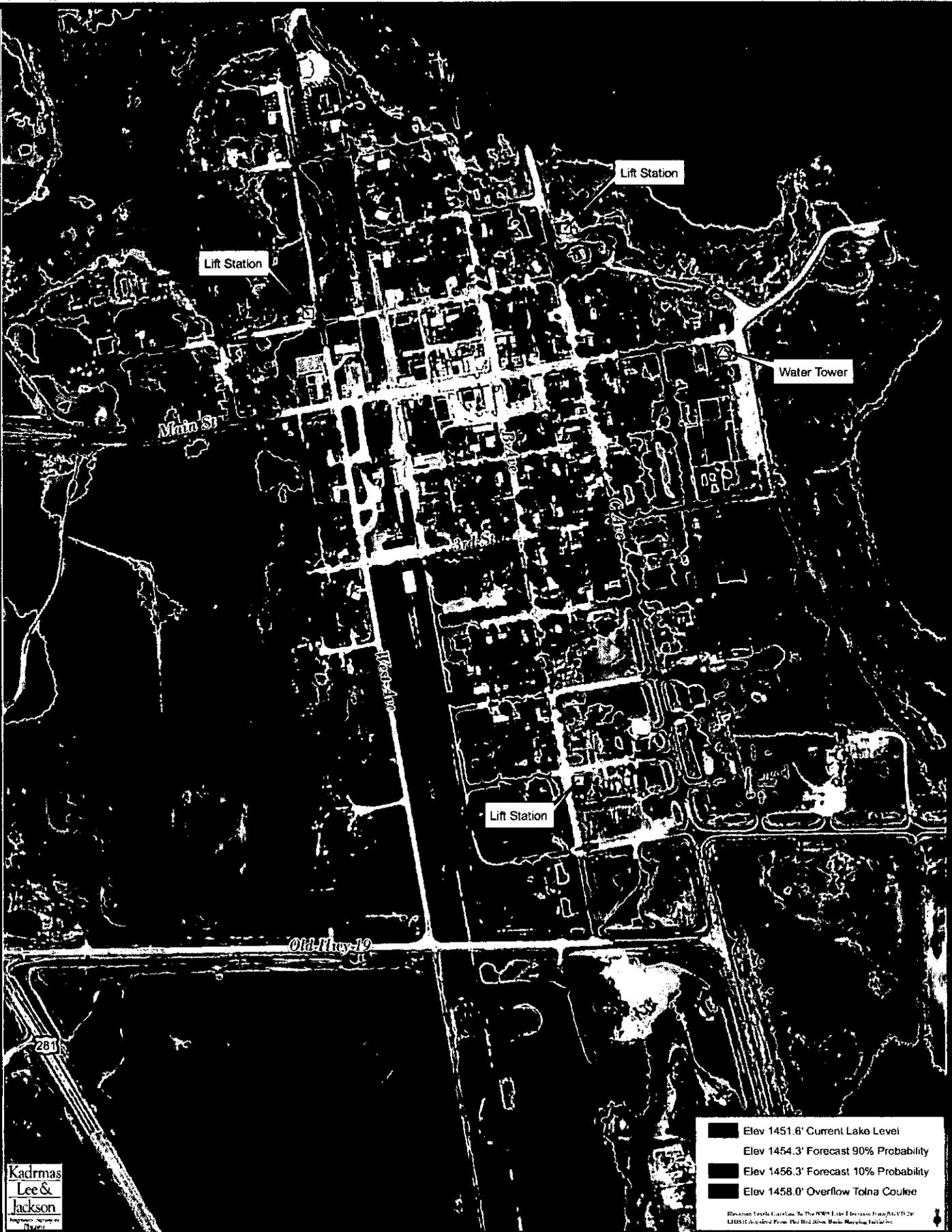
~~To maintain water service, sewer service, and access to the existing town~~ that will remain, significant improvements will need to take place to the existing infrastructure. These improvements include relocating the existing water tower, relocating the sewage lift stations, relocating the well line, relocating the sewage force main, and raising the elevation of Main Street to provide access to Highway 281.

~~The North Dakota Department of Emergency Services~~ (NDDDES) is working with Kadmas, Lee & Jackson to develop a matrix which looks at different projects, funding agencies, and timing. In addition, a reverse timeline has been developed which identifies the critical path for each of these projects. Given the projected lake levels for 2011 and applying the recent trend to 2012 and beyond, many of the identified projects need to start during the 2011 construction season. Although many of these agencies do have funding, eligibility and timing are problematic for the city. To ensure that the city can initiate the partial relocation plan, a safety net needs to be established in the amount of \$10 million. This safety net will be utilized for local share in federal programs or when the federal programs do not meet the time constraints of the projects.

Minnewaukan

"Little City by the Big Lake"

Request for Assistance



Lift Station

Lift Station

Water Tower

Main St

Lift Station

Old Hwy 10

281

- Elev 1451.6' Current Lake Level
- Elev 1454.3' Forecast 90% Probability
- Elev 1456.3' Forecast 10% Probability
- Elev 1458.0' Overflow Toina Coulee

Elevation Levels Contained in This RFP's Lake Elevation Forecast are based on LIDAR data provided from the Red Lake Basin Municipal Utilities.

Kadmas
Lee &
Jackson
Engineering Services
Division

REQUEST

The city of Minnewaukan is requesting an appropriation of \$10 million to address the impending flooding of the city through the rising waters of Devils Lake. Table 1 provides a summary of funds needed.

Immediate Needs Estimate	\$5,000,000
Additional Required Estimate	\$2,200,000
Relocation Contingency Estimate	\$2,800,000
Total Request	\$10,000,000

Our community has been fighting this ever increasing disaster on a continuous basis since 1993 and each year we have seen the rising water eat away at the heart and soul of our community. We have acted in good faith, with all the resources we could muster and now this year we face an imminent crisis. We are on the verge of losing our entire town.

The biggest challenges with most federal and state programs are eligibility requirements, cost share requirements, competitiveness for funds, timing and assurance of adequate funding. With an anticipated spring 2011 rise in water levels that will directly impact the city infrastructure it is impossible to have a proactive mitigation initiative in place unless funding is assured within the next 60 to 90 days. The planning, design and construction of any mitigation measures needed to counteract 2012 lake levels will be hard to achieve with any delays in funding.

Minnewaukan is asking for assistance from the state, through legislative action, that will assure adequate resources in a timely manner to allow for effective protection of our community and the relocation of our citizens and business community to a "new" Minnewaukan location.

It is difficult to be precise regarding the amount of funds needed to effectively mitigate the Minnewaukan crisis. A number of variables are involved and city officials and our engineering consultants are constantly assessing costs and modifications as new issues arise. While all funds are not needed currently, at a minimum, \$5 million will be necessary beginning immediately and through the remainder of 2011.

To assure that the complete city relocation and master plan can be implemented, it will be necessary to have the commitment for the full funding estimate of \$10 million recognizing that all state funds may not be needed especially if federal programmatic resources can be effectively secured in a timely manner. In addition to funding requirements, the City needs a short-term financing arrangement through the Bank of North Dakota.

Five million dollars are needed from the State of North Dakota and a commitment to make the remaining amount available if needed on a contingency basis. Without proper funding it will be difficult to begin the protection and relocation process.

Our hope is that the funds could be made available through the creation of a State Hazard Mitigation Impact Fund (HMIF). Communities facing a natural disaster impact could access the funds to meet needs that are not eligible under other federal or state programs based on eligibility requirements, timing, cost share constraints or based on inadequate funding levels. The State HMIF Program would provide a safety net for communities such as Minnewaukan and allow less dependency and reliance on federal assistance.

CURRENT CONDITION

On December 23, 2010, The National Weather Service posted its 2011 spring outlook. The outlook calls for a 90 percent chance of Devils Lake reaching 1453.6 feet. There is a 50 percent chance of the lake reaching 1454.6 feet, and a 10 percent chance of exceeding 1,455.9 feet.

Given the severity of this outlook Governor Dalrymple on January 11, 2011 declared a state of emergency to provide flood protection to the Devils Lake Basin.

A lake rise to 1,452-1,455 feet creates a serious condition wherein the city may lose the waste water system requiring a complete shut down and abandonment of Minnewaukan. In addition, the Minnewaukan School will be threatened and city water lines and water tower will be further compromised. A third of the community could be inundated by the rising water level in the spring of 2011.

ACTIONS TAKEN OR ONGOING

- Under the leadership of the North Dakota Department of Disaster Emergency Services (NDDDES), an interagency team representing state and federal agencies has coordinated with the city of Minnewaukan to assess all possible state and federal programs that may be applicable to mitigating impacts associated with the continuous lake rise. The team has spent significant hours assessing eligibility requirements, program criteria, timing constraints and funding availability. The initial assessment is identified in Appendix E. This initiative is an ongoing effort and the opportunities are continually monitored and updated by the interagency team and the city engineer consultants.
- The City in collaboration with the State Interagency Team will coordinate with the Congressional Delegations' staff to assess viable congressionally directed funding or other congressional legislative language initiatives that would benefit the City of Minnewaukan in qualifying for needed programmatic funds.
- The North Central Regional Planning District is working on completing the Benson County Multi-hazard Mitigation Plan. The Plan will take at least another six months to complete. FEMA has the authority to waive the requirement for a Hazard Mitigation Plan as a prerequisite for funding under the Hazard Mitigation Grant Program. The City has requested the Governor complete a waiver request to FEMA.
- The City of Minnewaukan and the Minnewaukan Public School District has developed a needs assessment document to summarize the current situation regarding the Devils

Lake Basin flood issues impacting Minnewaukan and the School District. (See Appendix B).

- The City of Minnewaukan continues to work with the Federal Interagency Devils Lake Working Group.
- The Department of Education recently completed its review of the Minnewaukan application for an Impact Aid Discretionary Construction Grant to assist the community in relocating the school. The effort has resulted in an initial \$7.1 million grant to relocate the school.
- The City is in the process of developing a partial relocation plan that allows for retention of a portion of the existing community above 1,460 feet. According to the relocation plan, the new Minnewaukan community will be located approximately two miles northwest of the existing town site. The strategy will allow effective relocation of residential, commercial and public facilities maintaining the integrity of the community and allowing community growth through an aggressive economic development plan for expansion.
- Governor Dalrymple's request for \$5.8 million from FEMA is encouraging and appreciated. However, if the federal government allowed an additional extension and provided the necessary waiver for Minnewaukan to apply for the funds, the city is still faced with eligibility requirements, timing of fund availability, cost share requirements and no assurance that the funds will be adequate or accessible for the relocation effort necessary to maintain the complete integrity of the community once inundation begins.

SUMMARY

Minnewaukan is requesting the introduction of a bill to create a fund in the amount of \$10 million to be accessible by the city to mitigate impending flooding issues and allow for partial relocation and retention of a portion of the existing community above 1,460 feet.

Appendix A: CITY OF MINNEWAUKAN PRIORITIZED RELOCATION MATRIX

CITY OF MINNEWAUKAN PRIORITIZED PROJECT TO POSSIBLE PROGRAM (P4) MATRIX

January 18, 2011

City Priority ††	Project	Critical Elevation (14XX ft MSL)	Cost** (Rolling Total)	Funding on Hand/ Projected to Date	Potential Future Funding Sources	Challenges	Effects of Not Taking Action/ Follow On Effects/ Remarks
1	Construction of a new water tower, and demolition of the old one	52	\$770,000 (\$770,000)	\$300,000 - USACE	<ul style="list-style-type: none"> • USDA-RD • CDBG • Unified HMA* • Local cost share • NDDoH - SRF*** 	<ul style="list-style-type: none"> • Matching concerns • App timing • Project timing 	City water system will shut down, and what exists in the current Minnewaukan footprint will be unlivable
2	Temporary Protection of School (riprap lot, water collection systems)	52	\$50,000 (\$820,000)	\$90,000 - CDBG	USACE	Timing for emplacement of levee	<ul style="list-style-type: none"> • The school may become unusable before the new one is ready to transition into • A city emergency declaration needs to be initiated/ renewed
3	Sanitary Sewer Improvement (Old town sewer relocations, including lift stations)	55	\$1,510,000 (\$2,330,000)	\$350,000 - City (has to be generated through such things as taxes and specials)	<ul style="list-style-type: none"> • NDDes Unified HMA* • NDDes PA* • USDA - RD (loan and grant) • CDBG • Local cost share • NDDoH - SRF*** 	<ul style="list-style-type: none"> • USDA RD - timing of the grant application, and their funding also retains federal identity. This would need to be a standalone project • City needs to be on the clean water list for eligibility for SRF funds 	<ul style="list-style-type: none"> • If the sanitary sewer system is not preserved, what exists in the current Minnewaukan footprint will be unlivable • This project involves new lifts built on higher ground, line reroute, and relocating force mains

*Damages required

**Estimated

*** Can be a loan for 100% of the project or to satisfy local match requirements for other programs

† Loan can be made to the city or an eligible applicant agent authorized to act on their behalf

†† As indicated by the City Engineer- Kadmas, Lee, and Jackson, PE

CITY OF MINNEWAUKAN PRIORITIZED PROJECT TO POSSIBLE PROGRAM (P4) MATRIX

January 18, 2011

City Priority ††	Project	Critical Elevation (14XX ft MSL)	Cost** (Rolling Total)	Funding on Hand/ Projected to Date	Potential Future Funding Sources	Challenges	Effects of Not Taking Action/ Follow On Effects/ Remarks
4a	Relocation of 10-30 Residential Structures	53	TBD (?)	<ul style="list-style-type: none"> ● NFIP Policy Payouts* ● NDHFA – contributed a \$12,000 grant to the city for relocation engineering costs, \$16,000 to Benson County for their MHMP, and extended the County Housing Coordinator to Sept 11 	<ul style="list-style-type: none"> ● NDES Unified HMA* ● NFIP ● NDHFA - Rural Housing Development† 	<ul style="list-style-type: none"> ● Benefit Cost Ratio – may not achieve it with current documented damages. Need written approval of imminent risk criteria from FEMA, as approved for DR1279 ● NFIP Standard Guidelines require property to be wet for 90 days ● Very few citizens have the NFIP endorsement 	<ul style="list-style-type: none"> ● Scope of work and project cost will be determined as future flood forecasts solidify more accurate lake rise data ● If residences are not relocated, the tax base lost will result in unincorporation ● Few reasons to pursue other projects exist if a way ahead for partial relocation of residents is not realized
4b	Flood proofing basements	52	TBD (?)	\$0	<ul style="list-style-type: none"> ● Unified HMA* ● CDBG (problematic) ● NDHFA 		
5	Water Improvements (old town relocations)	55	\$120,000 (\$2,450,000)	\$0	<ul style="list-style-type: none"> ● NDES Unified HMA* ● NDES PA* ● USDA - RD (loan and grant) ● Local cost share ● NDDoH – SRF*** 	<ul style="list-style-type: none"> ● USDA RD - timing of the grant application; their funding also retains federal identity. This would need to be a standalone project ● City needs to be on the clean water list for SRF 	Water mains will be under the lake and inaccessible for repair if broken.
TOTAL- PROJECTS to RETAIN EXISTING CITY			\$2,450,000+	\$740,000+			

*Damages required

**Estimated

*** Can be a loan for 100% of the project or to satisfy local match requirements for other programs

† Loan can be made to the city or an eligible applicant agent authorized to act on their behalf

†† As indicated by the City Engineer- Kadrmas, Lee, and Jackson, PE

CITY OF MINNEWAUKAN PRIORITIZED PROJECT TO POSSIBLE PROGRAM (P4) MATRIX

January 18, 2011

City Priority ††	Project	Critical Elevation (14XX ft MSL)	Cost** (Rolling Total)	Funding on Hand/ Projected to Date	Potential Future Funding Sources	Challenges	Effects of Not Taking Action/ Follow On Effects/ Remarks
6a	Acquire Land for Residential Relocation	55	\$60,000 (\$2,510,000)	\$0	NDHFA- Rural Housing Development †	NDHFA program funds provide only 50% of the cost of housing relocation and supporting infrastructure	<ul style="list-style-type: none"> Residences will not be able to relocate within Minnewaukan; the city will lose tax base Land cost is based on \$2,800/acre x 20 acres
6b	New town sewer and water infrastructure (distribution, collection, connection between towns, pump improvements)	55	\$1,980,000 (\$4,490,000)	\$0	<ul style="list-style-type: none"> NDSWC (distribution and rural water systems) USDA-RD US EDA CDBG USACE 594 Local cost share NDDoH - SRF *** 	Project Timing	<ul style="list-style-type: none"> The new subdivision will not be capable of supporting residences or a new school The new school opens in the fall of 2012
6c	New town road network	55	\$380,000 (\$4,870,000)	\$0	US EDA		
6d	New town communications and power network	55	\$0 (No fees for installation of elec, phone, internet, cable)	\$0	REC/RTC/Cable		
TOTAL- PROJECTS to START NEW CITY			\$2,420,000+	\$0			
PLUS TOTAL- PROJECTS to RETAIN EXISTING CITY			\$4,870,000+	\$740,000+			

*Damages required

**Estimated

*** Can be a loan for 100% of the project or to satisfy local match requirements for other programs

† Loan can be made to the city or an eligible applicant agent authorized to act on their behalf

†† As indicated by the City Engineer- Kadrmas, Lee, and Jackson, PE

CITY OF MINNEWAUKAN PRIORITIZED PROJECT TO POSSIBLE PROGRAM (P4) MATRIX

January 18, 2011

City Priority ††	Project	Critical Elevation (14XX ft MSL)	Cost** (Rolling Total)	Funding on Hand/ Projected to Date	Potential Future Funding Sources	Challenges	Effects of Not Taking Action/ Follow On Effects/ Remarks
6e	Highway access and signalization for the new town	55	\$580,000 (\$5,450,000)	\$250,000 - NDDOT school access program (applied for but not confirmed)	NDDOT	NDDOT funding is competitive, and limited to \$250,000 per project. Any difference needs to be made up	<ul style="list-style-type: none"> • Students and residents will be unable to access the school and homes • Potential for increased auto accidents without effective signalization
7	Main St Road Elevation	56	\$320,000 (\$5,770,000)	\$0	None identified at this time	TBD, once a funding source is identified	<ul style="list-style-type: none"> • Access to downtown and to critical services located downtown will be limited • Alternate gravel roads used for a detour will wear out sooner, resulting in potentially unaffordable maintenance costs
8	Public Facilities (bldgs.)	55	TBD (?)	\$0	<ul style="list-style-type: none"> • NFIP* • Unified HMA* • USDA-RD • PA* 		
9	Well line relocation	Underwater already	\$980,000 (\$6,750,000)	\$0	<ul style="list-style-type: none"> • USACE 594 • Unified HMA • USDA-RD • CDBG* • NDSWC • NDDoH – SRF**** 	Timing	What exists in the current Minnewaukan footprint will be unlivable

*Damages required

**Estimated

*** Can be a loan for 100% of the project or to satisfy local match requirements for other programs

† Loan can be made to the city or an eligible applicant agent authorized to act on their behalf

†† As indicated by the City Engineer- Kadrmias, Lee, and Jackson, PE

CITY OF MINNEWAUKAN PRIORITIZED PROJECT TO POSSIBLE PROGRAM (P4) MATRIX

January 18, 2011

City Priority ††	Project	Critical Elevation (14XX ft MSL)	Cost** (Rolling Total)	Funding on Hand/ Projected to Date	Potential Future Funding Sources	Challenges	Effects of Not Taking Action/ Follow On Effects/ Remarks
10	Sewer Force Main Relocation	Already at potential failure	\$440,000 (\$7,190,000)	\$0	<ul style="list-style-type: none"> ● USACE Section 594 ● NDDes Unified HMA* ● USDA – RD ● CDBG* ● Local cost share ● NDDoH - SRF *** 	<ul style="list-style-type: none"> ● Project Timing for 594 ● USDA - RD application timing 	<ul style="list-style-type: none"> ● If the force main is not relocated, what exists in the current Minnewaukan footprint will be unlivable ● This is underwater now, and could fail at anytime
11	Industrial site		TBD		US EDA		
	TOTAL- PROJECTS AFTER 2011 PENDING LAKE LEVELS		\$2,320,000+	\$250,000			
	GRAND TOTAL		\$7,190,000+	\$990,000**			

*Damages required

**Estimated

*** Can be a loan for 100% of the project or to satisfy local match requirements for other programs

† Loan can be made to the city or an eligible applicant agent authorized to act on their behalf

†† As indicated by the City Engineer- Kadmas, Lee, and Jackson, PE

NOTES:

1. The Minnewaukan City Engineer is continuously refining the cost estimate for the various components of the relocation.
2. For **ALL** funding programs listed as a potential source, eligibility determinations still need to be made. A final project scope of work, as detailed in applications, is required for these determinations.
3. NWS Outlook for Flood Potential
Valid 12/22/2010 - 9/29/2011

Percent Chance Outlook for Lake Level Crests at Creel Bay (Stump Lake identical):

90%	80%	70%	60%	50%	40%	30%	20%	10%
1453.6	1454.0	1454.1	1454.4	1454.6	1454.7	1455.2	1455.5	1455.9

4. Engineering fee cost estimates for the above are built into the project costs. Estimates are based on Construction Costs, +20% Construction Contingency, +20% Engineering (design & construction), and +5% Administration & Legal. Engineering fee percentage will vary depending on how many projects are included.

