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International Souris River Board

Best Western Ramkota Hotel  
Bismarck, North Dakota  
February 22, 2012

**Final Minutes**

**Board Members**

Russell Boals, Todd Sando, Dennis Fewless, Megan Estep, John Fahlman, Scott Gangl, Bob Harrison, Colonel Price, Gregg Wiche, Dwight Williamson, Thon Phommavong.

**Regrets:** David Donald.

**Attendees:**

Lana Pollack, Paul Pilon, Mark Colosimo, Ed Eaton, Bob White, Scott Hill, Dan Selinger, Mike Sauer, Girma Sahlu, Cliff Hanretty –Eaton Irrigation District, Kari Hauck – US ACE, Andrea Travnick –North Dakota Governor’s Office, Marty Bocckel - Senator Kent Conrad’s Office Bismarck, Ben Scheeler - Senator Kent Conrad’s Office Minot, Rod Backman- ND Hon. Consul for Canada, Tim Fay- ND SWC, Jason Westbrook-BARR Engineering, Patrick Fridgen – ND SWC, Stephen Hoetzer - Apex Engineering Group, Anne Fritz- ND Dept. of Health, Kendall Bergman-US ACE, Elizabeth Nelsen - US ACE, Heather Husband Duchscherer – ND Dept. of Health, Jim Olson – KXMC TV Station, Minot, Brian Connelly- NOAA/NWS, Allen Schlag-NOAA/NWS, Steve Robinson-USGS, Joel Galloway-USGS, Kim Fundingsland – Minot Daily News, Frank Durbian-US FWS, Tom Pabian-US FWS, Ken Bottle-US FWS, David Ashley- Souris River Joint Board, Mike Sauer-ND Dept. of Health. Jason Zimmerman- City of Minot, Mark Lyman – City of Minot, Lance Meyer- City of Minot, David Waend – City of Minot, Alan Walter – City of Minot, and Dan Jonasson – City of Minot.

1. Introduction and Opening Remarks.

Todd Sando convened the meeting at 10:15 a.m. Todd invited Board members and other participants to introduce themselves. The Board also welcomed two new members - John Fahlman (Saskatchewan Watershed Authority), and Thon Phommavong (Saskatchewan Ministry of the Environment).

2. Approval of Agenda.

The agenda was approved as circulated.

Dwight Williamson motioned to accept the agenda as presented. Col. Price seconded the motion. Carried.

3. Approval of Minutes:

a. July 26, 2011 Conference Call - Megan Estep motioned to accept the minutes. Gregg Wiche seconded the motion. Carried.

b. August 15, 2011 Conference Call – Col. Price motioned to accept the minutes. Dwight Williamson seconded the motion. Carried.

c. September 1, 2011 Conference Call – Gregg Wiche motioned to accept the minutes with one modification. Megan Estep seconded the motion as modified. Carried.

d. October 28, 2011 Conference Call – Bob Harrison motioned to accept the minutes. Col. Price seconded the motion. Carried.

e. Face-to-Face Meeting – September 14, 2011 – Three minor revisions were made to the minutes. Col. Price motioned to accept the minutes as revised. Megan Estep seconded the motion. Carried.

4. Review of Action Items,

Tabled for later.

5. Review of 2011 Hydrologic Conditions, Spring 2012 Hydrologic Forecast, and Planned Actions

a. Saskatchewan

John Fahlman gave a brief report on precipitation and soil moisture conditions in Saskatchewan to October 11, 2011. J. Fahlman also noted that the eastern side of the province was wet. Precipitation to January 2012 was below normal in the Souris River Basin. The February 1<sup>st</sup> data shows no significant snowfall.

The runoff forecast for February 2012 is not spectacular however the depressional storage areas are full. The 30-day local runoff is 10, 000 dam<sup>3</sup>.

There was a dam safety issue following the record-breaking flows of 2011. As a result, it was thought the Alameda Dam could not be used to its full flood storage level. New 3-D modelling results show that the 2-D modelling was not correct. The 3-D model indicated that the dam could operate to its design levels.

SWA and the US worked jointly to put together an 2012 operating plan. For normal and less than normal flood events, there is no impact to operating according to the Agreement.

