

INTERNATIONAL
SOURIS RIVER
BOARD



CONSEIL
INTERNATIONAL
DE LA RIVIÈRE SOURIS

International Souris River Board

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February 26, 2015

Final Minutes

Board Members:

Russell Boals, Todd Sando, Megan Estep, Colonel Daniel Koprowski, Nicole Armstrong, Mark Lee, David Glatt, Jeff Woodward. **Via conference call** – John Fahlman, Gregg Wiche, Scott Gagné, John-Mark Davies.

Attendees:

Commissioner Lana Pollack, Commissioner Richard Morgan, Mark Gabriel, Wayne Jenkinson, Judy DesHarnais, Scott Jutila, Bob White, Ken Bottle, Scott Hill, Jim Olson – KXMC TV Station, Minot; Pascal Badiou, Laura Diamond, Heather Husband, Frank Durbian, Tim Fay, Kristina Farmer, Ken Bottle, Cliff Hanretty, Lee Staab, Dan Jonasson, Joe Goodwill, Girma Sahlu.

Via conference call - Steve Robinson.

1. Introduction and Opening Remarks.

Russell Boals opened the meeting at 9:35 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. Russell Boals also extended his welcome notes to all attendees including those on the conference call and then invited Board members and other participants to introduce themselves.

2. Approval of Agenda.

The agenda was approved as circulated.

Motion: Nicole Armstrong motioned to accept the agenda as presented. Col. Koprowski seconded the motion. Carried.

3. Approval of Minutes:

- a. September 25, 2014 Conference Call Minutes – No changes were made to the minutes.

Motion: Col. Daniel Koprowski 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 meeting. 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. The status of the rest of the action items is listed at the end of the minutes.

5. Review of 2014 Hydrologic Conditions, Spring 2015 Hydrologic Forecast, and Planned Operations

a. Saskatchewan

John Fahlman reported that the fall precipitation in 2014 in the Saskatchewan portion of the Souris Basin varied from near average in the western portion of the basin to below average in the east. However, the eastern portion that includes the Moose Mountain Creek Basin received extremely high precipitation in the summer. At the beginning of November, the cropland topsoil moisture was considered to be adequate throughout the basin with a couple of relatively small areas on the east side described as being in surplus conditions. In general, subsoil conditions are expected to be near full across the basin. According to point snowfall data within the basin, the cumulative winter precipitation to date is generally slightly below average across the Saskatchewan portion of the Souris River Basin. The snow water equivalent (SWE) in the existing snowpack, estimated via satellite, is showing above normal; however it is thought to be reading high. The NWS modeled snow cover is showing near average. WSA field staff observed generally below average visual snowpack across the basin due to several periods with melting temperatures in the past few months.

2015 Spring Runoff Forecast - Near median runoff is projected based on conditions as of February 12, 2015, assuming average precipitation for the remainder of February, March and April, and a normal melt. Since the forecasted 30-day unregulated volume at the Sherwood Crossing does not exceed a 1:10 year event (216,110 dam³), non-flood operations are in effect. 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 12, 2015. Near median runoff is expected at this time.

Rafferty Reservoir was at an elevation of 549.4 m on February 12, 2015. The maximum elevation for February 1st specified by the 1989 Agreement is 549.5m. Near median runoff is projected at this time.

Alameda Reservoir was at an elevation of 561.0 m on February 12, 2015. The maximum elevation for February 1st specified by the 1989 Agreement is 561.0 m. Near median runoff is projected at this time.

b. North Dakota

Steve Robinson, USGS, provided a summary of 2014 flow conditions for the US portion of the Souris Basin. According to S. Robinson's report, the total volume of flow past the Long Creek at Noonan gage through December 31, 2014 calendar year was 31,097 acre-ft (38,358 dam³). This volume is about 200% greater than the median flow for the last 54 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, 2014 is 289 ft³/s, which ranks 39 in 55 years of record.

S. Robinson also reported that the total volume of flow past the Souris River near Sherwood gage through December 31, 2014 calendar year was 229,797 acre-ft (283,455 dam³). This year's total flow is 480% greater than the median flow for the last 83 years. Flows for the current year, based on the last 83 years of data are in the normal to above normal range. The peak discharge for the period January 1 to December 31 was 1,270 cfs (36 m³/s).