ACRONYMS:

- CDBG: Community Development Block Grant
- HMA: Hazard Mitigation Assistance
- NDDDES: ND Department of Emergency Services – Division of Homeland Security
- NDDoH: ND Department of Health
- NDDOT: ND Department of Transportation
- NDHFA: ND Housing Finance Agency
- NDSWC: ND State Water Commission
- NFIP: National Flood Insurance Program
- PA: Public Assistance
- USACE: US Army Corps of Engineers
- USDA-RD: US Department of Agriculture Rural Development
- US EDA: US Economic Development Administration
- REC: Rural Electric Cooperative
- RTC: Rural Telephone Cooperative
- SRF: State Revolving Loan Fund

COLOR DESIGNATIONS:

Projects to be started in 2011 to retain existing Minnewaukan.

Projects to be started in 2011 to start new Minnewaukan.

Projects that can be started after 2011, pending lake levels.

*Damages required

**Estimated

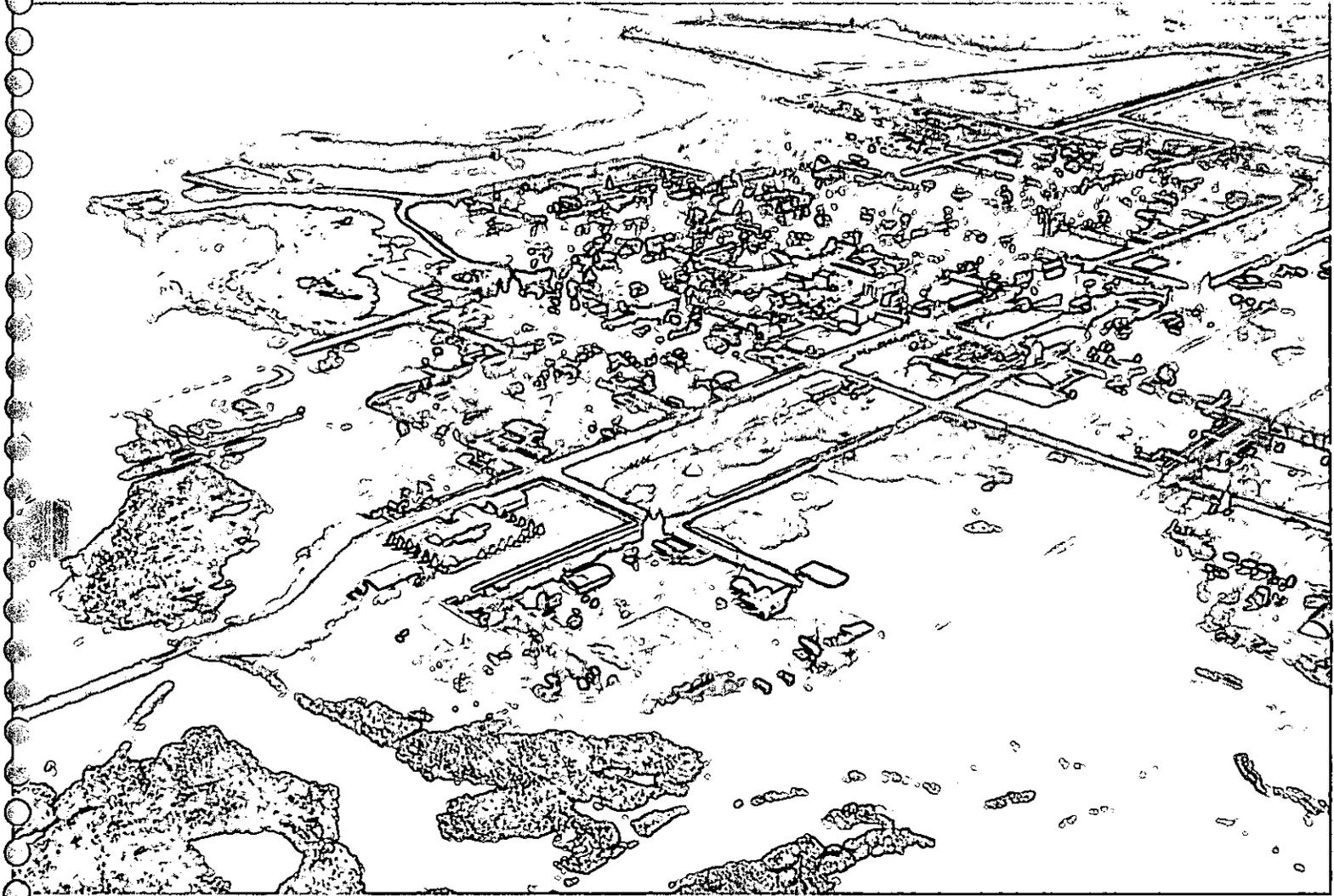
*** Can be a loan for 100% of the project or to satisfy local match requirements for other programs

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Appendix B: MINNEWAUKAN FLOOD PROTECTION PLAN

MINNEWAUKAN FLOOD IMPACTS



2011

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- Appendix B: School Schedule and Budget
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I. INTRODUCTION

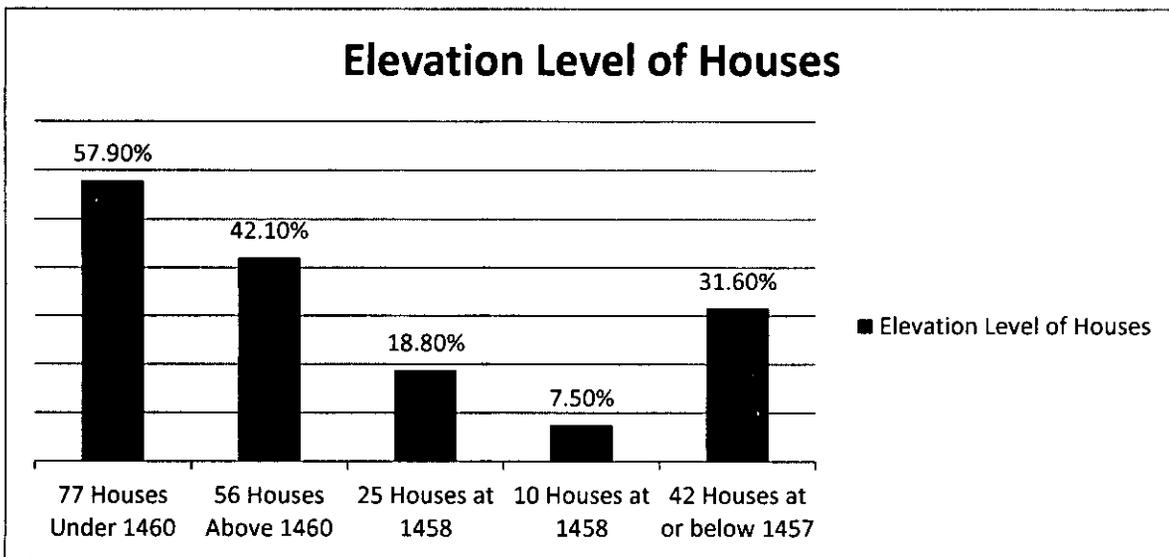
The city of Minnewaukan and the Minnewaukan Public School District has developed this informational piece to summarize the situation regarding the Devils Lake flood issues. This information has been gathered by the city, county, school, the horizon committee and Kadrmas, Lee & Jackson, Inc. to summarize the issues facing the community from several angles.

The city of Minnewaukan is composed of roughly 300 residents, but is a regional asset. The town serves as the county seat for Benson County. The Minnewaukan School District serves grades K-12 and is a regional draw from the local reservation. On the shores of Devils Lake, the town has developed a significant tourism industry. Loss of the community would leave a significant hole in the region.

II. EXISTING CONDITIONS

The City of Minnewaukan, ND is located on what is now the western shore of Devils Lake. Over the last 18 years, the lake has tripled in size and risen nearly 30 feet in elevation. Minnewaukan is centered on an abandoned railroad bed which is also the high point of town. Past studies have indicated that all parts of town below an elevation of 1460.0 are vulnerable to the waters of Devils Lake. At this elevation, the size of Minnewaukan will be reduced to one third of its current size. Below is a summary of the building elevations (based on Corps of Engineers data).

Table 1: Elevation Level of Houses



*total includes 17 residences that have already been moved or demolished.

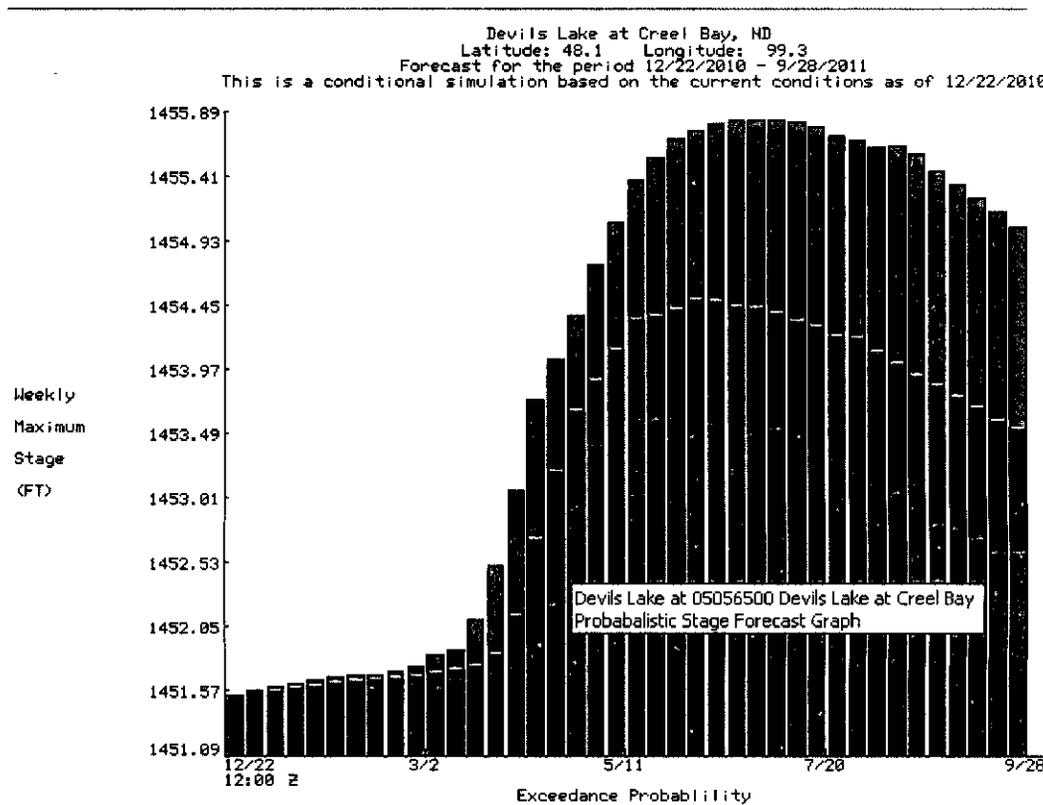
In the past, the city has taken precautions against the rising water of Devils Lake to maintain the integrity of the water and sewer systems. Precautions have been summarized as follows:

- **1995:** Sewage lagoons were relocated

- **2000:** Large portions of the city sewer and water system replaced
- **2009:** The lift stations and some low lying manholes protected and additional sewer lines rehabilitated
- **Ongoing:** Multiple structures relocated or demolished

Presently, the lake is at an elevation of 1451.6 feet. Projections for the spring thaw have shown a 50 percent chance that the lake will rise three feet to an elevation of 1454.6 feet. Below is a graph from the National Weather Service showing the various probabilities for the 2011 lake levels.

Table 2: Lake Elevation Levels



Attached is Exhibit 1 which shows the existing lake levels, the 2011 forecast (50 percent probability), the breakout elevation of the Tolna Coulee, the location of the existing water tower, and the locations of the sewage lift stations. The water tower and lift stations will be vulnerable at the 50 percent forecast elevations (see Exhibit 1). If the sewer and water systems fail, the entire town will be lost regardless of building elevation.

Below is a list of the governmental structures in town with their insured values. The list is a small sample of the potential loss in property with a failure of the sewer and water systems.

Table 3: Replacement Cost of County Owned Buildings

REPLACEMENT COST OF COUNTY OWNED BUILDINGS LOCATED IN MINNEWAUKAN
--

Benson County Courthouse/Garage	\$11,030,000
Benson County Social Services	\$210,000
Benson County Social Services	\$250,000
Benson County Highway Shop	\$800,000
Benson County Housing Multiplex	\$300,000
Benson County Housing Single Dwelling	\$100,000
Benson County Housing Single Dwelling	\$100,000
Benson County Housing Single Dwelling	\$80,000
Benson County Housing Single Dwelling	\$80,000
Benson County Housing Single Dwelling	\$80,000
Grand Total	\$13,030,000

Table 4: Replacement Cost of City Owned Buildings

REPLACEMENT COST OF CITY OWNED BUILDINGS LOCATED IN MINNEWAUKAN	
Minnewaukan City Hall	\$250,000
Minnewaukan City Garage	\$22,000
Minnewaukan Fire Hall/Senior Center	\$400,000
Minnewaukan City Owned USDA Building	\$650,000
Grand Total	\$1,322,000

The city has met multiple times with various state and federal agencies. Director Greg Wilz of the North Dakota Department of Emergency Services held a town hall meeting on October 13, 2010 to discuss the options for the community moving forward. The options were summarized in the flow chart attached provided at the meeting (Exhibit 2). The town hall meeting was concluded by a straw poll of the citizens on whether to keep the city intact (relocation) or to abandon the city. The poll showed an overwhelming desire to relocate the city. A letter was written by Mayor Trish McQuoid declaring the city's intention to relocate and requesting assistance from the North Dakota Legislature (Appendix A). A letter of support was provided by the Benson County Commission to move forward with a relocation of the city of Minnewaukan (Appendix A).

In December 2010, a report was completed by the Federal Interagency Devils Lake Working Group which included observations and recommendations for the Devils Lake basin. The report recommended that the city of Minnewaukan start a partial relocation.

The Minnewaukan School District has been awarded a \$7.1 million grant to relocate the school to higher ground. The school has started the planning process to move the school to a property located approximately one mile northwest of town. The city of Minnewaukan intends to relocate to the same location.

III. CITY RELOCATION PLAN

Existing Town

The city has started the planning process for relocating portions of town. It was determined in city meetings that a full relocation plan is uneconomical at this time. With the breakout elevation at the Tolna Coulee of 1,458, the city plans to relocate all structures below 1,460, starting with the lowest lying structures. After all structures are removed below the elevation of 1,460, approximately one third of the town will remain in place, including the Benson County Courthouse, the downtown business district, and higher lying homes. The exact area of town to remain has yet to be determined, but will only include portions of town located above the elevation of 1460 (Exhibit 1).

To keep water service, sanitary sewer service, and roadway access to the remaining portions of town, significant infrastructure improvements will need to take place. Improvements will include the following items:

Existing Town Infrastructure Improvements - \$5.2 million*

- Replace the existing water tower
- Abandon portions of the water distribution system
- Relocate the water lines to town and the well (portions currently under the lake)
- Replace the sanitary sewer lift stations
- Relocate the sewer force main (currently under the lake)
- Abandon portions of the sewage collection system
- Grade raise on various streets in and out of town

If the partial relocation plan does not take place, the above infrastructure improvements will still be required to maintain the community. Without these improvements, the city will have limited roadway access to town and may not have utility service as the lake continues to rise.

New Minnewaukan

The Minnewaukan Public School has acquired a 42 acre tract located approximately one mile northwest of town along Highway 281. The location will be shared by the city and school. Exhibit 3 depicts the location for the new town in comparison to the existing town. The location will be able to utilize the existing sewage lagoons (located directly to the east) and the existing water treatment plant located between the new and existing locations. As shown in Exhibit 4, the 160 acre master plan for the new Minnewaukan allows space for the school, future commercial uses, governmental uses, parks, and residential development. Phase 1 for the new Minnewaukan will include the school property, a commercial lot, and approximately 20-30 residential lots as shown in Exhibit 5. Infrastructure improvements for Phase 1 will include the following items:

New Minnewaukan Infrastructure Improvements - \$2.8 million*

- Land acquisition
- Construction of improvements along Highway 281
 - Turn Lanes
 - Traffic Signals
 - Lighting
- Gravel roads
- Water distribution system
- Sewage collection system and sewage lift station
- Updates to the water treatment plant

*The estimated costs for the infrastructure improvements will be updated as the relocation study is completed.

Funding

The City of Minnewaukan has already received a \$300,000 grant from the Corps of Engineers 594 Program. In addition, the city has committed to provide a local share of 4 percent. The local share will be raised through a combination of sales tax, special assessments and user fees. The city of Minnewaukan is requesting that the remaining funding be provided by the North Dakota Legislature. A summary of the funding is listed below.

City Share	\$350,000
Corps of Engineers	\$300,000
ND Legislature	<u>\$7,350,000</u>
Total	\$8,000,000

Schedule

Over the last two years the lake has risen over four feet in elevation and this year's forecast is predicting an additional two to three feet in lake levels. At the current rate of rise, the city has little time to proceed with the relocation process. Below is a tentative schedule for obtaining funding, developing the engineering plans and specifications and project construction.