Rafferty and Alameda could be operated according to the Agreement, but Alameda can only operate below its full supply level with no provisions for flood storage. There are still outflow restrictions at both dams. If Rafferty is at maximum allowable flood level, the maximum allowable release is more than the actual gate discharge capacity. A contract has been awarded to update the maximum allowable flood levels for both reservoirs. Alameda has a railroad embankment that creates tail water that could erode the embankment. It can only release 320 m<sup>3</sup> /s. The interim operating plan takes this into account. Rafferty has been drawn down to below the February 1<sup>st</sup> level of 549.5 m.

Russell Boals asked if SWA was looking at the PMF only for a snowmelt event and how would the probability of combined snowmelt and rainfall event be incorporated. J. Fahlman responded the original design of the dams was for snowmelt event, and not so much for rainfall events. The PMF study will look at combination both snowmelt and summer rainfall events which will be incorporated in the new Terms of Reference (TOR). SWA is also looking at the Souris and Long Creek basins to do a worst-case scenario.

b. North Dakota

Steve Robinson, USGS, distributed a hand out showing the hydrologic conditions for the US portion of the Souris River Basin covering the period January 1 to December 31, 2011. S. Robinson mentioned that the Westhope gage was damaged, but has been repaired by ND SWC and funded by IJC. Allen Schlag, NOAA/NWS, reported that stream flows are normal or above normal for this time of year. Last year was a La Nina year. This should have been a cool and cool winter, but was not. The Arctic Positive Oscillation over Canada is positive that shields us from the weather. The storms have not materialized. We expect for the next week or so to get several inches of snow (a quarter to half inch of water) over the Souris River Basin.

A. Schlag further explained that the period from March to May was originally expected to be cool and wet because of the Positive Arctic Oscillation, however it is now shifting to a negative oscillation and the forecast has to be revised for a lesser than expected runoff. R. Boals asked if the same patterns occur in Canada. A. Schlag responded he has not looked that far north. Col. Price asked if NWS has looked at any trends from having a dry winter and what it may do to the summer. A. Schlag answered no, but has an interim report looking at trends.

c. Manitoba

Bob Harrison reported that Manitoba has below normal precipitation. Conditions are similar to 1977 and 1988 which were fairly dry. Some minor flooding is expected. Basin conditions are saturated and depressional storage areas are full. The flow at Wawanesa is 520 cfs (16.6 m<sup>3</sup>/s) now.

R. Boals noted that the sharing this year would be 50/50 between Canada and the US as the forecast is less than 1:10 year flood. If conditions change, the Board will issue a new directive.

**Motion:** Megan Estep motioned that apportionment this year to be 50/50 between Canada and the US. Gregg Wiche seconded the motion. **Carried.**

d. US FWS

Frank Durbian mentioned that US FWS will try to take Lake Darling to 1597 ft by June 1<sup>st</sup>; and further lower the level to 1596 by October 1<sup>st</sup>. Pools 320 and 326 are being drawn down by May 15. Will fill pools 332, 341, and 357. The sluice gates on Lake Darling are not operable. US FWS is working with Corps of Engineers to repair the gates. Dams 320 and 332 have gates that are not operable. US FWS will operate Lake Darling this year.

6. 2011 Flood Reviews

a. Presentation of Report on the 2011 Flood

Col. Price presented the US Army Corps of Engineers report on the 2011 Flood (binder distributed to Board members and Co-Secretaries). Col. Price also presented a white paper

reviewing Annex A of the 1989 Agreement. The report includes 31 lessons learnt and 10 recommendations.

**Motion:** Col. Price motioned that the 2011 Flood Report be accepted by the Board. John Fahlman seconded the motion. Carried.

Col. Price mentioned that the US ACE will take comments over a limited time frame. Col. Price also noted that participating agencies are doing different things and sometimes duplicating efforts. We need some agency or body to synchronize all the efforts and maybe form a task force. R. Boals mentioned this seems to provide more of a framework for Phase III of the IWI proposal. This will better define what Phase III entails. Ed Eaton stated that the approach lays out who has responsibility for flood control (COE and SWA), periodic reviews by COE, SWA, US FWS and ND SWC.

