

INTERNATIONAL
SOURIS RIVER
BOARD



CONSEIL
INTERNATIONAL
DE LA RIVIÈRE SOURIS

International Souris River Board

Kelly Inn Bismarck
1800 North 12th

Bismarck, ND 58501

Phone: 701-223-8001 Fax: 701-221-2685

February 24, 2016

Final Minutes

Board Members:

Russell Boals, Todd Sando, Megan Estep, Scott Gangl, Lee Staab, Nicole Armstrong, Mark Lee, David Glatt, John Fahlman, Gregg Wiche, Jeff Woodward, Shelly Wepler, David Pattyson, Joe Goodwill, and Lorinda Haman.

Via conference call – John-Mark Davies,

Regrets: Colonel Daniel Koprowski

Attendees:

Commissioner Lana Pollack, Commissioner Richard Morgan, Mark Gabriel, Wayne Jenkinson, , Scott Jutila, Bob White, Ken Bottle, Jim Olson – KXMC TV Station, Minot; Dave Helfrick, Mike Ell, Laura Diamond, Heather Husband, Frank Durbian, Tim Fay, Dan Jonasson, Tim Fay, Dave Ashley, Joel Galloway, Brent Hanson, Steve Robinson, Allen Schlag, Darin Schepp, Sally Johnson, Elizabeth Nelson, Dennis Reep, Nathan Stroh, Wanda McFadden, Richard Borndt, John Rognlien, Kern Kongsli, Darrell Haman, Tom Pabian, Girma Sahlu.

Via conference call - Kristina Farmer.

1. Introduction and Opening Remarks.

Todd Sando opened the meeting at 8:45 a.m. and welcomed IJC Commissioners Lana Pollack and Richard Morgan; IJC Advisors Mark Gabriel and Wayne Jenkinson; Board members, and other participants to the meeting. Todd also extended his welcome notes to the new and expanded Board and other attendees including those on the conference call. Todd then invited

Board members and the participants to introduce themselves. Five public members were added to the Boards as follows:

Lee Staab - United States

Shelly Weppler - United States

Lorinda Haman - United States

David Pattyson - Canada

Joe Goodwill - Canada.

Each public member provided a brief introduction including their past affiliation with water-related activities and organizations in the Souris River Basin.

Lana Pollack, IJC, gave a brief description of the IJC and its role in the management of transboundary waters between Canada and the United States. L. Pollack mentioned that the IJC was established following the signing of the Boundary Waters Treaty in 1909 between Canada and the United States. L. Pollack mentioned that at the turn of the 19th century there were water issues and tensions between the two countries. As a result, the IJC was created to resolve problems arising from the use of transboundary waters along the international boundary. The role of the IJC is to provide advice to governments. It does not have any regulatory authority. L. Pollack emphasised that board members need to serve all residents in the Souris Basin without bias to their individual jurisdictions, government or agency.

Commissioner Richard Morgan also welcomed the new Public Board members and echoed similar remarks. Commissioner R. Morgan thanked the Board for its work and inclusion of additional public members in its activities.

2. Approval of Agenda.

The agenda was approved as circulated.

Motion: John Fahlman motioned to accept the agenda as presented. Nicole Armstrong seconded the motion. Carried.

3. Approval of Minutes:

a. August 26, 2015 Conference Call Minutes – No changes were made to the minutes.

Motion: David Glatt motioned to accept the minutes as circulated. Megan Estep seconded the motion. Carried.

4. Review of Action Items

Russell Boals went through the action items from previous meetings as follows:

a. Development of Natural Flow Procedures – The Hydrology Committee will address this in their report.

- b. The action item related to the Spring 2009 Flood Report has been completed by the US ACE. A draft copy was sent to Board members for their review and comments.
- c. Development of a Communication Strategy by the Flow Forecasting and Liaison Committee has been completed,
- d. Megan Estep to review the POS and report back to the Board. This has been completed.
- e. Board Secretaries to set-up conference calls. This has been completed.
- f. The action item from the conference call on August 26, 2015 was for the Co-Chairs to prepare a new TOR for the POS. This has been completed.

5. Review of 2015 Hydrologic Conditions, Spring 2016 Hydrologic Forecast, and Planned Operations

a. Saskatchewan

John Fahlman reported that fall precipitation in 2015 in the Saskatchewan portion of the Souris Basin was close to average. Snowfall was below average for the winter. There were several periods of melt and occasional rain in January that have complicated the situation. As a result, no snow surveys were done in the Canadian portion of the basin because there was no snow. The estimated precipitation was 20 to 30 mm, which is 40-60% of normal.

