Public Perceptions in the Souris River Basin: a report of the Public Advisory Group

International Souris River Study Board
Public Advisory Group

April 2018

The Public Advisory Group

The Public Advisory Group (PAG) is part of the International Souris River Study Board (ISRSB). It is a binational body appointed by the International Joint Commission (IJC), and comprised of an equal number of members from Canada and the United States. PAG members represent key interests and geographical regions within the basin.

The role of the PAG is to involve the public by bringing information from the International Souris River Study Board to various networks throughout the community, and in turn, presenting views from the community for consideration by the Study Board. The PAG members are encouraged to use their collective knowledge and experience to offer diverse perspectives on the direction, results and outcomes of the Study Board activities.

PAG co-chairs are members of the Study Board, and provide progress reports at the semi-annual meetings of the IJC.

Membership

Canada	United States
Dan Cugent, Saskatchewan	Tammy Hanson, North Dakota
Joe Goodwill, Manitoba	Jeanine Kabanuk, North Dakota
Kelly Lafrentz, Saskatchewan	Lynn Kongslie, North Dakota
Wanda McFadyen, Manitoba	Verdean Kveum, North Dakota
Debbie McMechan, Co-Chair, Manitoba	**David O'Connell, Co-Chair, North Dakota**

Purpose

This report presents a broad spectrum of public perspectives on the impacts of water levels in the Souris River Basin. These views have been expressed to members of the Public Advisory Group (PAG) through both formal and informal means, including comments heard during the public meeting held in Minot, North Dakota on February 20, 2018, as well as through the online public consultation on the Study Board's draft work plan.

What we heard …..*and have experienced* in the Basin

On February 20th, 2018 the ISRSB Public Advisory Group held its first public meeting in Minot, North Dakota. During this meeting, speaker and alternate Study Board Co-Chair, Jeff Woodward (of Environment & Climate Change Canada) shared the following statement to the audience:

> *The Souris River, which flows through the plains area of Canada and the United States, is one of the most volatile river basins in the World.*
> *–Jeff Woodward, ISRSB Co-Chair*

Our varied experiences as PAG members living and working along the Souris, be it in the agricultural or oil sectors, in the management of a binational watershed organization, or as a member of local or state government, certainly support Mr. Woodward's learned observation of the basin. The Souris is a complex system with several interrelated facets that are all affected by the variability of the basins hydrology.

For the purpose of this report, the results of the PAG's conversations, meetings, and requests for online feedback from the public, as well as our own experiences concerning ongoing and interrelated issues in the basin have been classified into seven categories: agriculture, sedimentation, community & communication, control of levels and flows, river health, oil and gas development, and tributary flooding. The comments presented in this report were included due to their prominence in the discourse surrounding the Souris. These comments were reported several times to PAG members by the public via various means, or were presented by PAG members as their own experiences by more than one member.

> *This must be a basin-wide approach.*
> *– Several members of the public*

The seven issues identified above are highly interrelated in the Souris River Basin and will be the focus of this report. When these facets are working properly, and

the climate is predictable, they help to stabilize each other. Conversely, when these facets are out of harmony due to extreme variations in weather, the picturesque and productive Souris River fluctuates from flood disaster to drought. In addition to the comments relating to the issues noted in this report, a key sentiment that was expressed numerous times to the PAG is how the complexity of the basin requires a holistic solution.

As important as taking a holistic approach to caring for the watershed itself, all facets of water management in the basin must be regulated without borders or boundaries.

This is a unique opportunity to retool the operating plan for this basin that makes Saskatchewan, North Dakota and Manitoba more resilient to extremes of drought and flooding.
–Ryan Ackerman, Souris River Joint Board Administrator

Agriculture

Flood events of the past along the Souris, and especially the 2011 flood in the city of Minot which caused widespread devastation to the city and its residents, are remembered solemnly, but some people across the basin have expressed concern that agricultural land and rural communities outside of Minot have not received sufficient consideration or investment to mitigate sometimes ongoing issues related to the Souris River's hydrology.

One element left out of the study is the economic impacts to people that aren't urban dwellers. […] The controlled flooding makes an impact on agriculture that is not recoverable.
– Leland Goodman, North Dakota rancher

Agricultural land represents a sizeable investment to the people that own it, and in many cases, is part of a multi-generational commitment to the land and the production of food. This commitment builds small and large communities, and provides taxation for counties, municipalities, provinces and states to grow upon. It spawns value-added industry to an expansive network of related enterprises and provides the best food in the world to dinner plates around the globe.