A task force should be struck with COE and SWA to lead the other agencies. The task force might not need an IJC reference. The Board's Directive enables the Board to establish a task force as needed. The COE has done a gap analysis. The project handled the snowmelt runoff. It was not designed to handle the rain events, therefore needs to be reformulated. The task force can provide direction.

Commissioner Lana Pollack thanked COE for preparing the White Paper and stated that no reference is needed from the IJC. The IJC welcomes the Board to make recommendations; and suggested to move forward sooner than later.

Andrea Travnicek, ND Governor's Office, submitted two letters to ISRB; one addressed to Col. Price and the other addressed to the Board. The letter requested revisions to the 1989 International Agreement between Canada and the US in light of the 2011 record-setting flood in the Souris River Basin.

#### b. Implications for the 1989 Operating Plan

Todd Sando noted that there is a need for better precipitation monitoring of summer rain events. A. Schlag mentioned that the NWS is starting to incorporate precipitation data from the Canadian Wheat Board from some 20 or 30 sites located in Saskatchewan, Manitoba; and a handful of CoCoRaz sites. R. Boals enquired if the issue with the precipitation sites is related to density, access, or timeliness of the data. A. Schlag mentioned there is a different system in Canada than in the US. The density could be better. J. Fahlman noted that there are 7 or 8 independent weather information gatherers in Canada. There is no one single agency to coordinate the various data gathering agencies. A. Schlag stated that it is labour intensive to enter the Canadian data into the NWS system. Col. Price mentioned provision of precipitation data in a timely manner is one of the recommendations in the report.

#### c. Raising Levels in Lake Darling and Changing Target Flows at Minot

Col. Price mentioned that the spillway can be raised and the structure re-engineered. Frank Durbian stated that raising Lake Darling is a task to be undertaken by COE; however it has to be compatible with the operation of the refuge. Megan Estep noted the original flood project had mitigation for impacts, but the US FWS can no longer mitigate for impacts. The Refuge Improvement Act no longer allows US FWS to mitigate. The Act can be changed, however.

A. Schlag said NWS had problems with the precipitation data for the rain events. The data were way low as he had talked with local people who said there was more rain than reported. Last

year there were many observers (in a roughly 25-mile grid), but their numbers are going down because of aging (average age is between 68-69 years old). Dual Pole Radar is coming in the summer which will provide better radar data. Brian Connelly mentioned NWS tried to collect as much data as possible before each conference call. Cliff Hanretty stated that there is a need for higher flows and not storing and releasing water later. Ed Eaton mentioned target flows can be raised if the design capacity of the project is not exceeded, however an approval is needed from government to raise the target flows beforehand. What if the flood event does not occur and the flows were raised and harmed someone needlessly? J. Fahlman mentioned increasing target flows will cause impacts in Canada, which is only one aspect to be looked at. David Ashley, Souris River Joint Board, said his board is trying to establish what different flow levels impact and how. The Souris River Joint Board is sponsoring the Souris Flood Project.

d. Raising Rafferty and Potential for other Storage, like Long Creek, etc.

J. Fahlman reported that there are preliminary discussions underway, but no additional work is being done on raising the dams in Canada.

e. Status of Work under the ISRB IWI Proposal

R. Boals and M. Estep drafted the proposal.

- Phase I – Flood Report - Done by COE
- Phase II – This is the public consultation phase, and it is not been undertaken at this time.
- Phase III – This is the Framework for potential adjustment to the 1989 Agreement - Board needs to re-think this phase. It is very close to the task group proposal. Do we proceed by forming a task force that runs parallel to Phase III and incorporate the White Paper?

f. Mouse River Enhanced Flood Protection Plan (Missouri River Planning - lookout)

Tim Fay, ND SWC, presented the extent of the 2011 flood, and the proposed flood protection plan for the City of Minot. On June 21, 2011, flood overtopped levees in Minot; and then on July 19 receded to 5000 cfs. On August 8, the Souris River Joint Board asked ND SWC to assist in the project. On September 9, BARR Engineering was selected. Public Impact Workshop was conducted from October 4-6, with a release of preliminary alignment on November 3<sup>rd</sup>. The final alignment was selected on January 31, 2012. The preliminary engineering report is expected to be ready on February 29, 2012.