Flows recorded at the Souris River near Westhope gage, according to S. Robinson, exceeded the long-term mean for most of the period. Flows for the current year, based on the last 83 years of record are in the normal to much above normal range. The minimum flow for the period was 31 ft³/s, which occurred on March 7, 2014. The peak discharge for the period January 1 to December 31, 2014 was 4,110 ft³/s (116 m³/s) on July 6, which ranks 11 in 84 years of record.

The ND State Water Commission and the USGS low-flow monitoring program on the Souris River main stem in the vicinity of the Eaton Irrigation Project near Towner, North Dakota was discontinued in the Spring of 2014.

c. US FWS

Frank Durbian presented a summary of refuge operations and flows for 2014. The total provisional inflow measured at Sherwood for the first five months of the year was 82,261 ac-ft (101,469 dam³). This was 98% of the historic January-May inflow, which was 83,520 ac-ft (103,022 dam³) for the period 1938 through 2014. Total Upper Souris Refuge pool volume increased an estimated 2,830 ac-ft (3,491 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 2014 was 81,949 ac-ft (101,084 dam³). This outflow was 116% of the historic record for the January-May outflow, which was 70,944 ac-ft (87,509 dam³) for the period 1938-2014. Lake Darling elevation increased 0.25 ft (0.08m) from 1596.09 ft (486.49 m) on January 1st to 1596.34 ft (486.56 m) on May 31, 2014. Lake Darling was at 1596.97 ft (486.76 m) on June 1st 2014.

Total yearly provisional flow at Sherwood was 228,077 ac-ft (281,333 dam³). This was 192% of the historic average annual inflow (based on calendar year), which is 118,532 ac-ft (146,209 dam³) for the period of record from 1938-2014. Total yearly provisional outflow measured at the Souris River near Foxholm on the south end of the Refuge was 256,354 dam³ for the period 1938-2014. Total outflow was 28,277 ac-ft (34,880 dam³) more than total measured inflow. On December 31, 2014, Lake Darling was at an elevation of 1596.31 ft (486.56 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 164,054 ac-ft (202,361 dam³). This was 154% of the historic January –May inflow, which was 106,739 ac-ft (131,663 dam³) for the period of 1938-2014. Pool volume on May 31 was 63,512 ac-ft (78,342 dam³). This was 29,167 ac ft (35,977 dam³) above the January 1st volume. Approximately, 250,024 ac-ft (308,405 dam³) was passed to Manitoba during the five month period.

Total outflow measured at Westhope for 2014 was 783,012 ac-ft (965,845 dam³). Total outflow was 346,013 ac-ft (426,829 dam³) more than inflow on the Souris River at Bantry. Outflow during the June 1st to October 31st period was 15,939 ac-ft (19,661 dam³) or 9,870 ac-ft (12, 175 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 533 cfs (15 m³/s) and occurred on October 18, 2014.

d. Manitoba

Mark Lee reported precipitation in 2014 was above normal in Manitoba. Extreme rainfall in early July caused local tributaries to have record peak flows much higher than any previously recorded flow. Peak flows on many tributaries were 150 to 200-year events and double the previous floods of record causing overland flooding in numerous locations. The Souris River at Wawanesa remained much above normal all summer and at record high flows heading into fall. All winter Souris River flows were at record levels in the early winter period and have remained at the 90 percentile. The current flow at Wawanesa is approximately 150 cfs (4.4 m³/s).

Spring 2015 Outlook – The Antecedent Precipitation Index (API) for the Manitoba portion of the Souris River Basin is normal to above normal. The API is a comparison of current precipitation from May to freeze-up to the historical record. Total precipitation from November 1st to February 20th has been below normal for the Manitoba portion of the basin. Manitoba Infrastructure and Transportation's Hydrologic Forecasting Centre has generated a map that shows the runoff potential for Spring 2015. Runoff potential for the Manitoba portion of the basin is below normal to normal. The National Weather Service's probabilistic forecast at the North Dakota-Manitoba border (Westhope, ND) is close to the historical average at the 50% exceedance probability and has lower than normal chances for minor to major flooding. Due to the high base flows and adequate storage volumes going into freeze-up, the concern for water supply in the Manitoba portion of the basin is low.

Based on the foregoing agency reports, the Board declared Spring 2015 to be a non-flood event with normal to below normal runoff (less than 1:10 year event).

Motion: Mark Lee motioned to declare spring 2015 a non-flood event. Col. Daniel Koprowski seconded the motion. Carried.