Finalize Funding	Now – March 2011
Develop Relocation Plans, Specs, Permits	April – July 2011
Construction of Improvements	August 2011 – October 2012

IV. MINNEWAUKAN PUBLIC SCHOOLS

The Minnewaukan Public School is a small rural school located near the Spirit Lake Nation in east central North Dakota. The school building looks over the scenic Devils Lake. In recent years, the lake has encroached to the edge of the school's parking lot and is only 100 feet from the school itself.

In the early 1990's, as with many schools in rural North Dakota, the school faced an enrollment crisis. Families became displaced by the rising Devils Lake waters and enrollment dropped to a low of 110 students in grades K-12.

Facing a continued decline in enrollment, a group of individuals traveled to the Reservation to inform parents and families about the education opportunities for their children at the Minnewaukan Public School. The enrollment for the 2010-11 school year is at 270 students in grades PreK-12, with approximately 90 percent of children of Native American decent. The table below summarizes the past growth and anticipated school growth.

Table 5: Public School Enrollment

Grade	2008-2009	2009-2010	2010-2011	2015-2016*
Pre-Kindergarten	17	16	31	30
Kindergarten	21	30	20	30
Grade 1	16	22	30	30
Grade 2	22	20	23	30
Grade 3	17	21	22	30
Grade 4	19	21	20	31
Grade 5	15	19	17	20
Grade 6	15	15	18	29
Grade 7	7	15	20	23
Grade 8	13	10	20	21
Grade 9	17	13	15	23
Grade 10	14	11	14	15
Grade 11	14	14	9	18
Grade 12	17	14	11	19
Total	224	241	270	349

The Minnewaukan Public School has become a destination school for children from the Spirit Lake Nation due to the high level of education available. This is demonstrated in the mandated test scores of the Minnewaukan School compared to other schools serving Native American students as shown in the table below.

Table 6: Minnewaukan Public School Test Score Comparison

School District	Math Scores	Reading Scores
Minnewaukan	70.42%	50.70%
Warwick	38.32%	32.71%
Fort Totten	6.15%	21.05%
Oberon	42.86%	52.38%
New Town	42.86%	52.38%
Mandaree	22.22%	31.48%
St. John	61.02%	60.97%
Belcourt	62.40%	60.70%
Fort Yates	29.09%	30.70%
Solen	46.09%	38.60%

As shown above, the Minnewaukan Public Schools provide a good alternative for Native American students, but additionally closure of the Minnewaukan School would overwhelm the Fort Totten School, which is already near capacity.

The Minnewaukan School District has received a \$7.1 million grant to relocate the school. The school has started the planning process and the architect has prepared a preliminary layout of the school and grounds (Exhibit 6). The school will occupy the southeast corner of Phase 1 (Exhibit 5). The current schedule has construction starting in May 2011 with completion by August of 2012, allowing for school to start that fall (Appendix B).

As shown in the school budgets (Appendix B), the district needs an additional \$1.3 million in funding to accommodate existing student population. If the school accounts for the projected growth anticipated for the 2015-2016 school year, the district needs an additional \$3.0 million in funding to accommodate 349 students.

V. PREPARERS

Trish McQuoid, Mayor
City of Minnewaukan
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701 473 5735

Myron Jury, Superintendent
Minnewaukan Public Schools
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Myron.Jury@sendit.nodak.edu

Erik Gilbertson, PE
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erik.gilberston@kljeng.com

Exhibit 1: Inundation Levels

Minnewaukan Inundation Levels

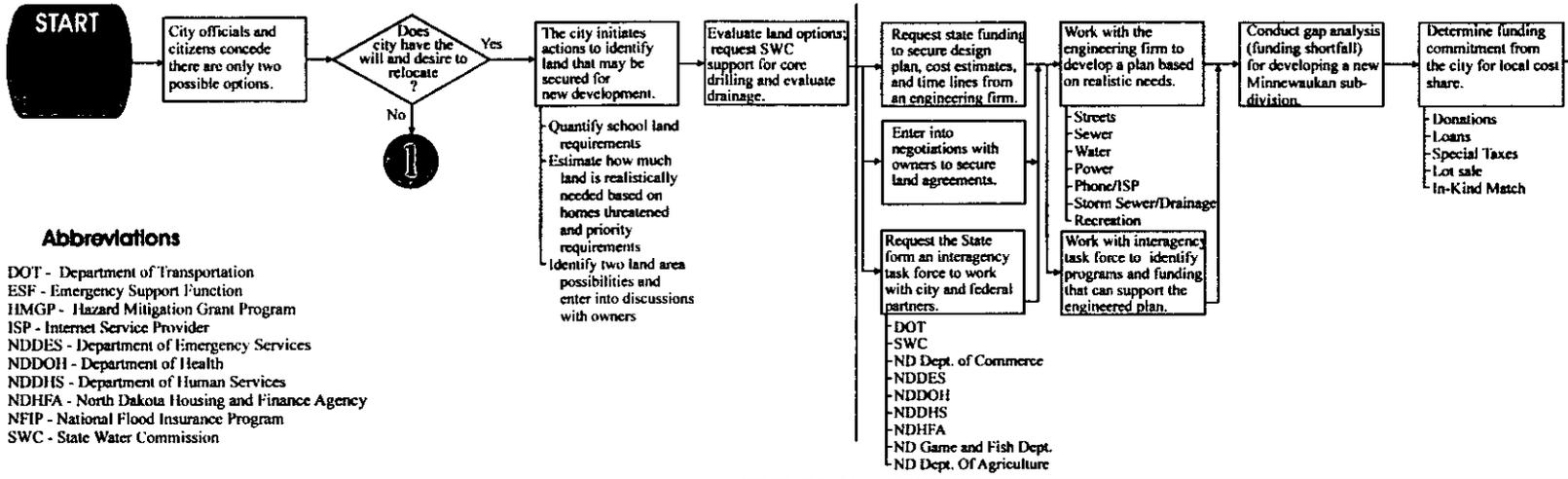


Exhibit 2: Flood Inundation Action Plan

As of October 3, 2010

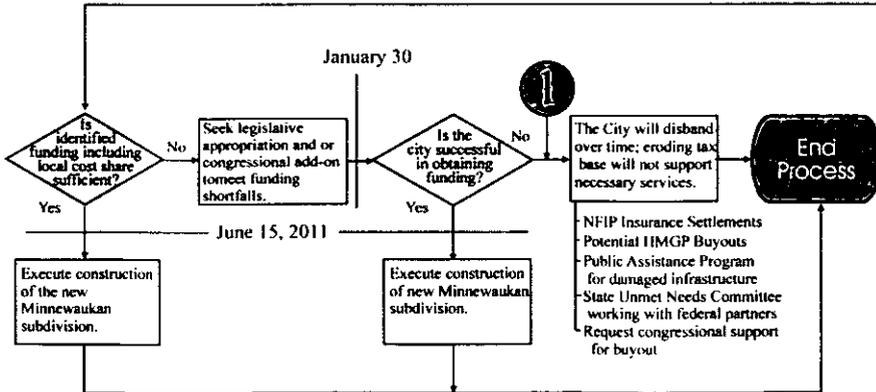
Minnewaukan Flood Inundation Action Plan

29 October



Abbreviations

- DOT - Department of Transportation
- ESF - Emergency Support Function
- HMGF - Hazard Mitigation Grant Program
- ISP - Internet Service Provider
- NDDDES - Department of Emergency Services
- NDDOH - Department of Health
- NDDHS - Department of Human Services
- NDHFA - North Dakota Housing and Finance Agency
- NFIP - National Flood Insurance Program
- SWC - State Water Commission



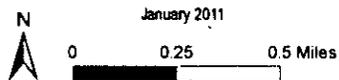
Notes

After 17 years of Devils Lake flooding, Minnewaukan, has few reasonable options. The Corps of Engineer's Section 22 Study affirmed all courses of action considered are cost prohibitive due to a fractional cost benefit ratio. At this point, the city has two options. The first attempts to develop a scalable plan, secures funding, and constructs a sub-development that provides an area for the new school and priority home and business owners who will immediately suffer flood damage or will obtain insurance settlements. This will create an opportunity for Minnewaukan to remain viable. The second allows nature to take its course and the city will likely be forced to disband because the tax base will no longer support affordable services. This high level flow chart outlines the key actions required to sustain Minnewaukan. It defaults to disbanding if actions are not achieved. It does not identify the many sub-actions and tasks required but presents a good, reasonable and favorable outlook for the city if supported by citizens, businesses, along with county, state, and federal leaders and agencies.

Exhibit 3: New & Existing Minnewaukan

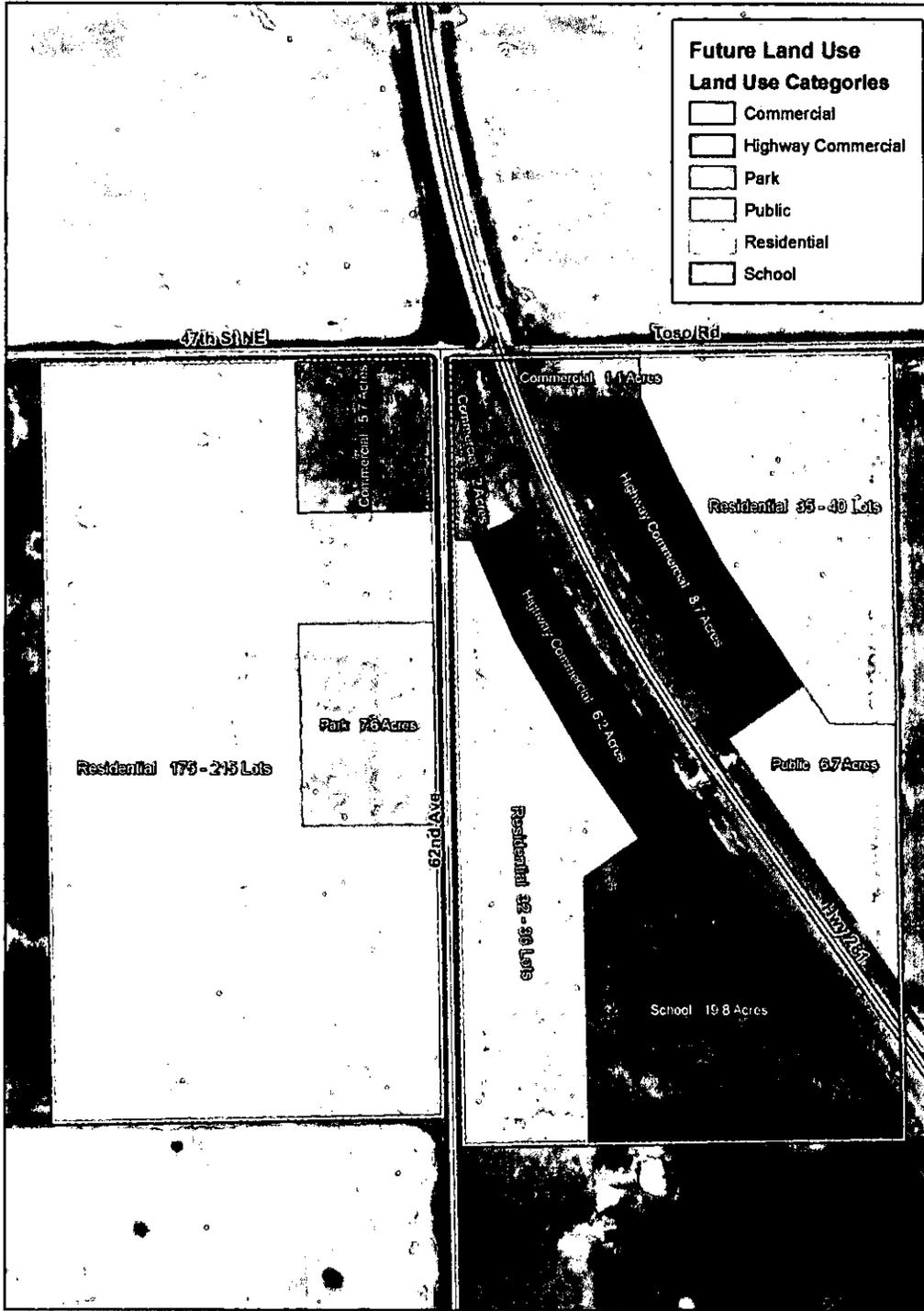


City of Minnewaukan, North Dakota
Minnewaukan City Locations



Kalrmas
Lee &
Jackson

Exhibit 4: New Minnewaukan Full Build Out



City of Minnewaukan, North Dakota
Future City Plan - Build Out - Western Addition

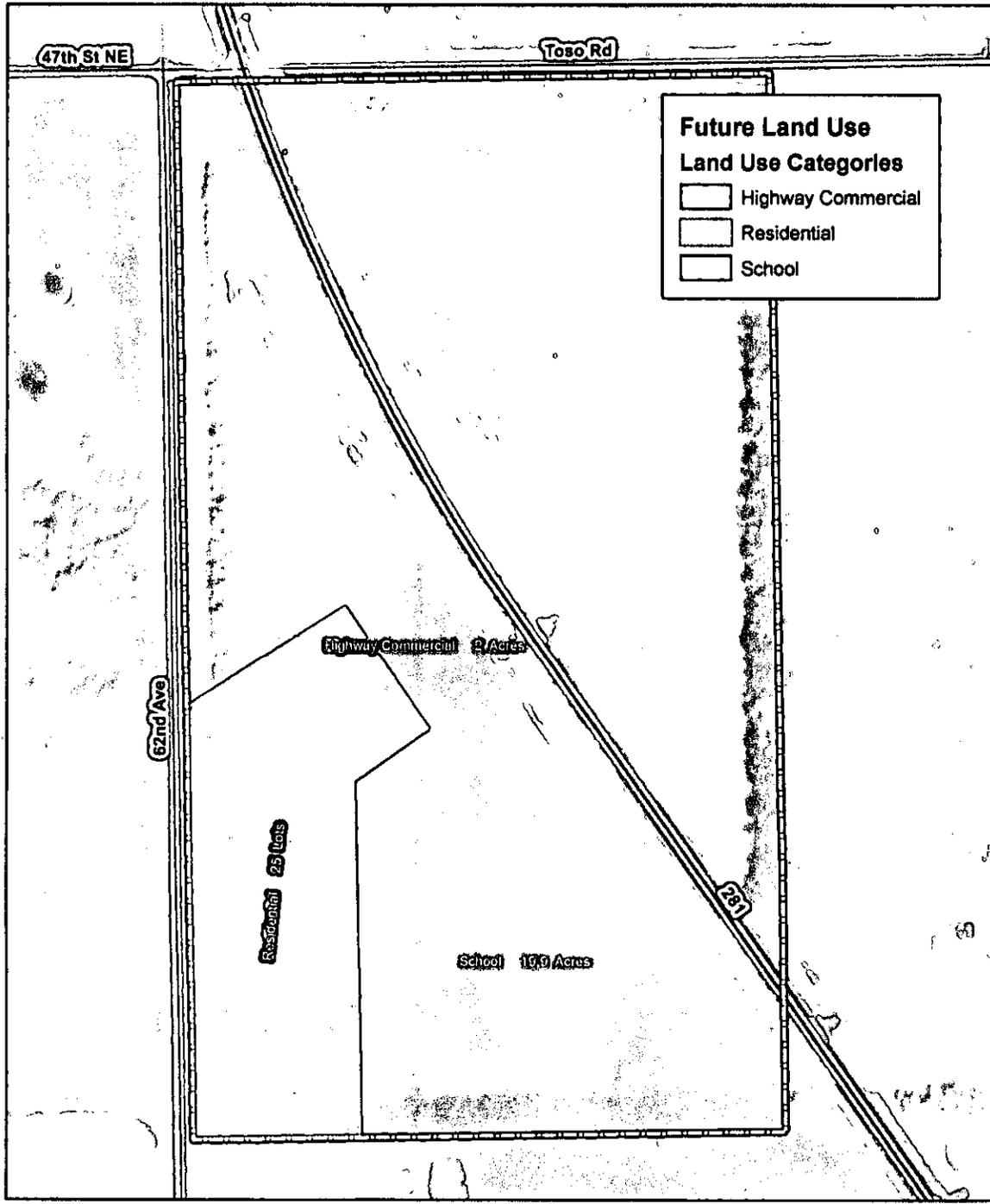


January 2011

0 125 250 500 Feet



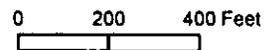
Exhibit 5: New Minnewaukan Phase 1



City of Minnewauakan, North Dakota
Future City Plan - Phase 1

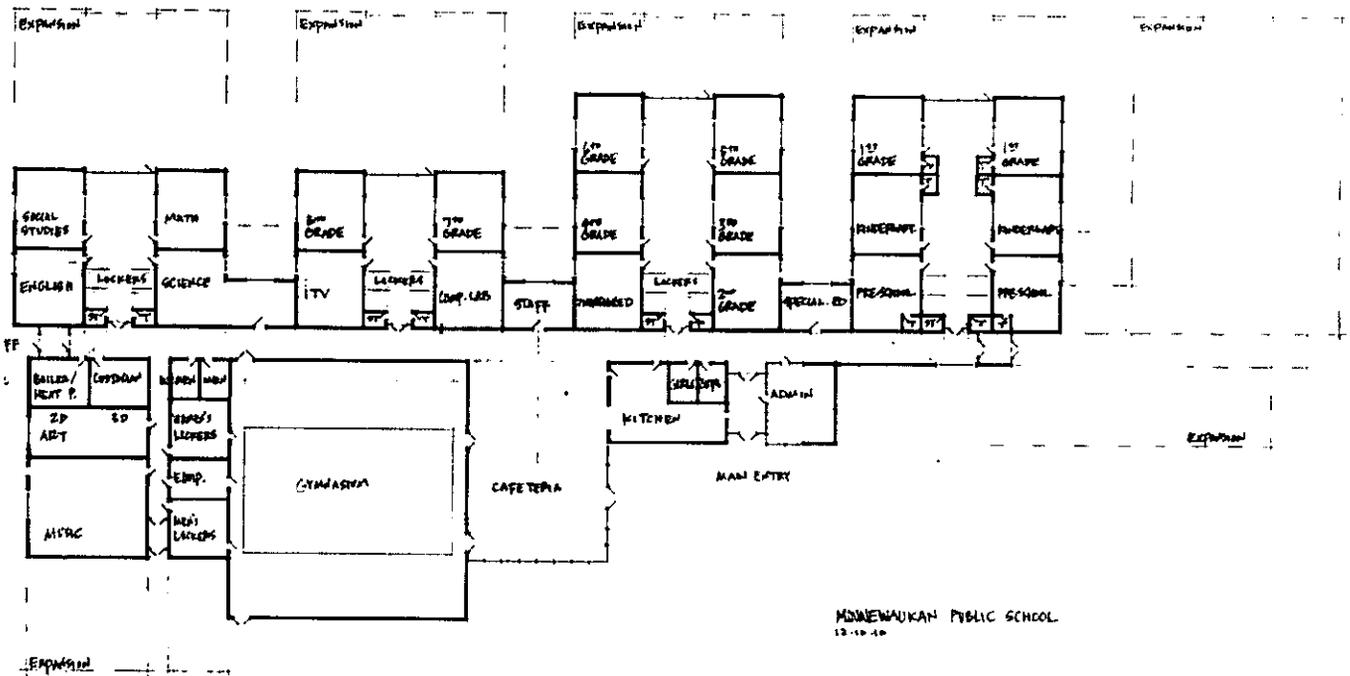
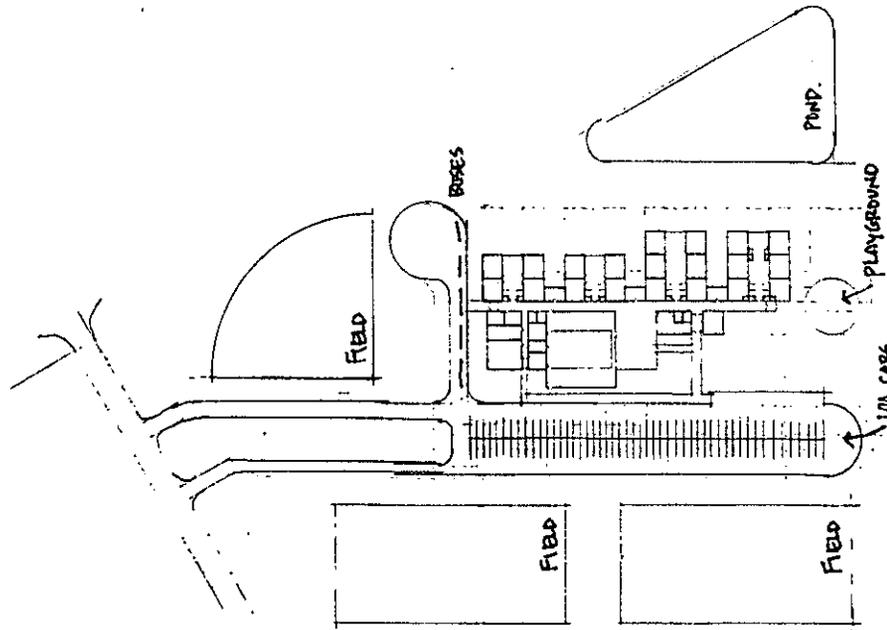


December 2010



Kadmas
 Lee &
 Jackson
 Engineers & Architects

Exhibit 6: School Layouts



Appendix C: Letters from Mayor and County Commission



December 1, 2010

The Minnewaukan City Council and the Minnewaukan School Board have been working on a process to relocate the school and a portion of the city, beginning with some houses that may have to move during the summer of 2011 and beyond.