2016 Spring Runoff Forecast – Below normal runoff is projected based on conditions as of February 15, 2016, assuming average precipitation for the remainder of February, March, and April, and a normal melt. This results in a less than 1:10 year event, which is below the median and is nowhere close to triggering flood operations. Therefore no additional pre-runoff flood operation drawdowns, beyond the normal drawdowns, are required at this time.

Based on the projected runoff volumes, the apportionment split will be 60/40 according to Annex B of the 1989 International Agreement.

- Boundary Reservoir was at an elevation of 560.18 m on February 15, 2016, which is 1.5 m below its full supply level.
- Rafferty Reservoir was at an elevation of 549.5 m on February 15, 2016, which is 1.0 m below its full supply level.
- Alameda Reservoir was 1.0 m below its full supply level on February 15, 2016.

None of the three reservoirs in Canada are expected to fill given the current flow forecast. The Water Security Agency (WSA) will try to store any runoff to the extent possible. The United States will receive its share as per the 1989 Apportionment Agreement.

The WSA agency will make releases from Alameda to meet its apportionment obligations under the Agreement.

There was a question about data collection and how snow/water is monitored and forecasted. Laura Diamond responded these issues are being addressed in the Plan of Study (POS).

b. North Dakota

Brent Hanson, USGS, provided a summary of 2015 flow conditions for the US portion of the Souris Basin. According to B. Hanson's report, the total volume of flow past the Long Creek at the Noonan gage through December 31, 2015 calendar year was 24,447 acre-ft (30,155 dam³). This volume is about 156% greater than the median flow for the last 56 years. Flows for the current year are in the normal to above normal range. The peak discharge for the reporting period January 1 to December 31, 2015 is 1,100 ft³/s, which ranks 22 in 56 years of record.

B. Hanson also reported that the total volume of flow past the Souris River near Sherwood gage through December 31, 2015 calendar year was 182,230 acre-ft (224,781 dam³). This year's total flow is 342% greater than the median flow for the last 85 years. Flows for the current year, based on the last 85 years of data are in the normal to above normal range. The peak discharge for the period January 1 to December 31 was about 1,870 cfs (53 m³/s).

Flow recorded at the Souris River near the Westhope gage, through December 31, 2015 calendar year, according to B. Hanson, was 336,042 acre-feet (414,508 dam³). This calendar year's total flow is about 280% of the median flow for the last 86 years. Flows for the current year, based on the last 86 years of record are in the normal to much above normal range. The minimum flow for the period was 9 ft³/s, which occurred from February 15-18, 2015. The peak discharge for the period January 1 to December 31, 2015 was 2,120 ft³/s (60 m³/s) on April 9, which ranks 29 in 86 years of record.

There were questions from the public about better monitoring and reporting of flow data to downstream communities, like Minot. There were complaints about extended flooding of hay lands in the US portion of the basin.

It was noted that the frozen ground with little snow cover caused flooding problems in 2015. The current models cannot handle this condition. The Gamma snow surveys conducted did not produce reliable results.

The National Weather Service provided some explanation about how El Nino (Southern Oscillation) is influencing precipitation patterns in the basin. The winter of 2015 going into 2016 was warm and dry with very little snow cover in most of the basin. January temperatures were 6-9 degrees Celsius above normal. Early snow melt and rain complicated normal flow patterns. El Nino was expected to continue throughout April. Normal precipitation conditions are expected after that. However, the three reservoirs in Canada will not fill. The other phenomenon, La Nina, which brings cooler winter conditions, is expected next fall with higher amount of runoff in winter.

The forecast for spring is well below normal flow conditions with very low risk of flooding. There was also agreement that the Souris River basin is very challenging to predict.

c. US FWS

Frank Durbian presented a summary of refuge operations and flows for 2015. The total provisional inflow measured at Sherwood for the first five months of the year was 144,946 ac-ft (178,791 dam³). This was 172% of the historic January-May inflow, which was 84,293 ac-ft (103,975 dam³) for the period 1938 through 2015. Total Upper Souris Refuge pool volume increased an estimated 14,711 ac-ft (18,146 dam³) during the first five months. The total

provisional outflow measured at Foxholm on the south end of the Upper Souris Refuge for the first five months of 2015 was 139,680 ac-ft (172,295 dam³). This outflow was 194% of the historic record for the January-May outflow, which was 71,819 ac-ft (88,589 dam³) for the period 1938-2015. Lake Darling elevation increased 0.74 ft (0.23 m) from 1596.28 ft (486.49 m) on January 1st to 1596.34 ft (486.56 m) on May 31, 2015. Lake Darling was at 1596.97 ft (486.55 m) on January 1st to 1597.02 ft (486.77 m) on May 31. The lake elevation on June 1st 2015 was 1597.01 ft (486.77 m).

