INTERNATIONAL SOURIS RIVER BOARD



CONSEIL INTERNATIONAL DE LA RIVIÈRE SOURIS

FINAL Minutes

International Souris River Board Meeting Elks Hall, 428 Souris Avenue, Estevan, SK June 18, 2009

- 1. Introduction and Opening Remarks. Russell Boals opened the meeting at 8:30 a.m.
- 2. Approval of Agenda
 Dwight Williamson motioned to accept the agenda. Megan Estep seconded the motion. Carried.
- Approval of Minutes of February 27 meeting and March 18 conference call.
 Gregg Wiche motioned to approve the minutes of the February 27, 2009 meeting. Bob Harrison seconded the motion. Carried.
 Dwight Williamson motioned to approve the minutes of the March 18, 2009 conference call.
 Megan Estep seconded the motion. Carried.
- 4. Review of Action Items.

From February 27, 2009 minutes

- 6. Review of 2008 hydrologic conditions and forecast for spring 2009.
 - a. Brian Yee to arrange conference call for March 18 to discuss potential flood operation. This task was completed.
- 10. Update from Hydrology Committee
 - a. Doug Johnson to provide a copy of the revised draft Terms of Reference of the Hydrology Committee to the Board and Secretary. Doug Johnson noted that this has not been completed. He indicated he would find the document on his computer and send it out electronically by June 25.
 - b. 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. Russell Boals noted that he has had a brief discussion with Mike Renouf. Russell Boals indicated that he would do further follow-up with Mike Renouf about summarizing the state of that activity.
 - c. Doug Johnson to coordinate and call a meeting of a Canadian team for production of a draft procedures manual. Doug Johnson reported that he had not completed this task.
 - d. Ed Eaton to follow-up on the status of the US Army Corps of Engineers (USACE) response to concerns raised by the US Fish and Wildlife Service (USFWS) in a letter dated May 15, 2007 regarding a request to lower the elevation of a fish barrier

at the outlet of Pool 357. Kelly Hogan reported that he has met with USACE. USACE will fund a study on what is to be done.

11. Update from Souris River Flow Forecasting Liaison Committee (SRFFLC)

Bob Harrison to ask Alf Warkentin to continue as the Canadian Co-Chair of the Souris River Flow Forecasting Liaison Committee for one more year. Discussion deferred to agenda item 10.

14. Water Quality Monitoring Plan for 2009

a. Richard Zitta and Scott Gangl to ensure the Aquatic Ecosystem Health Committee reviews the water quality monitoring program and in particular, review the need for phenol and metal monitoring. Discussion deferred to agenda item 11.

20. Board and Committee Membership

- a. Doug Johnson to ask Martin Graczyk to serve on the SRFFLC. Discussion deferred to agenda item 10.
- b. Russell Boals to confirm if Darren Tessmer can serve on the SRFFLC. Discussion deferred to agenda item 10.
- c. Allen Schlag to ask Scott Dummer for a representative on the SRFFLC. Progress unknown
- d. Dwight Williamson to seek a representative from Manitoba Water Stewardship for the Aquatic Ecosystem Health Committee. Discussion deferred to agenda item 11.
- e. Richard Zitta to follow-up with Fisheries and Oceans Canada to see if Susan Cosen can serve on the Aquatic Ecosystem Health Committee. Discussion deferred to agenda item 11.
- f. Megan Estep to follow-up with Kevin Johnson to serve on the Aquatic Ecosystem Health Committee. Discussion deferred to agenda item 11.

21. Update on International Watershed Initiative Projects

Doug Johnson to check into the potential for the Province of Saskatchewan to issue contracts to either Canadian or USA contractors using IJC funds. Doug Johnson reported that SWA can issue contracts to Canadian contractors but it would be difficult to issue contracts to USA contractors.

22. Update Work Plan

- a. Bob White to add Paul Pilon and Mark Colisomo to the circulation list for the penultimate draft of the annual report. COMPLETED
- b. Russell Boals to prepare a draft of the 2009-10 work plan for discussion at the March 18 conference call. COMPLETED. Discussion of work plan on agenda as item 8.

25. Next Meeting

a. Doug Johnson to coordinate planning for the June 2009 meeting. COMPLETED.

From March 18, 2009 minutes

4. Discussion of International Watershed Initiative Projects

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 his staff to prepare a cost estimate for LIDAR surveys in the Souris River basin).