During the late summer and fall, several meetings were held to determine the best way to go forward. At a meeting held on September 28, 2010, community members were invited to help plan what the future of the city and school should be. Mr. Greg Wilz of the North Dakota Department of Emergency Services led an in depth discussion and laid out a course of action for the citizens to think about. The Action Plan is shown on the following page of this booklet.

At a follow up meeting held at the Minnewaukan School on October 13, 2010, the general public was invited to hear the proposed plan. Myron Jury, Superintendent of Schools, gave an overview of the proposed school project along with financial information and assurances to those in attendance that there would not be any debt incurred by the residents of the Minnewaukan School District. Mr. Greg Wilz explained in depth the proposed Action Plan and gave opportunity for questions. An informal vote was taken with an 85% positive reaction to the plan.

A governors committee was formed consisting of the agencies listed on the action plan sheet. The committee has met several times to bring the members up to speed as to what the problem is and discussion as what each agency can bring to the table.

If the partial relocation is to take place there will need to be cooperation and assistance from many sources. It is hoped that the North Dakota Legislature will be able to help with financial assistance.

Respectfully Submitted,


City of Minnewaukan
Trish McQuoid, Mayor

BENSON COUNTY COMMISSIONERS

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MINNEWAUKAN, ND 58351-0206

Phone: 701-473-5340 Fax: 701-473-5571

* * * * *

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St. Michael, ND 58370
15th District

March 2, 2010

Myron Jury
Minnewaukan Public School
PO Box 348
Minnewaukan, ND 58351

Re: Request for impact aid and other assistance for protection against impending flooding.

Dear Mr. Jury

The Board of the County Commissioners are on record with supporting the City of Minnewaukan and the Minnewaukan Public School District's request for Federal funding from all potential sources to help alleviate the impact of flooding. These efforts will help sustain the existence of the City of Minnewaukan.

Minnewaukan, North Dakota is the County Seat for Benson County. A community made up of approximately 350 permanent residences. As the County Seat, it is the home of the county government, the courthouse, the county road department, and a social service agency occupying 2 separate facilities in the City of Minnewaukan. (See County inventory listing)

The City of Minnewaukan is a vital component to the vitality of county government. County government is necessarily dependent upon the residential tax base which makes up the City of Minnewaukan (see attachment), as well as the community, and its school. The City of Minnewaukan has a Pre-K – 12 school with an approximate student population of 238 students and a faculty and staff of approximately 61 people.

If the City of Minnewaukan were to succumb to the impending flooding by the body of water known as Devils Lake, the school would be forced to close. The students of this school would be forced to be bused and educated at several different schools throughout Benson County. The faculty and staff of the school would no longer have employment in this area. The infrastructure of the school building itself would be a

Page - 2 Letter to Myron Jury dated March 2 2010

complete loss. The Benson County Board of Commissioners do not want to see this happen to the school, the city, and County (See inventory attachment)

Due to flooding and the potential loss of the City of Minnewaukan, Benson County government would lose its County Seat, the County Courthouse ca. 1900, the central county road maintenance facility along with the employees and equipment storage and maintenance site

The abandonment of the city and its businesses and residences would displace approximately 350 permanent residents. The tax base on their homes and properties would land a devastating blow to the tax base of Benson County, North Dakota (see attached for the real property tax base for the City of Minnewaukan) ~~_____~~ X

The infrastructure of the City of Minnewaukan itself has undergone extensive modifications in the past 10 years due to the flooding by the body of water known as Devils Lake. All of these expenditures made would be a complete loss if the City of Minnewaukan were to succumb to the flood waters of Devils Lake

The Benson County Board of Commissioners strongly requests the support of all Federal and State agencies with available solutions, and/or funding, to support the City of Minnewaukan and the Minnewaukan Public School District in its efforts to combat this flooding.

The Benson County government stands ready and willing to lend whatever assistance it may legally and financially dispense with, in support of saving the City of Minnewaukan and the Minnewaukan Public School. The employment and educational opportunities which it presents, as well as a very important tax base for the local and state government should not simply be abandoned.

We ask that all agencies lend support to you in your quest for assistance in this community's efforts against the impending flooding of the City of Minnewaukan and its school. Losing the Minnewaukan School, it's students and staff would be a devastating loss to the City of Minnewaukan and indeed to Benson County

We realize our dilemmas pale in comparison to the recent earthquake tragedies. Detriment, disparity, hopelessness and disaster is experienced on a level of one person, one family, one community at a time.

The position of Benson County is; our small numbers should not be a deterrent in obtaining any available resources for assistance

Thank you for your consideration of our situation and any assistance you may be able to direct our way

13
ok

Page - 3 Letter to Myron Jury dated March 2 2010

Sincerely,

The Benson County Board of Commissioners

Lowell Haagenson

Lowell Haagenson
Chairman
Attachments as set out above.

Appendix D: School Schedule and Budget

**MINNEWAUKAN SCHOOL BUILDING FINANCIAL INFORMATION
DECEMBER 31, 2010**

According to the proposed plan as presented on 12/10/10 the below tables are for a working budget.

Building Square Footage	55,212 Sq Ft
Times estimated cost	\$ 140
Total Cost	\$7,729,680

Additional Costs	
Drives and parking	\$250,000
Utilities	\$350,000
Furniture	\$100,000
Grand Total	\$ 8,429,680

Estimated Revenue	
Impact Aid Grant	\$6,000,000
North Dakota (Governors Pledge)	\$587,000
Local Resources	\$523,000
Total Resources	\$7,110,000
DIFFERENCE	-\$1,319,680

Enrollment Projection 2015-2016													
Pre-K	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total
30	30	30	30	31	20	29	23	21	23	15	18	19	349

If projections are close, we will require six more elementary classrooms plus the commons space to accompany the classrooms.

12 ELEMENTARY CLASSROOMS IN DRAFT PLAN
16 CLASSROOMS WOULD BE REQUIRED

16 – 12 = 4 + 3 = 7 COMMONS SPACE 28x32 = 896 sq ft x 7 = 6272 sq ft
6272 sq ft x \$140 = \$878,080

Projections would require additional classroom space for high school as well.

4 CLASSROOM + 2 COMMONS AREA 28 x 32 = 896 sq ft x 6 = 5376 sq ft
5376 sq ft x \$140 = \$752,640

REVISED BUDGET INFORMATION

Original Draft Plan	55,212 sq ft
Near Future Needs	6,272 sq ft
	5,376 sq ft
Total Square Feet	66,820 sq ft x \$ 140
X	\$140
Building Grand Total	\$9,354,800
Drives and Parking	\$ 250,000
Utilities	\$350,000
Furnishings	\$100,000
Grand Total	\$10,054,800
Revenue in hand	<u>\$7,110,000</u>
NEED TO FIND	\$2,944,800

Appendix E: Newspaper References



Sarah Kolberg, staff photographer

▲ Rising Devils Lake waters are growing precariously close to the public school in Minnewaukan, N.D. In a sink or swim move, the North Dakota's congressional leaders chose swim by securing a \$6 million federal grant from the Department of Education that will allow for the school to be moved to safer ground.

Life ring for learning

▣ Minnewaukan School gets \$6 million to retreat from rising lake

By Kevin Bonham
Herald Staff Writer

Flood-threatened Minnewaukan Public School will receive a \$6 million federal grant to move the school away from the menacing Devils Lake.

North Dakota's congressional delegation — Sen. Kent Conrad, Sen. Byron Dorgan and Rep. Earl Pomeroy — announced the federal Department of Education grant Wednesday.

"Minnewaukan School faces an urgent threat. This runaway lake is lapping at their doorstep. Action needs to be taken and taken now," the delegation said in a joint statement. "This is a grant we have been pushing for and

will be a tremendous help in moving the school to higher ground."

Superintendent Myron Jury hopes the new school will be ready for the 2012-13 school year. A local planning committee will be named soon.

The proposed school would cost about \$7.2 million, said Jury. Jury also said Gov. John Hoeven has indicated the state would provide a portion of the remaining funding, while the rest likely would have to be raised locally.

Too close for comfort

Devils Lake, which has risen by nearly 30 feet and quadrupled in size in the past 17 years, is only about 130 feet away from the school property. In 1993, when the current wet cycle began, the lake was about eight miles away.

The lake reached a record elevation of 1,452.1 feet above sea level this summer but now is about 1,451.5 feet. It has risen about 5 feet in the past two years.

Minnewaukan officials hope to build a new school on higher ground on the

west side of the relocated U.S. Highway 281, about one-half mile away.

School district officials also will meet soon with architects to start drawing preliminary plans for the school and contact property owners, to find a suitable location.

Water and sewer services also will have to be built to accommodate the new facility.

City officials hope to secure funding to build such infrastructure across the highway, to provide an area for the city to expand while maintaining the core business section of town, which is built on higher ground.

Devils Lake is predicted to overflow from Stump Lake toward the Sheyenne River if it reaches 1,458 feet.

Receding residents

Minnewaukan had a population of about 300 last year. But rising floodwaters have forced more than a dozen families to move in the past few

MINNEWAUKAN: See Page C3

MINNEWAUKAN/

Continued from Page C1

months.

Minnewaukan Public School has 263 students enrolled this fall in K-12. That's an increase of 22 from last year, and up about 40 from two years ago.

"We're planning for a number of classes

to learn."

In the mid-1990s, enrollment was as low as 110. Today, about 90 percent of the students live on the neighboring Spirit Lake Indian Reservation.

"We'd like to think we're doing a good job," Jury said. "We really work hard to make the kids come to school and do their work, and we think the parents appreciate that. We'd like to think we're doing a good job."

BENSON COUNTY FARMERS PRESS

Continuing the Devils Lake World, the Maddock Standard, Benson County Courier, the Esmond Bee and Dakota Siftings
 Official Newspaper of Benson County Volume 127, Number 47 Wednesday, December 29, 2010

New Mwkn school plans on track

The Minnewaukan School Board and the city of Minnewaukan are working toward a partial relocation of threatened infrastructure in Minnewaukan. It is expected the school, which will need approximately 15 acres, and the city will locate in the same area.

Final decisions have not been made, but the school has taken out an option on 42 acres of land on the east side of new US 281 owned by Bob Streifel in the NW 1/4 of Section 8 in West Bay Township. The selling price of the land is \$2,750 per acre. It is expected the purchase of this property will be made before the end of 2010.

The school board also has an option on an additional 32 acres in this quarter section on the east side of US 281. If the board decides to purchase the property, it will be done before the end of 2011.

The school board has received a \$6,000,000 grant to build the new school building because the current school is in danger of being flooded in the next few years, depending on how much the lake rises.

Superintendent Myron Jury said

he was notified of a federal impact aid program with \$17,000,000 in emergency funds. The school board told Jury to apply for the grant, which he did, with the assistance of architect Kent Anderson.

The application was based on a building similar to the present building and with an estimated cost of \$6 to \$7 million. Gov. John Hoeven committed 10 percent of the cost and the school will chip in 10 percent, with a total cost of \$7.2 million.

Much of the local 10 percent cost will be covered by items the school already has, such as electronic equipment, blenders, furniture and other equipment.

Jury emphasized that there will not be any debt incurred by the school district and no bonding. Thus, there will be no increase in property taxes as a result of the new building.

Some people are asking why the board wants to build a new school when there are so few local students in the district. "I would like to compare the project to one that might propose the building of a manufacturing or processing

facility that would employ 63 people with an annual payroll of more than \$2,000,000," Jury said.

In the last fiscal year, the total amount spent by the school board in operating the school was \$3.6 million, of which property taxes covered \$200,000 or 5.5%.

"Our product is the education of young people who attend the Minnewaukan School," Jury said. "Our enrollment has increased each year so that the number of children attending is 370 as of December 14, 2010," he added.

An architectural firm has been hired and architects have submitted a preliminary plan that will be revised several times, Jury said.

A grant has been written to the Department of Transportation to fund an access road. Help will be sought from the State Legislature. Several committees are beginning to organize to help with planning for the new school.

Members of the school board are Chairman David Ambers, Randy Thompson, Laura Every, Terry Yri and Kurt Sogge.



Credit Uni

North Star Community Credit Union wins as the Card Services for Credit Union Community Outreach national first-place winner. NSCCU submitted the Maddock County Food Pantry project for the scholarship and awarded a grant of \$2,600 to be used for comi

Minnewaukan gets waiver for FEMA funds

Senators Kent Conrad and Byron Dorgan and Congressman Earl Pomeroy announced last week that a federal working group has endorsed measures to move more water off Devils Lake and provide relief to the Devils Lake Basin and communities downstream.

This report endorses immediate action to protect against catastrophic downstream flooding, supports state action to move more water off the lake and commits the federal government to protecting infrastructure within the Devils Lake Basin. It's a strong start in defining the federal government's role and committing it to a working partnership with state and local government," the delegation said in a joint statement.

During the course of the working group's analysis, the congressional delegation and the state successfully pushed the Environmental Protection Agency (EPA) to expedite decisions to relax water quality standards on the upper Sheyenne

The decision to relax the standards will allow more water to be moved off the lake and reduce the threat to communities in the Devils Lake basin and downstream.

Additionally, the report clarifies an EPA ruling that the State of North Dakota does not need federal approval to move more water from Devils Lake. The ruling frees up the state's efforts to increase controlled releases through the existing west end outlet in Benson County and another outlet planned for the eastern end of the lake.

In conjunction with state action to build an east end outlet, the report also calls for immediate work on plans for a control structure to prevent catastrophic flooding in Valley City and other downstream communities. A control structure would also reduce the chances that the lowest-quality water from Stump Lake will move into the Sheyenne River.

On infrastructure, the report endorses continued action to strengthen

and extend the Devils Lake levees, raise roads and help the city of Minnewaukan relocate to higher ground.

Devils Lake hit a record elevation of 1,452.1 feet this summer, just six feet from the point where it would spill uncontrollably from Stump Lake through the Tolna Coulee to the Sheyenne River. The report notes that the federal government has already committed more than \$850 million to fight the flooding in the region.

Additionally, the federal report makes the following commitments:

- The Corps of Engineers will expedite any state request for permits associated with the east end outlet and any permits that may be necessary to expand the existing state outlet.
- The Department of Transportation and the Federal Highway Administration will continue working with the state to raise roads.
- The U.S. Department of Agriculture (USDA) will work to in-

crease upper basin water storage and develop a range of legislative options to increase participation and enhance compensation to flooded landowners.

- FEMA will grant a waiver to allow Minnewaukan to access Hazard Mitigation Grant Program funds to facilitate its partial relocation to higher ground. The city was ineligible for this funding because the county's Hazard Mitigation Plan has not been completed. It is expected the plan will be completed sometime next year, but the waiver allows the city to access the funds prior to completion of the plan. This complements a decision earlier this year by the US Department of Education to award a \$6 million grant to the Minnewaukan Public School District to relocate its school away from the rising waters of Devils Lake.
- The Chief of the Corps of Engineers will coordinate and expedite the federal response.

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Nobody knows fate of Minnewaukan, but UND research available to help

Editor's note: The following article appeared in the Autumn 2010 issue of UND Discovery, which is published by the UND Office of the Vice President for Research and Economic Development, with assistance from the Office of University Relations. Peter Johnson, director. David Dodds is editor of the publication.

The focus of the article is on research done on behalf of the city of Minnewaukan, but there are more Benson County connections. Peter Johnson is married to the former Marsha Loken, who grew up on a farm 10 miles south of Knox. David Dodds is the son of Lyle and Darlene Dodds, who live near York.

BY PATRICK C. MILLER
UND Discovery

The relentless advance of Devils Lake on the small North Dakota town of Minnewaukan has been like watching a science fiction movie in slow motion.

The lake is the monster that won't stop growing, devouring and destroying everything in its path. The small town of about 300, once eight miles away from the lake's western shore, is now threatened by rising water that's literally on the doorstep.

Christina (Tina) Cummings, a graduate student in UND's Department of Geography, has spent the past two years writing her master's thesis on the flooding threat Devils Lake poses to Minnewaukan. When completed, her work will become part of the Devils Lake risk assessment study being put together by the Federal Emergency Management Agency (FEMA) in collaboration with other federal, state and local agencies.

"The ultimate goal is to produce a series of maps to assist local officials in the decision-making process with the rising lake levels," explained Cummings, a Penn State graduate who hails from Lorton, Va. "My maps show the locations of buildings that will be submerged or damaged and the estimated building damage loss."

Her thesis provides the most detailed, accurate and up-to-date picture of what could happen to Minnewaukan if Devils Lake continues to rise. In one-foot increments, Cummings' maps provide

local officials with a clear view of the future if the lake goes from its current level of 1,452 feet above sea level to 1,480 feet.

"I wanted my thesis to have some real-life application," Cummings said. "I wanted it to not just be used as a thesis, but to help local officials plan. I think hazard mitigation and the expansion of Devils Lake are fascinating topics."

According to the North Dakota State Water Commission, Devils Lake has risen nearly 20 feet since 1993. In April 2010, the lake covered 277 square miles, increasing in area by four times and volume by six times over the past seven years. Nobody knows when or if the lake will stop rising, but it is known that when the lake's elevation reaches 1,458 feet, it will spill over into the Toipa Coulee and then drain into the Sheyenne River and the Red River.