Total yearly provisional flow at Sherwood was 182,216 ac-ft (224,763 dam³). This was 153% of the historic average annual inflow (based on calendar year), which is 119,348 ac-ft (147,246 dam³) for the period of record from 1938-2015. Total yearly provisional outflow measured at the Souris River near Foxholm on the south end of the Refuge was 182,156 ac-ft (224,689 dam³) for the period 1938-2015. This was 149% of the historic average annual outflow which is 122,247 ac-ft (150,792 dam³) for the period of 1938-2015. Total inflow was a slight 60 ac-ft (74 dam³) more than total measured outflow. On December 31, 2015, Lake Darling was at an elevation of 1595.93 ft (486.44 m).

With regards to the J. Clark Salyer National Wildlife Refuge, the total provisional flow measured from the Souris River to the Refuge from January 1 through May 31 was 203,977 ac-ft (251,606 dam³). This was 189% of the historic January–May inflow, which was 107,974 ac-ft (133,186 dam³) for the period of 1938-2015. Pool volume on May 31 was 37,148 ac-ft (45,822 dam³). This was 22,997 ac-ft (28,367 dam³) above the January 1st volume. Approximately, 205,886 ac-ft (253,960 dam³) was passed to Manitoba during the five month period.

Total outflow measured at Westhope for 2015 was 336,047 ac-ft (414,514 dam³). Total outflow was 39,482 ac-ft (48,701 dam³) more than inflow on the Souris River at Bantry. Outflow during the June 1st to October 31st period was 100,714 ac-ft (124,231 dam³) or 94,365 ac-ft (116,745 dam³) above the 6,069 ac-ft (7,486 dam³) required minimum. The flow at the Westhope gage never fell below the minimum 20 cfs (0.57 m³/s) threshold during this time period. The lowest recorded daily mean flow during the June 1st to October 31st time period was 63 cfs (1.78 m³/s) and occurred on October 12, 2015.

d. Manitoba

Mark Lee reported in Manitoba the spring melt started in early to mid-March slightly earlier than usual. The Souris River at Wawanesa peaked at 4,550 cfs on March 30th, which is considered to be a 1 in 4 year flood event. Although Manitoba tributaries began rising in mid-March they were interrupted by a cool period. Flows resumed when temperatures rose again close to the end of March. This resulted in two spring peaks, the first in mid-March and the second in early April. The peaks were similar in magnitude and had return periods in the range of 2-year to 5-year flood events.

Throughout the early summer of 2015 precipitation events generated temporary rises in the Manitoba tributaries. These flows were generally been similar to, or below, the spring peaks. Overall, precipitation has been above normal in the Manitoba portion of the basin over the summer.

The Souris River at Wawanesa remained much above normal all summer, but returned to near the median flow. Flow on the mainstem was close to near the median flow from August to mid-October. Dugout supplies in the area were adequate throughout summer and going into freeze-up.

The Manitoba portion of the Souris River Basin has received below normal snow cover in winter 2015/2016. The western tributaries have areas with little to no snow.

Souris River flows fluctuated throughout winter as a result of reservoir operation in North Dakota. Flows have been above normal from mid-October to mid-January. Since then, flows have been in the normal range (between the 25th and 75th percentiles). The current flow at Wawanesa is approximately 32 cfs (0.9 m³/s), very close to the median flow for this time of year.

The 2015 Antecedent Moisture Index (API), which is a comparison of the current year's precipitation from May to freeze-up to the historical record, shows the Manitoba portion of the basin was normal to above normal.

Based on the foregoing agency reports, the Board unanimously declared Spring 2016 to be a non-flood event with normal to below normal runoff (less than 1:10 year event).

6. Determination of Natural Flow of the Souris River at Sherwood to December 31, 2015

Dave Helfrick reported the results of natural flows determined by Environment Canada for the period ending December 31, 2015. The total diversion in the Souris Rivers basin was 45,678 dam³. Recorded flow at Sherwood was 224,781 dam³. The natural flow computed at Sherwood was 213,377 dam³. According to these computations, the US share at 40% was 85,510 dam³. The flow received by the US was 226,895 dam³ which constitutes a surplus delivery of 141,385 dam³. The annual flow requirement / apportionment at Long Creek station has also been met with a surplus of 4,227 dam³.