Doug Johnson reported that he has not yet asked his staff to prepare a cost estimate for LIDAR surveys. He indicated that he would follow-up and ask his staff to prepare that cost estimate. Dale Frink asked if the LIDAR survey was to be for the entire basin. Doug Johnson replied in the affirmative. Megan Estep thought those surveys were for the purposes of updating the area-capacity tables of Rafferty Reservoir. She noted that the USFWS has relatively accurate area-capacity tables for reservoirs in North Dakota. Russell Boals noted that the surveys were intended to provide data and information that would be required for the hydraulic/hydrologic model for the basin.

5. Review of June 17 public meeting.

Russell Boals and Dale Frink thought the meeting went well with good questions and interaction with the public. A total of 33 people attended the public meeting (an attendance list is attached). Russell Boals noted the interest of the public in aquatic ecosystem health. Doug Johnson noted that tying the public meeting to the Upper Souris Watershed Planning meetings of the SWA provided a valuable opportunity for networking and coordination. The Board agreed that future public meetings of the Board should similarly be coordinated with other activities in the basin. Paul Pilon and Mark Colisomo supported the direction to coordinate public meetings of the Board with meetings of local water stewardship groups.

6. Determination of Natural Flow of the Souris River at Sherwood to May 31, 2009.

Don Hood reviewed the table (attached). Alameda Reservoir and Rafferty Reservoir both filled and spilled as a result of the high spring runoff, rising 1.5 m and 2.5 m respectively. Tributary inflow was generally twice the long term average. Surplus delivery to the USA from January 1 to May 31, 2009 was 5570 dam³. Surplus delivery of 8900 dam³ was made on Long Creek thereby satisfying the Recommendation in Section 2 of the 2000 Interim Measures as Modified. Dale Frink motioned to accept the determination of natural flows. Doug Johnson seconded the motion. Carried.

- 7. Review of 2009 spring hydrologic conditions, water management operations, and forecast for summer 2009
 - a. Saskatchewan. Doug Johnson distributed a hardcopy handout. Spring runoff in the Saskatchewan portion of the basin was above normal. Boundary Reservoir is presently about 4 cm below FSL. The peak outflow from Rafferty Reservoir during spring runoff was restricted to 15 cms to lessen flooding in North Dakota. Flows were increased slightly after runoff to increase water levels in Lake Darling. Current release from Alameda Reservoir is about 0.2 cms and from Rafferty Reservoir is about 0.1 cms to maintain a live stream.

- b. North Dakota. Steve Robinson noted that the spring runoff was long and flows on the Souris River were not as high as had been forecasted. Volumes were high but the peak stages and discharges were not as high as expected. Flood stage did not occur at Sherwood. Peak stages and discharges were higher in the lower portion of the Souris River basin in North Dakota.
- c. Manitoba. Bob Harrison reviewed the 2009 spring runoff in the Souris River in Manitoba. Spring peaks were lower than was predicted with the March outlook. There was some flooding in low lying areas in the Melitta area. Water supply conditions in Manitoba are good.
- d. U.S. Refuges and reservoirs on the Souris River. Kelly Hogan reviewed the 2009 spring operations of the USFWS projects. Currently releases from Lake Darling are matching inflow from Saskatchewan. The J. Clark Salyer refuge received considerably higher flows from runoff downstream of Minot.

8. 2009-10 Workplan.

Russell Boals noted that a draft workplan was sent out on March 22 (attached). Bob Harrison asked about the status of the fact sheets project. Russell Boals noted that the fact sheets project was delayed due to the high spring runoff and the consultant's vacation plan. He expects that draft fact sheets will be sent out for review in August, 2009. Paul Pilon suggested that names of leads be added to the work plan. Russell Boals noted that the intent is for work to be done through the committees.

Megan Estep noted that one of the workplan items is oversight of the joint water quality monitoring program. She noted that water quality monitoring in the US portion of the basin is jointly funded by the USACE and the USFWS. She suggested that any review of the water quality monitoring program should involve those two agencies. Russell Boals suggested that opportunity for input to the review can be done through the IWI water quality monitoring review project.

<u>Doug Johnson motioned to accept the workplan.</u> <u>Dwight Williamson seconded the motion.</u> Carried.