Even if Devils Lake begins to drain naturally, its level at Minnewaukan could temporarily reach 1,460 feet on the western side during the spring.

"We have to figure out the next step," said Ellen Huffman, Benson County tax assessor, who worked closely with Cummings on the project. "We need all the help we can get here as far as trying to figure things out because it's just overwhelming."

Cummings' primary goal is to help the townspeople make important decisions about their future. Should the town or parts of it be relocated? How much can realistically be saved from flooding? Should a property owner take a FEMA buyout if available?

"This information should be very helpful for city officials to make decisions," Cummings said. "It's very technical, but when you relay the information to the public, this is what they're interested in. How does it affect me? How does it affect my house? What does this mean for the town of Minnewaukan?"

Cummings spent hours in the county courthouse in Minnewaukan, scanning more than 1,200 pages of tax records on the town's 300 buildings. This enabled her to digitize figures on the assessed value of each taxable structure in the town. (Continued on Back Page)



The top aerial photograph depicts lake waters impacting Minnewaukan in the spring of 2010. The maps below that were generated by Cummings to depict the impact on the community if Devils Lake rises to 1,454, 1,457 and 1,460 feet, respectively. The purple circles represent the relative dollar value of structures affected, from small for lower value to large for high value.



UND geography graduate student Christina (Tina) Cummings (left) and Benson County tax assessor Ellen Huffman review maps depicting the potential impacts on Minnewaukan of further rises in the level of Devils Lake. The lake has already engulfed thousands of acres of farmland and reached the edge of the community. Twelve houses have been moved out of town, four houses have been demolished and one house and a church were relocated in town because of the flood. The ladies are standing on the street east of the Minnewaukan School. The trees in the background mark the location of Minnewaukan's boat ramp, which is also unusable because of high water.

Appendix C: DOCUMENTATION SHOWING EMERGENCY DECLARATION



— State of —
North Dakota

Office of the Governor

Jack Dalrymple
Governor

EXECUTIVE ORDER 2011-01

WHEREAS, I, Jack Dalrymple, Governor of the State of North Dakota, declare a state emergency to provide flood protection to the Devils Lake Basin, including the Spirit Lake Nation and the counties of Benson, Nelson, Ramsey and Towner; and

WHEREAS, Devils Lake, since it began its historic record-breaking ascent in 1993, has risen 29 feet in the past 18 years, an increase of 182,240 acres, which is equivalent to 215 square miles; and

WHEREAS, the unprecedented rise of Devils Lake has pushed floodwaters well beyond Ramsey and Benson Counties and the Spirit Lake Nation to the north into Towner County and east into Nelson County; and

WHEREAS, floodwaters from the lake, which has no natural outlet, have spilled into Stump Lake, which has risen 43.5 feet and is now part of Devils Lake; and

WHEREAS, the corresponding rising water tables in the Devils Lake Basin has resulted in a cascading series of impacts including loss of prime agricultural land; hydrostatic pressure issues; loss of access; isolated residents; extended response times for emergency response vehicles and personnel; damage to transportation, sewage, water and other infrastructure; damage to public facilities and private property; and increased stress due to loss of personal income and loss of tax revenue; and

WHEREAS, Devils Lake set a new record level of 1452.02 feet on June 27, 2010, and has only slightly receded at freeze-up, currently measuring 1451.6 feet with Stump Lake at 1451.56 feet; and

WHEREAS, the latest Spring Flood Outlook issued by the National Weather Service calling for a better than 50 percent chance of both a record inflow for the 3,810 square-mile basin and for the lake to reach 1454.06 feet this summer; and

WHEREAS, the Devils Lake Basin received more than average precipitation by December than an entire typical North Dakota winter season; and

WHEREAS, heavy snowpack on saturated land in the Devils Lake Basin is forecasted to create lake rises above historic levels, threatening local and downstream communities, infrastructure, farm and pastureland; and

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WHEREAS, the continued record rise has prompted the U.S. Army Corps of Engineers to begin working on another levee raise and extension to protect the city of Devils Lake; and

WHEREAS, floodwaters are threatening the integrity of infrastructure in the city of Minnewaukan, requiring mitigation measures; and

NOW THEREFORE, I order total utilization of the North Dakota State Emergency Operations Plan, its procedures, attachments and appendices, to respond to the situation, assist local and tribal officials, alleviate hardships, and implement appropriate recovery actions and future mitigation measures to limit the hardships and impact of this emergency, and facilitate restoration of services and infrastructure.

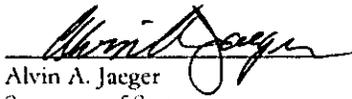
This order is issued upon the following authority and for the following reasons:

1. The Governor is vested with the executive authority pursuant to Article V, Section 1, of the North Dakota Constitution.
2. The Governor is vested with statutory authority to issue executive orders, minimize or avert the effects of a disaster or emergency pursuant to Chapter 37-17.1 of the North Dakota Century Code.
3. A coordinated and effective effort of appropriate government departments is required to minimize the impact of emergencies and disasters in this state.

Executed at Bismarck, North Dakota, this 11th day of January, 2011.


Jack Dalrymple
Governor

Attest:


Alvin A. Jaeger
Secretary of State

Deputy Secretary of State

Appendix D: LETTER TO FEMA FROM GOVERNOR DALRYMPLE



— State of —
North Dakota

Office of the Governor

Jack Dalrymple
Governor

January 7, 2011

Mr. Craig Fugate, Director
Federal Emergency Management Agency
PO Box 10055
Hyattsville, MD 20782-7055

Through

Robin Finegan, Regional Administrator
US Department of Homeland Security
FEMA Region VIII
Denver Federal Center, Building 710A
PO Box 25267
Denver, CO 80225-0267

RE: Request for Special Considerations for DR-1829 HMGP Unsubscribed Federal Funds and 5 Percent Initiative Project Submission Consideration

Dear Mr. Fugate;

The 2009 flood disaster costs, which exceeded \$180 million, provided federal Hazard Mitigation Grant Program (HMGP) funds of \$21,800,000 to North Dakota. To date, the North Dakota Department of Emergency Services (NDDDES) has confirmed federal HMGP project submissions of \$15,970,513, having a balance of \$5,829,487 of unsubscribed federal funds.

The NDDDES did receive two extensions requests for the purpose of identifying and submitting additional HMGP projects through NEMIS. Additional correspondence has been ongoing with NDDDES, FEMA Region VIII and FEMA Headquarters requesting additional time to identify and submit HMGP projects. I have been advised that Section 301 of the Stafford Act allows a further extension. Due to the unprecedented and persistent rise of Devils Lake and the limited resources of the City of Minnewaukan, I am requesting special consideration under 42 U.S.C. 5141, Section 301 to allow the state to retain access to the \$5.8 million in unsubscribed funds for the purpose of assisting the City of Minnewaukan with effective mitigation measures addressing the rising Devils Lake.

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Mr. Craig Fugate
January 7, 2011
Page 2

Unfortunately, the City of Minnewaukan was not able to apply for mitigation funding earlier because of its on-going effort to respond to the relentless rise of Devils Lake. Devils Lake currently surrounds the city on three sides. The city has been threatened by the ever encroaching lake boundaries since 1993. In June 27, 2009, Devils Lake rose to a record elevation of 1450.73 feet mean sea level (msl). The lake raise was a direct impact of the 2009 flood and was further compounded by the 2010 flood which caused the lake to surpass the 2009 record level. On December 23, 2010, the National Weather Service posted its 2011 spring outlook. This outlook calls for a 90 percent chance of the lake reaching 1,453.6 feet at Creel Bay, another modern day record. There is a 50 percent chance of reaching 1,454.6 feet, about 2.5 feet higher than the record set last summer; and a 10 percent chance of exceeding 1,455.9 feet.

The threat to the City of Minnewaukan is extremely serious. The community's school has internal floors at an elevation of 1454 feet msl. The city's sewer, water lines and water tower have experienced problems from groundwater and soil saturation at the lake's current elevation. In the summer of 2009, the city raised and sealed manhole covers; lined aging water and sewer lines; and, assessed a threat that the city water tower footings may be compromised due to soil saturation promulgated by the rising lake levels. Since 2009 the city has been plagued with challenges addressing an exodus of residents as several citizens accept the terms of their 'special endorsement' policy with the National Flood Insurance Program.

A recent survey conducted by the city resulted in 37 households confirming they have flood insurance; 15 of those households have the 'special endorsement' coverage. Moreover, 34 households stated they would relocate to a 'new' Minnewaukan. There were a total of 78 respondents to the survey.

The city has been pro-active in identifying a plot of land one mile north of the existing original city plat that will serve as a site for the "new" Minnewaukan. The plot is at an elevation of 1480 feet msl. City officials are developing strategies to address the acquisition and relocation of at-risk residential structures. These property owners will be able to relocate their dwelling to this new site.

Furthermore, to allow for effective mitigation measures in support of the city's efforts to execute potential acquisitions and/or relocations of its residential structures, I request that the unsubscribed DR-1829 HMGP funds that have been reinstated be allowed to be disbursed as subgrants to the City of Minnewaukan using the 5 Percent Initiative parameters in accordance with the guidance of the Unified Hazard Mitigation Assistance program.

Mr. Craig Fugate
January 7, 2011
Page 3

The parameters of the 5 Percent Initiative funding will provide a necessary catalyst allowing the city to execute its relocation efforts in the 'new' Minnewaukan. Although the lake elevation continues to rise, it has not risen to the point of the structures to sustain physical damage; however, imminent threat exists as I have described. Utilizing the parameters of the 5 Percent Initiative for all acquisition and/or relocation efforts for the 'new' Minnewaukan will ensure that people aren't left out of a permanent solution because a benefit/cost measure can't be met.

Benson County, including the City of Minnewaukan, has contracted with the North Central Regional Planning Council to develop the multi hazard mitigation plan in accordance with all FEMA requirements. I fully expect this plan to be completed and approved in the near future. In the meantime the city cannot wait for the plan to be approved before they begin to mitigate against the rising lake. As the lake continues to rise, lives, homes, public infrastructure and a community continue to be threatened.

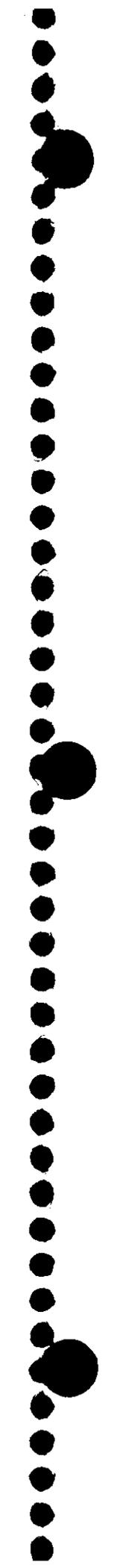
Last fall I established a state multi-agency task force, with access to their respective federal partners, to address the needs of this community. This task force has provided technical and programmatic assistance to ensure the City of Minnewaukan succeeds with its efforts to relocate the city. Furthermore, the NDDES is working with the City of Minnewaukan and the eligible applicant agent to ensure all project requirements are met maintaining compliance with all applicable federal and state regulations (feasibility, environmental and historical preservation, etc...). Lastly, the state and city will work together to provide the required non-federal cost share.

As you know, the State of North Dakota maintains well-documented success on executing and managing mitigation projects of varying complexities. The issues facing the City of Minnewaukan are not easy challenges, yet the State of North Dakota is committed to finding permanent solutions to effectively reduce or eliminate the effects of this disaster.

Sincerely,


Jack Dalrymple
Governor

Appendix E: REPORT OF THE FEDERAL INTERAGENCY DEVILS LAKE WORKING GROUP



Report of the Federal Interagency

Devils Lake Working Group

December 2010

Summary

The Devils Lake, North Dakota, region has experienced a dramatic wet cycle since 1992 that has caused the lake level to rise nearly 30 feet. The resulting flooding has negatively impacted the residents, infrastructure, and communities in the region. Additional flooding could pose an unacceptable risk of an uncontrolled overflow that could cause catastrophic flooding downstream. This report presents the results of an intensive Federal interagency effort that was initiated to assess the status of the efforts of each major Federal agency actively addressing the flooding in the area of Devils Lake and options for additional near-term actions within existing authorities. The report uses data from previous analyses to re-examine what options might be feasible to address Devils Lake flooding.

This Working Group effort involved extensive analysis by all key Federal agencies engaged in responding to flooding at Devils Lake. Led by the Army Corps of Engineers, the Working Group also included the U.S. Environmental Protection Agency (EPA), the Office of Management and Budget (OMB), and the Departments of Agriculture (USDA), Commerce, Defense, Homeland Security, Interior, Transportation, and State. The Working Group was committed to gaining an understanding of the local perspectives on these issues, and held four focus group meetings in North Dakota (“the State”) – three in the City of Devils Lake and one in Valley City. The purposes of these meetings were to gather information and testimony from local and state officials and other subject matter experts, and to obtain recommendations on actions that the Federal government could undertake to assist with the problems caused by the rising lake.

The Working Group completed several specific tasks to assess the status of each agency’s ongoing activities to address the flooding in the area and identified the near-term actions that could be taken within existing authorities. These tasks included:

- Identifying past and current Federal activities/programs and spending;
- identifying all available legal authorities to respond to the flooding, including those that have been used in the past and those that have not;

- compiling existing analyses of near-term and longer-term actions, including evaluating the actions raised by the North Dakota congressional delegation; and
- re-examining possible solutions using data generated from its previous analyses.

Federal agencies have already been involved in a number of initiatives to assist the population affected by the flooding, including rebuilding and elevating roads and levees; constructing dams; reimbursing local governments for damaged infrastructures; purchasing easements; relocating and buying out homes; studying the cause and modeling potential future lake levels; providing area-specific weather, water and climate forecasts; and providing assistance to farmers and local businesses. Since 1992 (when the lake started rising from an elevation of 1423 feet¹), using at least 49 different Federal program authorities, Federal agencies have spent or committed about \$852 million of Federal funding to assist those affected by Devils Lake flooding. Many of the authorities Federal agencies operate under require a local sponsor and matching contribution. As such, State and local governments have also expended hundreds of millions of dollars.

In addition to these ongoing activities, the Working Group identified and developed a number of specific actions that are underway or could be undertaken by Federal, State, and/or local agencies. The key action items are identified below.

- **To enhance the effective capacity of the State's west end outlet**
 - Water Quality Standards (WQS) on the Upper Reach of the Sheyenne River. In 2009, North Dakota relaxed the sulfate criterion for the upper reach of the Sheyenne River from 450 mg/L to 750 mg/L. The State also removed the municipal and domestic water supply designated use for this portion of the River. As a result, there are now 150 to 170 river miles downstream of the outlet where the sulfate criterion is set to protect aquatic life and agriculture rather than drinking water and is, therefore, a less stringent criterion. Coupled with an increase in the outlet's pumping capacity (from 100 cubic feet per second (cfs) to 250 cfs), the WQS revisions have meant that the

¹ All elevations referenced in this report use the NGVD29 datum, or mean sea level.

State's pumping of more Devils Lake water with higher sulfate levels to the Sheyenne River will still result in attaining the water quality standards in those portions of the river. The State also adopted a new narrative WQS to require protection of downstream standards and water supplies. These WQS changes for the upper reach were received by EPA on June 15, 2010, and EPA completed its review and approved the changes by letter on September 16, 2010.

Water Transfer Rule. Adopted by EPA in June 2008, the Water Transfers Rule (40 C.F.R. § 122.3(i)) provides that an NPDES permit is not required for a water transfer, which is defined as an activity that conveys or connects waters of the United States without subjecting the transferred water to an intervening industrial, municipal, or commercial use. On December 3, 2010, the North Dakota Department of Health provided information to EPA and indicated that the State believes that both existing and proposed outlet constitute a water transfer. As stated in a letter dated December 14, 2010, nothing in the description of the outlets provided by the State led EPA to conclude the outlets would not be a water transfer pursuant to 40 CFR 122.3 (i). As additional details of the water transfer develop or as technical planning is completed, EPA will continue to provide technical assistance to the State on the water transfers rule.

- **To prevent an uncontrolled release of water**
 - Hardening of the Tolna Coulee. The Working Group recommends that immediate consideration be given to hardening the Tolna Coulee (the natural spill point for the lake when it reaches a level of 1458) as part of a broader water management strategy that includes a review of water quality standards that address releases from the State's west end outlet. The Corps of Engineers will immediately pursue discussions with State parties to move forward with hardening the Tolna Coulee, which the Corps has concluded can be conducted under its emergency authorities if there is a willing cost-sharing partner.

- Control Structure. Such a facility might include constructing a structure to allow for controlled releases at levels below 1458 to provide the State operational flexibility. The Working Group recommends that work begin immediately on plans for a control structure to prevent an uncontrolled release of water as part of a broader water management strategy that includes enhanced capacity of the west end outlet and construction of an east end outlet that would remove additional water from the lake in an emergency to prevent an uncontrolled release of water that could have disastrous downstream consequences. The Corps of Engineers will immediately pursue discussions with State parties on how to move forward with a control structure.

- East End Outlet. The control structure should move forward in conjunction with developing an outlet to allow for controlled releases at levels below 1458 feet. This will give the State operational flexibility in the event the lake level approaches the natural spillover elevation. The State has indicated that it can construct an east end outlet that would serve as an emergency measure to remove water from the lake and prevent an uncontrolled release that could have disastrous downstream consequences. Water from this outlet could be blended with discharges of water from the west end to minimize downstream water quality impacts. The Corps of Engineers will provide technical assistance and expedite any State request for permits associated with construction of an outlet.

- Expedited Permitting. The relevant Federal agencies will provide technical assistance and expedite any necessary permitting to facilitate any effort by the State to increase the capacity of the existing State outlet. In addition, the Corps of Engineers will expedite its review of any State request for a wetlands permit to construct a pipeline to move cleaner water from Pelican Lake to the existing west end outlet or for any other permit that may be required for other projects to remove more water from the lake. Such a project (funded by the State) would improve the quality of water discharged from the outlet, which would allow more water to be discharged. To date, the State has not submitted a permit request.

- **To begin the partial relocation of the Town of Minnewaukan**
 - Impact Aid Grant. The Department of Education recently completed its review of the Town of Minnewaukan's application for an Impact Aid Discretionary Construction Grant to assist the town with the relocation of its school and has awarded \$6 million to Minnewaukan for this purpose. The Impact Aid Discretionary Construction Grant Program authorizes competitive grants for emergency repairs and modernization of school facilities to certain eligible local educational agencies with a significant proportion of federally connected children, such as children of members of the uniformed services or children who live on Indian lands.
 - FEMA Hazard Mitigation. Upon a request from the State, the Federal Emergency Management Agency (FEMA) will work with the State to develop the justification for a waiver based on extraordinary circumstances of FEMA's requirement that the State have in place a Hazard Assessment Mitigation Plan before it can have access to Federal hazard mitigation grant funds. Upon a request from the State, FEMA will grant such a waiver for Minnewaukan. This action could make funds available in the near term, while the State completes and gets approval of its Hazard Mitigation Plan (the plan must still be completed within 12 months of getting funds). The State has been allocated Hazard Mitigation Grant Program (HMGP) funds as a result of recent Presidential disaster declarations and a portion of those funds not already allocated could be dedicated by the State to proceed with the relocation effort.
- **To address impacts on eligible farmers and other landowners in the Devils Lake basin whose land has been submerged by the expanding flood**
 - Contracts for Easements. The Natural Resource Conservation Service's (NRCS) Wetlands Reserve Program provides funding to protect, restore and enhance wetlands, and has a role to play in reducing water levels in Devils Lake. The 2008 Farm Bill Prairie Pothole provision under the Wetlands Reserve Program also

compensates farmers for losses from submerged land. The Administration will consider options to increase short-term contracts for easements on flooded land where water is retained, which could attract participation from landowners who prefer short-term contracts as opposed to long-term (30-Year) easements. Such actions would require legislative changes to certain Farm Services Agency and NRCS conservation programs.