Motion: Megan Estep motioned to accept the Natural Flow Computation to December 31, 2015. Mark Lee seconded. Carried.

7. Hydrology Committee

Ken Bottle reported that the Hydrology Committee met yesterday. There were some changes to the membership. The committee is working on the *Apportionment Procedures Manual* for the Souris River and is making some progress. The Committee plans to have another face-to-face meeting in the near future. K. Bottle also provided the current membership list of the Hydrology Committee.

8. Water Quantity Monitoring

a. Report on Water Quantity Monitoring Plans for 2016 with Highlights from 2015

Gregg Wiche mentioned the network in the US is sound and will operate in the same way as 2015. No major changes are expected in 2016.

b. Report on any Highlights Arising from Current Water Quantity Monitoring

Dave Helfrick, WSC, reported no major changes to the hydrometric network operated by Environment Canada and the Water Security Agency are planned. The network has been reviewed in 2011 for flow forecasting purposes.

c. Conversion of ND gages in the Souris Basin from NAVD-29 to NAVD-88 Datum (USGS)

Allen Schlag, NWS, presented the rationale for making the datum changes from the old NAD-29 to the new NAVD-88 system. There were concerns how the switch to the new datum will affect stations, particularly those with long records in the basin. Stages were rounded-up instead of down. As a result, some minor differences were noted from a quarter of a foot to a foot and half. Megan Estep expressed her concern regarding the switch and how the public might view it. M. Estep noted that the US FWS was not consulted during the datum conversion. Tim Fay mentioned the conversion idea came from a meeting of the Souris River Joint Board and Silver Jacket. Russell Boals and Gregg Wiche noted that the public might be confused and not understand the justification for the datum conversion as existing Agreements would be affected. The Boundary Waters Treaty is written using the NAD-29 datum. However, it is expected people would benefit from the new datum in the long-term. It was suggested to involve the IJC and the US FWS because changing agreements are not simple. M. Estep suggested to incorporate the datum in the new Plan of Study (POS). Jeff Woodward mentioned Environment Canada will not change its reporting procedures, but will convey the corrections for both datums. Rafferty will be reported as in the past. J. Woodward also mentioned Environment and Climate Change Canada (ECCC) is moving to the new Geoid 2013 datum, which uses a satellite system instead of ground-based monuments. The move to the Geoid 2013 is made by Natural Resources Canada. It is a decision taken by the Federal Government of Canada not ECCC.

There was agreement that the datum conversion needs more public discussion and engagement. Specially, public outreach and education is needed so that the public understands the benefits of the datum conversion. There are numbers in Annex "A" that are based on the NAD-29 Datum that need to be addressed. The numbers could be changed, but it won't be easy. There was no prior discussion with all the parties affected, which was part of the problem.

In summary, there would be a new reference datum, which will have implications on the 1989 Agreement. Therefore, there is a need to reconcile the differences between the two datums. Agencies operating with licenses need to know, which datum they must use for reporting purposes, which could be a challenge for those who regulate and manage reservoirs in the Souris River Basin. There is a need to document the NAD-29 datum used in the 1989 Agreement, which is not currently clearly stated. Ken Bottle suggested the 1989 Agreement has to clearly spell out the numbers in NAD -29. Therefore, the Agreement needs to be modified. The 1989 Interim Agreement has never been finalized.

No specific action item was assigned to the datum conversion issue and it is expected the discussion will continue at future meetings.

9. Water Appropriation in the Souris River Basin During 2015

John Fahlman mentioned in 2015 there were 625 projects in Saskatchewan that were issued licenses for water use for a total of 45,000 dam³. There were also three minor use water licenses approved for industrial use, municipal supply, and track wash activity.

Bob White provided handouts on the temporary permits issued in North Dakota in 2015. There were 33 temporary surface water and 1 temporary groundwater permits issued in 2015. The surface water allocation was 2,874 ac-ft. The groundwater allocation was 50 ac-ft for a total of 2,924 ac-ft. There was one conditional surface water permit issued in 2015 for 30 ac-ft.

10. Flow Forecasting Liaison Committee

Laura Diamond, NOAA/NWS, US Co-Chair of FFLC, reported on recent activities of the Committee. Curtis Hallborg, WSA, is the Canadian Co-Chair of the Committee. L. Diamond distributed handouts with details of the work done by the FFLC, which included runoff forecasts. The FFLC met on June 15, 2015 via a conference call and discussed the following topics:

- Current basin conditions and reservoir elevations and outflows,
- Operating plans for summer and winter months,
- Draft Communication Plan,
- Spring 2015 runoff (forecasted and observed), and
- Action items arising from the Committee work.