6. Determination of Natural Flow of the Souris River at Sherwood to December 31, 2014

Scott Hill reported the results of natural flows determined by Environment Canada for the period ending December 31, 2014. The 2014 natural flow was in general less than 2013. The total diversion in the Souris Rivers basin was 6,034 dam³. Recorded flow at Sherwood was 283,455 dam³. The natural flow computed at Sherwood was 278,835 dam³. According to these

computations, the US share at 40% was 111,530 dam³. The flow received by the US was 285,526 dam³ which constitutes a surplus delivery of 173,996 dam³. The annual flow requirement / apportionment at Long Creek station has also been met with a surplus of 17,167 dam³. Scott Hill also mentioned that there have been continuous excess deliveries to the US.

Motion: Megan Estep motioned to accept the Natural Flow Computation to December 31, 2014.
John Fahlman seconded. Carried.

7. Hydrology Committee

Ken Bottle reported that the Hydrology Committee has been working on the *Apportionment Procedures Manual* for the Souris River and will finish-up the writing shortly. The Manual is expected to be ready for review by the Board at the summer meeting in June 2015.

8. Water Quantity Monitoring

Scott Hill, WSC, reported no major changes to the hydrometric network operated by Environment Canada. Operation of seasonal stations is underway. A joint measurement including data review, for comparison purposes, is planned with the USGS in 2015. Internally, there is a switch of operational staff – Rick Helfrick will now replace Dan Selinger. Although there are some resource challenges, no major monitoring impact is expected on the Souris River. The Boundary Reservoir gauging station continues to be monitoring by the Water Security Agency.

Commissioner Lana Pollack noted there was discussion about adding /reopening of more hydrometric gages after the 2011 flood to increase our flood preparedness and management capability in the Souris River Basin.

Action: Megan Estep volunteered to provide a synopsis to the IJC regarding the adequacy of the hydrometric network in the Souris River Basin.

Steve Robinson, USGS, reported there will be no major changes to the hydrometric network in the US portion of the Souris Basin in 2015 except some repair works to damaged infrastructure. Megan Estep asked if the Eaton Irrigation gaging station will be operated this year. S. Robinson responded no.

9. Water Appropriation in the Souris River Basin During 2014

John Fahlman mentioned he did not have a written report at this time. However, he will send his report to the secretaries for distribution to the Board.

Bob White provided handouts on the temporary permits issued in North Dakota in 2014. There were 74 temporary surface water and 2 temporary groundwater permits issued in 2014. The surface water allocation was 7,025.3 ac-ft. The groundwater allocation was 105.4 ac-ft; for a total of 7,130.7 ac-ft. No conditional Surface Water permits were issued in 2014. Most of the water is used in oil production. During dry conditions, getting water for oil fracking might be challenging.

10. Flow Forecasting Liaison Committee

Laura Diamond, NOAA/NWS who is the US Co-Chair, reported on recent activities of the Committee. She distributed a chart that indicates current members of the Committee and requested some guidance from the Board about the membership list and who to inform during flood events. There were minor modifications made to the chart. On the Canadian side, change Colin Angus' title to read "District Manager for Saskatchewan and Manitoba". On the US side, remove Ken Bottle from the chart. Curtis Hallborg, Saskatchewan Water Security Agency, has been named the Canadian Co-Chair of the Committee. No other changes were made.

Motion: Nicole Armstrong motioned to approve the FFLC membership list as modified. John Fahlman seconded. Carried.

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

Heather Husband provided a handout with an update on the activities of the AEHC. E. coli numeric water quality objective support document is circulating through Committee members. Once a final wording is agreed upon, it will be sent to prospective agencies for comments before submitting to the Board for approval.

Mark Colosimo has sent H. Husband the template for the IWI grant proposal. The proposal was to look at updates to the current water quality objectives. AEHC was also interested in conducting a literature review to look at the appropriateness or need for changing the existing Water Quality Objectives. During the June 25th, 2014 Board meeting, it was suggested that such a review would be beneficial to other Boards as well and the IJC suggested the AEHC could submit a proposal by the US September 30th deadline. However, H. Husband was unable to do this, but has been working on a rough draft of the template if the Board and the IJC still think it might be beneficial to submit by September of this year.