The following are the project parameters:

- Design discharge-27,400 cfs at Minot
- Scope – Whole Souris Loop in ND
- Funding and Sponsorship – State and Local Entities
- Progress to Date
  - Preliminary alignments published
  - Acquisition policy adopted

- Future – decisions on preliminary engineering, final design, permitting, sequencing, phasing, funding, and contracting.

Col. Price mentioned there is an existing federal project and the COE has to be involved. Ed Eaton stated that there is cost for the project and there needed to consider balancing this cost with benefits and recognizing the trade-offs. E. Eaton asked if the State is going to make a decision and go ahead with their project before finding out if they get the storage they want in Lake Darling. Tim Fay responded yes.

### **Formation of Task Force**

It was suggested that Board request the Co-Chairs, Russell and Todd, to establish a task force, create the terms of reference, and target a meeting date of the Board before the end of March 2012.

**Motion:** Dwight Williamson motioned that Co-Chairs of the Board establish a Task Force with membership participation to review the 1989 Agreement with respect to the 2011 flood and other concerns and draft the terms of reference for the Task Force for review by the Board before the end of March. This is a basin-wide undertaking that requires the involvement of all jurisdictions. Carried.

The Task Force will be funded by the IWI. The Governor of North Dakota also offered some funding support.

### 7. Compilation of Souris River Flows to December 31, 2011

Dan Selinger presented the results of his compilation of the natural flow of the Souris River at the International Boundary (Sherwood station). The summary of natural flow shows the flows at the Sherwood station was 1, 568, 152 dam<sup>3</sup>. The US share at 40% was 627, 260 dam<sup>3</sup>. The flow received by the US was 2, 045, 490 dam<sup>3</sup>. This amount represents a surplus of 1, 418, 230 dam<sup>3</sup> received by the US. On Long Creek, the surplus delivered to the US was 142, 736 dam<sup>3</sup>. D. Selinger mentioned that the numbers in boxes 6, 8, and 40 need to be adjusted (see handout). Boxes 16 and 18 are correct, but may be changed slightly. Therefore, the information provided is provisional. The final numbers are expected to be available in one month.

### 8. Water Quantity Monitoring

Scott Hill made a brief presentation on a number of changes that will be undertaken for the hydrometric operations in the Upper Souris River Basin in Saskatchewan. Duplicate stations will be removed and discontinued. New and continuous stations will be installed to monitor precipitation.

Gregg Wiche mentioned there were no changes in the monitoring program for the US portion of the hydrometric network. G. Wiche also stated that there are several (5 or 6) rapid deployment gages available on a short notice.

### 9. Water Appropriation in the Souris River Basin During 2011

There were no new permits in Saskatchewan. In North Dakota, four new permit requests have been received by ND SWC for the following:

- Permit # 6045 - Danny Seright proposes to irrigate 123 acres from the Lake Souris Aquifer. The location is in central McHenry County, 15 miles east of Towner, along US Highway #2,
- Permit #6060 - Dustin Seright proposes to develop a 2, 000-head cattle feedlot. The plan is for irrigated Alfa Alfa to be used to feed cattle in the feedlot,
- Permit # 6140 - North Prairie Rural Water - is to supplement Permits 1932 and 5018. North Prairie is planning on supplying more water from the Velva (Voltaire) area using less from the Minot area, and
- Permit #6190 - Hess permit is for a source of water for their water-flood operations in the Newberg oil field 10 miles southeast of Westhope.

#### 10 International Watersheds Initiative Projects

##### a. Status on Binational Hydrographic Data Harmonization by Mike Laitta

Deferred due to time constraints.

##### b. Update on IJC IWI Modelling Workshop

Paul Pilon gave a brief update on the upcoming IWI workshop in Vancouver. Two handouts which included the agenda and Model Selection Guidelines were also distributed. P. Pilon mentioned this is the third workshop in the series and extended an invitation to the Board to attend the workshop to be held from March 13-14, 2012 in Vancouver, BC. The Board can nominate individuals to attend the workshop. Dwight Williamson, Gregg Wiche, and Russell Boals are members on the Steering Committee.