Land in the basin, however, has been subjected to a relentless wreck and repair cycle nearly impossible for producers to manage. Silting in of waterways and adjoining land, as well as the deposit of large tracks of sediment have been costly to agriculture. Such numbers are difficult to quantify, however one example provided by a local producer was the $44,000 cost of repairing fencing in the aftermath of the 2011 flood.

Agricultural interests are not addressed. Our needs have to be taken care of along with everyone else's.
–Leland Goodman, North Dakota rancher

Arable land that sits under long standing bodies of water as a result of flooding becomes saline, alkaline, and eventually populated with invasive species of flora, notably cattails and foxtail barley, that are notoriously difficult and expensive to eradicate. Dead and falling trees are another costly and labour-intensive consequence of flooding that are left to land owners or local governments to remove. Flooding often requires investment into costly and lengthy land rehabilitation projects, if rehabilitation may be achieved at all.

Along all areas of the Souris are ranches that water livestock from the river. Low to zero flow has been reported from areas south and east of the reservoirs in Saskatchewan, through North Dakota and into Manitoba. There is much concern among the public regarding the extent that reservoir operations impact livestock watering. Of course, that concern extends to fish and other wildlife that thrives along a flowing river and contributes to the health of the entire ecosystem.

In regards to agriculture, the history of drought is a hindrance to farmers and ranchers. Drought is more of a detriment than flooding has ever been. Water is a valuable natural resource for farmers and ranchers that sustains our lands and livestock.
– Christopher Nelson, North Dakota rancher

Flood events, man-made and natural, along the Souris River has covered an estimated 45,000 – 50,000 acres with water and negatively affected the livelihood of well over a 100 ranchers and landowners.
– Lynn Kongslie, North Dakota Rancher/Farmer/PAG Member

Sedimentation

Sedimentation from flood events was noted as a common problem by residents throughout the Souris River Basin. Beyond the damage that silting causes to agriculture, silting in of reservoirs and buildup against infrastructure have also been reported as having severe impacts following flooding. Furthermore, in certain areas it has been reported that sedimentation is causing physical changes to the Souris River and some of its tributaries. Some residents expressed the need for the Study Board to develop a long-term plan to address the damages caused by sedimentation and silting along the river.

Is there a long-term plan to deal with silting issues against infrastructure that could cause them not to work properly or shorten their lifespan or conversely affect catchment in a series of dry years?
– PAG Member

Concern regarding sedimentation is basin wide, from Nickel Lake, Saskatchewan through North Dakota, and Manitoba. The sedimentation in Nickel Lake has been reported as "significantly different" than prior to 2011, a claim that was validated by an area resident who pumps water out of the lake for livestock. Similarly, in North Dakota, productive hay meadows have been estimated to be 2/3 full of sediment, and in Manitoba sediment deposits are changing the physical shape of the Souris and nearly every tributary that feeds it.

Much of the damage to a large section of the basin is due to erosion of both riverbank and overland erosion. This erosion results in permanent land damage and a loss of conveyance downstream due to sedimentation.
– David Ashley, resident of Voltaire, ND

Control of Levels & Flows

The timing, location, and quantities of water released from basin reservoirs are popular topics among basin residents. For some residents, apportionment flows are of utmost concern as is the need to address levels and flows through a basin-wide

With effective management of the water through early flows, we can both protect the citizens and properties in Minot while still providing the valuable water resource early in the season in order to provide the moisture needed during the critical time in the hay production cycle.
– Christopher Nelson, North Dakota rancher

lens. Some residents have expressed a desire for the Study Board to reconsider the timing of releases in the hopes of achieving more effective management for rural communities in addition to urban centers.

Any flows in excess of 2500 CFS are of great concern to townships in this area because of damage to roads and bridges.
– Tracy Hubrig, resident of Voltaire, ND

More effective management of water resources, through the timing and amount of releases has been commented upon, often in great detail. Basin residents have identified ranges exceeding 2500 to 3000 CFS (cubic feet per second) as being responsible for a number of problems, including riverbank erosion as well as damage to roads and bridges. The suggestion to advance the release of waters earlier in the season was also common with some suggesting that releases as early as in October could be considered under certain conditions.

Citizens have also suggested that apportionment and shared risk operations are worth greater exploration from the Study Board. In order to better understand these issues, there is a desire to improve monitoring of moisture conditions across the basin to forecast conditions that could be ideal for early release of water. It was suggested that this approach could reduce mid-summer flooding of meadows that impact ranchers, while providing protection to urban centers through peak flow season. Additionally, residents noted that areas with an absence of any control measures require further attention as reservoir operations could mitigate serious impacts resulting from unanticipated precipitation.