- Outreach. USDA will also provide outreach to farmers and landowners to help ensure that they are aware of benefits available under its Conservation Reserve Program, which currently offers incentive payments under a Farmable Wetlands Program, and Wetlands Reserve Program, which provides funding for the protection, restoration, and enhancement of wetlands.
- Additional Measures. USDA will also work with the North Dakota Congressional delegation to develop a range of legislative options that could increase participation and enhance compensation to flooded landowners.

- **To address impacts to transportation and other infrastructure**

- Levees. The Corps of Engineers is currently raising the levees at a cost of \$125 million to provide protection to the City of Devils Lake to an elevation of 1465. The Corps of Engineers awarded the second major contract for this work in August 2010 and plans to award the final contracts later this fall in order to provide the increased protection to the City by 2012.
- Transportation Infrastructure. The Federal Highway Administration has made funds available under the Emergency Relief Program as codified in 23 U.S.C. 125, and specific authority under Section 1937 of SAFETEA-LU for the construction of necessary measures for the continuation of roadway services or the impoundment of water to protect roads at Devils Lake. In addition, the Federal Highway

Administration is providing the North Dakota Department of Transportation a 50 percent cost share for a study to determine the effects of the rising lake levels on rail service in the Devils Lake basin.

- **To improve upper basin water storage**

- The Extended Storage Acreage Program. The Federal government is currently having ongoing discussions with the State to continue the Extended Storage Acreage Program. This program provides funds to reimburse landowners to hold water on their property to minimize discharges to Devils Lake. Though this program is expiring, EPA is currently discussing continued participation in this program with the State of North Dakota.
- Outreach. An important component to successful upper basin management is increased public support from landowners for the voluntary conservation programs that assist them (i.e., the Environmental Quality Incentives Program (EQIP), Wetlands Reserve Program (WRP), Conservation Reserve Program (CRP), Wildlife Habitat Incentives Program (WHIP), Agricultural Water Enhancement Program (AWEP), and Conservation Stewardship Program (CSP)). The USDA/NRCS and DOI will provide technical assistance and will develop specific goals and targets for increasing awareness and understanding of these programs and their benefits among landowners, to include goals for greater voluntary participation in these programs. The U.S. Fish and Wildlife Service, working with the North Dakota Game and Fish Department, will also provide technical assistance related to private land management to address water storage and supplement farm income.
- Additional Measures. As noted above, USDA will also work with the North Dakota Congressional delegation to develop a range of legislative options that could increase participation and enhance compensation to landowners whose land is storing water.

- **To improve Federal, State, and local collaboration and planning**

- Governmental Collaboration. Federal agencies will work with the State and the Spirit Lake Tribe to develop new arrangements or extend the use of existing collaborative governmental activities, such as the North Dakota Silver Jackets team, to improve how Federal, state, Spirit Lake Tribe and local agencies work together to reduce flood risk and address flood impacts, including the identification of specific lake elevation trigger points for emergency actions. To ensure close collaboration among the relevant Federal agencies and clear communication with State and local officials, the Administration will designate the Chief of the US Army Corps of Engineers to oversee efforts and ensure Federal actions are expedited to the greatest extent possible.
- Comprehensive Watershed Management Strategy. The Working Group strongly encourages the State to develop a coordinated, comprehensive watershed management strategy that is fully integrated with the established future lake level (or lake level range), and that supports the permanent long-term recovery and sustainability of the Devils Lake basin while considering downstream interests. Federal agencies will offer the State technical assistance and participation in the preparation and maintenance of such a comprehensive strategy.

The Administration recognizes the importance of addressing flood issues in the Devils Lake area. This report identifies a series of new and ongoing actions that will provide near- and long-term efforts to help address the flooding and mitigate its impacts. Although this report concludes the interagency Working Group's review, the Federal agencies that participated in this review remain committed to developing solutions to these issues and will continue to work with the State and other stakeholders to do so.

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I. Description of the Interagency Review Initiative

On June 10, 2010, the Federal interagency Working Group began a Federal interagency evaluation of actions taken to date to address flooding in the Devils Lake, North Dakota area. The interagency Working Group, led by the Army Corps of Engineers, included representatives from the Environmental Protection Agency (EPA), the Office of Management and Budget (OMB), and the Departments of Agriculture (USDA), Commerce, Defense, Homeland Security, Interior, Transportation, and State.

The Federal effort included a group of policy officials from each agency and a technical working group to collect and assess information on the flooding conditions at Devils Lake, actions taken to date to address flooding, and potential additional actions. The initial policy group meeting was held on June 18, 2010 with the technical working group team kick-off following on June 22, 2010. Following the kick-off, both groups held weekly meetings.

The technical working group held focus group meetings in Devils Lake and in Valley City from July 13 through July 19, 2010, to gather information and testimony from local and State officials and other subject matter experts, and to obtain recommendations on actions that the Federal government could undertake to assist with the problems caused by the rising lake. Immediately following these focus group meetings, the technical working group considered issues and proposed actions in a meeting held in St. Paul, Minnesota on July 20-21, 2010.

To achieve the objectives of this effort within an expedited timeframe, the group identified and relied primarily on data generated from previous analyses such as technical reports and environmental impact statements. Two significant reports utilized in the effort were the 2003 Devils Lake, North Dakota, Integrated Planning Report and Environmental Impact Statement prepared by the Army Corps of Engineers, and the 1995 Devils Lake Interagency Task Force report (the "1995 Report") prepared by a task force led by the Federal Emergency Management Agency (FEMA). The 1995 Report was updated by the State during this interagency review initiative, resulting in the August 2010 "Report of the Devils Lake Basin Technical Review Team," developed by the North Dakota State Water Commission, North Dakota Department of Emergency Services, and the US Army Corps of Engineers. The Federal

technical working group then re-examined which actions might be feasible to address Devils Lake flooding and identified authorities that would be required for implementation. The final report provides options for the Federal, State, local, and other interests that could address the flooding issues in Devils Lake. While the interagency Working Group's report does not specifically address each individual issue in the State Report, the State Report priorities helped to inform the interagency Working Group as it prepared its final report.

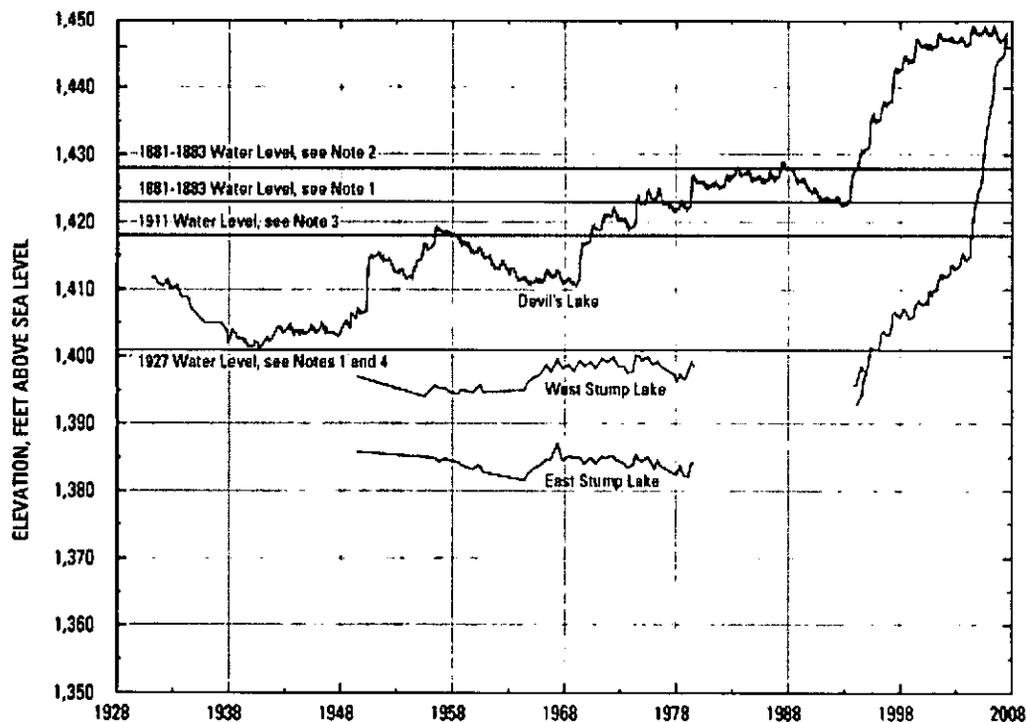
The interagency Working Group identified 21 potential actions that could be implemented cooperatively with local, State and other interests, many of which align with the State priorities. After evaluating these potential action items and engaging the State, local interests, and the congressional delegation, this report groups these 21 potential actions into four categories: Governance, Water Management, Infrastructure, and Risk Management. The interagency Working Group assessed the effectiveness and viability of each potential action, including the timeframe to implement, actions already underway, benefits, participants, costs, funding sources, challenges, and possible next steps. From the 21 potential actions, this report discusses the actions considered to address the most pressing issues facing Devils Lake, including actions to work with the State on water quality standards, help avoid an uncontrolled spill, assist with the relocation of the Town of Minnewaukan, provide assistance to farmers and other landowners, continue raising roads, expand upper basin storage, and improve coordination and planning on Devils Lake flooding issues.

II. Historical Context of Devils Lake Conditions

Devils Lake is located in North Dakota within Ramsey County to the north and east, Nelson County further to the east, Benson County to the west, and the Spirit Lake Indian Reservation to the south. The Town of Minnewaukan is in Benson County, on the western shore of Devils Lake.

The period 1990 through 2009 ranks as the wettest 20-year period in the Devils Lake Basin since 1895, and lake levels have risen as a result. The figure below tracks the surface elevation of Devils Lake over the past century.

Water Surface Elevation, Devil's Lake, East Stump Lake and West Stump Lake, ND



The graph above from the US Geological Survey (found at <http://nd.water.usgs.gov/devilslake/data/slelevation.html>) illustrates how the area around Devils Lake has experienced a wet cycle since the early 1990s. While this wet cycle is not necessarily unusual in terms of the basin's geologic history, it is nonetheless unprecedented in recent times and has caused devastating flooding throughout the area.

Devils Lake is contained within a 3,810 square-mile sub-basin of the Red River of the North. As a result of rising water levels, Devils Lake has combined with Stump Lake, which together currently form a 172,000-acre closed basin lake, meaning a natural lake with no significant drainage or flow out of the lake. Water from rain and snowmelt drains into the lake from surrounding creeks, rivers and numerous surface drains, but there are no natural outflows until the lake reaches an elevation of 1458. Although Devils Lake lies within the Red River of the North-Hudson Bay drainage system, no water has flowed from the Devils Lake Basin in recorded history (since the 1830s). Instead, Devils Lake, together with adjacent Stump Lake, collects the basin's surface runoff flowing through many small coulees, lakes and man-made

surface drains. (The west end of Devils Lake collects about 86 percent of the runoff; Stump Lake at the east end collects the remainder). The runoff remains in this lake system until it evaporates, enters the groundwater table, or potentially spills into the Sheyenne River. These increases in Devils Lake water surface elevations present significant challenges, including inundation of homes and agricultural land and damages to infrastructure such as roads, bridges, water and sewer systems, and flood control systems. In addition, there are impacts on recreation access, tourism, the local and national economy, and public safety. Positive impacts include improvement in water quality and expanded fish and wildlife habitat.

The first recorded lake elevation measurements began in the late 1800s, with lake levels above 1430. The lake water surface elevation has been recorded to be as low as 1400.9 in 1940. The current elevation is 1451.41, as of September 17, 2010, down from this year's peak of just over 1452. Devils Lake began flowing into Stump Lake when it reached 1446.5 in 1999, equalized with Stump Lake and the upper chain of lakes in 2008 (see the figure above), and now has a total surface area of about 172,000 acres. If the lake reaches or approaches an elevation of 1458.0, the combined area of the lake would grow to about 260,000 acres and it would overtop the high point between the lake and Tolna Coulee and flow downstream through the coulee and Tolna Dam, to the Sheyenne River. Although not recorded during modern times, according to the North Dakota Geological Survey (NDGS), geologic evidence indicates that Devils Lake has overflowed into the Sheyenne and Red Rivers at least twice during the past 4,000 years. The last Devils Lake spill into the Sheyenne River occurred less than 2,000 years ago.

Devils Lake formed several thousand years ago at the end of the last ice age. Bottom sediments contain pollen grains and other microscopic evidence of what the climate around the lake basin was like over the past four thousand years. These sediments show a long history of cycles of wet periods and dry periods, including periods of wetness that pushed lake levels even higher than they are today.

Average precipitation across the U.S. has increased since the late 1960s, following prolonged dryness that lasted for much of the first half of the 20th century. More importantly, a narrow corridor of the Great Plains running from the Texas panhandle to southern Manitoba and Saskatchewan experienced abrupt decades-long swings between dry and wet periods. Devils Lake has been at the virtual epicenter of the most recent wet epoch, which began in 1992.

Drainage improvements in the upper basin for agriculture, transportation, development, and other uses may be contributing to quicker movement of water toward Devils Lake, but the extent to which the recent lake level rise can be attributed to increased drainage towards the lake is not known. As mentioned previously, Devils Lake has been higher than its current level several times prior to recent history.

III. Previous and Current Actions to Address Flooding and Its Impacts

Federal agencies have responded to flooding in the Devils Lake basin since the 1980s with extensive funding to: rebuild and elevate roads and levees; construct dams; reimburse local governments for damaged infrastructure; purchase easements; relocate and buy out homes; study the cause of and model potential future lake levels; provide area-specific weather, water and climate forecasts; and provide assistance to farmers and local businesses. Since 1992 (when the lake started rising from an elevation of 1423), Federal agencies working with the State of North Dakota, as well as the cities, townships, and counties surrounding Devils Lake have spent over \$1 billion to address the effects of the rising lake. Federal agencies have spent or committed about \$852 million of Federal funding to assist those affected by Devils Lake. The ability to provide State, local, and individual assistance is authorized under at least 49 different Federal authorities. The interagency Working Group estimates that Federal agencies have offered assistance to Devils Lake under 40 of those 49 separate authorities. Many of the authorities Federal agencies operate under require a local sponsor and matching contribution, and as such the State and local government have also expended hundreds of millions of dollars.

The table below identifies funding by agency and major activity from 1993 through 2010, followed by examples of the Federal response to date.

Federal Funding by Agency and Major Activity Through 2010		
Agency	Activity	Funding (\$ millions)
USACE	Reports and Studies	13.4
USACE	Emergency Activities	54.6
USACE	Water Supply Program	7.5
USACE	Devils Lake Levee raise to elevation 1466 (ongoing)	125.0
FEMA	FEMA programs including NFIP, Public Assistance, and Individual Assistance	78.2
USDA / FSA	Flood Compensation Program	62.0
USDA / NRCS	Water Utilization	.9
USDA / NRCS	Conservation Programs	46.9
USGS	Water Monitoring, analysis, and modeling	4.7
NOAA	Warnings, Forecasts, and Data Center	.8
USEPA	Grants	.2
USEPA	Modeling and cost estimates	.15
DOI / FWS	Upper Basin management for wetlands, fish, and wildlife	6.8
DOI / FWS	Infrastructure Protection	4.8
DOI / BIA	Infrastructure Protection	80.9*
DOT / FHWA	Roads and Bridges Raises	364.1
State Dept.	Studies and Analyses	1.2
Total		\$852.2

* The DOI/BIA amount shown here includes \$80.7 million provided through DOT/FHWA. \$163,000 came from the BIA's "Safety of Dams" program.

Army Corps of Engineers

The Army Corps of Engineers constructed the initial embankments to an elevation of 1445 to protect the City of Devils Lake in the 1980s. Since 1996, the Corps has raised and extended the embankments three times due to rising lake levels, at a total cost of \$53 million. In 1996, embankments were raised to 1450, again in 1997 to 1457, and again in 2004 - 2005 with a top of embankment elevation of 1460. The current embankment system is about 8 miles in length along the west, south and east side of the city.

In 2009, the Corps of Engineers recognized that this embankment system created a unique situation where the embankments had both levee and dam characteristics. The Corps of Engineers prepared a design criteria report that identified the appropriate criteria for such a hybrid system and recommended the embankments be constructed to an elevation of 1466 for most sections. The Corps of Engineers is currently completing the design and construction of the embankments to 1466. The design criteria for this project include the assumption that lake level rise is limited by the current configuration of the Tolna Coulee (at elevation 1458.0). Raising the Tolna Coulee would have major consequences on the design of the embankments for the City of Devils Lake. When complete in 2012, the new embankment system will provide full protection to the City of Devils Lake to the elevation at which water would be draining through the natural overflow at Tolna Coulee. The Fiscal Year 2009 Emergency Supplemental (P.L. 111-32) provided \$125 million for the Corps of Engineers to do this work.

Federal Emergency Management Agency (FEMA)

Beginning in the year 2000, FEMA bought out 76 properties in the city of Churchs Ferry and 26 additional homes in Ramsey County. As of 2003, more than 500 homes had been flooded or relocated, and this number has increased since then.

The FEMA Public Assistance Program has provided \$31 million in funding for repair or replacement of public infrastructure facilities, county and township roads, public buildings, and utilities. In addition, FEMA has provided about \$46 million more through its Individual Household Assistance program, the National Flood Insurance Program, risk assessments, and

other grants. Projects include road grade raises, sewer and water repair, bridge and culvert repair and protection, and debris removal projects.

Department of the Interior, Bureau of Indian Affairs (BIA)

Beginning in 1995, the Central Federal Lands Highway Division (CFLHD) and the BIA started raising BIA Routes 1, 2, 4, and 5, initially to an elevation of 1442 and later to an elevation of 1447.5. In 1998 to 2000, BIA Routes 1, 2, 4, and 18 were raised to an elevation of 1450.5. In 1999, the BIA contracted with the Bureau of Reclamation to perform dam safety hazard classifications on the roads that had been raised. These studies classified the roads that were acting as dams as having a significant hazard potential since they were not designed as dams.

Work is now underway to raise some of the roads on the reservation to an elevation of 1455 and to eliminate all "roads acting as dams". When complete, any embankment road structure acting as a dam will be designed and constructed as a dam rather than a raised road. In some cases, perimeter dams are being built to protect roads instead of raising the roads.

The Spirit Lake Tribe contracted for this work under P. L. 93-638. The work includes raising and installing dam components on 3.4 miles of roads acting as dams (BIA Routes 4 and 5) and 3.7 miles of perimeter dams. When working in wet areas, the base is constructed to a width that will allow additional work to continue raising the structures an additional 5 feet to elevation 1460 when funding allows. This latest construction started in 2009 and will continue through 2011.