##### c. SPARROW Model for the Souris River Basin

Dr. Glenn Benoy made a presentation on the SPARROW Water Quality Model via conference call. The IJC's SPARROW modelling initiative is bi-national undertaking funded by IJC. ISRB is one of the IWI boards that is currently working to address transboundary water issues from an integrated ecosystem perspective. The SPARROW Model is developed by the USGS and has been in use for the last twenty years. Stream network is the backbone of the model. Shortage of water quality data in Canada is a challenge. The next steps include creating a working and calibrated model and making simulation runs under various scenarios. Glenn Benoy will be presenting the SPARROW Model at the workshop. G. Benoy's phone number is (506) 452-4825.

#### 11. Update from the Hydrology Committee

Megan Estep mentioned the committee plans to meet via conference call before the next Board meeting.

## 12. Update from the Flow Forecasting Liaison Committee

### a. Report on activities of the Flow Forecasting and Liaison Committee

Brian Connelly reported that committee members were very busy with flood activities in the basin last spring.

## 13. Update from the Aquatic Ecosystem and Health Committee (AEHC)

Mike Sauer made a brief presentation and talked about the water quality objectives that were established at Sherwood by the Souris River Board Water Quality Group in 1990. The following is a summary of the water quality report from AEHC:

- As of February 8, 2012, there were 100% exceedances of Total Phosphorus for the reported data in 2011
- Sodium exceeded the objective of 100 mg/L for 4 of the 11 samples
- Sulphate did not exceed its objective of 450 mg/L
- pH exceeded its objective of 8.5 pH units once in 2011
- Dissolved Oxygen levels fell below the objective of 5 mg/L four times in 2011
- Chloride did not exceed its objective of 100 mg/L in 2011
- Total Boron did not exceed its objective of 0.50 mg/L in 2011.

Pesticide samples were collected in April, May, June, and August. 2,4-D, Atrazine, Bromoxynil, MPCA, and Picloram had positive results, but were below their respective Water Quality Objectives.

## 14. Compliance with Water Quality Objectives

Mike Sauer reported that the Aquatic Ecosystem Health Committee (AEHC) met via a conference call in March 2011 and discussed the phenol exceedence at Sherwood. There were two exceedences reported out of the 400 samples that were collected. AEHC will continue to monitor. Plans to discontinue Total coliform and replace it E. coli. Fecal coliforms will continue to be monitored as before. Instream flow needs (IFN) need to be looked at. One concept is to maintain instream flows under ice cover at the Sherwood site to improve Dissolved Oxygen. M. Sauer also noted that energy development in the basin is a challenge.

## 15. Water Quality Monitoring Plan

Mike Sauer mentioned there were no plans to change the monitoring schedule in 2012.

## 16. Review of Water Quality Standards in North Dakota



Mike Sauer stated that the Water Quality Standards were reported to the Board at the last meeting. R. Boals stated there was sampling, 6-7 times per year in the past; and asked what the new plan was. M. Sauer answered there was downsizing as a cost-cutting measure.

Commissioner Lana Pollack asked how the IJC could help based on the 100% Total Phosphorus exceedences that have been reported. Thon Phommavong, Saskatchewan Ministry of Environment stated that there have been advances on how to reduce impact to fisheries from discharges into rivers.

Col. Price mentioned the AEC needs to develop what we do next; and not just reporting what is happening. R. Boals noted the SPARROW Water Quality Model could be used to answer some of these questions.

Megan Estep mentioned in the 1989 Agreement, the cost for monitoring is split between US FWS and the COE. Gregg Wiche asked M. Sauer whether AEC will continue monitoring Fecal coliform. M. Sauer answered yes. Dwight Williamson reiterated the discussion around nutrient issues in Lake Winnipeg in trying to understand the contributions from various jurisdictions. R. Boals mentioned the Board will add water quality when the terms of reference for the Task Force are developed.