There was discussion about IWI funding opportunities from the IJC. Saskatchewan is looking at a pilot project with the University of Saskatchewan to do research on forecasting tools. John Fahlman mentioned he is waiting for some results. Manitoba is also doing something similar. The call for IWI funding requests is expected within the next two weeks. J. Fahlman will check with Curtis Hallborg, Canadian Co-Chair, of the FFLC. Two calls are done per year – spring and fall for IWI funding by the IJC.

11. Update from the Aquatic Ecosystem Health Committee (AEHC)

The Board decided to combine agenda 11, 12, and 13 into one discussion because all deal with water quality/aquatic ecosystem health issues.

Heather Husband in-person and Kristina Farmer on the phone teamed up to make the presentation. H. Husband provided a handout with an update on the activities of the AEHC and gave an overview of the Souris River water quality. H. Husband also shared the provisional data that were gathered from the Sherwood and Westhope sites. Water quality samples have been collected from the two sites since 1960 that include 47 parameters. Six samples continue to exceed their set objectives on frequent basis. Similar trend of exceedances are observed at the Sherwood and Westhope sites. The sampling schedule is 7-8 times per year - 6 during open water and 2 under ice conditions.

The parameters monitored include pH, Conductivity, Dissolved Oxygen, Nutrients, Major Ions, Metals, and Organics for a total of 47 parameters. All water quality data is checked for compliance against established water quality objectives for all the parameters. Some of the parameters are affected by season and or flow condition. Sodium in 2015 exceeded the objective in the majority of the samples. Iron at Sherwood has historically been higher than the Westhope site. Only in 3 of 8 samples at Sherwood and had one sample on 2015, but neither station is close to the objective. While a few values were close, the objective is still constantly exceeded at both stations. The reason might be background sources/levels. Sulphate levels at

Sherwood and Westhope are below the objective of 450 mg/L. The same holds true for Total Dissolved Solids with an objective of 1000 mg/L. pH has been consistently higher for the Westhope site most of the time. Higher levels of Molybdenum have been recorded during the spring at the Westhope site which has an objective of 10 µg/L. The highest value recorded was 10.9 µg/L in June 2015. DO levels met objectives in all samples at Sherwood, and in all but one sample at Westhope.

In summary, the AEHC is currently working on the wording for the addition of E.coli to the water quality objectives. Once completed, they will send it to the secretaries for distribution to Board members. The Spills Communication Protocol has been completed. Looking for alternates for Environment and Climate Change Canada (ECCC). AEHC will be reviewing the existing/old water quality objectives and will also address the issue of discrepancies between samples collected by the USGS and ECCC. Review of the Water Quality Objectives has been put on-hold since the IJC (Mark Gabriel) is working on this.

Action: Joel Galloway will check the discrepancies and report back to the Board.

The nutrient project by DU (Pascal Badiou) has been completed and he is expected to present his findings to the Board at the meeting in Minot.

It was suggested to add a section on invasive species. AEHC is also working on changing the way data is presented for the next Annual Report. The Board agreed to improve communication and presentation of its Annual Report and has decided to submit an IWI proposal for implementation. The proposal will be circulated to Board members within the next two weeks for comments and input.

Action: ISRB will submit an IWI project proposal to improve communication and display of its Annual Report and the webpage.

AEHC also plans to restart literature/study/project review for the Souris River Basin to address the issue of frequent exceedances of water quality objectives and their potential sources. Jeff Woodward enquired where the current water quality objectives came from and the rationale behind them. Those who have been around long enough responded human health, aquatic health, and a mix of other issues that jurisdictions had at the time were all taken into consideration in setting the current objectives.

14. 2011 Flood

Update from the 1989 Agreement Core Committee – John Fahlman gave a brief report on the activities of the Committee. Currently, the Committee is looking at the language of both Annex A and Annex B dealing with flood and non-flood aspects of the 1989 Agreement. The Water Security Agency is working on the *Reservoirs' Operations Manual* and is close to completion. It will be presented to the US operators. Saskatchewan redid the Probable Maximum Flood (PMP) for the inflow design flood. The decision of the inflow design flood is expected in the next two months. Furthermore, in light of the 2011 flood, Saskatchewan has also conducted a dam safety inspection using the Canadian Dam Safety Guidelines to ensure the safety of its dams.

J. Fahlman mentioned a couple of editorials were made to the POS Committee Terms of Reference. It was decided not to make references to personal names. Also corrected names of

agencies mentioned in the TOR and tried to simplify the language. The only thing that has been changed is Item #6 in the TOR that simplified the language.