We ask that the study findings include recommendations on flexibility.
– Ryan Ackerman, Souris River Joint Board Administrator

Communities & Communication

A number of residents have expressed concerns for communities, big and small, that have been, and continue to be vulnerable to the volatility of the Souris. Experience over the last few years has extended that vulnerability to communities along tributaries that have also been impacted by extreme changes to levels and flows. Communities along the Souris and its tributaries have experienced a range of negative impacts due to hydrological variability from loss of local infrastructure, to risks imposed on sources of drinking water in certain communities.

Although many communities have displayed great resilience and fortitude in the wake of

flooding events, mitigative action is sometimes taken only after major flooding events. Some residents expressed the need for greater communication between communities and reservoir operators, such as sharing contingency plans to lessen the impacts of drought and flooding, and strategies for communicating these prior to flooding events.

> *Give residents news before changes are made. – Participant of the public meeting, Minot, February 2018*

Communication is often cited as vital to an informed and healthy river system. Public engagement is important to creating a culture of awareness and investment in the overall health of the river basin. In some cases, the presence and purpose of the International Joint Commission, is not well known among basin residents. Feedback to the PAG suggests that communication initiatives must be part of the new agreement. Outreach and connection with organizations and communities throughout the basin is certainly achievable in this technological age. Municipal and state-level organizations in the basin, as well as watershed organizations such as the Assiniboine River Basin Initiative, almost all have online resources that could have links to the IJC or ISRSB web pages. As such, digital communications with the public can be an excellent medium to extend public reach.

There has been a need expressed by the public for transparency regarding reservoir operations, illegal drainage, and other factors that contribute to the fragility of the basin. Concern about "rubber stamping" the new work plan or review has been communicated to the PAG, with the short time window for comment on the draft Work Plan used to illustrate the issue. It is important to residents to be informed of ongoing opportunities for public input during the Study.

Consultation and inclusion of First Nations, Métis communities, and Tribes is important to the comprehensiveness of any public engagement. Historical, archeological, and local knowledge make the inclusion of Indigenous perspectives critical to the success of the Study; as such, the PAG will continue to seek input from Indigenous communities.

River Health

Not surprisingly, basin residents have indicated a tremendous sense of ownership and individual stewardship towards the Souris River Basin. Visible indicators, such as algae blooms and the resulting green aesthetic, are distressing to basin residents.

Fluctuations between flood and drought and the management of reservoirs are often part of discussions around the health of a river.

Tributaries

The subject of drainage is often raised in conversations about the study of the Souris River basin with PAG members. Drainage has and is continuing to change the topography of the land and how water moves in the basin.

There is concern among the public for the numerous and yet increasing drains that come into the Boundary Dam, some of which are approved. The PAG has been made aware that the lack of understanding of how the effects of wide scale drainage and increasing amounts of water being added to the dam is troubling to some basin residents. We have heard residents express interest in learning about the study's artificial drainage and climate change findings.

Another suggestion made to the PAG was that more dams need to be built on Souris River tributaries, which contribute large amounts of water into the Souris during peak flows. Increased retention could bring economic development and environmental balance to upstream areas through opportunities for irrigation, livestock watering, and enhanced wildlife habitat.

The Souris basin needs more dams built on the smaller creeks that flow a lot during the snow melt and large rain events. [Tributaries] dump a tremendous amount of water into the Souris when it has already reached its own peak flow.
–Troy Mayes, Pierson, MB resident

Oil & Gas Industry

Finally, the infrastructure and assets of the oil and gas industry are vulnerable to an unstable basin. The flooding in 2011 had several devastating consequences for certain industry assets at high costs to the operators. In many cases, the assets were abandoned completely and remain so at this time, continuing to impose health and safety hazards. The overland flooding of 2014 resulted in similar industry losses, with several well sites underwater that are hazards to safety.

The 2011 flooding prematurely caused numerous assets in the basin of the flood area to be removed, moved or abandoned at considerable costs to the operator… with plenty of wells underwater for a significant amount of time. As many of these wells were abandoned, reclaimed and decommissioned, is there a plan or contingencies in place for the still existing infrastructure? – PAG Member

Conclusion

The PAG is committed to sharing the message that as well as a river basin, the Souris watershed is our home. The basin is our shared future, economically and spiritually. It is where many of us were born and where most of us will die, and the Souris River is the life that flows through it. This is the first report of a long process of public engagement and communication with the Study Board. Over the next few months, the PAG will continue to look for innovative ways to communicate and share information between the public and the Study Board.