As of July 2010, work to raise the Spring Lake Dam and Jetty Dam on the Spirit Lake Reservation to elevation 1455 is underway but not complete. Due to the increase in the level of Devils Lake to its current elevation, emergency measures were undertaken which included building a berm along BIA Routes 4 and 5 to provide wave protection while the work to install the dam components and raise the structure to elevation 1455 continues.

Emergency action plans have been written for the Roads Acting as Dams and dams on the Spirit Lake Indian Reservation.

Department of Transportation

In addition to the partnered involvement in addressing the Roads Acting as Dams issue discussed above, the Federal Highway Administration has provided or is in the process of providing over \$350 million for projects in the Devils Lake area. Current grade raise projects are focused on getting essential roadways to an elevation of 1460. A number of bridges were previously constructed to an elevation of 1465. From 1995 to the present, Emergency Relief Program funding has been and is being used to raise roads and bridges on multiple occasions. Although a majority of the funding has come from the Emergency Relief Program, some limited funding has come from such sources as the National Highway System Program and Surface Transportation Program of the Federal-aid Highway Program. For example, the National Highway System Program and Surface Transportation Program funding was used for grade raises in 1999.

Other Agency Actions:

- The Department of Agriculture, through the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA), has provided over \$100 million to the Devils Lake area since 1992. Assistance to agricultural interests came from FSA in the form of crop loss assistance programs when lands were incapable of production due to flooding issues. Additionally, NRCS has implemented water conservation and quality practices as well as wetland protection, restoration, and improvement programs that have resulted in reduced flooding on agricultural lands and improved water quality.

- NOAA's National Weather Service (NWS) has developed enhanced hydrologic prediction capabilities that are being used to forecast flooding at Devils Lake. Plans are to use these capabilities to develop future scenarios for the area. It is through NOAA and the NWS in partnership with USGS and other Federal and State agencies that much of the science behind current and future projected conditions has been developed. NOAA recently created a website dedicated to Devils Lake: the Devils Lake Decision Support System

(www.devilslake.noaa.gov) provides up-to-date information on all of the conditions in the Devils Lake area, as well as integrated maps, data on future conditions, and links to other resources.

- The US Fish and Wildlife Service (USFWS) has supported the Devils Lake area since the early 1990s through upper basin management, infrastructure protection, and active private lands programs. The USFWS has helped to restore wetlands and grasslands in the Devils Lake Basin, often on private lands, resulting in improved upper basin management and overall environmental health and water quality. In addition, the USFWS has conducted several analyses regarding fish pathogens and other biota issues for Devils Lake.

IV. Recent Public Outreach

The Devils Lake technical working group held four focus group meetings in North Dakota, as well as a meeting with stakeholders from North Dakota and the Congressional Delegation in Washington, D.C. The purpose of these meetings was to gather information and testimony from local and State officials and other subject matter experts, and to obtain recommendations on actions that the Federal government could undertake to assist with the problems caused by the rising lake. The first meeting, which focused on individual assistance, was held July 13, 2010 at the auditorium on the campus of Lake Region State College in Devils Lake. Attendees represented the State Congressional delegation, the four primary counties within the Devils Lake basin – Benson, Nelson, Ramsey and Towner; communities within those counties; the Spirit Lake Nation; and State and congressional interests. The major topics presented at the meeting included agricultural impact, stress on residents, and challenges faced by roads that are being inundated by the lake.

The second meeting, which focused on water management, was held July 14, 2010 at the Devils Lake Armory. Attendees represented the state Congressional delegation; the Spirit Lake Tribe; the Governor's Office and state agencies; Ramsey County; Benson County; and the cities of Devils Lake, Minnewaukan, and Valley City and others. The major topics presented at the meeting included moving water off the lake as soon as possible (i.e., a gravity outlet on the east

end of the lake), the need to address water quality standards in the Sheyenne River and the Red River of the North, upper basin storage, and risk management.

The third meeting, which focused on infrastructure, was held July 15, 2010 at the Ramsey County Courthouse. Attendees represented the State Congressional delegation; the Spirit Lake Tribe; the Governor's Office and state agencies; Ramsey, Benson, Towner and Nelson counties; the City of Devils Lake; and others. The major topics presented at the meeting included lack of local matching funds, inability of grade raises to keep pace with the rising lake, deterioration of roads, expediting the review and approval of environmental and other permits, identification of wetland mitigation sites, effects on sewer and water systems, the need to move the water off the lake, and effects on the regional economy.

The fourth meeting, which focused on downstream interests, was held July 19, 2010 at the AmericInn in Valley City. Attendees represented the State Congressional delegation; State agencies; the cities of Valley City, Kathryn, Lisbon and Fargo; Barnes and Ramsey counties; and non-governmental organizations. The major topics presented at the meeting included armoring Tolna Coulee, improving upper basin management in the Devils Lake basin, water quality, water quantity (flow), and development of an emergency action plan.

Finally, officials from the Working Group met with local, State, and Federal representatives from North Dakota in a meeting hosted by the congressional delegation in Washington, D.C. on September 3, 2010. As part of this meeting, the Working Group provided updates on progress made in the various areas of focus. Federal, State, and local officials spoke to the needs of the communities and discussed various options.

V. Analysis of Possible Additional Actions

Federal agencies, with the assistance of non-governmental organizations (NGOs), academia, the State of North Dakota and the City of Devils Lake, have been working collectively to enhance their scientific understanding of factors contributing to the flooding in the Devils Lake area. This body of knowledge has been used to guide the State, local, and Federal response to the rising lake level. Many agencies involved in the drafting of this investigation have additional ongoing analyses of rising lake levels and mitigation actions to address it.

The goal of the interagency Working Group was to re-examine these analyses and develop a report highlighting which options might be feasible to address Devils Lake flooding. Drawing on all the past and ongoing analyses of Devils Lake, and information from the focus group meetings with local stakeholders, the interagency Working Group produced a list of alternative actions that could be taken to address the various issues caused by the rising lake levels. The interagency Working Group considered a full range of options, including actions to stabilize or reduce the lake level, providing upper basin storage, and protecting existing infrastructure. The group then evaluated each option's technical and economic feasibility, water quality impacts, environmental impacts, agricultural impacts, and the interests of upper and lower basin stakeholders. The group categorized the actions into four areas: Governance, Water Management, Infrastructure, and Risk Management.

A common comment received during the focus group meetings was that the lake level must be prevented from rising any further in order to avoid new hardships due to flooding and to preclude the need for any more infrastructure protection, such as road raises or embankment raises. However, the Working Group's analysis indicates that if current weather conditions persist, no such solution is realistically available without very substantial financial investments by all parties, and significant impacts on downstream ecosystems and communities. To illustrate this point, a preliminary evaluation indicates that a sustained discharge from the lake of 1,300 to 1,440 cubic feet per second (cfs) over the course of six months would be required simply to maintain a particular lake elevation from year to year with weather such as the 2009 inflow of 585,000 acre-feet (assuming 100,000 acre-feet of evaporation). For reference, the current state pumping plant has a capacity of 250 cfs and the natural flow in the upper Sheyenne River is normally characterized by very low flows (10 to 20 cfs) during the summer, punctuated by higher flows from heavy rain events. The sustained discharge of water at this level could significantly change the geomorphologic and ecologic characteristics of the upper Sheyenne River basin, as well as lead to flooding along the Upper Sheyenne River. Discharges at this level would also carry with them significant water quality issues and impacts to downstream Sheyenne River ecosystems and communities, particularly those communities that rely on the Sheyenne River for drinking water. Downstream effects would also extend to Red River of the North communities, including Canada, with potential implications for United States obligations under the bilateral Boundary Waters Treaty.

A table summarizing the 21 possible actions considered by the Work Group is appended to this report.

Based on the interagency Working Group's review of previous analyses, input from the focus group meetings, and evaluations of the various alternatives developed, three areas of future actions to address Devils Lake flooding were identified: a series of water management approaches that involve local, State, and Federal involvement; actions to proactively reduce risk to human safety; and targeted investment in infrastructure. The options identified below are actions that the interagency Working Group believes are the most viable options and have the potential to be effective in addressing Devils Lake flooding. Some of these near-term actions would be undertaken by the Federal government in conjunction with non-Federal parties, while others would primarily be the responsibility of the State and other non-Federal parties.

Governance Approaches

There are a number of current examples of collaborative governance approaches that could be further developed to help facilitate efforts to reduce or mitigate the flooding issues in Devils Lake. One such example is the North Dakota Silver Jackets team. This team is a continuously-operating, State-led, collaborative interagency team working together to reduce flood risk at the State level. Participants include the Corps of Engineers, FEMA, and other Federal, State, and local agencies that provide a unified approach to addressing any number of the State's priorities. This type of approach recognizes that no single agency has the complete solution, that each has one or more pieces, and that the committee is the forum where all agencies come together to coordinate their individual pieces to develop and implement collaborative solutions. In order to ensure close collaboration among the relevant Federal agencies continues, the Administration will designate the Chief of the US Army Corps of Engineers to oversee efforts and ensure Federal actions are expedited to the greatest extent possible. In addition, the following option is a strategic plan that could harness existing governmental entities to help guide the process.

Comprehensive Watershed Management Strategy

The State could develop a coordinated, comprehensive watershed management strategy that is fully integrated with the established future maximum lake level (or maximum range of lake levels), and that supports the permanent long-term recovery and sustainability of the Devils Lake basin while considering downstream interests. The strategy should address environmental, economic, flood mitigation, and social issues (e.g., enhanced quality of life, stable housing, education, emergency medical services, transportation, and equitable compensation), and establish goals and document accomplishments for the watershed. The comprehensive watershed management strategy must be constructed through a collaborative process to include upper basin, Devils Lake proper, and downstream interests. A strategy is necessary for the further development of action plans. To be effective, the strategy and the plans that implement the strategy need to fully consider schedules or "trigger" points for all actions to be taken in the basin, since those items control when, and if, a plan is implemented. Collaboration is critical to making these decisions. For that reason, schedules and trigger points should be among the first items included in the strategy.

The brief period for this evaluation did not allow for a complete and thorough assessment of all options, particularly longer-term options. These include such options as the east Devils Lake outlet, which could reduce the chance of an unregulated spill from the Tolna Coulee. However, in addition to evaluating other options and assessing economic, environmental, and international issues, State and Federal resource availability and fiscal constraints must be taken into consideration. Further discussions with Federal agencies and non-Federal interests to determine whether these and other options warrant further analysis and consideration are recommended. These discussions should be included as part of the Comprehensive Watershed Management Strategy.

Next Steps:

The Working Group supports and strongly encourages the development of a Comprehensive Watershed Management Strategy, and further development of action plans,

including timelines and/or "trigger" points that provide specific commitments and recommendations for actions that can be taken to address the ongoing flooding in the Devils Lake Basin. Federal agencies will provide technical assistance and participate in the preparation and maintenance of a comprehensive strategy. Also, the appropriate Federal agencies will work with the State to further develop feasible options for increasing outflow from Devils Lake. This could include options for the existing State outlet or potentially altogether new options.

Water Management

Increase the discharge on the Upper Reach of the Sheyenne River

In 2009, North Dakota increased the West outlet's pumping capacity from 100 cubic feet per second (cfs) to 250 cfs. The water quality standards (WQS) revisions have meant that the State's pumping of more Devils Lake water with higher sulfate levels to the Sheyenne River will still result in attaining the water quality standards for those portions of the river. The State also adopted a new narrative WQS to require protection of downstream standards and water supplies.

Water Quality Standards

Prior to 2009, North Dakota WQS severely restricted the volume of water that could be transferred from Devils Lake to the Sheyenne River if the water quality standards were to be attained. However, revisions to WQS first adopted by North Dakota in July of 2009 have meant that increased releases of Devils Lake water may occur while still meeting the water quality standards. Most notably, the State has revised the sulfate water quality criterion - from 450 mg/L to 750 mg/L - for the upper reach of the Sheyenne River. Under the relaxed standard, there are 150 to 170 river miles downstream of the outlet where the revised 750 mg/L sulfate criterion applies. Tributary and groundwater inflows dilute the river within this reach, and Lake Ashtabula (a 70,000 to 80,000 acre-foot reservoir formed by Baldhill Dam) is located at the bottom of this reach. Although outlet releases generally increase sulfate levels in the river, concentrations diminish with distance downstream from the outlet. The 450 mg/L sulfate criterion applies beginning 0.1 miles below Baldhill Dam. The change to the sulfate criterion for

the upper reach was adopted by emergency rulemaking procedures in July of 2009, and again by the State Health Council on April 28, 2010 as part of the WQS triennial review required by the Clean Water Act (CWA). Coupled with an increase in the outlet's pumping capacity (from 100 cfs to 250 cfs), the WQS revisions have meant that the State may pump more Devils Lake water to the Sheyenne River via the constructed outlet while still attaining the water quality standards for those portions of the river.

The EPA has worked collaboratively with the State in its effort to review and revise the WQS for the upper reach of the Sheyenne River, an effort which resulted in the standards adopted by the State Health Council on April 28, 2010. The WQS changes for the upper reach were received by EPA on June 15, 2010, and EPA completed its review and approved the changes to the WQS for the upper reach of the Sheyenne River by letter on September 16, 2010.

Next Steps:

On November 2, 2010, EPA convened a meeting with the State of North Dakota and the State of Minnesota to discuss the water quality effects of water conveyed to the Sheyenne River. To help provide a strong scientific basis for understanding the water quality effects of conveying water, the USGS is currently modeling the specific impacts of additional flows out of Devils Lake on downstream sulfate levels.

The U.S. Department of State is engaged in ongoing discussions with North Dakota, Manitoba, and Canadian Federal governments to discuss issues of mutual concern. The issue of Devils Lake flooding was also included on the agenda of the International Red River Board meeting at Devils Lake on September 14-15, 2010.

Additionally, the Working Group understands that the State is exploring options under the Water Transfer Rule. Adopted by EPA in June 2008, the Water Transfers Rule (40 C.F.R. § 122.3(i)) provides that an NPDES permit is not required for a water transfer, which is defined as an activity that conveys or connects waters of the United States without subjecting the transferred water to an intervening industrial, municipal, or commercial use. On December 3, 2010, the North Dakota Department of Health provided information to EPA and indicated that

the State believes that both existing and proposed outlet constitute a water transfer. Based on EPA's response of December 14, 2010, nothing in the description of the outlets provided by the State leads EPA to conclude the outlets would not be a water transfer pursuant to 40 CFR 122.3 (i). As additional details of the water transfer develop or as technical planning is completed, EPA will continue to provide technical assistance to the State on the water transfers rule.

Increase Upper Basin Storage

Much of the watershed in the Devils Lake basin has been drained for agricultural production, with an estimated 95,000 to 189,000 acres of wetlands drained in the Upper Basin of Devils Lake. Drainage and improvement of drainage conveyances continue today. These landscape changes have impacted water storage, increased velocity and frequency of flow, and reduced water quality.

Upper Basin water storage, including on private and public lands, could be increased through a number of means, including reduced soil tillage and increased residue management practices, wetland restoration, wetland enhancements, developing storage in upper basin coulees, drainage water management, small water control devices and embankments, and converting cropland to permanent vegetation. In addition, voluntary easement programs can provide restoration and protection of wetlands and grasslands for flood management for this and future events.

These voluntary conservation actions to increase Upper Basin storage could provide private landowners, including Native Americans and farmers, with funding that could help with costs and damages associated with flooding issues. Implementation would include outreach and education efforts with Devils Lake basin stakeholders on the opportunities, needs and benefits of increased Upper Basin Storage.

Next Steps:

The Working Group concludes that an important component to successful Upper Basin management is an increased level of public support from landowners for the voluntary conservation programs that assist them (i.e., the Environmental Quality Incentives Program

(EQIP), Wetlands Reserve Program (WRP), Conservation Reserve Program (CRP), Wildlife Habitat Incentives Program (WHIP), Agricultural Water Enhancement Program (AWEP), and Conservation Stewardship Program (CSP)). The USDA/NRCS and DOI will provide technical assistance and will develop specific goals and targets for increasing awareness and understanding of these programs and their benefits among landowners, to include goals for greater voluntary participation in these programs. Similarly, the U.S. Fish and Wildlife Service and the North Dakota Game and Fish Department, which also have private land programs that can address water storage and supplement farm income, will also provide technical assistance related to land management.

Initial assistance for wetlands restoration in the Devils Lake area was provided through the Water Bank Program. The Conservation Reserve Program currently offers incentive payments under a Farmable Wetlands Program to allow enrollment of up to 20 acres on farms impacted by flooding with short-term contracts. Currently, the NRCS Wetlands Reserve Program provides funding for North Dakota and the Devils Lake area, and the Working Group agrees that this program has a role to play in reducing water levels in Devils Lake. USDA will also work with the North Dakota Congressional delegation to develop a range of legislative options that could increase participation and enhance compensation to flooded landowners.

The Federal government is currently having ongoing discussions with the State to continue the Extended Storage Acreage Program. This program provides funds to reimburse landowners to hold water on their property to minimize discharges to Devils Lake. Though this program is expiring, EPA is currently discussing continued participation in this program with the State of North Dakota.

North Dakota stakeholders have voiced the need to continue and to expand successful programs for water storage in the Upper Basin. In addition, some have expressed a need for additional actions that would provide compensation to farmers that have been subjected to losses due to flooding. There is a possibility to address this need by creating programs to pay for short- and long-term or perpetual flood protection. Additionally, there are numerous lands that have been inundated that could be purchased in fee or easement, compensating landowners for floodwater storage in the future. Innovative programs could provide for both long term

floodwater storage and economic gain by allowing farm income or tourism focused activities when lands are not flooded.

Pipeline from Pelican Lake to Round Lake

The North Dakota State Water Commission has completed some preliminary scoping and design work for this alternative to draw water from the Pelican Lake on the west side in order to provide relatively “clean” water to substantially dilute outlet discharges during summer and fall from the State’s existing outlet. Further analysis is needed to determine the optimal pipeline route, but it would require construction of a pump station and approximately 15 miles of pipeline extending from Pelican Lake southwest to Highway 281, and then following more or less along the highway to the existing pump station. Also, as part of the review and permitting process, scientific evidence regarding species of concern and organisms associated with this project would need to be considered. If required, a biota filtration system would add significantly to both the construction costs and annual operations and maintenance costs.

Next Steps:

The Corps of Engineers has committed to expedite its review of any request from the State for the permits that would be necessary to carry out this option, or additional options to increase outlet capacity. The Corps of Engineers estimates that it would take about two years to conduct all of the necessary design work associated with this project. The Corps of Engineers is available to provide technical assistance to the State as needed to help the State develop its plans.

East Devils Lake Outlet

One option that could potentially reduce the rate of lake level rise, and in some scenarios even reduce lake levels, is the construction of an outlet at the east end of the lake. This type of outlet has been considered in past reports and could include the construction of a gravity flow outlet and channel from east Devils Lake along Black Slough to Tolna Coulee. Relying on gravity flow, it would be significantly less costly to operate and maintain.

A major concern with the east Devils Lake outlet proposal is that releases from the outlet would be constrained by considerations of downstream flooding; also problematic is that the water toward the east end of the lake is of even lower quality than that on the west side. These water quality and quantity constraints are already a limiting factor for the existing State outlet. With regard to the State outlet, it is important to understand that the State has voluntarily operated the outlet so as to not cause exceedances of the State water quality standards. In addition, as with the Pelican Lake pipeline proposal, there may be concerns over species of concern, which, if necessary, could be addressed by installation of a suitable filtration system.