#### 17. Update on Water Management Projects

- NAWS

Todd Sando reported that the project is still in court. The judge wants to know about depletions to Missouri River. It is expected the third round of NEPA comments and EIS will be done this summer. So far, there is no intake or treatment plant, just pipe buried in the ground.

- Lake Mitigoshe

Commissioner Lana Pollack is going to follow-up whether it has been approved by the IJC.

- Other Planned Developments

John Fahlman talked about clean coal technology and carbon capture plan for the Boundary Power Plant at a cost of \$1.24 billion dollars. The project will capture 1,000,000 metric tons of carbon. The project is expected to demand 820 dam<sup>3</sup> -12, 900 dam<sup>3</sup> of water per year to operate in the next four years. There is no extra water in the system to allocate.

#### 18. Update Work Plan

Discuss Updates and Revisions to the Work Plan

Russell Boals will update the work plan and circulate to Board members next week.

#### **Public Comments**

David Waind, City of Minot, mentioned that they have been watching the work being done; and asked for a coordinated effort to protect everyone. D. Waind added that they are looking for the best solution.

19. Next meeting - on June 19 and 20, 2012 in Minot, North Dakota.

June 19 - Public meeting, committee meeting and tour.

June 20 – Board Meeting.

There will be a conference call on March 28, 2012 at 10:00 a.m. CDT.

20. Adjournment

**Motion:** Col. Price that the meeting be adjourned. **Carried.** Meeting ended at 3:43 p.m.

List of Attendees, International Souris River Board meeting - February 22, 2012

**Board Members in Attendance**

Russell Boals, Canadian Co-chair, Retired, Regina, SK  
Todd Sando, U.S.A. Co-chair, ND State Water Commission, Bismarck, ND  
Col. Michael Price, Member for the U.S.A, U.S. Army Corps of Engineers, St. Paul, MN  
Dennis Fewless, Member for the U.S.A, ND Department of Health, Bismarck, ND  
John Fahlman, Member for Canada, Saskatchewan Watershed Authority, Moose Jaw, SK  
Dwight Williamson, Member for Canada, Manitoba Water Stewardship, Winnipeg, MB  
Gregg Wiche, Member for the United States, U.S. Geological Survey, Bismarck, ND  
Megan Estep, Member for the U.S.A, U.S. Fish and Wildlife Service, Denver, CO  
Bob Harrison, Member for Canada, Manitoba Water Stewardship, Winnipeg, MB  
Scott Gangl, Member for the United States, ND Game & Fish Department, Bismarck, ND  
Thon Phommavong, Member for Canada, Saskatchewan Ministry of Environment, Regina, SK

**Regrets**

David Donald, Member for Canada, Environment Canada, Regina, SK

**IJC Staff**

Commissioner Lana Pollack, IJC, Washington, D.C.  
Paul Pilon, Engineering Advisor, IJC, Ottawa  
Mark Colosimo, Engineering Advisor, IJC, Washington, D.C.  
Mike Laitta, IJC, Washington D.C. (via conference call)

**Support Staff in Attendance**

Ed Eaton, U.S. Army Corps of Engineers, St. Paul, MN (by phone)  
Robert White, U.S.A Co-secretary, ND State Water Commission, Bismarck, ND  
Tim Fay, ND State Water Commission, Bismarck, ND  
Joel Galloway, USGS, Bismarck, ND  
Ken Bottle, US FWS, Denver, CO  
Frank Durbian, US FWS, Uphom, ND  
Tom Pabian, US FWS, Bismarck, ND  
Brain Connelly, NOAA/NWS, Chanhassen, MN  
Allen Schlag, NOAA/NWS, Bismarck, ND  
Steve Robinson, USGS, Bismarck, ND  
Mike Sauer, ND Department of Health, Bismarck, ND  
Scott Hill, Water Survey of Canada, Environment Canada, Regina, SK  
Dan Selinger, Water Survey of Canada, Environment Canada, Regina, SK  
Girma Sahlu, Canadian Co-secretary, Environment Canada, Regina, SK