Motion: John Fahlman motioned to accept the revised Terms of Reference for the POS with the simplified language. Megan Estep seconded the motion. Carried.

The POS review committee, which includes the COE, US FWS, MB, SK, and USGS, has met and gone through the entire process. The path forward requires both internal and external resources. The Core Committee expects to draft its work plan by the end of April 2016. The IJC might help out with the study management. Communication and public outreach / engagement need to be included. The need for project management has been raised few times. Scott Jutila will bring it up again with Syed Moin at the next meeting. The IJC mentioned that it is planning to push the POS forward. North Dakota stated it is ready to move forward, as well.

Karen Ryberg highlighted the significance of climate change in #6 of the TOR. The need for long-term climate data and tree-ring data to predict precipitation patterns was mentioned as an important factor. The work done by S. Veccia for Devils Lake could provide some insight.

15. Update on Water Management Projects

NAWS

The Northwest Area Water Supply project is still before the courts in Washington D.C. and it is hoped to have a ruling by the end of year.

Other Planned Developments - None were identified.

16. International Watersheds Initiative Projects

a. Update on IJC's Strategic Initiatives – Water Quality Objectives

Mark Gabriel gave a brief report on the IJC initiatives. M. Gabriel mentioned that he has reviewed the current water quality objectives which were developed in the early 1990s. The purpose of the review is mainly for internal use by the IJC/Commissioners to understand water quality problems in the basin and the causes for frequent exceedances of water quality objectives; and then determine if modifications are needed to the existing objectives. M. Gabriel will present his findings to the Board at the summer meeting.

Action: Mark Gabriel, IJC, will present the results of his assessment of the current water quality objectives to the Board at the June 2016 meeting in Minot, ND.

The Board will determine what the new water quality objectives should be and make recommendations to the IJC. The IJC, in turn, will seek approval from the two federal governments for implementing the new water quality objectives.

b. Update on the Joint IWI Multi-Board Strategic Workshop, Ottawa, October 2015

Wayne Jenkinson briefed the Board about the workshop, which discussed the need for a wholistic watershed approach to solve problems in any given basin. The workshop was designed to facilitate discussion and interaction with other boards.

There was discussion about improving the production of the ISRB Annual Report. The Communications Team in the IJC will provide assistance. An IWI project discussed under agenda #11 was raised again to encourage the Board to submit an IWI proposal. The Communication piece and the Annual Report components will be circulated to the Board for input and comments. The IWI proposal also includes updating/improving the website. The Board has to approve the project before it is submitted to the IJC for funding.

17. New Business

a. City of Minot – HUD Resiliency Grants for the Souris River Basin

Lee Staab, City Manager for Minot, made a presentation (with a handout) on the City of Minot HUD's National Disaster Resiliency Competition (NDRC). Minot was awarded \$74.3 million in federal funding, one of only 13 grant awards. The direct leverage funds from the City of Minot, State of North Dakota, and area businesses was \$469,985,350. L. Staab thanked the Board for its support letter that accompanied the City's application for the grants.

Three project activities were identified which included:

- Reducing flood risk and improving water management,
- Building affordable and resilient neighborhoods, and
- Fostering economic resilience diversification.

Todd Sando congratulated L. Staab for his achievements.

b. Update from the Assiniboine River Basin Initiative (ARBI)

Wanda McFadden, Project Manager of ARBI, gave a presentation (see handout) on the activities of the Assiniboine River Basin Initiative. ARBI was established in the fall of 2013 after the severe flood of 2011. ARBI consists of 51 members from each of the three jurisdictions, Saskatchewan, Manitoba, and North Dakota. W. McFadden mentioned the goal of ARBI is to facilitate and support a coordinated approach to water related issues in the basin. ARBI is incorporated in all three jurisdictions. Russell Boals mentioned that for the educational and public awareness component ARBI could contact Project WET in Canada, which is offered by the Canadian Water Resources Association (CWRA). Project WET, originally started in North Dakota, and has been very effective in raising environmental awareness / education among children from Kindergarten to Grade 12.

North Dakota's Third Biannual Water Quality Monitoring meeting is in early March 2016 in Bismarck, ND.

18. New Business

Administration

The next Public Session and face-to-face meeting are scheduled for June 13-14, 2016, respectively in Minot, ND. The North Dakota State Water Commission will host and coordinate.

Action: ND SWC will coordinate the hosting of the next face-to-face meeting.

19. Adjournment

The meeting was adjourned at 3:40 p.m. on February 24, 2016 (Bismarck, ND).