Next Steps:

The Corps of Engineers will continue coordination with the potential project sponsor(s) regarding the desirability of this project. The Corps of Engineers and USGS will also assess the downstream channel and possible means to maximize its carrying capacity. If any of the above actions will enable more water to be moved from the lake to the Sheyenne River, the Corps of Engineers will work with the State to determine whether its existing authority (Section 208 Continuing Authority) for limited channel clearing and excavation might be useful in helping to deal with downstream flooding and erosion concerns. As noted above, if the state moves forward with constructing an outlet, the Corps of Engineers is available to provide technical assistance as needed and will work to expedite its review of any request from the State for permits that would be necessary to carry out this option.

Continued Targeted Investment in Infrastructure

The interagency Working Group identified several options that highlight the ongoing and future work that will help to protect critical infrastructure in the affected Devils Lake areas. In general, funds have typically been made available under the Emergency Relief Program, and specifically under Section 1937 of SAFETEA-LU for the construction of necessary measures for the continuation of roadway services or the impoundment of water to protect roads at Devils Lake. In addition, the State of North Dakota has used a limited amount of its regular Federal Aid

Highway formula funds provided under Title 23, which average about \$200 million (obligation limitation) annually, for infrastructure needs in the Devils Lake area. The Federal Highway Administration provides Federal funding to states for improvements to roads qualified as part of the Federal Aid highway system for projects identified in State and local plans. Examples of major Federal Highway Administration programs include the National Highway System Program, Surface Transportation Program, the Highway Bridge Program, and the Highway Safety Improvement Program. The Federal Highway Administration and the Department of Transportation will continue working with the State to raise eligible roads, using funds that may be made available through the Emergency Relief and Emergency Relief for Federally Owned Roads programs, including Section 1937 of SAFETEA-LU as appropriate.

Utility Relocations

Various Federal agencies, including the Corps of Engineers, FEMA, and the Department of Agriculture are authorized to provide assistance for replacement or relocation of utilities that are adversely affected by flooding due to the rise of Devils Lake. FEMA is currently working with the State and local applicants to identify potential projects.

Roads Acting as Dams

This alternative includes the Section 1937 of SAFETEA-LU funding for projects to modify Roads Acting as Dams and to construct associated perimeter dams to protect both roadways as well as those areas that would otherwise flood. In past years the culverts under several roads were plugged and the roads were raised to prevent the waters of Devils Lake from flooding even more land. Currently, the FHWA has assembled a multi-agency team to address these safety issues for critical roads in the Devils Lake area. Construction is currently underway to raise roads on dams and to build perimeter dams to protect the roads. This will raise the structures to an elevation of 1455 and is 49 percent complete.

Next Steps:

The remaining \$10 million of Section 1937 funding is available in fiscal year 2011, and will be used to increase the elevation of perimeter dams and roads until funds are exhausted.

Risk Management

The Working Group identified both structural and non-structural approaches to managing the risk of flooding in Devils Lake.

Structural Risk Management:

Harden Tolna Coulee Outlet

Based on current conditions, and assuming the State outlet operates at 250 cfs, the USGS estimates there is a three percent chance of an overflow at the Tolna Coulee outlet within three years, and an eight percent chance of an overflow in 20 years. This option includes the design and construction of measures to maintain the structural integrity of the coulee and prevent erosion of the outlet in the event that the lake continues to rise, including environmental and cultural mitigation actions. A preliminary analysis, completed in 2001, analyzed the hydraulic and geotechnical parameters of the outlet area. This analysis indicated that given the nature of the soils, should the lake rise to elevations in the range of 1460.75, there is a high potential for severe erosion to occur that could degrade the Tolna Coulee down to an elevation of 1450.0. Should this occur, it could result in a very large and uncontrolled release of water downstream. This would result in flooding with an extended peak flow in many towns along the Sheyenne River. It would also have major impacts on water quality and aquatic life on the Sheyenne and Red Rivers.

The interagency Working Group understands that hardening Tolna Coulee to prevent erosion would benefit downstream residents in North Dakota, Minnesota, and Canada by preventing a potentially catastrophic failure of the natural outlet; and that residents in the Devils Lake area oppose hardening the outlet unless more can be done to remove water from the lake and slow potential future lake level rises. Therefore, the interagency Working Group believes

this option can only be considered in conjunction with additional outlet capacity for moving water off the lake either through enhanced releases from the State outlet or other outlets.

Based on the Corps' preliminary analysis in 2001 that a major lake rise has a high potential to cause severe erosion that would degrade Tolna Coulee and have catastrophic downstream impacts, and due to the relatively high risk of an overflow based on current lake levels and modeling by USGS, the interagency Working Group recommends that a control structure at the east end of Devils Lake be designed and built to prevent an uncontrolled overflow and that the structure be designed in a manner that could allow for controlled releases of water to be blended with water from the State outlet.

Next Steps:

The Corps of Engineers has concluded that it has existing emergency authority under P. L. 84-99 to carry out the hardening of the Tolna Coulee if requested by the State of North Dakota. The Corps of Engineers estimates that it would take approximately three years to complete the project, including necessary interagency coordination, the Project Information Report (PIR), NEPA documentation, negotiations with the non-Federal cost-sharing partner, and design and construction. Initial funding to develop contingency plans for Tolna Coulee has already been provided under P.L. 84-99 Advance Measures. The Corps of Engineers' preliminary estimate to design and construct the hardening of the outlet, based upon a conceptual plan with no design, is \$15 to \$20 million. Approximately \$20 million would also be required for real estate and cultural and environmental mitigation, for a total cost of about \$35 to \$40 million.

It is recommended that this alternative be given immediate consideration for implementation and that the Corps of Engineers continue discussions with local stakeholders about this option and prepare a Project Information Report (PIR). Discussions will include consideration of incorporating design features for future operational capability as discussed in the State Report. All associated costs, including design, permitting, and NEPA compliance would be the responsibility of North Dakota. These actions would allow the Corps of Engineers to begin immediately to obtain the necessary NEPA documentation for the project, pending

further review. The Corps will work in consultation with CEQ to expedite the environmental review process.

The Working Group recommends that the Corps of Engineers immediately begin working with the State on plans for a State-built control structure to prevent an uncontrolled release of water as part of a broader water management strategy that includes enhanced capacity of the west end outlet and construction of an east end outlet that would remove additional water from the lake in an emergency to prevent an uncontrolled release of water that could have disastrous downstream consequences. The Corps of Engineers will immediately pursue discussions with State parties on how to move forward with a control structure. If the State moves forward with constructing a control structure, the Corps of Engineers is available to provide technical assistance as needed and will work to expedite its review of any request from the State for permits that would be necessary to carry out this option.

Non-Structural Risk Management:

Acquire/Relocate Imperiled Structures

Acquisition/relocation of imperiled structures could permanently reduce the flood damage risk by moving these structures to a higher elevation, as designated by the sponsoring agency. FEMA's Hazard Mitigation Assistance grants can be applied through the State to acquire and/or relocate imperiled structures from high-risk areas to safer grounds. However, funding is limited and a special appropriation would be needed to achieve appreciable results.

Structures eligible for acquisition/relocation are typically seriously impacted or have a threat of becoming impacted by rising lake levels. This option would offer willing homeowners a non-structural opportunity to reduce their risk before they suffer damage, and would avoid future damage when the lake reaches this level again.

The Town of Minnewaukan could potentially be considered for relocation as part of this alternative. This would require planning, engineering, real-estate acquisition, utility and municipal construction, relocation of structures, and willing property owners in the community to participate in the relocation.

Next Steps:

The Department of Education recently completed its review of the Town of Minnewaukan's application for an Impact Aid Discretionary Construction Grant to assist the town with the relocation of its school and has awarded \$6 million to Minnewaukan for this purpose. The Impact Aid Discretionary Construction Grant Program authorizes competitive grants for emergency repairs and modernization of school facilities to certain eligible local educational agencies (LEAs) with a significant proportion of Federally connected children, such as children of members of the uniformed services or children who live on Indian lands.

FEMA is assisting State and local officials in the development of a Multi-hazard Mitigation Plan. This plan is a requirement for local communities to receive mitigation grants from FEMA. Hazard mitigation grants are available to the State to assist local communities in their mitigation efforts. FEMA does have the authority to waive this requirement for up to a year for the Hazard Mitigation Grant Program (HMGP). This requires the Governor or the Governor's Authorized Representative to request "extraordinary circumstances" for the given community. FEMA has worked to ensure the State has a full understanding of these requirements and waivers, and, upon request from the State, will grant such a waiver for Minnewaukan. The HMGP grant is administered by the State and the State sets the priorities for funding local mitigation projects. The State has been allocated HMGP funds as a result of recent Presidential disaster declarations and a portion of those funds not already allocated could be dedicated by the state to proceed with the relocation effort.

In addition, two USDA programs, the Community Facilities and the Water and Wastewater Grants and Loans programs, also offer financial assistance that could help with acquisitions and relocations. For example, the Community Facilities program offers grants, loans and loan guarantees for development of essential community facilities including schools, libraries, medical clinics, assisted living facilities, fire and police stations, and community centers for areas of 20,000 people or fewer. The direct loans and grants apply a means-test to qualify for funding. The Water and Wastewater Grants and Loans program provides funds to low-income rural communities of 10,000 or fewer people. The program finances drinking water, sewer, solid waste disposal, and storm drainage facilities through direct or guaranteed loans and grants. In order to qualify, applicant communities must be unable to finance their needs through

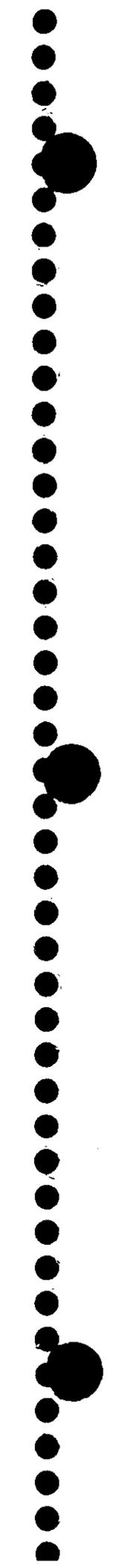
their own resources or with credit from commercial lenders. Priority is given to loans serving smaller communities that have greater financial need, based on criteria such as median household income, poverty levels, and size of service population. USDA is available to provide technical assistance as needed for both of these programs.

Prepare Multi-County Evacuation Emergency Operations Plans

This option would have the State lead preparation of a multi-county evacuation and mass care annex to existing emergency operations plans that will address downstream flooding along the Tolna Coulee and Sheyenne River drainage below Devils Lake.

Next Steps:

The Working Group recommends that local communities along the Sheyenne River begin work immediately with the North Dakota Department of Emergency Services and County Emergency Managers to develop a collaborative and comprehensive evacuation and mass care annex to existing Emergency Operations Plans. The annex will address safety and life-sustaining actions to support evacuation, sheltering, feeding, and operations in the event of flooding through Tolna Coulee and on the Sheyenne River downstream from Devils Lake. Since Devils Lake has been a closed basin, existing plans most likely do not address potential flooding resulting from discharges out of Devils Lake. Federal agencies are available to provide technical assistance to help in preparation of such plans.



APPENDIX: Possible Actions Considered

Option	Category	Description
Devis Lake Executive Committee (DLEC)	Governmental Collaboration	Create a committee which would be the forum for all agencies that have responsibilities and authorities related to proposals and recommendations on projects, plans and ongoing actions affecting the Devils Lake watershed and those downstream. The formal committee would provide continuity for an interagency approach to planning and implementing measures to reduce the risks associated with flooding in the Devils Lake basin and vicinity.
Devis Lake Collaborative Working Group (DLCWG)	Governmental Collaboration	Create a comprehensive working group representing all basin stakeholders to develop and recommend direction and actions to the Devils Lake Executive Committee (DLEC). Members of the committee would include senior working staff from Federal, tribal, State, local government, the International Joint Commission (IJC) (observer status), Canada (observer status), NGOs and private interests.
Comprehensive Watershed Management Strategy	Governmental Collaboration	Develop a coordinated, comprehensive watershed management strategy that is fully integrated with the established future lake level (or lake level range), and that supports the permanent long-term recovery and sustainability of the Devils Lake basin while considering downstream interests. The strategy would address environmental, economic, flood mitigation, and social issues (e.g., enhanced quality of life, stable housing, education, emergency medical services, transportation, and equitable compensation), and establish goals and document accomplishments for the watershed.
Development of the Multi-Purpose "Pelican Bay Recreation and Wildlife Area"	Governmental Collaboration	This proposed park/wildlife area would encompass an area of significant size between Minnewaukan and Lake Alice Flats. This alternative would provide acquisition opportunities to local landowners, thereby creating an opportunity to increase recreation and tourism to assist in maintaining or improving economic growth in the Devils Lake Basin. In addition there would be an opportunity to have State and Federal agencies manage an area for recreation, wildlife and tourism.
Consider Options for Revising Water Quality Standards	Water Management	Review downstream water quality standards (WQS), and consider only WQS revisions that are legally and scientifically defensible and that would comply with Clean Water Act (CWA) requirements. This alternative includes review of the downstream WQS applicable to the Sheyenne River and the Red River.
Harden Tolna Coulee Outlet at Elevation 1458.0	Water Management	Construction of a structure on the upper end of Tolna Coulee that would allow significant flows to pass over the high point of Tolna Coulee without eroding the channel. This alternative includes environmental and cultural mitigation. This would provide assurance that if Devils Lake was to continue to rise up to or above the natural outflow elevation at Tolna Coulee, it would not result in erosion of the outlet and the potentially catastrophic flooding associated with such erosion.

Option	Category	Description
East Devils Lake Outlet	Water Management	Construction of a gravity flow outlet and channel from East Devils Lake along Black Slough to Tolna Coulee. This alternative includes environmental, downstream users and cultural mitigation. This alternative would slow potential future lake level rises.
Pipeline from Pelican Lake to Round Lake	Water Management	Construction of a pump station and approximately 15 miles of pipeline extending from Pelican Lake to the existing pump station at Round Lake. This alternative includes environmental, downstream users and cultural mitigation. This alternative could maintain the total State Outlet capacity at the current level (250 cfs), with 100 cfs coming from Pelican Lake and 150 cfs coming from West Bay, or could potentially increase the State outlet capacity to 350 cfs. This alternative would improve the overall water quality being pumped from Devils Lake to the Sheyenne River to allow for greater outflows from an East Devils Lake Outlet.
Increase Upper Basin Storage	Water Management	Increase Upper Basin water storage by soil tillage and residue management practices, wetland restoration, converting cropland to permanent vegetation, wetland enhancements, wetland protection and within coulee storage. Storage could also take place on existing State and Federal lands within the basin and there may be sites for small dam construction. Increased incentives for storage could be made available to secure the delivery of water and land management on private lands. Compensation programs would assist with land restorations, water retention and water management practices.
Increase Sheyenne River Channel Capacity	Water Management	Increase the Sheyenne River channel capacity to allow bank full flow up to 800 cubic feet per second. Presently, the Sheyenne River channel capacity is approximately 600 cfs, although average flows are much lower and often less than 50 cfs. The additional capacity would permit greater releases from Devils Lake.
Construct Biota Filter for Devils Lake Outlets	Water Management	Construction of water treatment facilities to filter biota for discharges from the existing State Outlet and/or for the East Devils Lake Outlet. The facilities would be designed to handle a maximum flow of 250 cfs from the State Outlet and 800 cfs from an East Devils Lake outlet.
Control Structure on Jerusalem Channel between East Devils Lake and Stump Lake	Water Management	Construction of a gated control structure on Jerusalem Channel between East Devils Lake and Stump Lake to regulate flow into (and hence out of) Stump Lake. This alternative would control the rate of erosion and reduce severity of flooding downstream by reducing the rate of outflow and allowing it to occur over a longer period of time.
Construct Diversion from Edmore Coulee to Tributaries of the Red River of the North	Water Management	Construction of a diversion through the Edmore Coulee (in the northeast part of the upper basin of Devils Lake) to tributaries of the Red River of the North (Forest River, Pembina River, etc.).

Option	Category	Description
Non-Structural Hazard Reduction: Acquisition/Relocation of Imperiled Structures	Water Management	Acquisition/relocation of imperiled structures, which would permanently reduce the risk by moving these impacted structures to a higher elevation. This activity would offer willing homeowners a non-structural opportunity to reduce their risk before they suffer damage, and would avoid future damage if the lake reaches this level again. The Town of Minnewaukan could potentially be relocated as part of this alternative.
Fully Fund Roads Acting as Dams Project	Infrastructure	Increase levels of funding for the Federal Highway Administration (FHWA) and Bureau of Indian Affairs (BIA) activities in Devils Lake to modify roads acting as dams and construct associated other embankments. The increased funding allocation would allow construction to proceed to a level of protection that is sufficiently higher than the lake could reach (1466 feet).
Road Raise Contracts to 1460	Infrastructure	Provide funds for existing construction contracts on Federal aid roads which are currently being raised to elevation of 1460.
Modify Road Raise Contracts and Provide Additional Contracts to 1465	Infrastructure	Obtain authorization and funding to modify existing road raise contracts to elevation 1465. The roads eligible for Federal-aid highway funding include all critical Federal aid system roads (State and county roads that are major collector and above, but not township and lower classification county roads). The elevation to which the roads would be raised is based on protecting roads from inundation and wave action, and would be consistent with the elevation that has been used for bridge replacement construction (1465) previously completed.
Utility Relocations	Infrastructure	Use existing authorities (the Section 594 North Dakota Environmental Infrastructure Program and the Stafford Act) to repair, replace or relocate utilities that are adversely affected by flooding due to the rise of Devils Lake.
Railroad Embankment Raises	Infrastructure	Raise existing railroad embankments effected by the rising lake. The level of protection is based on protecting the railroad from wave action and being overtopped by the lake. The elevation would be consistent with the elevation proposed for critical roadways in the Devils Lake basin.
Prepare a Multi County Evacuation and Mass Care Annex to Existing Emergency Operations Plans	Risk Management	Prepare a multi county evacuation and mass care annex to existing emergency operations plans that will address downstream flooding along the Tolna Coulee and Sheyenne River drainage below Devils Lake. Multi county evacuation and mass care planning will address life safety and sustainability in the event of flooding from an uncontrolled release of water from Devils Lake. Planning would provide guidance and protocol for emergency response/action during an event.
Additional Observations for Emergency Preparedness	Risk Management	Enhance the current environmental monitoring network in and around Devils Lake to observe key structural and atmospheric conditions that would allow for better preparedness for both the upper and lower basin. Such observations would help in short term flood emergency response and longer term mitigation and adaptation planning.

PROPOSED AMENDMENTS TO SENATE BILL NO. 2230

Page 1, line 2, replace "a grant to a city that has" with "assistance to eligible cities that have"

Page 1, line 7, after "assistance" insert "to eligible cities"

Page 1, line 8, replace "to the city of Minnewaukan due to" with "resulting from"

Page 1, line 9, after the period insert "For the purposes of this section, an eligible city is one that has an imminent threat of being flooded, is underserved by adequate flood protective measures, is expected to be affected by flooding for one year or longer, and is not eligible for other program funds based on time or project eligibility as determined by the adjutant general."

Page 1, line 14, replace "a grant" with "grants"

Page 1, line 14, replace "the city of Minnewaukan" with "eligible cities as defined in section 1 of this Act"

Renumber accordingly