**Observers**

Cliff Hanretty, Eaton Irrigation Board, ND  
Rod Backman, ND Hon. Consul for Canada, Bismarck, ND  
Kari Hauck – US ACE, St. Paul, MN  
Andrea Travenick, ND Governor's Office, Bismarck, ND  
Ben Scheeler, Senator Kent Conrad's Office, Minot, ND

Marty Bocckel, Senator Kent Conrad's Office, Bismarck, ND  
Jason Westbrook, BARR Engineering, Bismarck, ND  
Patrick Fridgen, ND SWC, Bismarck, ND  
Stephen Hoetzer, Appex Engineering Group  
Anne Fritz, ND Dept. Health, Bismarck, ND  
Kendall Bergman, US ACE, St. Paul, MN  
Elizabeth Nelsen, US ACE, St. Paul, MN  
Heather Husband Duchscherer, Minot City Daily  
David Ashley, Souris River Joint Board, Minot, ND  
Jason Zimmerman, City of Minot  
Mark Lyman, City of Minot  
Lance Mayer, City of Minot  
David, Waind, City of Minot  
Alan Walter, City of Minot  
Dan Jonasson, City of Minot  
Jim Olson – KXMC TV Station, Minot

**International Souris River Board**  
**ACTION ITEMS – progress updated September 14, 2011**

<b>PERSONS OR COMMITTEE RESPONSIBLE</b>	<b>TOPIC</b>	<b>MINUTE</b>	<b>ACTION</b>	<b>STATUS As of February 22, 2012</b>
USGS	Water quality monitoring at Sherwood Gage	Jan 28/11-1	USGS will continue monitoring water quality in the winter months; and monitoring equipment / conductance meter will be kept in the stream until ice break-up. Completed	Closed
Doug Johnson	30-day release volume from Rafferty & Alameda Reservoirs	Jan 28/11 -2	Doug will provide the 30-day volume next week to help determine whether Lake Darling should be lowered. This would only be considered if there is a significantly higher event than the 1:10 event as currently estimated. Completed	Completed
U.S. FWS & SWA	Current conditions in the Souris River Basin including target elevations for, and releases from Rafferty, Alameda, and Lake Darling	Jan 28/11 -2	It was agreed to reduce the outflow from Lake Darling to 100 cfs for a week or ten days. Upon receipt of information on the 30-day volume estimate from SWA, the Flood Committee could suggest whether the outflow should be increased or decreased. If the basin experiences above normal precipitation in the next few weeks, then we need to arrange another conference call to discuss our next plan of action. Completed	Completed
Doug Johnson	Development of a International Souris River Board Procedures Manual	Sep 25/09-3 Feb 27/09-10a.	Doug Johnson to coordinate and call a meeting of a Canadian team for production of a draft procedures manual. At the Feb 23, 2010 meeting, Doug reported this was incomplete. Closed	Doug noted that the action item should be kept open.
Hydrology Committee (Doug Johnson and Megan Estep are co-chairs)	Calculation of Rafferty Reservoir net depletion.	Sep 25/09-3 June 18/09-4. Feb 27/09-10b.	Russell Boals to determine what analysis has been done on Inflow/Outflow vs. Change in Storage for Rafferty Reservoir and provide a report to the Hydrology Committee. At the June 18, 2009 meeting Russell noted that he had a brief discussion with Mike. Russell was to follow-up with Mike to request a summary of his activity. At the Feb, 23, 2010 meeting, Russell reported that Mike Renouf no longer has the files and this is now on the work plan for the Hydrology Committee. Closed	Closed and assigned to the Hydrology Committee for follow-up.
Hydrology Committee	Development of a model to evaluate changes in the operating level of Lake Darling	Feb 23/10 – 5a.	Hydrology Committee to prepare a spreadsheet format compilation of models used in the Souris River Basin and review future needs and requirements. Closed	Closed
Bob Harrison Martin Graczyk Ed Eaton	Report on the spring 2009 flood.	Sep 25/09-3 June 18/09-10d.	SRFFLC to write a report on the spring 2009 flood. The report is to document what happened, provide a chronology of events, examine why the forecast (at Minot) was too high, lessons learned, and make recommendations for improvements for the future. Ongoing	Ed Eaton reported that he has spoken with Brian Connelly. Funding to do the work is available. Ed estimated that the report would be drafted by the end of September. Allen Schlag reported that Brian Connelly is working on a critique of the 2009 flood estimates produced by various organizations. Ed noted that he would like to incorporate Brian's report into his flood report.