David Fay, IJC, put H. Husband in touch with John Yee for assistance with the Website/Intranet site for the ISRB to start a Share-point site for the collection and sharing of committee documents, presentations, and correspondence. J. Yee found that there already existed a Share-point site for the ISRB, but the members list is outdated. AEHC will be working to update the member list and start using the Share-point site for future work.

Jeff Kart, IJC, is available to provide training on management of the Website. There is a standard IJC protocol to be followed and the Board needs to approval content prior to posting on the Website.

A conference call is planned in March for discussion with Committee members.

12. Compliance with Water Quality Objectives for 2014

Souris River at Sherwood - Provisional Data Report- Heather Husband presented (with a handout) a summary of the water quality monitoring program for the Souris River at Sherwood conducted in 2014. The USGS collected a total of eight water quality samples from Souris River in 2014 (January, twice in April, May, June, July, August, and October) at the Sherwood site.

Highlights from the handout:

- **Total Phosphorus** exceeded the Water Quality Objective of 0.10 mg/L for 8 of the 8 samples (100%) collected in 2014, though the median value (0.25 mg/L) is down from 2012 (0.34

mg/L) and 2013(0.26 mg/L). The Total Phosphorus values ranged from 0.18 mg/L on January 23 to 0.35 mg/L on April 28.

- **Sodium** exceeded the Water Quality Objective of 100 mg/L for 3 of the 8 samples (37.5%) in 2014. This was down from an 83% exceedance in 2012 and 50% exceedance in 2013. The results ranged from 61.7 mg/L on January 23 to 138 mg/L on May 29.
- **Total Iron** exceeded the Water Quality Objective of 300 µg/L in all 8 samples again in 2014, with only two values measuring below 1000 µg/L (January 23 and August 19). The maximum value was 3230 µg/L on April 28 with the median value for 2014 being 1170 µg/L.
- **Sulfate** met the Water Quality Objective of 450 mg/L on all occasions in 2014. The minimum sulfate value was recorded January 23 with a value of 143 and a maximum value recorded on May 29 with a value of 426. There has only been one exceedance of the sulfate standard in the last six years, and the values remain fairly consistent in the 300's throughout the year.
- **Total Dissolved Solids, pH, Chloride, and Total Boron** met their Water Quality Objectives in all samples collected in 2014
- **Dissolved Oxygen** concentrations again remained well above the 5 mg/L Water Quality Objective in 2014. Concentrations ranged from 7.7 mg/L on January 23 to 12.9 mg/L on April 16.

Organics

- Pesticide samples at the Sherwood site were collected as a part of an intensive statewide study conducted by the ND Department of Agriculture. Samples were collected, one per month at Sherwood, in April, May, June, July, August, and October.
- 95 pesticides were tested for and none were above the Water Quality Objectives, or for those not part of routine testing, none were above either aquatic life benchmarks or human health limits.
- Of the pesticides Water Quality Objectives are established for, 2, 4-D and Atrazine had positive, though very low, results.

General Observations

Only three parameters, total phosphorus, sodium, and iron were above water quality objectives in 2014. Most of the median values were lower than last year except for chloride, which had increased slightly.

Heather Husband briefed the Board on the Pesticide Study conducted by the North Dakota Department of Agriculture. Along with the Sherwood site, the ND Department of Agriculture also sampled two other sites along the Souris River - one above Minot and one downstream of Velva. Both the number of detections and number of different pesticides detected increased as you went downstream. Keeping in mind all detections were well below the aquatic life benchmark, which has a numeric value well below human health standards; it is worth paying attention to this information as cumulative effects are as yet unknown.

Monitoring for 2015 will continue the same as 2014.

Souris River at Westhope - Provisional Data Report - Kristina Farmer presented (with a handout) a summary of the water quality monitoring program for the Souris River at Westhope

for 2014. Environment Canada collected a total of seven (7) water quality samples from the Souris River in 2014. Six samples were collected at Westhope (triplicate in February, April, May, June, August, and December) and one joint sample with the USGS was collected at Sherwood (triplicate in August).