9. Update from Hydrology Committee

a. Terms of Reference review. As noted in the review of action items, Doug Johnson will send out the revised term of reference to the Board for review.

Action: Doug Johnson to send updated draft Terms of Reference to the Board for review.

- b. Membership update. Doug Johnson asked who will be the representative for Environment Canada. Russell Boals indicated that Dave Helfrick will replace Scott Hill on the Hydrology Committee. Bob Harrison indicated that he, not Duane Kelln, will serve on the Hydrology Committee for Manitoba Water Stewardship.
- c. Review of workplan items

Update on lowering of outlet sill on Pool 357. The 2007 Annual Report noted that USFWS had contacted USACE regarding the sill problem in a letter dated May 15, 2007. Update on lowering of the outlet sill was reported under the review of action

- items. Megan Estep indicated that the USFWS currently splits the cost of water quantity and quality monitoring with the USACE The USACE has questioned that agreement.
- i. Development of a model to evaluate changes in the operating level of Lake Darling. Megan Estep motioned that the IWI proposal for a hydrologic/hydraulic model for the Souris River basin be referred to the Hydrology Committee for review with consideration of comments from the IJC IWI review committee. Russell Boals suggested that this topic be further discussed under agenda 12 Update on International Watershed Initiative Projects.

10. Update from Flow Forecasting Liaison Committee

a. Terms of Reference review. Bob Harrison reported that the SRFFLC has not met to review the Terms of Reference and he suggested that the membership on the committee needs to be confirmed.

ACTION: Bob Harrison will contact Martin Graczyk to confirm the members of the committee and arrange a process to review the Terms of Reference.

- b. Selection of committee chair. Bob Harrison has spoken to Alf Warkentin and he has agreed to continue on as co-chair for the short term. Doug Johnson has offered Martin Graczyk to serve as co-chair following Alf Warkentin.
- c. Committee membership update. Russell Boals noted that Annette Verley and Scott Hill will no longer be on the SRFFLC. New representatives from the Water Survey of Canada to be determined. Russell Boals noted that he did check with the Meteorological Service of Canada and confirmed that Darren Tessmer of the MSC will serve on the SRFFLC.

ACTION: Russell Boals will provide Brian Yee with the new committee members for the Water Survey of Canada.

d. Review of workplan items

Bob Harrison noted that Alf Warkentin had suggested a possible task for the Flow Forecasting Liaison Committee would be to investigate and report on why the runoff and peak flow forecasts for the spring of 2009 were too high. Doug Johnson noted that the Saskatchewan Watershed Authority's forecast was different than the forecast of the National Weather Service. Dale Frink noted that the NWS did have some problems with their forecasts, however, he believes that the problems may be related to calibration of the models. He noted the extreme nature of the antecedent conditions and snowfall and rainfall which contributed to this year's runoff. Documentation of events would be worthwhile as it may provide valuable lessons for the future. The report is to document what happened, provide a chronology of events, examine why the forecast was too high, lessons learned, and make recommendations for improvements for the future. It was noted that the exercise is not to find fault. Bob Harrison motioned to request the SRFFLC to write a report on the spring 2009 flood as recommended by Alf Warkentin. The report is to document what happened, provide a chronology of events, examine why the forecast was too high, lessons learned, and make recommendations for improvements for the future Gregg Wiche seconded the motion. Carried.

11. Update from Aquatic Ecosystem Health Committee

- a. Terms of Reference review. Richard Zitta noted that the Terms of Reference need to be updated to reflect potential changes in membership.
- b. Selection of committee chair. Mike Sauer noted that he had discussed this with Richard Zitta. It was suggested that the committee members meet and select the chair from amongst its members.
- c. Committee membership update. Dwight Williamson reported that he is still in the process of finding a representative from Manitoba Water Stewardship. Richard Zitta reported that he has contacted Dr. Susan Cosen at Department of Fisheries and Oceans Canada. DFO is still considering the request. Megan Estep reported that she has met with Kevin Johnson, Environmental Contaminants Coordinator, USFWS, and his supervisor with regard to Mr. Johnson's participation on the AEHC. There was some discussion of adding USACE and the USEPA to the AEHC. Gregg Wiche noted that Joel Galloway will replace Bob Lundgren as the rep from the USGS on the AEHC.
- d. Review of workplan items
 - i. Review of phenols and metals monitoring. Mike Sauer noted that certain constituents are not being detected after many years of monitoring. A more thorough review of monitoring is part of the IWI water quality monitoring project.