**International Souris River Board**  
**ACTION ITEMS – progress updated September 14, 2011**

<b>PERSONS OR COMMITTEE RESPONSIBLE</b>	<b>TOPIC</b>	<b>MINUTE</b>	<b>ACTION</b>	<b>STATUS As of February 22, 2012</b>
Aquatic Ecosystem Health Committee	Phenol monitoring	Feb 23/10-14b	AEHC to review the phenol data and provide a written report to the Board. Ongoing	Bruce Holliday reported that the AEHC has not met. Gregg Wiche noted limited phenol analysis will be done. Russ noted there are two questions to be addressed: 1. the monitoring for phenols, and 2. the process for changing the phenol objective. Dale Frink noted that in order for the IJC to make a decision on the phenol objective a report will be required. Closed and assigned to the Aquatic Health Ecosystem Committee for follow-up.
Aquatic Ecosystem Health Committee	Water Quality monitoring	Feb 23/10-16	AEHC to prepare a report on the sampling and analysis for Total Coliform, e. coli, fecal coliform and fecal streptococcus. Ongoing	To be discussed under agenda item No. 10. Closed and assigned to the Aquatic Health Ecosystem Committee for follow-up.
Brian Yee	ISRB SharePoint	Feb 23/10-20b	Brian Yee to contact John Yee, IT support for the IJC Ottawa, to set up a SharePoint for the ISRB. Closed	Brian Yee reported that Jon Yee, IJC Ottawa has indicated that the SharePoint will be up and running in a week or two. Closed
Doug Johnson	“	Sep 25/09-3 June 18/09-12 f June 18/09-4 Mar. 18/09-4a	Doug Johnson to lead on the development of the IWI LIDAR Proposal. Doug Johnson to setup a conference call of the Hydrology Committee for the end of May to discuss the IWI proposal. (Doug Johnson was to ask some of this staff to prepare a cost estimate for LIDAR surveys in the Souris River basin. Doug Johnson volunteered to lead on preparing the IWI proposal at the June meeting). At the Feb 23/10 meeting, Doug reported that this is on hold until there is a direction on the modeling to be done (which will be an outcome of the IJC workshops). Closed	Doug Johnson reported that this is on hold pending outcome of the IWI modeling workshops Closed.
Ed Eaton/US ACE	Flood Report	September 14, 2011	Ed Eaton, in cooperation with SWA, US FWS, and USGS, to prepare the 2011 flood report. Completed	Completed

**International Souris River Board**  
**ACTION ITEMS – progress updated September 14, 2011**

<b>PERSONS OR COMMITTEE RESPONSIBLE</b>	<b>TOPIC</b>	<b>MINUTE</b>	<b>ACTION</b>	<b>STATUS As of February 22, 2012</b>
Russell Boals	IWI Proposal–revised operating plan	September 14, 2011	Russell Boals, with the assistance of Megan Estep, will prepare an IWI proposal to revise the current operating plan. Completed	ongoing
R. Boals and T. Sando	Establish a Task Force and prepare TOR	February 22, 2012	Co-Chairs to establish a Task Force and prepare the TOR, and have it ready for review by Board before the end of March 2012.	ongoing
Dan Selinger	Determination of natural flows	February 22, 2012	Dan Selinger to finalize the provision data on natural flows within one month	ongoing
Megan Estep	Report on COH	September 14, 2011	Update from the Committee on Hydrology	ongoing
AEHC	Compliance with Water Quality Objectives	September 14, 2011	AEHC to recommend actions to be taken by the Board to address exceedences of water quality objectives	ongoing
Secretaries	Public meeting submissions	September 14, 2011	Secretaries will attach all written public submission to the Board minutes	Completed

Note: When two or more meetings are referenced to an item; that indicates a carry-forward of an action item from previous meetings.