The highlights from the handout:

- ***Total Phosphorus** exceeded the Water Quality Objective of 0.10 mg/L for all samples with data currently available in 2014. The Total Phosphorus values ranged from 0.107 mg/L on May 20 to 0.34 mg/L on August 19 at Westhope.
- ***Sodium** exceeded the Water Quality Objective of 100 mg/L for 4 of 5 samples in 2014. The results ranged from 44.6 mg/L on June 10 to 159 mg/L on Feb 11.
- ***Sulphate** exceeded the Water Quality Objective of 450 mg/L on one occasion in 2014, with a value of 463 mg/L on Feb 11. In 2013, sulphate also had one exceedance with a value of 694 mg/L in January 2013. In 2012, sulphate exceeded the objective 70% of the time, with a maximum of 838 mg/L in December 2012. No exceedances were observed in 2011 and only one was observed in 2010.
- ***Total Dissolved Solids** exceeded the Water Quality Objective of 1000 mg/L on February 11, 2014 with a value of 1140 mg/L. The minimum value was 730mg/L on May 20, 2014.
- ***Total Iron** exceeded the Water Quality Objective of 300 µg/L once in 2014, with a value of 373 µg/L on Feb 11. Last year Total Iron exceeded the objective once, with a value of 682 in April 2013.
- ***pH** exceeded the Water Quality Objective of 8.5 pH units once in 2014 with a recorded value of 8.58 on June 10.
- ***Dissolved Oxygen** concentrations remained at or above the 5 mg/L Water Quality Objective in 2014, similar to 2013. Concentrations ranged from 7.03 mg/L to 13.09 mg/L in 2014.
- ***Fecal coliform** did not exceed the Water Quality Objective of 200 colonies/100 mL in 2014. In 2013, there was one exceedance with a value of 300 colonies/100 mL, which was the first exceedance since 2010.
- ***E-coli** exceeded the Water Quality Objective of 200 colonies/100 mL once in 2014, with a value of 2800 colonies/100 mL on June 10.
- ***Chloride** did not exceed the Water Quality Objective of 100 mg/L in 2014.
- ***Total Boron** did not exceed the Water Quality Objective of 0.50 mg/L in 2014.

Organics

- As in previous years, pesticide samples were collected on the Souris River between April and August.
- *Similar to 2013, there were detections of 2, 4-D, Dicamba, MPCA, and Picloram. All results were below the respective Water Quality Objectives.

* *Indicates incomplete data – lab results pending.*

General Observations

As some lab results are still pending, a detailed summary of the 2014 results is not yet available. In general, water quality for 2014 was similar to 2013 in terms of measured concentrations and guideline exceedances. In 2013 there was a Total Phosphorus value below the guideline, which was the first time since 1999 that this has occurred.

The flow at Westhope appeared to be higher than normal (median of 84 years) for most of 2014. In the past four years, it appears 2012 had significantly less flow than 2011, 2013, and 2014.

Regarding the joint sampling, K. Farmer noted there seems to be a difference between the US numbers and Canadian numbers on the duplicate samples and they are conducting further investigations into the reason for these differences.

Russell Boals asked about the frequent water quality objectives exceedances that have been reported in the past and what these exceedances mean to the Board. Or, what can we do about them? H. Husband responded the Board should look at the appropriateness of the existing water quality objectives. Mark Gabriel, IJC, suggested deferring the discussion to Agenda 16 – IWI Projects.

13. Water Quality Monitoring Plan

H. Husband mentioned the 2015 Water Quality Monitoring Plan will be the same as 2014, unless flood conditions warrant otherwise. In that case, more samples may have to be collected.

14. 2011 Flood

Update from the 1989 Agreement Core Committee – Scott Jutila 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. S. Jutila also provided a handout with an update that included minutes of the Committee. S. Jutila mentioned the Committee plans to meet March 24-25, 2015 in Regina. The draft report will be sent to Board for review and comments. Currently, the Water Security Agency is working on the **Reservoirs' Operations Manual**. S. Jutila also mentioned there is no representation from the Canadian Federal Government. The Board agreed to assign Jeff Woodward to the Committee.

There was no progress regarding the Plan of Study (POS).

15. Update on Water Management Projects

John Fahlman reported there is no new water management projects planned or proposed at this time. At past meetings there was discussion on “clean coal technology” being implemented at the Boundary Generating Plant, which resulted in an increased allocated 8,000 dam³ for SaskPower, which requires an alteration of their license.

NAWS

B. White mentioned there was no construction in 2014 due to the court injunction. The Bureau of Reclamation is working on the Draft EIS, which will be ready in April or May 2015. Todd Sando mentioned the court injunction has been in place for a long time.

The City of Minot is working on improvements to the water treatment plant increasing the capacity from 18 to 27 million gallons per day. The City is also working on its flood mitigation project with support from FEMA, which includes flood wall and levy expansion.