12. Update on International Watershed Initiative Projects

- a. Paul Pilon noted that a total of 7 proposals have been submitted to the IJC.
- b. Two proposals were submitted by the ISRB to the IJC:
 - 1. A hydrologic/hydraulic model for the International Souris River Basin (\$40K). Paul Pilon suggested that the proposal include not only hydrology and hydraulics but aquatic ecosystem affects as well and the proposal should be vetted through the Aquatic Ecosystem Health Committee. The proposal discusses an integrated aquatic ecosystem approach but does not provide detail on how that should be done. Brian Yee suggested that perhaps we should have a pre-feasibility needs assessment workshop to consider what type of model is needed. Russell Boals agreed that a pre-feasibility needs assessment was the intent of the proposal submitted for funding from the IJC but it may not have been clearly stated. Megan Estep reiterated her suggestion that the proposal be sent to the Hydrology Committee for review. She noted that the issue that was the impetus for the development of a hydrologic/hydraulic model for the basin was the request from the USFWS to lower the operating level on Lake Darling. No tool exists for the evaluation of the impact of that request. Evaluation of the impact on water quality and aquatic ecosystem health is something that can be considered in a larger framework but that should occur after the water quantity evaluation. Bob Harrison suggested the proposal be sent to the SRFFLC for their review as well. Russell Boals noted that the proposal was intended to obtain IJC funding to support a needs assessment workshop. It was agreed to refer the proposal to the three Committees for review from the perspective of the individual committees (Hydrology Committee -- operations; Souris River Flow Forecasting Liaison Committee – forecasting; Aquatic Ecosystem Health

Committee – water quality modeling and prediction). Russell Boals suggested that he and Brian Yee work on the proposal to address the IJC IWI review committee's conditions with the objective of obtaining funding to hold the needs assessment workshop. The integration would happen at the Board level.

ACTION: Russell Boals and Brian Yee to revise the IJC IWI proposals to address the review committee's conditions.

ACTION: The three committees to review the IWI proposal and provide comments to the Board.

- 2. An evaluation of water quality monitoring in the Souris River Basin (\$14.5K). Paul Pilon highlighted the comment from the review committee that the proposal not only focus on the efficiency of monitoring but the effectiveness of monitoring as well.
- c. Paul Pilon noted that there are a number of boards interested in conducting hydrologic and hydraulic modeling exercises including he Osoyoos, Souris, and Red River Boards. He suggested that possibly there may be a few members from the Board who may be interested in assisting the IJC in scoping out some workshops to discuss the general direction of modeling and pros and cons of various models and approaches. He asked if the Souris Board would be prepared to provide leadership in preparing these workshops. Russell Boals suggested that the IJC should provide the leadership and he would be willing to participate on a steering committee. Dwight Williamson volunteered to serve on the steering committee to provide aquatic ecosystem health expertise.

ACTION: IJC to provide leadership in developing hydrologic/hydraulic modeling workshop(s). Russell Boals and Dwight Williamson to participate on workshop organizing committee.

- d. Paul Pilon noted that the US and Canadian sections have funds available for additional proposals. The US section must obligate its funding by the end of September. The proposal must be submitted by early September to secure funding. If the funding is obligated by the US section of the IJC, the funds can be carried over to the next year. Paul noted that LIDAR surveys were supported for the Pembina. The survey should meet standards for both Canadian and US agencies. Funding was provided by PFRA and the work was done by a US organization to FEMA standards and contracted by the USACE. Mark Colisomo noted that the US IJC has a memorandum of agreement with the USACE which works efficiently. Dale Frink suggested that there should be good cost estimates from the Red River Board which has recently been conducting some LIDAR survey. Paul Pilon suggested that late fall (e.g. November), before snow is a good time for LIDAR survey as water levels are low and leaves are off trees. He suggested the Board consider the width of the swath that would be surveyed. For example the Rainy River was surveyed to the width of the 1:500 year flood.
- e. Russell Boals identified the following steps from the discussion:
 - 3. Determine the area to be surveyed.
 - 4. Develop a cost estimate.
 - 5. Develop the IWI proposal.

f. Megan Estep noted that the USFWS had done some LIDAR surveys in the last two years. Bob Harrison noted that Manitoba Water Stewardship had also recently conducted some LIDAR surveys. Both USFWS and MWS could provide assistance in developing the cost estimate. Doug Johnson volunteered to take a lead on preparing the IWI proposal.