**List of Attendees,
International Souris River Board Meeting, Bismarck, ND
February 24, 2016**

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
Nicole Armstrong, Member for Canada, Manitoba Conservation & WS, Winnipeg, MB
David Glatt, Member for the U.S.A., ND Department of Health, Bismarck, ND
Megan Estep, Member for the U.S.A, U.S. Fish and Wildlife Service, Denver, CO
Mark Lee, Member for Canada, Manitoba Conservation & WS, Winnipeg, MB
Jeff Woodward, Member for Canada, Environment Canada, Regina, SK
Gregg Wiche, Member for the United States, U.S. Geological Survey, Bismarck, ND
John Fahlman, Member for Canada, Saskatchewan Water Security Agency, Moose Jaw, SK
Scott Gangl, Member for the United States, ND Game & Fish Department, Bismarck, ND
Lee Staab, Member for United States, City of Minot, ND
Shelly Wepler, Members for United States, Minot, ND
David Pattyson, Member for Canada, Upper Souris Watershed Management, Tribune, SK
Joe Goodwill, Member for Canada, Souris, SK
Lorinda Haman, Member for United States, Towner, ND

On Conference Call

John-Mark Davies, Member for Canada, Saskatchewan Water Security Agency, Saskatoon, SK

Regrets

Col. Daniel Koprowski, Member for the U.S.A, U.S. Army Corps of Engineers, St. Paul, MN

IJC Staff

Commissioner Lana Pollack, IJC, Washington, D.C.
Commissioner Richard Morgan, IJC, Ottawa
Wayne Jenkinson, Engineering Advisor, IJC, Ottawa.
Mark Gabriel, Engineering Advisor, IJC, Washington, D.C.

Support Staff in Attendance

Robert White, U.S. Co-secretary, ND State Water Commission, Bismarck, ND
Frank Durbian, US FWS, Uphom, ND
Scott Jutila, US ACE, St. Paul, MN
Heather Husband, ND Department of Health, Bismarck, ND
Steve Robinson, USGS, Bismarck, ND (via conference call)
Dave Helfrick, Water Survey of Canada, Environment Canada, Regina, SK
Jim Olson – KXMC TV Station, Minot, ND
Laura Diamond, NWS, Chanhassen, MN
Tim Fay, ND State Water Commission, Bismarck, ND
Kristina Farmer, Science & Technology, Environment Canada, Winnipeg, MB (via conference call)
Dan Jonasson, City of Minot, ND
Ken Bottle, US FWS, Lakewood, CO

Joel Galloway, USGS, Bismarck, ND
Brent Hanson, USGS, Bismarck, ND
Mike Ell, ND Dept. of Health, Bismarck, ND
Dave Ashley, Souris River Joint Board, Coltaire, ND
Heather Husband, ND Dept. of Health, Bismarck, ND
Steve Robinson, USGS, Bismarck, ND
Allen Schlag, NWS, Bismarck, ND
Laura Diamond, NWS NCRFC, Bismarck, ND
Darin Schepp, ND SWC, Bismarck, ND
Sally Johnson, US Senator Hoven's Office, Minot, ND
Elizabeth Nelson, US ACE, St. Paul, MN
Dennis Reep, HDR Engineering, Bismarck, ND
Nathan Stroh, USGS, Bismarck, ND
Wanda McFadden, ARBI, Winnipeg, MB
Richard Borndt, MRP Coalition, Towner, ND
John Rognlien, MRP Coalition, Eaton Irrigation, Towner, ND
Kern Kongsli, Mouse River Coalition, Towner, ND
Darrell Haman, Mouse River Coalition, Towner, ND
Tom Pabian, US FWS, Minot, ND
Girma Sahl, Canadian Co-secretary, ECCC, Regina, SK