There was discussion about the new Assiniboine River Basin Initiative (ARBI) which was established in 2014 following the Red River Basin Commission (RRBC) model. The ARBI is believed to be a grassroots organization similar to the RRBC. Manitoba has provided \$50 k funding support to ARBI to help it get started. The ARBI is currently looking for a stable source of funding for its future activities without creating any duplication in the work of other organizations like, the ISRB or the Prairie Provinces Water Board (PPWB). The ARBI has retained Lance Yohe (Past Executive Director of RRBC) as its consultant and a few other volunteers. Todd Sando expressed his concern about the potential for duplication efforts between ARBI and ISRB. North Dakota has not committed any money to ARBI at this time. T. Sando mentioned he would rather see the Plan of Study (POS) move forward as a priority at this time. Nicole Armstrong stated the ARBI, modelled after the RRBC, is a stakeholder/grassroots driven organization and could move things along quicker. The ARBI scope /area includes the Souris River Basin.

16. International Watersheds Initiative Projects

Update on IJC's Strategic Initiatives – Water Quality Objectives

Mark Gabriel gave a brief report on the IJC initiatives. The water quality objectives currently in use are outdated and we need to do a comprehensive trend analyses to understand what the data is telling us. Loads and concentrations have to be analyzed in order to determine what to add or remove from the list of water quality objectives. A white paper on the Strategic Initiatives Projects is one year away. The ISRB will be consulted to review and provide comments on the White Paper. . Russell Boals asked if it was possible to hold a workshop to discuss the White Paper and mentioned that there were three IJC sponsored modelling workshops in the past. Lana Pollack mentioned the Joint Board meetings could look at White Paper. Nicole Armstrong supported the idea of IJC sponsoring the workshop which could review the objectives and trend analyses. An advisory committee might also be useful.

H. Husband mentioned a year might not be enough to complete an objectives review and do the trend analysis. The Board would like to be engaged right from the start instead of just being consulted or provide comments at the end. Cliff Henretty mentioned he would like to see tile drainage included in the analysis with a specific emphases of placing a moratorium on tile drainage.

IWI provides a holistic approach to water issues, and should be basin-wide to look at impacts on people and the environment. Awareness and education are the major components of IWI. John-Mark Davies mentioned the need for increased public engagement and some progress is being made in that regard.

17. ISRB as an IWI Board

The Board briefly discussed its request for designation as in IWI board including public participation at its meetings. Lana Pollack encouraged the Board to continue its work without

worrying too much about the IWI designation. She emphasized that it is the work that matters not the designation itself.

18. New Business

a. **City of Minot – HUD Resiliency Grant for the Souris River Basin** – Lee Staab, Minot City Manager, made a presentation on the National Disaster Resiliency Competition (NDRC). The NDRC is a billion dollar national competition for disaster recovery funds that seeks new and innovative ideas to address the threats communities face as well as opportunities. Minot is one of the six cities that have submitted applications under the NDRC. There are 17 different disaster factors considered in the application. Phase I of the Proposal /Vision include:

- Flood protection and river management,
- Safe, affordable housing,
- Resilient transportation and infrastructure,
- Economic development, and
- Strategies to support vulnerable populations.

At the conclusion of his presentation, Lee Staab asked the Board for collaboration with the effort of the City of Minot to enter into a partner agreement to carry out eligible activities. The deadline to submit the partnership letter is March 27, 2015 and L. Staab would like a response from the Board between March 6-20. If the NDRC application is successful, L. Staab mentioned he will follow up with the Board at the June 2015 meeting.

Action: The Co-Chairs will review the proposed letter to endorse the request for partnership.

b. **IRRB/ISRB/IRLWWB Proposed Joint Meeting - IJC Strategic Planning** – Col. D. Koprowski led the discussion of the proposed joint meeting. As part of IWI and the new IJC Strategic Planning, boards are encouraged to work together to address their common issues like water quality, nutrients, aquatic invasive species, floods and droughts. The first joint meeting of the three boards will be held during the IJC spring 2015 hearings in Washington D.C. If the spring 2015 time does not work, the three boards could meet in September or October in conjunction with the IRRB and IRLWWB meetings or; simply via a conference call.