ACTION: Doug Johnson to lead on the development of the IWI LIDAR proposal.

g. Russell Boals asked Megan Estep, Richard Zitta, and Bob Harrison as Board representatives on the Committees to seek input from their respective Committees for additional proposals for work. This is to be submitted to Brian Yee by the end of July. If nothing is received then it will be assumed that the committees have no additional work to propose at this time.

ACTION: Megan Estep to contact members of Hydrology Committee regarding additional IWI Proposals.

ACTION: Richard Zitta to contact members of Aquatic Ecosystem Health Committee regarding additional IWI Proposals.

ACTION: Bob Harrison to contact members of Souris River Flow Forecasting Liaison Committee regarding additional IWI Proposals.

13. Other business

a. Annual report – Bob White noted that he has received all required data and has started writing the report. He asked the monitoring agencies to give him an update on the water quality and quantity network. Bob White asked Don Hood for an electronic version the determination of natural flow for 2008 to Bob White for the annual report.

ACTION: Don Hood to send the determination of natural flow for 2008 to Bob White electronically.

b. Bob White also requested photos for the front cover of the annual report. The 2006 annual report had a photo of Lake Darling and the 2007 annual report had several photos from Saskatchewan. Doug Johnson suggested photos focus on issues that arose in the year, for example, perhaps the 2008 cover can have some photos related to aquatic ecosystem health.

ACTION: Dwight Williamson and Bob Harrison to seek photos from the Souris River basin in Manitoba and send to Bob White.

c. Doug Johnson noted the Hydrology Committee is considering a meeting in Minneapolis in early October. This will make it easier for USACE and USFWS to attend. The USFWS have a meeting room a few miles from the Minneapolis airport. Agenda will include modeling and apportionment.

ACTION: Megan Estep to organize a meeting of the Hydrology Committee at the USFWS office in Minneapolis for early October.

14. Next meeting Friday, September 25, 2009 conference call, 10:00 a.m. Saskatchewan and Colorado, 11:00 a.m. Manitoba and North Dakota.

The purpose of the September call is to address any existing, or potential deficits in flow delivery, discuss progress on action items and work plan items, discuss the draft annual report for the 2008 calendar year, and discuss content for the presentation to the IJC at the October 2009 meeting of the IJC.

15. Adjournment. Russell Boals adjourned the meeting at 12:35 p.m.

DETERMINATION OF NATURAL FLOW OF SOURIS RIVER AT INTERNATIONAL BOUNDARY (SHERWOOD)

All Quantities Reported In Cubic Decametres

FOR THE PERIOD: JANUARY 1 TO MAY 31, 2009

	LONG CREEK BASIN											
LARS	SEN RESERVOIR	₹					RY RESERVOIR					
	İ			INFLOW		0	UTFLOW					
1	2	3	4	5 *	6	7	8	9	10	11	12 *	13
STORAGE	EVAPORATION	DIVERSION	TOWN OF	LONG CREEK AT	LONG CREEK	ESTEVAN	DIVERSION	TOTAL	DIVERSION	MINOR PROJECT	U.S.A. DIVERSION	TOTAL DIVERSION
CHANGE			RADVILLE	EASTERN CROSSING	NEAR ESTEVAN	PIPELINE	CANAL	(OUTFLOW)		DIVERSION	BETWEEN WESTERN &	LONG CREEK
			PUMPAGE								EASTERN CROSSING	
				54700								
235	59	294	10	1050	12200	780	33600	46580	9170	840	300	10614
		(1+2)		PIPELINE				(6+7+8)	(5-9)			(3+4+10+11+12)

	UPPER SOURIS RIVER BASIN - ABOVE ESTEVAN											
	NICKLE LAKE RESERVOIR				ROU	GHBARK RES	ERVOIR	RAI	RAFFERTY RESERVOIR			
14	15	16	17	18	19	20	21	22	23	24	25	26
STORAGE	EVAPORATION	CITY OF	DIVERSION	CITY OF WEYBURN	STORAGE	EVAPORATION	DIVERSION	INFLOW	OUTFLOW	DIVERSION	MINOR	TOTAL DIVERSION
CHANGE		WEYBURN		RETURN FLOW	CHANGE						PROJECT	UPPER SOURIS
		PUMPAGE							31200		DIVERSION	RIVER
5400	770	850	7020	670	600	104	704	123700	1050	91450	1540	100044
			(14+15+16)				(19+20)		PIPELINE	(22-23)		(17-18+21+24+25)