**International Souris River Board
ACTION ITEMS – progress updated February 26, 2016**

PERSONS OR COMMITTEE RESPONSIBLE	TOPIC	MINUTE	ACTION	STATUS As of February 26, 2014
Doug Johnson	Development of an 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.	Ongoing
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.	Completed
AEHC	Compliance with Water Quality Objectives	September 14, 2011	AEHC to recommend actions to be taken by the Board to address exceedances of water quality objectives	Closed
John Fahlman	Winter release from mid-level outlet for better water quality	June 20, 2012	J. Fahlman to check with his staff if releases could be made from the mid-level out of Rafferty Reservoir to improve water quality downstream and respond to Mike Sauer.	Closed
Flow Forecasting Liaison Committee	New Communication Strategy	June 20, 2012	The Flow Forecasting Liaison Committee will create a formal communication strategy	ongoing
AEHC	New E. coli objective	June 20, 2012	AEHC will prepare a short report detailing the justification/reasons for adding E. coli to the ISRB Water Quality Objectives	Closed
AEHC and HC	Varying flow rates for winter releases	June 20, 2012	AEHC and HC will develop a plan for testing various winter release rates to determine the optimum flow rate to maintain DO levels	Closed
ISRB	Engaging the Upper Souris Watershed Association with Board activities	June 20, 2012	As an IWI Board, the ISRB would continue to seek opportunities to engage watershed associations and the public	Closed
AEHC	Terms of Reference	February 20, 2013	AEHC Co-chairs to send their TOR to the Board	Completed
Water Security Agency	90-day volume - Souris River at Sherwood	February 20, 2014	WSA will prepare an estimate of the 90-volume for the Souris River at Sherwood for March 20 meeting	Completed
ISRB	Flood event determination	February 20, 2014	The Board will determine the return period/flood event for Spring 2014	Completed
Co-Secretaries	Membership update	February 20, 2014	Co-Secretaries will send an updated list of all committees to the Board	Completed
ISRB	Communication Protocol	February 20, 2014	Board to review and approve the “Communication Protocol for Fish Kills in the Souris River on March 20, 2014	Completed
Co-Chairs	Mike Laitta’s support	February 20, 2014	Co-Chairs will send a joint letter requesting the IJC for Mike Laitta’s assistance.	Closed
ISRB	Potential Public Board members	February 20, 2014	Board will prepare a list of potential NGOs to establish a pool to draw public candidates for Board membership	Closed

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PERSONS OR COMMITTEE RESPONSIBLE	TOPIC	MINUTE	ACTION	STATUS As of February 26, 2014
ND SWC	Next Face-to-Face Meeting	February 20, 2014	ND SWC will host the June 2014 Public and Board meeting	Completed
IJC	IWI template	June 25, 2014	Mark Colosimo will send the IWI template to H. Husband for submission of the proposed changes to the Water Quality Objectives.	Completed
ISRB Co-Chairs and Co-Secretaries	Public membership on Board	June 25, 2014	Board will prepare a list of potential NGOs to establish a pool to draw public candidates for Board membership	ongoing
Dan Selinger	Determination of Natural Flows to May 31, 2014	June 25, 2014	Dan Selinger, WSC, to submit his calculations to the Board for review and approval at the Sept. 25 conference call	Completed
Manitoba Water Conservation & Stewardship	Next face-to-face meeting	June 25, 2014	Manitoba Water Conservation and Stewardship will coordinate and host the next Board meeting.	Completed
Megan Estep	Synopsis of the adequacy of the hydrometric network in the Souris River Basin	February 26, 2015	Megan Estep volunteered to provide a synopsis to the IJC regarding the adequacy of the hydrometric network in the Souris River Basin.	Completed
ISRB Co-Chairs	Request for support letter to the City of Minot NDRC application submission	February 26, 2015	Co-Chairs to review and endorse the support letter on behalf of the Board.	Completed
Saskatchewan Water Security Agency	Host the Summer 2015 Public and Board meeting	February 26, 2015	Saskatchewan Water Security Agency will coordinate the Summer 2015 Public and Board meeting in Estevan, SK	Completed
ISRB Co-Secretaries	Doodle poll to set-up a webinar	February 26, 2015	The Co-secretaries will conduct a Doodle Poll to set-up a webinar for Gregg Wiche's presentation on Climate Analysis and Water Balance Report as part of the POS	Completed
ISRB Co-Secretaries	Next face-to-face meeting June 18-19, 2015	February 26, 2015	Co-Secretaries will coordinate with EC and WSA to setup the logistics for the Summer 2015 meeting in Estevan, SK	Completed
ISRB	Submit an IWI Project Proposal	February 24, 2016	Board to prepare and submit an IWI proposal to improve communication and display of the Annual Report and website.	Completed
Joel Galloway	Discrepancies of results of water quality sampling	February 24, 2016	Joel Galloway will investigate the reason for the discrepancies of the results of the joint water quality sampling between Canada and the USGS	Ongoing
Pascal Badiou	DU Nutrient Project	February 24, 2016	Pascal Badiou to present the results of the DU Nutrient Project to the Board	Ongoing
Mark Gabriel	IJC - Review Water Quality Objectives	February 24, 2016	Mark Gabriel will present the results from his review of the Souris River Water Quality Objectives	Ongoing

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