c. **Ducks Unlimited (DU) – Overview of DU Projects in the Souris River Basin** - Pascal Badiou gave a presentation on a project DU is working on in the Souris River Basin. His presentation focused on estimating the effects of wetland distribution and loss on water quality and quantity in a large prairie watershed. The goal of the project is to determine the role of wetlands in mitigating nutrient export in a large hyper-eutrophic prairie watershed and to generate the necessary information to develop a methodology for targeting wetland restoration and conservation efforts in the Prairie Pothole Region. Todd Sando mentioned North Dakota has lots of LiDAR data and asked if DU is using it. P. Badiou responded he has not yet used the LiDAR data. There was a question about the impact of tile drainage and P. Badiou responded the focus at the moment is only on surface drainage not tile drainage. P. Badiou concluded that

wetland drainage has a strong impact on streamflow in flood conditions. Wetland drainage from 1958-2008 increased the 2011 flood peak by 32% and the 2011 yearly streamflow volume by 29%.

d. **Water Survey of Canada** – Update on International Gauging Stations (IGS) - Jeff Woodward gave a brief overview on Designation of Gauging Stations in International Basins. WSC has recently undergone a re-organization which has provided a forum for board representatives to coordinate under the Boundary Water Issues group. As a result of the new organization and looming network reductions, there is the need to better understand and manage stations designated as International Gauging Stations. EC has come up with three categories to manage stations in international basins.

- International Gauging Station - with defined criteria, these stations support apportionment flows including IJC transboundary study requirements. Data from these stations need to be jointly reviewed and published.
- Bi National - these stations are used in apportionment or management in an international basin, but not jointly reviewed and published.
- Domestic - these stations are used for other purposes.

J. Woodward emphasized the need to update the lists to ensure designated stations meet protocol definition. The Procedures established in 1985 Procedural Guide for International Gauging Stations, and the Protocol on International Gauging Stations for Flow established in 2010 need to be clarified. R. Boals suggested J. Woodward to work with the Hydrology Committee (Ken Bottle and Rob Kirkness) to jointly review/assess the hydrometric network in the Souris River Basin and bring their findings back to the Board.

19. Next meeting

The next Public Session and face-to-face meeting are scheduled to be held on June 18-19, 2015, respectively in Estevan, SK. The Saskatchewan Water Security Agency will host and coordinate.

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

Roundtable – Gregg Wiche mentioned the Climate Analysis and Water Balance report, which was prepared as part of the POS, is ready for Board presentation.

Action: Secretaries will conduct a Doodle Poll and setup a webinar in March for the presentation.

Russell Boals and Todd Sando thanked the IJC Commissioners and staff; and all meeting attendees (in person and on the phone) for their time and participation.

20. Adjournment

The meeting was adjourned at 1:10 p.m. on February 26, 2015 (Winnipeg, MB).

**List of Attendees,
International Souris River Board Meeting, Bismarck, ND
February 26, 2015**

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

On Conference Call

Gregg Wiche, Member for the United States, U.S. Geological Survey, Bismarck, ND
John Fahlman, Member for Canada, Saskatchewan Watershed Authority, Moose Jaw, SK
John-Mark Davis, Member for Canada, Saskatchewan Watershed Authority, Moose Jaw, SK
Scott Gangl, Member for the United States, ND Game & Fish Department, Bismarck, ND

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)
Scott Hill, Water Survey of Canada, Environment Canada, Regina, SK
Jim Olson – KXMC TV Station, Minot, ND
Cliff Hanretty, Eaton Irrigation District, Towner, ND (citizen/observer)
Pascal Badiou, Ducks Unlimited, Winnipeg, MB
Lee Staab, City of Minot, ND
Judy DesHarnais, US ACE, Minneapolis, MN
Laura Diamond, NWS, Chanhassen, MN
Tim Fay, ND State Water Commission, Bismarck, ND
Kristina Farmer, Science & Technology, Environment Canada, Winnipeg, MB
Dan Jonasson, City of Minot, ND
Ken Bottle, US FWS, Lakewood, CO
Girma Sahlu, Canadian Co-secretary, Environment Canada, Regina, SK

International Souris River Board
ACTION ITEMS – progress updated February 26, 2015

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.	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. Scot to provide the report to the Board
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

International Souris River Board
ACTION ITEMS – progress updated February 26, 2015

PERSONS OR COMMITTEE RESPONSIBLE	TOPIC	MINUTE	ACTION	STATUS As of February 26, 2014
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
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.	ongoing
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.	ongoing
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	ongoing
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	ongoing
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	ongoing

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