LOWER SOURIS RIVERESTEVAN TO SHERWOOD						
27	28 *	29	30			
CITY OF ESTEVAN	SHORT CREEK	MINOR PROJECT	TOTAL DIVERSION			
NET PUMPAGE	DIVERSIONS	DIVERSION	LOWER SOURIS			
	IN U.S.A.		RIVER			
690	1250	1000	2940			
			(27+28+29)			

	MOOSE MOUNTAIN CREEK BASIN						
MO	MOOSE MOUNTAIN LAKE			AMEDA RESERVOIR			
31	32	33	34	35	36	37	38
STORAGE CHANGE	EVAPORATION	DIVERSION	STORAGE CHANGE	EVAPORATION	DIVERSION	MINOR PROJECT DIVERSIONS	TOTAL DIVERSIONS MOOSE MOUNTAIN CREEK BASIN
1500	969	2469 (31+32)	16900	2000	18900 (34+35)	1450	22819 (33+36+37)

NON-CONTRIBUTORY BASINS					
39	40	41			
YELLOW GRASS	TATAGWA	TOTAL			
DITCH	LAKE DRAIN	ADDITIONS			
31150	2220	33370 (39+40)			

SUMMARY OF NATURAL FLOW					
42	43 *	44	45	46	47
TOTAL DIVERSION	RECORDED	NATURAL	US.A. SHARE	FLOW RECEIVED	SURPLUS (+)
SOURIS RIVER	FLOW AT	FLOW AT		BY U.S.A.	OR DEFICIT (-)
BASIN	SHERWOOD	SHERWOOD			TO U.S.A.
			40% OF 44		(46-45) 40% SHARE
			71380		5570
136417	75400	178447	50% OF 44	76950	(46-45) 50% SHARE
(13+26+30+38)		(42+43-41)		(12+28+43)	

RECOMMENDATION - SECTION 2					
ANNUAL FLOW OF LONG CREEK					
48	49 *	50			
RECORDED FLOW	RECORDED FLOW	SURPLUS (+)			
AT WESTERN	AT EASTERN	OR DEFICIT (-)			
CROSSING	CROSSING	FROM U.S.A.			
45800	54700	8900			
		(49-48)			

^{*} DATA CONTRIBUTED BY U.S.G.S.

Drafted by Russell Boals March 21, 2009. Approved by the ISRB June 18, 2009.

International Souris River Board

Results Framework and Work Plan for 2009 2010

Result 1: Build a shared understanding of the watershed and related transboundary issues.

Goals	Resource Requirements	Activities
Identification of aquatic ecosystem health issues in the watershed.		Complete a summary report of water quality and aquatic ecosystem health challenges in the basin by September 2010.
Expanded understanding of the watershed and transboundary characteristic.		Prepare information bulletin and fact sheets on the hydrology, water quality, and water management challenges in the Souris basin by June 2009. Assess the applicability of available hydrologic/hydraulic models for the basin by January 2010. Complete a harmonized sub drainage watershed map for the basin by December 2010.

Result 2: Communicate watershed issues at the local, regional, and national levels to increase awareness, highlight potential issues, and identify opportunities for cooperation and resolution.

Goals	Resource Requirements	Activities
Increase awareness of the Board, its role, and communicate issues and successes with the public.		Host one annual public meeting in the basin to present an overview of the Board's role and activities and to consult with the public and stakeholders in the basin.
successes with the public.		Attend and report on Board activities to IJC at its semi-annual meetings in April and October, as required.
		Communicate on-going apportionment and critical conditions to the IJC and the public, as required.
		Update the Board's information hosted on the IJC's web on a regular frequency (once every two months).

Result 3: Contribute to the resolution of watershed issues.

Goals	Resource Requirements	Activities
Effective and cooperative flow forecasting and flood operations.		Facilitate information sharing for flood forecasting and approve official forecasted runoff in the Souris River basin for flood/non-flood decision.
		Conduct a review on the information requirement for the Board and identify the necessary information and monitor network for climate, water level, and stream flow to support the determination and apportionment of the natural flow as well as to support flood forecasting and recommend improvements by June 2010
Prevent and resolve transboundary concerns in the basin.		Maintain an awareness of existing and proposed developments, conditions, activities, and issues in the basin.

Result 4: Administer the existing Orders and References.

Goals	Resource Requirements	Activities
Compliance with the Interim Measures as Modified.		Monitor and approve apportionment of water availability for the Souris River basin in accordance with 2000 Interim Measures as Modified.
Oversee a Joint Water Quality Monitoring Program		Complete a review of the joint water quality monitoring program and recommend adjustments to the program by September 2010.
Effective and cooperative management of the Board functions.		Prepare meeting Minutes within three weeks of the meeting. Prepare an annual report for 2008 report by September 15, 2009. Approve final Terms of Reference for the identified committees to the Board by July 2009. Develop a three year work plan; with annul reviews and updates, by June 2010 to evolve the Board to an IWI Board. Develop a procedures manual documenting the procedures for the determination of natural flow by June 2010.

International Souris River Board Public Meeting June 17, 2009 Attendance

NAME & AFFILIATION

Robert Fournier – Pipestone Watershed (Lower Souris)

& Moose Mountain Watershed (Upper Souris)

Heather Husbald Duchsicherer – ND Dept. of Health, Water Quality

Holly Andrews – Saskatchewan Watershed Authority

Donald Zieglgansberger – RM # 4 Coalfields

Mary Hanretty – Eaton Flood Irrigation, ND

Laurence Herzberg – Frobisher Village

Edwin Ruchs – Enniskillen #3

Matthew Pohl – CJSL Radio

Enoch Asane – Ghana Water Resources Commission

Cliff Hanretty – Eaton Flood Irrigation, N.D.

Gary Neil – Saskatchewan Watershed Authority

Lin Wang – SaskPower

Girma Sahlu – Environment Canada

Vicki East – Ducks Unlimited Canada

Jeff Olson – Saskatchewan Watershed Authority

Reg Jan – Roche Percee

Dwayne Donald – Ducks Unlimited Canada

Dwayne Seba – Saskatchewan Watershed Authority

Bob Alfa – Ghana Water Resources Commission

Richard Zitta - Saskatchewan Environment

Paul Pilon – IJC (Ottawa)

Mark Colosimo – IJC (Washington, D.C.)

Ken Bottle – U.S. Fish & Wildlife Services

Don Hood – Water Survey of Canada

Megan Estep – U.S. Fish & Wildlife Services (Denver CO.)

Robert White – N.D. State Water Commission

Steve Robinson – USGS, Bismarck, ND

Doug Johnson – Saskatchewan Watershed Authority

Scott Gangl – N.D. Game & Fish Department

Bob Harrison – Manitoba Stewardship

Gregg Wiche – USGS, Bismarck N.D.

Dwight Williamson - Manitoba Water Stewardship

Mike Sauer – N.D. Department of Health

Kelly Hogan – FWS, Souris River Basin Refuges

Russell Boals - Environment Canada

Dale Frink - N.D. State Water Commission

Jeff Olson – Saskatchewan Watershed Authority

Rob Kirkness – Saskatchewan Watershed Authority

Brian Yee - Environment Canada

International Souris River Board Meeting June 18, 2009 Attendance

NAME & AFFILIATION

Bob Alfa – Ghana Water Resources

Enoch Asane – Ghana Water Resources

Richard Zitta – Saskatchewan Environment

Paul Pilon – IJC (Ottawa)

Mark Colosimo – IJC (Washington, D.C.)

Ken Bottle – U.S. Fish & Wildlife Services

Dave Helfrick – Water Survey of Canada

Don Hood – Water Survey of Canada

Megan Estep – U.S. Fish & Wildlife Services (Denver CO.)

Robert White – N.D. State Water Commission

Steve Robinson – USGS

Doug Johnson – Saskatchewan Watershed Authority

Scott Gangl – N.D. Game & Fish Department

Bob Harrison – Manitoba Stewardship

Gregg Wiche – USGS, Bismarck N.D.

Dwight Williamson – Manitoba Water Stewardship

Mike Sauer – N.D. Department of Health

Kelly Hogan – FWS, Souris River Basin Refuges

Cliff Hanretty – Eaton Irrigation N.D.

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Brian Yee – Environment Canada